# Is South Africa's Social Protection System Addressing the Causes or the Symptoms of Poverty? The Case of the Child Support Grant

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*A minor dissertation submitted in partial fulfilment of the requirements for the award of the degree of Master of Social Science in Applied Economics*

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2010

*This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.*

*Signature:*_____ *Date:*_____

# ACKNOWLEDGEMENTS

I would like to thank the Leverhulme Trust for providing me with invaluable financial assistance throughout my Master's programme through their Study Abroad Studentship. This has been enormously helpful in allowing me to focus on my studies. I would also like to thank Murray Leibbrandt and Ingrid Woolard for their insightful thoughts and guidance throughout the dissertation process.

# ABSTRACT

*The South African Government's anti-poverty strategy has been largely dominated by unconditional cash transfers. A growing body of literature examines the impacts of these transfers on a range of socio-economic outcomes; however there is little discussion of why such impacts are important. Without an explicit conceptual framework within which to examine these effects, evaluating their likely long term poverty impacts remains problematic. The focus of this research is to distil the current thinking on poverty and social protection to establish an appropriate theoretical framework within which to appraise anti-poverty measures. An 'Assets-Augmented' Capabilities Framework is proposed with a focus on asset-building as the primary means of poverty reduction. Focusing on the Child Support Grant (CSG), empirical analysis is then applied to examine whether the underlying causes of poverty are being addressed. Using the National Income Dynamics Study (NIDS) Wave 1 Dataset, the effects of the CSG on households' expenditure patterns are examined to assess the extent to which CSG-recipients invest in asset-building. A propensity score matching method is employed to construct an appropriate counterfactual. Households receiving the CSG are not found to exhibit significantly different expenditure patterns compared to a control group and cannot therefore be argued to invest differently in assets. This key finding provides evidence that the CSG primarily addresses the symptoms of poverty and cannot be expected to generate sustainable poverty reduction. A 'linking' approach is thus proposed to combine the cash transfer element of the grant with more explicitly promotional measures in order to seek greater asset effects. A key recommendation is to ensure that the CSG acts as a gateway to other complementary services and benefits in order to increase the value of the grant with relatively little additional effort or cost.*

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# LIST OF ABBREVIATIONS

| | |
|---|---|
| **ANC** | African National Congress |
| **APF** | Anti Poverty Framework |
| **APS** | Anti Poverty Strategy |
| **ASGISA** | Accelerated and Shared Growth Initiative for South Africa |
| **BRAC** | Bangladesh Rural Advancement Committee |
| **CA** | Capabilities Approach |
| **CDA** | Child Development Account |
| **CSG** | Child Support Grant |
| **FBO** | Faith-Based Organisation |
| **FGT** | Foster, Greer, Thorbecke |
| **GDP** | Gross Domestic Product |
| **GEAR** | Growth, Employment and Redistribution |
| **HDI** | Human Development Index |
| **IGVGD** | Income Generation for Vulnerable Group Development |
| **NGO** | Non Governmental Organisation |
| **NIDS** | National Income Dynamics Study |
| **OFSP** | Other Food Security Programme |
| **PIH** | Permanent Income Hypothesis |
| **PSNP** | Productive Safety Net Programme |
| **RDP** | Reconstruction and Development Programme |
| **SALDRU** | Southern Africa Labour and Development Research Unit |
| **SASSA** | South African Social Security Agency |
| **SOAP** | Social Old Age Pension |

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# 1. INTRODUCTION

South Africa, with a population of 49 million, exhibits the largest and most sophisticated economy in Africa and is well positioned to compete internationally in many industrial sectors. However, with a Human Development Index (HDI) rank of 129 in 2009 (United Nations Development Programme, 2009), there is no doubt that South Africa is underperforming for a country of its income levels. A history of resource-led growth and apartheid policies has resulted in an economy characterised by high levels of unemployment, poverty and inequality existing concomitantly with globally competitive industries (Mayer & Altman, 2005). Consequently, South Africa has become one of the most unequal societies in the world: the Gini coefficient, which provides a measure of income inequality, was estimated at 0.67 in 2009 (The Presidency, 2009)[1]. Poverty is a major problem throughout the country with the percentage of the population living below a R283 per month poverty line reaching 22% in 2008 (*ibid*.: 26).

