An analysis of the South African social security system

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DECLARATION

I, Simoné Bezuidenhout, declare that:

An analysis of the South African social security system

… is my own work with exception to sources and quotations that are recognised by means of complete references. All sources obtained and quoted have been precisely recorded and acknowledged by means of thorough reference, and I have not previously submitted this dissertation to any other institution of higher learning to obtain ant form of qualification or degree.

Signature: _____   Date: _____

DEDICATION

This dissertation is dedicated to the love of my life, Devan and to my parents Sanet and Tinus.

Thank you all for all your love and support.

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First of all I would like to thank my Saviour for giving me the strength, wisdom and support as without Him I would not have been able to complete my study.

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ABSTRACT

In the ever-changing global market environment, it is crucial for national governments to establish an enabling social economic atmosphere for the upliftment of individuals' quality of life and well-being. International institutions state that social security has become one of the most important forms of assistance provided by a national government, which is now seen as an overall human right. Economic theory expresses a viewpoint of justice and a theoretical agenda for instituting radical organisations designed to maintain social justice and individual independence. Factors constituting the social security system include the number of social security recipients, the amount spent on social security, the economic environment, the level of human development, the amount of individuals without a job, the amount of individuals within a household, distribution of income and the number of individuals in income poverty. Empirical declarations have presented mixed findings on the subject matter and thus no single empirical consensus has been presented. Meanwhile, international institutions combined with the economic theory argue that potential effects of the aforementioned social factors on an economy's social security patterns vary according to the orientation of the economy's condition of need.

This study examined the South African social security system, stated in the Republic of South Africa Constitution, Section 27 (1c) as, *"every individual has the right to have access to social security, including if they are unable to support themselves and their households, proper social assistance"* and requires legislative measures which should be employed by the national government to create awareness of this right in order to alleviate poverty and income inequality as well as to uplift individuals standard of living, included in Section 27 (2).

In order to investigate the aforementioned Constitutional statements, the study employed both a descriptive and an econometric analysis on the South African social security system. Throughout the descriptive section, trends and graphs are used to analyse the different social security systems found across the globe and it culminates with an in-depth analysis of the different social security assistance types in South Africa. The econometric analysis ascertains the long-run and short-run relationship between three econometric models, namely the number of individuals in poverty, income inequality (as measured by the GINI coefficient) and human development (as measured by the Human Development Index (HDI)), with the number of social security recipients, the amount spent on social security, the number of individuals without a job, economic activity and

the number of individuals within a household from 1996 to 2017. The study also establishes a causal direction between the aforementioned factors. The models employed under the econometric section include the correlation matrix, ARDL bounds test to co-integration and the Toda-Yamamoto Granger causality test. The study made use of a quantitative research methodology and includes time series macro-economic variables from 1996 to 2017.

The correlation matrix found that the correlation between poverty and the aforementioned independent variables, indicates that two (social security recipients and the number of individuals within a household) out of the five variables have a positive relationship with the alleviation of poverty; however, these positive relationships are not significant at any significance level. Three (amount spent on social security, economic activity, number of individuals without a job) out of the five variables have a negative relationship with poverty and only social security expenditure and economic activity has a significant impact on poverty at 1 percent significance level.

On the other hand, the correlation matrix for human development found that four (number of social security recipients, amount spent on social security, economic activity, unemployment) out of the five independent variables have a positive relationship with HDI and these positive relationships are all statistically significant at 1 and 5 percent significance level, except for the number of social security recipients (not significant) and one (number of individuals within a household) of the five independent variables having a negative relationship with the improvement of HDI and is statistically significant at the 1 percent significance level.

The correlation matrix for income inequality found that two (number of social security recipients and the number of individuals within a household) of the five sectors under the study have a positive relationship with income inequality. However, these positive relationships are only statistically significant for the number of social security recipients and three (amount spend on social security, the number of individuals without a job and economic activity) of the five variables have a negative relationship with income inequality where only the number of individuals without a job is not statistically significant.

The long-run relationships were insignificant between the number of individuals in poverty, income inequality (GINI) and human development (HDI) with the number of individuals

receiving social security benefits, total amount spent on social security, number of individuals within a household, number of individuals without a job and economic activity.

The short-run Toda-Yamamoto Granger causality found a unidirectional causal relationship between human development and the number of individuals without a job. This means that human development Granger causes unemployment but not the other way around. There is also a causal relationship between HDI and all the independent variables combined, at 5 percent significance level. A unidirectional causality exists between the number of social security recipients and the number of individuals in poverty. This means that the total number of social grant recipients Granger causes poverty but not the other way around. There is also a causal relationship between the number of social security recipients and all the independent variables combined, at 5 percent significance level.

A unidirectional causal relationship exists between the number of individuals in poverty and the number of individuals without a job. This means that poverty Granger causes unemployment but not the other way around. Furthermore, there is a causal relationship between the number of individuals in poverty and all the independent variables combined, at 1 percent significance level. A unidirectional causal relationship exists between the income inequality and the human development. This means that income inequality Granger causes HDI but not the other way around. Furthermore, there is evidence of a unidirectional relationship between income inequality and economic activity, indicating income inequality Granger causes GDP but not the other way around. Lastly, there is evidence of a unidirectional relationship between income inequality and the number of individuals within a household, indicating income inequality Granger causes household size but not the other way around. There is also a causal relationship between income inequality and all the independent variables combined, at 1 percent significance level.

No causal relationship exists between the number of individuals within a household and all the independent variables combined. Whereas, there is evidence of a causal relationship between the amount spent on social security systems and all the independent variables combined, at 5 percent significance level. There is also evidence that a causal relationship exists between economic activity and all the independent variables combined, at 1 percent significance level, however, not individually. A unidirectional causality exists between the number individuals without a job and

the amount spent on social security. This means that unemployment Granger causes social security expenditure but not the other way around. There is also a causal relationship between the number of individuals without a job and all the independent variables combined, at 1 percent significance level.

Keywords: social policy, social security, social security systems, social transfers, poverty, income inequality, human upliftment.

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LIST OF ABREVIATIONS

ADF   :   Augmented Dickey-Fuller test

ANC   :   African National Congress

ARDL   :   Autoregressive Distributed Lag Model

BFP   :   Bolsa Família Programme (Brazil)

BIG   :   Basic Income Grant (SA)

BSP   :   Benefit for Overcoming Extreme Poverty (Brazil)

BVJ   :   Variable Youth Benefit (Brazil)

CCTs   :   Conditional Cash Transfers

CDG   :   Care Dependency Grant (SA)

CSG   :   Child Support Grant (SA)

DG   :   Disability Grant (SA)

DSD   :   South African Department of Social Development

ECM   :   Error Correction Model

ECT   :   Error Correction Term

EPWP   :   Extended Public Work Programme (SA)

FCG   :   Foster Care Grant (SA)

FSP   :   Food Stamp Program (U.S.)

GDP   :   Gross Domestic Product

GIA   :   Grant-in-aid (SA)

GINI   :   Income Inequality

HDI   :   Human Development Index

HGSF   :   Home Grown School Feeding (Kenya)

HIV   :   Human Immuno-Deficiency Virus

ICESCR	:	International Covenant on Economic, Social and Cultural Rights
IDTT	:	Inter-Department Task Team (SA)
ILO	:	International Labour Organisation
JB	:	Jarque-Bera
KPSS	:	Kwiatkowski-Phillips-Schmidt-Shin test
MGNREGA	:	Mahatma Gandhi National Rural Employment Guarantee Act (India)
OAP	:	Old-age Pensions/Grants (SA)
OECD	:	Organisation for Economic Co-Operation and Development
PETI	:	Programa de Erradicação do Trabalho Infantil (Brazil)
PP	:	Phillips-Perron test
PSNP	:	Ethiopia's Productive Safety Net Programme
SASPEN	:	South African Social Protection Experts Network
SASSA	:	South Africa Social Security Agency (SA)
SIC	:	Schwarz information criterion
SMG	:	State Maintenance Grant (SA)
SNAP	:	Supplemental Nutrition Assistance Program (U.S.)
SSA	:	Social Security Archive
UDHR	:	Universal Declaration of Human Rights
USC	:	Thailand's Health-care Coverage Scheme
USDA	:	U.S. Department of Agriculture (U.S.)
WFP	:	World Food Programme
WVG	:	War Veterans Grant (SA)

CHAPTER 1

INTRODUCTION AND BACKGROUND

"The day will come when nations will be judged not by their military or economic strength, nor by the splendour of their capital cities and public buildings, but by the well-being of their peoples: by their levels of health, nutrition and education; by their opportunities to earn a fair reward for their labours; by their ability to participate in the decisions that affect their lives; by the respect that is shown for their civil and political liberties; by the provision that is made for those who are vulnerable and disadvantaged; and by the protection that is afforded to the growing minds and bodies of their children."

(The United Nations Children's Fund (UNICEF), 1998:1)

1.1 INTRODUCTION

Undoubtedly, poverty and inequality have always been at the centre of social agenda in almost all economies across the world. In spite of the multiple interventions, the evolution in reducing these challenges remains insubstantial (Triegaardt, 2006:2). Socio-economic challenges, for example high levels of poverty and unequal distribution of wealth and resources demand government intervention, in the form of social security assistance (International Labour Organisation (ILO), 2017:21). Social security systems are therefore one of the most recognised set of policies employed by a national government aimed at the alleviation of poverty and vulnerability by promoting competent labour markets, diminishing individuals' exposure to risks and enhancing their ability to safeguard themselves against risks and loss of proceeds (Handayani & Burkley, 2009:13). Social security may possibly assist as a tool for economic growth as it encourages household well-being, which in return enables the accumulation of human capital through health and education. These social policies also prevent the risks which threaten a healthy, productive and secure workforce (ILO, 2017:23). Furthermore, they assist in promoting socio-political stability by reducing socio-economic inequality and expanding the share of the national population that contribute to economic activities. This will then promote an extensive and deep commitment to growth (Handayani & Burkley, 2009:15).

According to the literature, the first recorded form of government intervention in human welfare dates back to the 6th century in the Islamic region. The aim of the social security system was to

fulfil all possible human needs (Mufti, 2016). Umar ibn al-Khattāb was the man behind the well-known *"welfare system"* and *"social justice system for humanity"* (Nadvi, 2012:33). Umar saw the needs of non-Muslim outcasts and demanded that these individuals should be provided with some sort of government funds and initiated child benefits, old-age pensions and disability benefits and can be seen as one of the most remarkable and significant Muslim leaders in the world (Syed, 2012). Umar was more commonly referred to as "Al-Faruq", this symbolise "the one who distinguishes between right and wrong" (Skender, 2011:40). During Umar's governing in the 6th century, he embarked on many organisational reforms and closely supervised public policies. To care for his people, Umar took revenue from the treasury department of the Islamic economy to provide a basic need for all its citizens (Skender, 2011:41). The process for providing such social benefits had different sets and transfers which were fixed for armed forces and volunteers from Fray, while the poor and needy were paid a benefit (Nadvi, 2012:33).

By the late 1800s, government intervention in human welfare had resurfaced in Germany where the German Chancellor, Otto von Bismarck, saw the need for an old-age social security system, which was soon implemented (Samson & Taylor, 2015:14). However, this idea was first suggested by the Germany Emperor, William The First in 1881, where he stressed the importance for disabled- and old-aged individuals and their need to have appropriate care from the state (Social Security Archive (SSA), 2018). Bismarck was encouraged to take this view of William further and soon introduced social insurance in order to stimulate the well-being of the workforce with the intention of keeping the German economy operating at maximum efficiency (ILO, 2009). From this time, the social security system provided by the German government included contributory retirement and disability benefits of which recipients were fixed and contributions were taken from the worker, the employer and the government (Samson & Taylor, 2015:14). Despite his extraordinary work, Bismarck is only known as a socialist for introducing social security systems, as would President Roosevelt 70 years later (SSA, 2018).

It is only by the early 1990's that social protection programmes have been broadly extended to developing countries (Dodlova, Giolbas & Lay, 2017:142). By 2012, approximately 170 economies had implemented some sort of social safety net for their citizens. These include European countries, large parts of American economies and Asia, the Pacific and North Africa. Noteworthy progress has also been made in the Middle East and sub-Saharan Africa. According to the ILO (2014:22), although the need for social security systems is generally regarded as a

fundamental human right, the majority of the global population still do not benefit from social security systems. In 2012, only 27 percent of the global population was recorded to have access to an inclusive social security programme, whereas the remaining 73 percent (around 5.2 billion) were partially covered or not covered at all. Most economies are burdened by a lack of social security systems, which strains economic and social development (Samson & Taylor, 2015:14). Inadequacies in or the absence of social security coverage is associated with persistently high levels of poverty and economic insecurity. This also leads to high levels of inequality, insufficient investments in human capital and human capabilities as well as weak aggregate demand in a time of recession and slow growth (ILO, 2014:21). Therefore, the ILO (2014:22), argue that social security serves as a key element to promote human development, political stability and inclusive growth.

Economies tend to extend their national social security programmes based on their respective national circumstances and priorities. In many cases, in the development of social security systems, economies agree on social transfers directed to employment injury, old-age pensions, disability and survivors' benefits, health care and maternity coverage (Statistics South Africa (StatsSA), 2017a). Benefits directed to minors, households and the unemployed typically come last (Dodlova *et al.,* 2017:141).

These benefits can be categorised into three types, namely pure income transfers, conditional cash transfers (CCTs), which are joined with asset accumulation and integrated poverty reduction programmes (Handayani & Burkley, 2009:4). A pure income accumulation transfer does not require individuals/households to adhere to any conditions apart from meeting the relevant criteria; examples of such include social pensions, old-age grants and family support schemes (Dodlova *et al.,* 2017:141). CCT programmes normally grant income transfers combined with the compliance to adhere to certain regulations such as the attendance of school, nutrition programmes, such as health checks and other reproductive care programmes (Handayani & Burkley, 2009:4).

CCTs are currently amongst the most popular social protection programmes for addressing poverty, vulnerability, and risks of poor individuals and households and communities in developing Latin America, African and Asian countries (South African Social Protection Experts Network (SASPEN), 2016). However, according to the ILO (2017:46), the impact of social

security systems on poverty, hunger, health and education depends merely on how economies design delivery systems to reach the most vulnerable households. Throughout this investigation, references will be made to both industrialised and emerging market economies design, implementation and conditionality of social security systems. In particular, placing focus on the United States, Brazil, sub-Saharan Africa and South Africa (ILO, 2017:47).

The impact of social security systems on poverty, inequality and human upliftment has become a higher priority on the policy agenda in recent years (ILO, 2018a). Hence, the reason behind the choice to analyse United States, Brazil, Sub-Saharan Africa and South Africa is their dedication to assist vulnerable individuals and households through their life-course, by providing a means to meet their basic needs (Lekezwa, 2011:69). The significance of aforementioned economies is their ability to identify areas of need and base policy agenda towards assisting in the identified difficulties.

After the Great Depression in 1929, the United States made provision in order to help low-income households, children, disabled individuals and old-aged individuals by providing affordable health care systems which in 2011 lifted 40 million individuals out of poverty (Sherman, Trisi & Parrott, 2013:4). Today the U.S. has 80 federal welfare programmes including food stamps, also known as SNAP, which kept 4.7 million individuals out of poverty in 2011 and by 2016, about 45.4 million individuals (Bjerga, 2016). Studies show that about a third of the U.S. population received at least one welfare benefit at an average cost of $ 9000 per recipient. In 2012, federal spending on the 10th largest of the 80 programmes were totalled $ 588 billion with medical assistance accounting for more than 40 percent, followed by SNAP (Edwards, 2011).

In Brazil, the *Bolsa Família* programme is one of the most successful social security systems, which assisted in uplifting more than 50 million individuals out of poverty in Brazil and inspired more than 20 economies to follow their example (Illingworth, 2016). According to recent figures, more than 75 percent of the recipients who received *Bolsa Família* became employed and more than 350 thousand started their own small businesses (Campello, Falcão & Vieira Da Costa, 2015:2). The broad aim is, 'Brazil without poverty' and to uplift individuals out of extreme poverty through education, sanitation and electricity, health care and direct cash transfers (Schemidt, 2014). Recent figures show that over a million individuals registered for

training and 760 000 of all the recipients were offered new job opportunities. Today, there are 560 professional courses presented free of charge in over 3000 municipalities across the country, which amounts to 1.5 percent of Brazil's GDP (Schemidt, 2014).

Based on the above discourse, rationale for this study is based on the different schools of thought that have evolved over the past decades with regards of social security systems and their impact on an individual's capability to safeguard themselves against economic hardships; for example, when in retirement, disabled or unemployed, in an economy with high levels of poverty, inequality and low levels of human development. Various scholars managed to examine social security systems in both industrialised and emerging economies. The majority of South African scholars have examined social-economic rights (Alston, 1998; Dutschke, 2006; Goldstone, 2006; Langford, Cousins, Dugard & Madingozi, 2013), poverty, inequality and human development (Gumede, 2010; Van der Berg, 2002; Van der Berg, 2011; Triegaardt, 2006; Engelbrecht, 2008; Klasen, 1997), social security systems (Sevenhuijsen, Bozalek, Gouwa & Minnaar-McDonald, 2003; Jacobs, Ngcobo, Hart, & Baipheti, 2010; Patel, 2014; Strydom, Spolander, Engelbrecht & Martin, 2017) and social transfers/basic income grants (Samson, Van Niekerk & MacQuene, 2006; Lekezwa, 2011; Chelechele, 2010; Le Roux, 2002).

The dilemma with social security systems in terms of responding to poverty has been a hot subject up for debate. On one side, scholars argue that social security schemes do not have an impact on the alleviation of poverty and inequality or the upliftment of individuals' well-being (Mattison, 1985:91; Alderman, 1998; Rosenburg, 2003; Fording & Berry, 2007:56; Murray, 2013; Leubolt, 2014:13; Borjas, 2016:156; Mothiane, 2014:46; Sinyolo, Mudhara & Wale, 2017:8)

According to Murray (2013), excessive expenditure on social security led him to believe that poor individuals are becoming poorer rather than less dependent on the state, as social policies directly and indirectly change the incentives and preference of individuals to seek employment. Leubolt (2014:13) found evidence of the negative impact on the labour market over the medium- and long term because HIV/AIDS and TB-infected individuals have a disincentive to use the necessary drugs to boost their immune systems, as successful treatments will lead to the loss of their disability benefit.

Rosenzweig (1986) as cited by Lekezwa (2011:37) believes that when income enters the household in the form of cash transfers with the purpose of affecting the welfare of the household, it is believed that household will rebalance itself, meaning that the targeted individuals will not be better or worse off than before the cash transfer. When Alderman (1998) researched the effects of CCTs, it was found that these benefits which are set to targeting distinct eligible individuals within the household, for instance, a minor, would not only benefit the minor, but will benefit all members of the household. Consequently, there is no direct way of targeting individuals through cash transfers. Therefore, cash transfers are to be more precise proposed to serve as an additional income to households, in the anticipation that this form of assistance will improve the household's standard of living and come what may affect the minor's well-being. This is supported by Rosenburg (2003) and Mothiane (2014:46). Mattison (1985:91) states that social security systems initiated by the national government should not be structured to be a solution to poverty, as poverty involves social phenomena and individual behaviour, which cannot be solved through social security, therefore, making it unsustainable.

On the other hand, scholars argue that with social security systems in international economies, sub-Saharan Africa and South African economies, there are traces of an increase in the net income of individuals, thereby having a positive outcome on poverty and inequality and other developmental factors (Zepeda, 2006:1; Chakraborty, 2007:3; Duncan, Gennetian & Morris, 2007:7; Lee & Mackey-Bilaver, 2007:515; Dinbabo, 2011; Langinger, 2011:36; Bhorat & Cassim, 2014; Shei, Costa, Reis & Ko, 2014:6; Campello *et al.,* 2015:2; Haile & Niño-Zarazúa, 2018:392).

Throughout this chapter, a brief overview will be provided concerning the South African social security systems, followed by a discussion of the problem statement, research question and the aim and objectives of the research. This chapter concludes by providing a clear outline of the following chapters existing within this research.

1.2   PROBLEM STATEMENT

Regardless of the importance of social security systems, which are specified in the international and national human rights instruments such as in the Universal Declaration of Human Rights (United Nations General Assembly, 1948), the Social Security (Minimum Standard) Convention of 1952, the International Covenant on Economic, Social and Cultural Rights of 1994 and the

South African Constitution, South Africa finds it difficult to implement social security systems to alleviate deep-rooted social phenomena (Dixon, 1999:1; Smit & Mpedi, 2010:171; Dinbabo, 2011:16).

Throughout the years, South Africa's policy makers have designed many policies and programmes in order to assist in the reduction of poverty and income inequality, assisting in low levels of human development and employment creation (Lewis, 2001:iii; National Treasury, 2011). According to Dinbabo (2011:16), since 1994 the government of South Africa have generated four strategy papers to assist social security schemes and comprise of the White Paper for Social Welfare (1997), the Financing Policy for Developmental Social Welfare Services (1999), the Policy on Financial Awards to Service Providers (2004) and the Service Delivery Model for Developmental Social Services. As the South African Constitution (1996) Section 27(1c) states, *"every individual has the right to have access to social security, including if they are unable to support themselves and their households, proper social assistance."* Section 27(2) in turn *"requires the national government to take reasonable legislative and other measures, within its available resources, to reach global awareness of this right."* Whereas, Section 28(1c) further awards minors the right to basic social services (Jansen van Rensburg & Lamarche, 1997:151).

When it comes to the implementation of social security systems in South Africa, it is evident that the national government and policy makers struggle to achieve the set out objectives as almost half of the South African population continues to live under the poverty line (StatsSA, 2018). According to Triegaardt (2006:3), the South African government has extended devotion to the alleviation of poverty as the fiscal budget towards social security has increased extensively, although there remain concerns of the safety nets inadequacy. With these rates, it is evident that the amount of social welfare recipients in South Africa is currently just over 17 million, of which child support grants and old age grants make up the majority of the total amount (Seekings, 2015:16). Consequently, the total amount of social security recipients increased by 328 percent from the year 2001 to 2017, which is around 20 percent per annum. The number of households that receive some form of social security benefit increased from 29 percent of the population in 2003 to 44 percent in 2010 and increased further in 2015 to 45.5 percent of the population (StatsSA, 2017a).

The total amount spent by the national government per annum on social security also increased. In 2010, the total expenditure amounted to more than R 128 billion, which increased from R 41 billion in 2001 and is currently R 180 billion. This is an increase of over 335.8 percent from the year 2001 to 2017, which equates to approximately 20.98 percent increase per annum[1]. This is also due to an increase in the total monthly value of social transfers to recipients, which depend on the individual's income or the condition of their needs (National Treasury, 2018). From 2001 to 2017, the growth in social grant recipients for the period of 16 years has increased by 328.1 percent (South African Institute of Race Relations (IRR) 2016:622). This makes South Africa one of the countries who spend the most on social security, in the world (Ferreira, 2015).

Leubolt (2014:10) found that between 1995 and 2007, government investment in education dropped, which is evident in the current problem of skills shortages in the labour market, causing a decrease in employment. This is in line with the findings of Murray (2013), Leubolt (2014:13), Williams (2007:12), Mattison (1985:91) and De Barcellos (2012:18) as they all state that social security benefits cause a disincentive to seek employment. De Barcellos (2012:18) suggested that the government should shift their focus to more employment creation policies. Hence, the current welfare system in South Africa could possibly be promoting dependency on the state, rather than achieving its primary goal, which is to close the poverty gap and provide opportunities to individuals who would otherwise be without them (Brockerhoff, 2013:10). Lewis (2001:2), suggest that the national government should invest in human development factors, to ultimately raise human capital with the aim at increasing productivity and skills.

Therefore, the need for this study is to analyse the gap in the research concerning the impact variables have on social security (amount spent by government per annum). These variables include the number of individuals within a household, economic activity and employment creation and their impact on the alleviation of poverty, inequality and human development.

1.3   OBJECTIVES OF THE STUDY

The following objectives were identified and outlined for the study at hand.

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[1] Based on authors calculations (data obtained from Institute of Race Relations (IRR), 2016; Global Insight, 2018 and the South African Social Security Archive, (various years).

1.3.1   Primary Objective

The primary objective of the study is to analyse South Africa's social security system, in order to determine how this system assists in the alleviation of poverty and inequality, as well as human upliftment.

1.3.2   Theoretical Objectives

For the study to achieve its primary objective, various study objectives are pursued:

- To provide a historical overview of social security systems and policies;
- To provide definitions and concepts relating to social protection, social security, social policy and social transfers;
- To review the relationship between poverty, inequality and standard of living through the analysis of various social security policies;
- To review individual, societal and macro-economic effects of social security systems; and
- To discuss theories relating to social security;
- To provide case studies to analyse the different kinds of social security programmes and their successes and failure to at the end make recommendations to which South Africa can learn from.

1.3.3   Empirical Objectives

In accordance with the primary objective, the following empirical objectives are formulated:

- To provide a review of South Africa's past and present social security policies;
- To provide a comparative analysis between South Africa's number of social security benefit recipients, the number of individuals employed, the amount spent by the government of social security policies and dependency;
- To review trends in South Africa's social security benefit recipients per grant type;
- To analyse the South Africa government expenditure towards different social security systems;
- To present empirically the impact of the South African social security system on its set objective, being the alleviation of poverty, inequality as well as human upliftment.

> To determine the long-run and the short-run interrelation between the South Africa's poverty rate, HDI and inequality rate against government investment in social security policy, the number of individuals within a household, economic activity and employment creation; and

> To examine the causal effects of the set explanatory variables (poverty, inequality, human development, social spending, household size, economic activity and unemployment) and the number of recipients receiving benefits.

1.4   RESEARCH DESIGN AND METHODOLOGY

This investigation encompasses an empirical study and a literature review. The study is based on the underpinnings of quantitative research using secondary data. The data being utilised are collected from the South African Reserve Bank (SARB), Statistics South Africa (StatsSA), Global Insight, World Bank and National Treasury.

1.4.1   Literature Review

The literature review and theoretic background of the study was accessed from journal articles, theses, working papers, books and other relevant sources. These sources will be used to explain the historical and theoretical background of the different forms of social security systems across the globe. These sources were also able to assist in explaining how social security programmes are linked to poverty, inequality, human development, employed individuals, household size, economic growth and the amount spent by the national government on social security services.

1.4.2   Empirical Study

The study focuses on the South African economy to evaluate the impact of the South African social security system by analysing the relationship between social security expenditure, economic activity, number of individuals unemployed and the number of individuals within a household (household size) on the alleviation of poverty, inequality and the attempt to improve human development.

Data collected for the study were gathered from the Global Insight and from the South African Social Security Archive (SASSAs) databases and are based on a period of 21 annual observations from 1996 to 2017. The rationale behind the selected sample period was led by the change of South Africa's political and economic structures as well as the exclusion of economic embargos, which characterised South Africa's apartheid era.

1.4.3 Data Collection Method

The study focused on analysing the effects of the change in social security benefit expenditure, in order to determine its effectiveness on its set out objective. The objective of the South African social security system is to alleviate poverty and inequality and to assist in the overall development and social upliftment of natives residing within the economy. However, social security benefits are not the only factors that influence the aforementioned factors; therefore, the study will also include other social economic factors such as economic growth, unemployment and the number of people within a household, to assist in analysing social security expenditure effectiveness.

1.4.4 Statistical Analysis

In order to evaluate the set objectives regarding the different variables in this study, an econometric analysis was conducted involving the analysis of descriptive statistics of the set variables, correlation analysis, as well as the long-run relationships by means of employing the ARDL model. The ARDL tests can be a useful means of econometric testing where all variables are considered as endogenous variables and as explanatory variables (Nkoro & Uko, 2016:79).

Furthermore, an error correction model test was run in order to estimate the short-run relationships. Tests for co-integration were conducted on the basis of capturing the linear interdependencies of the set variables. However, due to limitations, a test for stationarity must be run prior to conducting the bounds test to co-integration. Additional tests involving diagnostic and stability tests were also run; diagnostic and stability tests involve the tests for normality, autocorrelation, heteroscedasticity and parameter stability

The importance of this research will be made visual by indicating the impact the independent variables, being South Africa's annual social security expenditure $(SSEXP)$ the number of individuals receiving benefits $(TBEN)$, the number of individuals without a job $(UNEMP)$, economic activity (GDP) and the number of individuals within a household (HHS) on the dependent variables, poverty (POV) inequality $(GINI)$ and human development (HDI), respectively.

The general function of this study is as follows:

$$POVERTY\ (POV) = f(SSEXP, TBEN, HHS, GDP, UNEMP) \ \text{------------------} (1.1)$$

$$INEQUALITY\ (GINI) = f(SSEXP.TBEN, HHS, GDP, UNEMP) \ \text{------------} (1.2)$$

$$HUMAN\ DEVELOPMENT\ (HDI) = f(SSEXP, TBEN, HHS, GDP, UNEMP) \text{---------} (1.3)$$

1.5   SIGNIFICANCE AND CONTRIBUTION OF THE RESEARCH

South Africa, as a developing and open economy, struggles with high levels of unemployment, high levels of inequality and poverty rates, low levels of human development, poorly performing economy and high levels of population growth; therefore, it is best to acquire updated knowledge on how these mechanisms affect the country's aspects of job creation and assisting individuals out of their current economic state. This may contribute towards finding optimal solutions that sustain and enforce the country to create more sustainable jobs and make provision for endless endogenous and exogenous growth and to assist in the overall depreciation in the number of individuals dependent on the state. Therefore, it is of utmost importance that the subject topic is studied in order to gain knowledge and provide further insight based on the findings of this study.

1.6   ETHICAL CONSIDERATION

Data used in the analysis and in the compilation of this study was obtained from open data sources thus making it public record and available for use. The study has complied with standard academic research. The study was cleared for ethical purposes, with ethical clearance number ECONIT-2018-22.

1.7   CHAPTER CLASSIFICATION

This study comprises the following chapters:

Chapter 1: Introduction and Background

This chapter presented the introductory issues and background that led to the study. It established an outline on the content of the study, comprising of the problem statement, the various objectives, the contribution and scope of the research.

Chapter 2: Review of Historical and Theory Literature

This chapter evaluates and reviews theories and the literature specific to the concerns of the study; it details and analyses theoretic prepositions on the interactions or relationships between different forms of social security programmes and the implementation thereof.

Chapter 3: Social Security Development: Lessons from the United States, Brazil and Sub-Saharan African Economies

Case studies will be included to analyse further the different kinds of social security programmes and their successes and failures in order to make recommendations from which South Africa can learn.

Chapter 4: Profiling South Africa's Social Security System

This chapter conducted a trend analysis of the social security recipients, total amount spent on social security by the national government and the number of individuals employed as per set objectives. In the context of assessing South Africa's social security policy, various types of social transfers, amount received per benefit and the amount of recipients were estimated to present a measure of the economy's dependency ratio. In doing so, the chapter makes use of descriptive tools by means of graphs, tables and figures. Lastly, the chapter additionally provides a synopsis of South Africa's major social security policies as well as the various targeted/ protected groups used by the South African government to alleviate poverty and inequality and to raise the recipients' overall standard of living.

Chapter 5: **Research Design and Methodology**

This chapter provides an explanation on the data, sample period and the various models used in achieving the empirical objectives found in the study, namely South Africa's total social security expenditure, poverty, inequality and HDI, which have been fluctuating between the periods 1996 and 2017. For that reason, suitable modelling layout is provided to account for distortions and variable dynamics.

Chapter 6: Empirical Estimation and Discussion of Results

This chapter presents the findings and results of the study and further provides discussions on the empirical analysis of the study in accordance with basic theories and recent studies.

Chapter 7: Summary, Recommendations and Conclusion

Lastly, this chapter comprises of a summary concerning the topic at hand and will highlight the main findings of this study, provide concluding remarks and the necessary recommendations and policy implementations of this study.

Figure 1-1: Outline of the chapters and sub-topics presented in this study.

- **Chapter 1**: *Introduction --* presents the purpose and content of the study
- **Chapter 2**: *Background & Theoretical overview-* explores the basic nature of social security systems

- **Chapter 3**: *Industrialised, Emerging & Sub-Saharan economie-* analyses the potential effects of the different social security systems on national economies
- **Chapter 4**: *Overview of SA's Social Security System-* analyse potential direct and indirect effects of social security strategies on SA's economy
- **Chapter 5**: *Research Design and Methodology-* explaining the research model and design
- **Chapter 6:** *Empirical Estimation and Discussion of Results-* explain the findings of the impact of the social security system on poverty, inequality and human development in SA
- **Chapter 7**: *Concluding Remarks & Recommendations-* summary of the key findings of the study

Introduction

Case-studies

AN ANALYSIS OF THE SOUTH AFRICAN SOCIAL SECURITY SYSTEM

Research design and analysis

Conclusion

CHAPTER 2

REVIEW OF HISTORICAL AND THEORETICAL LITERATURE

2.1   INTRODUCTION

Over the last few decades, social security has emerged as a policy framework used to address poverty and vulnerability in both industrialised and emerging nations. Social security combines individual welfare by means of an aggregator function, which can be interpreted as a social security function. Therefore, social security function summarises a wide range of strategies, which policymakers implement to not only help the poor, but for various other economic, social and political reasons. International development organisations, particularly agencies within the United Nations, have adopted and adapted various social security programmes and policies. Over the years, there has been a rapid escalation in the number and coverage of such policies and the implementation thereof. A growing number of national governments in the developing world are formulating and adopting national social security programmes within their strategy to combat poverty and inequality.

This chapter aims to first, provide a historical background of social security, followed by a theoretical approach to the topic at hand. There exists a range of circumstances, which contribute to the development of social security theories and policy implementation techniques. For these reasons, different arguments have been provided and different methodological viewpoints have been developed. Amartya Sens' capability approach and John Rawls' theory of justice on welfare economics are applicable in the context of this study and serve as the basis of the theoretical framework. Hence, the following section presents an analysis of the main understandings of Amartya Sen's capability approach and John Rawls' theory of justice, and indicates the relationship between social security systems.

The most significant objective of the implementation of social security systems, especially in developing economies, is to alleviate poverty and income vulnerability and to empower disadvantaged individuals and households by granting them basic social means (Samson *et al.,* 2006). Hence, different types of social security systems are designed by different economies based on the conditions of need. The different types of social systems in the context of a rights-based approach are going to be further discussed. This will serve as a basis and will launch the

study by analysing applicable social security systems and how they are linked to poverty, inequality and human upliftment.

2.2 HISTORICAL BACKGROUND AND THE DEVELOPMENT OF SOCIAL SECURITY

In order to obtain a comprehensive understanding of social security, it is necessary to examine the evolution of social security. The term social security originally described any agenda designed to assist individuals with limited financial resources (Grabianowski, 2005). According to the ILO (2011:7), from earliest times, there has been a need for protection against unexpected life happenings. The development and generation of social security systems through the grant of income support and medical care established a major step in the progress of human societies. The development of these forms of social security systems, ranging from voluntary group-based social protection systems to compulsory contributory or non-contributory public social security programmes throughout the world, confirms the mortal necessity for social security across the world and the significance of diverse rights and privileges (Plagerson & Ulriksen, 2016:3).

According to the literature, the first recorded form of government intervention in human welfare dates back to the 6th century in the Islamic region. The aim of the social security system was to fulfil all possible human needs (Mufti, 2016). Umar ibn al-Khattāb was the man behind the well-known "welfare system" or "social justice system for humanity" (Nadvi, 2012:33). Umar saw the needs of non-Muslim outcasts and demanded that these individuals be provided with some sort of government assistance and initiated child benefits, old-age pensions and disability benefits and can be seen as one of the most remarkable and significant Muslim leaders in the world (Syed, 2012). Umar, more commonly, was referred to as "Al-Faruq" as this symbolises "the one who distinguishes between right and wrong" (Skender, 2011:41). During Umar's governing in the 6th century, he embarked on many organisational reforms and closely supervised public policies. To care for his people, Umar took revenue from the treasury department of the Islamic economy to provide basic assistance for all its citizens. The process of providing such social benefits had different sets and transfers, which were fixed for armed forces and volunteers from Fray, while the poor and needy were paid a benefit (Nadvi, 2012:33).

By the late 1800s, around 30 years before the First World War, government intervention in human welfare had resurfaced in Germany where the German Chancellor, Otto von Bismarck,

saw the need for old-age social insurance programmes (Bortz, 2012). However, this idea was first suggested by the German Emperor, William the First in 1881, where he stressed the importance for disabled and old-aged individuals and their need to have a rational right to care from the state (SSA, 2018; ILO, 2011:7). Bismarck was inspired to take this view of William further and soon introduced social insurance in order to promote the well-being of workers in order to keep the German economy operating at maximum efficiency (ILO, 2009). From this time, the social security system provided by the German government included contributory retirement and disability benefits; recipients were fixed and contributions were taken from the worker, the employer and the government (Den Butter & Kock, 2003:5). Despite his extraordinary work, Bismarck is only known as a socialist for introducing social security systems, as would President Roosevelt, 70 years later (SSA, 2018).

The 1990s saw the emergence and extension of social protection programmes to emerging countries (Dodlova *et al.,* 2017:142). At this time, nearly 172 economies had implemented some sort of social security assistance scheme for its citizens (Dixon, 1999:2). These include European countries, large parts of American economies, Asia, the Pacific and North Africa. Noteworthy progress has also been made in the Middle East and sub-Saharan Africa. However, around 49 countries could not be identified as having a social security system, which, according to Dixon (1999:2), did not necessarily mean that they did not have one. Of the 172 countries, countries such as Andorra, Croatia, Guernsey and Jersey were not included in the study and a further 38 economies were categorised as low-income, lower-income and high-income countries (Dixon, 1999:2). Though the need for social protection is widely recognised, the fundamental human right to social security remains unfulfilled for the majority of the world's population (ILO, 2014:22).

Before the 1930s, support to old-aged individuals was merely a matter of local, public and family concern rather than a federal concern. However, the widespread suffering caused by the Great Depression, reaching from 1929 to 1939, brought hardship for a significant number of individuals. According to the United Nations (UNDP, 2017:3a), in 2012 only 27 percent of the global population had access to an inclusive social security programme, whereas the other 73 percent (around 5.2 billion) were partially covered or not covered at all. By 2016, only 22 percent of the global unemployed individuals received benefits, 28 percent of disabled individuals collected disability grants and 35 percent of minors were covered by social security

(UNDP, 2017:3a). Inadequate social protection systems lead to deficiencies in economic and social development. The absence of social protection coverage can be associated with persistently high levels of poverty, economic insecurity, growing levels of inequality and insufficient investments in human development. According to the ILO (2014:22), social protection policies are a widely recognised strategy, which today is a key component of a national strategy to assist in the promotion of human development, political stability and inclusive growth.

2.3   CONCEPTS AND DEFINITIONS

Both industrialised and emerging market economies have focused on the promotion of economic growth and development. Economic growth refers to the increase in the value of everything produced within an economy, reached over a period of time. Economic development refers to the level of wealth reached within an economy or within a certain area, with the aim of raising the welfare of its citizens (Ranis, Stewart, & Ramirez, 2000:197). Once a certain level of economic development has been reached, various emerging market economies undertake the establishment of social security and social protection systems with the aim of attaining social stability (Barrientos, 2010:1). Such systems are designed to alleviate poverty and inequality and to assist in improving individuals' standard of living (ILO, 2017:33). Poverty is usually a phenomenon shared only by a portion of the population and not necessarily the population as a whole. The concept poverty in emerging market economies usually refers to the individuals/households inability to meet their basic needs (World Health Organisation, 2003:20). Two types of poverty exist, namely an individual/household is either extremely poor, when it cannot meet its basic food needs or moderately poor, when it is able to meet its basic food needs but not its non-food needs (Wondon & Yitzhaki, 2002: 99). Inequality is a phenomenon applicable to the population as a whole, subject to changes in both income and consumption. It arises when there is evidence of unequal distribution of income and opportunity between different groups in a society (McKay, 2002:1).

Because inequality is independent of the level of security achieved within an economy, alone it is not a sufficient indicator of evaluating social security systems and policies. Therefore, to evaluate such programmes, it is important to understand the design, development, management and the implementation of extensive social security programmes. It is also important to explain

the different forms of social policies created by the national government in order to understand concepts better, such as social protection, social security and social welfare, followed by different theoretical overviews regarding the importance of these systems.

2.3.1 Social Protection

Norton, Conway and Foster (2001: 21) express that it is important to understand the meaning of social protection as different scholars and different development agencies have different meanings of social protection. They further emphasise that understanding the meaning of social protection varies in a number of ways especially between broad and narrow perspectives and those that focus on the nature of the deprivations and problems addressed, those which focus on the policy instruments used to address them and those that take the conceptual, as opposed to pragmatic, approach to the task (Barrientos, 2010:2). Most definitions have a dual character, referring to both the nature of the deprivation and the form of policy response. Almost all definitions, however, include the following three dimensions, vulnerability and risks, the levels of deprivation deemed unacceptable (usually absolute) and lastly, the form of response, which is both social and public in nature (Norton *et al.,* 2001:21).

Consequently, social protection does not differ much from social security and is interchangeable (Norton *et al.,* 2001:21); however, social protection is more regularly used especially amongst social development circles and is a more extensive concept. The concept social protection can be seen to have an "umbrella effect" as it covers a wider range of public and private initiatives including public and indigenous support systems to protect individuals against social and economic risk (Barrientos, 2010:2). In other words, it involves both the welfare functions of the state and developmental strategies and programmes to ensure minimum acceptable living standards of all citizens (Reddy & Sokomani, 2008:13). Social protection programmes assist the poor and vulnerable with cash transfers to use when in livelihood risk.

According to the United Nations (2018: iii),

> "social protection is a key policy tool to promote far-reaching improvements in human well-being. It has served as a powerful lever to reduce poverty and inequality. It has furthered inclusive economic growth. It has shielded individuals and families in times of crisis and has

helped improve children's health and education. Together with access to quality services, universal access to social protection has proven necessarily to break the intergenerational cycle of poverty and promote inclusion."

The International Labour Organization expresses that social protection is a human right and defines it as: *"the set of policies and programmes designed to reduce and prevent poverty and vulnerability by promoting efficient labour markets, diminishing people's exposure to risks, and enhancing their capacity to prevent, protect or cope against hazards and interruption/ loss of income"* (ILO, 2017:33).

Other scholars such as Jacobs *et al.* (2010:9), express that social protection has three systems, namely agricultural, corporatist and redistributive. Under agricultural social protection systems, the aim is to enable the agricultural sector to attract labour, corporatist systems attempt to expand employment in the urban formal sector and redistributive systems include a wide range of social assistance and welfare programmes. Therefore, social protection policies play an important role in understanding the right to an inclusive social security programme, alleviating poverty and inequality and assisting in inclusive growth by improving human assets and efficiency, promoting domestic demand and enabling structural transformation of domestic economies (ILO, 2017:22). Social protection includes benefits for nine main areas: for children and families, maternity, unemployed, employment injury, sickness, old age, disability, war veterans as well as health protection (Japan International Cooperation Agency (JICA), 2009:11).

According to Holzmann, Sherburne-Benz and Tesliuc (2003:1), social protection is a tool to assist individuals in moving up the development agenda. Despite the fact that it was once dismissed as ineffective and detrimental to development in emerging countries, it is now understood and conceded that it assists individuals, households and communities to deal with diverse risks or shocks (Osberg, 1998:28). Social protection is now viewed by some national economies as vital for accelerating the reduction of poverty and for sustained economic and human development (Barrientos, 2010:3).

UNICEF (2015:8) further describes social protection as a "set of public and private policies and programmes aimed at preventing, reducing and eliminating economic and social vulnerabilities to poverty and deprivation." Therefore, social protection is seen as the ability of the national

government to insulate the population from the problems associated with poverty and the market forces, which negatively affect their quality of life. Social protection may also be understood as including any formal initiative, which aims to provide social assistance to particularly vulnerable groups, social insurance for vulnerability associated with old age and loss of income, or it can take the form of labour market programmes.

2.3.1.1 Social Protection Categories

Risks arise when individuals become incapable of safeguarding themselves against a collection of risks. These risks can range from natural disasters such as floods and earthquakes, manmade calamities such as war, health concerns such as illness, as well as political risks, which include discrimination and inequality. According to Holzmann *et al.* (2003:5), poor individuals and households have the fewest means to deal with such risks, therefore, require assistance from the national government. The national government can assist poor individuals and households with four approaches; programmes can be designed and implemented before risk events occur, this strategy is known as preventative programmes (Bonilla Garcia & Gruat, 2003:20). These types of programmes increase individuals and households' welfare by lessening the probability of an adverse risk, increasing individuals expected income and reduce income change (Samson *et al.,* 2006:2). Nevertheless, preventative programmes fall outside social protection programmes and include measures, which are intended to reduce the risks that arise within the labour market, such as unemployment, under-employment or low wages due to unsuitable skills or failing labour markets (Bonilla Garcia & Gruat, 2003:26).

The second approach is known as mitigating programmes. As with preventative programmes, mitigation programmes also aims at reducing risks before they occur.Whereas preventative programmes reduce the probability of the risk occurring, mitigation programmes assist individuals by reducing the impact of a future risk event through pooling assets (Bonilla Garcia & Gruat, 2003:27). The third approach is known as coping or promotive programmes. Once a risk has occurred, the promotive programme sets in to minimise the impact thereof. Therefore, national government has an important role to play in assisting their citizens in order to lessen borrowing or dependency on social transfers (Partnership for African Social and Governance Research (PASGR), 2016:12). The final programme is a transformative programme. This type of programme creates an enabling legal and policy framework, which includes programmes that

empower women and legal support; therefore, these programmes promote and protect human rights (PASGR, 2016:13).

2.3.1.2   *Social Protection and its link with Vulnerability*

According to Govender (2011:22), vulnerable groups in society are those that are most discriminated against, stigmatised and socially marginalised. Quite often, vulnerable groups are women, religious minorities and refugees who suffer in poverty. Vulnerable groups can also be individuals who usually tolerate the effect of natural disasters and manmade calamities such as war. Vulnerability occurs when certain segments of the inhabitants are more prone to falling into poverty (Wondon & Yitzhaki, 2002: 99). Disastrous events (such as the passing of the wage earner) with a lack of insurance to mitigate incidents can result in a household falling into poverty (Wisner, Blaikie, Cannon & Davis, 2003:5). There are a variety of reasons for vulnerability and it can be temporary in nature; however, it can also lead to many poor households sinking even deeper into poverty as they are forced to extend credit or even sell off their assets (house, car, etc.), if they have no other choice (Barrientos, 2010:6). For this reason, when formulating a social strategy, policy makers should bear in mind those individuals who are most prone to poverty and those who are most in need of social security. Social security targeted at portions of the population can create a more equitable society (Govender, 2011:22).

2.3.2   **Social Security**

There has been remarkable global expansion in social security as the term social security is all embracing and nearly all industrialised economies have created extensive social systems to promote the economic security[2] and welfare of its citizens and households (Dixon, 1999:1). Social security is a powerful concept and a significant chapter of a national programme to attack poverty, unemployment and vulnerability (JICA, 2009:10). However, for many years, social insurance was seen as the preferred form of social security and social protection. Therefore, it is necessary to analyse various definitions of social security in order to appreciate the nature and concept of social security (Norton *et al.,* 2001:21).

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[2] Economic security refers to the minimum assured income for individuals/ households granted either in-kind or in the form of publicly financed safety nets.

Mothiane (2014:5) as well as Spicker (2013:8) further explain that social security is the well-being or what may be considered to be in the best interest of individuals. Within the framework of the national government, social security can be explained by the range of services that the national government may provide to the general public to ensure that they all, regardless of their wealth, have access to a particular standard of well-being. Social security can be seen as the widest form of a safety net that includes both contributory forms of social insurance and the needs-based assistance received from public funds (i.e. social assistance). Social security is an important component of any social development agenda and is as relevant as physical security in the evolving concept of human security (Reddy & Sokomani, 2008:13). Its objective is all about addressing social problems and redistributing resources as well as benefits with the objective to empower disadvantaged groups of people (Dinbabo, 2011:34).

Brearley (2016:1) states that the welfare state, or social security system, is one of the most important functions of the national government, as it redistributes wealth within a capitalist economy that is prone to market failure and an unequal distribution of assets. Brearley (2016) further states that social security systems also influence the long-run prospects for economic growth and poverty reduction through the investment in human capital.

Hence, social security can be the answer to the problem of economic insecurity (Osberg, 1998:4). Social security measures have a dualistic aim in emerging economies. First, social security is aimed at improving living standards, working conditions and protection against future uncertainties as an objective of a welfare state. These measures also contribute toward development as they enable employees to be more efficient and reduce the effects of labour strikes (Barrientos, 2010:10).

According to Dixon (1999:3), social security is "a measure which provide cash and in-kind benefits upon the occurrence of prescribed contingencies, namely, lost or inadequate earnings (income replacement or maintenance), and to offset the cost of supporting dependents (income supplementation)." Hence, social security systems are designed to assist:

➢ In the welfare of an individual who becomes incapable of working by reason of old age, sickness and invalidity and or unable to earn anything for their livelihood (causes permanent of nature).

- Individuals with short-term injuries, sickness, maternity or loss of income (Mothiane, 2014:5).
- Individuals who have inadequate development due to a physical or intellectual handicap, an emotional disorder or an inability to gain employment.
- Individuals in circumstances that make them incapable to safeguard themselves against poverty due to inadequate work remuneration or inadequately developed personal or vocational skills.
- To provide support to individuals who are single parents or individuals who support elderly parents or handicapped children or siblings (Dixon, 1999:3).

As a result, social security systems restore the nature of vulnerability by addressing the increasingly important social-political drivers that cause poverty and vulnerability (Samson & Taylor, 2015:25).

Figure 2-1: An illustration of a transformative social security system
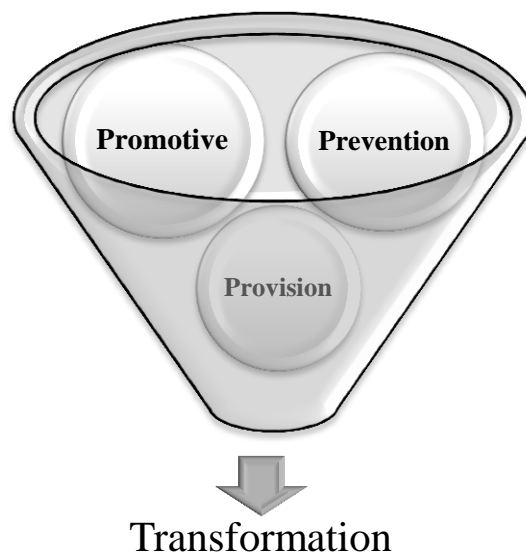
Source: Adapted from Samson and Taylor (2015:26)

Social security systems function as a promotive, which substitutes an individual's income when there is disturbance and earnings are stopped due to unemployment, sickness, permanent disability and old-age (Social Security Administration, 2005). Social security systems serve as a provision function as social security is designed to provide certain services like medical care to the sick and disabled as well as rehabilitations in cases of need. Lastly, social security serves as a

preventive mechanism as social security measures not only provide assistance when events require expenditure that pressures a household's budget, but also prevents the risks from arising in the first place (Samson & Taylor, 2015:26). Prevention is designed to enable individuals to escape from the loss of productive capability that can occur due to illness, maternity, etc. (Cohen, 1955:3).

2.3.2.1 Characteristics of Social Security

Social security concepts differ from economy to economy as different social, political and economic development arises within countries (Smith, 2017). Nevertheless, a universal need for socio-government intervention exists, which leads to measures of social security differing in characteristics in every economy. The three main characteristics of social security are based on the needs of a countries citizens and the availability of resources (Barrientos, 2010:13).

Figure 2-2: The expansion of social security

Safety Net ➡ Active Socio-economic Security ➡ Global Era

Potential Development

Social Insurance

Social Assistance

1900's   1945   2000's
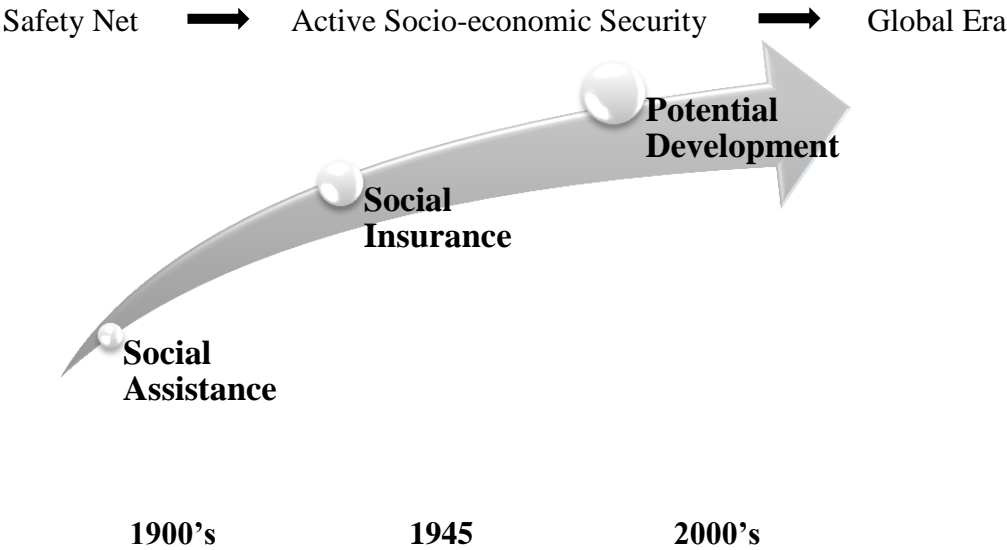
Source: Adapted from Bonilla Garcia and Gruat (2003:20)

The first characteristic is that social security programmes were established by law and initially focused on the prevention of falling into poverty by providing a minimum income for individuals and households (the objective of provide a safety net to cover against the risk of being poor) (Bonilla Garcia & Gruat, 2003:20). Even though benefits are set by law, they are not uniform for everyone. They may vary depending on factors such as wage level, length of protected

employment, or family status. By the late 19th and 20th centuries, social security support in the form of cash transfers replaced a minimum part of a vulnerable individual's income when faced with unemployment, old age, injuries and illness, maternity or for children in foster care etcetera. (Smit and Mpedi, 2010:161).

Social security progressed from serving as a safety net (which aimed at guaranteeing a minimum standard of well-being) to an approach with a combined aim of safeguarding against- and prevention of risks (Bonilla Garcia & Gruat, 2003:20). Therefore, social security systems today provide benefits in three major ways, namely social insurance, social assistance and public services (Smit & Mpedi, 2010:161). The most recognised forms of social security systems by economies are social insurance and social assistance, which will be discussed in the next section.

2.3.2.2 *Social Insurance and Social Assistance*

Social insurance is an employment-related, contributory programme (Dixon, 1999:4). It was first introduced by German Chancellor, Von Bismark and since then has extended all over the world This system comprises of programmes which provide protection to vulnerable individuals in order to safeguard themselves against transformative events such as maternity or work-related incidents such as unemployment or illness. Therefore, aiming at individual's who make regular financial contributions (Smit & Mpedi, 2010:161). An example of this programme is a retirement or unemployment fund. Eligibility is determined when an individual/ household has reached a curtain age or is at risk of losing his/her job and will receive an allocated financial transfer on a monthly basis. These systems often only benefit those who once had a job, who are currently unemployed and who made the required monthly contribution (Dixon, 1999:4). Normally, this sort of programme is financed through the collection of both the worker and their employer contributions (Barrientos, 2010:2). Mothiane (2014:6) argues that countries such as Brazil and South Africa, which face high levels of unemployment and inequality, are more likely to initiate non-contributory than contributory programmes.

Non-contributory, also known as social assistance systems, do not require individuals/ households to make a regular financial contribution (Dixon, 1999:5). Thus, financial benefits are given to targeted individuals/ households who the state considers being prone to income shortage and is usually financed through tax collections (Barrientos, 2010:2). According to Smit and Mpedi (2010:161), social assistance schemes offer assistances to individuals in the form of

finances fixed to meet a minimum standard of living and is financed through general tax collections.

Norton *et al.* (2001:22), explain that social assistance is a benefit in cash or in kind, which is financed by the national and/or local government and is provided based on a means or income test. Hence, this system is organised by the state and provides short-term financial assistance and medical relief, to such members of the society, whom cannot obtain them through personal resources (Kela, 2018). Individual's eligible for social assistance are determined for each household by identifying all the income from all the individuals living within the household. If the total household income is less than the minimum income rate at national level, the household is able to receive social assistance. The amount of social assistance depends on amount of household income and the minimum rate of income, which applies to the household is based on the number of individuals living in the specified household and whether or not these individuals are eligible for work (Government of New Brunswick (GNB), 2018).

According to Mothiane (2014:5), social assistance is mainly financed through revenues of the national government, generated through tax collection. These benefits are then allocated free of charge to those identified as recipients. However, those identified as eligible has to satisfy have to meet certain prescribed conditions or criteria. The initial risk to be covered was that old aged, but gradually non-contributory benefits, were also introduced for invalids, war veterans and unemployed individuals. Today, social assistance programmes cover categories such as unemployment assistance, old age assistance and child support. Thus, social assistance is based on the premise that the care of citizens could not be left to voluntary charity and should be placed on a compulsory and statutory basis, signifying the obligation of the community towards dependent individuals in the economy (Kela, 2018).

2.3.2.3   Similarities and Differences between Social Insurance and Social Assistance

Social insurance and social assistance have some similarities, as both schemes are social in approach and are organised under a national law. Both schemes provide a legal title to benefits, however, social assistance is financed through the general taxpayer, whereas social insurance is financed by tripartite of bipartite contributions (Osberg, 1998:11). Social assistance also aims at providing a minimum benefit to those who are incapable providing it for themselves. Therefore, the recipients have to satisfy a means test that entitles them to such benefits, whilst social

insurance schemes aim to protect a minimum standard of living, calculated according to the daily earnings of individuals or households (Sunitha, 2018).

Therefore, social insurance ignores the income and means of liable relations while social assistance makes the beneficiary a first charge on the liable relation. Benefits are paid only when the specified individuals/household do not possess sufficient means to support the beneficiary (Norton *et al.,* 2001:22; Smit & Mpedi, 2010:161; Smith, 2017). Thus, social assistance is a progression from private charity towards private insurance whereas social insurance is a progression from private insurance towards public welfare measures. According to Mancini (2018), other forms of social security methods include that of public services programmes, which is apparent in economies in the form of medical care for citizens, fully provided by the government.

2.3.3 Social Policy

Social security systems provide support over an individual's life course. These support or reimbursement systems assist individuals throughout their stages of life (Lekezwa, 2011:69). Therefore, it is important of such systems, in order to efficiently provide individuals with the necessary basic means for a healthy lifestyle. Therefore, national government develop policies should be designed to include social phenomenon's (Skocpol & Amenta, 1986:131). When referred to social, it can be referred as to the characteristic of all living organisms as applied to economies individuals and all other living organisms (Pitzer, 2003:2). Therefore, it refers to the relations between organisms and to their shared co-existence, regardless of whether they are aware of it or not and regardless of whether the collaboration is voluntary or involuntary. Hence, social security offers support in various forms to living organisms in a society to assist them throughout the courses of their live (Spicker, 2018).

Furthermore, when referred to as a social policy, it is said to be concerned with how contemporary societies recognise and manage social change. According to McClelland (2006:11), social policy primarily refers to the guidelines and interventions for the alteration, maintenance or creation of living conditions conductive to human welfare. McClelland (2006:12) states that the definition points to a broader understanding of the concept of welfare; the responsibility for the achievement of welfare; the broad range of disciplines required in the analysis and development of social policy and the interconnections between social and other

policies. Welfare may be narrowly interpreted, indicative to the services that are provided to individuals who are in need or the broad definition which states that welfare is the 'actions aimed at promoting social well-being'. Social well-being encompasses the manner in which individuals and groups fare in life, such as living standards, access to information, social participation, family relationships and overall life satisfaction (Titmuss, 1974:31). According to the Department of Social Policy at the London School of Economics, social policies can be defined as *"an interdisciplinary and plied subject concerned with the analysis of societies' responses to social need"* (Platt, 2018).

There can be distinguished between different types of social policies, these include comprehensive social policies, which generally comprise of multiple components, such as social assistance, social insurance, the developmental mechanisms that simultaneously protect and promote livelihood and the transformative measures that promote social inclusion, as well as social justice amongst individuals (Platt, 2018).. Transformative social policy recognises the three parts that social policies are intended to contribute in a society. First, it is an important component to the society, therefore, has a social function role, which implies that this type of function reduces the impact of evolution risks, through social insurance and alleviating poverty through social assistance (Vargas-Hernandez, Noruze & Haj, 2011:287). In this way, social policy helps people stabilise their lives and support their families. Secondly, it plays part in the political function of an economy, as it tends to have a stabilising effect in the form of social justice and more equitability, which becomes a vital factor for building trust and social cohesion hence, contributing to political stability. Thirdly, social policies play part in economic functions as they contribute to the productivity of a nation through the investment in improved health and education inclusion in both demoted areas and social groups in growth process (Noyoo, 2016:7).