In attempting to address poverty in South Africa, the national government has chosen a strategy largely focused on unconditional cash transfers (Republic of South Africa, 2009b). While these grants appear to have been relatively successful in alleviating income poverty among recipients and thereby easing the *symptoms* of poverty, what is less clear is what effect social grants are having on the underlying *causes* of poverty. In order to understand the likely impact on longer term poverty reduction, as opposed to current poverty alleviation, this distinction is critical.

There is a growing literature examining various impacts of South Africa's social grants, for example health, schooling and employment outcomes (see Section 3.2). However, given that the purpose of these grants is, first and foremost, to provide income support (Republic of South Africa, 2009b), it is interesting to note that within this literature there is no discussion of the rationale for examining these non-monetary impacts. While it may seem obvious that such analyses are warranted, it is important that any evaluation of programme impacts, whether direct or indirect, can establish a clear justification for *why* these impacts are important, rather than simply presenting them in isolation. Otherwise, the relevance of the findings may be unnecessarily undermined.

Accordingly, the overall goal of this paper is twofold: to attempt to fill this gap by developing a sound conceptual framework within which social grants can be appraised; and to examine the likely longer term poverty impacts of the grants system. Focusing on the Child Support Grant (CSG),

[1] The Gini coefficient lies between 0 and 1 with 1 representing complete inequality and 0 perfect income equality.

this analysis will assess the extent to which the CSG is performing a 'promotional' role by enhancing the capabilities of recipients to make choices about their future. Two research tools will be employed to achieve these objectives: a critical review of the relevant literature will inform the construction of a conceptual framework; and a quantitative analysis of empirical data will be used to assess the longer term poverty effects of the CSG. The specific research method applied is discussed in depth in Section 4.

To develop a conceptual framework within which to situate the social grants literature, it is first necessary to examine the evolution of the concept of poverty to establish exactly what these cash transfers are attempting to deal with. Having done so, the concept of social protection, which encompasses unconditional cash transfers, can be explored with a view to establishing a reasonable benchmark against which to appraise the CSG. Only once this conceptual framework has been constructed and a clear idea of what anti-poverty measures such as the CSG are actually trying to do is it appropriate to examine the impacts of the grant on the long term poverty situation in South Africa.

The specific objectives of this research are thus to:

1. Examine the evolution of the concept of poverty;
2. Critically assess the role of social protection in addressing poverty;
3. Construct a logical and relevant conceptual framework within which to appraise the poverty impacts of South Africa's social grants;
4. Establish the current poverty situation in South Africa;
5. Analyse the likely impact of CSG receipt on future poverty reduction in South Africa;
6. Formulate options for enhancing the poverty impacts of the CSG.

The structure of this paper is as follows: Section 2 will first tackle Objectives 1 and 2 by examining the broad literature on poverty and social protection before addressing Objective 3; in so doing, this section will contextualise the subsequent empirical analysis, as well as the broader social grants literature. Section 3 will then address Objective 4 by briefly outlining the poverty situation in South Africa since the end of Apartheid and reviewing the main policy tools that have been employed in attempting to tackle it. Section 4 will outline the method used in the expenditure analysis before the results are presented in Section 5. Section 6 then focuses on what these results mean for asset-building and the longer term escape from poverty; these three sections collectively contribute to Objective 5. In response to Objective 6, Section 7 will present a brief review of three case studies pursuing a combination of protective and promotional measures to address poverty,

before using these experiences to inform a range of options for expanding the CSG. Section 8 concludes.

This research will contribute to the South African social grants literature in three distinct ways: firstly, by developing a coherent conceptual framework it will contextualise the existing literature by providing the previously unstated rationale for appraising the socio-economic impacts of the grants, as well as developing a framework within which to situate future analyses; secondly, having demonstrated the importance of assets for sustainable poverty reduction, the empirical analysis will examine the extent to which the CSG can be expected to generate such longer term poverty impacts; and thirdly, some future policy directions will be proposed and considered.