2.3.4   Social Transfers

Social transfers, also known as cash transfers of benefits, are predetermined and directly transferred in cash to households in poverty (Samson *et al.,* 2006:2). UNICEF (2015) defines social transfers as "a predictable direct transfers to individuals and households, both in kind[3] and cash to protect and prevent individuals and households from being affected by shocks and to

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[3] An in-kind benefit refers to the benefit received by an individual when formerly employed; however, these are not included in their wages or salaries. In-kind benefits can also be referred to as perks or fringe benefits

support the accumulation of human, productive and financial assistance." The intention of social transfers is the alleviation of poverty and equality that is more diverse, socially and economically.

According to Samson *et al.* (2006:1), the importance of social transfers is becoming more recognised by national governments and the international community in achieving development goals. Samson *et al.* (2006:1), further state that social transfers not only combat poverty, but provide additional support to broader developmental objectives. Households in emerging economies primarily spend social transfers on nutrition. In many economies, social benefits are given to women, promoting empowerment and gender equality.

Social transfer programmes are non-contributory which provides either pure income transfers; CCTs, which are joined with asset accumulation or integrated poverty reduction programmes. A pure income accumulation transfer does not require individuals or households to adhere to any conditions apart from meeting the relevant criteria; examples of such include social pensions, old-age grants and family support schemes (Dodlova *et al.,* 2017:141). CCTs programs normally provide income transfers combined with the compliance to adhere to certain regulations such as the attendance of school, nutrition programmes, such as health checks and other reproductive care programmes (Handayani & Burkley, 2009:4). CCTs are currently amongst the most popular social protection programmes for addressing poverty, vulnerability and risks of poor individuals and households and communities in developing Latin America, African and Asian countries (SASPEN, 2016). According to Dodlova *et al.* (2017:142), CCTs are more costly over the short run but lead to an increased return over the long run if the targeted individuals/ households would invest in their health and education (De Laiglesia, 2011:9). The integrated poverty reduction programmes, such as India's Trickle Up and Bandhan (TUP) pilot scheme, are a combination of a range of interventions than CCT programmes and have the unique feature, as the income transfer is not the main component of this programme.

2.3.4.1 *Examples of Pure Income Transfers*

Cash-based social transfers are defined as regular non-contributory transfers, usually in cash, provided by the national or provincial government to individuals and households with the intention of alleviating poverty and to reduce vulnerability (Grosh, Del Ninno, Tesliuc & Ouerghi, 2008:463). These transfers either are unconditional, conditional to individuals

providing labour in compliance with a work requirement or conditional, actively fulfilling human development responsibilities, for example, school attendance, health care and nutritious meals (Samson *et al.,* 2006:2). An example of such kinds of transfers and countries implementing them are as follows:

- *Social assistance (in the form of transfers to poor households)*

Table 2-1: Emerging economies' implementation of social assistance transfers

Country	Programme	Description
Chile	Subsidio Unitario Familiar	Programme stated in 1981 with the aim at assisting individuals/ households with children in extreme poverty
China	Minimum Living Subsidy Scheme DiBao	Programme started in 1997 with the aim at assisting poor households in urban China, especially in the context of market-based structural reform
India	Indira Gandhi National Widow Pension Scheme (IGNWPS) & Apni Beti Apna Dhan (ABAD)	The IGNWPS programme started in 2007 with the aim of is to give financial assistance to identified pensioners who are widows of the age group of 40 years to 64 years, and from families who fall below the poverty line. The ABAD programme started in 1994 with the aim at improving parent's perceived value of daughters by offering them economic incentives as well as to reduce child mortality amongst girls and the abortion of female feti.
Mexico	Programa de Apoyo Alimentario (PAL)	The PAL programme started in 2009 with the aim at improving the nutritional status of deprived households; therefore to reduce food insecurity in Mexico

Source: Barrientos and Nino-Zarazua (2010:8); Purulia (2018); Hall (2006:691); Grosh *et al.* (2008:496)

- *Child and family grants*

Table 2-2: Emerging economies' implementation of child and household allowance programmes

Country	Programme	Description
Argentina	Universal Family Allowance per Child for Social Protection.	The programme started in 2009 with the aim at ensuring that children between the age of 0-18, undergo regular health tests and comply with the compulsory vaccination schedule (allowance is given to unemployed- or parents who earn less than the minimum wage)
Botswana	Orphan Care Programme	The programme started in 1999 with the aim at relieving individuals from poverty
South Africa	Child Support Grant (CSG) & Care Dependency Grant (CDG)	The CSG programme started in 1998 (replacing the previous State Maintenance Grant) with the aim at reducing poverty and vulnerability among children and to extend social assistance to children The CDG programme was initiated to support households with children with special needs.

Source: Barrientos and Nino-Zarazua (2010:8); Grosh *et al.* (2008:473)

- *Social pensions (including old age and disability pensions)*

Table 2-3: Emerging economies' implementation of social pension programmes

Country	Programme	Description
Argentina	Pensiones Asistenciales	The programme started in the early 1990s and consists of both contributory and non-contributory pension programmes. Non-contributory pensions support vulnerable individuals and individuals who have made a significant contribution to society (e.g., war veterans, etc.)
Brazil	Beneficio de Prestaçao	This programme began implemented in

	Continuada	1996 and aim at reducing poverty and vulnerability among old-aged poor individuals
Mozambique	Programa de Subsidio de Alimentos (PSA)	The programme started in 1997 with the aim at providing a monthly cash transfer to individuals who are identified as being poor and who are incapable to work, including old-aged-, disabled - and chronically ill individuals as well as maternal women.
Kenya	Hunger Safety Net Pilot Programme (HSNP)	The HSNP started in 2009-2012 with the aim at developing a mechanism for regularly transferring cash to the most vulnerable and to assist in the alleviation of extreme hunger and poverty.
South Africa	Old Aged Grant (OAG)	The OAG programme originated in 1928 and by the 1980s and 1990s gradually extended to the black African population. This programme have an objective to prevent old aged individuals to fall into poverty

Source: Barrientos and Nino-Zarazua (2010:8); Grosh *et al.* (2008:467)

2.3.4.2   Examples of Income Transfers and other Benefits

- *Employment guarantee schemes or long-term public works*

Public works, according to Samson *et al.* (2006:12), involves social systems which provide individuals with regular payments by the national government together with non-governmental organisations in exchange for exertion with the intention of diminishing enduring or shock-induced poverty. Examples of such programmes include:

Table 2-4: Emerging economies' implementation of employment guarantee schemes

Country	Programme	Description
Argentina	Plan Jefes de Hogar Desocupados	The programme started in 2001 with the aim at providing assistance in the form of income transfers to unemployed headed households with dependents under the age of 18 or disabled individuals.
India	Maharashtra National Rural Employment Guarantee Scheme	The programme started in 1979 and extended nationally in 2005. The aim of the programme is to offer temporary earning opportunities in periods of low labour demand. To boost the rural economy and enhance the overall growth of the economy.
Malawi	Improving Livelihood Through Public Works Programme	The programme originated in 1995 and offer opportunities to vulnerable individuals to improve their overall conditions of living.
South Africa	Expanded Public Works Programme (EPWP): Phase 2	South Africa started implementing the EPWP programme in 2004 with the aim at broadening the national governments strategy to reduce poverty by alleviating unemployment.

Source: Hall (2006:691); Barrientos and Nino-Zarazua (2010:8); World Bank (2012:3)

- *Human development schemes*

According to Samson *et al.* (2006:10), CCTs provide support directly to households and strive to uplift individuals and to assist individuals in times of need. The conditionalities encourage the accumulation of human capital through education, health and nutrition and aims to break the inter-generational transmission of poverty (Barrientos, 2010:14). These programmes often increase the demand for human capital by providing transfers to poor households, on the condition of compliance with requirements that ensure minors attend school, visits healthcare institutions and follow through with other activities (Fernald, Gertler & Neufeld, 2008). Such programmes include:

Table 2-5: Emerging economies' implementation of human development schemes

Country	Programme	Description
Brazil	Bolsa Família Programme (BFP)	The BFP originated in 2003 and combined 4 federal programmes. The programme has two objectives; first, assist in the reduction in hunger, poverty and inequality through the extension on income transfers linked with educational, health care and nutritional services. Secondly, to reduce social exclusion by facilitating the empowerment of poor and vulnerable households.
India	Dhanlakshmi or the Income Transfer Scheme for Girls with Insurance Cover	The pilot scheme started in 2008 with the aim at providing families with a financial incentive to encourage them to retain the female child and to educate her. Therefore, the system wants to change the mind-set of families towards female family members.
Kenya	Cash Transfer for Orphans and Vulnerable Children (CT-OVC) programme	The CT-OVC programme started in 2004 with the aim at providing social protection in the form of cash to households living with OVC in order to encourage fostering and retention of OVC within their families and communities and to promote their human capital development.

Source: Barrientos and Nino-Zarazua (2010:8); World Bank (2018a)

- *Asset protection and accumulation schemes*

Table 2-6: Emerging economies' implementation of asset production and accumulation programmes

Country	Programme	Description
Ethiopia	Productive Safety Net	The country started implementation the

	Program	programme in 2005 with the aim at providing transfers to the food insecure population. The programme support in the form of cash and in food aid to support individuals directly who are unable to work.
Nigeria	Care of the Poor (COPE)	The programme started in 2008 with the aim at increasing school attendance among children, to antenatal care for maternal women, and to provide health and other services.

Source: Barrientos and Nino-Zarazua (2010:8); World Bank (2012:3)

- *Other in-kind programmes*

Table 2-7: Emerging economies' implementing other in-kind transfers

Country	Programme	Description
India	Annapurna Scheme	The programme started in 2000 with the aim at providing food security for elderly individuals.
Lesotho	Cash and Food Transfers pilot project (CFTPP)	The programme started in 2007 with the objective to increase the agency's capacity for cash transfer programming
Malawi	Food and Cash Transfer project (FACT project)	The programme originated in 2005 with the aim at providing nutritional support to households; to provide temporary Safety nets to minimise the need for destructive coping strategies; and to explore the effectiveness of cash transfers in addressing food insecurity in humanitarian emergencies.
Zambia	Public Welfare Assistance Scheme	The programme assists the most vulnerable in the society to fulfil their basic needs, particularly providing health care, education, food and shelter.

Source: Barrientos and Nino-Zarazua (2010:8); Grosh *et al.* (2008:504)

According to Keshavarz (2012:13), the reason why the national government chooses to implement conditions, is that they can create changes in the behaviour of the recipients; secondly, it can assist in overcoming information loopholes. Therefore, social security recipients may not always be aware of health risks or possible diseases, and when public movements fails to reach out to the poor segments of the population, the conditions might incentivise regular health checks. Lastly, it has political and economic importance as school attendance and health check-ups are constantly evaluated by politicians and policymakers to improve the results of success. This statement is supported by De Laiglesia (2011:11); Soares, Soares, Medeiros & Osório (2006:4) and Skoufias (2005:78).

On the other hand, Handayani and Burkley (2009:18), argue that CCTs are designed to focus primarily on poverty-stricken households with children, with the aim of promoting long-term human capital accumulation, thought social assistance. However, this is not the best tool to protect households against risks, as the risk of being unemployed should be addressed by making temporary provision to support households during this time. They further argue that various risks become a transitory reality for a small portion of the population and it is financially sensible to provide the needed financial support after the fact and only to those who need it, rather than providing it before the fact to everyone that who might need it. Some vulnerability involves social exclusion and discrimination rather than poverty and poor education or health. For such vulnerabilities, the appropriate response might include political and legal reform, as well as mobilisation for changes in social norms and attitudes.

2.3.4.3   Examples of Integrated Poverty Reduction Programmes

Table 2-8: Emerging economies' implementation of integrated poverty reduction programmes

Country	Programme	Description
Argentina	Programa Familias para la Inclusión social (PFIS)	The PFIS programme originated in 2004 with the aim at to empower women; to offer protection for children; to promote social protection and integration of vulnerable households through healthcare, education, etc.

Chile	Solidario programme	The programme started in 2002 and provides transfers, services and psycho-social assistance to vulnerable individuals.
India	Trickle Up and Bandhan (TUP) pilot scheme	The programme was being implemented in 2007 with the aim at assisting in the provision for sustainable livelihoods for extreme poor individuals. To ultimately assist in their credit-worthiness to extent loans and to expand their productive activities.

Source: Barrientos and Nino-Zarazua (2010:8); Interactions (2018)

2.3.5 Importance of Social Security

Social programmes are designed to assist the national government to achieve poverty reduction and risk management goals. Transfers are seen as safety nets, which have an immediate effect on poverty and inequality (Grosh *et al.,* 2008:12). Social transfers enable individuals and/or households to make sound long-term investment decisions (such as education). Transfers also support individuals and/or households to manage risks better (risk of losing one's job or becoming disabled, etc.), finally, social security programmes assists the national government in designing beneficial reforms (World Food Programme (WFP), 2018a; Samson & Taylor, 2015:12).

Evident from Figure 2-3, social security fit into a wider grouping of policies involved in the alleviation of poverty, social risk management and social protection. Social security is part of each strategy. Hence, social security systems are only a contributing factor in the upliftment of individuals/ households' well-being (Grosh *et al.,* 2008:12).

Therefore, to explain the aforementioned importance of social security systems in development policies, it first assists individuals in mitigating risks associated with the loss of income. According to Samson and Taylor (2015:17), poor and vulnerable individuals/households tend to cut back spending on nutritious meals and/or schooling for their children, resulting in malnutrition or other health difficulties. Therefore, when national governments implement safety

nets in the form of a minimum income to the identified poorest and most vulnerable individuals or households within an economy, it can influence investment decisions by changing individuals' incentives to go for regular health check-ups or to go to school as it provides credit to poor households who are unable to obtain credit (Alderman & Yemtsov, 2012:6).

Figure 2-3: Where social security fits into development policy

Equity

Social Protection

Social Security

Social Risk Management

Poverty Alleviation

Such as land redistribution, enforcement of contracts & property rights, universal education, social

Includes labour policy, contributory social security and social care services as well as social transfers

Example: for small farmers, including irrigation, micro-finance, wealth insurance & social security

Encourage pro-poor growth while providing social services that facilitate the poor's participation in growth; social transfers are part of providing

Source: Adapted from Grosh *et al.* (2008:12)

The aforementioned spills over onto individuals' productivity and growth as individuals have the means needed to educate themselves and can now afford nutritious meals, which have an overall positive effect on human development (Samson & Taylor, 2015:16; Grosh *et al.,* 2008:12). These systems should be modified to the evolution of economies, particularly in respect to working and employment practices (Samson & Taylor, 2015:23).

2.3.5.1   Social Security and Human Rights

On a global basis, social security systems have spread far and wide, well beyond the set of industrialised economies. Social security systems are designed as an instrument for meeting human needs and have nearly achieved universal acceptance (Dixon, 1999:1). Social security, alongside social insurance, is a fundamental right which should be enjoyed by every individual residing in an economy, apart from the state/ nature of economy in which they are employed under. The Universal Declaration of Human Rights developed the notion of social security as an essential part of individual rights. This is acknowledged by international organisations such as the Universal Declaration of Human Rights (1966) adopted by United Nations General Assembly in the International Covenant on Economics, Article 9 of the Social and Cultural Rights (Dixon, 1999:1; Smit & Mpedi, 2010:171). Other international organisations include the International Labour Conference, which stressed that social security is the basic human right and the essential means for creating social position, thereby assisting to ensure social peace and social inclusion (ILO, 2011) and in numerous national constitutes such as the Charter of Fundamental Social Rights in the Southern African Development Community (the SADC charter of 2003), as well as in countries such as Australia, China and Japan. However, the right to social security systems varies from economy to economy as it is determined by the country's traditions, historical background, level of socio-economic development and the general political and social ideas, which come together to determine who is eligible to receive assistance (Dixon, 1999:1).

Despite the differences in the application and conditionality's for social security in different constitutions, the universal rights are as follows:

Social security is an indispensable part of government social policy and an important tool to prevent and alleviate poverty. The need for social security as a human right has been specified as follows: Universal Declaration of Human Rights Article 22 (United Nations General Assembly, 1948:46), "everyone, as a member of society, has the right to social security and is entitled to realisation, through national efforts and international cooperation and in accordance with the organisation and resources of each state, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality".

Universal Declaration of Human Rights Article 25 (UN General Assembly, 1948:52),

> "everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to social security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection."

The Social Security (Minimum Standard) Convention, 1952 (No. 102),

> "is a flagship of all ILO social security Conventions, as it is the only international instrument, based on basic social security principles, that establishes world-wide-agreed minimum standards for all nine branches of social security. These branches include, health care, illness-, unemployment-, old-aged-, employment injury-, family-, maternal, disability- and survivor's benefits" (ILO, 2018b).

Article 9 of the International Covenant on Economic, Social and Cultural Rights (ICESCR), establishes a right to social security, identifying both public and private elements of the right and expresses that "state parties should recognise the right of everyone to social security, including social insurance" (UN General Assembly, 1996:3). In Article 11 of the ICESCR 'requires that states guarantee an adequate standard of living to everyone" (UN General Assembly, 1996:4). According to Jansen van Rensburg and Lamarche (1997:156), the right to an acceptable standard of living suggest that a national government should provide minimum social assistance and other forms of social benefits in cash or in kind, to anyone identified as poor or without necessary resources for survival.

More recently, the ILO built on the ICESCR Article 9 and came up with a social protection floor (SPF), which is defined as, "a nationally defined set of basic social security guarantees which secure protection aimed at preventing or alleviating poverty, vulnerability and social exclusion throughout the life cycle" and adopted recommendations in 2012, which is called the R202 (ILO,

2018a). According to Samson and Taylor (2015:18) and the ILO (2018a), the R 202 recommendations include four basic social security guarantees, as follows:

➢ the access to a nationally defined set of goods and services which constitutes essential health care and maternity care, that meets the criteria of availability, accessibility, acceptability and quality;

➢ basic income security for minors, providing access to nutrition, education, care and any other necessary goods and services;

➢ basic income security, for persons that are of working age and are unable to earn sufficient income, in particular in cases of illness, unemployment, maternity or disability; and

➢ basic income security for pensioners.

Figure 2-4 represents a graphical representation of the ILO's social protection floor:

Figure 2-4: Social protection floor and social security staircase
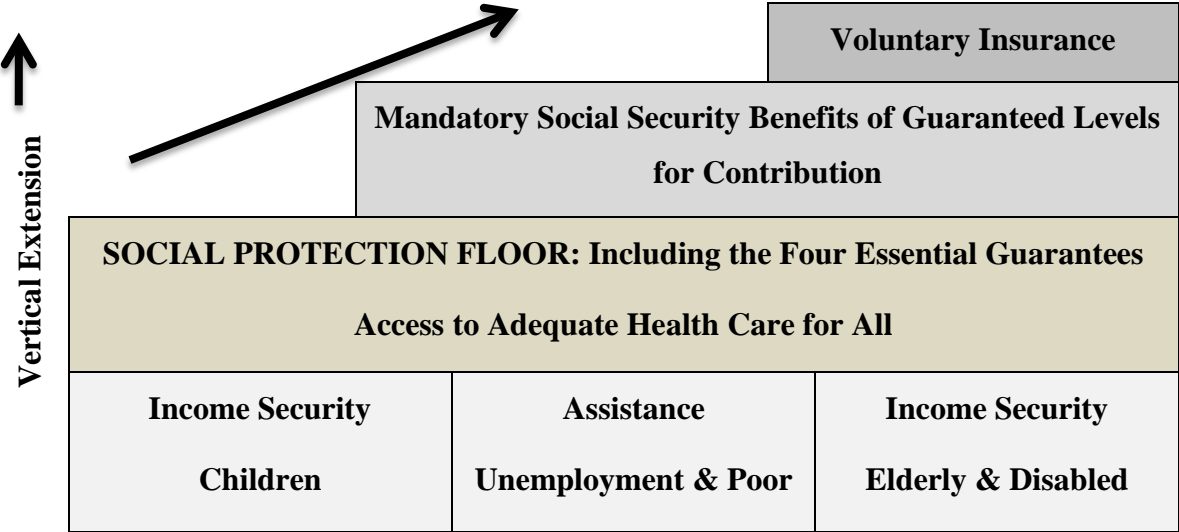
Source: Adapted from Samson and Taylor (2015:18)

The basic floor can be associated with the concept of a social security staircase whereby an economy can over time broaden its national social security systems towards higher levels of provision (Samson & Taylor, 2015:18).

2.3.5.2   Role of the National Government in Social Security

The work of Godamunne (2015:2) provides an understanding between state legitimacy, state build and service delivery. In this, state legitimacy is described as the situation where a national government is regarded by its citizens as the rightful holder of political power. Hence, the national government enjoys power when its citizens, over whom it exercises its authority, accept that the party has the right to rule (Bassett, Giannozzi & Pop, 2012:1). Therefore, legality is seen as an empirical phenomenon dependent on individual perceptions, beliefs and expectations, implying that the national government can be considered legitimate if those subject to its authority still consider it so, even when party falls short of certain standards (Follesdale, 2013). Hence, the concept of legitimacy is closely linked to the society and its citizens. Legitimacy and state-build are also concepts, which are closely linked with one another, as they involve the relationship between the national government and its policy.

Positive state-society relations are negotiated through inclusive political processes, positively linking citizens with a state that delivers basic goods and services to its people (Organisation for Economic Co-operation and Development (OECD), 2008). There is a visible link between what the national government deliver and what the citizens receive in terms of increased well-being. Service delivery, therefore, "turns a political and sociological lens on state-society relations" (Godamunne, 2015:2). Therefore, national institutions have a legal obligation to protect and promote human upliftment rights and including the right to social security systems and to make certain that individuals comprehend their rights deprived of discrimination. Hence, the overall obligation of the national government take account of ensuring the appropriate delivery of social security benefits according to well-defined and translucent entitlement standards and privileges and the proper supervision of the organisations and services (Social Protection and Human Rights, 2015).

2.3.5.3   Financing Social Security

Both the fiscal and political sustainability of social security systems is dependent on finances from the national government (Swan, 1947:345). The design and implementation of a social security system plays an important role in determining the affordability and sustainability of a comprehensive system (Barrientos, 2004). The financing of social security depends largely on the economies fiscal programme, which should take into account the future responsibilities that

have to be paid for through forthcoming taxation. Social security transfers, like old-age pensions, disability benefits and minor benefits, just to name a few, can become 'entitlements,' meaning that once included in law, eligible individuals become entitled to the benefit, which is strongly non-discretionary (Samson *et al.,* 2006:12). A strong tax system is an essential complement to any social security policy (Cichon, Scholz, Van de Meerendonk, Hagemejer, Bertranou, & Plamondon, 2004). Hence, the following figure represents the different components of the way in which a national government raises revenue in order to finance social security systems.

Figure 2-5: Financing social security systems
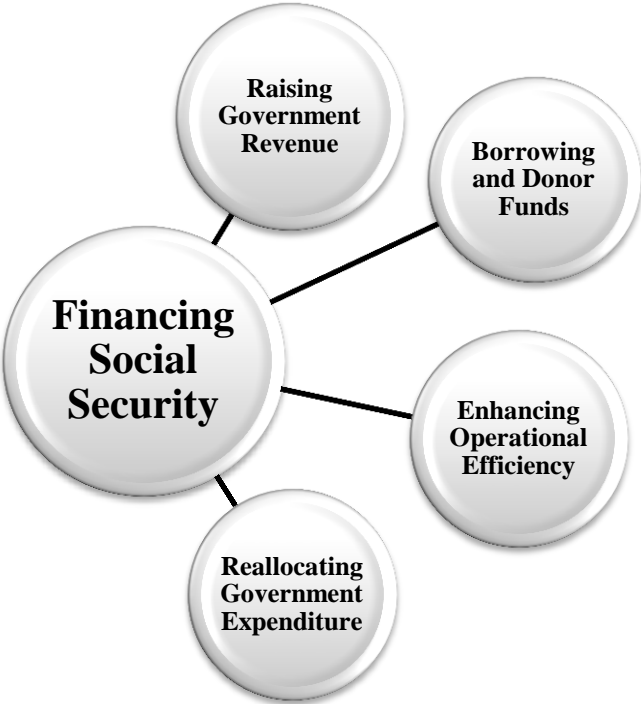
Source: Compiled by Author

First, in order for a national government to implement a comprehensive social security system, the government should generate revenue in order to re-allocate it to vulnerable individuals and households (Gelles, 1945:222). The way in which a national government can raise revenue is through imposing direct taxes. These taxes are usually in the form of corporate or personal income tax. Hence, it is important for a national government to establish a broad-based corporate income tax and extending personal income tax-bases. Ideally, social security systems measures work hand-in-hand with tax reforms that increase the tax revenue of an economy while at the same time decreasing the tax rates facing individuals (Wagner, 2011:4).

Secondly, it is important for a national government to reallocate expenditure from lower to higher priorities and from less productive to more effective and productive programmes. Another potential area for enhancing domestic resource mobilisation is the creation of tax holidays. The revenues foregone are often substantial and can amount to several GDP percentage points (World Bank, 2018g). For many emerging countries, there is a challenge to improve the cost-efficiency of social transfers at the operational efficiency level by reducing the cost-transfer ratio. The development of pilot schemes and limited coverage programmes is largely the result of the disorganised manner of implementation. Hence, social security policies must be seen as a strong complement to economic policies, which cannot substitute for the lack of such programmes (Dethier, 2007:1).

Lastly, in many cases, donor-funded social transfer schemes are temporary social security measures in post-turning point. Often, these have not appeared in any budget or been treated as public funds (Wagner, 2011:5). The categories of the population concerned have been the victims of particular, though often recurring, covariate shocks, such as flooding and famine. To move from this state to one in which social security is funded entirely by national governments implies the need for an agreed approach over a relatively short term to replace benefit sources with tax sources. This would arguably be difficult for economies with relatively weak fiscal management (Ravelo, 2016). Alternatively, it would only be feasible if it amounted to a small part of the national budget. The fact that the benefits in terms of human capital development and contribution to sustainable growth that accrue from social security are long-term makes it particularly difficult for low-income emerging economies to base the extension of social security on borrowing (e.g. from the World Bank) or through grant funding from donors (Dethier, 2007:1).

2.3.5.4 *Factors of a Good Social Security System*

Conceptualising the progress through the structure of a policy cycle can clarify the way in which social security programmes can be implemented and sustained (Samson & Taylor, 2015:30). A policy cycle comprises of six steps, identified in the figure below.

Policy makers should first identify new issues in order for the policy to serve its primary objective of alleviating poverty and inequality, through assisting individuals in times of hardship and in loss of income (Samson & Taylor, 2015:30). The second stage required the government to

focus on relevant matters and understanding social security systems as a potential solution. The next stage involves the design and formulation of social security systems and demands careful analysis of the historical, social, political and economic environment in which it is being implemented (European Geoscience Union, 2018). Investigation and examination contribute the most to ensuring the implemented strategy reaches its set objective, during this stage. During the fourth stage, policy makers should decide on the implementation strategy of the decided social security system. The implementation strategy will require a management information system and a monitoring and assessment mode (Barkenbus, 1998:1). The second last stage examines the effects of the implemented policy on the society and provides evidence to determine whether it successfully reached its set objectives. The last stage entails how the programme might be developed, or provides additional support for its continuance (Samson & Taylor, 2015:30).

Figure 2-6: Graphic illustration of the six stages of a policy cycle
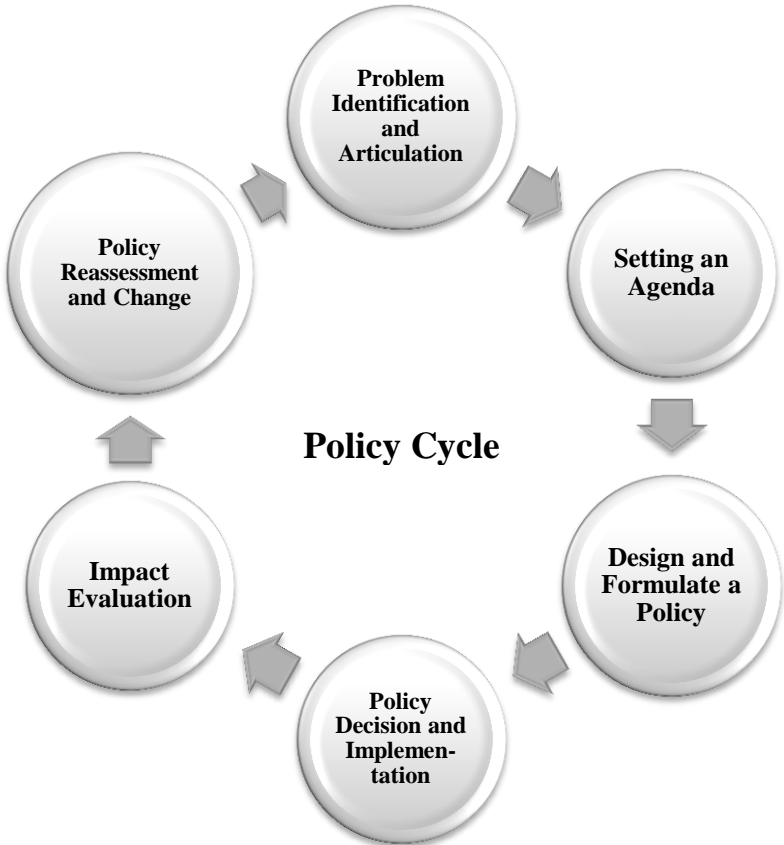
Source: Samson and Taylor (2015:30)

Social security systems are usually a combination of corresponding programmes which complement other public or social policies. A good social security system is not only a collection

of well-designed and well-implemented programmes but also displays the following characteristics:

Table 2-9: Representation of good programme characteristics

Characteristic	Description
Suitable	Policy makers should developed and design a range of programmes and policies to balance other elements of public policies and these policies should counter to certain requirements of the economy. Each system should be tailored to fit in with the economies circumstances.
Sufficient	Social security systems which is designed to cover a wide range of individuals in need, ranging from poor and vulnerable children to old aged and disabled individuals, should be designed in such a manner for it to have a meaningful benefit to the particular group of individuals it is designed to assist. Therefore, recognising the right of individuals to social security and extending systems according to their needs.
Equitable	Policy makers should ensure that the design and implementation of social security systems is equitable to all participants. Therefore, policy makers should aim at providing equal benefits to individuals and households in all aspects (horizontal equity) and may provide more generous benefits to the poorest recipients(vertical equity).
Cost-effective	The economic and administrative resources linked to the delivery of social security systems should be well managed. Hence, administrative resources should be designed to avoid division especially in information. Therefore, the allocation of responsibilities and resources among the segments should be designed in a manner to elude division and repetition.
Incentive compatible	Social security systems can change individual/ households incentives in a positive or negative manner. Hence, to ensure that individuals/ households incentives remain positive, social security systems should be kept to the minimum consistent with its set objectives.
Sustainable	Social security systems should be financially sustainable, as it should be applied in a balanced matter with other parts of government

	expenditure.
Dynamic	A good social security systems take time to evolve, the appropriate balance of systems will change as the economy develops and transform; policies progress and when shocks occur. Hence, it is crucial to manage closely these social systems to adapt to the different phenomena and new standards should be set.

Source: Grosh *et al.* (2008:3); Bonilla Garcia and Gruat, (2003:48)

Much of the quality of a social security system is in the detail of its implementation, which is represented in Figure 2-8. A good social security system involves an administration service to register a client, to make payment to individuals and to uplift individuals eventually (making them less dependent) (Grosh *et al.,* 2008:3). However, it is much more complex than just delivering services and uplifting individuals; it involves the minimal registry of a client is accompanied by strong procedures to ensure that faults of exclusion are low; a strong transmission mechanism to guarantee that unqualified individuals do not register and receive benefits; an instrument to control complaint; and periodic monitoring of targeting outcomes (Grosh *et al.,* 2008:4).

Figure 2-7: Processes and different participants' involvement in social security
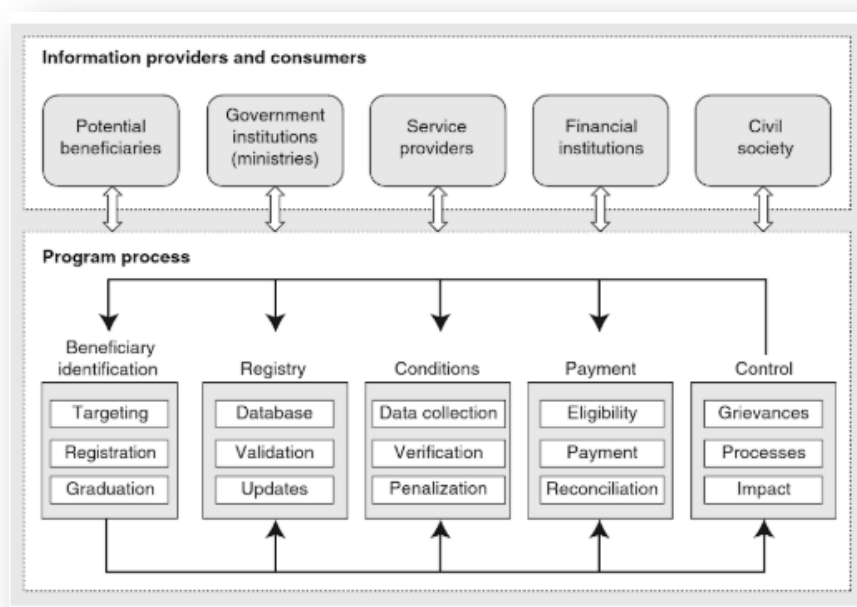
Source: Grosh *et al.* (2008:3)

2.4   THEORETICAL LITERATURE

Atkinsons (2007:1) states, "economics of welfare is at the heart of economics." Welfare economics is a concept concerned with the level of individuals and social security and the welfare impact of economic and social policies (Sandmo, 1995:469). The overall well-being or/ security of an individual can be represented by utility, usually in the form of an individual's desired fulfilment or preferred satisfaction (Atkinsons, 2007:1). Kuklys and Robeyns (2004:4) state that, some debate on the exact features and description of the concept of utility exists, nonetheless, it is universally agreed that utility, as used in economics, is a one-dimensional concept. Most research on welfare economics employs individual utilities as an exclusive basis of welfare judgement; however, recent debates include non-utility information in the evaluation of individual welfare. Therefore, the two major concepts of social welfare economics are known as Amartya Sen's capability approach and John Rawls's theory of justice.

2.4.1   Sen's Capability Approach

The capability approach was first established in the 1980s and the theorist behind this approach was Amartya Sen (Fabre & Miller, 2003:6). Sen's capability approach has been used in many well-known organisations such as the United Nations Development Programme. By 1998, Sen was awarded with a Nobel Prize in Economic for his extraordinary contribution to development economics, social choice theory and capability approach (Powell, 1998). The capability approach is used in a wide range of fields, including welfare economics, social programmes, development of economic and political philosophy. It is used to evaluate a wide range of factors that influence individuals' ability to develop, such as their overall well-being, equity within an economy and vulnerability to factors that can cause poverty (Fabre & Miller, 2003:6).

The approach is also used to analyse social cost benefits by designing developmental policies and social security policies in emerging economies (Fabre & Miller, 2003:6). According to Kuklys and Robeyns (2004:2), Sen's capability approach is a structure for the development of individual well-being and social statuses. The approach provides the theoretical basis for evaluative analyses and policy recommendations. Therefore, the capability approach is seen as a flexible and multipurpose structure, rather than a theory of well-being. The approach designs policy and programme recommendations, by means of the assessment of individuals' well-being and the evaluation of social measures (Robeyns, 2016).

Hence, the approach is concerned with the analyses of an individuals' well-being in terms of the individuals' capability to achieve the standard of living they desire to have (Wells, 2013). An individual's capability to achieve a decent living can be defined in terms of the value of the contributions of beings and doings. Therefore, the capability approach focuses on the evaluation of social well-being (Robeyns, 2016).

The key characteristic of Sen's approach is to focus on what an individual is capable of doing or what an individual is capable of being. These factors concentrate on a philosophical approach that concentrates on the level of satisfaction and success or on a theoretical approach, which focuses on the level of income, consumption, expenditure of basic needs fulfilment (Alkire, 2015:9). The capability approach to well-being and development focuses on evaluating policies according to their significance and impact on individuals' capabilities (Robeyns, 2005:5). When focused on individual capabilities in the choice of development strategies, and a significant difference in theories. According to Alkire (2015:15), designing policies and evaluating societies, emphasis should be placed on individuals' strengths and accomplishments, the quality of their lives and on removing obstacles throughout their life course to give them freedom to live the kind of life they find valuable:

> The capability approach to a person's advantage is concerned with evaluating it in terms of his or her actual ability to achieve various valuable functionings as part of living. The corresponding approach to social advantage for aggregative appraisal as well as for the choice of institutions and policy, takes the set of individuals capabilities as constituting an indispensable and central part of the relevant informational base of such evaluation (Sen, 1993:30).

The capability approach focuses directly on the quality of life that individuals are actually able to achieve (Wells, 2013). Sen argues that the commodities or wealth an individual have or their utility is an inappropriate measure of well-being as it merely provides an image on how well a life is going (Alkire, 2015:10). Hence, he states that income/ wealth fails to take into account the different factors that might have an impact the ability on different groups and individual's ability to convert income into well-being and utility is too dependent on psychological characteristics of individuals, including individuals adaptive preferences (Fabre & Miller, 2003:6). Hence,

different individuals and societies have different capabilities to convert income and commodities into valuable achievements (Powell, 1998). For example, a disabled individual may require additional resources, such as a wheelchair or lifts and ramps, to achieve the same things as abled individual can do. Another example is children, as a minor typically has different nutritional requirements to a working grown-up, a maternal mother or someone with parasitic diseases (Atkinsons, 2007:5). Another example used by Sen includes a bicycle and states that some individuals see a bike not only as an object made from certain materials with a specific shape and colour but as a means of transportation, which will help reach ones destination faster that when walking (Atkinsons, 2007:5). These characteristics of a commodity enable or contribute to a functioning. The relation between a good and the achievement of certain beings and doings is captured with the term "conversion factor": which implies the degree to which an individual can transform resources into a functioning (Wells, 2013). For example, an individual who was taught how to ride a bicycle when he or she was a minor has a high conversion factor which enables him or her to turn the bicycle into the ability to be more efficiently mobile. Conversely, an individual with a physical deficiency or who was never taught to ride a bike has a very low conversion factor. The conversion factors thus represent how much functioning one can get out of a commodity, in other words, the extent of mobility the individual can get out of a bicycle (Atkinsons, 2007:6).

According to Crocker (2008:171), one can distinguish between three different types of conversion factors, namely personal conversion factors, which are internal to an individual, such as metabolism, gender, reading skills or intelligence, social conversion factors, which include factors such as the society an individual finds residency, public policies, social norms, social discrimination in race, gender or social class and environmental conversion factors, which include geographic location, climate, pollution, natural disasters, infrastructure. Sen's capability approach maintains that an individual's resources are an inefficient measure of their personal well-being. Rather, one should have a more comprehensive understanding of an individual's socio-economic circumstances (Wells, 2013). Sen uses "capability" not to refer exclusively to a person's abilities or other internal powers but to refer to an opportunity made feasible, and constructed by, both personal and environmental conversion factors (Robeyns, 2005:99).

For this reason, Sen argue that the quality of life is analysed in terms of the main concepts of "functioning's and capability" Where functionings can be describe as the station "being and

doing" for instance, having a roof over once head, having a decent work or being well fed (Crocker, 2008:171). Therefore, a functioning individual utilise their resources to achieve the certain outcomes. An individual who is able to achieve a functioning is said to have the equivalent capability, whether or not the person actually chooses to realise that functioning (Salais, 2003:7). Therefore, capability refers to the "set of functionings that an individual has effective access to", therefore, it refers to an individual's freedom to choose between different combinations of functionings (Wells, 2013). Figure 2-8 graphically illustrates this.

Figure 2-8: Outline of the core relationships in Sen's capability approach
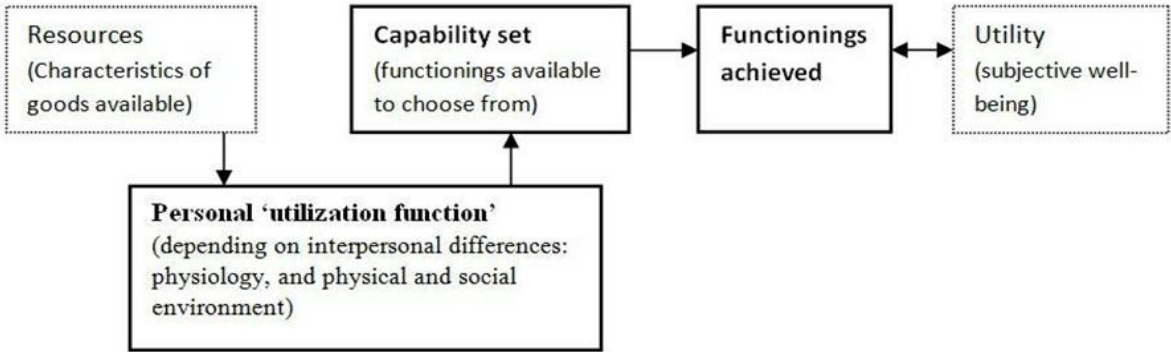
Source: Wells (2013)

The core concepts within his theory are functionings and capabilities, which Sen (2003:5) defines as follows:

> The primitive notion in the approach is that functioning can be seen as constitutive elements of living. A functioning is an achievement of an individual, therefore, what individuals manage to do or to be, and any such functioning reflects, as it were, a part of the status of an individual. The capability of an individual is a derived notion. It reflects the various combinations of functioning are achievable by individuals. While capabilities reflect an individuals' freedom to choose between different ways of living (Sen, 2003:5).

In traditional economic welfare evaluation, particularly in the context of poverty and inequality, income or expenditure is analysed. In the capability approach, an evaluation involves the

analyses of a capability set, X_i, which is defined over the different potential activities or states of being b of an individual i where q_i is a vector of commodities chosen by an individual,

$$X_i(Q_i) = \{b_i | b_i = f_i(c(q_i), z_i) \ \forall \ f_i \in F_i \text{ and } \forall \ q_i \in Q_i\}$$

(c) is a function that maps goods into the space of characteristics, z_i is a vector of individual characteristics and environmental conditions, f_i is a function that illustrates characteristics of goods into activities b_i, conditional on z_i. X_i is the set of all possible b_i, given the right constraints Q_i (Sen, 1985:7).

Robeyns (2016) explains that according to the capability approach, the ends of well-being freedom, justice and development should be conceptualised in terms of individuals' capabilities. The importance of this approach is not only the individual opportunities open to individuals, but the combination or sets of potential functioning as well. Robeyns (2016) explains the capability approach as a person who is unskilled, poor and a single parent who lives in a society without adequate social provision with functionings as follow: i) to hold a job, which will require an individual to spend many hours working and commuting; ii) to care for the children at home and spending quality time with the family, care and cater to their needs. In the analysis, both (i) and (ii) are opportunities available to an individual, however, they are not simultaneously available (Sen, 2003:5). The aim of the capability approach is that an individual must comprehend a holistic approach, and identify which sets of capabilities are obtainable to them, that is: "can I simultaneously provide for my family and properly care for and supervise my children?" or "am I rather forced to make some hard, perhaps even tragic choices between two functioning's which both reflect basic needs and basic moral duties?"(Wells, 2013).

Robeyns (2016) states that, while most types of capability analysis require interpersonal comparisons, one could also use the capability approach to evaluate the well-being of an individual at a certain point in time, or to evaluate the changes in their well-being over time. The capability approach could thus also be used by an individual in their decision-making or evaluation processes; however these uses of the capability approach are much less prevalent in social sciences (Wells, 2013).

2.4.2 Rawls' Theory of Justice

The evolution of social security has transformed into a social right, therefore, the relevancy of Rawls' theory of justice, developed in 1971 (Rawls, 1974:2). John Rawls (1921 – 2002), was an American philosopher, mentor and primarily a modern social and political thinker (Elijah, 2014:12). Rawls argues that the first virtue of social institutions (i.e., the most important moral responsibility they have to satisfy) is justice or fairness (Harsanyi, 1975:594). Rawls states that his aim of the concept of justice is to take a broad view and carries to a higher level of thought the established theory of the social agreement as found, for instance that of Locke, Rousseau and Kant (Rawls, 1971:207).

Whilst the universal view of justice is a broad concept and includes factors such as equality, fairness and human rights (Dinbabo, 2011:26). The theory of justice by Rawls can be seen as one of the most significant contributions in moral and political behaviour developed in the 20th century. This theory was the first to sufficiently argue for the right to social assistance and the role of national government to redistribute resources in order to assist the poor and vulnerable citizens of an economy. Rawls' theory of justice provides a logical basis for the applied welfare state (Meadowcroft, 2011:195; Gorovitz, 2001; Elijah, 2014:14).

Rawls was dissatisfied with the view of traditional philosophical regarding the factors, which make a social institution fair and about what justify political or social actions and policies. For this reason, Rawls' work attempts to convey a viewpoint of justice and a theoretical agenda for developing political structures projected to safeguard individual social justice and social liberty (Elijah, 2014:14). Rawls theory response to the utilitarianism viewpoint, which is presented by well-known theorists such as John Stuart Mills, Jeremy Bentham, Miles Edgeworth and many others (Harsanyi, 1975:594; Meadowcroft, 2011:170). Utilitarianism suggests that justice is defined by "*that which provides the greatest good for the greatest number of individuals*." Therefore, utilitarian's claim that individuals prefer to choose the act or policy measure that maximises their individual utility, in which case, utility is the measure for individual resources (Hooker, 2011:17). Utilitarianism further suggests a trade-off between the utility of different individuals, allowing some individuals to suffer a loss of welfare, in the name of the greater good (Meadowcroft, 2011:170).

This utilitarian point of view raises some concern especially as it seems to be consistent with the idea of the dictatorship of majorities over minorities. Rawls argues that this measure is informed by a person's desired satisfaction. Hence, when an individual is faced with the choice between actions, individuals will always choose the actions witch yields the highest level of personal utility (Rawls, 1971:208). Therefore, when the actions of one individual affect all other individuals, average utilitarian states the action that maximises utility per individual, whereas, aggregate utilitarianism expresses the choice of the action that maximises the sum of utility across individuals (Hooker, 2011:6).

The intuitionist argument holds that human beings can differentiate between what is right and what is wrong by some innate moral sense (Hooker, 2011:17). Rawls (1971:2) suggests a hypothetical situation where a person who is shrouded in a 'veil of ignorance', must design a fair society without anticipating his or her own status in that society. To say a person is behind a 'veil of ignorance' is to say that the person at hand do not know the following things; the persons gender, ethnic group, physical handicaps and social class of our parents (Rawls, 1971:2). But self-interested rational individuals are aware of the general types of potential circumstances in which individuals can find themselves and/or general facts about human psychology and human nature (Angner, 2002:3).

A self-interested rational individual 'behind the veil of ignorance' would not want to belong to any minority group that could fall victim to discrimination. Therefore, individuals would adopt principles which disagree with unequal and unfair behaviour (Meadowcroft, 2011:171). Likewise, a self-interested rational individual would not want to belong to a generation, which has been directed to a lower than average quantity of resources. Therefore, the individual would endorse the principle: "each generation should leave to the next at least as many resources as they possessed at the start" or each generation should have roughly equal resources" (Elijah, 2014:15). The result of this, is that all generations have the same right to resources, future as well as present (Meadowcroft, 2011:171).

Rawls further suggests that from this objective prospective, which he calls the "original position", an individual will choose a system of justice, which is satisfactory to them and will assist in providing for those positioned at the lowest rung of the society (Angner, 2002:3). Rawls attempts to establish account of social justice through the social contract approach. This method

proposes that the individuals within a society live under a form of hypothetical agreement with one another. Such an agreement should make provision for individuals that may end up in such a disadvantaged and vulnerable position and that they should be provided for in a sufficient manner (Rawls, 1971:2; Habermas, 1995:111).

2.4.3 Rawls Principles of Justice as Fairness

The utilitarianism principles provide the greatest happiness to the greatest number of individuals. Therefore, utilitarianism is applicable to the theory of justice, as the theory of justice transfers equal rights to all individuals within society and prohibits discrimination in any form towards any particular group of individuals (Doody, 2015:1). The primary objective of Rawls theory of justice is to provide a design for political responsibility and to explain under what conditions individuals are obligated to comply with the laws that the national government develops. Rawls thus formulated an agreement under hypothetical circumstance of equality and freedom, called "*Justice as Fairness*" (Rawls, 1971:11).

Rawls argues that the term justice as fairness does not imply that justice and fairness is not interchangeable. Conversely, the principles of justice are agreed to under fair conditions by individuals who are in a situation of equality (Hooker, 2011:5). "Justice as fairness" also articulates the idea that the principles of justice are agreed to in an initial situation that is fair. Rawls further analysed the societal function of creating a community within which everyone lives in peace, with equal resource distribution, in order to maintain an acceptable standard of living within the given society. The Same distribution of basic resources is what authorise an individual to pursue his or her own aspiring goals (Dinbabo, 2011:28).

Rawls' theory of justice explains two fundamental principles which would, in turn, guarantee a morally acceptable society (Dinbabo, 2011:27). Rawls states that the terminology conveys the idea that 'principles of justice' may be regarded as principles that would be chosen by a rational individual. Rawls further states that the 'principle of justice' deals with conflicting claims upon the advantages won by social cooperation and apply to the relations amongst individuals or organisations within an economy (Hooker, 2011:5).

Therefore, to structure a society, an individual behind a 'veil of ignorance' are likely to choose two general principles (Meadowcroft, 2011:171). The first principle guarantees equal rights to all

individuals within a society (Kanatli, 2015:307). Whereas the second principle states that social benefits should be designed equal to their contribution towards benefiting the least advantaged individuals within the society (Angner, 2002:8). Therefore, the 'theory of justice' formulates programmes for a well-structured society and how basic rights and duties should be assigned to individuals, in order to benefit the entire society (Angner, 2002:8; Kanatli, 2015:307).

The meaning of Rawls' principles is that society may undertake projects that require giving some individuals, *inter alia* more power, income or status than others, for example, paying accountants and upper-level managers more than assembly-line operators, provided that the following conditions are met (Kanatli, 2015:307). First, social systems are said to make life better off for the individuals who are now worst off, for example, by raising the living standards of everyone in the community and empowering the least advantaged individuals to the extent consistent with their well-being (Angner, 2002:8). Therefore, indicating that every individual within a society has the right to a general basic right consistent with a similar right for everyone else (equal rights). Secondly, to gain access to privileged positions is not prevented by discrimination according to inappropriate measures (Doody, 2015:1).

The different principles have elements of other familiar ethical theories. The socialist idea that responsibilities or burdens should be distributed according to ability and benefits according to need is partly contained within the difference principle (Doody, 2015:1). Therefore, it can be assumed that the least advantaged have the greatest needs and those who receive social power (implied at social inequalities) also have distinct responsibilities or burdens (Meadowcroft, 2011:171). However, the merit principle that the use of special skills should be rewarded is also included in the difference principle, which does not authorise a change in social and an economic institution that causes life to be better off for those who are already well off, but does nothing for those who are already disadvantaged, or makes their life worse (Kanatli, 2015:307).

2.4.3.1   *Criticisms of Rawls Theory*

According to Harsanyi (1975:605), in developing times, moral attitudes and social institutes are rapidly changing with results hard to predict; where traditional worldviews are gradually replaced by a worldview based on science and depriving man of his privileged position in nature; where the fast progress of technology poses very difficult moral dilemmas and is likely to pose incomparably more difficult ones in the not-too-distant future. In an age like this, any

investigation into the criteria of radical choice between alternative moral codes is of much more than merely theoretical significance. Although Rawls managed to identify significant social problems, Harsanyi (1975:605), still resists the solutions Rawls proposes for these set out problems and states that moral codes should be resisted as discrimination might arise against valid needs and interests of individuals purely because they happen to be rich, or at least not as desperately poor; or because they are exceptionally gifted, or at least are not mentally withdrawn; or because they are healthy, or at least are not terminally ill, etcetera. He states that we should resist such moral code, because an alternative moral code, the utilitarian one, is readily available to us and the latter permits us to give equal priority weight to every person's legitimate interest and to judge the relative importance of any given need of a particular person in each case by its merits, as assessed by common sense criteria – rather than forcing us to judge them according to rigid, artificial and often highly discriminatory rules of priority.

The work of Kanatli (2015:308) includes the Marxist critique for Rawls theory of justice. In his work he concluded by stating that the flaws in Rawls theory give rise to an injustice society. Since a society is not based on a contract, a social constructivist method to justice is nothing but an economic structure and power medium. The original position, stated by Rawls, is a hypothetical argument and reflects the idea of freedom from interference, which prevent participants from freely and rationally selecting principles of justice. What Rawls, in his statement of an original position oversees, according to Kanatli (2015:308), is that real freedom is to be found positively in our relations with other people; it is to be found in human community, not isolation. He further argues that the theory of justice cannot be derived without dealing with method of production in a given society. Aiming rather at distribution than production, Rawls' theory of justice can purely work for the benefits of advantaged groups, also known as the dominant class. Rawls' theory argues the fair distribution of economic income; hence, the Rawls theory accepts the basic system and the rules of capitalism. According to Kanatli (2015:308), a fundamental change of a basic structure of a society in terms of structuring a fair society can only be achieved through change of authority in terms of the means of production, which only enables anyone concerned with a fair society not to regard justice as something except thought of a dominant class (Kanali, 2015:317).

2.5   SYNOPSIS

CHAPTER 2 OBJECTIVES

➢ To provide a historical overview of social security systems and policies;

➢ To provide definitions and concepts relating to social protection, social security, social policy and social transfers;

➢ To review the relationship between poverty, inequality and standard of living through the analysis of various social security policies;

➢ To review individual, societal and macro-economic effects of social security systems;

➢ To discuss theories relating to social security.

The aim of chapter two was to provide a brief overview of social security systems, different social economic concepts, various social security policies and their effects as well as a discussion of theories relating to social security policies. This chapter commenced by providing a brief overview of the origin of social security systems, which date back to the 6th century where Umar ibn al-Khattāb was the man behind the well-known "welfare system" or "social justice system for humanity". By the late 1800s, government intervention in human welfare had resurfaced in Germany where the German Chancellor, Otto von Bismarck, saw the need for old-age social insurance programme and was soon adopted. The 1990s saw the emergence and extension of social protection programmes to emerging countries. Before the 1930s, support to old-aged individuals was merely a matter of local, public and family concern rather than a federal concern. However, the widespread suffering caused by the Great Depression, reaching from 1929 to 1939, brought. In 2012, only 27 percent of the global population had access to an inclusive social security programme, whereas the other 73 percent (around 5.2 billion) were partially covered or not covered at all. By 2016, only 22 percent of the global unemployed individuals received benefits, 28 percent of disabled individuals collected disability grants and 35 percent of minors were covered by social security. Hence, the need for more inclusive and comprehensive social security system has become a priority for national governments and international organisations. However, various economies and different organisations have a different view on what social security is and should be; hence, discussion was given of the different definitions and key terms. These included social protection, social security, social transfers, social policy, social insurance

and social assistance. This was followed by different types of social security policies and the economies in which they are implemented as well as their objectives.

The study concluded by reviewing different theories relating to this study. These include Sen's capability approach and Rawls' theory of justice. Sen defines that capability is the choice of focus upon the moral significance of individuals' capability of achieving the kind of lives they have reason to value. This distinguishes it from more recognised approaches to ethical evaluation, such as utilitarianism, which focuses solely on subjective well-being or the availability of a means to the good life. An individual's capability to live a good life is defined in terms of the set of cherished 'beings and doings' like being healthy or having loving relationships with others to which they have real access.

Rawls' theory of justice is concerned with the complications that arise with distributive justice, in a system in which goods are allocated fairly in a society. Hence, Rawls discusses how equality and freedom are not mutually exclusive and that all natives must have the same rights in order for justice to work. In doing so, he establishes the core principles of justice. He states the individuals should have equal basic freedoms when compared to others and that social positions (i.e. economic positions) should be available to everyone for a society to flourish equally.

These principles support this study in its main objective to contribute in knowledge on the implementation of comprehensive social security systems around the globe and in the context of South Africa. Hence, the next chapter focuses on social security systems and the economies implementation and conditionality's thereof.

CHAPTER 3

SOCIAL SECURITY DEVELOPMENT: LESSONS FROM THE UNITED STATES, BRAZIL AND SUB-SAHARAN AFRICAN ECONOMIES

"Social security systems are powerful tools in the fight against poverty and social insecurity and achieve increased income inequality. People need and want social security. Social security systems promote long-term economic development, social stability and international security"

(Cichon & Hagemejer, 2006)

3.1 INTRODUCTION

Economic security is a universal human drawback (Dixon, 1999:1), including the way in which an individual or household provides for some guarantee of income when they are either disabled, too old, when a households breadwinner dies, or when they fall into unintended unemployment. Throughout history, all societies have had to come to terms, in some way, with problems of this nature (DeWitt, 2010:1). In recent years, social security systems have attracted much attention, especially in low- and middle-income economies (ILO, 2011). As before, in the 1990s, social security in many emerging economies was perceived as a luxury that only rich economies could afford. Today, social security systems have become increasingly popular as tools designed to assist in the alleviation of poverty and inequality, especially in emerging economies, in the form of conditional cash transfers granted to households and individuals who fulfil certain criteria or conditions (Samson *et al.,* 2006:2; Triegaard, 2006:2).

In the United States, 13 government programmes have been designed to provide a safety net for individuals and households facing food and household necessities. One of these is the Supplemental Nutritional Assistance Program (SNAP) (formerly known as Food Stamp Program), one of the largest safety net programmes in the United States (Tiehen, Jolliffe & Gundersen, 2012:1). SNAP is an example of a welfare programme as it distributes vouchers to needy recipients to assist in nutritional food consumption. Brazil has developed one of the most progressive and comprehensive social security systems in Latin America in recent years. While sustaining its position as one of the fastest growing economies, Brazil continues to address some of its greatest challenges of high inequality, hunger, poverty and social exclusion through a range

of social and economic transformations. The combination of economic growth, job creation programmes, labour market regulation, adjusted minimum wages and the expansion of contributory and non-contributory social systems have together lead to significant drops in poverty and increased the number of natives able to access these grants. From these developments, the focus will be on the conditional cash transfer, *Bolsa Família*.

The reason behind the analysis of the SNAP, *Bolsa Família* and various other social security schemes in sub-Saharan Africa is merely based on their conditionalities and the implementation thereof. The SNAP grant is designed to support household nutritional food consumption whereas *Bolsa Família* programme is designed to alleviate poverty over the long run by providing eligible natives with the means needed to assist in times of need. However, these transfers obligate households to undertake health check-ups and children to attend school on a regular basis. For this reason, the study at hand will focus more on Brazil's *Bolsa Família* programme, as Brazil and South Africa (examined in Chapter 4) form part of the BRICS[4] acronym, both being emerging market economies with similar socio-economic concerns such as high levels of inequality, security dependency and poverty (Mohr & Odendaal, 2016).

Many studies have been conducted to demonstrate the effectiveness of these social security systems (Duncan *et al.,* 2007:7; Lee & Mackey-Bilaver, 2007:515; Zepeda, 2006:1; Shei *et al.,* 2014:6; Campello *et al.,* 2015:2; Chakraborty, 2007:3; Langinger, 2011:36; Bhorat & Cassim, 2014, Dinbabo, 2011; Haile & Niño-Zarazúa, 2018:392; Fording & Berry, 2007:56; Borjas, 2016:156; Murray, 2013; Leubolt, 2014:13; Mattison, 1985:91; Alderman, 1998; Rosenburg, 2003; Mothiane, 2014:46; Sinyolo *et al.,* 2017:8). Therefore, this chapter will analyse how the various theories regarding social security, the role of the national government, social transfers and conditionality, learned from the previous chapter, have played out in practice. Hence, the following chapter will provide an in-depth analysis of both an industrialised economy, being the United States, emerging market economy, such as Brazil and various sub-Saharan economies'

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[4] BRICS is an acronym associated with five economies, namely Brazil, Russia, India, China and South Africa. The objective of the association involves human security, human development, social security, technological innovation, alleviation of social and economic hurdles etc.

*Please refer to http://www.brics2018.org.za/ for further information.

operation and the different elements of preconditions of their implemented social security systems.