# 2. CONCEPTUAL FRAMEWORK

To situate my analysis within the broader poverty reduction literature and establish the conceptual framework that will inform the remainder of this study, I will first review the evolution of the concept of poverty, as a clear understanding of what is meant by this term will be crucial to the subsequent analysis. I will then turn to an examination of the role of social protection as an anti-poverty measure in order to establish a benchmark against which South Africa's CSG can be examined. In terms of the specific objectives of this study, this section will address Objectives 1-3 as detailed in Section 1.

## 2.1 WHAT DO WE MEAN BY POVERTY? FROM TRICKLE DOWN TO CAPABILITIES

As articulated by Kanbur and Squire (2001), the definition of poverty has evolved dramatically since development economics emerged as a discipline. Beginning with an initial focus on monetary income, the notion of poverty grew to reflect the multiple dimensions of wellbeing; first by embracing additional aspects of living standards, such as literacy and health, before developing further to reflect an improved understanding of the problems of vulnerability and social and political exclusion. As the understanding of poverty has expanded to recognise the multiple dimensions of deprivation, research has frequently found little overlap between these different facets (Cling et al., 2003), such that focusing solely on income is now widely regarded as insufficient. The complex nature of this refined understanding of poverty is particularly well elucidated in the freedom-centred capabilities approach (CA) to development advocated by Amartya Sen and others.

The CA represents an important shift in thinking about development by recasting development not as increased income per capita, but rather as the enhancement of 'substantive freedoms' (Sen, 1999). According to this view, development takes place when people are better able to lead the sort of lives they have reason to value. The CA underpins the United Nations's Human Development Reports and has become a dominant perspective among development theorists and practitioners. The concept of capabilities offers a unique evaluative framework, viewing justice as equality in the space of capabilities. Sen (1999) notes that the expansion of freedom is both the end and the means of development and that the growth of one kind of freedom often promotes the expansion of another, thus all are necessary elements of the development process.

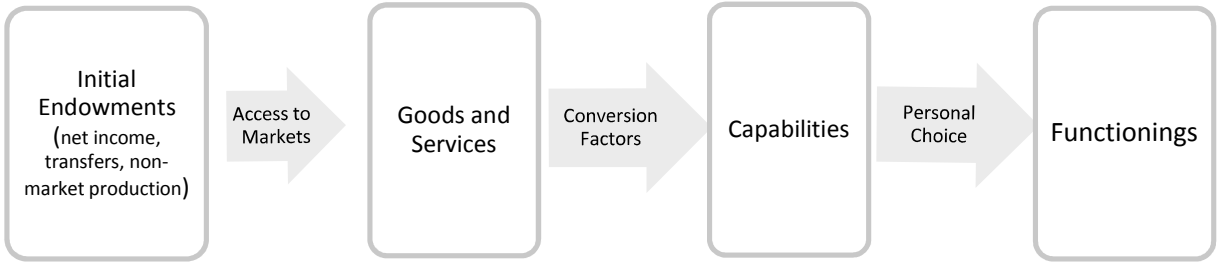
Development, rather than focusing on Gross Domestic Product (GDP) per capita, becomes concerned with expanding individual freedoms, thereby applying a more human-centred view. Of course income remains extremely important in a capabilities view of development but it is *instrumentally* valuable to development, rather than an end in itself. The CA is also unique in focusing on individual agency, rather than seeing people as passive recipients of development projects. Within this framework, the beneficiaries of development interventions are recognised as active agents of change, capable of affecting their own lives and societies. People are at the heart of development and the focus is shifted to what they are able to do and to be, rather than how much income they have.

The CA has diverse roots in the work of Adam Smith, Karl Marx and Aristotle and shares some principles with the work of John Rawls, in its focus on freedom of choice. However, Sen rejected Rawls's focus on primary commodities, instead emphasising the heterogeneity of people and recognising that a person's capabilities are determined not just by endowments of goods and services but also by personal, social and structural 'conversion factors' that allow people to transform those goods into capability sets from which they can then choose a set of functionings (Sen, 1985).