3.2 SOCIAL SECURITY DEVELOPMENT: A GLOBAL PERSPECTIVE

3.2.1 Brief Global Economic Overview

Throughout human history, it has taken until the 1800s to reach a population size of one billion, around 130 years later, to reach two billion; 30 year later to reach three billion; fifteen years later to reach four billion and 13 years later to reach five billion. It was not until the 20th century when the global population skyrocketed from 1.65 billion to 6 billion (Worldometers, 2018). By 2015, the total world population stood at 7.35 billion individuals (World Bank, 2017b:8). Currently, the top three largest economies include China, India and the United States and the rate at which the world's population is currently growing amounts to just over 1.09 percent per annum, down from 1.14 percent in 2016. Currently, the average population size growth is estimated at just over 80 million individuals per annum (Worldometers, 2018). Globally, African and Middle Eastern economies are growing fastest in terms of population size, as the World Economic Forum (WEF, 2018) projects that by 2050, more than three and a half billion individuals will reside in these economies − when compared to the population growth of Europe, China and America, these economies have shown a slowdown.

The global economy is expected to grow by just over 3 percent this year, higher than the expected performance in 2017 (World Bank, 2017:5b). The World Bank (2017:5b) explains that for the first time since the 2007/08 financial crisis[5], leading economies across the globe are experiencing an increase in economic growth due to an increase in per capita spending, increased external demand and increased productivity. More recently, emerging markets and developing economies have become progressively more important in the global economy as they account for more than 75 percent of global output growth and consumption (World Bank, 2017:5b).

Since the unemployment rates are stabilising across the globe, in 2017 just over 190 million individuals were unemployed and recent ILO (2018d) projections state that unemployment will

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[5] Please refer to https://www.thebalance.com/2008-financial-crisis-3305679 for more information regarding the 2007/08 financial crisis.

fall by 0.2 percent, mainly due to strong performance in labour markets. However, employment creation falls short of labour force growth, especially in emerging economies. With regards to poverty, the World Bank (2017:2b) found that the number of individuals living in extreme poverty since the 1990s was roughly 1.8 billion, of which East Asia and the Pacific accounted for half of these individuals. By 2013, the share of individuals living in extreme poverty fell to just 10 percent, placing the extreme poverty rate at 3.5 percent. This drop was largely driven by China as well as south Asia, as south Asia's poverty rate fell by almost 30 percent. Despite the progress, recent figures indicate that natives in sub-Saharan Africa still face very high levels of poverty as around half of the continents' natives live under the breadline, unfortunately affecting minors the most (Hodal, 2016).

According to the UNICEF (2018) estimates, 45 percent of deaths of minors can be linked to malnutrition and emphasise that malnutrition is caused not just by the lack of nutritious meals, but can be linked to poverty, diseases, poor sanitation, political instability, climate changes and so much more. May (2016), states that malnutrition should be prevented in early stages of a minors lifecycle, as the first 1 000 days of a minors life, is crucial for human development. Globally, the amount of malnourished minors has dropped by nearly 11 percent during the 1990s until 2015, equating at 160 million minors to 93 million minors. Despite the progress, south Asia and sub-Saharan African economies still struggle to overcome this obstacle, compared to European and Central Asian economies (World Bank, 2017:3b).

Concerning inequality, since the 1980s income inequality has risen in nearly all economies across the globe, more so in Northern America, China, India and Russia and moderately in Europe (Savoia, 2016); whereas, in sub-Saharan Africa, Brazil and the Middle East, inequality has remained relatively stable, however, at very high levels. The most drastic division of income inequality can be found between the United States and western Europe, which once had similar inequality levels in the 1980s but today is completely different. The reason for the increase in U.S. inequality levels is mainly due to massive educational inequality, together with a less progressive tax system (Alvaredo, Chancel, Piketty, Saez, & Zucman 2018:6; Mather & Jarosz, 2016). Due to these economic hurdles, nearly all economies across the globe have implemented some sort of social security policy in order to promote human upliftment (Schmitt, 2015).

3.2.1.1   Social Security Programmes across the Globe

One of the key objectives of a national government is to protect the vulnerable and share the risks that could arise in communities from insufficient healthcare, loss of jobs and ageing. This is reflected in government spending on social security (i.e. pensions, unemployment insurance) and health care (UNICEF, 2015:8). The supply and demand of social security and other social services are subject to demographic dynamics, economic fluctuations as well as technical changes and the complexity arising from their interaction and the impact it have on the long-run sustainability of national finances (World Bank, 2018e). Therefore, many international organisations recognise social security as a human right. Examples of these include the 1948 Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights of 1966 and ILO Recommendations 202. [6]

Despite the substantial development in the extension of social security across the globe, the human right to social security is not yet a reality for a majority of the world's population (ILO, 2017:xxix; Samson & Taylor, 2015:14; Dethier, 2007:1). According to Dethier (2007:1), to extent social security coverage would require the creation of new organisations to deal with individuals who are currently; these new programmes would require an expansion in the generation of tax collection, which in return would require the improvement tax collection methods.

According to the findings of the ILO (2017:1), roughly 45 percent of the world's population enjoy effective coverage by at least one social security system, while the outstanding 55 percent are left unprotected; this amounts to roughly 4 billion individuals. Of these, only 29 percent of the world's population are covered by wide-ranging social security systems, which include benefits ranging from child and family benefits to old-age pensions. However, a significantly large portion, estimated at 71 percent or just over five billion individuals, are either partially covered or not covered at all (WFP, 2018a). The coverage gaps are mainly connected to an underinvestment in social security, essentially in countries such as Africa, Asia and the Arab

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[6] Please refer to Chapter 2 Section 2.3.5.1 Social Security and Human Rights for more examples and a full description of each.

States (ILO, 2017:xxix). Figure 3-1 shows the different types of cash benefit schemes across the globe.

Figure 3-1: Graphic illustration of global social security programmes

Non-contributory non-means-tested scheme (32 countries)
Employment-related and non-contributory means-tested scheme (14 countries)
Non-contributory means-tested scheme only (37 countries)
Employment-related scheme only (34 countries)
No programme anchored in legislation (69 countries)
No data
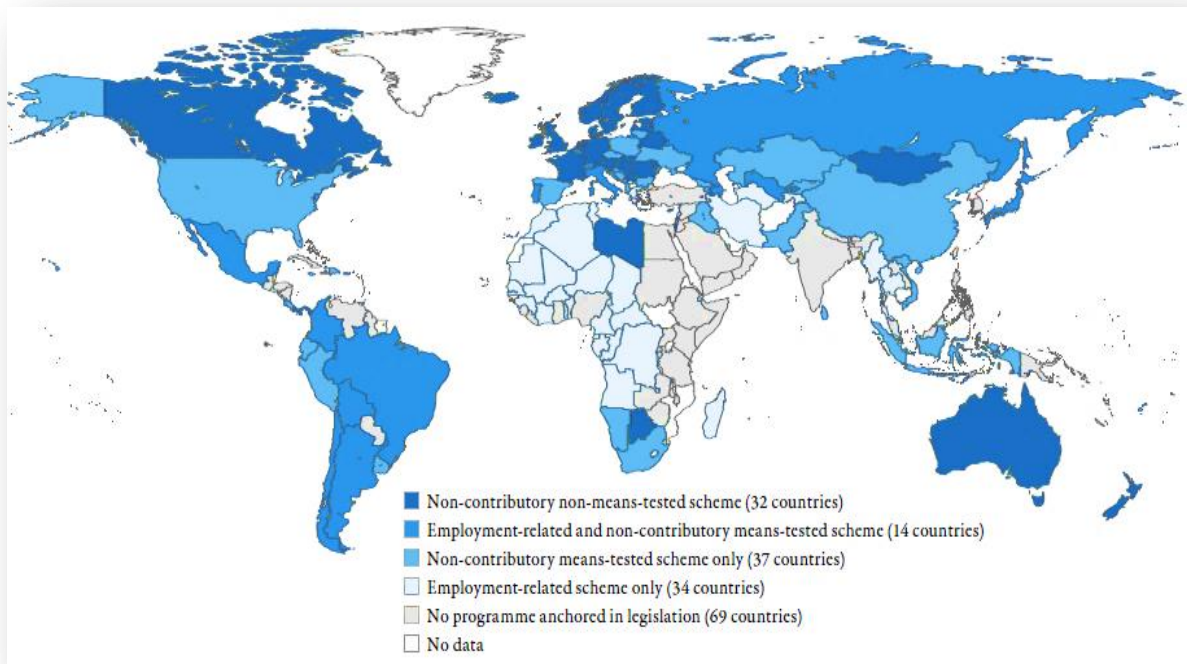
Source: ILO (2017:28)

The ILO (2017:28) attempted to analyse social security programmes in the global perspective and summarised the main findings. The ILO (2017:28) revealed that out of 186 economies, more than 69 economies (i.e. one third or 37 percent) do not have any child or family benefit. Out of the 117 economies with some sort of child/family benefit scheme, 34 economies award statutory provisions only for those in formal employment, of which the majority are African economies. However, many economies that implement social security systems limit the coverage to workers in formal sectors and do not necessarily reach vulnerable individuals, such as minors (Lekezwa, 2011:37). In fact, Kidd, Gelders and Bailey-Athias (2017:18), found that only 37 economies provide non-contributory schemes, which only protect a small part of the national population; consequently, these economies fail to cover the most vulnerable households within the economy, due to exclusion. According to Grosh *et al.* (2008:14), countless minors in emerging economies are affected by malnutrition and in low-income economies, 43 percent of minors between birth

and five years of age are underweight compared to minors in middle-income economies. The WFP (2018a) found that the deaths of minors that occur every day can be prevented through social security and social transfers as it could assist in minor's health care, education, nutrition and care services.

Maternal social security benefits to working age individuals are limited, as only 41 percent of mothers with new-borns receive grants and roughly, 83 million new mothers remain uncovered. The Ukraine and Uruguay are examples of some economies who have achieved effective maternal coverage to new mothers. Other economies that have also made significant progress towards maternal coverage include that of Argentina, Colombia, Mongolia and South Africa (ILO, 2017:20).

The ILO (2017:21) further analysed unemployment insurance, and found that unemployment benefits only accounts for a fifth of the global transfers, where an estimate of 152 million unemployed individuals are uncovered. Disability benefits across the globe, only account for 28 percent of the world's transfers. Countries such as Brazil, Chile and Mongolia have universal disability schemes in place. However, effective coverage continues to be a major hurdle in many economies (ILO, 2017:30).

In terms of old-aged benefits, in 2007 nearly 90 percent of industrialised countries retired citizens received social pension (Dethier, 2007:1), whereas today only 70 percent of individuals above the retirement age receive pensions, which is associated with the expansion of both non-contributory and contributory pensions in many middle- and low-income economies. Countries such as Argentina, Belarus, Botswana, China, Georgia, Lesotho, Mauritius, Mongolia, Namibia, South Africa, Swaziland, Ukraine, Uzbekistan and Zanzibar (United Republic of Tanzania), just to name a few, have achieved universal pension coverage. Other emerging economies such as Brazil, Chile, Kazakhstan, Thailand and Uruguay are close to universal coverage (ILO, 2017:xxxi). However, benefit levels are often low and not sufficient to push older persons out of poverty. Hence, effective coverage of pension benefits remains a challenge in many economies (ILO, 2017:xxxi). According to the WFP (2018a), social pensions provide an additional income

to a household and most likely contribute to the overall improved food security[7] and nutrition. The WFP further found that in a household with a minor who receives at least one pension can grow up to 5 centimetres taller than those minors without pensions can.

According to the ILO (2017:28), across the globe various economies have already progressed towards the objective of extending health care coverage through the development of health protection policies and programmes. These include low-income economies such as Chad and Togo which have shown a significant investment in extending health coverage to its citizens. Other economies, which include China, Colombia, Rwanda and Thailand, are also making significant contributions to achieving universal healthcare coverage. Despite the successful contributions to health coverage, the ILO (2017:29) reports that, the right to health care services is not yet a reality in many economies of the world, especially in rural economies where 56 percent of the population lack health coverage as compared to just over 20 percent in urban economies. The largest exclusion was found in old-age health care coverage, as only 50 percent of old-aged individuals were covered whereas the other half did not enjoy such benefits (WFP, 2018a). In terms of rural population, there is found that in African and Asian economies, exclusion is the largest. In Africa more than 80 percent of the rural population is not covered, whereas 60 percent of the urban region has some sort of coverage and in an economy such as Asia, almost 60 percent of the rural population is not covered (ILO, 2017:29).

3.2.1.2   *Global Expenditure towards Social Security*

Over the past decades, particularly from the 20th century, government expenditure grew substantially. This was mainly due to a growth in social spending, especially expenditure towards health care and education (ILO, 2017:30). Relative to governments in emerging economies, governments in industrialised economies, particularly those in Europe, tend to spend a greater share of the country's resources on social security. However, according to the ILO (2017:29), emerging economies such as Argentina, Brazil, Chile and Mongolia have shown great improvements in reaching universal coverage of minors (ILO, 2017:30). Figure 3-2 shows social

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[7] Food security requires that all individuals within an economy have adequate access to basic nutritional foods.

security spending in various regions of the world as a percentage of GDP[8]. What can be observed from the figure is that high-income (industrialised) economies tend to spend more on social security, particularly in the form of transfers than their middle income counterparts do (OECD, 2010:86). Dethier (2007:1)[9] explains that the reason behind this statement is that emerging economies struggle to extend coverage to informal sector workers and children for reasons, such as fiscal, administrative and incentive constraints. Moonga and Green (2015:350) states that in 2015, focus was mainly on promoting formal sector employees and older individuals and neglected the informal sector workers and minors, as in 2015 the average government allocation as percentage of GDP to social security in African, Asia and Pacific economies, was only 0.5 percent.

Figure 3-2: Levels and composition of public social spending (% GDP) for 2010
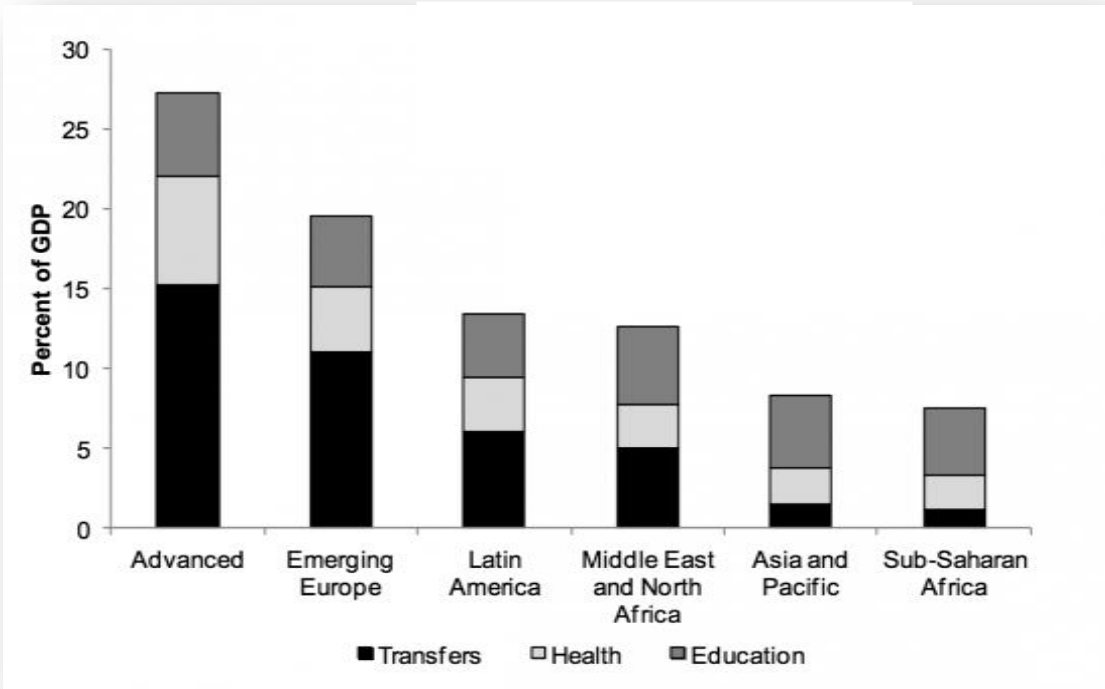
Source: Bastagli, Coady and Gupta (2012:16)

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[8] Total government expenditure as percentage of GDP measures the amount an country spends relative to the size of its economy

[9] Refer to Section 2.3.5.3 (Financing of social security systems) for a comprehensive explanation on this matter.

The different colour divisions in the bars represent the different components of social spending and the size indicates national expenditure as a percentage of GDP for the year, 2010. According to the OECD (2010:86), industrialised economies spend a much greater share of national income on, social transfers compared to emerging economies. Countries such as Denmark and Finland spend roughly 40 percent of total government expenditure on social security, compared to South Korea and the U.S. who spend around 20 percent (Bastagli *et al.,* 2012:16). According to the World Bank (2017a:22), there arises significant underinvestment in children and especially in education and malnutrition in their early-childhood life, which has an overall impact on the well-being and long-term development of children; it also affects the future economic and social development of the country they inhabit. Globally, just over 3 percent of GDP is spent on social security to ensure income security for working-age individuals. An estimated average of around 7 percent of GDP was spent on old age pensions and other benefits, across the globe (ILO, 2017:1).

More recent data indicates that in 2016, expenditure ranged from almost 3 percent in sub-Sahara African economies to just over 18 percent in European economies, whereas the majority of funds were devoted to old-aged pensions of just over 10 percent. However, only a share of this expenditure falls on the taxpayer, the largest share being financed by employers and workers' contributions. Globally, employers contribute 14 percent and workers 7 percent of covered earnings (ILO, 2016:2).

Figure 3-3: Public social spending (% GDP) for 2016

% GDP

Region	% GDP
World	9.9
North America	11
Latin America and the Caribbean	5.8
Central and Eastern Europe	13.7
Western Erope	18.1
Middle East	3.4
Asia and the Pacific	4.6
Sub-Saharan Africa	2.7
North Africa	5.9
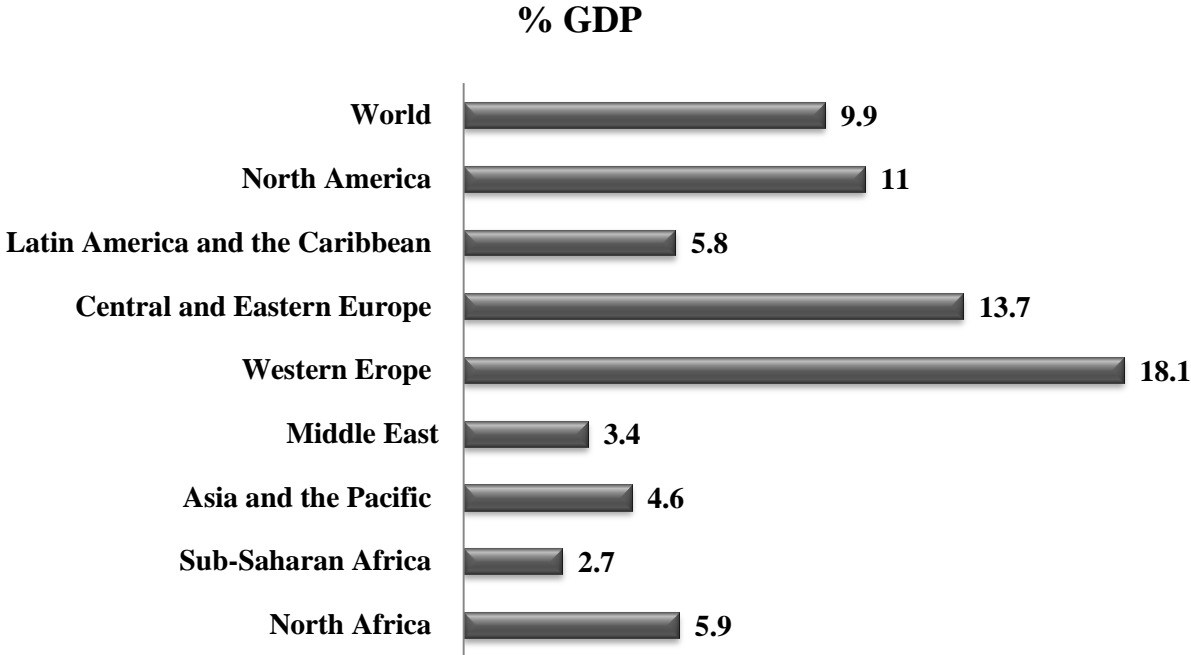
Source: Adapted from ILO (2016:2)

3.2.1.3   *Empirical Findings*

Thailand's Health-care Coverage Scheme (USC) was developed in 2001 with the aim of providing universal health insurance schemes, especially to those citizens in the informal sector who have previously been uncovered (ILO, 2017:149). Before the introduction of the UCS programme, nearly one out of four individuals was uninsured and others were covered by health programmes that offered only partial protection, resulting in the death of nearly 17 thousand children (under the age of five) each year. The USC is not just targeting the poor, vulnerable and disadvantaged Thai citizens, it is an all-inclusive programme. Within one year, the UCS covered 47 million individuals of whom three quarters included the Thai population and 18 million citizen's previously uncovered (Health Insurance System Research Office, 2012:11).

The scheme is financed through tax collections and provides free health care, which includes comprehensive and inclusive general medical treatments and emergency care. Already, after a year of implementing the USC programme, it was recorded that less individuals were off sick from work (Limwattananon, Tangcharoensathien, Tisayaticom, Boonyapaisarncharoen & Prakongsai, 2012:17). A success in overall health is seen amongst women (between the age of 20

and 30 years) and infants. In addition to improving health, studies also found that the UCS programme reduced financial risks for the programme safeguard individuals' from fall further into poverty (Paek, Meemon & Wan, 2016).Today around 98 percent of the population is covered by health insurance (Center for Global Development, 2018a).

India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was established by the Parliament of India in early September 2005 and has been implemented in 200 regions followed by another 130 from April 2007 (Sharma, 2017). This programme provides a minimum guaranteed wage employment of a hundred days out of each fiscal year to at least one adult member in rural households. The programme requires unemployed adult members of a household to do voluntarily unskilled manual work (Sharma, Joseph, Tharian & Dey, 2011:527). The programme goes beyond poverty alleviation and recognises employment as a legal right. The programme also assists in the extension of skills development and pay wages to employees in cash or in kind or both (Chakraborty, 2007:3). Since 2008, the MNREGS programme has successfully been implemented through the entire Indian economy and can be associated with the assistance of empowering nearly 56 percent of the rural female population in 2016 financial year (Sharma, 2017). By 2010, the programme provided a wage of at least Rs 60 per day, costing approximately a third of a percent of the country's GDP (OECD, 2010:86).

3.3 SOCIAL SECURITY DEVELOPMENT: UNITED STATES

3.3.1 Brief Economic Overview

The U.S. is made out of 50 states and amounts to 9.158.960 square kilometres, ranking the US as the world's third largest region (World Bank, 2018b). The U.S. population size is roughly 327.16 million, representing over 4 percent of the global population (Trading Economics, 2018c). The most densely inhabited states in the U.S. include California, amounting at almost 40 million natives, Texas, amounting at 27 million natives and the most densely inhabited city is New York City, amounting at eight and a half million natives (World Population Review, 2018b). California, being the largest state in the US, is the world's eighth largest economy in the world. Its GDP is roughly the same as that of Italy, a European country with an inhabited density of 61 million natives. However, California is only the largest state in the U.S and New York is the largest city in America, with a population size of roughly 45 million. New York City's

population size is larger than the state of Los Angeles and Chicago combined (World Population Review, 2018b).

For much of the 20th century, NYC was globally the largest city; however, today NYC is not even in the top 20 largest cities. However, NYC is globally the second largest city by GDP, with a nominal GDP of US$ 1.55 trillion, surpassed by Tokyo's GDP (World Population Review, 2018b). Government spending is the second largest component of the economy's GDP and amounts to almost 18 percent of GDP. This includes military spending, social security benefits and healthcare (ILO, 2017:2). According to the ILO (2017:3), a developed economy such as the U.S. tends to have higher social coverage rates due to its higher level of economic development and social investment, hence social expenditure amounted to almost 940 billion US$ in 2017.

Regarding poverty and inequality, the U.S. government developed various anti-poverty programmes in order to provide fair opportunities for all its natives. Despite this, these have not yet eliminated poverty entirely as the official poverty rates exclude government assistance programmes such as the food stamp programme (U.S. Department of State (USDS), 2017). From 2000 until 2006, the number of U.S natives living in poverty increased by roughly 15 percent, just over 30 million workers earned less than US$10 per hour. By 2016, almost 40 million individuals in the U.S. lived below the poverty line (Statista, 2018).

In terms of human development, according to data obtained from by CountryEconomy (2018), by the 1980s the U.S. experienced high levels of human development and ranked second in the world. However, this changed by the late 1990s as the U.S. started to lose its rank and fell at almost 30th in the world. This lasted up until 2015, where the economy reached its all-time low of 40th in the world. However, recently the economy started picking up and the U.S. HDI stands at the 13th position.

When analysing the U.S. unemployment rate, it is evident that the U.S. unemployment rate remained relatively low prior to the 2007/09 financial crisis. During this time, the U.S. unemployment rate spiked to a high of 10 percent and by the end of the financial crisis started to normalise again. By late 2017, the unemployment rate reached just over 4 percent (Trading Economics, 2018d).

Figure 3-4: The U.S. unemployment rate from 2000 until 2018

Source: Trading Economics (2018d)

For the above mentioned reasons, the U.S. government has felt the need to implement social security systems, among others, the food stamp benefit. Thus, the following section will start by giving a brief background on the development of social security benefits in the U.S. and focus on the SNAP.

3.3.1.1   Historical Background: Social Security Systems in the United States

Social security is one of the most significant and largest forms of government intervention in the United States (Miron & Weil, 1998:297). The origin of social security in the U.S. dates back to mid-1930s Social Security Act (ILO, 2018c). At this time, hundreds of thousands of war veterans were either killed or severely injured, which left their families in a vulnerable state as many wives became widowed and children became orphans. At the time, the only form of support the U.S. government granted these distressed families were government pensions (ILO, 2018c). By the 1890s, US social law was altered to include disabled civil war veterans, regardless of how the disability transpired (Caswell & Yaktine, 2013). By the early 1900s, the law was further amended and at this time, it included retirement pensions. In June 1934, President Franklin D. Roosevelt created the Committee on Economic Security and tasked them to create a social security bill, including pension programmes, unemployment insurance, health insurance (for

individuals in distress), financial assistance to widows with children and financial assistance to disabled individuals (Grabianowski, 2005).

A year later (1935), the original Social Security Act was created and included retirement benefits for only the retired worker, who becomes eligible at the age of 65 (Social Security Administration, 2018). In 1939, the Congress passed amendments to extend social security benefits to spouses and minors of retired or deceased workers. Disability insurance was created in 1954, and the disability programme was extended to families of disabled workers (Caswell & Yaktine, 2013). Since the mid-1960s, the U.S. Social Security Act also included health insurance benefits under the Medicare programme (ILO, 2018c). Some years later, around the 1970s, Congress passed legislation to create annual cost-of-living adjustments for each benefit level. Prior to that, benefit increases were subject to the notions of Congress. Some years later the economy was stagnating which caused severe financing hurdles for the U.S. social security programme, resulting in a financing deficit with increased taxation and a decrease in recipients (DeWitt, 2010:15).

By the 1980s, Alan Greenspan directed a commission to examine the problem and recommended that retirement eligibility age be increased from 65 to 67 years; social tax be increased and additional taxes be introduced (mainly focused on taxing the wealthy) (Social Security Administration, 2018). The objective was not only to solve the current financial hurdles, but to create a surplus over time in anticipation of the inevitable burden from the future baby boomer retirees (DeWitt, 2010:15). By 1994, the total tax collections under old age and survivors insurance were US$ 293 billion or 4 percent of GDP (Miron & Weil, 1998:297). This law is still in place today, as currently, the shared worker/ employer tax rate for old age and war veteran insurance is just over 12 percent and the full retirement age is slowly rising toward 67 years (Social Security Administration, 2018). Recently, social security in the U.S. is in the form of a pay-as-you-go technique, which means that the current workforce of each generation pays for the benefits of that generation's seniors (Pfau, 2015).

3.3.1.2 *United States: Supplemental Nutrition Assistance Program (SNAP)*

The SNAP benefit is one of the largest income support programmes in the U.S. (Colby & Debora, 2016:3). The FSP was first designed at the end of the 1930s with the intention to align

growing food surpluses with a redistribute incentive to assist poor natives within U.S., as the economy was hard hit by the Great Depression and was in the process of recovering. The men behind the first FSP were Henry Wallace (Secretary of Agriculture) and Milo Perkins (Administrator). The FSP operated by permitting recipients to purchase an orange stamp equal to their normal food expenses (SNAP to Health, 2018).

For every orange stamp purchased worth US$ 1, additionally 50 cents worth of blue stamps were received. Orange stamps were to be used to purchase any food sorts, whereas, blue stamps were only to be used to purchase food regarded as excess by the U.S. Department of Agriculture (USDA, 2017). The Secretary of Agriculture describes FSP as,

> "In times of great agricultural surpluses, which usually are accompanied by great unemployment, it will be there to do a minimum job in terms of minimum diets below which the public health would be endangered. The broader market made it possible for farmers in times of stress will help to stabilize our whole economy" (cited by the USDA, 2017).

Almost a half a decade after the introduction of the first FSP, nearly 20 million recipients were reached, in almost half of the U.S. states and support nearly four million individuals at the cost of US$ 260 million (SNAP to Health, 2018). The first recipient was a woman named Mabel McFiggin in New York; the first store to use the stamps was Joseph Mutolo; and the first store caught violating the program was Nick Salzano in October 1939 (Social Security Administration, 2018). The FSP soon ended, seeing that the conditions that lead to the programs' introduction (unmarketable food excesses and extensive unemployment) no longer existed.

It was not until Senator John F. Kennedy campaigned for presidency, nearly two decades after the introduction of the first FSP, when interest in this programme resurfaced. President Kennedy expanded food distribution programmes and initiated a series of pilot food stamp programmes, which eliminated some of the conditionalities from the first FSP (Almond, Hoynes & Schanzenbach, 2008:3). By the mid-1960s, President Lyndon Johnson requested a permanent FSP and soon signed the programme into law under the assistance of his *"War on Poverty"*. The food stamps that were used under the original FSP were replaced with a food coupon; however thee condition remained to obtain these coupons. The condition to purchase the coupons was

essential in guaranteeing that the food stamp grant is equivalent to the cost of a healthy diet for a given household (SNAP to Health, 2018). Eligibility was determined by state agencies and households could apply at those offices. Any food for home consumption could be purchased except for imported foods (exceptions were made for coffee, tea, and bananas). Alcohol and tobacco purchases were specifically forbidden (Hoynes & Schanzenback, 2012:154).

Counties were added to the program as they made requests and at this time around 40 regions and three cities were included (roughly 350 thousand individuals), amounting at around US$ 75 million (SNAP to Health, 2018). By 1965, there were more than half a million participants and 43 pilot programmes (Hoynes & Schanzenback, 2012:153). By February 1971, there were 10 million participants. The next major changes to the FSP resulted from the Food Stamp Act of 1977 (Almond *et al.,* 2008:4). The purchase conditionality ensured that households would receive coupons valued at what United States Department of Agriculture (USDA, 2017) determined to be the cost of a healthy diet; however, it had a negative effect on program involvement and soon after conditionalities were removed. However, the Act did demand that food stamp funds be given to the Expanded Food and Nutrition Education Program (EFNEP) operated by the USDA Extension Service, to increase its ability to educate food stamp participants in nutrition (USDA, 2017).

Figure 3-5: Illustrating the SNAP timeline from the 1960s up to 2010
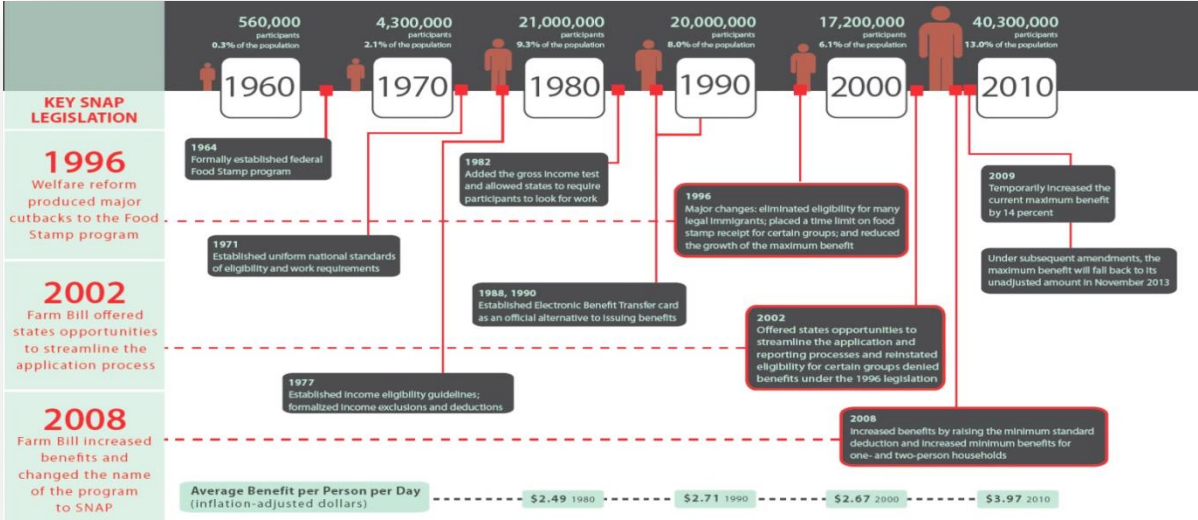
Source: Congressional Budget Office (CBO, 2012)

By the 1980s, policymakers had some concern regarding the number of FSP participants and the cost to the government and called for an administration reform, which restricted the participation by forcing households to meet a gross income test and cut the frequency of cost-of-living adjustments for allowances (USDA, 2017). By the late 1980s, policymakers finally recognised the hunger problem within the economy and gradually improved the FSP, by removing the sales tax on food stamp consumptions, continuing unconditional eligibility, granting eligibility to the homeless and developing nutrition education (SNAP to Health, 2018). Some years later, around, the Hunger Prevention Act of 1988 and the Micky Leland Memorial Domestic Hunger Relief Act of 1990, integrated an electronic benefit transfers (EBT) systems in order to extend the minimum grant/ benefit to more individuals/ households in need (USDA, 2017). At this time, various pilot schemes were conducted to test the benefit cards and other automated electronic benefit delivery systems. It was only by 1996, that the Welfare Reform Act made some changes to the FSP, including the elimination of eligibility for legal non-citizens and adjusting administration control to states (Caswell & Yaktine, 2013).

By 2002, Farm Security and Rural Investment Act included the adoption of the EBT system (2002) to assist in the reduction of fraud within the programme and to eliminate stigma relating to the use of paper coupons (Wilde, 2001:77). According to the USDA (2017), the basic structures of the FSP formula have not changed much since the re-evaluation of the Food and

Agriculture Act of 1977. The benefit is divided between the difference cost, including the minimal-cost of a nutritionally adequate diet and the amount of cash resources circulating within a household. In general, the monthly FSP benefit allowance for a household is based on three factors:

Figure 3-6: SNAP factors

Source: Wilde (2001:77)

As can be seen from Figure 3-6, households without any net income (income after deductions), qualify for the maximum benefit. Those household with positive net incomes, have their benefit reduced by US$ 0.30 for each US$ 1, reflecting the assumption that households are able to contribute 30 percent of their net income towards nutrition (Wilde, 2001:77).

In situations where households have some sort of income, but not adequate to obtain nutritious food, the FSP supplement its food purchase. The maximum benefit is determined by the Thrifty Food Plan (TFP), which is the lowest cost plan that the USDA premeditated to outline the varieties and amounts of food products and the attendant cost that households can purchase and consume in order to obtain a nutritious diet. The market basket that forms the basis for this plan was last updated in 2006 (Caswell & Yaktine, 2013).

By late 2008, the number of participants was almost 30 million resulting from the Farm Bill of 2002 (USDA, 2017). At this time, the FSP was renamed to the SNAP (Bartfeld, Gundersen, Smeeding & Ziliak, 2015:8). As part of the American Recovery and Reinvestment Act, 2009 saw a 13.6 percent increase added to the FSP (about $80 for a family of four) in an effort to assist the economy and in recognition of the economic hurdles faced by the programme's recipients (Caswell & Yaktine, 2013). In 2010, roughly in every three out of four households who receive SNAP, there is at least one child, an elderly individual (age 60 or older) or a disabled individual (CBO, 2012). At this time, the majority of households who received SNAP benefits lived on an average income of US$ 8800 a year. The average monthly SNAP grant per household was US$

287 or US$ 4.30 per household member per day (USDA, 2017). On average, SNAP benefit boosted the gross monthly income for households without children by 39 percent and 45 percent for households with children (CBO, 2012). By 2013, during former President Obama's administration, the total number of recipients of the grants had increased by 164 percent since 2000 to an estimated and peaked to an average high of 47.8 million (Bartfeld *et al.,* 2015:13).

The reason for this is the economy's deep recession derived from the 2007 financial crisis (Bartfeld *et al.,* 2015:13). However, by 2016, the number of recipients of the FSP declined to 43.54 million at a cost of just under US$ 70.9 billion (USDA, 2018), and for the month of April alone, 773 thousand recipients left (Anzilotti, 2016). The reason for the sharp decline was due to the economy's recovery from its recession[10], together with a decline in poverty and unemployment rates (CBO, 2012). Anzilotti (2016) explains that during times of high and sustainable unemployment, states can apply for a relinquishment to overrule the employment requirements attached to SNAP. Those hold the unemployed individuals between the age of 18 and 49, without dependents or disabilities, must be limited to only three months of benefits within a 36 month span, except when they find employment or are enrolled in a job training or community service programme for at least 20 hours a week. Colby and Debora (2016:5) found that although the number of recipients has declined significantly over the years, out of every seven U.S. natives, one receives FSP benefits (De Polt, Moffitt & Ribar, 2009:445).

According to Colby & Debora (2016:5), by 2017, the end of former President Obama's term, the amount of recipients stood at 42.7 million and declined further under the new administration of President Trump. During a typical month in 2017, the SNAP benefit provided low-income working individuals/ households, low-income elderly individuals and disabled individuals with the means needed to require an adequate nutrition; of these individuals more than 70 percent were households with minors.

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[10] Please refer to Reinhart, C. M & Rogoff, K.S. 2008. Is the sub-prime financial crisis so different? An international historical comparison. *American Economic Review,* 98(2):339-344 for further information on the 2007 financial crisis.

3.3.1.3   Empirical Findings: SNAP Impact

Over the past decades, research has shown that the food assistance provided by FSP/ SNAP benefits is associated with a variety of positive benefits for those participating in the program, which is outlined in Table 3-1 below. Evidently, the SNAP benefit has an positive impact on the alleviation of poverty, especially of minors; it also has a positive impact on health care and economic well-being and lastly, there is evidence that the SNAP benefit assists in food security as recipients have the necessary means to purchase basic goods.

Table 3-1: Evaluating the impact of the SNAP benefit

Specification	Impact	Findings
Poverty	Positive	Low-income minor's participation in the programme can be associated with positive health outcomes, including a decrease in failure to thrive; decreased malnutrition; lowed levels of child abuse and neglect (Lee & Mackey-Bilaver, 2007:515). Other findings include the impact of SNAP on poverty and the severity thereof (Tiehen *et al.,* 1998:9).
Health & Economic Well-being	Positive	SNAP has been shown to improve health outcomes across the life course, including decreasing diabetes and obesity among adults bare to food stamps during childhood (Almond *et al.,* 2008:28; Hoynes & Schanzenbach, 2012:161). SNAP has also shown to improve economic well-being of Americans (Bartfeld *et al.,* 2015; Caswell & Yaktine 2013).
Food security	Positive	The receipt of the SNAP benefits, including adults and minors, is associated with a reduction of food insecurity (De Polt, Moffitt & Ribar, 2009:469; Collins, Briefel, Klerman, Wolf, Rowe, Enver, Logan, Fatima, Komarovsky, Lyskawa & Bell, 2014:70; Gundersen & Oliveira, 2001:17).

Source: Compiled by Author

3.4 SOCIAL SECURITY DEVELOPMENT: BRAZIL

3.4.1 Brief Economic Overview

The largest country in South America is Brazil with a population size of 210.87 million individuals (World Population Review, 2018a). Brazil's population is sparsely populated with a population density of 24.66 people per square kilometre and rank 170th in the world in terms of population density. Sao Paulo is the largest city in Brazil, with estimate of almost 12 million natives and a metropolitan population of 21.1 million. In 2010, around 84 percent of the population were living in urban districts and 15.6 percent in rural districts (Matijascis & Kay, 2013:18). Between 2000 and 2010, the average family size decreased from four to three and since the 1970s, the average birth rate per mother decreased from four children to two births per mother, which is lower that the U.S. rate (World Population Review, 2018a). The percentage of the population with some sort of university degree increased from seven to 11.2, and the illiteracy rate dropped from 129 percent to 9.5 percent (Matijascis & Kay, 2013:18). The average life expectancy of Brazils' natives has increased from 65.1 in the 1990s to 70.4 in 2000 and 73.5 in 2010 and more recently 74.68 years (World Bank, 2018c).

During the 1980s, Brazil reached the so-called 'demographic dividend', with increasing numbers of adults compared to the youth (dependent) population (Beehner, 2007). Thereafter, the economy experienced a decline in the number of younger citizens and a rapid increase of those older than 60 years. This became a 'demographic burden' since the economy was at a standstill, with unemployment rates reaching highs and negligence remaining dominant. From 1987 to 2004, Brazil was unable to generate sufficient formal jobs with criminality accelerating and productivity at a standstill. According to Matijascis and Kay (2013:19), since 2004, the Brazilian economy has experienced a massive economic boom, which is largely due to the expansion of trade, which led to a growth in the creation of employment opportunities.

According to Trading Economics (2018a), despite the financial and economic crisis, the Brazilian economy has grown moderately when compared to the period between 1940 and 1980. From 1980 until 2010, average growth in real gross domestic product (GDP) was equivalent to 3 percent, with the per capita GDP growing to 2.5 percent. GDP in Brazil averaged 656.83 USD billion from 1960 until 2017, reaching an all-time high of 2616.20 USD billion in 2011.

Nevertheless, since the mid 2014's Brazil started experiencing another economic crisis since the 2008/09 financial crisis. In 2015, Brazil's GDP fell by almost 4 percent due to a drop in salaries, restrictions on credit and a rise in the basic interest rates. In 2017, the country's GDP started picking up again and grew by just over 1 percent and the recession started to clear up, despite the country's downgrade in credit ratings (Brown, 2017).

Income inequality in Brazil has declined as since 2004; the GINI coefficient fell from 0.54 to 0.49 in 2014, respectively (Góes & Karpowicz, 2017:5). Despite this success, the country still struggles to decrease the gap between rich and poor as it remains one of the most unequal economies in the world with half of the population receiving 10 percent of total incomes, while the other half holds 90 percent (OECD, 2018a:14). According to Matijascis and Kay (2013:19), Brazil's GINI Index, when compared to BRICS economies, is lower than that of South Africa and well above that in the Russian Federation, India and China, where inequality increases, unlike in Brazil.

Despite this, Silva (2017:4) found that the average income per household increased from 11.13 US$ per day in 2004 to 17.44 US$ per day in 2014 and the country's extreme poverty rate during 2004 and 2014 decreased by roughly 63 percent of the population, with an average reduction of 10 percent per year. According to Matijascis and Kay (2013:19), Brazil's total healthcare expenditure amounted at 8 percent of GDP in the year 2008. Where 3.7 percent of GDP is spent by the state and private expenditure makes out 4.7 percent of GDP and covers roughly 27 percent of the population. Expenditure on old-age pension makes up 13.1 percent of Brazil's GDP, of which social assistance represents 1.7 percent and unemployment benefits at 0.7 percent (Matijascis & Kay, 2013:19). Employment elasticity is constant over the years, ranging from 0.71 in 1979 to 0.73 in 2007. In 2011, roughly three million individuals living in urban zones were actively searching for employment, of which 1.2 million were new university graduates, while only 2.3 million urban jobs were expected to be created. According to *Instituto Brasileiro de Geografia e Estatística* (IBGE, 2018)**,** in 2011 the unemployment rate was 5.8 percent, with 76 percent of the unemployed receiving unemployment insurance benefits.

3.4.1.1 Historical Background: Conditional Cash Transfers in Brazil

Throughout the years, Latin American economies had faced great difficulty with regards to their unsustainable political development and policies implemented or developed in the reduction of high levels of poverty and inequality vary from economy to economy (Keshavarz, 2012:10). Geographically, Brazil is a large economy with around 27 states, a federal district, and almost 6 000 municipalities (Jacobs *et al.,* 2010:7). Social security in Brazil dates back to the colonial period, when in 1554 the *Santa Casa de Misericórdia* in Santos first provided it for Portuguese officials. After the induction of the Portuguese Court in Rio de Janeiro in 1808, pension and health assistance was provided to selected groups (Matijascis & Kay, 2013:19). Hence, Brazil is regard as one of the first Latin American economies to implement some sort of social welfare law (Hall, 2006:689). In the early 1920s Brazil already implemented a social security system, which established benefits to railroad worker in the form of a pension. Almost a decade later, this system started accelerating under the new ruling of President Getúlio Vargas (1930-1945). The system began to form and expand to other social groups, which included workers in banking, industry and commerce sectors (Mothiane, 2014:19). Vargas' intention was to avoid social conflicts and to uphold a stable political system, therefore, divided the working-class in different segments. Vargas's welfare system managed to dominate until the 1960s (French, 1998:3).

Between 1945 and 1964, Brazil had a democratic period and experienced a time where labour market became increasingly dependent on the benefits set out by the state and slowly demanded social benefits (Mothiane, 2014:19). The working-class founded at the top of the division of Vargas, did not appreciate this and tried to defend their benefits (Jacobs *et al.,* 2010:7). During this period, Brazil's Democratic Party fell short of the means necessary to support this transformation and forced the Brazilian military to step in. During 1964 and 1985, the military started developing a social welfare reform with the intention to reduce the division labour of Vargas and were eventually ended (Keshavarz, 2012:11). During this time, Brazil was the economy who had the largest social protection system, around 20 percent of its GDP (Jacobs *et al.,* 2010:7).

In terms of Brazil's Constitution of 1988, *"social assistance shall be provided to those who need it, regardless of contributions to social security."* Therefore, the right to such programmes and

their benefits was strictly guaranteed to whoever may require them, regardless of any former contribution (Mothiane, 2014:19). According to Keshavarz (2012:11), the context of widening rights to social security was introduced when the economy faced some unfavourable fiscal conditions, especially when the neoliberal policies where being introduced and implemented, which started in the 1980s and lingered on until the 1990s. Neoliberalism continued through 1995 to 2002 with Fernando Henrique Cardoso as president where he focused on stabilising the economy and implemented the *Plano de Combate à Fome e a Miséria* (plan to combat hunger and misery) proposed by the former government (Mothiane, 2014:19).

With its credibility in the fight against hunger and poverty seriously undermined, in October 2003 the four separate schemes were unified under the new label of *Bolsa Família* (Hall, 2006:689). The first programme created in 1996, is known as the *Programa de Erradicação do Trabalho Infanti*l (PETI). The aim of PETI was to restrain child labour. At the time, PETI was a highly targeted cash transfer scheme, given to children between the age seven to 15 years, working (or prone to work) in harmful and shameful occupations (Jacobs *et al.,* 2010:7). PETI offered R$ 25 ($ 37 PPP) for children who lived in rural zones and R$ 40 ($ 59 PPP) for children who lived in urban zones and an extension was set aside for municipalities to increase schooling hours to inhabit the entire day through the creation of after-school activities known as *'Jornada Ampliada'* (Hall, 2006:689). Its conditionality specified an obligation that children younger than the age of 16 years would not work and would maintain 75 percent school attendance. The Social Assistance Secretariat (of the Federal Government) ran PETI (Barrientos & Hinojosa-Valencia, 2009:14).

In 2001, another CCT programme, the Federal *Bolsa Escola* programme, was created. The conditionality of this programme specified school attendance for school-age children (from the age of six up until 15 years of age) in families whose per capita income was below R$ 90 ($97PPP). The transfer was R$ 15 ($ 16 PPP) per child, up to a maximum of R$ 45 ($ 49 PPP) and the programme was run by the Ministry of Education (Campello *et al.,* 2015:25). The majority of the national government expenditure towards social security was devoted to the *Bolsa Escola* programme, at the time (Soares *et al.,* 2006:4). The third CCT programme was *Bolsa Alimentação*, whose conditionality specified medical check-ups for maternal women, breast feeding and vaccination of young minors (Mothiane, 2014:20). The transfer was R$ 15 ($

16 PPP) per child up to the age 6 years, up to a maximum of R$ 45 ($ 49 PPP) and the programme was run by the Ministry of Health. In 2003, a fourth CCT programme, the *Fome Zero* was created, with a family grant was given, depending on the households income per individual (limited to R$60) and on the number and age of children (Keshavarz, 2012:11). The benefits given to these households varied from 14 to 105 Euros. The transfer was to last for six months and involved a conditionality that the funds had to be spent on nutrients. This was a public policy aimed at ensuring the human right to adequate nutrition was realised (Soares *et al.,* 2006:4). This programme promoted food and nutritional safety and contributed towards achieving social responsibility for segments of the population most vulnerable to hunger (Keshavarz, 2012:15).

Evident from each of these mentioned cash transfers is that each programmes had its own financing, implementing agency, conditionality and information system. Therefore, one household could receive all four transfers while another, equally needy, could receive none (Soares *et al.,* 2006:4). The values of the transfers were not synchronised so that the Federal Government was inevitably engaged in transferring different amounts to similar individuals. The programmes were run by different agencies that had nearly no co-ordination amongst themselves (Barrientos & Nino-Zarazua, 2010:20).

3.4.1.2   Brazil: Bolsa Família Programme

In 2003, the poverty level in Brazil was nearly 39 percent, which equals to over 70 million individuals living in poverty (Nilsson & Sjöberg, 2013:9). This called for a massive intervention from the national government to assist individuals in their time of hardship. Hence, the *Bolsa Família Programme* (BFP) was created under the administration of President Luis Inácio da Silva and merged the four mentioned Federal CCT's on the basis of the unified information system that started being implemented in 2001, the Cadastro Único (De Barcellos, 2012:1). An important feature of the BFP is a decentralised approach to the administration of the programme. The Ministry of Social Development (MSD), created in 2004, sets the overall social security policies and supervises the implementation of the BFP (Van Stolk & Patil, 2014:2).

Throughout mid-2004, the World Bank granted a loan of US$ 572 million to support the BFP, where 96 percent was directed to cash transfers to recipients as well as the means to establish a

well functioned technical database; improved targeting mechanisms; improved monitoring and valuation systems; and improved communication programmes (Hall, 2006:698). According to Hall (2006:698), by the end of 2004 another loan was approved by the Inter-American Development Bank (IDB), for a further UD$ 1 billion. By the early 2010s the BFP is seen as one of the largest scale poverty reduction/ social welfare programmes, aimed at poorest households, in the world (Jacobs *et al.,* 2010:7).

The three main objectives of the BFP include the alleviation of hunger, poverty and inequality through an income transfer linked with educational, health and nutritional services. The programme also aims to reduce social exclusion by aiding the empowerment of the poor and vulnerable households. Finally, the programme offers complimentary social programmes, which enable families to end their condition of vulnerability (Nery, Pereira, Rasella, Penna, Aquino, Rodrigues, Barreto & Penna, 2014:4). The monthly cash transfer is preferably given to the female/mothers in the households with the assumption that a female/mother would rather spend the money on their children, than wasting it (Keshavarz, 2012:15).

At the BFPs initial state, the programme only provided a "basic benefit", targeted at families in extreme poverty and provided a payment of R$ 50 per family. The programme also provided a variable benefit to families with children aged from birth to 15 years, limited to a maximum of three variable benefits, amounted at from R$ 15 to R$ 45 (Campello *et al.,* 2015:25). Since then, the types and amounts of benefits have been expanding. The state provided four different types of transfers. At the end of 2007 the value of the benefit, together with the poverty line, were both adjusted. The variable benefit linked to minors, known as the complimentary variable youth benefit (BVJ), was created at the same time (World Without Poverty (WWP), 2017:2). This new benefit obliges a minimum of 75 percent school attendance of any minors aged 16 and 17. The amount of the cash transfer varies depending on the number of children and income (Soares *et al.,* 2006:4).

The basic transfer awards household with a benefit of R$ 58, when in extreme poverty. The variable benefit grants an amount of R$18 to households with children aged up to 15 years, however, a maximum benefit is granted for three and the amount varies from R$ 18 to R$ 54. A youth variable provides R$ 30, up to two benefits to households with children between the age of 16 and 17 years (Campello *et al.,* 2015:25). The benefit and eligibility line were adjusted in 2011

and the number of possible variable benefits were extended from three to five. In the same year, variable benefits began to be granted for expecting and nursing mothers (De Brauw, Gilligan, Hoddinott & Roy, 2015:304).

In 2012, the benefit for overcoming extreme poverty (Benefício para Superação da Extrema Pobreza-BSP) was created. The BSP was initially targeted at extremely poor families with minors from birth to 6 years of age (Campello *et al.,* 2015:25). Consequently, this benefit was extended to households with minors up to 15 years. By 2013, the BSP was extended to households who remained in extreme poverty despite them receiving benefits from the BFP as well. The creation of the BSP benefit ensures that all benefitting household receive a minimum income (above the extreme poverty line) (WWP, 2017:2). The following figure represents a graphic illustration (composition) of the BFP.

Figure 3-7: Components of the *Bolsa Família* Programme (BFP)

Source: Adapted from WWP (2017:2)

As can be seen in Figure 3-7, a basic benefit is granted to all extremely poor households, meanwhile, the BFA is granted for each minor between the aged from birth to 15 years and to maternal and nursing mothers, limited to five benefits per household. The BVJ is granted for minors between the age of 16 and 17 years and is limited to two benefits per household (Campello *et al.,* 2015:25).. The BSP is granted only to families who are considered extremely poor as a complement to other benefits already received. The benefit is considered a per capita amount that is needed for a household to live above the extreme poverty line (WWP, 2017:2).

Figure 3-8 illustrates a possible combination of the 2017 BFP grants for a household of five, including two adults of which the mother is expecting two children aged less than 15 years and one 17-year-old. A household is illustrated with a monthly income of R$ 31, representing a per capita income of R$ 6.20 (categorise the household as extremely poor). With this profile, the

household will have: i) the basic benefit of R$ 85; ii) three variable benefits for the two children under the age of 15 years and the maternal mother (R$ 117); and iii) a variable youth benefit of R$ 45. The BFP adds up to a total of R$ 248. Combined with the households income (R$ 31), their total income adds up to R$ 279 (WWP, 2017:2).

Figure 3-8: Examples of a possible combination of *Bolsa Família* transfers
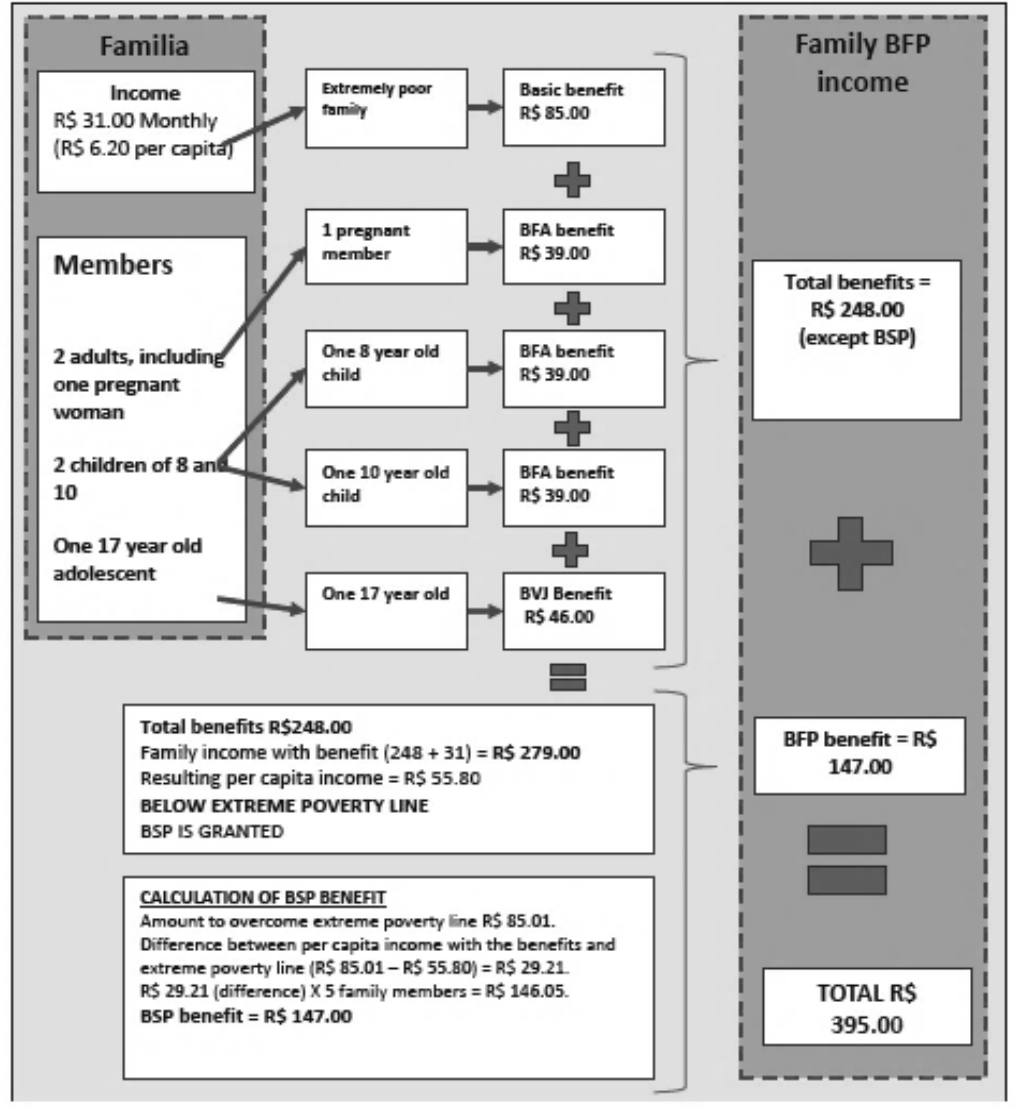
It is evident that even with the BFP benefit and regardless of the BSP, this household would have a per capita monthly income of only R$ 55.80. With a per capita income of R$ 55.80 and the

extreme poverty line R$ 85, the household can still be considered as being extremely poor. To receive an income above the extreme poverty line, the household would need to receive R$ 29.21 (R$ 85.01 − R$ 55.80), hence the households would need to receive a BSP of R$ 146.05. The BSP should be rounded up to the first multiple value of two above the required complementary amount (WWP, 2017:4). This makes it possible to receive the grants in the Brazilian exchange, since the smallest bill circulating in the country is of two reais, which enables withdrawal of the benefits from an ATM. It follows that the amount of R$ 146.05 will need to be rounded up to R$ 147.00, resulting in a BFP benefit for the household of R$ 395. Combined with the R$ 31.00 household income, the overall total amount at R$ 426.00, indicating a per capita income of R$ 85.20, which evidently exceeds the Brazilian extreme poverty line (WWP, 2017:4).

3.4.1.3   *Empirical Findings: Bolsa Família Impact*

Poverty in Brazil is highest amongst children and unemployment among youths is more than twice the overall average. However, since the program started in 2003, an estimated 1.7 million households successfully left the program with an income that exceeded the limits for someone to be considered in poverty (Cowie, 2018). Only 522,000 of the households that received the benefit 2003 are still receiving it. Between 2004 and 2014, more than 28 million Brazilians have recovered from poverty. Brazil also experienced a rapid decline in income inequality over the past decade, with the GINI coefficient of household incomes falling from 0.57 to 0.52 in 2014. To a large extent, the decline in income inequality was due to a policy of social inclusion in the context of a booming economy, fuelled by favourable external conditions (World Bank, 2017:2a).To a large extent, the decline in income inequality was due to a policy of social inclusion in the context of a booming economy, fuelled by favourable external conditions (World Bank, 2017:2a). By 2016, Brazil spent over 15 percent of GDP on social benefits. Social benefits are responsible for more than half of the increase in primary expenditure and continue to outpace GDP growth (Cowie, 2018).

Figure 3-9: Trends in poverty and inequality in Brazil, from 2014 until 2015
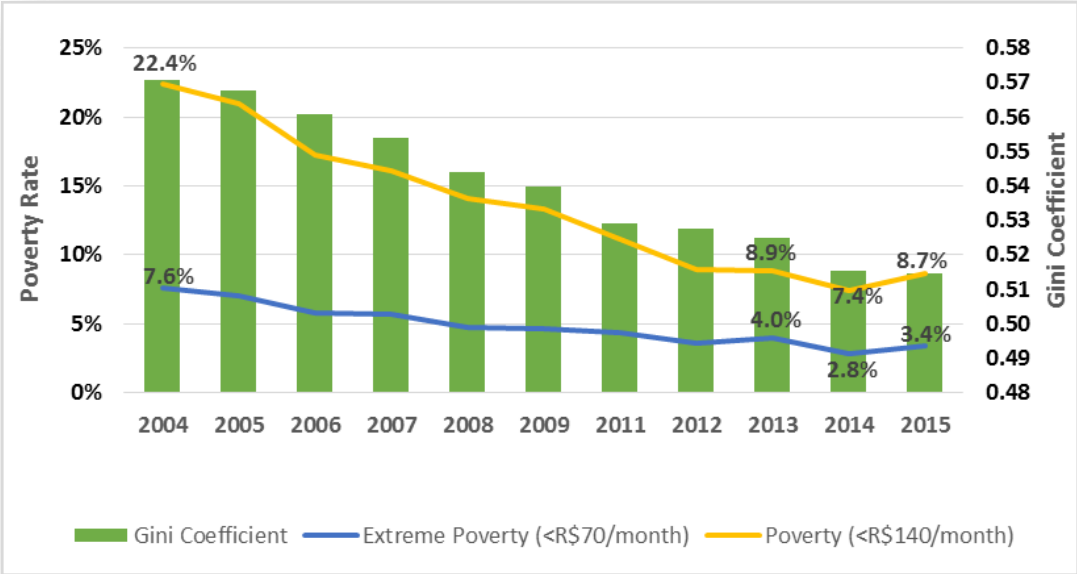
Source: World Bank (2017:2a)

Other empirical findings derived from Table 3-2, include the impact on poverty, inequality and human development factors. BFP assists in the alleviation of poverty (see Zepeda, 2006:1; Shei *et al.,* 2014:6; Campello *et al.,* 2015:2); the improvement of inequality (see Soares *et al.,* 2006) and has a positive impact on human development (see Shei *et al.,* 2014:6; Nery *et al.,* 2014:4; Sperandio, Rodrigues, Franceschini & Priore; 2017:1779). Despite these findings, Soares, Ribas and Osório, (2010:183) found that *Bolsa Família* had no impact on child vaccinations despite conditionalities regarding this matter. There was also no impact on health check-ups although *Bolsa Família* has allegedly created awareness about the need to access public health services and obtain child vaccinations, the absence of impact suggests that supply-side obstacles are a limitation. Hence, it can be stated that the lack of health services available to recipients is likely to be a contributing factor.

Table 3-2: Impact of *Bolsa Família* benefits: empirical findings

Specification	Impact	Findings
Poverty	Positive	The impact of CCTs in Latin America has had a positive impact on poverty, particularly

		extreme poverty (Zepeda, 2006:1; Shei *et al.,* 2014:6; Campello *et al.,* 2015:2).
Inequality	Positive	The progressive impact of cash transfers on the distribution of total income, cash transfers have had a notable impact on reducing inequality even though they were not designed to do so (Soares *et al.,* 2006).
Human Development Factors	Positive	A positive relationship was found between *Bolsa Família* and the utilization of preventative health care services and improved psychosocial health (Shei *et al.,* 2014:6; Nery *et al.,* 2014:4; Sperandio *et al.,* 2017:1779). *Bolsa Família* has had a clear positive impact on school attendance (De Brauw *et al.,* 2015; Soares *et al.,* 2010:183; Nilsson and Sjöberg, 2013:47; OECD, 2015:7).

Source: Compiled by Author

3.5 SOCIAL SECURITY DEVELOPMENT: SUB-SAHARAN AFRICA

3.5.1 Brief Economic Overview: Sub-Saharan Africa

Sub-Saharan Africa is home to a diverse range of personalities, languages, cultures, economies, incentives and outlooks. With a regional capacity of almost 24 million square kilometres, the section of sub-Sahara Africa is larger than the sum of US, Canada and the EU combined (World Bank, 2015). Population growth in sub-Saharan Africa is amongst the largest across the globe, amounting at an astonishing one billion natives (individuals). The Institute for Security Studies (ISS, 2017) projects that by 2035, the sub-Saharan population will still be the youngest in the world. It is also projected that by the year 2050, sub-Saharan Africa will reach two billion natives, just over 20 percent of the total global population (World Bank, 2015). By the year 2080, sub-Saharan Africa will be the only region across the globe with a population size that is still expanding. All other economies are anticipated to experience a slowdown in population growth and eventually shift towards negative growth, as at present experienced from European economies (World Population Review, 2018d).

According to the ISS (2017), sub-Sahara Africa has very high fertility rates, paired with high death rates, which imply that the onset of the demographic division is delayed in comparison with other economies. This might have a negative impact on economic growth and development as most sub-Saharan economists have fewer workers supporting a large share of the overall population (mainly minors) than in other emerging economies. Hence, national governments face the risk of high public expenditure towards social security services (i.e. healthcare, education and basic services).

Due to the high levels of population growth, sub-Saharan African economies face various other social hurdles. Examples of these social hurdles include food insecurity, as food security has become a serious problem in many economies. The sub-Saharan African region has the highest prevalence of malnutrition according to the latest projection by the United Nations Food and Agriculture Organisation (UNFAO, 2017:3). The UNFAO (2017:3) estimated that in 2014/16 almost 800 million individuals across the globe were undernourished, of which over 230 million natives were in sub-Saharan Africa, making the region the second largest region with malnourished individuals, following Asia.

Figure 3-10: Graphic illustration of Sub-Saharan African economies
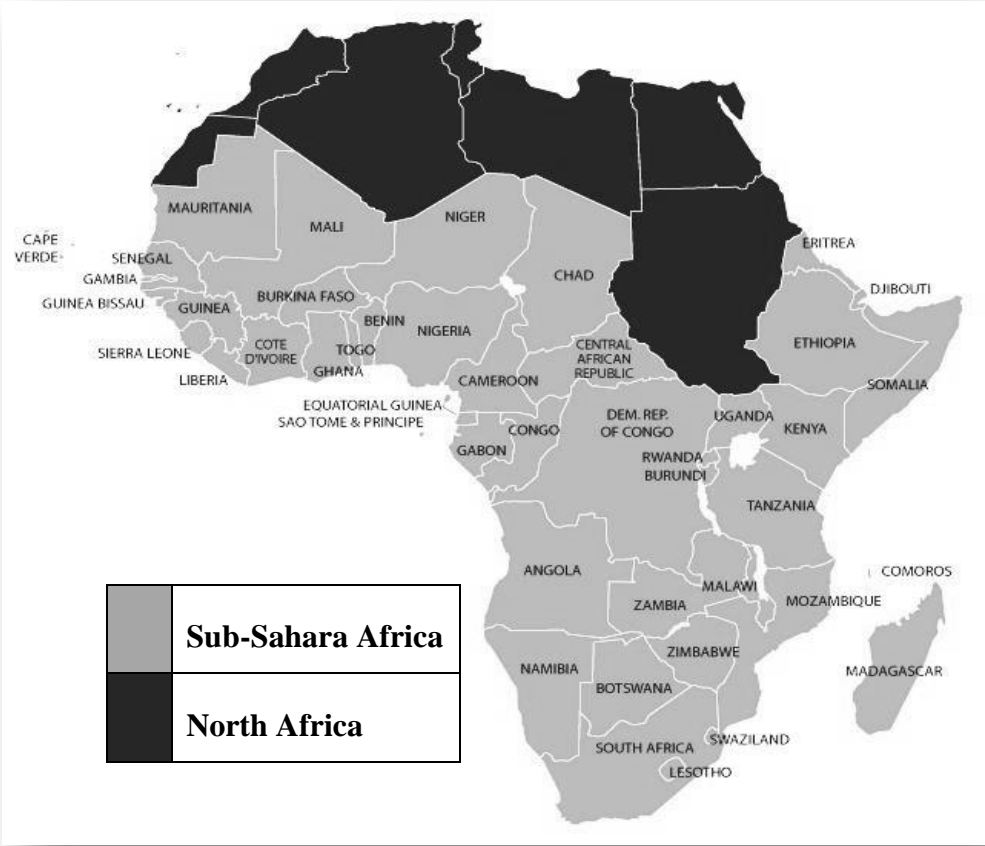
Source: New World Encyclopaedia (2015)

Concerning poverty, according to UNICEF (2016:3) nearly half of all the minors in sub-Saharan Africa are living in extreme poverty, followed by south Asia. According to Kennard, 2018), in 2013, more than 40 percent of the sub-Saharan African natives lived on less than $1.90 or less per day, which resulted in widespread hunger as individuals living in poverty were not able to afford basic goods. This was especially evident in South Africa, Namibia and Botswana as these economies also form part of the top three economies with the highest income inequality levels in sub-Sahara Africa (UNDP, 2017:3b). South Africa's HDI in 2015 was 0.666 and is above the average of 0.631 for countries in the medium human development category and above the average of 0.523 for economies in sub-Saharan Africa. From sub-Saharan Africa, economies which are closest to South Africa in the 2005 HDI rank and to some extent in population size are Congo and Namibia, which have HDIs ranked 135 and 125 respectively (UNDP, 2016:4).

Table 3-3: Comparing HDI between South Africa, Namibia, Congo and Sub-Saharan Africa for 2015

	HDI Value	HDI Rank	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (PPP US$)
South Africa	0.666	119	57.7	13.0	10.3	12,087
Congo	0.592	135	62.9	11.1	6.3	5,503
Namibia	0.640	125	65.1	11.7	6.7	9,770
Sub-Sahara Africa	0.523	-	58.9	9.7	5.4	3,383
Medium HDI	0.631	-	68.6	11.5	6.6	6,281

Source: UNDP (2016:4)

The aforementioned circumstances lead to the implementation of policies to alleviate poverty and various other pro-poor outcomes. In particular, these include the improvement of access to poor and vulnerable individuals in the form of basic social services such as, education, healthcare, housing, running water and social security benefits. More specifically, in the form of unconditional, conditional, in-kind and public works programmes (Sembene, 2015:8). Hence, the following section will analyse the different forms of social assistance provided by various sub-Saharan economies.

3.5.1.1   Social Security Systems in Sub- Saharan Africa

According to Barrientos (2010:13), sub-Saharan Africa has a deeply embedded legacy of social security, especially in rural regions, however, the region has an underfunded, uneven and incomplete social insurance organisation for civil servants and externally funded social assistance programmes focused on emergency support. Emergency food aid, famine relief and humanitarian assistance have been at the centre of social security and social assistance for many African economies since the 1970s. In 2013, more than 40 percent of the total sub-Saharan Africa population lived on $ 1.90 a day, resulting in widespread hunger (World Bank, 2018d).

Nevertheless, the occurrence of malnutrition and social security gaps has declined by nearly 10 percent from the 1990s to 2014 (Kennard, 2018). More recently, concern shifted from emergency aid to the implementation of more permanent social security systems, which has led to the spread of pilot cash transfer systems, mainly financed by international organisations. Such systems are present in Kenya, Malawi, Nigeria, Ghana, Uganda and Zambia. These economies are piloting cash transfer programmes targeting the poorest and most vulnerable citizens with the aim at prompting human development (Barrientos, 2010:13).

The impact of HIV/AIDS on household structures, the rise in the incidence of households with "the missing middle", suggest yet further revision of the social pension to address the new problem (Bailey & Turner, 2002:106). However, according to the United Nations report (UNDP, 2015:6), newly reported HIV infections fell by nearly 40 percent during 2000 and 2013 (a decrease of around 1.4 million individuals). By 2014, nearly four million HIV infected individuals were receiving antiretroviral therapy (ART), a significant increase from 800 thousand in 2003. ART prevented over 7.5 million deaths from AIDS between 1995 and 2013. The other huge problem in sub-Saharan Africa is malaria, where between 2000 and 2015, over 6 million natives died from malaria infections of which the majority comprises of minors under the age of five. Consequently, this called for massive intervention and during 2004 and 2014 insecticide-treated mosquito nets were delivered to malaria-endemic countries and caused the global malaria incidence rate to fall by 37 percent and the mortality rate by 58 percent (UNDP, 2015:6).

The Protective Safety Nets Programme in Ethiopia provides an example of a food security programme incorporating cash-based public assistance components (Cochrane & Tamiru, 2016:650). The wealthier economies of the Southern Cone, Botswana, Namibia and South Africa are the exception, with a more effective social assistance system, focusing on providing grants for identified vulnerable groups, especially the elderly natives and minors. More recently, social pensions have been introduced in Swaziland and Lesotho, possibly indicating the rise of a diverse approach to social assistance in the sub-region. Social pensions in South Africa and Namibia reflect the successful adoption of a more inclusive form of social security, as it once focused on providing a minimum income floor for White and Coloured natives and today provides vital income distribution to the poorest Black African households (Haasbroek, 2009:18)

The introduction of child support grant (CSG) in South Africa constitutes an extension of social assistance with human development objectives (Haasbroek, 2009:18). However, in sub-Sahara Africa only 13.1 percent of households receive child support grants, subsequently lower than the world average of around 35 percent (ILO, 2017:48). While the evolution of social security systems in South Africa is closely related to its political history, the economy experience illustrate the way in which a deeply embedded agenda (the social pension), has been reformed over time to address changing vulnerability, including most recently, the rise in AIDS infection and migration (Barrientos, 2010:13).

3.5.1.2 *Empirical Findings: Sub-Saharan African Economies*

Botswana's Mass Antiretroviral Therapy Program (ART), is a programme designed at providing eligible citizens, living with HIV and Aids, with life-saving anti-retroviral treatments. In 2001 alone, an estimated 320 000 individuals in Botswana were living with HIV, one out of four individuals. This raised much concern for President Festus Mogae and soon after, he pledged to make HIV a national priority. By 2002, the National AIDS Coordinating Agency (NACA) started working on a comprehensive strategy for HIV/Aids treatment. By 2013, almost 90 percent of Botswana's population, an estimate of over 200 thousand individuals, were covered under the ART programme. The impact of the ART programme has shown a decrease in Aids deaths from over 20 000 in 2002 to almost 6 000 in 2013 (Center for Global Development, 2018b).

Kenya's schools meals started in the 1980s and the most recent programme is the Home Grown School Feeding (HGSF) programme, established in 2009 and is a conditional cash transfer to schools for local purchase of food, involving half a million minors of primary school age (HGSF, 2018). Today, the WFP and the Government of Kenya provide lunch to one and a half million school children (WFP, 2018b:1). The system has indicated a positive impact on the quality of minor's nutritional health, which in return enhance minor's learning capability and performance and improve school attendance. (Langinger, 2011:36).

Ethiopia's PSNP is probably the most known programme in sub-Saharan Africa. The aim of the PSNP is to promote food security and to assist in stabilising asset levels. The programme consists of a combination of both conditional transfers in cash and/or in kind based on public

works (Cochrane & Tamiru, 2016:650). It also comprises of a small piece known as unconditional direct transfers which is directed to those incapable to obtain employment opportunities (WFP, 2018b). Berhane, Hoddinott, Kumar and Margolies (2016:48), found that the PSNP increased female grade fulfilment between six and 14 percent (depending on the age of the child), improved schooling efficiency by 10 to 20 percent and reduced male youth labour.

3.6 SYNOPSIS

CHAPTER 3 OBJECTIVES

➢ To provide case studies to analyse the different kinds of social security programmes and their successes and failure to at the end make recommendations to which South Africa can learn from.

The main objective of Chapter 3 was to analyse different social security systems across the globe, more specifically focus was shifted towards the SNAP benefit implemented by the U.S. government and the *Blosa Familía* programme implemented by the Brazilian government. These formed part of the empirical foundation for the study. As learnt from Chapter 2, the main objective of a national government is to protect the vulnerable and share the risks that could arise in communities from insufficient healthcare, loss of jobs and ageing. This is reflected in government spending on social security (i.e. pensions, unemployment insurance) and health care (UNICEF, 2015:8). The supply and demand of social security and other social services is subject to demographic dynamics, economic fluctuations as well as technical changes and the complexity arising from their interaction and the impact it has on the long-run sustainability of national finances (World Bank, 2018e). Therefore, many international organisations recognise social security as a human right, examples of these include, the 1948 Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights of 1966 and ILO Recommendations 202.

As such, the first section (Section 3.2) provided a brief background of the implementation of social security in a global perspective. Various scholars (ILO, 2017; Samson & Taylor, 2015:14; Dethier, 2007:1) found that even though social security is more recently seen as a human right,

many economies across the globe have not yet a realised this and numerous individuals are uncovered, as around 45 percent of the total global population does not enjoy access to social security programmes. Typical systems introduced by national governments include that of maternal social security benefits, unemployment insurance, old-aged benefit, health care coverage and minor assistance, just to name a few. On average, economies tend to spend between two and 18 percent of its GDP on social security systems, where industrialised economies tend to spend more.

Hence, a brief analysis was provided for an industrialised economy, being the United States and its implemented SNAP. It is important to note that the SNAP benefit is provided by the national government in the form of a coupon. The SNAP benefit is designed to reduce agricultural wastage, to provide local basic food sorts to U.S. natives and to boost their gross monthly income. Empirical findings found that the SNAP benefit assisted in health and economic well-being, food security and poverty.

Furthermore, there was more focus on the analysis of Brazil's social security system as Brazil has a similar economy to that of South Africa. The *Bolsa Familía* programme is designed to alleviate hunger, poverty and inequality through an income transfer linked with educational, health and nutritional services. Hence, the *Bolsa Familía* programme provides a "basic benefit", targeted at families in extreme poverty and providing basic payment. Empirical findings found that the *Bolsa Familía* programme has an impact on the alleviation of poverty and inequality and assists in human development through its school attendance conditionality.

A brief background was also provided for sub-Sahara Africa; however, not much attention was given on this, as the focus was the *Bolsa Familía* programme of Brazil. However, empirical findings found that different sub-Saharan African economies tend to design and implement social security systems fit to their economic conditions.

As such, the empirical findings of these studies indicated that social security programmes had some successes and failures. Hence, the need for the analysis of the South African social security system performance and its' impact on poverty, income inequality as well as assisting in human upliftement.

CHAPTER 4

SOCIAL SECURITY, POVERTY, INEQUALITY AND HUMAN DEVELOPMENT IN THE CONTEXT OF SOUTH AFRICA

"...but in this new century, millions of people in the world's poorest countries remain imprisoned, enslaved, and in chains. They are trapped in the prison of poverty. It is time to set them free. Like slavery and apartheid, poverty is not natural. It is man-made and it can be overcome and eradicated by the actions of human beings. And overcoming poverty is not a gesture of charity. It is an act of justice. It is the protection of a fundamental human right, the right to dignity and decent life. While poverty persists, there is no true freedom..."

(Nelson Mandela, 2005)

4.1   INTRODUCTION

More than two decades after the end of apartheid, the South African economy has achieved an independent, democratic government based on values such as human dignity, the achievement of equity and the advancement of human rights and freedom (Sinha, 2013:136). South Africa's post-apartheid political transformation has seen a significant improvement in social services, which has been observed through the implementation of numerous poverty-alleviation strategies, including social security (Van Dijk & Mokgala, 2014:83). In fact, the South African Constitution (1996) recognises social security as a right (see below) associated with many other rights such as social dignity.

> "everyone has the right of have access to social security, including if they are unable to support themselves and their dependents, appropriate social assistance an (27(c)) the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights" (C*onstitution (1996) Section 27(1c) and Section 27(2)).*

The White Paper on Social Welfare (1997:5) further expresses that,

> "social security policies and programmes in the form of cash transfers, social relief and enabling developmental services must ensure that individuals have access to adequate economic and social protection during times of old age, illness, child-birth, widowhood and disability. Social security systems of these features contribute to human resource development by empowering poor households to afford acceptable care for themselves and their family, especially to minors and to those considered vulnerable. When such systems are combined with capacity-building, individuals can be relieved from the poverty trap they fell into."

The universal agreement amongst emerging economies supporting the implementation of social security systems in the attempt to alleviate poverty ensures a basic minimum standard of living for individuals and households and contributes to achieving a more equitable distribution of income within an economy. Social security systems, therefore, act as a contributory measure in realising the economy's sustainable development objectives (Triegaardt, 2000:2). Sustainability is the most significant aim of social development and aims at improving individuals, households, communities and societies' well-being. The alleviation of poverty and inequality and the upliftment of individuals' standards of living are all signs of social progress in the dimensions of social security, health, housing, education and universal development. Hence, social security is a method of strategic social changes designed to promote individuals' well-being in combination with a widespread method of economic development (Van Dijk & Mokgala, 2004:83).

Nevertheless, there is growing concern that the current social security system in South Africa is not designed with set exit strategies for those identified as being poor and vulnerable, other than to influence their living conditions and income levels. Social security benefits in particular are non-contributory in nature and are fully financed through government revenue generated from tax collections (SASSA, 2008:14).

This chapter will start by providing a brief overview of South Africa's economy and challenges the economy is facing in terms of poverty, inequality and human development. Further discussions will include the historical background to South Africa's social security system and will include social assistance grants, contributory programmes, public contributory schemes and

private contributory schemes. However, keeping the objective of this study in mind, emphasis will be placed on non-contributory social assistance grants in South Africa and their impact on the alleviation of poverty and inequality and their contribution to human upliftment. .

4.1.1 Brief Economic Overview

South Africa covers a land surface area of 1,219,090 square kilometres. It is divided into nine provinces, namely Eastern-, Northern- and Western Cape, Free State, Limpopo, KwaZulu-Natal, Gauteng, Mpumalanga and North West (Sinha, 2013:136). The smallest province of South Africa in terms of land area is Gauteng. Despite being the smallest province, it is the richest province (Country economy, 2018). Gauteng is mainly urbanised and is home to various international companies and Africa's largest stock exchange, the Johannesburg Stock Exchange (World Atlas, 2018). The Eastern Cape, on the other hand, is the poorest province with a GDP per capita of 3.65 USD (see Table 4-1).

Table 4-1: The richest and poorest provinces in South Africa 2018

Rank	Province	GDP per capita (USD)
1	Gauteng	9.681
2	Western Cape	8.694
3	Northern Cape	6.688
4	North West	6.677
5	Mpumalanga	6.251
6	Free State	6.213
7	KwaZulu-Natal	4.767
8	Limpopo	4.259
9	Eastern Cape	3.651

Source: World Atlas (2018)

KwaZulu-Natal, Limpopo and the Eastern Cape are the three provinces that perform worst in terms of growth. What these provinces have in common is that they are largely driven by agriculture; KwaZulu-Natal is known for their sugar industry as well as crops such as bananas, corn and cotton, Limpopo's three main drivers of economy consist of mining, agriculture and

tourism. The Eastern Cape is mostly known for sheep farming, game farming and fishing for squid (World Atlas, 2018).

According to StatsSA (2017b), the amount of individuals living in South Africa for the year 2017 was estimated at 56.52 million, a growth of over 11 percent from 2011and in August 2018 and population estimate was 57.48 million (see Table 4-2). This has placed South Africa as the 25th largest economy in terms of population size, which is equal to 0.75 percent of the world's population (Worldometers, 2018).

Table 4-2: Mid-year population estimate for South Africa by population group and gender, 2017

Population Group	Male		Female		Total	
	Number	% Share of Males	Number	% Share of Females	Number	% Share of Total
Black African	22 311 400	80.8 %	23 345 000	80.8 %	45 656 400	80.8 %
Coloured	2 403 400	8.7 %	2 559 500	8.9 %	4 962 900	8.8 %
Indian/Asian	719 300	2.6 %	689 800	2.4 %	1 409 100	2.5 %
White	2 186 500	7.9 %	2 307 100	8 %	4 493 500	8 %
Total	**27 620 600**	**100 %**	**28 901 400**	**100 %**	**56 521 900**	**100 %**

Source: StatsSA (2017b:2)

As can be seen from Table 4-2, of the total South African population in 2017, 80.8 percent are Black Africans, while 8 percent are White, 8.8 percent Coloured and 2.6 percent Indian or Asian (StatsSA, 2017b). Compared to 2010, the proportion of Black Africans (79.4 percent) were the only race group that increased since 2010 when compared to the decline in Indian/Asian (2.6 percent) and White natives (9.2 percent), while Coloured (8.8 percent) remained constant (World Population Review, 2018c).

The increase in population size is mainly due to external migration as there was an increase of over 125 000 individuals (Country meters, 2018). In 2017, the natural increase was positive, as the number of births exceeded the number of deaths by over 470 000 (Country meters, 2018).

The gender ratio of the total population was 0.980, indicating that for every 1 000 females there are 980 males, which is lower than the global gender ratio, which was nearly 1016 males for every 1 000 females (Country meters, 2018). Hence, approximately 50 percent of the total population is female (StatsSA, 2017b).

Table 4-3: Mid-year population estimates by province, 2017

Province	Population estimate	% of total population
Eastern Cape	6 498 700	11.5 %
Northern Cape	1 214 000	2.1 %
Western Cape	6 510 300	11.5 %
Free State	2 800 700	5.1 %
Gauteng	14 278 700	25.3 %
Limpopo	5 778 400	10.2 %
KwaZulu-Natal	11 074 800	19.6 %
Mpumalanga	4 444 200	7.9 %
Total	**56 521 900**	**100 %**

Source: StatsSA (2017b:2)

Gauteng constitutes the largest share of the total population, home to nearly 14.3 million individuals and KwaZulu-Natal is the province with the second largest population, with over 11 million individuals. With a total population size of just over 2 million, the Northern Cape has the smallest share of the total population in South Africa (StatsSA, 2017b:2).

At the beginning of 2018, the estimated age structure in South Africa was 28.5 percent of the total population under the age of 15 years, 65.8 percent of total population between the age of 15 and 65 years and 5.7 percent of the total population above the age of 65 (Country meters, 2018). Of the total share of those younger than 15 years, an estimated 7.99 million are males and 7.95 are female. Of the total share of the population between the age of 15 and 65, 18.61 million are males and 18.25 are females and for the total share of the population older than 65, the majority are female (1.89 million) when compared to the total male (1.28 million) (Country meters, 2018; StatsSA, 2017b:2).

Dependency ratio of the total population under the age of 15 years and above the age of 65 is almost 52 percent in South Africa, indicating that the dependent part of the population is more than half of the working part. Child dependency amounts to over 43 percent and old-age dependency amounts to over 8 percent. Hence, the working population has the obligation not only take care of themselves, but also assist both minors and retired individuals. The fact that more than 50 percent of the population are dependents implies increased pressure on the productive population in South Africa (Country meters, 2018).

In terms of human development in 2015, the UNDP ranked South Africa on its Human Development Index (HDI)[11] 119th out of 188 countries up from 123rd in 2011 (UNDP, 2016:2; Sinha, 2013:137). With an HDI value of 0.666 in 2015, South Africa is classified as a medium human developed economy (UNDP, 2016:2). Evident in Table 4-4, from the 1990s up until 2015, there is an increase of over 7 percent in the overall value of the HDI (0.621 to 0.666). In the same time period, the expected life prospect has shown a decline (from 62 years to 57 years) whereas the expected and mean years of schooling increased, as the former increased by around 14 percent and the latter, increased from 6.5 to 10.3. For 2016, illiteracy rates were highest in Limpopo (73.6 percent), Mpumalanga (70.1 percent), North West (55.3 percent) and KwaZulu-Natal (55.5 percent) (StatsSA, 2017d). South Africa's GNI per capita increased over 21 percent from the 1990s until 2015 (UNDP, 2016:2).

Table 4-4: Trends in the South African HDI from 1990 until 2015

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP$)	HDI value
1990	62.1	11.4	6.5	9.987	0.621
1995	61.4	13.0	8.2	9.566	0.653
2000	55.9	13.0	8.8	9.719	0.629
2005	51.6	12.9	8.9	10.953	0.609

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[11] HDI is an index used by the United Nations to measure the progress of the country and include three dimensions of human development, namely a long and healthy life, level of education and a decent standard of living.

2010	54.5	12.8	9.6	11.838	0.638
2011	55.5	12.8	9.7	11.978	0.644
2012	56.3	12.8	9.9	12.037	0.652
2013	56.9	13.0	10.1	12.126	0.660
2014	57.4	13.0	10.3	12.113	0.665
2015	57.7	13.0	10.3	12.087	0.666

Source: UNDP (2016:2)

Besides this, South Africa faces a mixture of socio-economic challenges which hinders the ability of government to broaden the scope of coverage of its social security system (Sinha, 2013:137).

First, poverty has been a long hurdle the country has struggled to overcome. According to StatsSA (2017c), regardless of the decline in poverty rates between 2006 and 2011 (nearly 2.5 million individuals), poverty levels rose again in 2015[12]. According to the World Bank (2018f:xvii), more than half of South Africans were poor in 2015, with the poverty headcount increasing to 55.5 percent, from a record low of 53.2 percent in 2011. As illustrated in Figure 4-1 illustrates the poverty line for 2006 to 2015. In 2015, over 30 million individuals lived on less than R992 per person per month (StatsSA, 2017c)[13].

According to StatsSA (2017c), the main factors affecting the poverty rate between the year 2011 and 2015 is mainly driven by international and domestic factors such as weak economic growth, high unemployment rates, greater household dependency on credit, high commodity prices (food and fuel) and policy uncertainty. The World Bank (2018f:xxiii) found that between 2006 and 2015, the top three poorest provinces were the Eastern Cape, Limpopo and KwaZulu-Natal. With poverty rates of over 57 percent, Eastern Cape is recorded as being the province that had the lowest recorded reduction in poverty rates. Whereas, Limpopo had the highest poverty level of just over 67 percent in 2006, 71.5 percent in 2009 and by 2011, fell to 52.7 percent. Due to a

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[12] Calculated at the lower-bound poverty of R758 per person per month for 2017 prices

[13] Calculated at the upper-bound poverty line of R992 per person per month for 2015 prices

large population size, the largest share of poor individuals in 2015 was located in KwaZulu-Natal (StatsSA, 2017c). According to the statement of Dr Paul Noumba Um, Head of the World Bank South Africa, during 2008 until 2016, more than 75 percent of the South African population fell into poverty at least once (Feketha, 2018).

Being Black, young and female is also associated with negative social skills. StatsSA (2017c) found that young Black females under the age of 17 years, more especially those who live in provinces such as Limpopo and the Eastern Cape, are more likely to be uneducated, therefore, they are the main victims of the ongoing struggle against poverty (World Bank, 2018f:xii). Evident from Figure 4-1 is that minors between the ages of 0 to 17 are most likely to fall into poverty. The trend observed in Figure 4-1 follows a u-shaped one, where poverty levels decreased with age and then start to increase from ages 54 years and upwards (StatsSA, 2017c).

Figure 4-1: Illustrate poverty headcount by age in South Africa from 2006 until 2015
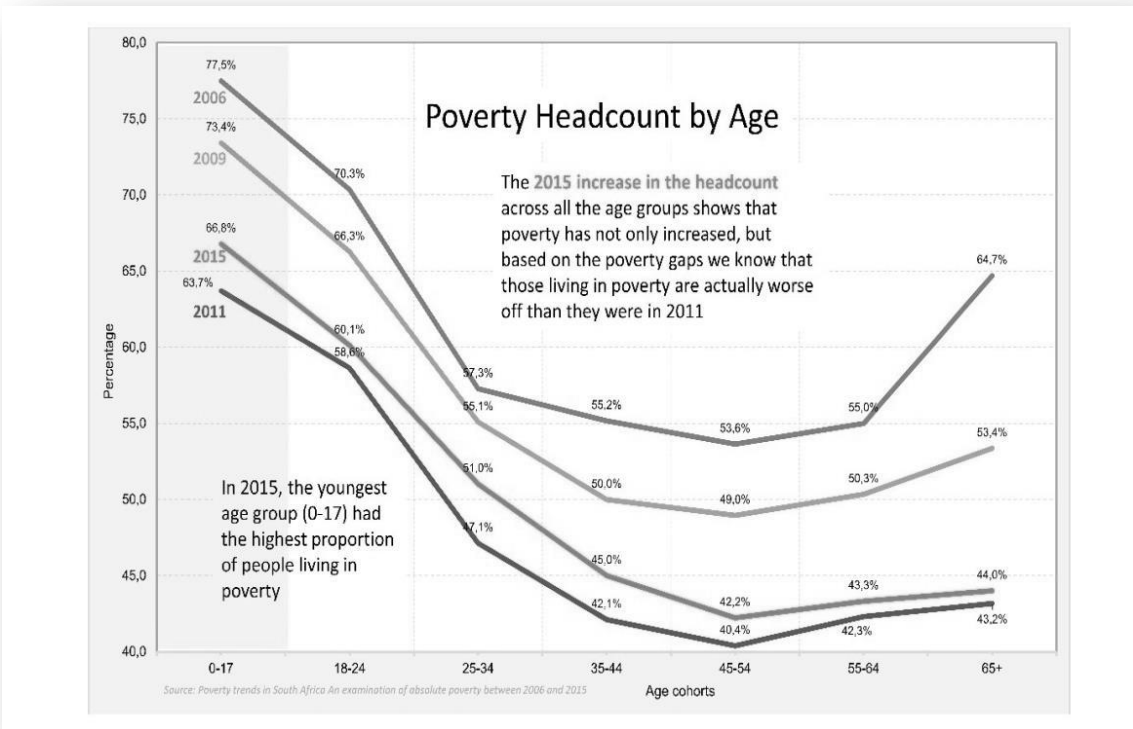
Source: StatsSA (2017c)

In as far as inequality is concerned, South Africa is seen as one of the most unequal economies across the globe (Keeton, 2014:26) with a GINI coefficient of 0.63 in 2015 (World Bank,

2018f:xvii). This is mainly due to high income inequality and low intergenerational mobility inherited from apartheid, being passed down from generation to generation. Education and skills development are also a contributing factor to high inequality in South Africa as poor natives are either unemployed or unskilled (Feketha, 2018).

In South Africa, wealth inequality has a greater impact on the economy than income inequality. It is reported that the poorest 50 percent of households accounts for 8 percent of national income, 5 percent of asset values and 4 percent of net national wealth (World Bank, 2018g:47). On the contrary, the richest 10 percent of households account for 55 percent of national income, 69 percent of total household asset value and 71 percent of household net national wealth (Feketha, 2018).

South Africa also struggles to generate sufficient jobs for the number of individuals entering the work force each year, hence the country has one of the world's highest unemployment rates [14] (World Bank, 2018f:xiv). Since the early 2000s, narrow unemployment rates have averaged at more than 20 percent, reaching peak to the current rate of 27.3 percent. The expanded unemployment rate was higher and amounted to just over 30 percent of which youth in South Africa was most hard hit as youth unemployment exceeded 50 percent. In addition, unemployment rates seem to be explained by race and gender, with Black Africans and females over-represented, fuelling the already high inequality (Trading Economics, 2018b). By 2008, the South African narrow unemployment rate stood at just over 23 percent and the expanded unemployment rate at almost 29 percent. During this time, women were the hardest hit by unemployment as they amounted to 30 percent where male natives amounted to 17 percent (Leibbrandt, Woolard, McEwen & Koep, 2008:9).

In the first quarter of 2018 alone, unemployment rose by over 100 000 as employment decreased by 90 000 (Trading Economics, 2018b). Loss of employment opportunities were evident in the informal sector where jobs fell by 73 000, formal sector fell by 35 000 and agriculture jobs fell

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[14] The expanded definition of unemployment in South Africa includes all individuals who would like to work (regardless of whether they actively seek employment).

The narrow definition of the South Africa unemployment rate includes those who have actively searched for work in the last month and are able to accept a job within the next week. All other workers (discouraged) who would like to work but are not actively seeking work, are classified as not economically active (Leibbrandt, Woolard, McEwen & Koep, 2008:9).

by 3 000 (Trading Economics, 2018b). In the second quarter of 2018, unemployment rose by 1.6 percent in the Free State, making it the province with the largest recorded rise in unemployment, followed by Gauteng (rise of just over 1 percentage points) and the Western Cape (rise of 1 percentage point). A combined decline in official unemployment of just over 3 percentage points was recorded in the Eastern Cape, Northern Cape, Limpopo and KwaZulu-Natal. The overall expanded unemployment rate rose by 0.5 percentage point for the second quarter of 2018 with Eastern Cape having the highest unemployment rate of almost 46 percent (BusinessTech, 2018).

With rising levels of inequality and poverty in South Africa, economic growth alone is not sufficient to guarantee benefits for the economy as a whole (Brockerhoff, 2013:10). Hence, the need for social security systems has become an important tool in supporting poverty and inequality reduction amongst the poor (World Bank, 2018f:xxv). In South Africa, social transfers, also known as social grants, are designed to target vulnerable individuals, especially the elderly, children and the disabled. Such social transfers are awarded to identify vulnerable individuals subject to a means test and provide an important source of income to households who would otherwise be without (Brockerhoff, 2013:10).

Figure 4-2: South Africa's provincial unemployment rate for the second quarter of 2018
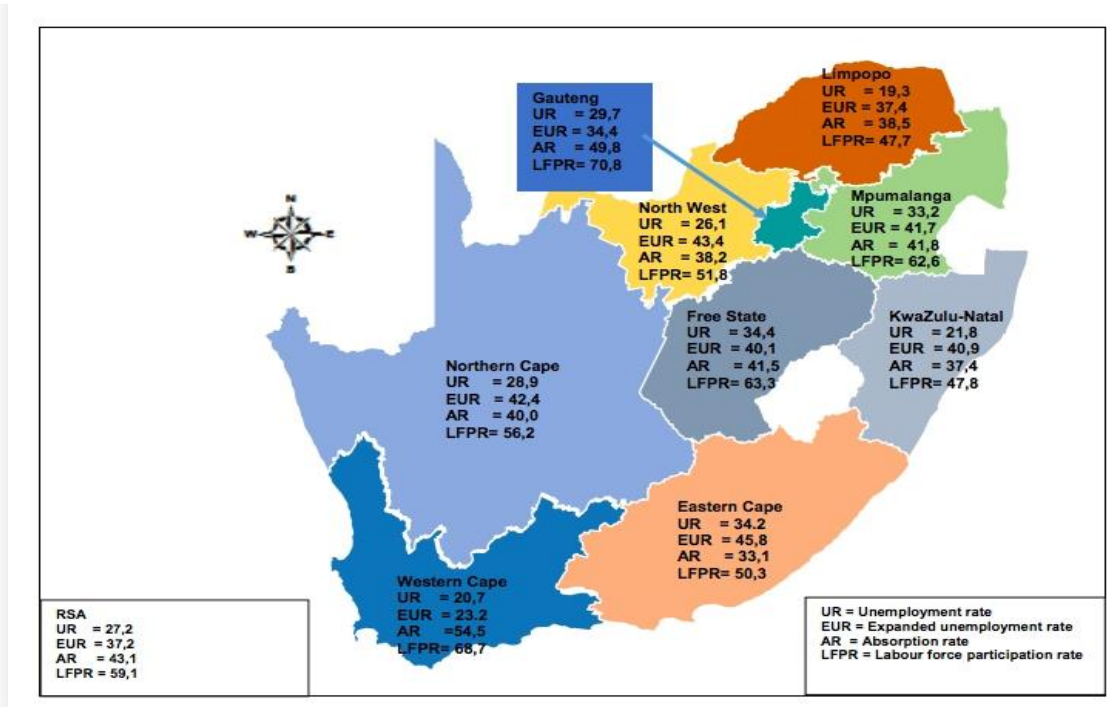
Source: BusinessTech (2018)

4.2   Historical Background: Social Security in South Africa

Social security in South Africa can be traced back to the 17th and 18th century where local churches granted social relief to the needy and little was done on the governments' behalf. During this time, there was evidence of racial discrimination in the provision of social relief. (Haasbroek, 2009:17). However, more formally, social security started in the late 1920s where non-contributory old-age pensions were introduced and designed to assist the white population and excluded any native of colour (Lekezwa, 2011:70). These pensions were subject to both a means test and age criteria in order to ensure that only the identified poor were targeted (Ralston, Schatz, Menken, Gómez-Olivé & Tollman, 2016:85). During this time, the number of dependents was relatively small despite an increasingly generous means test, as the greatest share of the white population were protected by occupational retirement insurance (Woolard, Hattgen & Klasen, 2010:7). Table 4-5 shows the evolution of the social security system in South Africa during the pre-apartheid era and the apartheid era.

Table 4-5: South African social security reform from pre-apartheid and during the apartheid era

Year	Change in Social Security Policy in South Africa
1854	National government granted £ 75 to old and needy Voortrekkers
1882	The first pension fund instigated in the old Transvaal
1919	Introduced war veterans pensions for White and Coloured natives, not covered by occupational retirement insurance (subject to age criteria and means test)
1920	Occupational retirement insurance quickly inflates to White skilled employees
1928	The Old-Age Pension Act was approved
1929	Introduced non-contributory social pensions for White and Coloured natives who were not covered under occupational insurance (subject to age criteria and means test)
1936	The Blind Persons Act was approved
1937	Department of Social Welfare was established where grants for the blind and disabled were introduced (restricted to White and Coloured natives only)
1941	Implemented pensions for war veterans, excluding Black Africans
1943	Take-up of social assistance White = 40%; Coloured = 56% and Black Africans = 4%
1944	Social old-age pension and pensions to the blind extended to Black Africans, however, benefit level were less than a tenth of that of White natives and they had separate, much more rigid means test
1946	Disability grants extended to other ethnic groups
1947	Implemented family allowance for large and poor households, excluding Black households
1956	Pensioners Fund Act established and regarded as a milestone in regulation of pensions. Again lower skilled workers were excluded from provision leaving Black Africans without refuge
1958	Black Africans receive 60% of the old-age pension, however, spending on their pensions only amounted to 19% of total expenditure towards old-age grants
1970	Prompt industrialisation caused Black workers to be included in the industry and

	occupational insurance expanded to less skilled workers
1972	Social security entered a new trend of re-incorporation and reduced inequality
1978	Black Africans contributed to 70% of total pensioners in the economy and received 43 % of old-age pensions
1779	The principle of equity in total expenditure towards social security was accepted
1990	Black Africans received 67% of old-age pensions
1993	Pension equality was attained and discrimination in terms of means test was relaxed (gender discrimination still persisted)

Source: Haasbroek (2009:18)

Around the early 1940s, the pension for war veterans was introduced and the percentage of individuals who were eligible for old-age benefits were roughly 40 percent for White natives and 56 percent for natives of colour. However, at this time, only 4 percent of all social assistance expenditure was on Africans and that consisted merely of targeted relief and pensions for the blind (Van der Berg, 1997:486; Van der Berg, Siebrits & Lekezwa, 2010:4).

By 1944 pre-apartheid era, under ruling of former President Smuts, old-age pensions (OAP) were extended to include Africans, however, at this time only one African for every ten white natives were covered. By the late 1950s (a decade into apartheid), Africans accounted for 60 percent of the 347 000 OAP, although they only received 19 percent of old-age spending (Van der Berg, 1997:486). By the 1960s the South African economy experienced relatively high economic growth that averaged around 6 percent per annum, which led to the expansion of social security expenditure especially to Black African natives and the gap between the Black Africans and White natives started to narrow by the mid-1960s (Lekezwa, 2011:74).

Figure 4-3: Fiscal statistics for the Black African population from 1930 until 1960
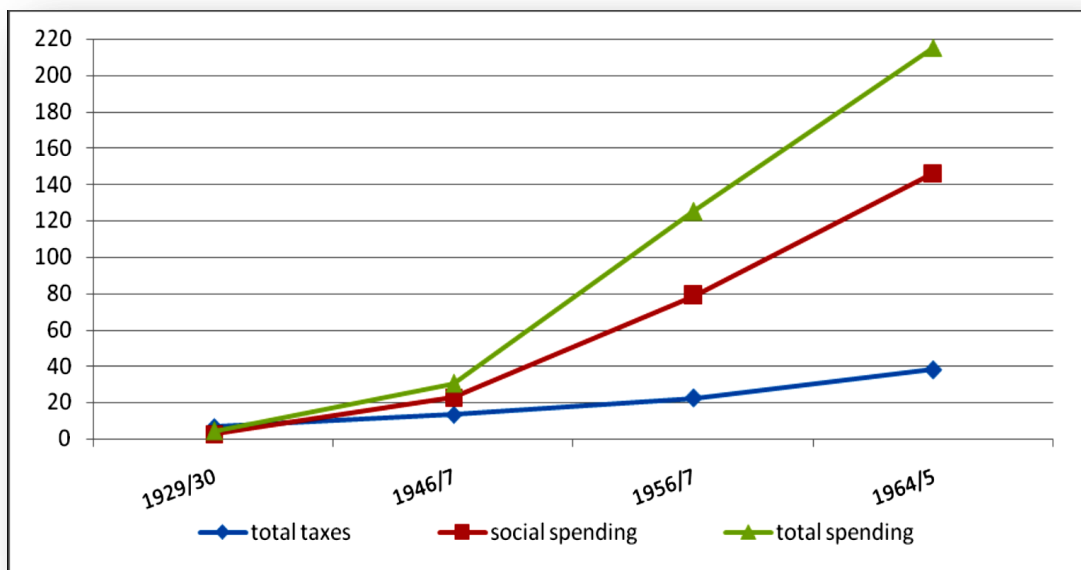
Source: Lekezwa (2011:74)

As can be seen from Figure 4-3, expenditure towards Black Africans was more than the total taxes they have paid throughout the years. Hence, Black Africans paid a small portion of the overall taxation during these designated years. Two decades later, the apartheid government worked hard to give the "independent homelands/ Bantustans"[15] political justice (South African History Online (SAHO), 2018). However, a major drive for what former President Kruger (1992) describes as the *"de-racialisation"* of social assistance came from the attempts to continue the Bantustan system of racial division (Woolard *et al.,* 2010:7). This led to a rapid increase in social expenditure towards OAP to the Bantustan community. The coverage to the elderly Black African population grew steadily and by the early 1990s amounted to almost twice as much Black African pensioners inside the homelands as outside (Lekezwa, 2011:76).

From the 1970s, the principle of moving the parity in social expenditure levels was reluctantly accepted. From here on, national expenditure towards social security systems have escalated

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[15] Homelands/ Bantustans were established by the apartheid government, were areas to which the majority of the African population was moved to prevent them from living in urban areas. The Bantustans were a major administrative mechanism for the removal of Africans from the South African political system under many laws and policies created by apartheid (see https://www.South_Africahistroy.org.za/article/homelands for more information).

rapidly in an attempt to include all ethnic groups and to provide similar benefits (Woolard *et al.,* 2010:7). Therefore, from the 1970s until the 1990s, spending on OAG increased by 200 percent (from 0.6 percent in 1970 to 1.8 percent in 1990). Fiscal constraints prevented the growth of white pensions to make provision for other ethnic groups that were previously left out. Because of this, African pensions grew by 5 percentage points between 1970 and 1993, while white pension benefits fell by a third (Woolard *et al.,* 2010:7; Van der Berg *et al.,* 2010:4).

The Social Assistance Act of 1992 recognised the importance of equality and removed discriminatory provisions. Therefore, white privileges to OAP were expanded gradually to include all ethnic groups in the South Africa economy (Woolard *et al.,* 2010:8). However, discrimination against Black Africans in terms of social security was only eliminated by 1993 (Haasbroek, 2009:19). In 1991, only R 1.4 million of total social security expenditure was spent on elderly Black Africans outside the homelands, compared to R 272 million spent on White pensioners (Van der Berg, 1998a:3). Table 4-6 illustrates the change in South Africa's social security expenditure in the years prior to the post-apartheid era (also known as the democratic era). Evident here is that expenditure increased by 83.27 percent since 1990 until 1993, from 5.7 million rand to 10.5 million rand (Van der Berg *et al.,* 2010:4).

Table 4-6: Social security expenditure in South Africa from 1990 until 1993

	1990	**1991**	**1992**	**1993**
R million	5 759	7 431	10 031	10 555
Percentage of total expenditure	6.9	7.7	8.5	8.3
Percentage of GDP	2.1	2.4	3.0	2.8

Source: Luiz (1995:586)

The expansion in social security expenditure to different ethnic groups in 1993 is illustrated in Figure 4-4. The largest recipients group were Black African individuals with just over 68 percent, followed by Coloured individuals at almost 19.5 percent, Whites 8.5 percent and Indians only 4 percent. At this stage, not much progress has been made regarding the alignment of social security expenditure to population demographics (Haasbroek, 2009:19).

Figure 4-4: Social pensions and recipients by race in 1993
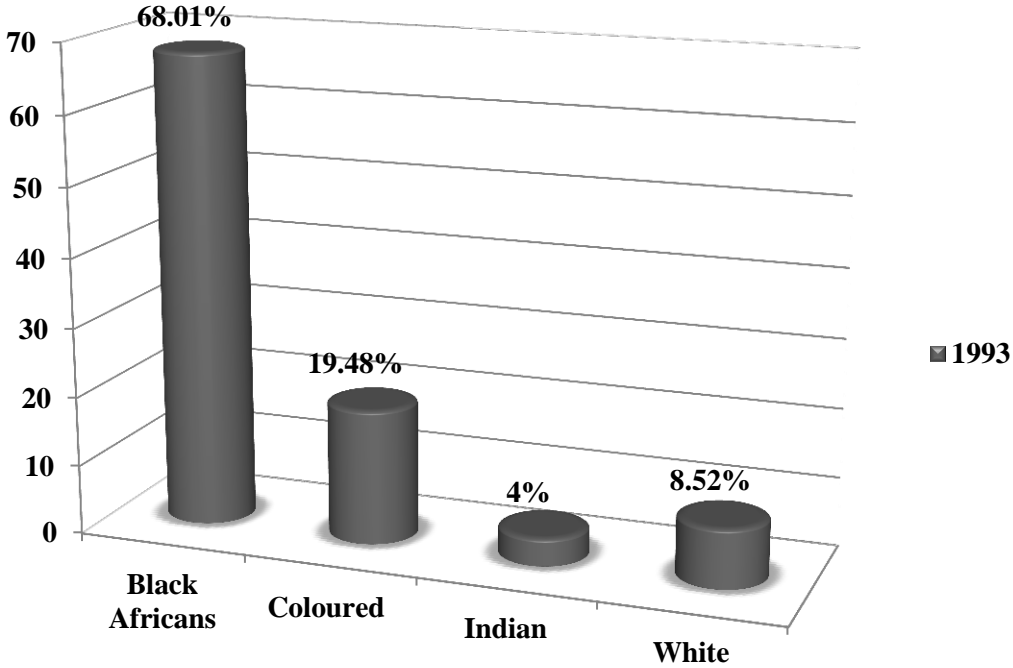
Source: Adapted from Haasbroek (2009:19)

Figure 4-5 represents a more detailed description on the division of social grant as recipients from the parent allowance grant in 1993 mainly consisted of Coloured's and Black Africans, amounting to 54.6 percent and 24.8 percent respectively. The Child Maintenance grant follows in the same pattern as Parent Allowance as Coloured recipients amount to 53.5 percent and Black Africans recipients 29.4 percent. The pattern of dominant Coloured recipients is also evident in foster parent grants where Coloured recipients amount to 48.1 percent and Black African recipients to 35.3 percent. The only grant type still displaying a classic apartheid regime is that of the single parent grant; where White recipients receive around 80 percent of benefits and other ethnic groups receive the remaining 20 percent. Evidently, OAG, DG and the blind grant recipients during the fiscal year of 1993 consisted mainly of Black African elderly individuals with Coloureds being the second largest recipients of this grant (Van der Berg, 1997:493; Haasbroek, 2009:20).

Table 4-7: Per capita expenditure towards care for elderly South Africans for 1993

	Spending per member of	
	Total Population	**Population of pensionable age**
Black Africans	R 3.02	R 92.15
Coloureds	R 15.03	R 441.44
Indians	R 2.17	R 63.36
Whites	R 59.63	R 636.62
TOTAL	R 17.72	R 377.07

Source: Van der Berg (1998a:3)

The per capita expenditure on old-age pensions by the national government for 1993 is represented in Table 4-7. During the end of the apartheid era, expenditure towards the care for elderly Black Africa population (outside the homelands) was roughly 20 times that of the total Black African population (see Figure 4-5). Van der Berg (1998a:3) found that more than half of the total Black African population (amounting to over 70 percent of the total South African population) lived in the homelands and expenditure levels there were much lower.

Figure 4-5: Social grant by type as divided into different ethnic group's for 1993
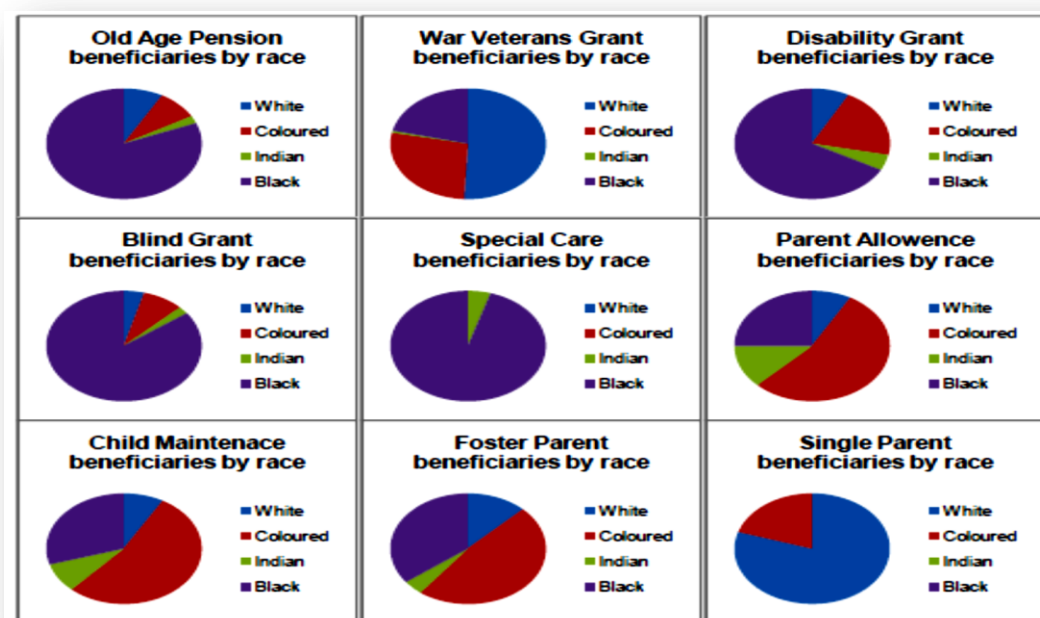
Source: Haasbroek (2009:20)

Evident from Figure 4-6, the main redistribution channels in the 1993 fiscal year were OAG, amounting to almost 60 percent of total expenditure, DG amounting to almost 20 percent and child maintenance grant to just over 12 percent of total social expenditure. The remaining six grant categories in 1993 were insignificantly small.

Figure 4-6: Social expenditure towards different grant types in 1993
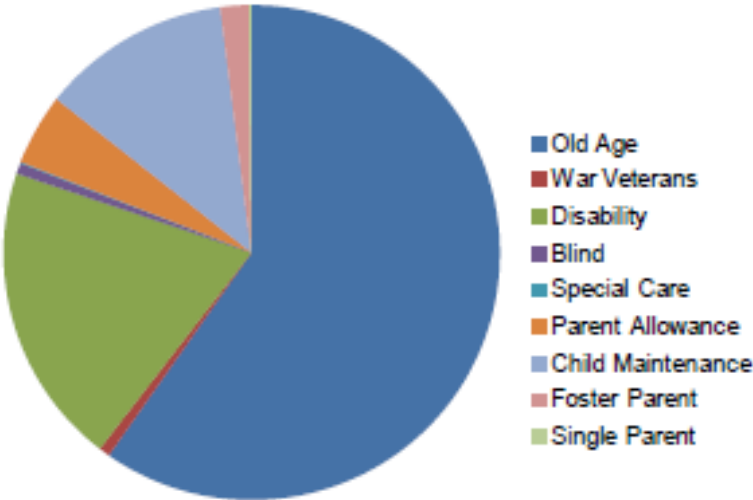
Source: Van der Berg (1997:493)

According to Van der Berg (1998b:37), the real value of OAP and DG granted to White natives was reduced by over 40 percent since 1978, while the real value of grants given to Black Africans increased five times from the 1970s. Table 4-8 provides an explanation of the real level of OAP paid to recipients, as the nominal values are being weighed against the average wage rate for each specified period. During the mid-1970s, White recipients benefitted just over four times more than Back Africans, with benefits equalling 30.5 percent of average wages, compared to just over 7 percent of that of Black Africans. By the end of the apartheid era, the benefit ratios were balanced as all ethnic groups received the same level of benefits.

Table 4-8: Maximum nominal value of grants compared to the average wages from 1975 until 1993

Year	Maximum OAG as % of average wage			
	Whites	**Coloured's**	**Indians**	**Black Africans**
1975	30.5	16.2	16.2	7.1

1980	28.4	16.1	16.1	8.6
1985	22.5	14.6	14.6	9.9
1990	16.7	13.6	13.6	10.6
1993	15.5	15.5	15.5	15.5

Source: Van der Berg (1998b:38)

The overall consensus is that the South African social security system during apartheid was unevenly distributed amongst different groups in need and was discriminative. Hence, the aftershock of apartheid is still felt in many areas of South Africa and the national government has the responsibility to resolve these past faults. Therefore, the following section will provide a discussion on how social grants are used now (in the post-apartheid era) as a redistribution tool in assisting disadvantaged ethnic groups.

4.2.1 The Post-Apartheid Evolution of Social Security Grants in South Africa

Since the onset of democracy in 1994, the national government amended the provision of social security benefits. Consequently, the only major change was the replacement of the Child Maintenance Grant with that of the Child Support Grant, as can be seen in Table 4-9. There are currently seven types of social security benefits in South Africa. These include the old-age pension, war veteran grants, disability grant, care dependency grant, foster child grant, grant in aid and child support grant (Plagerson & Ulriksen, 2016:9).

Table 4-9: Graphic summary of the different social security grants in South Africa from 1994-2018

Grant Type	1994-1997	1998-2000	2000-Currently
OAG	●	●	●
WVG	●	●	●
DG	●	●	●
Parent Allowance	●	●	
Child Allowance	●	●	
CDG	●	●	●

FCG	●	●	●
GIA	●	●	●
CSG		●	●

Source: Adapted from Haasbroek (2009:23)

Throughout the years, the South African Constitution has broadened coverage of social pension to poor and vulnerable individuals. These include both social insurance and social assistance programmes. Social insurance (also known as contributory schemes) is divided into two groups, namely the statutory funds, which include reimbursement benefits such as the Road Accident Fund, Unemployment Insurance Fund (UIF) and voluntary funds, which include retirement funds and medical aid schemes (Van der Berg *et al.,* 2010:4). Social insurance benefits are financed mainly through contributions from employees and/or employer and in some cases, the national government (Sinha, 2013:137). Social assistance (also known as non-contributory schemes) on the other hand, comprises of three different programmes, which entail social grants, military pensions and special pensions. Social assistance schemes are funded from the general tax revenues (Woolard *et al.,* 2010:5). The South African social security system makes provision for the nine classical risks captured in the ILO Social Security Minimum Standard Convention 1952 (no. 102), namely healthcare, illness, maternity, old-age, family, invalidity, unemployment and employment injury and death (ILO, 2018b). The general design of the South African social security system is illustrated in Figure 4-7.