This recognition that tackling poverty requires simultaneous attention to both initial endowments and the ability to convert these into capabilities is largely what sets the CA apart from its predecessors: the focus on GDP per capita encouraged policies aimed at raising growth; subsequent attention to redistribution introduced measures for more equitable distribution of existing resources; but only the CA recognises the concurrent need to focus on conversion factors to achieve equality in the space of capabilities. Figure 1 provides a simple representation of this conversion of initial endowments of the means to achieve into achieved functionings in the CA.



FIGURE 1: THE CONVERSION OF ENDOWMENTS INTO FUNCTIONINGS IN THE CAPABILITIES FRAMEWORK



### 2.1.1 Practical application

While the CA provides a theoretically attractive approach to understanding poverty, the framework is often considered difficult to operationalise, thereby diminishing its practical value. Sen, in contrast to fellow CA advocate, Martha Nussbaum, has always refused to specify a list of capabilities that should be pursued; arguing instead that the explicit objectives of any nation following a CA methodology must be set by the democratic process rather than prescribed by theorists (Sen, 2004). This debate has important implications for the practical applicability of the approach as an anti-poverty framework. In a critique of Sen's work, Navarro (2000) stresses the importance of ordering the freedoms according to priority. Indeed, without an explicit list of capabilities the value of Sen's approach as a direct guide to policymaking is somewhat limited. Nonetheless Sen's assertion that the precise priorities of any given state should be determined from within is a valid one, as social, political and cultural context is vital in determining an appropriate path for development.

Rather than the lack of a prescribed capabilities list, I would argue that the main practical limitation of the CA lies in the somewhat nebulous and intangible concept of capabilities. A person's capabilities cannot be observed, only the functionings that they select from the opportunities available to them. An adult without a job, for example, may be excluded from the labour market in a way that restricts their capability to work; or they may simply be choosing leisure over paid work. Without being able to measure capabilities directly, it is difficult to ascertain what effect policies are having on them. Moreover, Sen argues that the substantive freedoms are not substitutable but rather progress must be made in all dimensions. In reality, however, policymakers will be faced with trade-offs between different objectives due to competing demands upon scarce resources. In order for the CA in its current form to influence decision making, some degree of trade-off must therefore be accepted, yet the theoretical literature offers little guidance on how to make such decisions.

The difficulty in implementing the CA in practice highlights an important distinction between the needs of policymakers and those of theorists in the field of development: while academic discussion of a capabilities approach may be content to focus on *why* policy should look beyond economic growth and focus on enhancing the capabilities of the poor; the practical application of the approach requires explicit detail of *how* this is best achieved. A constructive poverty framework requires both a strong theoretical rationale and clear practical applicability to policymaking, yet it seems that the CA may have developed somewhat unevenly in these dimensions. Nevertheless, having convincingly demonstrated the shortcomings of the poverty

frameworks that preceded it, the weaknesses of the CA are not sufficiently damaging to reject it outright, but rather provide grounds to further develop it into a more workable form.

### 2.1.2 The Role of Assets

Combining the CA with asset-based approaches to poverty might offer one way to do just that. Unlike the concept of capabilities, assets are more tangible and easier to observe in practice. Asset theory contends that asset ownership provides individuals and households with considerable social, economic and psychological benefits as well as enhancing stability and self-esteem (Curley et al., 2009). Closely related to the CA, this view sees capabilities 'to be and to do' as stemming from an individual, household or community's asset holdings (Bebbington, 1999). The extensive asset literature generally defines an asset as a "stock of financial, human, natural or social resources that can be acquired, developed, improved and transferred across generations" (Ford Foundation, 2004: 9). Household assets are important in understanding poverty dynamics as well as providing a more forward-looking appreciation of poverty than basic income measures can offer. Assets generate agency for the holder in a way that income per se does not. A lack of assets, or constraints on the capacity to utilise what assets are held, can lead to an individual or household experiencing poverty (Carter & May, 2001).