Figure 4-7: South Africa's social security system
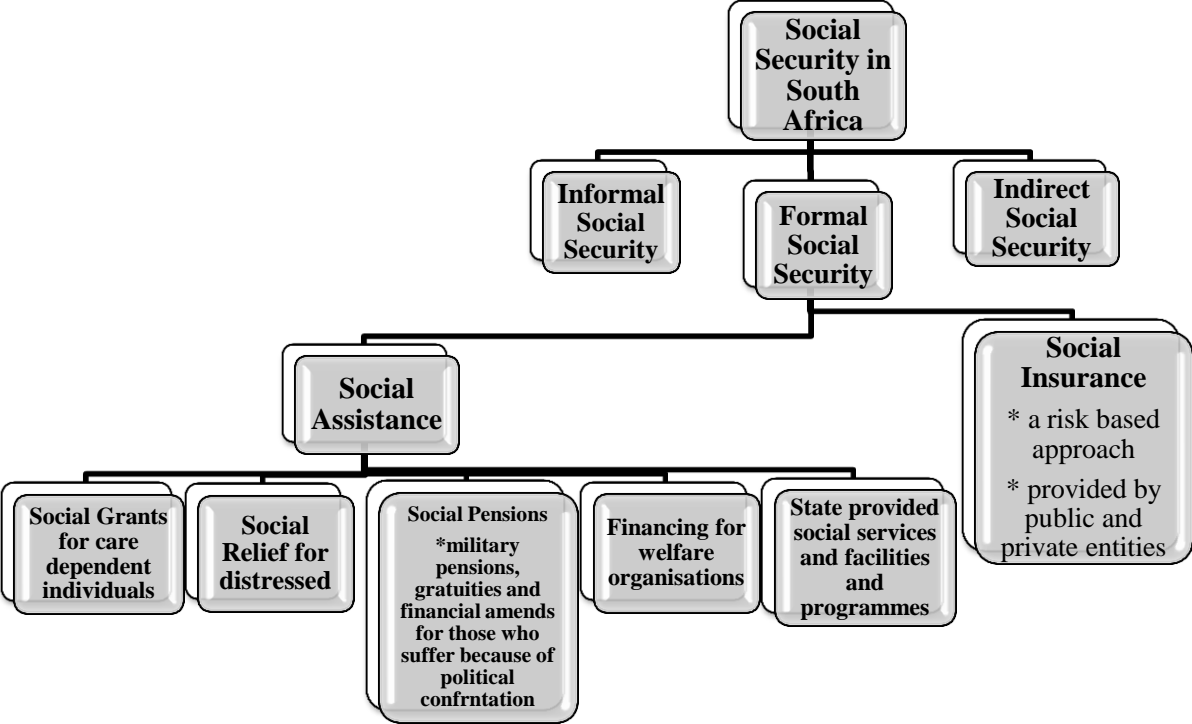
Source: Dekker and Cronje (2005:24)

South Africa's social security system provides support over an individual's life course and supports individuals throughout their stages of life (Lekezwa, 2011:69). Coverage for handicapped individuals and chronically ill individuals was included and provided grants with similar eligibility criterion as pensions and state that an individual should be older than 18 and younger than the age eligible for OAP (18 to 59 years of age) (SASSA, 2018a). During this time, the main criterion is that an individual should be handicapped to the extent that they are unable to support themselves. Permanent transfers were awarded for a shorter period, for example six months to those who are expected to regain their ability to support themselves. In the 1990s, the number of disability grants (DG) was extremely high, however, as decreased since.

Consequently, improved coverage and equitable distribution of benefits occurred for OAP and to a lesser extent, for DG. However, in the case of child support grants (CSG), the post-apartheid government had to confront highly inequitable inheritance, as prior the 1994 transition, very little was spent on CSG. Evident from 1995 fiscal year figures, only 12 percent of the total social expenditure was devoted to CSG (Woolard *et al.,* 2010:8). During the economy's transition into

post-apartheid, the government designed three benefits directed to minors and included a foster care grant (FCG), a care dependency grant (CDG) and a state maintenance grant (SMG). A FCG was directed at minors that had been placed in foster care and living with foster parents through a court order (Van der Berg *et al.,* 2010:4). A CDG was granted to caregivers of minors who are handicapped to the extent that they need full-time care. A SMG was limited to an unmarried, widowed or separated parent or guardian with a minor under the age of 18 years. Due to the limitations of this grant, not many children or their caregivers actually received such benefits. The new African National Congress (ANC) government soon realised that providing equal access to the SMG would have severe fiscal implications and that a SMG was deemed as inappropriate in the context of South Africa (Woolard *et al.,* 2010:8).

Table 4-10: Life course social security framework

Age 0-16	Age 16-24	Age 24-60	Age 61+
➢ Universal Child Allowances ➢ Disability Allowance	➢ Educational Allowances ➢ Disability Allowance	➢ Income Loss Insurance ➢ Means-tested Social Assistance ➢ Disability Allowance	➢ Universal Pensions ➢ Compulsory Contributory Pensions ➢ Contributory Survivors' Pensions ➢ Means-tested Social Assistance ➢ Disability Allowance

Source: Van der Berg *et al.* (2010:8)

The ANC government soon reformed the scheme and by the end of 1995, the Lund Committee was established to evaluate the existing systems of state support and to explore new policy options devoted to households with minors. The committee recommended a new strategy, which included a lower monetary value transfer (lower than that of the SMG) targeted at a wider group of individuals in need (Joseph, 2012:45).

By the second quarter of 1998, the CSG was introduced and granted support of a monetary value of R100 per month for minors aged seven and below. The total amount of recipients for all grant types for 1998 was almost 2.5 million (Lekezwa, 2011:69). During the introduction of CSG, applicants were required to pass a means test (which was based the households' income) provide certain documentation and demonstrate efforts to secure funds from other sources. When distinguished between the SMG, which was more family-orientated, the CSG was strongly focused on minors, meaning that the CSG should be independent of the minors' family structure. The CSG was to be paid to the primary caregiver of the minor; however, these conditionalities affected the amount of caregivers to apply for these transfers as a year later only around 22 000 minors had signed up for the CSG. The government responded by altering the means-test from a household amount to one that measured only the income of the primary caregiver in addition to that of his/her partner (Sinha, 2013:146).

Since the introduction of CSG, there were several conditionalities in obtaining these benefits. Such conditionalities obligated applicants to participate in "*development programmes*"[16] and to provide evidence that the minor for whom they were applying were vaccinated. According to Woolard *et al.* (2010:9), these requirements with regards to development programmes was dropped after it became evident that such programme was non-existent in many areas and the conditionality with regards to vaccinations was dropped when it was recognised that it often discriminated against minors who were already disadvantaged in terms of access to services.

In 2000, the South African Cabinet appointed a Committee of Inquiry into Comprehensive Social Security (also known as the Taylor Committee), which investigated the deficiencies of the existing schemes at the time. Under the guidance of Professor Viviene Taylor, the Committee recommended the introduction of a universal benefit to all South Africans, which was called a basic income grant (BIG), starting with the extension of the CSG to all minors. Adhere to the submission of the report; the Department of Social Development extended the benefit to minors from the age of 7 to the age of 14 years, doubling its scope (Plagerson & Ulriksen, 2016:9). By

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[16] Development programme in South Africa include early childhood development (education), health, safety and security, economic growth an employment, skills development, infrastructure development, rural development, human settlements, local government, environment, international relations, public services, social protection, nation-building and social cohesion, etc.

* Please refer to https://www.gov.za/about-government/government-programmes/projects-and-campaigns for further information.

2002, President Mbeki's announced in 2002 fiscal year State-of-the-Nation Address that a government-led organisation to "register all who qualify for a child grant" (Woolard *et al.,* 2010:9).

At this time, the Presidents committee made it clear to the bureaucracy that social grants provided the central pillar for the poverty alleviation strategy. By the second quarter of 2003, over 2.6 million minors had been registered for CSG and then numbers have increased ever since (Woolard *et al.,* 2010:9). According to Sinha (2013:146), different thresholds were applied up until 2008, which included formal- and informal rural areas. Such thresholds were applied in recognition of unequal access to proper education, healthcare services and employment opportunities, especially in the informal areas. Since the beginning of 2010, the CSG developed an conditionality which require minors to enrolment in educational programmes , in receipt of this benefits. Hence, all minors born in 1996 and onwards will receive CSG until they turn 18 years of age. The means test has also been relaxed and by 2008, the monetary value of the benefit for single caregivers increased by 10 times and doubled for married caregivers. The monetary value of these benefits is adjusted automatically to inflation (National Treasury, 2017).

Another social security assistance is referred to as the foster child grant (FCG), which is paid to those care-givers who have gone through the legal process and has been granted full custody of the minor by the court. The benefit is aimed at minors up to the age of 18 years who are in need of assistance and who do not receive assistance from their biological parents (SASSA, 2018b). These include minors who are abused as well as minors in trouble with the law. The FCG is not particularly intended to deal with poverty, therefore, has no means test except if the minor has independent income (SASSA, 2018b). According to Woolard *et al*. (2010:10), the nature and the monetary value of the FCG compared to that of the CSG, directly and indirectly affect the incentive of care-givers to prefer the FCG above the CSG. The significant difference between the two programmes monthly amounts is a legacy of the haphazard way in which the benefit system came into being. The Lund Committee was aware of this problem however did not have the means to propose a higher monthly benefit amount to CSG recipients, due to monetary constraints (Joseph, 2012:46). For this reason, Figure 4-8 was incorporated to illustrate the evolution and development of social security benefits to minors and its different role-players in the South African social security system.

Figure 4-8: Representation of the development in the implementation of minor benefits
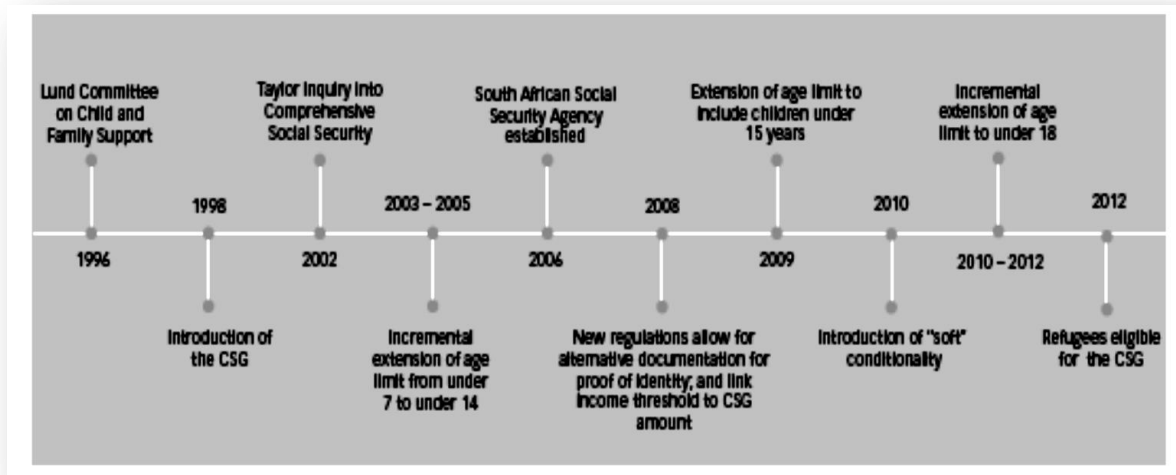
Source: Delany, Jehoma and Lake (2016:60)

In 2004, the Extended Public Work Programme (EPWP) was introduced, which was aimed at creating employment opportunities by increasing labour intensity of all government programmes. A second phase of the EPWP was introduced at the end of 2009, with the aim of increasing the number of full-time employment opportunities to 400 000 individuals by 2014. Since 2012, the EPWP has created more the 4 million job opportunities and aims at creating a further 4 million by 2018. Expenditure of EPWP transfers in 2015 financial year was around R1.7 billion and increased to R2.3 billion in 2018 (South African Government, 2018).

Today the South African social security system is more dependent on means-tested social security benefits than the advanced welfare states; whereas contributory social insurance and universal social assistance programmes are less developed in South Africa. These are illustrated in Figure 4-9 below, where the elements of the South African social security system are shown. Evidently, the South Africa government provides three different forms of assistance to minors and include that of the CSG, CDG and the FCG, where the CSG and the CDG requires certain mean-tests.

The government also assist the working age population through UIF, DG and injured on duty benefit. Lastly, OAG, WVG and occupational pensions are provided to the elderly, who should fulfil in certain criterion before benefits can be claimed.

Figure 4-9: Elements of the South African social security framework

Childhood	• Means-tested CSG • Means-tested CDG • FCG
Working Age	• Work-related Injury Compensation • Means-tested DG • Temporary Unemployment benefits
Old Age	• Means-tested OAG • Means-tested WVG • Occupational Pension
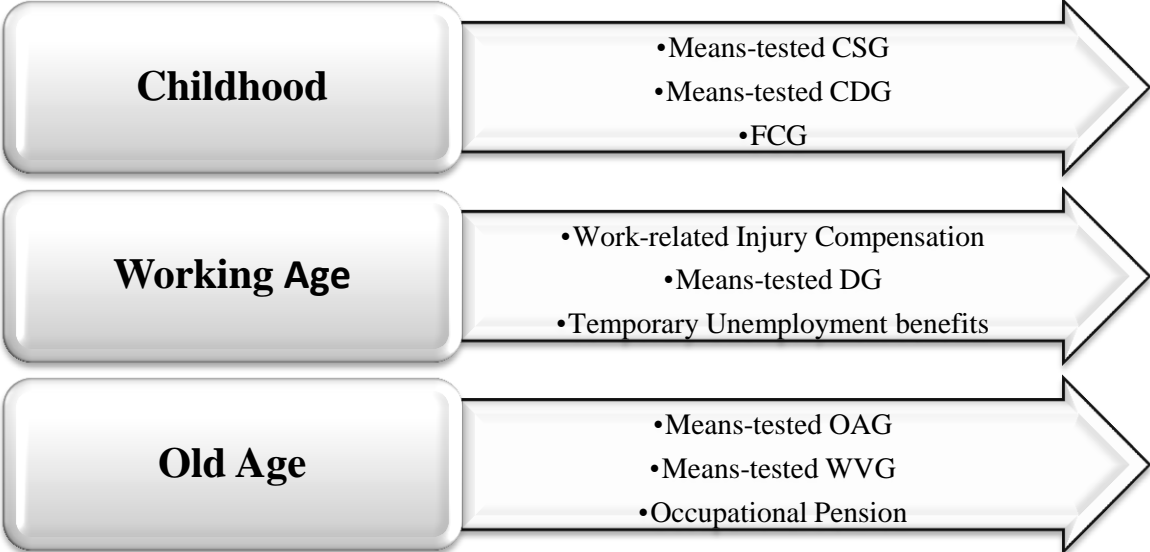
Source: Adapted from Van der Berg *et al.* (2010:9).

The nature and forms of the South African social security can further be explained in Table 4-11. Evidently, the different forms of social assistance granted by the national government, varies in nature. For example, social transfers, social relief benefits, healthcare services etc. are accompanied by mean-tests, as illustrated below.

Table 4-11: Summary of the forms and nature of social security in South Africa

Forms of Social Security	Nature of Social Security
Social Assistance/ Grants	The national government provides a safety net for poor and vulnerable individuals. These are usually non-contributory and consist on a means test.
Occupational/ Social Insurance	These include assistance to cover risks related to the loss of wages. This is a form of contributory benefits. Examples of such included state pensions; provided funds; medical benefits; maternity benefits and unemployment insurance.
Private savings	Individuals save money in the anticipation of unexpected contingencies, such as chronic illness and unemployment.
Social Relief	Government provide assistance (short term) for major disasters such as fire, floods or other natural disasters. These are non-

	contributory in nature and are means test related.
Road Accident Fund (RAF)	Social protection is provided to road users against the risks of mother vehicle accidents
Health Care	Both private and free primary health care. The latter is means tested for individuals in need.
Private Maintenance	Maintenance Act No. 99 of 1998 provides the means for individuals to claim maintenance for dependent minors.
Compensation for Occupational Injuries and Diseases	COIDA no. 130 of 1993 identifies the need to compensate for injuries and diseases that occurred at ones place of work. These include domestic workers, informal sector workers and self-employed contractors.

Source: Triegaardt (2000:4)

4.3　　　THE ADMINISTRATION OF SOCIAL SECURITY IN SOUTH AFRICA

Due to a weakness in the management and administration of social security benefits, together with numerous proceedings and negative publicity in press, just to name a few, around five years after the post-apartheid era, the South African Department of Social Development (DSD) arranged an inter-departmental task team to review South Africa's social security system (Munzhedzi, 2016:17). Thus, the rationale the establishment of SASSA resulted from the recommendation made by the Taylor's Committee (Joseph, 2012:61). The committee suggested the establishment of an entity who should be the sole agent to ensure the following:

➢ Efficient and effective management, administration and transfers of social assistance
➢ Serving as an agent for the prospective administration and transfer of socials security
➢ Rendering services relating to such transfers.

Therefore, SASSA's main functions are:

➢ The Social Assistance Act No. 13 of 2004, states that social security systems should be administered in a proper manner
➢ Assemble, sustain and oversee such information as is necessary for the payment of social assistance, as well as be responsible for the central settlement and management of transfers of funds in a national data base of all applications for and recipients of social assistance, and

➢ Institute an agreement and fraud instrument in order to ensure the integrity of the social security system.

Approximately two years after the recommendations presented by the Taylor Commission, former President Thabo Mbeki agreed to the South African Social Security Act. This was the preliminary ruling that provides for the launch of SASSA as an agent for the administration and transfer of social security benefits (Van der Berg *et al.,* 2010:21). Thus, the objective of SASSA is to act as a long-term agency that will ensure efficient and effective management, administration and transfer of social security benefits and deliver services relating to such transfers (Joseph, 2012:60).

In order for the state to distribute social security benefits to the targeted individuals at the right time and place, SASSA was established. SASSA came into being at the beginning of the second quarter of 2006 in order to assist the Ministry of Social Development with the transfer of social security benefits (Van der Berg *et al.,* 2010:21). Hence, SASSA provides different benefits to different eligible individuals and includes child support grants, care dependency grants, foster child grants, disability grants, old-age grants, war veteran grants and grant-in-aid benefits (Munzhedzi, 2016:18).

4.3.1 Functioning of the South African Social Security Agency

SASSA consists of one national office and nine different provincial offices. Hence, each province has their own provincial office, which structurally progresses down through districts to local areas. However, all major decisions are taken by the head office and assigned to regional offices (Munzhedzi, 2016:22).

Evidently, Figure 4-10 show that each regional administration centre is headed by a regional executive manager who is responsible for strategic leadership and overall management of the administration and transfer of benefits. Each region comprises of various districts with a district administration centre and each district comprises of various local administration centres (Munzhedzi, 2016:22). According to Joseph (2012:62), each district administration centre has its own manager who is responsible for strategic leadership and overall management of the benefit administration and transfer thereof. Though, not all local administrative centres have local office managers.

Figure 4-10: Organisational management arrangement
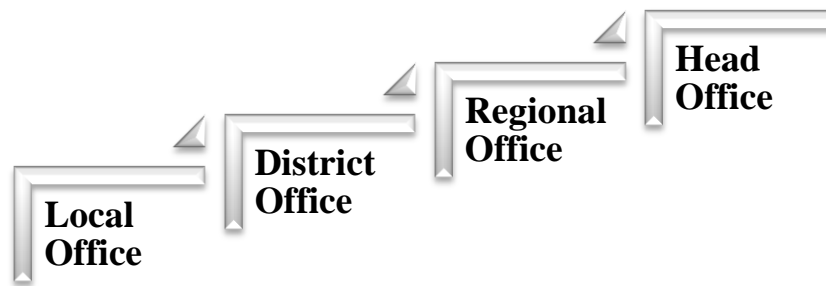
Source: Adapted from Joseph (2012:62)

4.3.2 Legislative Framework

The administration of the South African social security system is focussed on translating its' principles into practice and thereby transforming the constitutional promise into actual results. Since the establishment of SASSA in 2006, the responsibility of administration, management and transfer of benefits to recipients has been the responsibility of the Agency. SASSA functions within the legislative framework that regulates its mandate (Joseph, 2012:63). The following represents the components of the legislation:

4.3.2.1 The Constitution of the Republic of South Africa of 1996, Section 27

South Africa's Constitution of 1996, Section 27(1c) and Section 27(2) states that,

> everyone has the right to have access to- social security, including if they are unable to support themselves and their dependents, appropriate social assistance and (27(2)) the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights.[17]

The Constitution of the Republic of South Africa, therefore, stresses social security as one of the socio-economic rights. Consequently, the state must take reasonable statutory and other measures within its available resources to accomplish the gradual recognition of each of these set rights (Joseph, 2012:63).

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[17] Please refer to the Constitution of the Republic of South Africa (1996:11) for further reading

* ISBN 978-0-621-39063-6

4.3.2.2   The Public Finance Management Act No. 1 of 1999

According to the Public Finance Management Act No. 1 of 1999,

> "the purpose of this Act is to regulate the management of finances in national and provincial government. It sets out the procedures for efficient and effective management of all revenue, expenditure, assets and liabilities. It establishes the duties and responsibilities of the government officials in charge of finances. The act aims to secure transparency, accountability and sound financial management in government and public institutions."

This act, therefore, holds SASSA responsible to manage its financial budget, its expenditure, revenue, assets and liabilities efficiently and effectively.

4.3.2.3   The Promotion of Administrative Justice Act No. 3 of 2000

The aim of this PAJA is to,

> "make the administration effective and accountable to individuals for its actions. Section 33 of the Constitution guarantees that administrative action will be reasonable, lawful and procedurally fair and it makes sure that individuals have the right to ask for written reasons when administrative action has a negative impact on them."

The PAJA does the following:

➢ It ensures that administrative processes are fair
➢ It provided individuals the right to ask for explanations
➢ It provides citizens the right to have administrative action revised by the court

In terms of the application to SASSA, this Act obligates a written reason for why particular decisions are made and why certain applications was not accepted as well as why transfers was late.

4.3.2.4   The Promotion of Access to Information Act (PAIA) No. 2 of 2000

The PAIA No. 2 of 2000 *"gives effect to the constitutional right of access to any information held by the state and any information that is held by another individuals and that is required for the exercise or protection of any rights."*

4.3.2.5   The South African Social Security Agency Act No. 9 of 2004

This Act provides for the *"establishment of the South African Social Security Agency, a body that ensures that efficient and effective management and transfer of social security grants."*

SASSAs purposes are to ensure that social assistance payments are administered efficiently and effectively and to administer the services relating to the payment of social security benefits. SASSA assembles and record all the recipients' information required for the transfer of social security benefits in a national database. It places structures in place to prevent fraud and to protect the recipients' information.

4.3.2.6   The Social Assistance Act No. 13 of 2004

The Act regulates the administration and the transfer of social security benefits. It determines who is eligible for the benefits and ensures that there are minimum standards for the delivery of social assistance. It also provides for the creation of an organisation to monitor the quality of delivery. According to the Act, the state must make provision for the following benefits: child support grant, foster child grant, care dependency grant, disability grant, old-age grant, grant-in-aid and war veteran grant.

4.3.3   The Social Security Benefit Administration Process: From Applicant to Recipient

According to SASSAs procedural manual, there are four steps in granting benefits to the applicant. These include the selecting process, verification process, quality control and confirmation. During the selecting process, documentations are examined and checked for completeness, complete checklist for required documentation, issue documents and forms, book medical assessment for applicant (when applying for DG). In the verification process, applicants are interviewed and completeness of documentation is checked, data are captured, retain application receipt and the applicant can proceed to the next step and update verifying registration.

Figure 4-11: Representation of social security benefit process flow
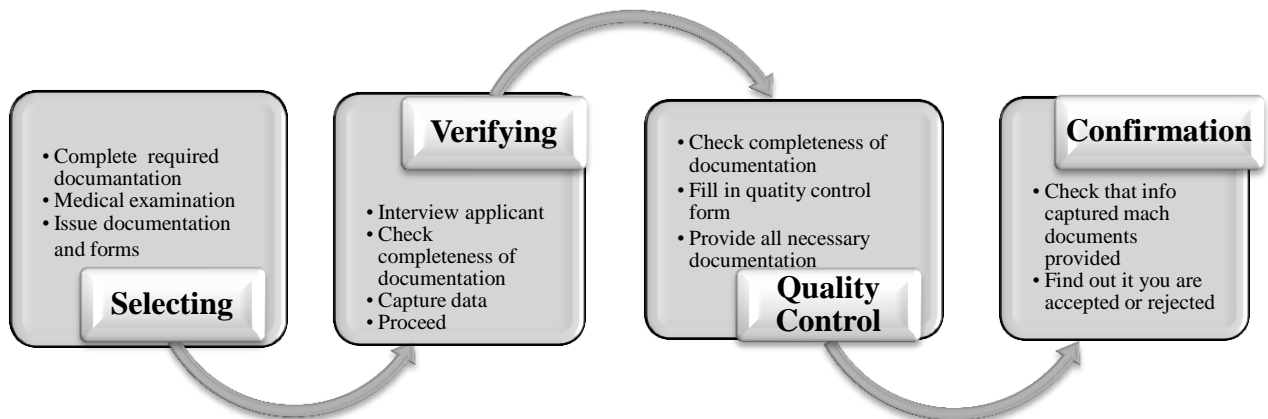
Source: Adapted from Joseph (2012:65)

During the third step it is important to ensure that all documentation is completed and all documentation needed is provided, ensure that information captured is consistent with documentation provided, complete quality control form and update quality control register. The final step sees the applicants' application either rejected or accepted (Joseph, 2012:66).

4.4   THE IMPACT OF SOCIAL SECURITY IN SOUTH AFRICA

Previously mentioned, social security consists of non-contributory social security benefits to individuals and households, funded as part of the national budget. The purpose of the right to social security benefits is to ensure that vulnerable and poor individuals, prone to falling into poverty, are able to access a minimum standard of living and to meet their basic every day needs (Chelechele, 2010:83). It is important, therefore, that the South African government intervene in the assistance of individuals who are in poverty and to design and implement social security programmes as a means to address these hurdles. As a result, the South African government had introduced various social security benefits with the intention to assist individuals during their life course.

Haasbroek (2009:5) found that since the 21st century, South Africa's social security system grew significantly as the number of social grant recipients has increased from 2.9 million recipients in the third quarter of 1997 to over 17.3 million in 2017 and 17.4 million in February 2018 (SASSA, 2018a). According to StatsSA (2017e), the number of individuals who benefitted from social security grants in South Africa increased from 13 percent in 2003 to 30 percent in 2016.

Simultaneously, the number of households who received at least one social security grant increased from 30 percent in 2003 to 45 percent in 2016. More than a third of individual located in the Eastern Cape Province (41 percent), Limpopo (38 percent), Northern Cape (37 percent) and KwaZulu-Natal (36 percent) were receiving social security grants, compared to 17 percent in Gauteng and 22 percent in the Western Cape Province. During this time, more than a third of Black African individuals (33 percent) received social grants, compared to 27 percent of Coloured natives, 11 percent of Indian/Asian natives and 6 percent of the total White population.

The substantial increase in the number of recipients as illustrated in Table 4-12 can be attributed to the significant increase of CSG due to successful expansion of access such as widening the age requirements and increased public awareness (Haasbroek, 2009:5).

Table 4-12: South Africa's social grant beneficiaries, total number of individuals employed and population size (amount in million) from 2001 until 2017

Year	Beneficiaries (amount)	Growth[1]	Employed (amount)	Growth[1]	Population Size (amount)	Growth[1]
2001	3 993 133		12 494 000		44.82	
2002	4 925 900	23.4 %	11 995 000	-3.9 %	45.51	1.5 %
2003	6 494 115	31.8 %	11 666 000	-2.7 %	46.12	1.3%
2004	7 894 810	21.6 %	11 823 000	1.3 %	46.66	1.1%
2005	10 974 074	39.0 %	12 503 000	5.8 %	46.88	0.47%
2006	12 015 059	9.5 %	13 237 000	5.9 %	47.73	1.8%
2007	12 423 793	3.4 %	13 236 000	-0.01 %	48.26	1.11%
2008	13 072 173	5.2 %	14 584 000	10.2 %	48.79	1.09%
2009	14 057 365	7.5 %	14 357 000	-1.6 %	49.32	1.08%
2010	14 935 832	6.2 %	13 807 000	-3.8 %	49.99	1.3%
2011	15 595 705	4.4 %	13 922 000	0.8 %	51.77	3.5%
2012	16 106 110	3.3 %	14 330 000	2.9 %	52.51	1.4%
2013	15 932 473	-1.1%	14 692 000	2.5 %	53.31	1.52%
2014	16 343 300	2.6 %	15 094 000	2.7 %	54.15	1.57%
2015	16 780 488	2.7 %	15 657 000	3.7 %	55.29	2.1%

2016	17 094 331	1.9 %	15 876 000	1.4 %	56.01	1.3%
2017	17 388 154	1.7 %	16 000 000	0.8 %	56.71	1.2%

*Note ** [1]Growth rates calculated by Author*

Source: IRR (2016:622); Worldometers (2018)

It is evident from Table 4-12 that since 2010, the amount of social security benefit recipients has been surpassing the number of individuals employed. As in 2010, the total number of social security benefit recipients was almost 15 million; whereas, only 13.8 million individuals were employed. Currently over 17 million individuals receive social security benefits; whereas, only 16 million individuals are employed. Consequently, the total amount of individuals employed only increased by 118.06 percent over the 16-year period, thus around 7.4 percent per annum when compared to the 328.1 percent increase in social security benefit recipients.

When comparing the growth rates per annum for the number of social security benefit recipients with the amount of individuals employed, it is evident that in 2002 there was a 23.4 percent growth in the number of social security recipients whereas, there was negative growth in employment creation for that year. By 2012, the total amount of growth for social grant recipients was 3.3 percent and 2.9 percent for individuals employed. In 2017, the growth in recipients is 52.9 percent higher than in employment creation. Leubolt (2014:10) found that between 1995 and 2007, government investment in education dropped, which is evidenced by the current problem of skills shortages in the labour market, causing a decrease in employment. This is in line with the findings of Murray (2013), Leubolt (2014:13), Williams (2007:12), Mattison (1985:91) and De Barcellos (2012:18).

When evaluating the number of social assistance recipients against the number of individuals in the population, just after the post-apartheid reforms, only 6 percent of the total population received some sort of social assistance benefit. During 2001 and 2009, the amount of social assistance recipients increased to almost 30 percent of the total population. Since 2015 until most recently, 31 percent of the South African population receive social assistance benefits (see Figure 4-12).

Figure 4-12: Total number of social assistance grant recipients as proportion of total population

Year	Percentage
2017	31%
2015	31%
2014	30%
2013	30%
2011	31%
2009	29%
2001	9%
1996	6%
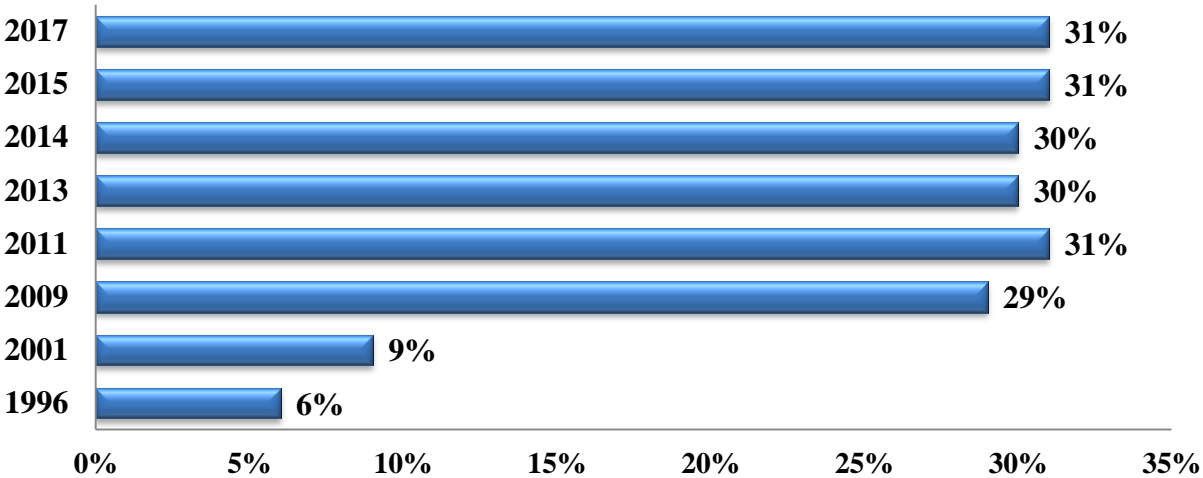
Source: IRR (2016:625)

In as far as, the total number of social assistance recipients, the greatest share of social security recipients in 1997 was OAG recipients amounting to almost 60 percent of the total amount of social assistance recipients, DG recipients to 26 percent and CSG recipients to 14 percent. Furthermore, the CDG recipients only equalled 3 815 recipients and WVG recipients 11 495 recipients. It is also important to note that during this time the GIA benefit was not yet introduced. As the years passed, the number of OAG recipients has declined making way for CSG to increase, which was introduced in 1998. By 2001, the number of OAG recipients amounted to 52 percent and CSG, 27 percent. During this time, CSG recipients amounted to over 1.8 million recipients and OAG recipients just under a million. From 1998 until 2001, CSG recipients increased by 13 percent.

During 2001, the percentage eligible minors receiving CSG was 27 percent, where the Eastern Cape province, Mpumalanga, Limpopo, the Free State and North West accounted for the majority of eligible minors. During this time, the number of female minor recipients increased by almost 19 percent and male minor recipients by 18.5 percent. Further, when analysing the total eligible minors who receive CSG, it is evident that Black African CSG recipients grew the most, from 31 percent to 51 percent compared to their White counterparts who remained at only 0.8 percent (Van der Berg *et al.,* 2010:45).

In 2005, CSG recipients accounted for 60 percent of the total social assistant benefit recipients and OAG recipients declined to 22 percent, an astonishing drop of 30 percent during a four-year period. By 2012, CSG recipients accounted for over 70 percent of total social assistance benefit recipients, OAG recipients, 18 percent and DG recipients, 7 percent. WVG recipients only amounted to 606 recipients during this time, making it the social assistance benefit with the least number of recipients. Recent figures indicate that CSG recipients have slightly declined to 70 percent and OAG recipients increased to 20 percent, however, DG recipients still declined and the rest of the social assistance recipients remained low. When analysing the total number of social assistance recipients by province, it is evident that during the early 2000s, KwaZulu-Natal and the Eastern Cape Province accounted for the largest share of total social assistance recipients. By 2004, KwaZulu-Natal, the Eastern Cape and Limpopo accounted for the majority of total social assistance recipients. At this time, the Eastern Cape Province, KwaZulu-Natal and Limpopo were amongst the greatest provinces in terms of population size, hence the reason for the high number of social assistance grant recipients (IRR, 2016:17).

Figure 4-13: Social grant recipients by type of grant from 1998 until 2017

1998
- 14%
- 59%
- 26%
- 0%
- 1%
- 0%

2001
- 27%
- 52%
- 18%
- 1%
- 2%
- 0%
- 0%

2005
- 60%
- 22%
- 14%
- 1%
- 3%
- 0%
- 0%

2012
- 71%
- 18%
- 7%
- 1%
- 3%
- 0%
- 0%

2017
- 70%
- 20%
- 6%
- 1%
- 2%
- 0%
- 1%

Legend:
- Child Support
- Old Age
- Disability
- Care Dependency
- Foster Care
- War Veterans
- Grant-in-aid
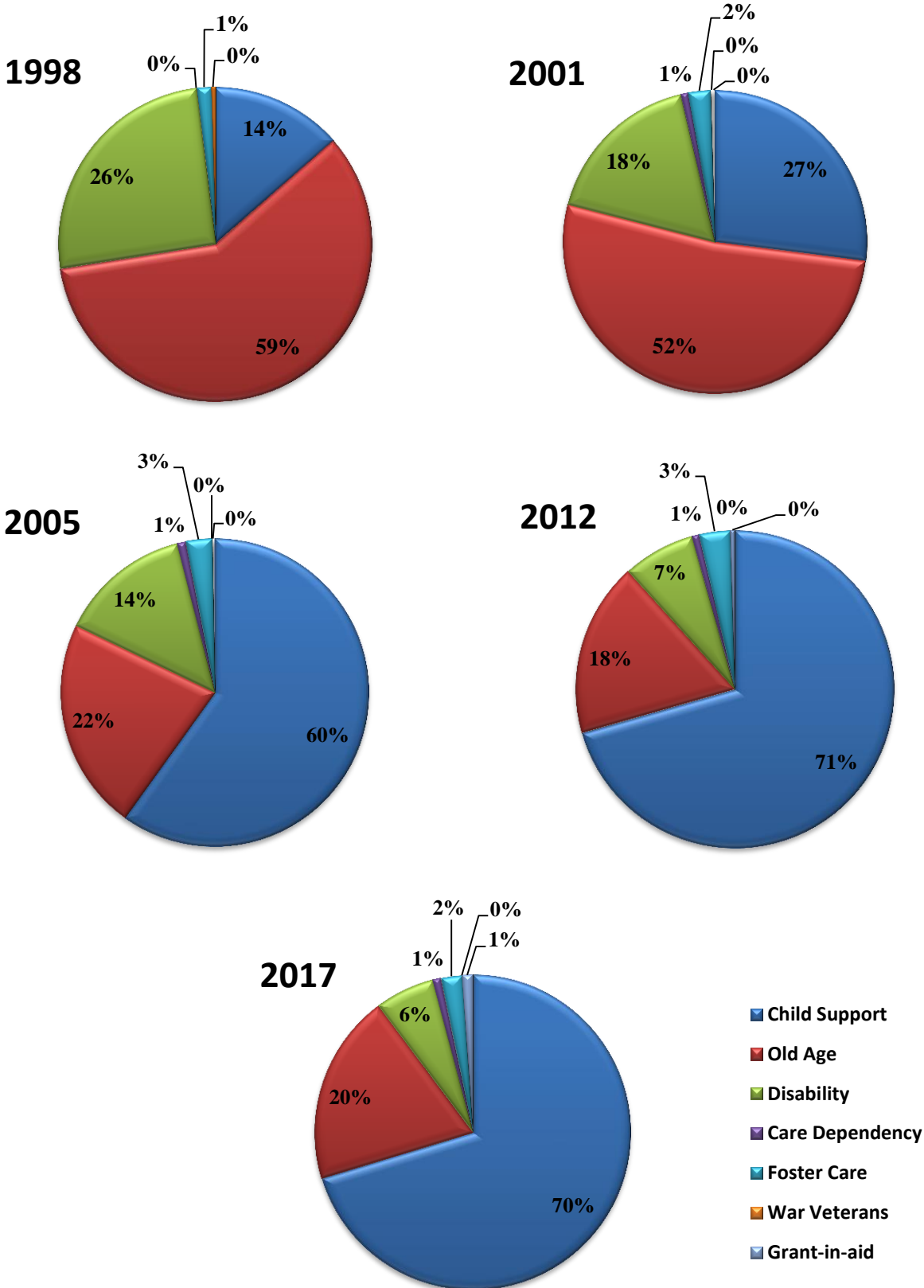
Source: Van der Berg *et al.* (2010:6); SASSA (2012); SASSA (2015); SASSA (2017); IRR (2016)

By 2006, the majority of CSG recipients were located in KwaZulu-Natal, Limpopo and the Eastern Cape province and as seen in Figure 4-14, by this time CSG recipients accounted for over 60 percent of the total social assistance grant recipients. In 2008, KwaZulu-Natal experienced an all-time high in the number of social assistance recipients as over 3 million individuals benefitted from social assistance benefits and in the Eastern Cape, 1.5 million individuals.

Figure 4-14: Total number of recipients of social grants by province for 2000 until 2017
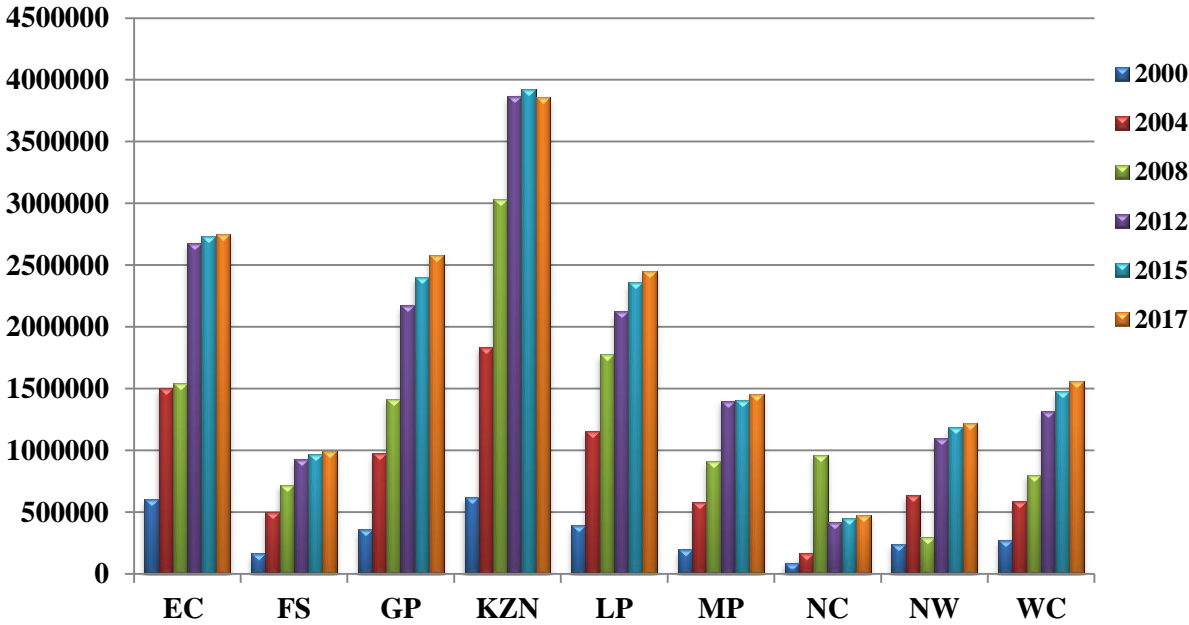
Source: Chelechele (2010:84); SASSA (2012); SASSA (2015); SASSA (2017)

During 2014, the CSG benefit accounted for more that 70.7 percent of the overall social security recipients. The number of minors aged below 18 years of age in KZN accounted for over 50 percent of the total provincial population; the same is true for the EC province. In addition, the total number of elderly 65 years of age in KZN amounted to over 5 percent as well as in the EC (IRR, 2016:22). Hence, it can be concluded that during this time the majority of KZN and the EC minors and elderly population lived on social security benefits. More recently, Gauteng has shown a drastic increase in the number of beneficiaries and is now the third largest social security benefitting province.

4.4.1   **Analysing Social Security Benefits in South Africa per Grant Type**

4.4.1.1   *Old Age Pension*

South Africa's old-age grant refers to the benefit paid to individuals who have reached a certain age in terms of Section 10 of the Social Assistance Act of 2004. Elderly individual can be acknowledged as an individual who has, according to the Social Security Act of 2004, reached the established age in agreement to Section 10 (a) and (b) to qualify for OAG benefits.

Individuals who qualify for the OAG benefit must be a South African resident and must reside in South Africa at the time of application. The applicant must also qualify under a certain age category, which is 65 years and older for male applicants and 60 years of age for female applicants and is not cared for by a state institute. Furthermore, the applicant must not be a recipient of other social assistant grants offered by any state-run institution (SASSA, 2018b).

The post-apartheid distribution of OAG has been increasing since its introduction. Figure 4-15 represents the growth in the number of OAG recipients from 1998 until 2017. OAG is one of the most well-known forms of social security assistance the South African government offers to its poor and vulnerable natives and is also the longest-lasting benefit offer to elderly individuals. Since 1997, the number of OAG recipients has increased by over 1.6 million retired recipients amounting to an increase of over 94 percent.

Figure 4-15: Total number of OAG recipients from 1997 until 2017

Year	Value
2017	3 380 904
2015	3 161 784
2012	2 838 621
2008	2 234 454
2005	2 093 075
2001	1 877 538
1997	1 742 253
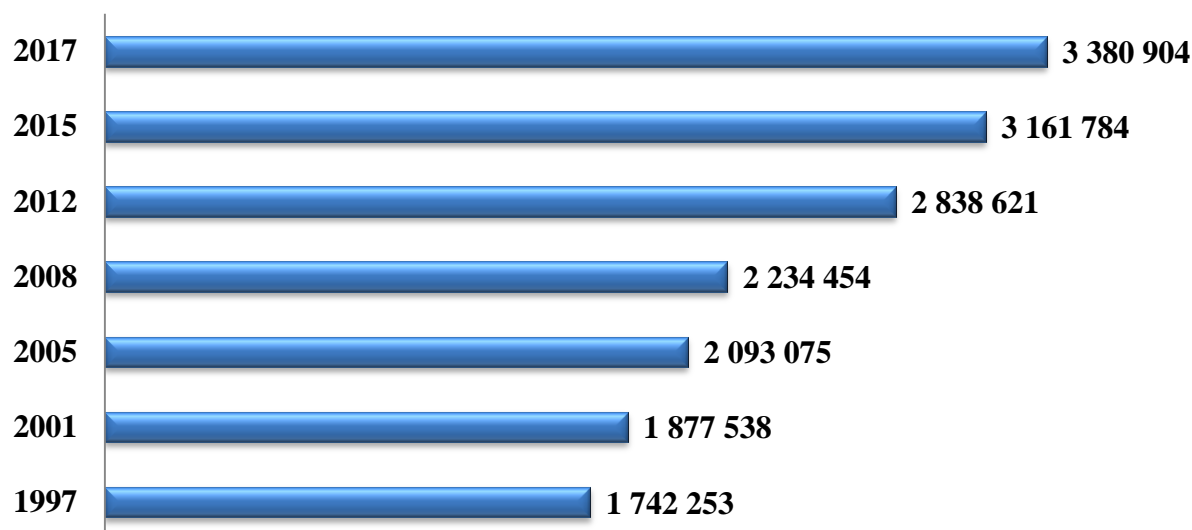
Source: Chelechele (2010:94); SASSA (2012); SASSA (2015); SASSA (2017)

In 2005, less than 1 percent of White pensioners received OAG as compared to over 80 percent of Black African pensioners (Ralston *et al.,* 2017:85). By 2012, around 79 percent of OAG recipients were Black Africans compared to 6 percent of White natives receiving OAG (Love-Odion, 2014:12).

Table 4-13: OAG recipients by race, 2012

Ethnicity	Sample Population	Number OAG recipients
Black African	80.20 %	78.78 %
Coloured	8.71 %	11.42 %
Indian/Asian	2.30 %	3.97 %
White	8.73 %	6.03 %
Total	**100 %**	**100 %**

Source: Love-Odion (2014:13)

By 2015, of the 4.5 million elderly natives, over 3 million was registered for OAG of which 80 percent was located in rural areas and 42 percent in urban areas. Furthermore, 70 percent of elderly receive grants, mainly in Limpopo, KwaZulu-Natal, Gauteng and the Western Cape. This

is true because the Western Cape, Gauteng and the Northern Cape were the provinces reported to have the highest ageing index of all the provinces in South Africa, indicating that these provinces had higher proportions of elderly individuals (StatsSA, 2017b). The probability of old-age individuals across all nine provinces was more likely to be female (60 percent) than male (40 percent) in 2016. Between 2011 and 2015, social assistance grants were the main form of income for elderly-headed households, accounting for over half of the distribution share. Over 3 million individuals aged 60 years and older were recipients of OAG in 2015 compared to 2.7 million in 2011 (StatsSA, 2017d).

The overall growth in OAG recipients between 2008 and 2017 grew by 51.31 percent of which KwaZulu-Natal remained the province with the highest reported number of OAG recipients across the period and the Northern Cape remained the lowest. In 2008, KZN accounted for 20.79 percent of the total number of OAG recipients and in 2017 19.92 percent, compared to the Northern Cape of only 2.5 percent for 2017. The significant difference between the number of provincial recipients might be because of the eligibility criteria, knowledge of benefits and access to social assistance benefits (Chelechele, 2010:96).

Table 4-14: Number of OAG recipients per province

Province	Number of OAG recipients per province			
	2008	**2012**	**2015**	**2017**
EC	421 398	503 810	533 752	556 105
FS	134 818	169 336	186 220	197 645
GP	276 892	416 222	505 684	574 444
KZN	464 579	585 986	644 069	673 793
LP	357 151	391 019	436 986	457 753
MP	158 410	224 968	231 675	246 755
NC	57 093	74 023	80 727	85 677
NW	189 852	215 140	238 295	253 705
WC	174 261	258 117	304 376	335 027
SOUTH	**2 234 454**	**2 838 621**	**3 161 784**	**3 380 904**

AFRICA				

Source: Chelechele (2010:94); SASSA (2012); SASSA (2015), SASSA (2017)

Table 4-15 represents the number of OAG recipients as proportion of the overall elderly population. Herein is evidence that not all eligible individuals receive OAG as in the years just after the democratic reform, only 58 percent of the eligible elderly individuals received OAD and as the years pass, these figure only worsen as in 2011, 2013 and 2015 over 70 percent of the elderly population did not have access to OAG.

Table 4-15: OAG recipients as proportion of over 60 years of age, 1996 until 2015

Year	People aged 60 and above	Old-age grant recipients	Proportion
1996	2 825 200	1 637 934	58 %
2001	3 280 505	1 903 042	58 %
2008	3 508 400	2 390 543	68 %
2011	3 890 258	2 750 857	71 %
2013	4 146 910	2 900 933	72 %
2014	4 542 065	3 074 000	68 %
2015	4 419 331	3 114 729	70 %

Source: IRR (2016:625)

Evidently, the provincial governments was unsuccessful in proper monitoring and implementing effectively social security systems as many OAG benefits was not properly allocated and distribute to the vulnerable elderly population. This coincides with the findings of Kidd *et al.* (2017:18).

4.4.1.2   *War Veteran grant*

WVG refers to the benefit received by an individual who meets the eligibility criteria in terms of Section 11 of the Social Assistance Act of 2004. The criteria states that the recipients must be South African citizens over the age of 60 years and must have fought in the II World War or the Korean War. This benefit is the least issued social security benefit in South Africa when

compared to the other grants issued (SASSA, 2018b). According to Chelechele (2010:92), this is due to the lack of awareness by the Department of Social Development concerning the WVG as well as due to the eligibility criteria, as not many individuals meet it. Chelechele (2010:92) further states that as individuals already receive other forms of assistance, they can no longer qualify for this benefit.

Table 4-16 outlines the number of WVG recipients in all nine provinces in South Africa from 2008 until 2017.

Table 4-16: Number of WVG recipients by province from 2008 until 2017

Province	Number of WVG Recipients				
	2008	**2012**	**2017**	[1]**Change**	[2]**Change %**
EC	233	78	23	- 210	- 90.13%
FS	46	9	1	- 45	- 97.83%
GP	484	151	48	- 436	- 90.08%
KZN	297	88	18	- 279	- 93.94%
LIMP	162	49	3	- 159	- 98.15%
MP	70	28	4	- 66	- 94.29%
NC	73	18	3	- 70	- 95.89%
NW	71	18	2	- 69	- 97.18%
WC	453	167	43	- 410	- 90.51%
SOUTH AFRICA	**1 889**	**606**	**145**	**- 1744**	**- 92.32%**

Source: SASSA (2012); SASSA (2017); Chelechele (2010:92)

Note** [1] Change is calculated for 2008 and 2017 figures as well as [2]change in percentage.

Evidently, in 2008, Gauteng was the province who paid out the largest share of the total WVG amounting to 25.6 percent, followed by the Western Cape who totalled 23.98% of total WVG receipts. In contrary, North West and the Free State were the provinces who made out only 3.76

percent and 2.44 percent of the WVG recipients, respectively. By 2017, Limpopo, the Free State, North West and the Northern Cape experienced the largest decline in total WVG recipients over the nine-year period.

Figure 4-16: Growth rate of WVG recipients from 2005 until 2017
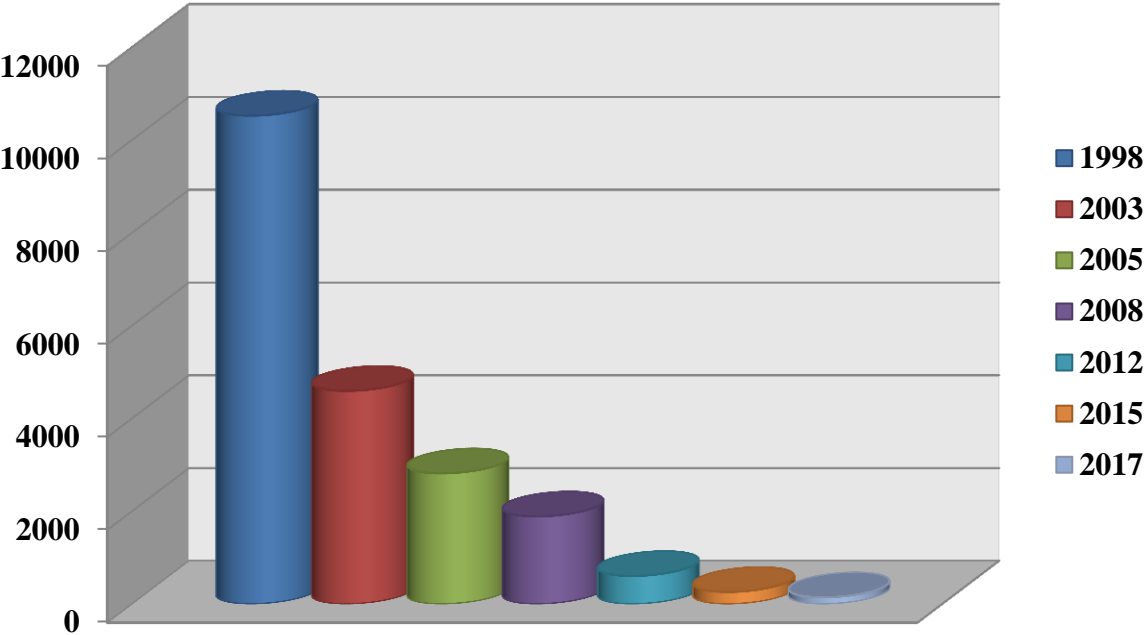
Source: Van der Berg *et al.* (2010:6); Chelechele (2010:93); SASSA, 2012; SASSA, 2015; SASSA, 2017

Figure 4-16 is a graphic illustration of the decline in WVG recipients from 1998 until 2017. It is clear that the total amount of WVG recipients has declined each year. As in 1998 there were 10 525 WVG recipients and by 2017 the amount declined to just 145 recipients. According to SASSA (2018), early in 2018 the total amount of WVG recipients amounted to 138 recipients.

4.4.1.3 Disability Grant

South Africa's disability benefit refers to the grant allocated to disabled individuals in terms of Section 9 of the Social Assistance Act of 2004. DG criteria states that a grant will only be paid to an individual who is native to South Africa or any individual who permanently resides in South Africa. The individual must be residing in South Africa at the time of application for this grant. The DG recipients must be between the age of 18 and 59 years (SASSA, 2018b). StatsSA (2017e) reported that in 2016, women (5%) were more likely to be disabled than men were (4%).

Evidently, there has been a peak in the total number of DG recipients in 2008 and a decline ever since as illustrated in Figure 4-17. According to Chelechele (2010:90), the decline in DG recipients resulted from the implemented processes and procedures concerning eligibility criteria for temporarily disabled individuals.

Figure 4-17: Total number of Disability Grant recipients from 2005 until 2017
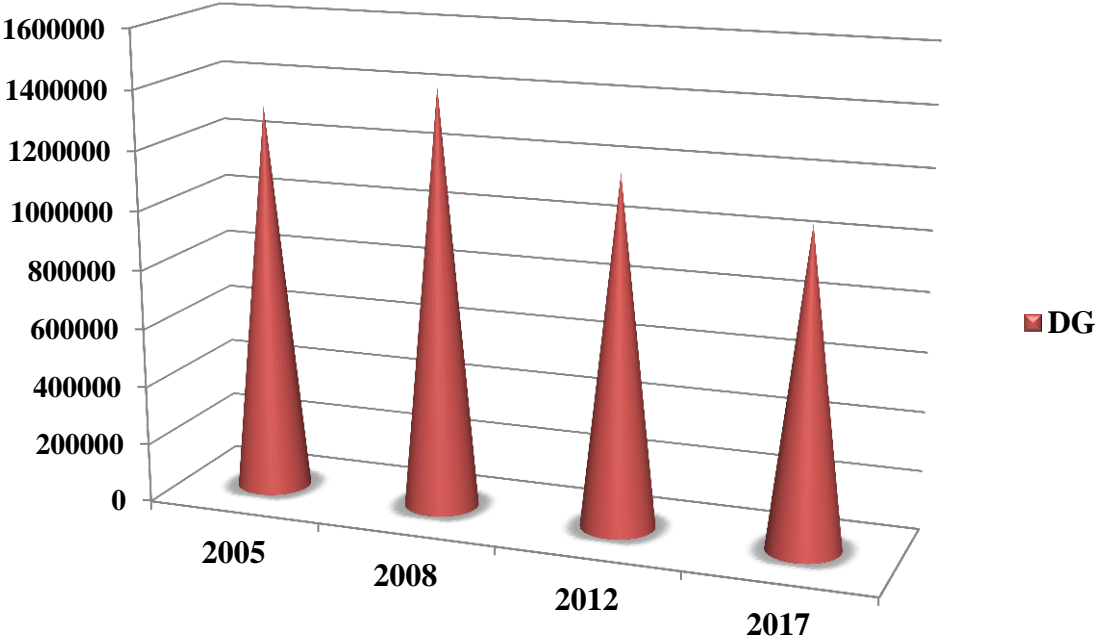
Source: Chelechele (2010:89); SASSA (2012); SASSA (2017)

Figure 4-18 illustrates the decline in total number of DG recipients per province from 2008 until 2017. Derived from Figure 4-18 is that KwaZulu-Natal, the Eastern Cape and the Western Cape accounted for the largest share of DG recipients in 2008, whereas, the Northern Cape and Mpumalanga accounted for the least amount of DG recipients for the same year. The same is true for 2012 and 2017.

When referred back to Section 4.1.1 it is clear from Table 4-1 that KZN is ranked 7th place in terms of richest provinces in South Africa and Table 4-3 indicates that KZN is the 2nd largest province in terms of population size. Hence, this may be the reason why KZN is the province with high levels of social grant recipients. The same is true for the Eastern Cape.

Figure 4-18: Number of DG recipients by province from 2008 until 2017
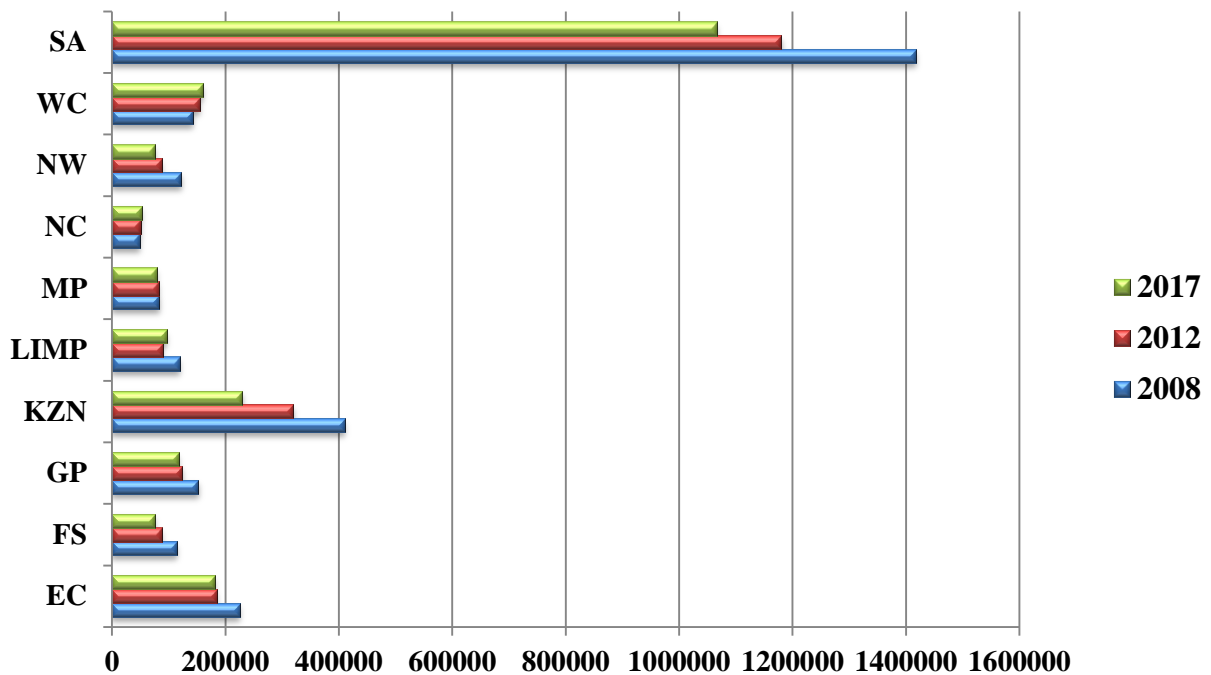
Source: Chelechele (2010:89); SASSA (2012); SASSA (2017)

4.4.1.4   Grant-in-Aid

The South African grant-in-aid benefit is an additional benefit for individuals already receiving a social grant recipient. The GIA benefit provides for the basic needs of adults who are unable to take care of themselves. Hence, the GIA benefit cannot be received on its own, it can only be claimed in combination with the OAG, DG and/or the WVG if the individual is unable to take care of him/herself, to the point where the individual needs full-time care. The applicant many not apply if he/she is cared for by a state institution.

4.4.1.5   Child Support Grant

The degree and severity of child poverty in a number of emerging economies such as South Africa requires appropriate policy response. The South African government designed the CSG policy instrument aimed at addressing the poverty dilemma. South Africa's CSG was introduced in 1998 and its age eligibility has been extended to cover a greater share of poverty amongst minors who are unable to take care of themselves (Chelechele, 2010:85). The benefit is given to the minor's parents/caregivers in the form of cash (SASSA, 2017). Since the introduction of the

CSG benefit, it soon became the single biggest programme at alleviating poverty amongst minors in South Africa. This benefit is aimed to target especially the Black African population as before the democratic era there was racial discrimination (Hall & Sambu, 2017:105). It is important to note the two changes in eligibility criteria, as initially CSG was only available to minors aged up to 7 years. Changes were made in 2003 and extended the programme to minors up to 14 years of age. By 2012, the second extension was made, which included minors up to the age 18 years (Hall & Sambu, 2017:107).

According to Chelechele (2010:86), CSG has proven to be a successful tool to assist in the alleviation of minor poverty. Chelechele (2010:86) further states the importance of adequately combating poverty; if it not addressed in a proper manner, minors will not live beyond the age of 5 years, it also has an impact on infectious diseases and education potential. As cited by Haasbroek (2009:35), former Minister of Finance, Trevor Manuel stated in the 2009 annual budget speech that "compelling evidence that the phasing-in of the CSG has contributed significantly to reducing child poverty."

Figure 4-19: Number of minors receiving CSG from 1998 until 2017
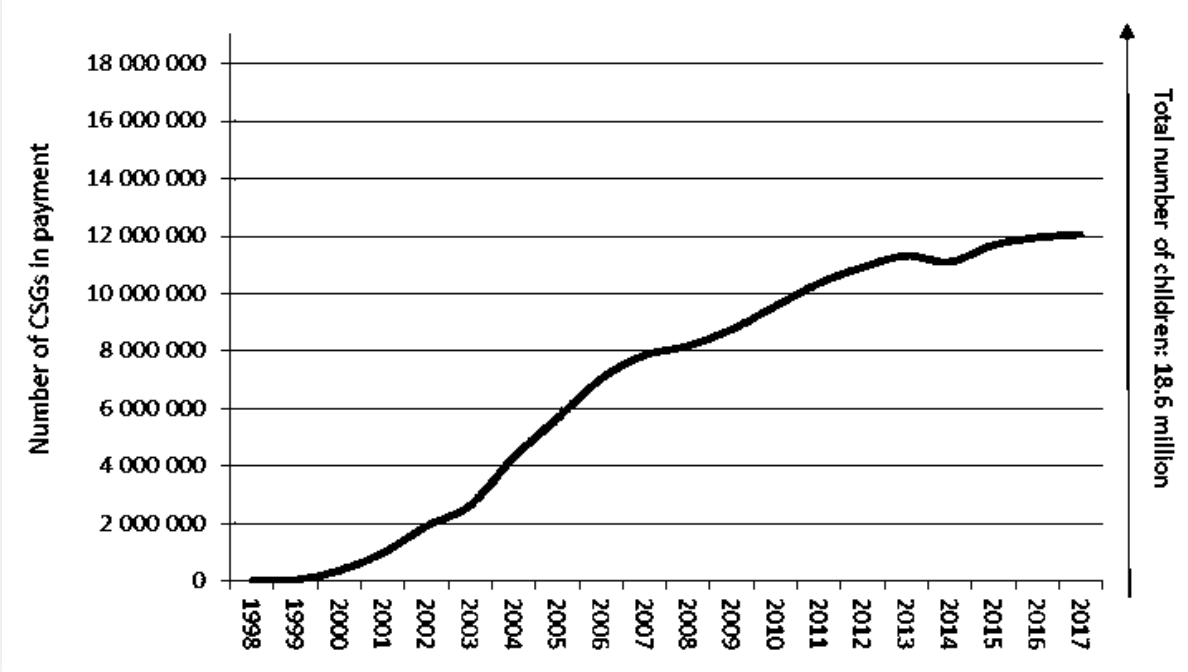
Source: Hall (2017)

Data analysis indicates that since the extension of CSG in the eligibility criteria in 2003, there is evidence of a significant increase in the number of CSG recipients. After the next extension in 2012 where the age criteria was raised to 18 years, there was also an increase, however, not as significant as in 2003. By 2012, the number of CSG recipients amounted to over 11.3 million, in 2015, 11.9 million and by 2017, over 12 million minors received CSG, equalling 70.3 percent of total grant recipients (SASSA, 2012, 2015 & 2017).

When further analysing the number of minors receiving CSG (see Figure 4-19), it is important to note that from 2007 until 2017, the province with the largest share of minors receiving CSG was KwaZulu-Natal, the Eastern Cape, Limpopo and more recently Gauteng. In 2012, over 2.7 million minors received CSG in KwaZulu Natal and 1.8 million in the Eastern Cape, 1.57 million in Limpopo and 1.55 million in Gauteng. By 2015 KwaZulu-Natal total CSG recipients increased by roughly 100 000 and Limpopo and Gauteng the most as in increased by over 200 000 recipients. Hence, the percentage change from 2007 to 2017, Kwa-Zulu-Natal accounts for the highest percentage of growth in the number of CSG recipients, followed by Gauteng, Limpopo and the Eastern Cape (see Figure 4-20).

Figure 4-20: Number of children receiving CSG per province for the year 2007 and 2017
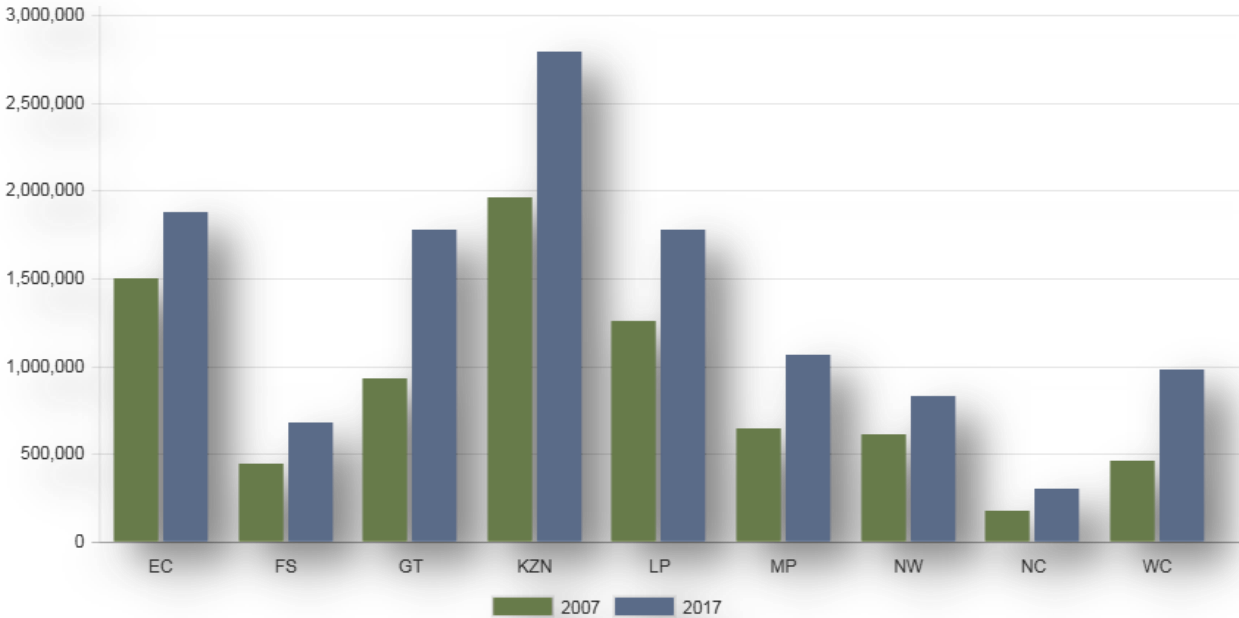
Source: Hall (2017)

When further analysing the amount of CSG recipients per province (see Figure 4-20 and Table 4-18), it is evident that the number of CSG recipients in 2017 were between the age of 6 and 11 years, compared to the second largest group of aged between 0 and 5 years. The majority of minors receiving CSG in 2017 between the age of 0 and 5 years were located in the Eastern Cape, Gauteng, Limpopo and KwaZulu-Natal. Combined, these provinces made up 68 percent of total CSG recipients aged 0 to 5 years. Minors receiving CSG aged between 6 and 11 years amounted to over 4.4 million recipients, amounting to 36.7 percent of the overall number of CSG recipients for 2017. Minors aged between 12 and 17 years accounted for least of the total CSG recipients for 2017. Where KwaZulu-Natal made up over 23 percent of total CSG recipients aged between 12 and 17 years compared to the Northern Cape who made up only 2.5 percent of total CSG recipients.

Table 4-17: Total amount of minors receiving CSG by province and age for 2017

Province	Number of child recipients for March 2017			
	0 – 5 Years	**6 – 11 Years**	**12 – 17 Years**	**TOTAL**
Eastern Cape	636 457	698 950	540 941	1 876 348
Free State	229 649	252 914	193 557	676 120
Gauteng	636 270	658 979	480 998	1 776 247
KwaZulu-Natal	951 437	1 021 184	815 979	2 788 600
Limpopo	667 455	631 387	471 168	1 780 010
Mpumalanga	377 478	382 088	307 673	1 067 239
North West	293 951	304 087	232 139	830 177
Northern Cape	109 255	107 936	86 008	303 199
Western Cape	334 554	372 761	276 120	983 435
South Africa	**4 246 506**	**4 430 286**	**3 404 583**	**12 081 375**

Source: Adapted from Hall and Sambu (2017:108); IRR (2016:17)

4.4.1.6   Minors receiving Foster Child Grants

Section 8 of the Social Assistance Act of 2004 states that FCG is granted to a foster parent of a minor. A foster parent is an individual who takes responsibility for a minor even though they are not the minor's real parent. Hence, a foster parent is granted custody over the minor in court under Chapter 3 of the Child Care Act of 1983. A foster child, on the other hand, refers to any minor who has been placed in the custody of a foster parent (Chelechele, 2010:90).

Figure 4-21 represents the trend in the total amount of FCG recipients from 1998 until 2017. Evidently, the amount of FCG recipients grew moderately since 1998 until 2001 and experienced a sharp increase from 2003. The massive increase in the number of FCG recipients was mainly due to the rise in HIV-related orphaning and a suggested policy change by the Department of Social Development, which from 2003 started to encourage family members (particularly grandmothers) caring for orphan minors to apply for foster care and FCG (Hall & Sambu, 2017:108).

Figure 4-21: Total amount of minors receiving the Foster Child Grant, from 1998 to 2017
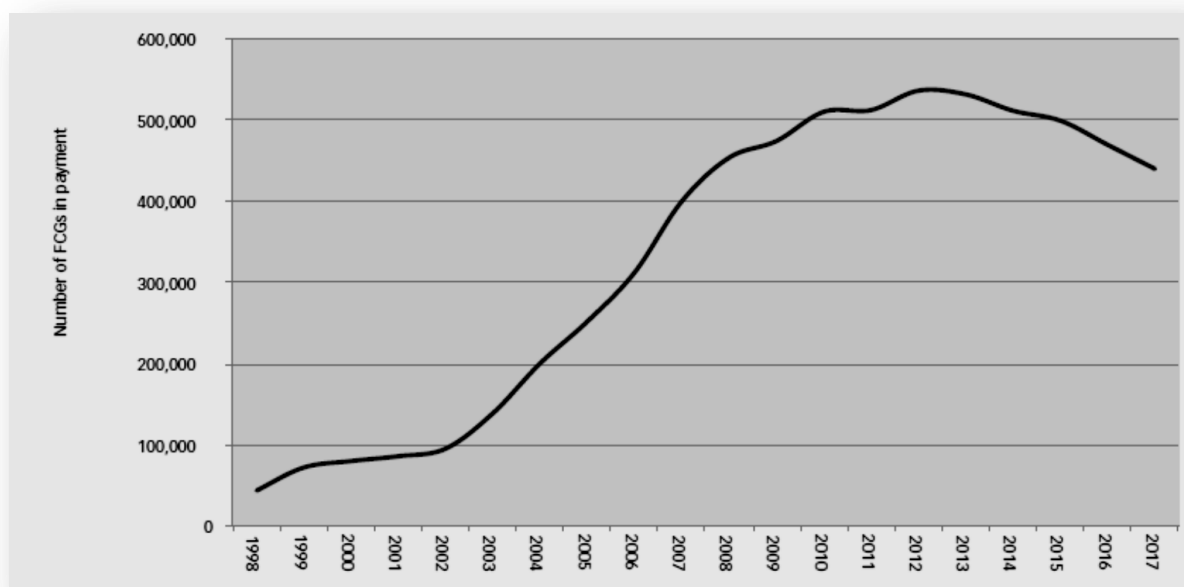
Source: Hall and Sambu (2017:109)

There has been an increase of over 50 000 FCG recipients per year from 2003 until 2008. The increase in FCG recipients was mainly in the KwaZulu-Natal, Eastern Cape, Gauteng and the

North West as illustrated in Table 4-19, which represents the total number of FCG recipients by province. By 2010 over half a million FCGs were paid to foster parents. However, since 2012 until recently the number of FCG recipients has declined by just over 18 percent between the five-year period. The greatest decline is seen in KwaZulu-Natal, North West and the Free State's FCG recipients. Whereas, the lowest percentage change seen was in Mpumalanga, the Northern Cape and the Western Cape.

The decline in FCG recipients may be due to the conditionality of documentation and court orders, which must be provided by the foster parent to SASSA as SASSA may not grant FCG benefits without valid court orders (Hall & Sambu, 2017:108).

Table 4-18: Minors receiving the FSG by province for 2012 and 2017

Province	2008	2012	% Difference 2008-2012	2017	Difference between 2012-2017	% Difference 2012-2017
Eastern Cape	86 044	116 826	35.77%	104 910	- 11 916	- 10 %
Free State	46 261	43 311	- 6.81%	33 195	- 10 116	- 23 %
Gauteng	56 277	56 451	0.31%	50 379	- 6 072	- 11 %
KwaZulu-Natal	107 588	142 114	32.09%	92 060	- 50 054	- 35 %
Limpopo	47 130	56 066	18.96%	47 921	- 8 145	- 15 %
Mpumalanga	23 994	32 886	37.06%	32 087	- 799	- 2 %
North West	35 957	45 634	26.91%	35 134	- 10 500	- 23 %
Northern Cape	13 957	14 456	3.58%	13 657	- 799	- 6 %
Western Cape	28 100	29 003	3.21%	30 945	1 942	7 %
South Africa	**445 229**	**536 747**	**20.56%**	**440 288**	**- 96 459**	**- 18 %**

Source: Adapted from Chelechele (2010:91); Hall and Sambu (2017:108)

4.4.1.7   Minors receiving Care Dependency Grants

According to the Social Assistance Act of 2004, the CDG is a monthly benefit from the national government to an individual who cares for minors with severe disabilities and who are in serious need of full-time and special care. These caregivers can be the minors biological parent, foster parent, primary caregivers (appointed by court), guardians and custodians of the minor between the age of 1 and 18 years of age, who is in need of and receives care due to physical or psychological disability. Caregivers of disabled minors may not receive this benefit if the disabled minor receives full-time care in a state-run institution for longer than six months. CDGs may not be received in combination with the CSG, however, can be received in combination with the FCG for the given minor. This benefit is reviewed on an annual basis until the minor in need turns 18 years of age and becomes ineligible for the CDG. At this time, the CDG will be substituted with the DG (SASSA, 2018b).

According to Hall & Sambu (2017:110), CDG not only target minors with disabilities but minors with chronical illnesses such as HIV, as well. They further state that these minors often need full-time care and may lead to the caregiver to become unemployed to stay and care for the minor and with additional medical costs put a huge financial burden on the household and hence poverty is strongly related to health conditions.

It is difficult to measure the amount of minors who should receive against the amount of minors who actually receive the CGD benefit, as there is not much data available on the actual number of disabled and chronically ill minors in South Africa. However, according to StatsSA (2017e), 5 percent of South Africans aged 5 years and older were classified as disabled in 2016. Hence, the trends in figure indicate that since 2008, the total amount of minors receiving CDG increased from 102 000 recipients to 146 000 recipients. This suggests that in the nine-year period, GDC increased by over 40 percent.

Figure 4-22: Total number of CDG recipients from 2008 until 2017

■2008 ■2012 ■2015 ■2017

Figure 4-22: Total number of CDG recipients from 2008 until 2017

■2008 ■2012 ■2015 ■2017

Source: Chelechele (2010:88), SASSA (2012); SASSA (2015); SASSA (2017)

Figure 4-22 illustrates the number of minors receiving CDG by province for 2017. Evidently, the number of CDG recipients is greatest in KwaZulu-Natal, Eastern Cape and Limpopo, accounting for 26.67 percent, 15.33 percent and 10.44 percent, respectively. This is true as these are the provinces with the largest share of minors.

However, KwaZulu-Natal's figure went slightly down when compared to 2008 figures, as the province accounted for 29.35 percent. However, the Eastern Cape figures increased by nearly 19 percent and Limpopo's figure by nearly 10 percent.

Figure 4-23: Total number of minors receiving the Care Dependency Grant, by province for 2017

Province	Value
SA	146 666
WC	15 079
NC	6 015
NW	10 068
MP	11 310
LIMP	15 310
KZN	39 123
GP	19 163
FS	8 114
EC	22 478
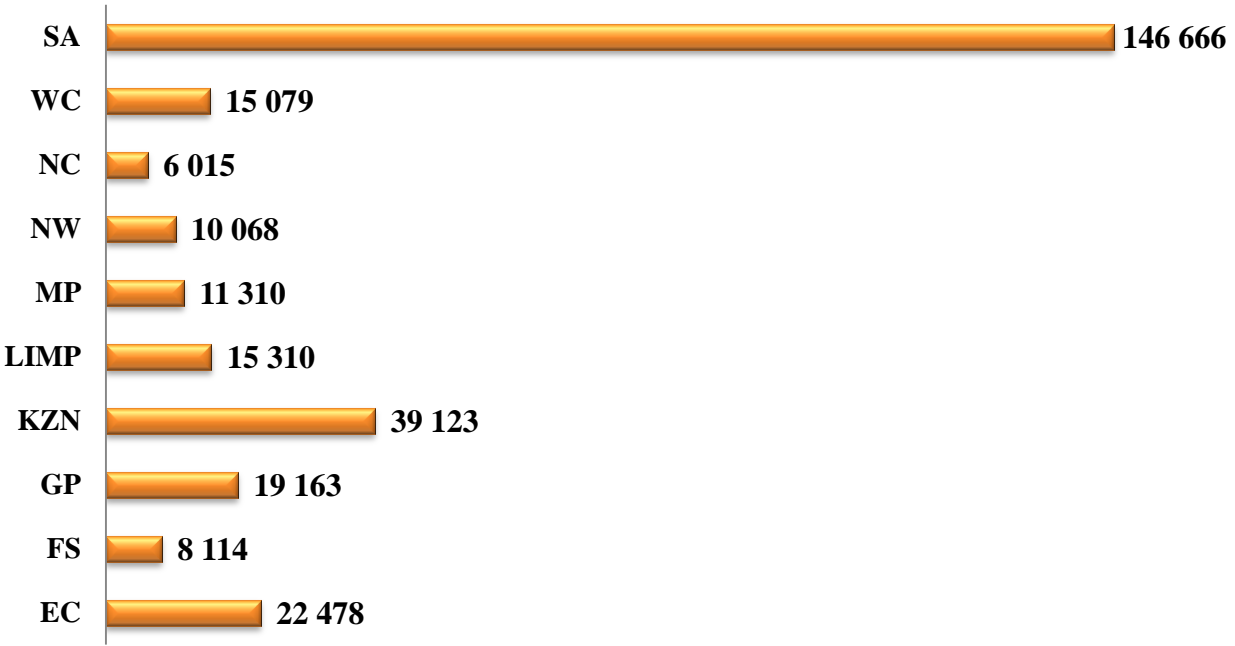
Source: Adapted from Hall and Sambu (2017:110)

4.5 COST AND FISCAL SUSTAINABILITY OF SOCIAL SECURITY IN SOUTH AFRICA

The significant growth and magnitude of the South African social security system has given rise to concern regarding its long-term sustainability. As for during the 2004 fiscal year the National Treasury (2004:73) commented on the growth in the ratio between social security benefits expenditure and GDP and stated "the ratio is high compared to most other emerging economies, and also high relative to spending on cash social assistance in some high income economies. Growth of this magnitude relative to GDP raises sustainability questions for the future." By 2017, the National Treasury (2017) stated that social security benefits are essential for the improvement of individuals and their social wellbeing, despite this it poses a risk to the sustainability of the South African fiscal policy, as the government must budget for social benefits paid, which means less can be invested in infrastructure and education.

The limited size of the South African tax base also raises concern with regards to the fiscal sustainability of the South African social security system (Van der Berg *et al.*, 2010:8). For

instance in 2009, for every taxpayer there were two social security recipients and spending towards social security benefits outpaced spending on basic education.

Since 1998, government spending on social security benefits has increased from R 16 billion, around 2 percent of GDP, to R 41 billion in 2001. The significant increase in the amount spent by the state was mainly due to the introduction of the CSG in 1998. Around a decade after the democratic era and the introduction of the CGS, total expenditure towards social security benefits increased by almost over 556 percent, amounting to an increase of almost 90 billion.

Armstrong and Burger (2009:2) state that the South African social security system is well-targeted as during 2000, social security benefits accounted for 67 percent of the total income of the poorest 20 percent of the South African population. In addition, by 2008, 76 percent of national expenditure towards social security was received by the poorest 40 percent of the South African population and benefits increased the share of total income of these households from 4.7 percent to 7.8 percent of total income (Armstrong & Burger, 2009:2).

By 2010, the total expenditure on social security amounted to more than R 128 billion, which increased from R 41 billion in 2001 and in 2017, R 180 billion. This is an increase of over 335.8 percent from the year 2001 to 2017, which equates to approximately 20.98 percent increase per annum. During this time the amount of recipients increased also increased by 335.4 percent, justifying the significant increase in expenditure as more individuals now have access to social security assistance.

Also evident from Table 4-18, social security benefits in the early years did not exceed 2 percent of GDP until 2002. The social security cost also increased by over 15 percent from 2001 to 2002. During this time, the growth in the number of social security benefit recipients also increased significantly, reaching an all-time high of almost 40 percent growth in 2005. Social security recipient growth slowed somewhat during the mid-2000s, reaching an all-time low of negative 1 percent growth in 2013, resulting in a negative 17 percent growth in total expenditure towards social security during this time. Social security benefits as percentage of GDP slowly increase from 3.6 percent in 2013, where there was a decline in the number and amount spent on social security benefits, to 4 percent in 2017.

Evidently, although there were changes in the amount of social security recipients and the amount spent per annum on social security assistance, social security as percentage of GDP kept a steady increasing pace. Therefore, based on calculations it is highly probable that by 2020 the expenditure on social security as a percentage of GDP will be equal to 5 percent.

Table 4-19: Social security expenditure from 2001 until 2017

Year	Social security (amount in billion p.a.)	Growth[1]	Social security (% of GDP)	Growth[1]
2001	R 41.3 bn		2	
2002	R 48.7 bn	15.2 %	2.4	20 %
2003	R 55.3 bn	11.9 %	2.9	20.8 %
2004	R 63.0 bn	12.2 %	3.3	13.8 %
2005	R 72.3 bn	12.9 %	3.4	3.03 %
2006	R 80.6 bn	10.3 %	3.4	0 %
2007	R 89.4 bn	9.8 %	3.2	-5.9 %
2008	R 105.2 bn	15.01 %	3.3	3.1 %
2009	R 118.1 bn	10.9 %	3.5	6.06 %
2010	R 128.4 bn	8.02 %	3.4	-2.9 %
2011	R 146.9 bn	12.6 %	3.4	0 %
2012	R 157.9 bn	6.9 %	3.6	5.9 %
2013	R 134.9 bn	-17.04 %	3.6	0 %
2014	R 142.9 bn	5.6 %	3.7	2.8 %
2015	R 155.3 bn	7.9 %	3.7	0 %
2016	R 167.5 bn	7.3 %	3.8	2.7 %
2017	R 180.0 bn	6.9 %	4.1	7.9 %

Source: IRR (2016) and SASSA (2017)

Note ** [1]Growth rates calculated by Author

The significant increase in social security benefit expenditure is not only due to the significant increase in the number of recipients; however, it is also due to an increase in the total monthly value of monthly benefits payed to recipients (see Table 4-18). This is adjusted annually based on inflation and is presented at the beginning of each financial year in the national budget review (National Treasury, 2017). Jacobs *et al.* (2010:2), further explains that the administrative costs payed to SASSA has increased significantly.

Table 4-20: Monthly value of social grants per grant type from 1997 until 2018

Type	Jul 1998	Jul 2000	Apr 2004	Sept 2008	Apr 2016	Apr 2017	Apr 2018	Oct 2018
OAG	R 490	R 540	R 740	R 960	R 1500	R 1600	R 1690	R 1700
DG	R 490	R 540	R 740	R 940	R 1500	R 1600	R 1690	R 1700
FCG	R 360	R 390	R 560	R 650	R 890	R 920	R 960	-
CSG	R 100	R 100	R 170	R 210	R 350	R 380	R 400	R 410
WVG	R 508	R 558	R 740	R 960	R 1520	R 1620	R 1710	R 1720
CDG	R 490	R 540	R 740	R 940	R 1500	R 1600	R 1690	R 1700
GIA	R 90	R 100	R 170	R 210	R 350	-	R 400	R 410

Source: Armstrong and Burger (2009:2); National Treasury (2017); National Treasury (2018); Kelly (2017)

The monthly value of social assistance in 1996 for OAP, DG, CDG and WVG amounted to R430, whereas parent and child maintenance grants amounted to R 410 and R 430, respectively. FCG was R 305 and GIA amounted to R 70. In terms of the child maintenance grants, previously a benefit could be received for up to four legitimate and one illegitimate minor; regulations under the Social Assistance Act of 1992 have changed this to up to two minors regardless of their legal status.

However, two years later the child and parent maintenance benefit fell away, making way for the CSG and since its introduction in 1998 the monthly value of social security benefits increased significantly (see Table 4-19 above). Between 2008 and 2017, the total monthly amount for OAG recipients has increased by 67 percent, therefore, 7.4 percent per annum. With regards to

CDG and DG recipients' monthly value, there is found that the monthly value increased by 71 percent, equating to 7.8 percent per annum. Furthermore, FCG and WVG have increased over this period by 42 percent and 69 percent respectively. Whereas, the total monthly value for CSG recipients grew the most from its introduction until recently as during 2008 and 2017 the monthly value increased by 81 percent, around 9 percent per annum.

Although there is evidence of an increase in the monthly value of social security benefits for each benefitting group, Liebenberg (2001:240) contends that social assistance provided is only considered appropriate when "everyone has sufficient income (or in-kind benefits) to meet basis subsistence needs and to live in accordance with human dignity." Hence, it is necessary to compare it with the poverty line of the economy. According to Haasbroek (2009:27), there is evidence that the state provided a social benefit four times greater than the poverty line. In 2015 the lower-bound poverty line was R 647 and in 2017 was adjusted to R 758 per month and the upper-bound poverty line valued at R 992 per month and by 2017, R 1 138 per month (Wilkinson, 2018). During this time the OAG, DG, FCG, WVG, CDG was well above the lower-bound poverty line, however, CSG was not.

Table 4-20 represents the proportion of total consolidated government expenditure towards social security benefits. Components of total consolidated expenditure include education, local development and infrastructure, health, debt-service costs, economic affairs and agriculture, defence and public safety, social security and general public service (National Treasury, 2017). Evidently since 2001, social security benefits amounted to 12 percent of the proportion of total government expenditure and decreased to 10 percent and remained constant until 2015 where it increased to 11 percent of total government expenditure and by 2016, 11.5 percent.

Table 4-21: Social security expenditure as proportion of total government expenditure from 2001 until 2015

Year	Grants Rbn	Consolidated government expenditure Rbn	Proportion
2001	32	257	12 %
2010	90	907	9.9 %

2011	98	979	10 %
2012	105	1 060	9.7 %
2013	113	1 150	9.6 %
2014	121	1 250	9.7 %
2015	147	1 350	11 %
2016	168	1 460	11.5%

Source: IRR (2016:624)

4.6 EMPIRICAL FINDINGS ON THE IMPACT OF THE SOUTH AFRICAN SOCIAL SECURITY SYSTEM

Haasbroek (2009:102) found that the South Africa social security system has progressed over the past decades especially during the democratic era, however, found that the social security system fails to provide for the two most vulnerable groups in South Africa. Child-headed households and minors affected by HIV who are left without protection. Hence, the South African social security system only provides a better quality of life for some.

Armstrong & Burger (2009:13) analysed the impact social security benefits has on poverty. They found that social security benefits (using the R 2 532 poverty line per individual per annum) decreased the poverty headcount ratio by 14 percentage points. Resulting in a decrease in the poverty rate for roughly 46 percent of the population, who would have otherwise been in poverty without assistance. Hence, the decline in the headcount ratio to 32 percent, social security benefits pushed 31 percent of the poor out of poverty. If the R 3 864 per individual per annum poverty line was used, nearly 13 percent of the poor would have been lifted out of poverty and if the R 7 116 per individual per annum poverty line was used, almost 3 percent of the poor were lifted out of poverty by social assistance grants.

Armstrong and Burger (2009:17) further found that although 10 percent of overall income may be attributed to social security benefits, however, they did not have a significant impact on the overall alleviation in inequality. The reason for this is that inequality was mainly driven by high-income earners. Hence, social security benefits did not have an effect on improving equality in the society as a whole.

In their attempt to analyse the impact of OAG on the rural poor population of Kgautswane in the Limpopo province, Van Dijk and Mokgala (2014:94) found that OAG gives beneficiaries an opportunity of spending, which in turn sustains improvised and vulnerable communities. As between 2002 and 2016, the life expectancy of male individuals increased from 53.6 to 59.7 years and for females from 56.6 to 65.1 years. The percentage of individuals aged 60 years and older who lived below the upper-bound poverty line dropped from 85 percent in 2009 to 81 percent in 2011. The number of elderly individuals reported to live below the lower-bound poverty line declined by 7.2 percentage points from 83.4 percent to 76.2 percent between 2009 and 2011 (StatsSA, 2017d).

Dinbabo (2011:279) used a microsimulation model for South Africa to analyse the impact of CSG in terms of responding to poverty and income inequality and found that an increase in the CSG monthly benefit amount and the number of CSG recipients produced a positive impact in addressing increasing child poverty and vulnerability.

The following studies also found that the South African social security system combat poverty, alleviate inequality and assist in the overall upliftment of individuals standard of living: Duncan *et al.* (2007:7); Lee and Mackey-Bilaver (2007:515); Zepeda (2006:1); Shei *et al.* (2014:6); Campello *et al.* (2015:2); Chakraborty (2007:3); Langinger (2011:36); Bhorat and Cassim (2014); Dinbabo (2011); Haile and Niño-Zarazúa (2018:392).

4.7   SYNOPSIS

CHAPTER 4 OBJECTIVES

- ➢ To provide a review of South Africa's past and present social security policies;
- ➢ To provide a comparative analysis between South Africa's number of social security benefit recipients, the number of individuals employed, the amount spent by the government of social security policies and dependency;
- ➢ To review trends in South Africa's social security benefit recipients per grant type;
- ➢ To analyse the South Africa government expenditure towards different social security system.

This chapter discussed the performance of the South African social security system and various types of assistance. With this in mind, Chapter 4 presented a trend analysis for the social security system implemented by the South African government in order to assist in high poverty and income inequality levels. Keeping this in mind, a review of the South African economy was used as a point of departure in order to understand the circumstances better, which led to the development of social security assistance. This was followed by an overview of the pre-, during and post- apartheid social security systems and the implementation and conditionalities thereof.

Evidently, the South African social security system dates back to the 17th and 18th century where local churches granted social relief to the needy and little was done on the governments' behalf. However, more formally, social security started the late 1920s where non-contributory elderly pensions were introduced and designed to assist the white population and excluded any native of colour. By1944 pre-apartheid era, under ruling of former President Smuts, old-age pensions (OAP) were extended to include Africans, however, at this time only one African for every ten white natives were covered. By the late 1950s (a decade into apartheid), Africans accounted for 60 percent of the 347 000 OAP, although they only received 19 percent of old-age spending. By the 1960s the government expanded social security expenditure especially to Black African natives and the gap between the Black Africans and White natives started to narrow by the mid-1960s. From the 1970s, the national expenditure towards social assistance has escalated rapidly in the attempt to include all ethnic groups into the system and to provide similar levels of benefits (Woolard *et al.,* 2010:7). Therefore, from the 1970s until the 1990s, spending on OAG increased by 200 percent and made provision for other ethnic groups that were previously left uncovered. 1993 saw an important policy change as discrimination against Black Africans in terms of social security was eliminated. A year later (1994) the national government made some changes in the provision of social security benefits. Evidently, the only major change was the replacement of the Child Maintenance grant with that of the Child Support Grant. Today there are seven different social security grants in South Africa, namely the old-age pension, war veteran grant, disability grant, care dependency grant, foster child grant, grant in aid and child support grant, which provide assistance over an individuals' course of life as stated in the Constitution. Further discussed through this section are the various factors and conditions of each type of assistance.

The next section provided an overview of the administration of social security in the South African economy. Herein is discussed the main functions, legislative framework as well as the distribution process of benefits.

The following section provided and overview of the impact of the South African social security, therefore, reached the second objective of this section. Herein is found that when analysing the total number of social security recipients against the total population size and the total amount of individuals employed:

➢ since 2010, the amount of social security benefit recipients has been surpassing the number of individuals employed, implying that more individuals are becoming dependent on the working population;

➢ when comparing the growth rates per annum for the number of social security benefit recipients with the amount of individuals employed, it is evident that in 2002 there was a 23.4 percent growth in the number of social security recipients whereas, there was negative growth in employment creation for that year;

➢ just after the post-apartheid reforms, only 6 percent of the total population received some sort of social assistance benefit;

➢ during 2001 and 2009, the amount of social assistance recipients increased to almost 30 percent of the total population. Since 2015 until most recently, 31 percent of the South African population receive social assistance benefits;

➢ since the introduction of CSG in 1998, CSG grew to become the largest social benefit type.

When analysing the third objective it is evident that:

➢ OAG and CSG are the two greatest social security benefits granted by the South African government, however not all who are eligible receive such benefits;

➢ OAG benefits received was best targeted in Kwa-Zulu Natal whereas the Northern Cape, the least;

➢ the number of minors receiving CSG from 2007 until 2017 was best targeted in KwaZulu-Natal, the Eastern Cape, Limpopo and more recently Gauteng, whereas the least in Northern Cape and Free State

When analysing the last objective of the study, it is evident that the amount spent on social security each financial year raise some concern as various studies found it to be unsustainable as the total tax base is too narrow. Further findings found that social security as percentage of GDP kept a steady increasing pace and ranged between 2 and 4 percent of GDP. Furthermore based on calculations it is highly probable that by 2020 the expenditure on social security as percentage of GDP will be equal to 5 percent. When analysing social security as proportion of total government consolidated expenditure, it is evident that social security range between nine and 11 percent since 2001 until 2017.

Therefore, it is important to analyse the South African social security system as the South African government invest a lot of capital in this policy. For this reason, empirical findings was provided to state what has been done with regards to the analysis of the social security policy and to serve as an direction for future research. Therefore, the next chapter will present a methodological evaluation model in order to reach this study's primary objective, to evaluate the South African social security system.

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

5.1 INTRODUCTION

After the end of the apartheid era, the South African economy experienced numerous political and constitutional changes, amongst others, the South African social security system (Armstrong & Burger, 2009:1). Today, the South African social security system offers assistance towards the risk of losing ones' income due to contingencies such as old-age, disability and injuries. The types of assistance the South African social security system provides are either contributory or non-contributory cash assistance.

Over the past two decades extensive fiscal expenditure and policy reforms have enabled South Africa's policy makers to develop an excessive social security benefit system targeting nearly 17.5 million individuals (SASSA, 2018b). Hence, chapters 2, 3 and 4 substantiate that a gap in the research exists regarding social security in the South African context. It is necessary, therefore, to investigate the impact and feasibility of social protection on the South African economy as well as the citizens affected thereby. With this in consideration, this chapter provides the econometric methodology used to address the following empirical objectives of the study:

- ➤ To present empirically the impact of the South African social security system on its set objective, being the alleviation of poverty, inequality as well as human upliftment;
- ➤ To determine the long-run and the short-run interrelation between the South Africa's poverty rate, HDI and inequality rate against government investment in social security policy, the number of individuals within a household, economic activity and employment creation;
- ➤ To examine the causal effects of the set explanatory variables (poverty, inequality, human development, social spending, household size, economic activity and unemployment) and the number of beneficiaries receiving social benefits.

In order to achieve the aforementioned objectives, this chapter will discuss the origin of the data used in its analysis, the sample size of the data series, as well as the variables chosen for the econometric model of the study. Moreover, this chapter explains the model adopted in the econometric approach of this study and the formulation thereof.

5.2 SAMPLE SIZE AND VARIABLE SPECIFICATION

The study focuses on the South Africa economy in order to evaluate the impact of social security expenditure (social grants), economic activity, unemployment and household size on the alleviation of poverty, inequality and the attempt to improve human development. Data collected for the study are gathered from the South African Institute of Race Relations, Global Insight and from SASSA's databases and is based on a period of 21 annual observations from the year 1996 to the year 2017. The rationale behind the selected sample period was led by the change of South Africa's political and economic structures as well as the exclusion of economic embargo's, which characterised South Africa's apartheid era, as well as the availability of data.

The study will focus on analysing the effects of social security expenditure, in order to determine its effectiveness in terms of its objective, which is to alleviate poverty and inequality and to assist in the overall development and social upliftment of citizens of the country. However, social grants are not the only influencers of the aforementioned factors; therefore, the study will also include other socio-economic factors such as economic growth, unemployment and the number of people within a household to assist in analysing social security expenditure effectiveness.

Before the analysis is conducted, it should be noted that the data used in the study are transformed to a natural logarithmic (L), to ensure that the data used in the study do not vary in orders of magnitude, while also reducing variation within the data set and adjusts for scale effects. This is applied to all variables except for the HDI and TBEN variables, which are transformed into growth rates. Therefore, the independent variables include South Africa's annual social security expenditure; the number of individuals receiving benefits; the number of individuals without a job; economic activity; and the number of individuals within a household and the dependent variables entails; poverty, income inequality and human development. Table 5-1 explains the variables used in the study and includes both the dependent variables as well as the independent variables used in the study.

Table 5-1: Variable specification and explanation

Variables	Variable Specification
(L) Symbol	Natural logarithm
(D) Symbol	Difference (growth rate)
SSEXP	Annual social security expenditure
TBEN	Total number of individuals receiving benefits
UNEMP	Total number of individuals without a job
GDP	Economic activity
HHS	The number of individuals within a household
POV	Poverty
GINI	Income inequality
HDI	Human development

Source: Compiled by Author

5.2.1 Dependent Variable Specification

As mentioned earlier, the primary objective of the study is to analyse South Africa's social security system, in order to determine how this system assists in the alleviation of poverty and inequality, as well as human development. This is done by investigating the impact of independent variables, particularly social security expenditure on poverty (POV), income inequality (GINI) and human development index (HDI), respectively. Income inequality will be measured by means of the GINI-coefficient and human development by means of the HDI.

5.2.2 Independent Variable Specification

In order to achieve the objectives of the study, a set of independent variables have been constructed by analysing the existing literature and various theoretical approaches to social protection and poverty alleviation. In all three models that will be estimated, independent variables will include, annual social security expenditure (SSEXP), the number of individuals receiving benefits (TBEN), the number of individuals without a job (UNEMP), economic activity (GDP) and the number of individuals within a household (HHS).

5.3 MODEL SPECIFICATION AND ECONOMETRIC ESTIMATION APPROACH

5.3.1 Model Specification

This study employs a dynamic model approach in order to ascertain the behaviour of a system over time. This will ensure that the model and the estimations therefrom are dependable and precise. According to Brooks (2014:158) a dynamic model permits a concurrent relationship between the variables of a study in order to determine whether changes in any of the variables cause simultaneous changes in the dependent variables at a time, *t*. Furthermore, such dynamic models have the ability to allow the introduction of lags for both the dependent and independent variables. This model is otherwise known as an autoregressive distributed lag model (ARDL). The ARDL model is employed to achieve the set empirical objectives by means of the following three (3) equations:

$$POV = f(SSEXP + TBEN + HHS + GDP + UNEMP) \quad\text{(5.1)}$$

$$GINI = f(SSEXP + TBEN + HHS + GDP + UNEMP) \quad\text{(5.2)}$$

$$HDI = f(SSEXP + TBEN + HHS + GDP + UNEMP) \quad\text{(5.3)}$$

All three equations will make use of the ARDL approach. Equation 5.1 measures the impact of independent variables on poverty (POV); Equation 5.2 measures the impact of independent variables on income inequality (GINI) and Equation 5.3 measures the impact of independent variables on human development (HDI).

5.3.2 Econometric Estimation Approach

This study is based on a functionalist approach to economics and uses a methodology based on quantitative methods. This approach involves the investigation of social and economic dynamics and attempts to quantify economic phenomena by means of correlations to specific economic systems (Bredemeier, 1955:174). As previously stated, this study adopted the ARDL estimation model in order to analyse the statistical model of the study. This will also include the execution of multiple statistical tests to ensure stability of the model, as well as ascertaining the stationarity of data. The ARDL approach was adopted due to its ability to provide reliable results by means of its aptitude to recognise and correct multicollinearity and serial correlation. According to Mc

Camel (2017:102), the ARDL model also has the ability to recognise stationarity and is useful in testing endogenous, as well as explanatory variables.

Furthermore, Dritsakis (2011) states that the ARDL model is flexible with regards to co-integration and can accommodate a variety of optimal lags to be assigned to every variable within the study model. The ARDL model thus allows variables to be integrated at I (0), I (1) or a mixture of I (0) and I (1) variables. However, variables that are non-stationary integrated at I (2) order of integration cannot be used in the ARDL (Dube & Zhou, 2013:203). Figure 5-1 describes the procedure followed when using the ARDL model estimation approach, as adopted by this study:

Figure 5-1: The ARDL model estimation approach

Unit Root Test
* ADF
* PP
* KPSS

At least one variable I (2)

All variables I (0), I (1) or a mixture of both I (0) and I (1)

STOP

Test for Co-integration: Lag selection and ARDL Model

Heteroscedastic, Serial Correlation and Unstable

Homoscedastic, No Serial Correlation and Stable

Increase lags and Re-estimate the ARDL Model

F- Bound Test

Co-Integration

No Co-Integration

Estimate Error Correction Model

Granger Causality Test / Toda-Yamamoto Causality/ Short-run Relationship

Source: Adapted from Mc Camel (2017:103)

5.3.3 Unit Root and Stationarity Test

According to Perron (1989:1361), it is crucial to test for stationarity or unit root when analysing time-series models, as it indicates whether the data used in the study are either stationary or non-stationary. When employing co-integration techniques, stationarity tests serve as an important prerequisite in the estimation of long-run equilibrium correlations (Gujarati & Porter, 2008:762). Brooks (2008:330), however, contends that traditional unit root tests such as the augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests have a tendency to produce inadequate unit root estimations in small sample sizes.

Wisz, Hijmans, Peterson, Graham and Guisan (2008:765) state that data sets that consist of less than 30 observations can be characterised as small samples. Accordingly, the study employs the Kwiatkowski-Phillips-Schmidt-Shin (KPSS) method as an additional test for stationarity, which will compensate for the shortcomings of the ADF and PP unit root tests. The results of the aforementioned unit root or stationarity tests are thus compared in order to ensure the provision of accurate estimations and that variables are categorised within the restrictions of being either $I(0)$, $I(1)$ or a mixture as is required when employing the ARDL methodology.

5.3.3.1 Augmented Dickey-Fuller and Phillips-Perron unit root test

The Augmented Dickey-Fuller (ADF) test is an amended or extended version of the Dickey-Fuller (DF) test, otherwise known as the autoregressive unit root test. Said and Dickey (1984:599) developed improvements in the ADF test which include the accommodation of autoregressive moving averages. These moving averages are ordered at p or at q in instances when the order is unknown. This leads the ADF test to often produce similar results to that of the Phillips-Perron (PP) unit root test. Variations in these tests however, occur based on the manner in which serial correlation in errors are handled (Phillips & Perron, 1988:338).

Unlike the ADF unit root test, the PP test does not add lagged difference terms while serial correlation is controlled, which is done by use of the Newey-West estimator (Gujarati & Porter, 2008:758). The PP tests is thus considered superior to the ADF in that it accommodates variables that indicate the presence of structural changes, as well as prompting the use of non-parametric statistical methods by introducing the estimation of a non-augmented Dickey-Fuller in its process (Phillips & Perron, 1988:335). While these two tests present differences, they deliver similar results as previously stated. Abdalla and Murinde (1997:28) thus provide a standard

regression equation which employs a constant and encompasses the DF, ADF and PP tests, and can be expressed as:

$$\Delta Y_t = \alpha_0 + \beta_1 + \lambda_3 Y_{t-1} + \sum_{i=1}^{n} \alpha_i \Delta Y_{t-1} + \varepsilon_{3t} \quad \text{(5.4)}$$

Where:

Δ - Denotes the first difference operator

X - The natural logarithm of each variable considered in the study, such that $\Delta Y t = X t - X t - 1$;

t – The time trend; and

ε1, ε2, ε3 and, ε4 – White noise errors.

Furthermore, the ADF and PP tests for stationarity or unit root carry the following hypotheses:

H_0: λ1 = λ2= λ3= λ4=1

Then Y_t consists of a unit root, I (1);

H_1: λ1; λ2; λ3 and λ4 < 1

Then Y_t are stationary, I (0).

The null hypothesis (H_0), where $\lambda = 1$, supports that the variable consists of a unit root I (1) and is thus non-stationary. However, the alternative hypothesis, where $\lambda < 1$, supports that the variable does not have unit root and is I (0), thus being stationary. The Kwiatkowski-Phillips-Schmidt-Shin (KPSS) stationarity test was employed to validate the results of the ADF and PP tests.

5.3.3.2 *Kwiatkowski, Phillips, Schmidt and Shin stationarity test*

Contrary to the ADF and PP unit root tests, the KPSS stationarity test carries the following hypotheses:

H_0: Y_t is stationary, I (0);

H_1: Y_t has a unit root, I (1).

Based on the null hypothesis (H_0), should the variable not consist of a unit root, the respective variable is then stationary, which means that the H_0 cannot be rejected. However, should the variable consist of a unit root and thus be I (1), the variable is considered non-stationary and the H_0 can be rejected in favour of the alternative hypothesis (H_1). A study done by Deb (2004:210), found that the KPSS test is a useful confirmatory test that can be employed to supplement the ADF and PP tests.

The KPSS thus was employed based on the evidence that suggests that tests, which are configured on the premise that the null hypothesis supports that a series is non-stationary, exhibit low power towards the rejection of the null hypothesis. Kwiatkowski, Phillips, Schmidt and Shin (1992:161), therefore states that by reversing the null and alternative hypotheses, as with the KPSS test, the problem of low power and by estimation of a reversed null hypothesis of a stationary series, decreasing the inherent biases of concluding that a series is non-stationary.

5.3.3.3   Structural break unit root test

According to Perron (1989:13), when the time series data experience structural breaks, testing the unit root and the stationarity using the aforementioned approaches, may lead to inaccurate results. Because of the limitations of the ADF and the PP unit root tests, the null hypothesis might be rejected whilst variables are not stationary. Hence, there arise two different types of structural breaks, namely single known breakpoint and the single unknown breakpoint (Habanabakize, 2016:55). In addition to these types of breakpoints, there is also the existence of multiple breakpoints. The aforementioned single breakpoints were analysed by Perron (1989) who classified the different types of structural breaks as endogenous or exogenous. According to Perman and Byrne (2006), various models can be used to determine the breaks, however, for the purpose of this study a single common and know breakpoint test will be employed and uses the model B introduced by Perron (1989). This model allows exogenous shocks to influence elasticity of the observed time growth series. The model carries the following hypothesis-testing framework:

$$H_0 : y_t = u_1 + y_{t-1} + (u_2 - u_1)DU_t + e_t \dotfill (5.5)$$

$$H_1 : y_t = u + \beta_1 t + (\beta_2 - \beta_1)DT_t + e_t \dotfill (5.6)$$

Where y_t symbolises a given series; u_2, u_1 and β_2, β_1 denote parameter changes during the time break. In order to avoid biased results that might arise from other tests that overlook the existence of structural breakpoints, the outcomes of the breakpoint unit root test should be conducted and compared to the ADF-, PP unit root and the KPSS stationarity tests.

5.3.4 Auto-Regressive Distributed Lag (ARDL) Co-Integration Test

The co-integration test follows conducting the unit root and stationarity tests. The study makes use of three (3) single equations in the ARDL model estimation. The ARDL model will determine whether long-run impacts exist between the variables in the study (Dube & Zhou, 2013:203). This approach has been applied progressively over time due to its ability to allow for variables integrated at I (0), I (1) or as a mixture, as previously stated. Harris and Sollis (2003: 111) state that the ARDL model ensures impartial long-run estimates to be produces for the causalities tested, along with a plausible t-statistic, regardless of the data series being endogenous or not. The ARDL model adopts an OLS technique that simplifies the estimations of correlations between variables and even has the ability to distinguish between dependent and independent variables within a statistical model (Pesaran, Shin & Smith. 2001:296). The ARDL model carries the following hypothesis-testing framework:

H_0: No co-integration, (no long-run impact);

H_1: Co-integration, (long-run impact).

The ARDL model integrates an F-test, along with an upper and lower critical bound. In this, I (0) denotes the lower bound and I (1) the upper bound. Should the F-statistic be greater than both the values of these bounds, the null hypothesis of no long-run co-integration is rejected. This implies that a long-run impact from independent variables on the dependent variables does exist. However, if the F-statistic is less than both of the critical bound values are, then the null hypothesis cannot be rejected, implying that no long-run impact between independent and dependent variables exists (Mc Camel, 2017:109).

Not only does the ARDL model provide efficient and unbiased estimation of long-run impacts, but also that of short-run impacts between variables (Pesaran *et al.,* 2001:308). To estimate this, the ARDL model also generates the error correction model (ECM), presenting the error correction term (ECT) and estimating short-run adjustments, alongside long-run equilibrium.

The ECT denotes the short-run adjustments coefficient, providing a measure for the long-run disequilibrium of the dependent variables corrected in each quarter. Thus, if co-integration between the variables in the study exists, the model will estimate the ECM, however, if co-integration does not exist, the Granger- or the Toda-Yamamoto causality test will be estimated to determine causation and short-run correlation between variables (Alimi, 2014:106).

As mentioned, the ARDL model also permits several optimal lags for each variable, making use of a general-to-specific approach to modelling and taking into account the various sufficient lag structures for each model (Mc Camel, 2017:110). The study thus makes use of the Schwarz information criterion (SIC) to determine the maximum number of lags to be introduced to the three (3) statistical models estimated in the study. The choice of the SIC is supported by various empirical studies which state that it possesses more power and a higher rate of consistency over other lag selection criterion when dealing with small samples sizes (Asghar & Abid, 2007; Javed & Mantalos, 2013:1925). The SIC also introduces a penalty term for the number of parameters within the ARDL models used in the study, which addresses issues of over-fitting.

The study examines whether long- and short-run relationships exist between the independent variables (SSEXP; TBEN; HHS; GDP and UNEMP) and dependent variables (POV; GINI and HDI) using the ARDL model. As discussed in Section 5.3.2, the study will test all three dependent variables against the independent variables respectively, as described by Equations 5.7, 5.8 and 5.9:

$$\Delta LPOV_t = \alpha_0 + \sum_{j=1}^{k} \pi_j\, \Delta LSSEXP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LTBEN_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LHHS_{t-j} +$$
$$\sum_{j=1}^{k} \pi_j\, \Delta LGDP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LUNEMP_{t-j} + \varphi_1 LSSEXP_{t-1} + \varphi_2 DTBEN_{t-1} + \varphi_3 LHHS_{t-1} +$$
$$\varphi_4 LGDP_{t-1} + \varphi_5 LUNEMP_{t-1} + e_t \dotfill (5.7)$$

$$\Delta LGINI_t = \alpha_0 + \sum_{j=1}^{k} \pi_j\, \Delta LSSEXP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LTBEN_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LHHS_{t-j} +$$
$$\sum_{j=1}^{k} \pi_j\, \Delta LGDP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LUNEMP_{t-j} + \varphi_1 LSSEXP_{t-1} + \varphi_2 DTBEN_{t-1} + \varphi_3 LHHS_{t-1} +$$
$$\varphi_4 LGDP_{t-1} + \varphi_5 LUNEMP_{t-1} + e_t \dotfill (5.8)$$

$$\Delta DHDI_t = \alpha_0 + \sum_{j=1}^{k} \pi_j\, \Delta LSSEXP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LTBEN_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LHHS_{t-j} +$$
$$\sum_{j=1}^{k} \pi_j\, \Delta LGDP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LUNEMP_{t-j} + \varphi_1 LSSEXP_{t-1} + \varphi_2 DTBEN_{t-1} + \varphi_3 LHHS_{t-1} +$$
$$\varphi_4 LGDP_{t-1} + \varphi_5 LUNEMP_{t-1} + e_t \dotfill (5.9)$$

Where:

The symbol L denotes the natural logarithm for each variable in the model and the symbol D denotes growth rate. Whilst π_1, π_2, π_3, π_4, π_5, π_6 and π_7 represent the coefficients indicating short-run dynamics and φ_1, φ_2, φ_3, φ_4, φ_5, φ_6 and φ_7, represents the long-run relationship. Equations 5.5, 5.6 and 5.7 are tested using the ARDL hypothesis test:

H_0: $\varphi_1 = \varphi_2 = \varphi_3 = \varphi_4 = \varphi_5 = \varphi_6 = \varphi_7 = 0$ (No co-integration)

H_1: $\varphi_1 \neq \varphi_2 \neq \varphi_3 \neq \varphi_4 \neq \varphi_5 \neq \varphi_6 \neq \varphi_7 \neq 0$ (Co-integration)

The rejection of null hypothesis implies that a long-run impact running from independent variables on the dependent variables exists, which will, as discussed, lead the study to perform the ECM. The equations for the ECM, 5.10, 5.11 and 5.12, are as follows:

$\Delta LPOV = \alpha_0 + \sum_{j=1}^{k} \pi_j\, \Delta LSSEXP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LTBEN_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LHHS_{t-j} +$
$\sum_{j=1}^{k} \pi_j\, \Delta LGDP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LUNEMP_{t-j} + \varphi_1 LSSEXP_{t-1} + \varphi_2 DTBEN_{t-1} + \varphi_3 LHHS_{t-1} +$
$\varphi_4 LGDP_{t-1} + \varphi_5 LUNEMP_{t-1} + \delta ECT_{t-j} + e_t$ ....(5.10)

$\Delta LGINI = \alpha_0 + \sum_{j=1}^{k} \pi_j\, \Delta LSSEXP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LTBEN_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LHHS_{t-j} +$
$\sum_{j=1}^{k} \pi_j\, \Delta LGDP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LUNEMP_{t-j} + \varphi_1 LSSEXP_{t-1} + \varphi_2 DTBEN_{t-1} + \varphi_3 LHHS_{t-1} +$
$\varphi_4 LGDP_{t-1} + \varphi_5 LUNEMP_{t-1} + \delta ECT_{t-j} + e_t$ ....(5.11)

$\Delta DHDI_t = \alpha_0 + \sum_{j=1}^{k} \pi_j\, \Delta LSSEXP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LTBEN_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LHHS_{t-j} +$
$\sum_{j=1}^{k} \pi_j\, \Delta LGDP_{t-j} + \sum_{j=1}^{k} \pi_j\, \Delta LUNEMP_{t-j} + \varphi_1 LSSEXP_{t-1} + \varphi_2 DTBEN_{t-1} + \varphi_3 LHHS_{t-1} +$
$\varphi_4 LGDP_{t-1} + \varphi_5 LUNEMP_{t-1} + \delta ECT_{t-j} + e_t$ ....(5.12)

Where:

The ECT denotes the error correction term and captures the speed of adjustment to equilibrium for the original ARDL model equations 5.7, 5.8 and 5.9. Furthermore, the formulated hypotheses for the ARDL model that regressed POV, GINI and HDI along with the respective independent variables of the study can be expressed as follows:

H_0: There is no short- and long-run impact on dependent variables from the independent variables.

H_1: There is a short- and long-run impact on dependent variables from the independent variables.

5.3.5 The Causality Test Model

Should long-run co-integration between variables not exist, the Granger- or the Toda and Yamamoto causality test will be employed in order to investigate the causal relationship between variables of the study (Weiner, 1956:125). The null hypothesis for the test states that lagged x-values provide no explanation for y. Thus, the null hypothesis assumes that x(t) does not cause y(t) (Granger, 1969:424). The mathematical formulation and application of the model at hand are mostly subjected to the nature of variables employed under the study; therefore, the casual factors represented in the model depend on the selected variables (Seth, 2007:16).

However, there are some limitations regarding the models forecasting (Habanabakize, 2016:52). According to Gujarati and Porter (2008), the model predicts the future behaviour of a given variable, which is based merely on a given order, which neglects the influences other variables may have. Since the causality test rest on the number of lags involved in the model, the results may possibly fluctuate subject to the number of lags selected (Habanabakize, 2016:52). The findings of Huang, Kao and Chiang (2004:34) state that the causality model uses time series data, commonly known as non-stationary and may lead to inaccurate outcomes and false predictions.

Therefore, Toda and Yamamoto (1995) augmented causality test can be applied in the place of the Granger Causality test as the ECM cannot be applied for the Granger causality test. The Toda-Yamamoto test is developed irrespective of whether Y_1 and X_1 is I (0), I (1) or I (2), non-cointegrated or co-integrated of a random order. Hence, the test provides the testing for causality amongst integrated variables employed under the study (Dritsaki, 2017:123).

5.3.6 Model Diagnostic Tests

Following the estimation on the ARDL model used in the study as discussed in Section 5.3.2, it is crucial to perform the residual and stability diagnostics tests prior to drawing conclusions. Thus ensuring that all the model assumptions are confirmed, including that of normality in the

distribution of data, serial uncorrelated homoscedasticity in the data and stability of the model. In the occurrence that these assumptions are not valid, the conclusions drawn from the ARDL model could be considered misrepresentative.

5.3.6.1   Residual diagnostic tests

The study will employ a normality test, serial correlation test and a heteroscedasticity test under the residual diagnostic tests in order to evaluate the validity of assumptions of the econometric modelling procedure, as well as identifying irregularities within the features of the ARDL model that could lead to problematic or unreliable conclusions (Mc Camel, 2017:113). These tests are methodised as follows:

- *Normality test*

Normality should be tested in order to eliminate the possibility of statistical errors, as well as the regulation of the other assumptions as previously mentioned. Normal distribution of data is crucial for statistical procedures such as correlation, regression, parametric tests and t-tests, to ensure that conclusions drawn from these tests are reliable (Ruxanda & Botezatu, 2008:51). The study thus employs the Jarque-Bera test to evaluate normal distribution of the models in the study. The Jarque-Bera test estimates the kurtosis and variation in skewness of each of the variables, compared to a normal distribution and carries the following hypothesis (Chen & Kuan, 2003:8):

H_0: Normal distribution

H_1 : Non-normal distribution

The following represents a test statistic which assists in deciding whether variables are normally distributed:

$$JB = \frac{N-k}{6}\left[s^2 + \frac{(K-3)^2}{4}\right] \dotfill (5.13)$$

Where:

N indicates the number of captured observations and k indicates the number of estimated parameters. K denotes the kurtosis in variables and S denotes skewness of variables. This indicates that when JB is greater than $X^2(2)$ or the p-value is less or equal to the significance

level, the null hypothesis is rejected, suggesting that variables are thus not normally distributed. However, should JB be smaller than $X^2(2)$ or the p-value is greater than the significance level, then variables are normally distributed.

- *Serial correlation test*

Serial correlation within time series data exists when the error terms from one period carry over to future periods (Wooldridge, 2012:412). More precisely, serial correlation is the occurrence of correlation between the error terms from multiple periods in a data series. This occurs as consequence of data manipulation through interpolation or extrapolation that causes the dependent or independent variables to be non-stationary (Mc Camel, 2017:114). This could lead to unreliable estimations from the ARDL model. The Ljung-Box test was developed in order to ascertain whether residuals contain serial correlation up to any order k (Ljung & Box, 1978:301). This test carries the following hypothesis-testing framework:

H_0: No serial correlation up to order k

H_1 : Serial correlation up to order k

The following test statistic assists in deciding whether residuals are serially correlated or not:

$$Q_{LB} = T(T+2) \sum_{j=1}^{k} \frac{r_j^2}{T-j} \dots\dots\dots(5.14)$$

Where:

T denotes the number of captured observations in the series and k denotes the tested elevated order of serial correlation. The r_j^2 indicates the jth serial correlation. Herein, the null hypothesis of no serial correlation is rejected in the event of the p-value being less or equal to the significance level, which suggests that the residuals are serially correlated. However, should the p-value be greater than the significance level, it indicates that residuals are not serially correlated.