An important feature in the evolution of the concept of poverty has been the recognition, largely through the participatory approaches popular in the 1990s, of the importance of risk and vulnerability to people's lives (Narayan et al., 2000). It is often argued (e.g. Barrientos et al., 2005; Holzmann & Kozel, 2007) that income poverty imposes a 'vicious circle' whereby the poor are unable to pursue high-risk/ high-return activities as they lack the buffers necessary to cushion themselves against potential loss. Indeed one of the main arguments in favour of providing cash transfers, such as the CSG, is that even a small amount of regular income can provide the means to invest in riskier opportunities (Alderman & Hoddinott, 2007). However, the relationship between poverty and risk behaviour may not be as simple as low income perpetuating itself through risk aversion. Mosely and Verschoor (2005) find risk aversion to be largely unrelated to income levels whereas a strong link is found between risk behaviour and assets. Using experimental techniques, the authors find evidence that low returns on assets contribute to keeping asset levels low, thus affecting the ability to manage risk, which in turn affects income poverty.

This finding that low asset levels perpetuate poverty is supported by Carter and Barrett (2006), who trace the development of poverty measurement from the 'first generation' static income or

expenditure poverty lines through to their fourth generation dynamic asset poverty threshold. The literature on asset thresholds argues that there is some critical threshold in the space of assets below which escape from poverty is virtually impossible without outside intervention (Carter & Barrett, 2006). While this argument could be regarded as somewhat simplistic in that it implicitly assumes all assets can readily be aggregated into a single measure (Dercon, 2007), the implications of an asset threshold remain valid and important, regardless of whether a numerical value can be applied.

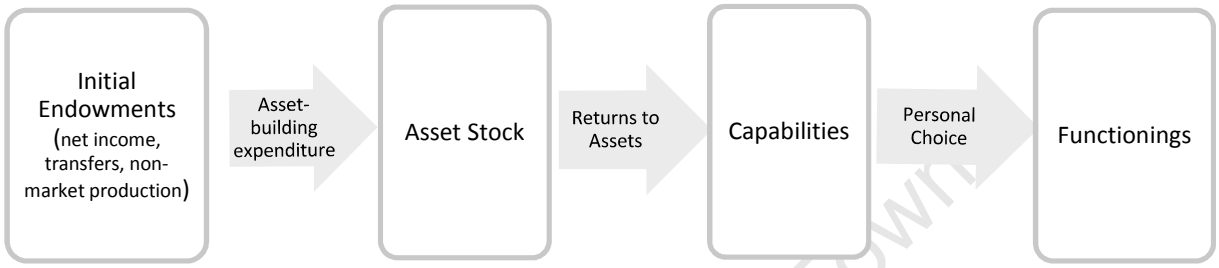
Assets come in many forms, including physical and health human capital assets which can be classified as 'protective' or 'preventative' by providing a vital cushion against shocks that might otherwise push households into poverty. Financial or educational human capital assets, on the other hand, can be considered 'promotional', in that they can actually lead to improvements in a household's poverty status and ultimately facilitate escape from poverty (Moser, 2006). Assets are argued to provide positive 'asset effects' in excess of their financial value as those holding assets expect to enjoy greater wellbeing in the future and thus behave differently from those expecting a future mired in poverty. An asset-centred approach therefore appears to offer a useful alternative to the CA: maintaining the multidimensionality and agency focus of the CA, while shifting the relevant measure of development from difficult-to-define 'capabilities' to the more observable 'assets'.

However, a potential weakness of focusing on assets alone is the implicit implication within the literature that development policymakers and practitioners should be interested in asset-building for its own sake, rather than as a means to enhancing freedoms. Although this may not have a significant impact on policy choice, this reasoning could obscure the ultimate goal of development: namely, enhanced capabilities. By taking the CA as a starting point but employing assets as the relevant observable measure of poverty, this paper therefore combines the strengths of both approaches and proposes an 'assets-augmented' capabilities framework within which to address the stated research objectives. Adapting the process depicted in Figure 1, the conversion of endowments into functionings within this alternative framework is illustrated in Figure 2.