- *Heteroscedasticity test*

Heteroscedasticity occurs in the event that error terms within a model are not uniform in their nature, thus indicative of inconsistency in the variance in error terms within the model (Brooks, 2014:182). Most commonly, outliers within the data set can lead to the existence of

heteroscedasticity. However, heteroscedasticity could also occur due to interpolation or extrapolation when manipulating data, which in turn leads to ARDL estimators not to be the best linear unbiased estimators or "BLUE" and could cause unreliable conclusions. The Engle's arch LM test is thus employed to test for heteroscedasticity within the data and carries the following hypothesis-testing framework:

H_0: Homoscedasticity

H_1: Heteroscedasticity

The test statistic assists in deciding whether heteroscedasticity exists within the data:

$$LM_E = nR^2 \quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad (5.15)$$

Where:

n indicates the number of captured observations and R^2 denotes the augmented residual regression resolution coefficient. In the event that the p-value is less or equal to the significance level, the null hypothesis of homoscedasticity of the data is rejected. Such an occurrence will indicate the existence of heteroscedasticity within the data series. However, no heteroscedasticity exists when the p-value is greater than the significance level.

5.3.6.2   Stability diagnostic or recursive residual tests

In addition to performing the residual diagnostic tests, the study also employs stability diagnostic tests to ensure consistency amongst the parameters of the various ARDL models over time (Seddighi, Lawler & Katos, 2000:82). Stability diagnostics are tested by employing various recursive residual tests. These tests plot the recursive residuals around zero and indicate standard errors at each point (Brooks, 2014:233). With this said, stability is indicated by the residuals that then reside within the critical lines of the standard errors. The study will employ the cumulative sum of recursive residuals (CUSUM) test, along with the cumulative sum of squared residuals (CUSUMQ) test, which are methodised as follows (Seddighi *et al.,* 2000:83):

- *Cumulative sum of recursive residuals (CUSUM) test*
Brooks (2014:232) states that the CUSUM statistic that resides within the normalised form of recursive residuals must be tested based in the null hypothesis of quintessential parameter

stability. According to Brown, Durbin and Evans (1975: 154), this means that the CUSUM statistic is often zero, based on the predicted value or interference typically being zero. Therefore, should residuals reside outside of the standard error critical lines after estimation of the CUSUM test, the null hypothesis of quintessential parameter stability is rejected. According to Brown *et al*. (1975:154), the CUSUM test can be expressed as follows:

$$W_t = \sum_{k+1}^{t} \, {}^{1}/_{S} \dotfill (5.16)$$

Thus: t = k + 1,…,T and $s = S_T$ / (T-k)

Where:

W_t denotes the recursive residual and *s* denotes the calculated standard deviation. *t* indicates the time necessary for a constant to diverge. Therefore, should δ represent a constant and δ continue to be constant at times, E (W_t) will then be equal to zero. Moreover, should δ diverge, then W_t will correspondingly diverge from the critical line of its zero mean value (E (W_t) =0). According to Brown *et al*. (1975:154), this will indicate that the significance of divergence from the critical line of zero mean value will be estimated by using two critical lines of five percent confidence interval, which will then measure the level of stability and will ascertain whether the null hypothesis of quintessential parameter stability should be rejected or not.

- *Cumulative sum of squared recursive residuals (CUSUMSQ) test*

The CUSUMQ statistic finds its' origin in the normalised form of the cumulative sum of squared residuals and can, as with the CUSUM test, be tested by means of the null hypothesis of quintessential parameter stability (Brooks, 2014:234). Although similar characteristics exist between the CUSUM and CUSUMQ tests, the CUSUMQ test plots the cumulative sum of squared residuals and not that of the recursive residuals such as in the CUSUM test (Brown *et al*., 1975:153). According to Mc Camel (2017:117), the CUSUMQ statistic is expressed as follows:

$$S_t = {}^{S_t}/_{S_T} = (\sum_{j=k+1}^{t} \, w_j^2) \, / \, (\sum_{j=k+1}^{T} \, w_j^2) \dotfill (5.17)$$

Where:

$t = t = k + 1,…, T,$ as well as the projected value of S_t for the null hypothesis of parameter stability is described as $E(S_t) = (t - k) / (T- k)$. The most effective technique in capturing the values of significance, is to start from zero at $t = k$ and then join at $t = T$. Therefore, the significance of the divergence of S from the projected value is projected by making use of a set of two diagonal critical lines. According to Brown *et al.* (1979:154), both lines are estimated at five percent confidence interval and are parallel to each other around the projected value.

5.4   SYNOPSIS

CHAPTER 5 OBJECTIVES

- ➢ To present empirically the impact of the South African social security system on its set objective, being the alleviation of poverty, inequality as well as human upliftment
- ➢ To determine the long-run and the short-run interrelation between the South Africa's poverty rate, HDI and inequality rate against government investment in social security policy, the number of individuals within a household, economic activity and employment creation;
- ➢ To examine the causal effects of the set explanatory variables (poverty, inequality, human development, social spending, household size, economic activity and unemployment) and the number of beneficiaries receiving social benefits.

The purpose of this chapter was to identify the data used in this study, as well as the model adopted by this study, including methodising the econometric approach employed to investigate the impact of social security policies on the South African economy and its citizens in terms of poverty and inequality alleviation as well as to assist in human development. As described by Section 5.2 of this chapter, the study employs secondary data, covering a period of 21 annual observations, starting from 1996 and ending in 2017. The rationale behind the selected sample period was led by the change of South Africa's political and economic structures as well as the exclusion of economic embargo's, which characterised South Africa's apartheid era, as well as the availability of data.

Moreover, Section 5.3 specifies that the econometric models shown by equations 5.5, 5.6 and 5.7 (with poverty, income inequality and human development as dependent variables) regress the

independent variables of the study. The methodology of this study supports a functionalist approach and the study is based on quantitative methods. Therefore, the study employs the ARDL model, as it is suitable for small data sets and is applicable regardless of whether variables in the data series are integrated at I(0), I(1) or as a mixture. Prior to the estimation of the ARDL model, however, two unit root tests (ADF and PP), as well as a stationarity test (KPSS) are performed in order to identify unit roots in the data and determine the order of integration of the variables.

The chapter also explained that should variables be integrated in the second order, the ARDL model would not be estimated. However, if this is not the case, the ARDL model will determine the long-run impact of the independent variables on the dependent variables. This is followed by a corresponding error correction model (ECM), in order to obtain the speed of adjustment of variables to equilibrium. Lastly, the study will estimate relevant residual and stability diagnostic tests (i.e. normality, serial correlation, heteroscedasticity and stability) to evaluate the reliability of the results that are generated by the ARDL models. The following chapter, Chapter 6, will report on the findings and interpret and discuss empirical results that were obtained in the application of the methodised econometric approach.

CHAPTER 6

EMPIRICAL ESTIMATION AND DISCUSSION OF RESULTS

6.1   INTRODUCTION

The consensus from previous chapters is that social security systems have become a policy recommendation by various international organisations. This is evident in the Universal Declaration of Human Rights Article 22 and 25; the Social Security (Minimum Standard) Convention, 1952 (No. 102); Article 9 of the International Covenant on Economic, Social and Cultural Rights and the 2012 International Labour Organisations' recommendation R202[18]. As the study progressed, Chapter 2, 3 and 4 examined and illustrated different types of social security systems and their implementation criteria. Chapter 2 provided a broad overview of social security systems in emerging economies and their goals. Chapter 3 examined social security systems across the globe and focused on the U.S. food stamp programme (SNAP), Brazil's *Bolsa Família* system and different social security policies within the sub-Saharan African economies. Furthermore, Chapter 4 examined the South Africa social security system as a whole and illustrated and examined trends in the number of social security recipients and the amount spent on these systems, compared to various other variables such as employment, population size, GDP and total consolidated expenditure.

Having discussed, in Chapter 4, the trend and empirical findings of the impact of the South African social security system, there is need to employ an econometric analysis to achieve the empirical objective if the study at hand. Throughout this chapter, the econometric estimation model is adopted to:

➢ empirically analyse the impact of the South African social security system on its set objective, being the alleviation of poverty, inequality and human upliftment;

➢ determine the long-run and the short-run interrelation between the South Africa's poverty rate, HDI and inequality rate against government investment in social security policy, the number of individuals within a household, economic activity and employment creation;

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[18] Please refer to Chapter 2 Section 2.3.5.1 for further information.

> examine the causal effects of the set explanatory variables (poverty, inequality, human development, social spending, household size, economic activity and unemployment) and the number of recipients receiving benefits.

Specifically, Chapter 5 methodised the ARDL model which not only function as a dynamic model used to achieve the empirical objectives of the study at hand, but to methodise other necessary econometric techniques, including the unit root tests, stationarity test, correlation matrix, Toda-Yamamoto causality test and stability diagnostic tests, conditional for ensuring reliable and genuine ARDL model results. As such, this chapter utilises the ARDL model to estimate the empirical objectives of the study and discusses the estimated results in detail. The initial section of this chapter will present a descriptive summary, reporting descriptive statistics that will provide marks and features of the data used in the study.

The next section will report unit root tests results, the stationarity test results and the correlation results. This will summarise mutual relationships between the variables of the study while determining the order of integration. It should be taken into account that verifying the order of integration is a necessary condition when applying an ARDL bound test approach to co-integration. Thus, the ADF unit root test, PP unit root test and KPSS stationarity test were used to analyse the unit roots in the data and to ensure the order of integration between variables.

Additionally, the study consists of three ARDL models that will estimate equations 5.1 to 5.3. Bearing this in mind, the following sub-sections of this chapter will report and discuss results obtained from the use of the ARDL model to estimate each of the three equations. First, the results obtained when estimating long-run impacts using an ARDL bound test approach to co-integration will be reported, then results of each estimated ARDL bound test followed by the short-run causality test amongst variables. Lastly, the results obtained by the model residual and stability diagnostic tests that were performed on each ARDL model employed by the study will be reported. This will assure the reader that the results generated by all ARDL models employed by the study are impassive to serial correlation, heteroscedasticity and instability.

6.2   DESCRIPTIVE STATISTICS RESULTS

During the process for conducting the econometric analysis, the process of reviewing residual or graphical series is fundamental in understanding time series movements as well as outlining any

possible model deficiencies within the series (Chipeta, 2017:111). According to Lütkepohl and Krätzig (2004:40), unusual residuals or deficiencies may be observed in the form of outliers, structural breaks or inhomogeneous changes. Therefore, to identify any possible deficiencies within the time series data is crucial to examine these observations as this affect the econometric model.

Table 6-1 summarises the descriptive statistics for the data set in use to achieve the primary objective of the study at hand. Hence, evident from the estimated descriptive statistics table, the first horizontal row represents the variables in use of this study, which include the total number of social security recipients (TBEN), the amount spent per annum on the South African social security system (SSEXP), economic activity (GDP), the number of individuals within a household (HHS), the number of individuals without jobs (UNEMP), the level of human development (HDI), the level of equality (GINI) and the amount of individuals in poverty (POV).

The reason why these variables were chosen for the study at hand is that social security recipients and social security expenditure (annually) go hand-in-hand. As the amount spent is determined according to inflation and hence the variable economic activity. The number of household corresponds with the number of social security recipients as the more individuals within a household, the greater variety social security benefits received.[19] Unemployment also has an impact on the number of social security recipients as the more individuals within a household without a job create poverty, as more means are needed to keep from falling into poverty. Finally, the dependent variables, poverty, HDI and GINI, are chosen since social security systems are designed to alleviate poverty and inequality as well as to uplift individuals' standard of living. Therefore, HDI is a variable, which includes the number of years of schooling (literacy), life expectancy and per capita income. The GINI coefficient refers to income distribution within an economy, hence income inequality and poverty is calculated for the number of individuals living under the upper bound poverty line.

Therefore, to analyse the impact the independent variables (number of individuals within a household, social security expenditure, social security recipients, unemployment and economic

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[19] Please refer to chapters 2, 3 and 4 for the conditionality's of different social security schemes across the globe.

activity) have on the dependent variables (poverty, HDI and GINI), a descriptive test was conducted to estimate the variables.

Table 6-1: The estimated descriptive statistics results

	HDI	TBEN (mill)	GDP (Rbn)	GINI	HHS	POV (mill)	SSEXP (Rbn)	UNEMP (mill)
Mean	0.5755	10.4955	2.4811	0.6409	3.8318	31.2749	9.0066	4.4288
Median	0.5552	12.2194	2.5581	0.6415	3.6866	31.8001	8.50	4.5527
Max	0.6595	17.3882	3.1249	0.6602	4.6347	33.1078	18.0	5.9425
Min	0.5261	2.7445	1.8194	0.6063	3.5185	27.5019	1.6089	2.4018
Std. Dev.	0.0456	5672864	0.6052	0.0134	0.3244	1566583	5.5780	852199.7
Skewness	0.6573	-0.2572	-0.0724	-0.5195	1.3578	-1.0186	0.0596	-0.8295
Kurtosis	1.8959	1.4012	1.5073	3.1234	3.6415	3.03462	1.5782	3.6318
Jarque-Bera	2.7012	2.5858	2.0612	1.0036	7.1374	3.8052	1.8660	2.8890
Prob.	0.2591	0.2745	0.3567	0.6054	0.028*	0.14918	0.3934	0.2359
Obs.	21	21	21	21	21	21	21	21
(*) Non-rejection of the null hypothesis of normal distributed at 1%; 5% & 10% significance level								

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 2012, 2015 & 2017)

As observed in Table 6-1, the average number of social security recipients between 1996 until 2017 was 10.5 million individuals and the average amount spent on these recipients amounts at R 9 billion of total government consolidated expenditure. The average household in South Africa range between three and four individuals and it can be said that within a household of between three and four individuals, social benefits can be claimed according to the number of individuals living within a household. In addition, of the average amount of individuals in poverty (31.27 million) only, an average of 10.49 million individuals receives social security benefits. This is true as Haasbroek (2009:102)[20] found that the South African social security system only provides

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[20] Please refer to Chapter 4 Section 4.6 for a full discussion.

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a better quality of life for some. When comparing the average amount spent on the South African social security and the average economic activity (GDP), it is evident that the amount spent on social security benefits is far greater that the average GDP experienced by the economy, R 9.01 billion and R 2.48 billion, respectively. This raises some concern as learnt from Chapter 4 Section 4.6, that the National Treasury (2004:73) commented on the growth in the ratio between social security benefits expenditure and GDP and stated that "the ratio is high compared to most other emerging economies, and also high relative to spending on cash social assistance in some high income economies. Growth of this magnitude relative to GDP raises sustainability questions for the future." By 2017, the National Treasury (2017) stated that social security benefits are essential for the improvement of individuals and their social wellbeing, despite this it poses a risk to the sustainability of the South African fiscal policy as the government must budget for social benefits paid, which means less can be invested in infrastructure and education, etcetera. Van der Berg *et al.* (2010:8) further comment that the limited size of the South African tax base also raises concern with regards to the fiscal sustainability of the South African social security system. As in 2009, for every taxpayer there were two social security recipients. Social security benefits grew by a greater amount than spent on basic education. Hence, this can justify the large amount of individuals without a job as the average unemployment amounts to 4.42 million, evident in Section 4.5.

In Chapter 3, Section 3.2.1.2, globally an estimated 3 percent of GDP is spent on social security schemes and more recent data indicate that in 2016 expenditure in European economies stood at just over 19 percent of GDP (ILO, 2017:xxxiii). The OECD (2018b:86) states that industrialised economies spend a much greater share of national income on, especially, social transfers than compared to emerging economies. Countries such as Denmark and Finland spend roughly 40 percent of total government expenditure on social security, compared to South Korea and the United States who spend around 20 percent (Bastagli *et al.,* 2012:16). Therefore, when comparing South Africa's average amount spent towards social security schemes, South Africa falls below the world average at 2.48 percent.

Furthermore, in Chapter 4, Section 4.1.1 there was found that South Africa is seen as one of the most unequal economies across the globe (Keeton, 2014:26) with a GINI coefficient of 0.63 in 2015 (World Bank, 2018f:xvii) and an average GINI coefficient of 0.64, evident in the descriptive statistics test results. This was found by Feketha (2018) to be mainly due to high

wealth inequality and low intergenerational mobility inherited from apartheid. Education and skills development is a contributing factor to high inequality in South Africa as poor natives are wither unemployed or unskilled. When comparing South Africa's GINI coefficient to that of the world, it is found that in sub-Saharan Africa, Brazil and the Middle East, inequality remained relatively stable, however, at very high levels. The most drastic division of income inequality can be found between the United States and Western Europe, which once had similar inequality levels in the 1980s but today is completely different. The reason for the increase in U.S. inequality levels is mainly due to massive educational inequality, together with a less progressive tax system (Alvaredo *et al.,* 2018:6).

Furthermore, the third row in Table 6-1 indicates the maximum amount of individuals in poverty and the maximum amount of social security recipients, which amount to 33.1 million and 17.38 million individuals respectively. The corresponding maximum figures for the total amount spent on social security amounts to R 18 billion and the maximum GDP, R 3.1 billion. Furthermore, the maximum number of individuals without a job amounted to 5.9 million, the maximum level of human development during 1996 and 2017 is 0.66 and the maximum level of inequality is 0.66. On the other hand, the minimum amount of individuals in poverty was 27.5 million and the minimum social security recipients, 2.7 million individuals. The corresponding minimum figures for the amount spent on social security schemes and the economic activity amounts to 1.8 billion and 1.6 billion respectively. The minimum amount of individuals without a job amounted to 42.4 million individuals and the minimum level of human development 0.5 and inequality 0.6.

Moreover, the fourth row indicates the standard deviation values for each variable employed within the study. As such, the standard deviation figures for the number of individuals without a job, the number of individuals in poverty and the number of social security benefit recipients amount to 852199, 1566583 and 5672864 respectively. Whereas the standard deviation for human development, economic activity, inequality, the number of individuals within a household and social security expenditure is 0.0456, 0.60521, 0.0134, 0.3244, 5.578037, respectively.

The fifth row in Table 6-1 indicates the value of skewness and is relatively skewed as the skewness is found between 0.05 to -1.01. In addition, the number of social security recipients, economic activity, inequality, the number of individuals in poverty and the number of individuals without a job are negatively skewed, while the number of individuals within a

household, human development and social security expenditure are positively skewed. According to Mc Camel (2018:126), the kurtosis estimates both the flatness and the peak of the distribution, where a normal distribution has a kurtosis value of three. Therefore, the sixth row indicate that the distribution of this study is relatively peaked and consists of larger tail as some values are more than three.

The last two rows indicate the Jarque-Bera (JB) statistic and its corresponding probability (prob.) value and both these determine whether the data of each variable employed within the study are normally distributed. It is important to note that the JB test statistic proposes a null hypothesis of normal distribution and if the JB statistic has a corresponding p-value that is significant and then the null hypothesis is rejected. Therefore, Table 6-1 indicates that the null hypothesis is rejected for the number of individuals within a household due to the significance of the p-value corresponding to the JB statistic. On the other hand, the null hypothesis is not rejected for human development, the total number of social security beneficiaries, economic activity, inequality, the number of individuals in poverty, the amount spent on social security and the number of individuals without a job since the p-values corresponding to their respective JB statistic is not significant. This implies that data for the number of individuals within a household is not normally distributed while data for human development, the total number of social security beneficiaries, economic activity, inequality, the number of individuals in poverty, the amount spent on social security and the numbers of individuals without a job are normally distributed.

Figure 6-1 shows the raw data of each variable employed in the study and consists of the effectiveness of social security on the alleviation of poverty and inequality as well as assisting in the overall upliftment of individuals' standard of living. The series in each respective employed variable originates in 1996, following the onset of the South African 1994 democratic regime and ends in 2017. Evident from Figure 6-1, is that economic activity, human development, poverty, social security expenditure, the number of social security recipients and the number of individuals without a job has an upwards trend while inequality experienced a decline, however, recently shown to increase again. While since 1997 until recently the number of individuals within a household indicates a negative slope and average between three and four individuals per household as illustrated in Table 6-1.

When data were differenced, it is evident that from 1996 until late 2006 the economy started picking up, however, it has seen a decline from 2007 until 2009. This was mainly due to the 2007/08 financial crisis and resulted in a technical recession. The post-crisis recovery lasted until the late 2010, early 2011, and then started declining again (Mc Camel, 2018:57).

Figure 6-1: Graphical illustration of movements of variables, making use of raw data
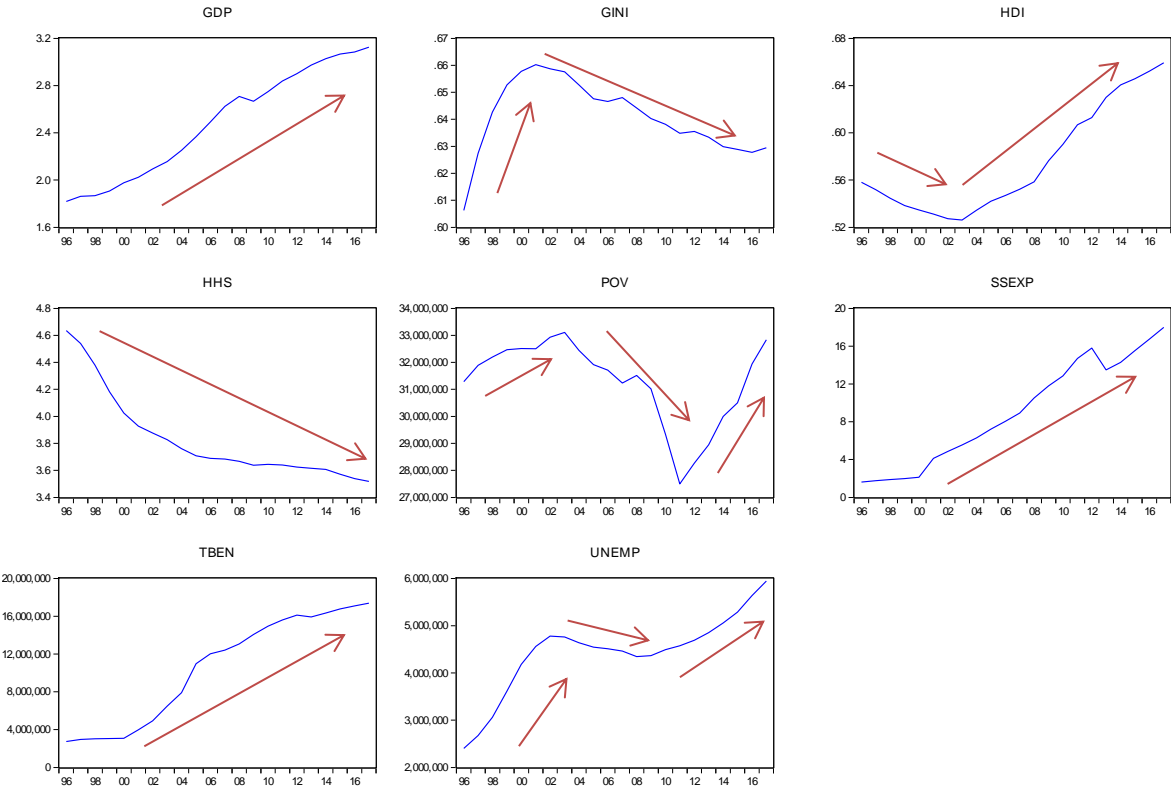
Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The set of graphs illustrated in Figure 6-2, illustrate the movement of variables over time, based on differenced data. DHHS, DUNEMP and DSSEXP show a positive correlation in movement with one another, indicating that when the number of individuals within a household increase, the amount spent on social security will increase. This indicate that the South African government spent more each fiscal year on social security as the number of recipients increase and the number of individuals within a household.

Figure 6-2: Graphical illustration of movements of variables, differenced data
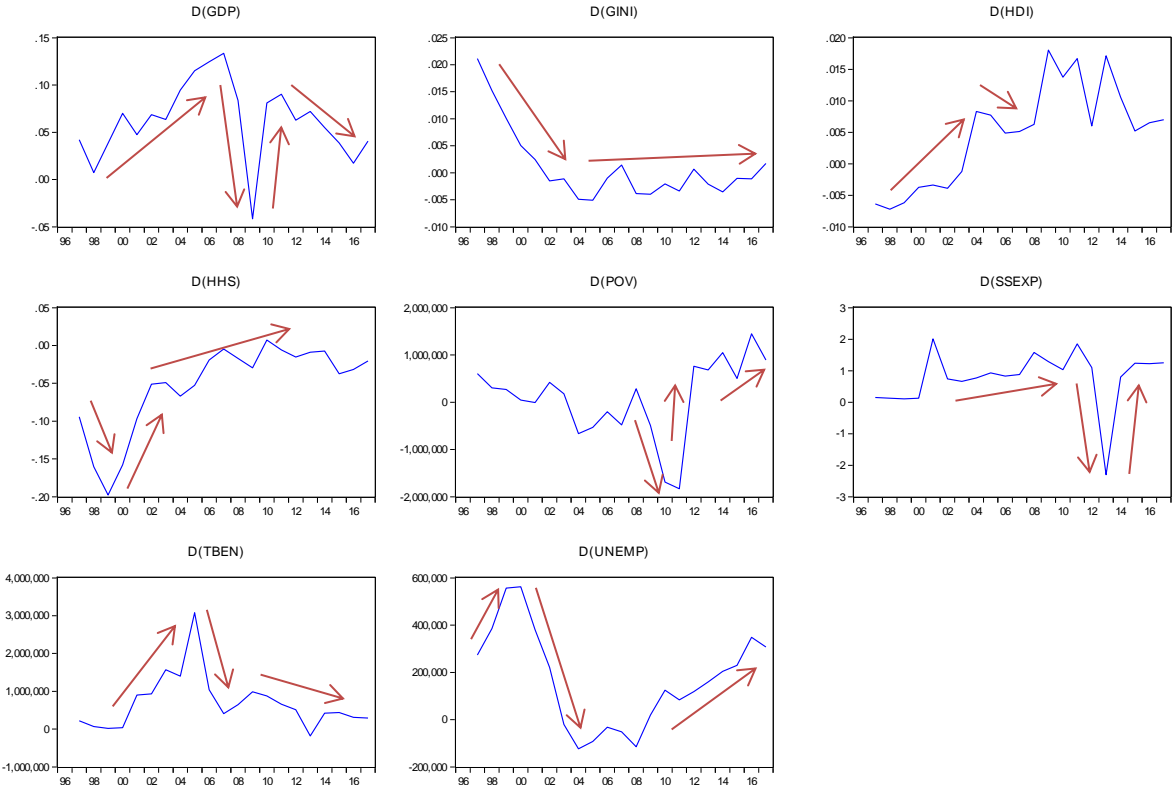
Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

From the variations illustrated in Figure 6-2, it is needed to analyse the true effects of each of these variations on each variable.

6.3   UNIT ROOT TESTS AND STATIONARITY TEST RESULTS

According to Habanabakize (2016:67) the unit root or stability test should be the first step in time series data analysis as the use of non-stationary data results in false results. Accordingly, this study employ a unit root test before any other step of estimating and/ or analysing data, in order to determine the stability and the integration order of variables. A stationarity test was performed using the ADF approach. Followed by a Phillip-Perron (PP) test and lastly the Kwiatkowski, Phillips, Schmidt and Shin approach (KPSS). According to Mc Camel (2018:130) more often the ADF and the PP unit root test encounter similar results, hence these test suffer the same weakness of being bias towards the rejection of the null hypothesis. For this reason, the KPSS stationarity test is used to confirm and assess the robustness of the ADF and PP unit root test results. According to Lee and Amsler (1997:151), the first difference between the KPSS,

ADF and PP tests is that the KPSS test determines the series stationarity whilst the latter tests assess whether the series contains a unit root or not. Secondly, the KPSS outcomes are used as confirmatory of ADF and PP results. Therefore, the following section will include the ADF unit root test, following this will be Table 6-3 the PP unit root results and lastly, Table 6-4 will report the KPSS stationarity test results.

6.3.1 The Unit Root Tests and Stability Test Results

The ADF unit root test results is given in Table 6-2 and indicates that some variables used in the study are stationary at level, whilst others are stationary at first difference. To specify, the natural logarithm of economic the number of individuals living in poverty (LPOV), the natural logarithm of income inequality (LGINI), the differenced human development (DHDI) and the differenced total number of social security recipients (DTBEN) was stationarity at I (1), without trend. The natural logarithm of the number of individuals without a job (LUNEMP) was stationary at I (0) with a trend. Whereas the natural logarithm of the number of individuals within a household (HHS) and the natural logarithm of the amount spent on social security (LSSEXP) were stationary at I (0) without trend. These results were obtained by following the conventional unit root test approach, where variables were first tested at a level without trend and if they indicated nonstationary, then the trend is considered. If they are still found to be non-stationary at level with or without trend, the next step is to difference them to first difference.

Table 6-2: Augmented Dickey-Fuller (ADF) unit root results

| Variables | At Level I(0) | | | | At 1ˢᵗ Difference I(1) | | Results (order of integration) |
| | Without trend | | With trend | | Without trend | | |
	T-stat	P-value	T-stat	P-value	T-stat	P-value	
LPOV	-1.9914	0.2878	-1.7898	0.6713	-2.4246	0.0182 **	**I (1)**
LGINI	-2.0356	0.2705	-3.1122	0.1302	-4.7757	0.0013 ***	**I (1)**
DHDI	-1.9389	0.3091	-2.2446	0.4420	-6.2993	0.0000 ***	**I (1)**
LUNEMP	-1.4372	0.5424	-6.5845	0.0002 ***	----	----	**I (0)**

Variables	At Level I(0)				At 1st Difference I(1)		Results (order of integration)
	Without trend		With trend		Without trend		
	T-stat	P-value	T-stat	P-value	T-stat	P-value	
LHHS	-4.6401	0.0019 ***	----	----	----	----	**I (0)**
DTBEN	-2.4284	0.1470	-2.4351	0.3525	-5.7265	0.0000***	**I (1)**
LSSEXP	-7.6462	0.0000 ***	----	----	----	----	**I (0)**
(***) The rejection of the null hypothesis of non-stationarity at the 1% significance level *(**) The rejection of the null hypothesis of non-stationarity at the 5% significance level* *(*)The rejection of the null hypothesis of non-stationarity at the 10% significance level*							

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

Furthermore, the PP unit root test was run and the results are illustrated in Table 6-3. Correspondingly, the results of the PP unit root test are consistent with that of the ADF unit root test results as there is evidence that the natural logarithm for the number of individuals living in poverty (LPOV), income inequality (LGINI), the differenced of human development (DHDI) and the differenced total number of social security recipients (DTBEN) were found to be stationarity at I (1). Whilst the natural logarithm of the number of individuals without a job (LUNEMP), was not stationary at I (0) without trend, however, it is stationary at I (0) with a trend. Whereas the natural logarithm of the number of individuals within a household (HHS) and the natural logarithm of the amount spent on social security (LSSEXP) were stationary at I (0) without trend.

The aforementioned results were obtained following the same conventional unit root testing approach than that of the ADF unit root test and the methodised decision rule for the PP unit root in Section 5.3.3.1 of Chapter 5.

Table 6-3: Phillips-Perron (PP) unit root test results

Variables	At Level I(0)				At 1st Difference I(1)		Results (order of integration)
	Without trend		With trend		Without trend		
	T-stat	P-value	T-stat	P-value	T-stat	P-value	
LPOV	-1.4154	0.5551	-1.3415	0.8480	-2.4872	0.0158 **	**I (1)**
LGINI	-2.8646	0.0666*	----	----	----	----	**I (0)**
DHDI	-1.9389	0.3091	-2.1452	0.4918	-6.8247	0.0000 ***	**I (1)**
LUNEMP	-2.8896	0.0635*	----	----	----	----	**I (0)**
LHHS	-5.7834	0.0001 ***	----	----	----	----	**I (0)**
DTBEN	-2.3965	0.1550	-2.4351	0.3525	-5.6806	0.0002 ***	**I (1)**
LSSEXP	-1.6914	0.4209	-0.9732	0.9266	-3.8769	0.0087 ***	**I (1)**
(***) The rejection of the null hypothesis of non-stationarity at the 1% significance level *(**) The rejection of the null hypothesis of non-stationarity at the 5% significance level* *(*)The rejection of the null hypothesis of non-stationarity at the 10% significance level*							

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

As previously mentioned the ADF and PP unit root test experience the same weakness of being biased when it comes to the non-rejection of the null hypothesis. For that reason, the KPSS stationarity test is run to address this weakness and to ensure reliable results. Hence, Table 6-4 presents the KPSS stationarity test results.

Table 6-4: Kwiatkowski, Phillips, Schmidt and Shin (KPSS) stationarity test results

Variables	At Level I(0)				At 1st Difference I(1)		Results (order of integration)
	Without trend		With trend		Without trend		
	LM-stat	Crit. value	LM-stat	Crit. value	LM-stat	Crit. value	
LPOV	0.2864*	0.4630	----	0.1460	----	0.4630	**I (0)**
LGINI	0.2209*	0.4630	----	0.1460	----	0.4630	**I (0)**
DHDI	0.4773	0.4630	0.1636	0.1460	0.1654*	0.4630	**I (1)**
LUNEP	0.5129	0.4630	0.1157*	0.1460	----	0.4630	**I (0)**
LHHS	0.5834	0.4630	0.1671	0.1460	0.4559*	0.4630	**I (1)**
DTBEN	0.1604*	0.4630	----	0.1460	----	0.4630	**I (0)**
LSSEXP	0.6222	0.4630	0.1629	0.1460	0.3044*	0.4630	**I (1)**
(*) The null hypothesis of stationarity is rejected when LM<Critical Valued							

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

Conflicting to the results of both the ADF and the PP unit root test that proposes the same null hypothesis of a unit root, the null hypothesis of the KPSS stationarity test is that there is no unit root or stationarity as mentioned in Section 5.3.3.2 of Chapter 5. In light of this, Table 6-4 indicates that the differenced human development (DHDI), the natural logarithm of the number of individuals within a household (LHHS) and the natural logarithm of amount spent towards social security (LSSEXP) are not stationary at I (0) with or without trend, however, became stationary at I (1) without trend after being differenced. The natural logarithm of the number of individuals without a job (LUNEMP) is not stationary at I (0) without a trend but becomes stationary at I (0) with a trend. In addition, the natural logarithm of the number of individuals living in poverty (LPOV), the natural logarithm of inequality (LGINI) and the differenced total number of social security recipients is stationary at I (0) without a trend. Hence, the KPSS stationarity test results are consistent with both the ADF and the PP unit root test results only for LHHS and LUNEMP.

Since there is evidence of fluctuations in the variables employed under this study over time, the results found using the normal approach of unit root and stationarity testing might not be

accurate. Hence, the breakpoint unit root test was performed to confirm or reject the previous ADF and PP unit root tests. The results of the breakpoint unit root test are evidenced in Table 6-5, which indicate that variables were stationary at different levels of integration. Some variables were stationary at level I (0), whilst others become stationary after being differentiated I (1).

Evidently, the differenced human development (DHDI) of the breakpoint unit root test show that it is I (1) without a trend and the natural logarithm of the number of individuals living in poverty (LPOV), the natural logarithm of inequality (LGINI), the natural logarithm of the number of individuals without a job (LUNEMP), the natural logarithm of the number of individuals within a household (LHHS), the differenced total number of social security recipients (DTBEN) and the natural logarithm of the amount spent on social security (LSSEXP) is I (0) without a trend.

The mixture of integration evident in the breakpoint unit root test corresponds with that of the KPSS stationarity test results (see Table 6-4). These results confirm the reason why the ARDL model was the right approach for the study at hand.

Table 6-5: Breakpoint unit root test results

Variables	At Level I(0)				At 1st Difference I(1)		Results (order of integration)
	Intercept		Intercept with trend		Intercept		
	T-stat.	P-value	T-stat.	P-value	T-stat	P-value	
LPOV	-5.9337	< 0.01*	----	----	----	----	I (0)
LGINI	-7.4697	< 0.01*	----	----	----	----	I (0)
DHDI	-3.1238	0.6124	-3.8009	0.4996	-7.5647	< 0.01*	I (1)
LUNEP	-5.5673	< 0.01*	----	----	----	----	I (0)
LHHS	-8.0886	< 0.01*	----	----	----	----	I (0)
DTBEN	-4.6882	0.025**	----	----	----	----	I (0)
LSSEXP	-8.2830	< 0.01*	----	----	----	----	I (0)

(*) The rejection of the null hypothesis at 1 percent level of significance

(**) The rejection of the null hypothesis at 5 percent level of significance

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

Since variables are now stationary and their unit roots is known, the next step is to conduct the analysis of the relationship between the three dependent variables (poverty, inequality and human development) with the independent variables (number of social security recipients, amount spent on social security, number of individuals within a household, the number of individuals without a job and economic activity). Therefore, the next step is to estimate the correlation between the dependent variables and the independent variables; hence, the correlation matrix test will be examined in the following section.

6.4   CORRELATION MATRIX TEST RESULTS

According to Ogbokor (2015:124), a correlation examination and the unit root tests are essential for any form of statistical evaluation. For this reason, this section will incorporate the correlation matrix. It should be noted that the data used within the study were transformed into natural logarithmic (L) and differenced (D) in order to reduce variation within the data set and to ensure the growth rates of these variables are defined.

The following table represents the correlation analysis employed under the study.

6.4.1   The Correlation Matrix Results and Discussion

Table 6-6 represents the correlation analysis of the correlation coefficients with the corresponding probability value of all variables employed in the study. If the value of the correlation coefficient lies between negative one and positive one, where a correlation coefficient with the value in line with -1 implies a strong inverse linear relationship, while a correlation coefficient with the value in line with one, implies a strong direct linear relationship. However, in case where the value of the correlation coefficient is zero, it implies that there is no relationship between variables. In addition, it should be noted that POV, HDI and GINI represents the dependent variables within the study hence the correlation between these variables is of no significance to the study at hand.

Table 6-6 shows the two variables, which were denoted into difference (D) and include the number of social security recipients (DTBEN) and the level of human development (DHDI) and variables such as economic activity (LGDP), level of equality (LGINI), number of individuals in poverty (LPOV), the number of individuals within a household (LHHS), the amount spent on

social security (LSSEXP) and the number of individuals without a job (LUNEMP). Note that the latter variables mentioned were transformed into their natural logarithm (L) form.

Table 6-6: Correlation matrix results

Variables	DHDI	DTBEN	LGDP	LGINI	LPOV	LHHS	LSSEXP	LUNEMP
DHDI	1.000 ----							
DTBEN	0.150 0.515	1.000 ----						
LGDP	0.795 0.000 ***	-0.077 0.739	1.000 ----					
LGINI	-0.455 0.000 ***	0.353 0.100*	-0.662 0.001 ***	1.000 ----				
LPOV	-0.671 0.000 ***	0.184 0.425	-0.585 0.005 ***	0.526 0.014 **	1.000 ----			
LHHS	-0.783 0.000 ***	-0.203 0.378	-0.902 0.000 ***	0.294 0.196	0.411 0.064*	1.000 ----		
LSSEXP	0.824 0.000 ***	0.095 0.682	0.971 0.000 ***	-0.533 0.012 **	-0.560 0.008 ***	-0.950 0.000 ***	1.000 ----	
LUNEMP	0.524 0.015 **	0.173 0.452	0.746 0.000 ***	-0.122 0.599	-0.141 0.541	-0.906 0.000 ***	0.801 0.000***	1.000 ----
(***) P-value significant at 1% significance levels								
(**) P-value significant at 5% significance levels								
(*) P-value significant at 10% significance levels								

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

Previous research includes that of Duncan *et al.* (2007:7); Lee and Mackey-Bilaver (2007:515); Zepeda (2006:1); Shei *et al.* (2014:6); Campello *et al.* (2015:2); Chakraborty (2007:3); Langinger (2011:36); Bhorat and Cassim (2014); Dinbabo (2011); Haile and Niño-Zarazúa (2018:392) and Haasbroek (2009:102), who suggests that social security systems have a

significant impact on the alleviation of poverty, inequality as well assisting in human development[21]. On the other hand, some scholars found an insignificant relationship between social security systems and their impact on poverty, HDI and inequality (Fording & Berry, 2007:56; Borjas, 2016:156; Murray, 2013; Leubolt, 2014:13; Mattison, 1985:91; Alderman, 1998; Rosenburg, 2003; Mothiane, 2014:46; Sinyolo *et al.,* 2017:8; Armstrong & Burger 2009:17). Therefore, to analyse the impact social security has on the alleviation of poverty and inequality as well as on the overall upliftement of individuals' standard of living, the following test were run in order to evaluate the impact:

6.4.1.1   Correlation Matrix Results: Poverty

Table 6-7 summarises the correlation coefficient between poverty and the number of social security recipients, amount spent on social security, economic activity, unemployment and the number of individuals within a household are given as 0.184, 0.560, 0.585, 0.141 and 0.411 respectively, which can be summarised in Table 6-7.

Table 6-7: Results of the correlation coefficients for poverty

	DTBEN	**LSSEXP**	**LGDP**	**LUNEMP**	**LHHS**
LPOV					
T-stat.	0.184	- 0.560	- 0.585	- 0.141	0.411
P-value	0.425	0.008 ***	0.005 ***	0.541	0.064*
(***) P-value significant at 1% significance levels					
(**) P-value significant at 5% significance levels					
(*) P-value significant at 10% significance levels					

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The correlation between poverty, number of social security recipient and the number of individuals within a household imply a positive relationship whereas, the amount spent on social security, economic activity, number of individuals without a job imply negative relationship. Hence, the probability value confirming these correlation coefficients that exhibit positive

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[21] Please refer to chapter 1, 3 and 4 for more information on the impact of social security systems

relationship with poverty is not significant at all significance levels. Whereas on the other hand, social security expenditure and economic activity (negative relationship with poverty), are significant at the 5 percent significance level. Hence, the correlation, indicates that only two (social security recipients and the number of individuals within a household) out of the five variables have a positive relationship with the alleviation of poverty. Although these positive relationships are not significant at any significance level, three (amount spent on social security, economic activity, number of individuals without a job) out of the five have a negative relationship with poverty and only social security expenditure and economic activity has a significant impact on poverty at 1 percent significance level. This suggests that when the amount spent by the national government on social security increases, the amount of individuals in poverty decreases. These findings coincide with the findings of Duncan *et al.* (2007:7); Lee and Mackey-Bilaver (2007:515); Zepeda (2006:1); Shei *et al.* (2014:6); Campello *et al.* (2015:2); Chakraborty (2007:3); Langinger (2011:36); Bhorat and Cassim (2014); Dinbabo (2011); Haile and Niño-Zarazúa (2018:392), together with various other scholars mentioned throughout chapters 2, 3 and 4.

6.4.1.2   Correlation Matrix Results: HDI

Table 6-8 also shows the correlation coefficient between human development and the number of social security recipients, amount spent on social security, economic activity, unemployment and the number of individuals within a household is given as 0.150, 0.824, 0.795, 0.524 and 0.783, respectively.

Table 6-8: Results of the correlation coefficients for HDI

	DTBEN	**LSSEXP**	**LGDP**	**LUNEMP**	**LHHS**
LHDI					
T-stat.	0.150	0.824	0.795	0.524	- 0.783
P-value	0.515	0.000 ***	0.000 ***	0.015 **	0.000 ***
(***) P-value significant at 1% significance levels					
(**) P-value significant at 5% significance levels					
(*) P-value significant at 10% significance levels					

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

A positive correlation is observed between HDI and the number of social security recipient, the amount spent on social security, economic activity and unemployment, whereas the correlation between HDI and the amount of individuals within a household is negative.

Hence, four (number of social security recipients, amount spent on social security, economic activity, unemployment) out of the five independent variables have a positive relationship with HDI and these positive relationships are all statistically significant at 1 and 5 percent significance level, except for the number of social security recipients (not significant) and one (number of individuals within a household) of the five independent variables have a negative relationship with the improvement of HDI and is statistically significant at the 1 percent significance level.

This suggests that four independent variables (number of social security recipients, amount spent on social security, economic activity, unemployment) employed within this study have been sufficient in contributing significantly to HDI in the South African economy. some studies also found a positive relationship between social security systems and the utilisation of preventative health care services and improved psychosocial health (Shei *et al.,* 2014:6; Nery *et al.,* 2014:4; Sperandio *et al.,* 2017:1779; Almond *et al.,* 2008:28; Hoynes & Schanzenbach, 2012:161). Social security was also found to have a positive impact on school attendance (De Brauw *et al.,* 2015; Soares *et al.,* 2010:183; Nilsson & Sjöberg, 2013:47; OECD, 2015:7) and others found that social security schemes improve economic well-being of citizens (Bartfeld *et al.,* 2015; Caswell & Yaktine 2013).

6.4.1.3   Correlation Matrix Results: GINI

Apart from analysing the correlation between poverty and human development with the independent variables, the correlation between income inequality and the independent variables is equally important. Table 6-9 proposes that the correlation between inequality (LGINI) and the number of social security recipients, amount spent on social security, economic activity, unemployment and the number of individuals within a household is given as 0.353, 0.533, 0.662, 0.122 and 0.294 respectively, which are summarised in the Table 6-9 The results indicate a moderate, positive relationship between the total number of social security recipients and income inequality, whereas the relationship between income inequality and social security expenditure is positive and strong.

The table further suggest that income inequality and economic activity is strong and negative, as well as a negative, yet weak correlation with the number of individuals without a job. Lastly, the correlation between income inequality and the number of individuals within a household is positive yet weak.

Table 6-9: Results of the correlation coefficients for GINI

	DTBEN	LSSEXP	LGDP	LUNEMP	LHHS
LGINI					
T-stat.	0.353	- 0.533	- 0.662	- 0.122	0.294
P-value	0.100*	0.012 **	0.001 ***	0.599	0.196
(***) P-value significant at 1% significance levels					
(**) P-value significant at 5% significance levels					
(*) P-value significant at 10% significance levels					

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The correlation between income inequality (as measured by the GINI coefficient) and the number of social security recipient and the number of individuals within a household was found to be positive while, the amount spent on social security, economic activity and the number of individuals without a job was found to be negative.

Although this is true, the probability values corresponding to these correlation coefficients that exhibit a positive relationship with income inequality (GINI) are significant at 1 percent significance level, except the positive correlation coefficient of the number of individuals within a household. As such, income inequality and two (number of social security recipients and the number of individuals within a household) of the five variables under the study have a positive relationship with income inequality. However, these positive relationships are only statistically significant for the number of social security recipients and three (amount spent on social security, the number of individuals without a job and economic activity) of the five variables have a negative relationship with income inequality where only the number of individuals without a job are not statistically significant.

This suggests that the amount of social security recipients, the amount spent on social security and economic activity have a significant impact on the alleviation of income inequality. This coincides with the findings of Soares *et al.* (2006) as cash transfers have had a notable impact on reducing inequality.

Therefore, to summarise the correlation impact of the South African social security system, there is evidence that the systems have an impact on its primary objective, to alleviate poverty and inequality as well as to assist in human upliftment. As is evident from Table 6-7, social security expenditure has a negative significant impact on poverty, indicating that when there is an increase in the amount spent on social security, it decreases the number of individuals in poverty. Furthermore, when evaluating the impact on the other two dependent variables, being income inequality and human development, there is evidence that social security in South Africa do indeed impact human development and improve income inequality. Although this is true, when evaluating the correlation between that of the dependent variables (poverty, HDI and GINI), it is evident that poverty and HDI has a negative yet statistically significant correlation with poverty and GINI has a positive and statistically significant correlation with poverty. Hence, it can be concluded that the independent variables (HDI and GINI) have a significant impact on the alleviation of poverty and the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) have a significant impact on them. Hence, directly and indirectly poverty is being alleviated by the independent variables. Therefore, to further analyse the impact of the independent variables on the dependent variables, the ARDL test will be the next step in analysing whether long run exists between variables.

6.5 THE ARDL MODEL RESULTS: LONG-RUN AND SHORT-RUN IMPACTS

Now that the unit root tests, the stationarity test and the correlation matrix test were conducted, it can be concluded that the variables employed under the study consist of a mixture of both I (0) and I (1) order of integration and no variable used within this study is stationary at I (2). The outcomes permit the application of an ARDL bound test approach to co-integration to determine the long-run impact of the independent variables (number of social security recipients, amount spent on social security, number of individuals without a job, economic activity and the amount

of individuals within a household) on the dependent variables (poverty, income inequality and human development). As such, an ARDL model was applied to determine whether the South African social security system have a long- and short-run impact on its set objective, to alleviate poverty and inequality as well as to assist in human development.

Figure 6-3 illustrates how the study will present the results obtained when estimating the long- and short-run impact of the independent variables (number of social security recipients, amount spent on social security, number of individuals without a job, economic activity and the amount of individuals within a household) on the dependent variables (poverty, income inequality and human development).

Figure 6-3 demonstrates that in this section of the chapter, the study will present the results of three ARDL models, which will include the ARDL bound test for all three the dependent variables. Hence, the study examines whether long- and short-run relationships exist between the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) and the dependent variables (poverty, human development and income inequality) using the ARDL model. As discussed in Section 5.3.2 of Chapter 5, the study will test all three dependent variables against the independent variables respectively, as described in equations 5.7, 5.8 and 5.9.

Figure 6-3: ARDL model results presentation: poverty, GINI and HDI as dependent variables
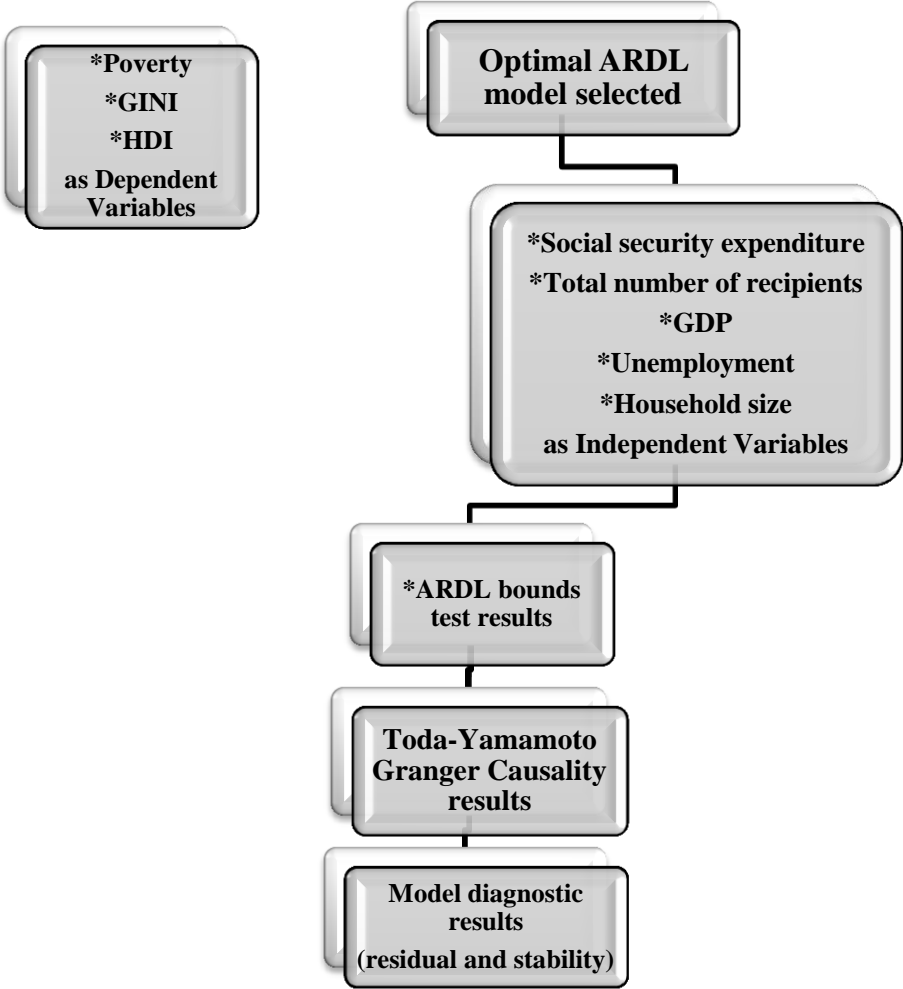
Source: Compiled by Author

Therefore, the first ARDL model (Equation 5.7) will obtain the impact of the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) on the alleviation of poverty; the second ARDL model (Equation 5.8) will obtain the impact of the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) on the income inequality and, finally, the last ARDL model (Equation 5.9) will obtain the impact of the independent variables (social security expenditure;

the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) on human development.

Hence, as shown in Figure 6-3, the study will commences by detailing the three optimal ARDL models selected, which will be followed by the ARDL model bounds test and then progress to the Toda-Yamamoto Granger causality test results. To finish, the model residual and stability test performed on the aforementioned three ARDL models is put forward.

It should be noted that the maximum number of lags to incorporate in each of the aforementioned ARDL modes was first determined using the Schwarz information criterion (SIC). The purpose for that lies in the ability of the SIC to attend to the concerns of over fitting by setting up a penalty term for the number of parameters. As such, the SIC test selected one (1) lag as the maximum number of lags to include in the ARDL model regressing the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) on the alleviation of poverty. Thus when including one as the maximum number of lags, the optimal ARDL model, which was selected and which followed the sequence of the variables in Equation 5.10 was ARDL model (1,0,0,0,0,0).

For the second ARDL model, regressing the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) on the alleviation of income inequality, the SIC selected two lags as the maximum number of lags to include. Therefore, when including two as a maximum number of lags, the optimal ARDL model, which was selected and which followed the sequence of the variables in Equation 5.11 was the ARDL model (2,0,0,0,0,0). Lastly, the SIC test selected one lag as the maximum number of lags to include in the ARDL model regressing the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) on human development. Thus, when including one as the maximum number of lags, the optimal ARDL model, which was selected and which followed the sequence of the variables in Equation 5.12 was ARDL model (1,0,0,0,0,0). Table 6-10 shows the optimal ARDL models selected to estimate equations 5.10, 5.11 and 5.12.

Table 6-10: The optimal ARDL model selected

ARDL Model	Trend Specification	Max. no. of lags	Optimal model	R-Squared	Adj. R-Squared
Independent variables on POV	Constant level	1	(1,0,0,0,0,0)	86.72%	81.03%
Independent variables on GINI	Constant level	2	(2,0,0,0,0,0)	98.41%	97.49%
Independent variables on HDI	Constant level	1	(1,0,0,0,0,0)	78.91%	69.17%

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The second column in Table 6-10 indicates that all three the optimal ARDL models were estimated at a constant level without trend with their corresponding R-squared values (R^2). The R^2 value for the first ARDL model (1,0,0,0,0,0) (POV), implies that 86.72 percent of the variation in poverty (POV) can be explained by the regression on the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job). While the R^2 value for the second ARDL model (2,0,0,0,0,0) (GINI) implies that 98.41 percent of the variation in income inequality (GINI) can be explained by the regression on the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job). Finally, the R^2 value for the third ARDL model (1,0,0,0,0,0) (HDI) implies that 78.91 percent of the variation in human development (HDI) can be explained by the regression on the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) employed under the study.

Due to the limitations of the R^2 value, being the more independent variables added the more the R^2 will increase despite their statistical significance. The study incorporates the adjusted R-squared (adj. R^2), which only considers the independent variables that are statistically significant in explaining the dependent variables employed under the study.

As observed from Table 6-10, the adj. R^2 value for the first ARDL model (1,0,0,0,0,0) (POV) implies that 81.03 percent of the variation in poverty can be explained by the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job). While the adj. R^2 value for the second ARDL model (2,0,0,0,0,0) (GINI) implies the independent variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) can explain about 97.49 percent of the variation in income inequality. Finally, the adj. R^2 value for the third ARDL model (1,0,0,0,0,0) (HDI) implies that 69.17 percent of the variation in human development can be explained by the model containing the proposed explanatory variables (social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job) employed under the study. Now that the optimal ARDL models used in regressing the social security expenditure; the number of social security beneficiaries; the number of individuals within a household; economic activity and the number of individuals without a job on poverty, HDI and GINI are profiled, the next step is to report, interpret and discuss the results obtained when estimating the bound tests for these optimal ARDL models.

6.5.1 ARDL Bound Test Results: Long-Run Impact on Dependent Variables

Throughout this section, the ARDL bound test approach to co-integration is used to determine whether there arises a long-run impact of the independent variables (social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job) on the alleviation of poverty, inequality as well as assist in human development. Hence, the ARDL bound test results consisting of the lower and upper bound with the corresponding F-value are given in tables 6-11, 6-12 and 6-13. The long-run impact of social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job on poverty, inequality and human development is estimated by the first ARDL model (1,0,0,0,0,0) (POV), while the long-run impact of social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job on inequality is estimated by the second ARDL model (2,0,0,0,0,0) (GINI). Finally, the long-run impact of social security expenditure; the

number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job on poverty, inequality and human development is estimated by the third ARDL model (1,0,0,0,0,0) (HDI), Therefore, tables 6-11, 6-12 and 6-13 report the bound test results with their corresponding long-run equations for all three the ARDL models (1,0,0,0,0,0) (POV), (2,0,0,0,0,0) (GINI) and (1,0,0,0,0,0) (HDI) respectively.

6.5.1.1   ARDL Bound Test Results: Long-Run Impact on Poverty

When analysing the long-run impact of the total amount of social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job on poverty, the estimated F-value for the ARDL model (1,0,0,0,0,0) is 3.18 and it is less than the corresponding critical value bounds results at 1 percent significance level. For this reason, the null hypothesis of no long-run impact is not rejected. This implies that there is no long-run impact of the independent variables (social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job) on the alleviation of poverty within the context of the South Africa.

Table 6-11: Estimated ARDL model (1,0,0,0,0,0) bounds test results

ARDL model	Estimated F-value	
ARDL model (1,0,0,0,0,0)	3.1761	
Critical Value Bounds		
Significance levels	Lower bound I(0)	Upper bound I(1)
10%	2.26	3.35
5%	2.62	3.79
1%	3.41	4.68

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

6.5.1.2   ARDL Bound Test Results: Long-Run Impact on GINI

When analysing the long-run impact of the total amount of social security expenditure; the number of social security recipients; the number of individuals within a household; economic

activity and the number of individuals without a job on income inequality, the estimated F-value for the ARDL model (2,0,0,0,0,0) is 2.64 and it is less than the corresponding critical value bounds results at 1 percent significance level. For this reason, the null hypothesis of no long-run impact is not rejected. This implies that there is no long-run impact of the independent variables (social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job) on the alleviation of income inequality within the context of the South Africa.

Table 6-12: Estimated ARDL model (2,0,0,0,0,0) bounds test results

ARDL model	Estimated F-value	
ARDL model (2,0,0,0,0,0)	2.6406	
Critical Value Bounds		
Significance levels	Lower bound I(0)	Upper bound I(1)
10%	2.26	3.35
5%	2.62	3.79
1%	3.41	4.68

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

6.5.1.3   ARDL Bounds Test Results Long-Run Impact on HDI

When analysing the long-run impact of the total amount of social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job on human development, the estimated F-value for the ARDL model (1,0,0,0,0,0) is 3.70 and it is lesser than the corresponding critical value bounds results at 1 percent significance level. For this reason, the null hypothesis of no long-run impact is not rejected. This implies that there is no long-run impact of the independent variables (social security expenditure; the number of social security recipients; the number of individuals within a household; economic activity and the number of individuals without a job) on human development within the context of the South Africa.

Table 6-13: Estimated ARDL model (1,0,0,0,0,0) bounds test results

ARDL model	Estimated F-value	
ARDL model (1,0,0,0,0,0)	3.7037	
Critical Value Bounds		
Significance levels	**Lower bound I(0)**	**Upper bound I(1)**
10%	2.26	3.35
5%	2.62	3.79
1%	3.41	4.68

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

6.5.2 Toda-Yamamoto Causality Model Results and Short Run Casual Relationships

The ARDL model indicated that no short-run relationships exist between the variables within the study. Therefore, to determine the casual relationship within the variables of the study, the Toda-Yamamoto Granger causality test was employed. The outcome of the casual relationship amongst variables is presented throughout Table 6-14 until Table 6-21.

The results in Table 6-14 show the relationship between the dependent variable being human development (HDI) with the independent variables (total number of social security beneficiaries, the number of individuals in poverty, economic activity, income inequality, the number of individuals within a household, the amount spent on social security and the number of individuals without a job). There is evidence that a unidirectional causality exists between human development and the number of individuals without a job. This means that HDI Granger causes unemployment but not the other way around (see Table 6-21). The correlation matrix results (see Table 6-6) shows a positive relationship between human development and the number of individuals without a job, implying that an improvement of human development will lead to an improvement in the number of individuals without a job. Furthermore, there is also a causal relationship between HDI and all the independent variables combined, at 5 percent significance level.

Table 6-14: Toda-Yamamoto Granger causality test for HDI

Excluded	Chi-sq.	df	Prob.
DTBEN	0.0759	1	0.7829
LPOV	0.2890	1	0.5908
LGDP	4.98E-06	1	0.9982
LGINI	0.3099	1	0.5777
LHHS	0.1249	1	0.7238
LSSEXP	1.8394	1	0.1750
LUNEMP	3.5269	1	0.0604*
All	**14.6361**	**7**	**0.0410****
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight, 2017 & SASSA, 1998-2017)

The results in Table 6-15 show the relationship between the number of social security recipients with the level of human development, the number of individuals in poverty, economic activity, income inequality, the number of individuals within a household, the amount spent on social security and the number of individuals without a job. There is evidence that a unidirectional causality exist between the number of social security recipients the number of individuals in poverty. This means that TBEN Granger causes poverty but not the other way around (see Table 6-16 POV).

The correlation matrix results (see Table 6-6) showed a positive relationship between the number of social security recipients and the number of individuals in poverty, implying that as the number of social security recipients increase, the number of individuals in poverty increase, hence the South African social security system, in this context struggle to have an impact on poverty. Furthermore, there is a causal relationship between the number of social security recipients and all the independent variables combined, at 5 percent significance level.

Table 6-15: Toda-Yamamoto Granger causality test for number of recipients (TBEN)

Excluded	Chi-sq.	df	Prob.
DHDI	3.7004	1	0.0444
LPOV	2.7253	1	0.0988*
LGDP	0.1112	1	0.7388
LGINI	0.1388	1	0.7095
LHHS	0.1678	1	0.6821
LSSEXP	1.0006	1	0.3172
LUNEMP	0.8840	1	0.3471
All	14.3597	7	0.0451**
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The results in Table 6-16 show the relationship between the dependent variable being the number of individuals in poverty with all the other variables which include the level of human development, the number of social security recipients, economic activity, income inequality, the number of individuals within a household, the amount spent on social security and the number of individuals without a job. There is evidence that a unidirectional causality exists between the number individuals in poverty and the number of individuals without a job. This means that poverty Granger causes unemployment but not the other way around (see Table 6-21 UNEMP). The correlation matrix results (see Table 6-6) shows a negative relationship between the number of in poverty and the number of individuals unemployed, implying that even if poverty improves, the number of individuals unemployed will not be affected. Furthermore, there is a causal relationship between the number of individuals in poverty and all the independent variables combined, significant at the 1 percent level of significance. Implying that as a whole all variables chosen to conduct the study have some sort of casual relationship with poverty.

Table 6-16: Toda-Yamamoto Granger causality test for poverty

Excluded	Chi-sq.	df	Prob.
DHDI	0.5331	1	0.4653
DTBEN	0.6683	1	0.4136
LGDP	1.2976	1	0.2547
LGINI	0.1931	1	0.6603
LHHS	1.1823	1	0.2769
LSSEXP	0.7260	1	0.3942
LUNEMP	4.7820	1	0.0288**
All	18.4752	7	0.0100***
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The results in Table 6-17 show the relationship between economic activity with the rest of the variables (i.e. level of human development, the number of social security recipients, number of individuals in poverty, income inequality, the number of individuals within a household, the amount spent on social security and the number of individuals without a job). There is evidence that there only exists a causal relationship between economic activity and all the independent variables combined, at 1 percent significance level, however not individually.

Table 6-17: Toda-Yamamoto Granger causality test for GDP

Excluded	Chi-sq.	df	Prob.
DHDI	0.0512	1	0.8210
DTBEN	0.0061	1	0.9375
LPOV	1.7042	1	0.1917
LGINI	1.6424	1	0.2000

LHHS	2.2916	1	0.1301
LSSEXP	0.1758	1	0.6750
LUNEMP	0.1835	1	0.6684
All	18.0608	7	0.0117***
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The results in Table 6-18 show the relationship between the dependent variable being income inequality (GINI) with the independent variables (level of human development, the number of social security recipients, number of individuals in poverty, economic activity, the number of individuals within a household, the amount spent on social security and the number of individuals without a job). There is evidence that a unidirectional causality exist between the income inequality and the human development. This means that GINI Granger causes HDI but not the other way around (see Table 6-14 HDI). The correlation matrix results (see Table 6-6) shows a negative relationship between income inequality and human development, implying that the more equally distributed the income within the economy, the more developed humans. There is also evidence of a unidirectional relationship between income inequality and economic activity. Indicating, income inequality Granger causes GDP but not the other way around (see Table 6-21 UNEMP).

The Correlation matrix results (see Table 6-6) show a negative relationship between income inequality and economic activity, implying that the more equal distribution of income improve will improve GDP. Furthermore, there is evidence of a unidirectional relationship between income inequality and the number of individuals within a household, indicating income inequality; Granger causes household size but not the other way around (see Table 6-19 HHS). The correlation matrix results (see Table 6-6) show a positive relationship between income inequality and household size, implying that the equal distribution of income will imply a greater household size. There is also a causal relationship between income inequality and all the independent variables combined, at 1 percent significance level.

Table 6-18: Toda-Yamamoto Granger causality test for GINI

Excluded	Chi-sq	df	Prob.
DHDI	4.5366	1	0.0332**
DTBEN	1.3313	1	0.2486
LPOV	1.3951	1	0.2376
LGDP	4.0744	1	0.0435**
LHHS	3.5154	1	0.0608*
LSSEXP	1.7054	1	0.1916
LUNEMP	2.2516	1	0.1335
All	148.4759	7	0.0000***
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The results in Table 6-19 show the causal relationship between the number of individuals within a household with the level of human development, the number of social security recipients, number of individuals in poverty, economic activity, income inequality, the amount spent on social security and the number of individuals without a job. The findings show no causal relationship between the number of individuals within a household and all the independent variables combined.

Table 6-19: Toda-Yamamoto Granger causality test for household size (HHS)

Excluded	Chi-sq.	df	Prob.
DHDI	0.1037	1	0.7474
DTBEN	0.7328	1	0.3920
LPOV	0.2576	1	0.6118
LGDP	2.3738	1	0.1234
LGINI	0.9813	1	0.3219

LSSEXP	1.3282	1	0.2491
LUNEMP	2.3475	1	0.1255
All	8.1357	7	0.3208
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The results in Table 6-20 show the relationship between the amount spent on social security with all other variables (level of human development, the number of social security recipients, economic activity, income inequality, the number of individuals within a household, the number of individuals in poverty, and the number of individuals without a job). There is evidence of a causal relationship between the amount spent on social security systems and all the independent variables combined, at 5 percent significance level. This implies that the variables chosen under the study, combined have a causal relationship with the amount spent on social security.

Table 6-20: Toda-Yamamoto Granger causality test for social security expenditure (SSEXP)

Excluded	Chi-sq.	df	Prob.
DHDI	0.4846	1	0.4863
DTBEN	0.1217	1	0.7271
LPOV	0.0249	1	0.8747
LGDP	0.0244	1	0.8758
LGINI	0.0623	1	0.8029
LHHS	0.5839	1	0.4448
LUNEMP	0.1075	1	0.7430
All	15.4363	7	0.0308**
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

Table 6-21 demonstrates the relationship between the number of individuals without a job with the rest of the variables (level of human development, the number of social security recipients, number of individuals in poverty, economic activity, income inequality, the number of individuals within a household and the amount spent on social security). There is evidence that a unidirectional causality exists between the number individuals without a job and the amount spent on social security. This means that unemployment Granger causes social security expenditure but not the other way around (see Table 6-20).

Table 6-21: Toda-Yamamoto Granger causality test for unemployment

Excluded	Chi-sq.	df	Prob.
DHDI	0.0247	1	0.8752
DTBEN	0.6250	1	0.4292
LPOV	0.8003	1	0.3710
LGDP	0.0039	1	0.9503
LGINI	0.8891	1	0.3457
LHHS	0.0016	1	0.9680
LSSEXP	2.7446	1	0.0476**
All	25.8936	7	0.0005***
(***) P-value significant at 1% significance levels			
(**) P-value significant at 5% significance levels			
(*) P-value significant at 10% significance levels			

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

The correlation matrix results (see Table 6-6) did indicate a positive relationship between the number individuals without a job and the amount spent on social security, implying that an increase in the unemployment rate will cause an increase in social security expenditure. Furthermore, there is a causal relationship between the number of individuals without a job and all the independent variables combined, at 1 percent significance level. Although the correlation matrix indicates there is a relationship between the South African social security system and its primary goal, to alleviate poverty and inequality as well as to assist in human upliftment, the ARDL and the Toda-Yamamoto Granger causality tests indicate that there is no evidence of the

South African social security system achieving its primary objective. This is mainly due to the data used to conduct the study as there are only 21 observations from 1996 until 2017, indicating that there are not enough observations to cause a long-run relationship between variables. Whereas, illustrated in the Tada-Yamamoto results, there is also no indication that there are a short-run relationship between the South African social security system and its primary objective.

Therefore, it can be concluded that although there is a correlation relationship between variables, there is no indication of the South African social security system having an impact on the number of individuals living in the upper bound poverty line. There is also no evidence of causality between the South African social security system and the amount of individuals in income inequality or uplifted individuals. This is in line with the findings of Fording and Berry (2007:56); Borjas (2016:156); Murray (2013); Leubolt (2014:13); Mattison (1985:91); Alderman (1998); Rosenburg (2003); Mothiane (2014:46); Sinyolo *et al.* (2017:8) and Haasbroek (2009:102) together with various other findings illustrated throughout the study. Additionally, to ensure that the estimated findings by the ARDL and the results of the Toda-Yamamoto causality are not false or misleading, the next nest section will present the residual diagnostic test together with the stability diagnostic test results obtained when assessing the viability of the aforementioned ARDL models.

6.5.3   Residual Diagnostic Tests for the ARDL model

Having described, interpreted and conferred the bound test, Toda-Yamamoto causality test for the variables at hand, this section will describe and explain the results obtained when model residual and stability diagnostic test were performed on the ARDL models (1,0,0,0,0,0) (POV), (2,0,0,0,0,0) (GINI) and (1,0,0,0,0,0) (HDI) respectively. This ensures that the results generated by the aforementioned ARDL models are not false or misleading. As such, Table 6-22 reports the residual diagnostic test results for all three the ARDL models employed under the study.

Table 6-22: Model residual diagnostic tests

| Residual diagnostics tests | ARDL models | | | | | |
| | ARDL (POV) | | ARDL (GINI) | | ARDL (HDI) | |
	P-value	Decision	P-value	Decision	P-value	Decision
Normality Test	0.0047	Reject (H_0)	0.5624*	Do not reject (H_0)	0.7935*	Do not reject (H_0)
Serial-correlation Breusch-Godfrey (LM test)	0.2019*	Do not reject (H_0)	0.5130*	Do not reject (H_0)	0.4918*	Do not reject (H_0)
Heteroscedasticity Test: White	0.1203*	Do not reject (H_0)	0.3398*	Do not reject (H_0)	0.7670*	Do not reject (H_0)

(*) Non-rejection of the null hypothesis at 1%; 5% & 10% significance level
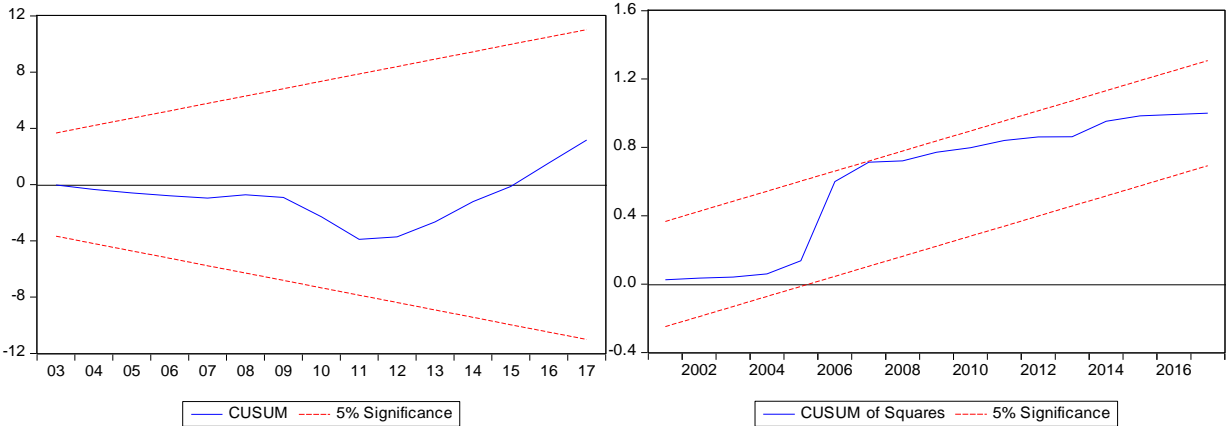
Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

When referring back to Section 5.3.6.1 in Chapter 5, the null hypothesis of the Lagrange multiplier (LM) serial-correlation tests states that there is no serial correlation, while the null hypothesis for the Jarque-Bera (JB) normality test states that there is normal distribution and the null hypothesis for the White heteroscedasticity test is homoscedastic. Taking this into account, the residual test results illustrated in Table 6-22 show that the variables used in all three the ARDL models (1,0,0,0,0,0) (POV), (2,0,0,0,0,0) (GINI) and (1,0,0,0,0,0) (HDI) are unsusceptible to non-normality except for poverty (1,0,0,0,0,0), therefore the latter's null-hypothesis should be rejected, whereas the formers null hypothesis should not be rejected. Furthermore, all three models (1,0,0,0,0,0) (POV), (2,0,0,0,0,0) (GINI) and (1,0,0,0,0,0) (HDI) are nonreactive to the serial correlation and heteroscedasticity, hence the null hypothesis should not be rejected, implying that the bounds tests results generated by the ARDL models (1,0,0,0,0,0) (POV), (2,0,0,0,0,0) (GINI) and (1,0,0,0,0,0) (HDI) are not false or misleading.

Figures 6-4 to 6-6 illustrate the results of the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of squared recursive residuals (CUSUMQ) performed under the ARDL models (1,0,0,0,0,0) (POV), (2,0,0,0,0,0) (GINI) and (1,0,0,0,0,0) (HDI) respectively. Bear in

mind, the red lines on Figures 6-4 to 6-6 represent the critical lines at 5 percent level of significance, while the blue lines represent statistics of CUSMU and CUSUMQ. Therefore, it can be deduced that there is no instability of residuals indicated since the plot (blue lines) of CUMU and CUMUSQ statistics for both the ARDL models (1,0,0,0,0,0) (POV), (2,0,0,0,0,0) (GINI) and (1,0,0,0,0,0) (HDI) rest within the critical lines of 5 percent significance level of stability.

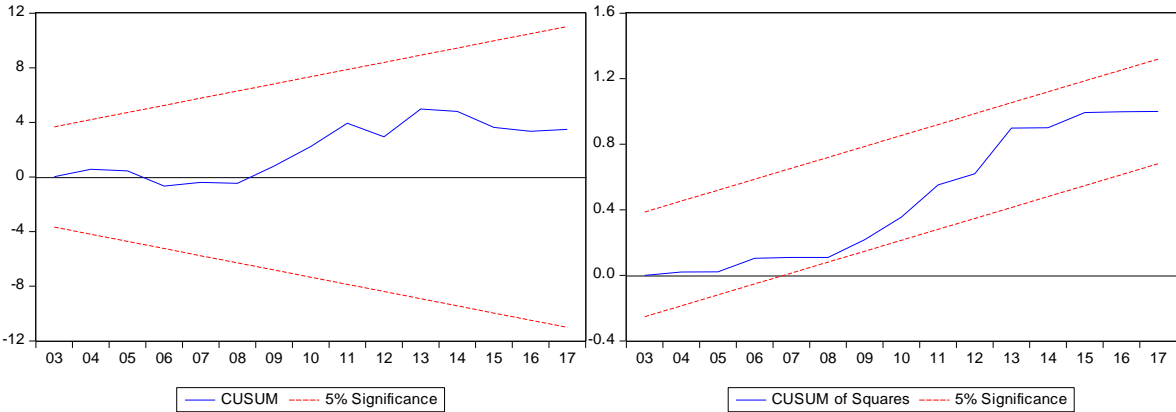**Figure 6-4: CUSUM and CUSUMQ for model (1,0,0,0,0,0), Poverty**

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

Figure 6-5: CUSUM and CUSUMQ of model (2,0,0,0,0,0), GINI coefficient
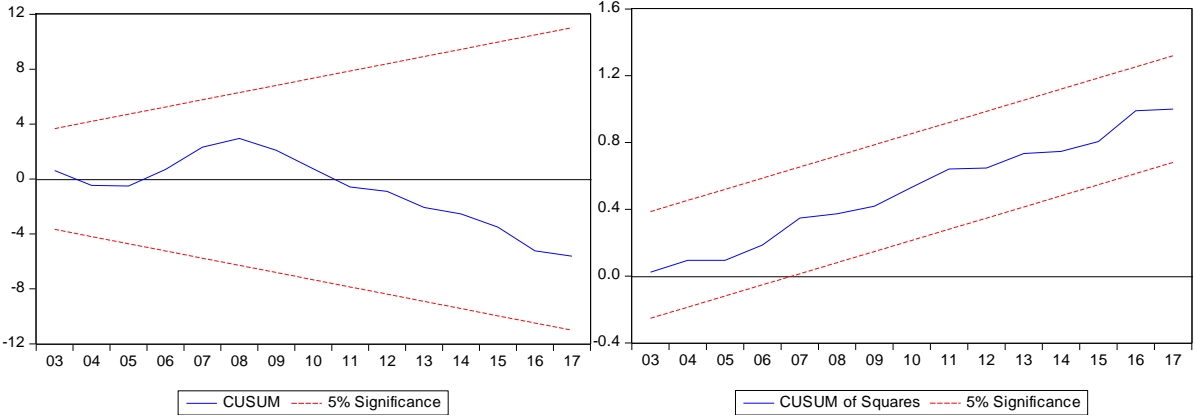
Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

Figure 6-6: CUSUM and CUSUMQ for model (1,0,0,0,0,0), HDI

Source: Compiled by Author (Data from IRR, 2016; Global Insight & SASSA, 1998-2017)

6.6   SYNOPSIS

CHAPTER 6 OBJECTIVES

➢ Present empirically the impact of the South African social security system on its set objective, being the alleviation of poverty, inequality and human upliftment;

➢ To determine the long-run and the short-run interrelation between the South Africa's poverty rate, HDI and inequality rate against government investment in social security policy, the number of individuals within a household, economic activity and employment creation;

➢ To examine the causal effects of the set explanatory variables (poverty, inequality, human development, social spending, household size, economic activity and unemployment) and the number of recipients receiving benefits.

The main objective of this chapter was to present empirically the impact of the South African social security system on its set objective, being the alleviation of poverty, inequality and human upliftment. In achieving this objective, an ARDL and Toda-Yamamoto Causality model was conducted combined with various other econometric techniques (i.e. unit root test, stationarity test, error correction model and residual diagnostic tests) were used to estimate the long- and short-run impact of the independent variables on the dependent variables. As such, this chapter

first employed a descriptive statistic test in order to profile that data of employed in the study. This was followed by both the unit root test results and the stationarity test results, which were produced using the augmented Dickey-Fuller (ADF) unit root test, Phillips-Perron (PP) unit root test and Kwiatkowski, Phillips, Schmidt and Shin (KPSS) stationarity test and the KPPS stationarity test was used as a confirmatory test for both the ADF and PP unit root tests. In the main, a conclusion that was reached by the tests was that the variables employed under the study consist of a mixture of I (0) and I (1) order of integration and no variables of the study are stationary at I (2).

Furthermore, the correlation matrix, which was performed to evaluate the relationship between the dependent variables and the independent variables employed under the study. The study found that correlation between poverty indicates that two (social security recipients and the number of individuals within a household) out of the five variables have a positive relationship with the alleviation of poverty. However, these positive relationship are not significant at any significance level, where three (amount spent on social security, economic activity, number of individuals without a job) out of the five has a negative relationship with poverty and only social security expenditure and economic activity has a significant impact on poverty at 1 percent significance level.

On the other hand, the correlation matrix for human development found that four (number of social security recipients, amount spent on social security, economic activity, unemployment) out of the five independent variables have a positive relationship with HDI. These positive relationships are all statistically significant at 1 and 5 percent significance level, except for the number of social security recipients (not significant) and one (number of individuals within a household) of the five independent variables have a negative relationship with the improvement of HDI and are statistically significant at the 1 percent significance level.

The correlation matrix for income inequality found that two (number of social security recipients and the number of individuals within a household) of the five sectors under study have a positive relationship with income inequality. However, these positive relationships are only statistically significant for the number of social security recipients and three (amount spent on social security, the number of individuals without a job and economic activity) of the five variables

have a negative relationship with income inequality where only the number of individuals without a job are not statistically significant.

Additionally, the chapter then presented the results obtained when using the ARDL models to estimate the long- run impact and the Toda-Yamamoto model to estimate the short- run impact of the independent variables (number of social security recipients, amount spent on social security, number of individuals within a household, number of individuals without a job and economic activity) on the dependent variables (poverty, income inequality and human development). The results indicated that the independent variables (number of social security recipients, amount spent on social security, number of individuals within a household, number of individuals without a job and economic activity) employed under the study had no long-impact on poverty, income inequality nor human development.

In the short-run, there is evidence of:

➢ A unidirectional causal relationship between human development and the number of individuals without a job. This means that human development Granger causes unemployment but not the other way around. There also arises a causal relationship between HDI and all the independent variables combined, at 5 percent significance level.

➢ A unidirectional causality exist between the number of social security recipients the number of individuals in poverty. This means that TBEN Granger causes poverty but not the other way around. There is also a causal relationship between the number of social security recipients and all the independent variables combined, at 5 percent significance level.

➢ A unidirectional causal relationship between the number individuals in poverty and the number of individuals without a job. This means that poverty Granger causes unemployment but not the other way around. Furthermore, there is also a causal relationship between the number of individuals in poverty and all the independent variables combined, at 1 percent significance level.

➢ A unidirectional causal relationship between the income inequality and the human development; this means that income inequality Granger causes HDI but not the other way around. Furthermore, there is evidence of a unidirectional relationship between income inequality and economic activity. Indicating, income inequality Granger causes GDP but not the other way around. Lastly, there is evidence of a unidirectional relationship between

income inequality and the number of individuals within a household. Indicating, income inequality Granger causes household size but not the other way around. There is also a causal relationship between income inequality and all the independent variables combined, at 1 percent significance level.

➤ No causal relationship between the number of individuals within a household and all the independent variables combined. Whereas there is evidence of a causal relationship between the amount spent on social security systems and all the independent variables combined, at 5 percent significance level. There is also evidence that there only exists a causal relationship between economic activity and all the independent variables combined, at 1 percent significance level, however not individually.

➤ A unidirectional causality exists between the number individuals without a job and the amount spent on social security. This means that unemployment Granger causes social security expenditure but not the other way around. Furthermore, there is also a causal relationship between the number of individuals without a job and all the independent variables combined, at 1 percent significance level.

To summarise, there is no evidence that the South African social security system has an impact on its primary objective, to alleviate poverty. Lastly, the chapter also presented the residual and stability diagnostic tests performed on all estimated ARDL models and the results of these tests revealed that all the estimated ARDL models are unsusceptible to non-normality distribution, serial correlation, heteroscedasticity and instability. This implies results estimated by all the ARDL models of the study are not misleading or false.

The final chapter of the study will present the specific findings of the study and conclusions will be drawn together with the realisation of the objectives. Therefore, with the aim of the study in mind, Chapter 1 to 6 assisted in the analysis, empirically, the relationship between social security policies and their aim at assisting in times of vulnerability and in poverty. Within the framework of the investigation, recommendations for intervention will be made and future research possibilities will be suggested.

CHAPTER 7

SUMMARY, RECOMMENDATIONS AND CONCLUSION

7.1 INTRODUCTION

This study was motivated by the fact that South Africa faces high-income inequality levels combined with high poverty rates especially under minors and old age individuals and how social security fits into all of this. Hence, the study began with the broad aim of analysing the extent to which social security systems deal with poverty and income inequality of individuals within economies across the globe. Various scholars found that implemented social security systems have a positive impact on the alleviation of poverty and income inequality as well as to assist in human development. However, further findings revealed that social security systems do not have an impact on poverty, income inequality or human development objectives. This was discussed throughout the study.

Chapter 3 used a case study approach where it first focused on social security systems across the globe and different implementation approaches on the development and assessment of these systems. However, more focus was placed on the SNAP benefit implemented in the U.S., the *Bolsa Família* benefit implemented in Brazil and various social security systems implemented in Sub-Saharan African economies. This section was conducted in order to serve as a blue print from which South Africa can learn.

Chapter 4 analysed South Africa's social security system and on all the sub-sectors of the system. As the primary objective of the study was to analyse the South African social security system, Chapter 4 to 6 discussed the number of social security recipients and the amount spent per annum on social security combined with various other factors such as the number of individuals employed, population size and economic activity (GDP). Accordingly, an econometric analysis approach (EVIEWS), as discussed in Chapter 5, was conducted and the results were presented in Chapter 6. The results illustrated the relationship between the dependent variables, namely poverty, inequality and human development with the independent variables, social security recipient, the amount spent on social security, number of individuals without a job, economic activity and the number of individuals within a household from 1996 until 2017.

This chapter presents these conclusions, a summary of the study and recommendations for improved performance of the implemented social security system in the South African economy.

7.2 SUMMARY OF THE STUDY

The study was centred on analysing the South African social security system, in order to determine whether the social security system reached its objective to assist in the alleviation of poverty and inequality, as well as human development. Hence, the study is categorised into seven chapters, which collectively address the primary, theoretical and empirical objectives of the study. Chapter 1 mainly portrays the foundation and background of the study. Chapter 2 presented the theoretical and empirical literature related to the study at hand. Chapter 3 assessed the trends and motivation of social security systems across the globe. Chapter 4 illustrated trends regarding the South African social security systems and variables related to this. These variables include the number of social security recipients, the amount spent per annum on social security, the number of individuals within the economy, the number of individuals employed and various other factors. Chapter 5 through 6 outlined the methodological framework, which reviewed and justified the use of the ARDL econometric model. Preliminary test of the series gave way to assess the features of each variable to make provision for any deficiencies within the distribution of the series. Unit root results emphasised the use of the ARDL model to co-integration. Methods used to estimate the set objectives were justified by theoretic and empirical research and the considered sample period was selected based on data availability as obtained from the disclosed sources. The selected dataset also made exclusion of the apartheid regime and the economic embargos by focusing on the post-apartheid period. Finally, the final chapter provides an overview and summary of the study at hand, the conclusions and achievements of the study, as well as suggested recommendations.

7.2.1 Summary of Chapter 1: Introduction and Background

This chapter presented the introductory issues and background, which led to the study. It established an outline on the content of the study comprising of the problem statement, the various objectives, the contribution and scope of the research. Throughout the study, the most significant part included the empirical findings of scholars who also attempted to analyse the impact of social security systems. Various scholars found that social security systems have a significant impact on the alleviation of poverty and inequality as well as assist in human

development. However, this is not the case with all the studies, some studies argue that social security systems is not the answer to poverty, inequality an human upliftment, and argued that other social security issues should be addressed first. Hence, this was the driving force behind the analysis of the South African social security system and its impact on the alleviation of poverty, inequality and assist in human development.

7.2.2　　　Summary of Chapter 2: Review of Historical and Theory Literature

This chapter evaluated and reviewed theoretical and literature specific to the concerns of the study. It dealt with and analysed theoretic prepositions on the interactions or relationships between different forms of social security systems and the implementation thereof. The chapter started by providing an historical overview and the origin of social security policies in Section 2.2 and progressed towards Section 2.3, which included the definition of the concepts such as social protection, social security, social policies and social transfers. Herein social policies were examined, as well as their categories and link with vulnerability. Social security characteristics were examined and found that there are two different types, namely social insurance and social assistance and concluded by examining the similarities and differences between these two categories. With regards to social transfers, examples were provided as different economies implement different social security systems linked to their economic circumstances. Other factors were also included in the section such as the importance of social security systems and included social security as a human right, the role of the national government in social security, the way in which social security policies are financed and aspects of a good social security system. The last section, Section 2.4 in the study included the theoretical aspect and analysed John Rawls' theory and Amartya Sen's approach to capability.

The most important lessons taken from this chapter are how and why social security systems were created to begin with and the aim and implementation thereof. It was also important to distinguish between different concepts of social security the way these concepts link with one another. Further findings found that more recently, economies implement different types of social security systems, which link to the condition of need identified within the economy. Empirically, arguments have arisen for and against these benefits, which are also discussed. Theoretically, Rawls' theory of justice was valid in order to achieve the primary objective of the study and to strengthen the importance of the development of proper social security systems.

Chapter 3: Social Security Development: Lessons from the United States, Brazil and Sub-Saharan African Economies

Chapter 3 reviewed the performance of social security systems across the globe in the form of case studies. These studies included an analysis of the different kinds of social security policies and their successes and failures to make recommendations from which South Africa could learn. This chapter started off by assessing social security systems across the globe and the moved towards assessing the SNAP benefit implemented by the US, the *Bolsa Família* benefit implemented by Brazil and concluded by analysing various social security systems implemented in various sub-Saharan African economies.

Throughout this chapter, there was evidence that although social security is widely recognised by economies, different systems are being implemented and designed according to the economies circumstances. However, not all economies that need and implement such programmes are seen to be successful. This is supported by the statement by the ILO (2017:1); Samson and Taylor (2015:14) and Dethier (2007:1) as the substantial development in the extension of social security across the globe, the human right to social security is not yet a reality for a majority of the world's population, evident in Section 3.2.1.1 of Chapter 3.

Despite this, the abutments set out by various economies such as US, Brazil and various other sub-Saharan economies for the implementation of social security systems for the poor and vulnerable individuals within the economy were reviewed. This entailed a review of social policies (i.e. SNAP, Bolsa Família, Lesotho's Old Age Pension; Ghana's National Health Insurance Scheme; Rwanda's Vision 2020 Umurenge Programme; Botswana's Mass Antiretroviral Therapy Program (ART) etc.) that are designed to assist individuals in time of need.

7.2.3   Summary of Chapter 4: Profiling South Africa's Social Security System

Chapter 3 conducted a trend analysis of the social security system implemented by the South African government. Factors included in this section comprised of the number of social security benefit recipients, total amount spent on social security benefits by the national government and the number of individuals employed as per set objectives. In the context of assessing South Africa's social security policy, various types of social assistant grants, the amount received per

benefit type and the amount of recipients were estimated to present a measure of the country's dependency ratio. In doing so, the chapter made use of descriptive tools by means of graphs, tables and figures. Lastly, the chapter additionally provided a synopsis of South Africa's major social security policies as well as the various targeted/protected groups used by the South African government to alleviate poverty and inequality and to raise the recipients overall standard of living.

Throughout this section, it is evident that before the democratic era, many individuals in the South African economy were excluded from social security grants. However, since 1994, there have been various policy changes and social security became a programme for all to enjoy. Throughout the years, programmes that were previously included under the social security system fell away and made way for new systems such as the child support grant. Since the introduction of the CSG in 1998, there is evidence that this system started accelerating rapidly and surpassed all other systems implemented by the South African government.

The main finding of this study is that the growth in social security recipients is much higher than that of employment creation. Therefore, more working-aged individuals are becoming dependent on social security as a form of income as it discourages individuals to seek employment. This is in line with the findings of Murray (2013), Leubolt (2014:13), Williams (2007:12), Mattison (1985:91) and De Barcellos (2012:18). Furthermore social benefits do not necessarily reach all individuals within the economy as only a small section of the economy enjoys access to these benefits, which is discussed throughout Section 4.4 of Chapter 4.

It was also found that the significant growth and magnitude of the South African social security system has raised concerns regarding the long-term sustainability of these policies. As for the 2004 fiscal year, the National Treasury (2004:73) commented on the growth in the ratio between social security benefits' expenditure and the GDP and stated "the ratio is high compared to most other emerging economies and also high relative to spending on cash social assistance in some high income economies. Growth of this magnitude relative to GDP raises sustainability questions for the future." By 2017, the National Treasury (2017) stated that social security benefits are essential for the improvement of individuals and their social wellbeing, despite this, it poses a risk to the sustainability of the South African fiscal policy, as the government must budget for social benefits paid, which means less can be invested in infrastructure and education.

7.2.4   Summary of Chapter 5: Research Design and Methodology

Chapter 5 presented and discussed the research design and methodology adopted by the study in order to investigate the impact of various social security benefits implemented by the South African government. The study made use of secondary data, ranging from 1996 until 2017. The data used to conduct the study was obtained from various sources, which include the International Race Relations (2016), the Global Insight (2018) and SASSA (various years) and encompassed a collection of data of South Africa's total social security expenditure, total amount of social security recipients, total number of individuals unemployed, number of individuals within a household, economic activity, poverty, income inequality and human development, which have been fluctuating between the periods 1996 and 2017. For that reason, suitable modelling layout was provided to account for distortions and variable dynamics.

Hence, the methodology of this study followed a functionalist approache, which seeks to understand economic phenomena regarding its relationship with a particular system. Intrinsically, an ARDL model was employed under the study to grasp the response of the South African social security system on its set objective, to alleviate poverty and inequality as well as to assist in human development. Hence, the ARDL model, combined with various other necessary econometric tests such as the unit root test, stationarity tests, multiple-break point test, error correction model and residual and stability diagnostic tests, were included under the study. To sum up, this chapter presented the origin of the data of the study, the sample size, the specification of variables of the study and methodised the econometric estimation approaches adopted by the study.

7.2.5   Summary of Chapter 6: Empirical Estimation and Discussion of Results

This chapter presented the findings and discussed the results obtained from all employed econometric techniques for the estimation of the impact of the South African social security system on its set objectives, to alleviate poverty and inequality as well as to assist in human upliftment. As previously mentioned, the econometric techniques employed under the study included unit root tests, a stationarity test, a multiple-break point test, ARDL models, Toda-Yamamoto Granger causality test and residual and stability diagnostic tests. To summarise this chapter, the original data were transformed into their natural logarithmic form and some were

differenced. The unit root tests indicated that the study had a mixture of both I (1) and I (0) variables, with no variable stationary at I (2).

Furthermore, the correlation matrix, which was performed to evaluate the relationship between the dependent variables and the independent variables employed under the study. The study found that correlation between poverty indicates that two (social security recipients and the number of individuals within a household) out of the five variables have a positive relationship with the alleviation of poverty. However, these positive relationships are not significant at any significance level, where three (amount spent on social security, economic activity, number of individuals without a job) out of the five have a negative relationship with poverty and only social security expenditure and economic activity have a significant impact on poverty at 1 percent significance level.

On the other hand, the correlation matrix for human development found that four (number of social security recipients, amount spent on social security, economic activity, unemployment) out of the five independent variables have a positive relationship with HDI and these positive relationships are all statistically significant at 1 and 5 percent significance level, except for the number of social security recipients (not significant) and one (number of individuals within a household) of the five independent variables have a negative relationship with the improvement of HDI and are statistically significant at the 1 percent significance level.

The correlation matrix for income inequality found that two (number of social security recipients and the number of individuals within a household) of the five sectors under the study have a positive relationship with income inequality, but these positive relationships are only statistically significant for the number of social security recipients and three (amount spent on social security, the number of individuals without a job and economic activity) of the five variables have a negative relationship with income inequality where only the number of individuals without a job are not statistically significant.

Additionally, the chapter then presented the results obtained when using the ARDL models to estimate the long-run impact and the Toda-Yamamoto model to estimate the short-run impact of the independent variables (number of social security recipients, amount spent on social security, number of individuals within a household, number of individuals without a job and economic activity) on the dependent variables (poverty, income inequality and human development). First,

the results indicated that the independent variables (number of social security recipients, amount spent on social security, number of individuals within a household, number of individuals without a job and economic activity) employed under the study had no long impact on poverty, income inequality nor human development.

In the short run there is evidence that a unidirectional causality exists between human development and the number of individuals without a job. This means that human development Granger causes unemployment but not the other way around. There also arises a causal relationship between human development and all the independent variables combined, at 5 percent significance level. The short-run impact on the amount of social security recipients found a unidirectional causality exists between the number of social security recipients the number of individuals in poverty. This means that the number of social security recipients Granger causes poverty but not the other way around. There is also a causal relationship between the number of social security recipients and all the independent variables combined, at 5 percent significance level.

There is evidence that a unidirectional causality exists between the number individuals in poverty and the number of individuals without a job. This means that poverty Granger causes unemployment but not the other way around. Furthermore, there is also a causal relationship between the number of individuals in poverty and all the independent variables combined, at 1 percent significance level. There is evidence that a unidirectional causality exists between the income inequality and the human development. This means that income inequality Granger causes human development but not the other way around. Furthermore, there is evidence of a unidirectional relationship between income inequality and economic activity. Indicating income inequality Granger causes GDP but not the other way around. Lastly, there is evidence of a unidirectional relationship between income inequality and the number of individuals within a household. Indicating income inequality Granger causes household size but not the other way around. There is also a causal relationship between income inequality and all the independent variables combined, at 1 percent significance level.

The short-run relationship with household size found that there is no causal relationship between the number of individuals within a household and all the independent variables combined. Whereas there is evidence of a causal relationship between the amount spent on social security

systems and all the independent variables combined, at 5 percent significance level. There is also evidence that there only exists a causal relationship between economic activity and all the independent variables combined, at 1 percent significance level, however, not individually. Lastly, the short-run relationship between unemployment found that there is evidence that a unidirectional causality exists between the number of individuals without a job and the amount spent on social security. This means that unemployment Granger causes social security expenditure but not the other way around. Furthermore, there is also a causal relationship between the number of individuals without a job and all the independent variables combined, at 1 percent significance level. To summarise, there is no evidence that the South African social security system has an impact on its primary objective, to alleviate poverty and inequality or to assist in human upliftment. Finally, the chapter presented the residual and stability diagnostic tests performed on all estimated ARDL models and the results of these tests revealed that all the estimated ARDL models are unsusceptible to non-normality distribution, serial correlation, heteroscedasticity and instability. This implies results estimated by all the ARDL models of the study are neither misleading nor false.

7.2.6 Summary of Chapter 7: Summary, Recommendations and Conclusion

This chapter comprises of a summary with regards to the topic at hand and highlights the main findings of this study, while providing concluding remarks and giving the necessary recommendations and policy implementations of this study.

7.3 REALISATION OF OBJECTIVES

This study was conducted keeping a specific aim in mind, to assist the South African social security system. Hence, the following section will discuss the set objectives, being primary, theoretical and emprical in nature and state whether these objectives were met.

7.3.1 Primary Objective

The primary objective of the study was to analyse the South African social security system, in order to determine whether the social security system reached its objective, to assist in the alleviation of poverty and inequality, as well as human upliftment.

7.3.2 Theoretical Objectives

A useful literature and theoretical overview was established to provide an understanding of the concepts and knowledge on the topic of the research problem and the primary objective. The analysis within the study was set to accomplish the relevant theoretical objectives towards the fulfilment of the set primary objective. The theoretical objectives were achieved in corresponding chapters following the application of a structured theoretical outline and discussion as highlighted.

- *To provide a historical overview of social security systems and policies*
- *To provide definitions and concepts relating to social protection, social security, social policy and social transfers;*
- *To review the relationship between poverty, inequality and standard of living through the analysis of various social security policies;*
- *To review individual, societal and macro-economic effects of social security systems*
- *To discuss theories relating to social security.*

The five theoretical objectives were all achieved throughout Chapter two and three. The first theoretical objective was achieved in, Section 2.2 of Chapter two where it presented the historical background of social security and found that assistance, welfare in nature dates back to the 6th century in the Islamic region where Umar ibn al-Khattāb identified the need of assistance for non-Muslim outcast. By the 1800s elderly and individuals with disabilities required assistance and Von Bismarck saw these needs as did William a German Emperor, and President Roosevelt by the early 1900s. As time passed, the need for social assistance became more apparent and more inclusive where today it is more a human right; this is evident in Section 2.3.5.1. The second objective was achieved in Section 2.3 of Chapter 2 where a full description of each definition was given, which included different views on the definitions. Furthermore, concepts relating these definitions were also discussed as well as their linkage.

Throughout Section 2.3.4, the third objective was reached as different forms of social security systems were discussed as well as different economies implementation thereof. This also linked to Chapter 3 of this study, as throughout this section there was focus on social security systems from a broad perspective, being globally (Section 3.2.1) and in the U.S. (Section 3.3), to a more narrow perspective, being Brazil (Section 3.4) and sub-Saharan African economies (Section 3.5).

The reason behind this objective is to analyse the reason why different economies choose different systems and their implementation methods and success (presented in the form of empirical findings) to serve as a blueprint from which South Africa can learn. The last objective was reached in Section 2.4 of Chapter 2 where Rawls theory of justice and Sen's capability approach was discussed in depth and included its criticisms in order to shed light on the need to implement social security systems.

7.3.3   Empirical Objectives

In order to fulfil the research's primary objective, the study was also set to accomplish various empirical objectives as highlighted.

> *To provide a review of South Africa's past and present social security policies;*
> *To provide a comparative analysis between South Africa's number of social security benefit recipients, the number of individuals employed, the amount spend by the government of social security policies and dependency;*
> *To review trends in South Africa's social security benefit recipients per grant type;*
> *To analyse the South Africa government expenditure towards different social security system;*
> *To present empirically the impact of the South African social security system on its set objective, being the alleviation of poverty, inequality and human upliftment;*
> *To determine the long-run and the short-run interrelation between the South Africa's poverty rate, HDI and inequality rate against government investment in social security policy, the number of individuals within a household, economic activity and employment creation;*
> *To examine the causal effects of the set explanatory variables (poverty, inequality, human development, social spending, household size, economic activity and unemployment) and the number of recipients receiving benefits.*

The empirical objectives of the study at hand were presented over the course of two chapters. The seven empirical objectives were achieved in chapters 4 and 6. The first objective was achieved in Section 4.5 of Chapter 4. Herein was discussed the pre-apartheid, apartheid- and post-apartheid eras social security schemes and their conditionalities and role-players. The second objective was achieved in Section 4.4 through descriptive analyses where the total number of social security recipients was compared to the amount of individuals employed and against the total amount of individuals within the economy. The third objective was achieved in

Section 4.4.1 of Chapter 4 where the different social security schemes implemented by the South African government were discussed and trends were shown per province. The fourth objective was achieved in Section 4.5 of Chapter 4. Throughout this section trends in the amount per annum, its percentage of GDP and portion of total consolidated expenditure is illustrated and fully discussed. The chapter concluded with empirical findings from other scholars.

The last three empirical objectives were achieved in Chapter 6 where an econometric analysis was conducted to illustrate the effect of the South African social security system on its primary objective, to alleviate poverty and income inequality as well as to assist in human upliftment. The third objective was achieved in both the correlation matrix and econometric model given in sections 6.4 and 6.5 of Chapter 6. As such, the results of the correlation matrix indicate that poverty in South Africa and three (i.e. social security expenditure, GDP and household size) have a correlation with one another. Furthermore, human development and three (i.e. social security expenditure, GDP and household size) have a correlation with one another and finally, income inequality and three (i.e. number of social security recipients, social security expenditure and GDP) have a significant correlation with one another.

In the long run, the ARDL model identified in Section 6.5 indicated that there is no relationship between variables. Hence, the Toda-Yamamoto Granger causality test was conducted and the results were illustrated in Section 6.5.2 to indicate the short-run relationships between variables. The Toda-Yamamoto results indicate that in the short run:

➢ HDI unidirectional causes unemployment, indicating that an improvement human development will improve unemployment.
➢ Total number of social security recipients' unidirectional causes poverty; hence, as the amount of recipients increase, the amount of individuals increase. Therefore, the South African social security system does not alleviate poverty.
➢ The amount of individuals in poverty unidirectional causes unemployment, indicating that as the amount of individuals in poverty decline the amount of unemployed individuals increase. This is true as more of the economies' resources are spent on welfare rather than development factors as illustrated in Chapter 4, Section 4.5.
➢ Income inequality unidirectional causes human development, implying that the more equal income is distributed within an economy, the more developed an individual.

- Income inequality unidirectional causes GDP, implying that the more equal income is distributed within an economy, the more developed the economy.
- Income inequality unidirectional causes household size implying that the less equal income is distributed within an economy, the more individuals within a household.
- Unemployment unidirectional causes social security expenditure, implying that when unemployment increases, the amount spent on social security increases.

The findings reveal that social security benefits in South Africa struggle to achieve their primary goal; hence, the need for recommendations, which are presented in Section 7.6 of the final chapter.

7.4   STUDY CONTRIBUTION

Evident throughout the study, various scholars attempted to analyse the impact of the South African social security system and found either a positive impact on the alleviation of poverty and inequality and others found that these systems did not have a positive impact on its set objectives. Hence, these scholars implemented various study methods; however, not many used the econometric model identified within this study. Therefore, it is important to weigh the different methods against one another as different methods found different results.

7.5   LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

The South African government attempt to reduce poverty and inequality through the implementation of social security systems and different targeting areas. For that reason, there arise various social security policies at various levels which include child support grants (CSG), the old age grant (OAG), the foster child grant (FCG), care dependency grant (CDG), the disability grant (DG), war veterans grant (WVG) and the grant-in-aid (GIA) benefit.

Limitations of the study was the availability of data as provincial data regarding the number of social security recipients and the amount spent per quarter are only available as per special request from SASSA. Hence, due to limited time, the data could not have been obtained in time to conduct a panel econometric analysis of the South African social security system. However, with this being said, the study still reached its primary objective to analyse the South African social security system as a whole. As is evident from the study, the theoretical and empirical

framework developed in the study and the econometric model (EVIEWS) used can be replicated successfully.

Keeping the limitations in mind, the following are recommendations for future research in this regard:

➢ Assessing the impact of each of the social security benefits individually on their potential to assist in the alleviation of poverty and inequality as well as human development. In this regard the impact of each individual system can be analysed to potentially identify the gaps and shortfalls in each of the benefits;

➢ To investigate the number of households per province who receive social security benefits in order to determine the spread of the benefits and whether these benefits reach the individuals most in need of assistance.

7.6   RECOMMENDATIONS

The South African economy amongst many other economies across the globe, struggle with low economic activity, high unemployment rates combined with high poverty rates, high income inequality and low levels of human development. Throughout the centuries, policymakers designed and implemented policies fit to their economic circumstances, amongst other, social security systems, to combat the aforementioned challenges. Today, social security policies have become a widely recognised form of social upliftment and are seen as a human right. Throughout the study, various scholars argue that such social policies are beneficial as they alleviate poverty and income inequality (Duncan *et al.,* 2007:7; Lee & Mackey-Bilaver, 2007:515; Zepeda, 2006:1; Shei *et al.,* 2014:6; Campello *et al.,* 2015:2; Chakraborty, 2007:3; Langinger, 2011:36; Bhorat & Cassim, 2014, Dinbabo, 2011; Haile & Niño-Zarazúa, 2018:392) On the other hand, scholars found that such policies only create dependency and do not have an impact on the primary objective (Fording & Berry, 2007:56; Borjas, 2016:156; Murray, 2013; Leubolt, 2014:13; Mattison, 1985:91; Alderman, 1998; Rosenburg, 2003; Monthiane, 2014:46; Sinyolo *et al.,* 2017:8).

As such, the South African social security system has been underperforming and struggles to alleviate poverty and income inequality as the South African economy is classified as one of the most unequal economies across the globe and struggle with high poverty rates generated from

the apartheid era[22]. As such together with the case studies (presented in Chapter 3) along with the empirical findings of chapters 4 and 6, the following recommendations are made in order to serve as a turnaround strategy for an effective social security system in the South African economy.

Throughout Chapter 3, an analysis was done regarding best practice principles derived from the SNAP benefit implemented by the U.S. government and the *Bolsa Familía* benefit implemented by Brazil in order to serve as a blueprint from which the South African government can learn. Hence, evident from the *Bolsa Familía* programme the selection and eligibility criteria of benefit recipients are quite complex as they are double-checked at a federal level. However, in South Africa the regulatory and administrative actions are more relaxed. The South African government must enforce more stringent policies to ensure that recipients are screened and social security benefits are fairly distributed to those individuals who meet the necessary criteria.

Brazil also enforces a regulation that limits child support benefits to three minors per households, as well as school attendance criteria of 85 percent. This would be beneficial for the South African government to impose more stringent regulations towards the receipt of, especially child support benefits, as this would break the inter-generation dependency cycle as well as enhance human development, which over the long run will potentially support the skill shortage and under-development of the South African citizens.

Taken from the SNAP benefit, the U.S. government provide benefits to its citizens in the form of coupons. Hence to reduce the risks of cash transfers being use insufficiently on non-curtail products, which include alcohol, cigarettes and drugs, cash transfers should be converted into coupons, which can be redeemed at government partnered supermarkets to ensure that the social security benefits are spent on basic necessities such as nutritious foods.

To encourage individuals to spend social security benefits on nutritious foods, a reward system should be put in place to reward efficient spending on products that promote a healthy lifestyle. For example, the Discovery Vitality Reward Programme, which rewards their members with a percentage cash back when spending on nutritious products. This will potentially result in lowering food poverty amongst South African citizens.

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[22] As discussed in Section 5.2 of Chapter 5

Further recommendations will be provided, which reflect on the empirical findings of the study:

➢ *Efficient distribution and access to social security*

The South African Constitution of 1996 states that the national government has the obligation to provide social assistance to those who are unable to support themselves and their dependents (evident across the globe as illustrated in Section 2.3.5.1 of Chapter 2). Therefore, when analysing the effectiveness of the South African social security system, evident in sections 4.2, 4.3 and 4.4 of Chapter 4, the South African policymakers made various changes with regards to the eligibility criteria of ethnic groups, the disadvantaged ethnic groups now enjoy equal access to social benefits. However, there is still evidence that not all eligible individuals receive social security benefits. Hence, the effective implementation of policies should be monitored on a regular basis and should be evaluated and reviewed in order to provide comprehensive feedback regarding all matters, in order to be responsive. This is also discussed in Section 2.3.5.4 of Chapter 2. Improvements should also be made with regards to social cohesion and mechanisms should be generated in order to fight corruption, which results in poor service delivery to various eligible groups and also to better reach in provinces.

➢ *Improve revenue collection capacity*

Evident from Section 2.3.5.3 of Chapter 2 and Section 4.5 of Chapter 4, social security systems are mainly financed through the collection of taxes. However, when there are shortfalls, the government needs to borrow funds. Thus, there are many debates with regards to the financial stability of the South African social security system as the systems range between nine and 11 percent of total consolidated government expenditure and the total tax base is quite small. Hence, it can be recommended that the South African tax base should be expanded in order to generate enough tax revenue as possible. This can be done by reducing taxes imposed on income, especially imposed on the employer (payroll taxes). This will in return have an impact on labour demand and potentially assist in the creating on more employment opportunities. Not only will this generate more tax collection, this will also lift the pressure off the overburdened employed dependency. The transition should be planned and designed to create incentives to employees as well as employers to join contributory social security schemes and to foster the use of general taxation to substitute these aids over time.

➢ *Organised provisions and implementation model*

The empirical findings evident in Chapter 6 found that the South African social security system is not effective in the alleviation of poverty and income inequality or assisting in human development. Hence, attention should be shifted towards finding new means of implementing social security policies in order to target the poor and vulnerable individuals within the economy. Therefore, the needs of households should be identified and new implementation policies should be designed in order to assist those in poverty.

7.7   CONCLUDING REMARKS

The South African social security system is amongst various other policies designed by policymakers to assist in the alleviation of poverty and income inequality as well as to assist in human upliftment. Hence, the primary objective of the study was to analyse the South African social security system, in order to determine whether the social security system reached its objective. As a result, the study discovered through a descriptive analysis that South African social security system has seen various changes from the pre-apartheid, apartheid and the post-apartheid era where policymakers recognised the need for social security of all ethnic groups. However, many individuals in need of social security still do not have access to adequate assistance. There is also some concern with regards to the financial stability of the South African social security system as it makes out between 9 and 11 percent of total consolidated expenditure.

Further empirical tests were conducted in order to evaluate independent variables against poverty, income inequality and human development and found that although there is a correlation relationship between poverty, income inequality and human development with the independent variables, there is no sign of a long-run or a short-run relationship. Hence, the discussed empirical findings were attained using an ARDL and Toda-Yamamoto Granger causality models, where the reliability and correctness of the empirical findings were confirmed using the residuals and stability diagnostics tests, where all residuals were homoscedastic and serially correlated.

As such, the empirical findings together with the descriptive analysis suggest that there are negative implications for the alleviation of poverty and income inequality as well as for human

upliftment. In this case, more extensive measures need to be undertaken to revitalise the South African social security system in order to generate social upliftment for South African citizens.

GLOSSARY

Absolute poverty line: poverty lines fixed in some absolute standard of what households should be able to count on in order to meet their basic needs. For monetary measures, these absolute poverty lines are often based on estimates of the cost of basic food needs, that is, the cost of a nutritional basket considered minimal for the health of a typical family, to which a provision is added for non-food needs.

Adequacy: a programme is adequate if it provides sufficient benefits to a wide range of needy individuals for a period of time. Information on which to judge adequacy is usually provided in positive rather than normative terms. Hence, transfers as a share of income of the beneficiary, the share of recipients in the population or among the poor etc.

Cash transfers: programmes that transfers cash to eligible individuals and/or households. Popular schemes include child support, old-age pensions, disability grants and conditional cash transfers.

Conditional cash transfers: provide benefits in the form of cash to poor and vulnerable individuals and/ or households contingent to them obeying certain conditions such as school attendance and regular health checks.

Coverage: refers to how many people the programme will reach, and that can be estimated based on the design of the programme.

Dependency ratio: the ratio of non-income earners to income-earning individuals in the household, thus the ratio of dependents on the income on the depended.

Disability: a physical, mental or psychological condition that limits an individual's ability. Disabilities therefore arise when barriers prevent individuals with functional limitations caused by age, diseases, injury, or other causes from participating fully within a society.

Emerging economies: describes a nation's economy that is progressing toward becoming more advanced, usually by means of rapid growth and industrialization. These countries experience an expanding role both in the world economy and on the political frontier.

Emerging markets: have lower per-capita incomes, above-average socio-political instability, higher unemployment, and lower levels of business or industrial activity relative to the United States; however, they also typically have much higher economic growth rates. Less developed nations throughout Asia, Africa, Eastern Europe and Latin America are Said to be emerging market economies. The developed world consists of mature markets in North America, Western Europe and Japan.

Equity: concept of fairness in economics. Equity analysis examines the distribution of benefits across pertinent groups (poor/ non-poor, men/women, rural/ urban etc.). Horizontal equity requires that the Same benefits or taxes apply to individuals or households that are equal in all important respects. Vertical equity implies that benefits or taxes are differentiated by ability to pay or need.

External migration: refer to those who have been found to have migrated into the certain country from somewhere outside their usual location, permanently or for a long period of time.

Family benefit: social transfers to households with minors. Family benefits can take various forms, such as means-tested child benefits, maternal benefits or universal transfers for all minors under a fixed age.

Food insecurity: lack of access to an adequate amount of nutritious food for an active, healthy life.

Food stamps: any of the coupons sold or given under a federal program to eligible needy persons and redeemable for food at designated grocery stores or markets

Human development: is a process of enlarging people's freedoms and opportunities and improving their well-being. Human development is about the real freedom ordinary people have to decide who to be, what to do, and how to live.

Human security: is an approach in identifying and addressing widespread and cross-cutting challenges to the survival, livelihood and dignity its people.

Industrial economy: have a high level of gross domestic product per capita, as well as a very significant degree of industrialization, also known as advanced or developed economies.

Inequality: the state of not being equal, especially in status, rights, and opportunities.

In-kind benefits: benefits which employees or directors receive from their employment but which are not included in their salary cheque or wages. They are sometimes called 'perks' or 'fringe benefits'. They include things like company cars, private medical insurance paid for by the employer and cheap or free loans. Some benefits in kind will not be taxed. Benefits in kind will not be taxed for individuals who earn less than their personal allowance. Some benefits in kind will be taxed for everyone, whatever their income.

Malnutrition/ Malnourishment: is a condition that results from consuming a diet lacking in nutrients.

Means test: an official investigation into an individual's financial circumstances to determine their eligibility for state assistance.

Orphans and vulnerable children: orphans are minors who have lost one or both parents and vulnerable minors are those who are more exposed to risks than their peers such as children with HIV and those ill caregivers, homeless children, abused children and children used for cheap child labour.

Policy cycle: is an idealised process that explains how policy should be drafted, implemented and assessed. It serves more as an instructive guide for those new to policy than as a practical strictly-defined process, but many organisations aim to complete policies using the policy cycle as an optimal model.

Poverty gap: the mean difference between the poverty line and the household income divided by the poverty line calculated over the whole population. The income gap multiplied by the headcount equals the poverty gap.

Poverty line: the cut-off point that separate the poor from the non-poor. They can be monetary (e.g., a certain level of consumption) or non-monetary (e.g., a certain level of literacy). The use of multiple lines can assist in distinguishing among different levels of poverty.

Public works programme: where income support for the poor is given in the form of wage (either in cash or food) in exchange for work effort. These programmes typically provide short-

term employment at low wages for unskilled and semi-skilled workers on labour-intensive projects such as road construction and maintenance, irrigation infrastructure, etc. Generally seen as a means of providing income support to the poor in critical times rather than as a way of getting the unemployed back into the labour market.

Relative poverty line: poverty line defined in relation to the overall distribution of income or consumption in an economy.

Safety net programme: a collection of programmes, ideally well-designed and well-implemented, complementing each other as well as complementing other public and social policies.

Social assistance: benefits paid to bring incomes up to minimum levels established by law.

Social expenditure: comprises cash benefits, direct in-kind provision of goods and services, and tax breaks with social purposes. Benefits may be targeted at low-income households, the elderly, disabled, sick, unemployed, or young persons.

Social insurance: contributory programmes designed to assist households in safeguarding themselves against sudden and unforeseen loss of income. Types of social insurance include insurance against unemployment, old-age, disability, the death of the bread winger and sickness.

Social pensions: (also known as a non-contributory pension) is a regular cash transfer to elderly individuals. Eligibility is thus based on age and citizenship or residency, and almost always on means such as income, assets or other pension income

Social policy: public policy dealing with social phenomenon. Social policy aims to improve human welfare and to meet human needs for education, health, housing and social protection.

Social protection: set of public interventions aimed at supporting the poorest and most vulnerable members of the society, as well as assisting individuals, households and communities risk management. Social protection includes social security, social assistance, social insurance, social policies and social transfers.

Social protection floor: sets of basic social security guarantees which secure protection aimed at preventing or alleviating poverty, vulnerability and social exclusion. These guarantees should

ensure at a minimum that, over the life cycle, all in need have access to essential health care and basic income security.

Social security system: a government programme aimed at providing basic needs to its citizens who are retired, unemployed, disabled or disadvantaged, etc. It is usually funded by mandatory payroll contribution from both the employer and the employee, and from the national government tax revenue.

Social services: benefits and facilities such as education, food subsides, health care, and subsidised housing provided by the national government to improve the life and living conditions of the children, disabled, the elderly and the poor in the national community.

Social transfers (Safety nets): non-contributory social transfer programmes design to target the poor and those most vulnerable to shocks and to fall into poverty.

Target group: the intended beneficiaries of a programme benefits.

Targeting: the effort to focus resources among those most in need of them.

Vulnerability: the likelihood or probability that a household will fall below the defined acceptable threshold of a given indicator and fall into poverty

Vulnerable groups: typically includes elderly, orphans, widowed and disabled individuals, individuals with HIV/AIDS, refugees or internally displaced individuals, etc. Vulnerable groups face specific difficulties in supporting themselves because of some particular aspect of their situation.

Welfare/wellbeing: availability of resources and presence of conditions required for reasonably comfortable, healthy, and secure living. Through which the government support the poor and otherwise disadvantaged members of the society, usually through provision of free and/or subsidized goods and services.

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APPENDIX A: LETTER FROM THE LANGUAGE EDITOR

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English language editing

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15 November 2018

To whom it may concern

This is to confirm that I, the undersigned, have language edited the **dissertation** of
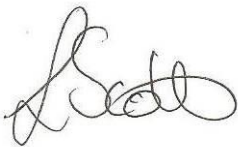
Simoné Bezuidenhout

for the degree

Masters:Economics

entitled:

An analysis of the South African social security system

The responsibility of implementing the recommended language changes rests with the author of the dissertation.

Yours truly,

Linda Scott