Individuals convert their initial endowments, which might include net income, government transfers, remittances or non-market production, into a stock of assets. This is achieved through household expenditure directed towards asset building, as opposed to current consumption. The returns to these assets generate the individual's capability set, from which they can then select their preferred functionings.

The integration of assets into the CA adds a more concrete conception of how capabilities can be enhanced. Within this framework, a person's capability set, their ability to do and to be, is determined by their ability to convert resources into assets through asset-building expenditure as well as by the returns they can expect to earn from those assets.

FIGURE 2: THE CONVERSION OF ENDOWMENTS INTO FUNCTIONINGS IN THE ASSETS-AUGMENTED CAPABILITIES FRAMEWORK






It is worth drawing attention to an important shortcoming of the assets literature that may be relevant in evaluating the impacts of the CSG. Incorporating an assets perspective offers a useful resolution to the practical problem of non-substitutability of capabilities by shifting the objective of policymaking from the broad 'expanding capabilities in all dimensions' to the more specific 'protection and enhancement of assets'. However, the current asset literature could be argued to occupy the other extreme, in that there is an implicit assumption that 'an asset is an asset', thereby implying perfect substitutability. While it is generally recognised that assets come in many forms, from physical through to human capital and the more intangible social assets, policymakers could draw little guidance from the literature in terms of, say, whether an optimal mix of assets exists; whether or how certain assets should be prioritised when designing anti-poverty initiatives; or whether there is a role for sequencing in asset-accumulation.

While the asset literature sheds little light on these questions, it is worth bearing the heterogeneity of assets in mind when examining the asset implications of the CSG. It is tempting to speak of 'assets' as a homogeneous group, however in reality they vary in a number of important dimensions; such as initial investment cost, expected returns, resilience to shocks and the ability to transfer ownership or convert into cash. Distinctions can also be drawn between private assets that lie at least partly within control of the individual, and public assets that largely depend on state provision. With this in mind, it seems likely that a household's chances of escaping poverty, and the duration of the process, depend not only on the level of assets they hold but also the composition of their asset portfolio. Moreover, in the same way that capabilities are interrelated,

assets too are closely interlinked. The expansion of one asset, such as health human capital, often facilitates the ability to accumulate another, such as education.

In light of these advances in our understanding of what it means to be poor, it is clear that any successful poverty reduction strategy must incorporate a multifaceted conception of poverty that focuses on the extent to which projects and policies can improve the lives of the poor by protecting and enhancing their assets. Within an assets-augmented capabilities framework, income, including that from social grants, is not an end in itself but rather a means to reducing poverty by expanding the freedoms of the recipients to make active decisions that will boost their asset holdings and, consequently, their ability to be and to do.

## 2.2 WHAT IS THE ROLE FOR SOCIAL PROTECTION IN TACKLING POVERTY?

With a broader understanding of what it means to be poor, the policy levers available to tackle poverty naturally expand beyond those associated with a simple focus on economic growth. One such lever which has risen rapidly up the international development agenda is social protection. Over the last decade, social protection has become an increasingly important topic within international development discourse (Carter & Barrett, 2007; for a review of the factors driving the emergence of social protection see Guhan, 1994), partly due to the understanding that social protection can facilitate the achievement of larger development goals, such as economic growth or the Millennium Development Goals (Devereux & Sabates-Wheeler, 2007; Davies et al., 2008). Moreover, multilateral institutions have moved towards a consensus regarding the critical importance of social protection in developing countries for tackling poverty and vulnerability (Barrientos et al., 2005: 9). Yet, despite the increasing significance of social protection, there remains increasing disagreement about what the concept actually means (Conway & Norton, 2002).



### 2.2.1 Defining Social Protection

Norton, Conway and Foster (2002: 543) define social protection as "public actions taken in response to levels of vulnerability, risk and deprivation which are deemed socially unacceptable within a given polity or society". The authors affirm that this definition refers only to measures intended to protect those who currently are, or are likely to fall, below acceptable livelihood levels either temporarily or for the longer term, rather than those attempting to promote "a general

standard of opportunity and livelihood for all citizens" (Norton et al., 2002: 544). This supposedly follows a distinction made by Drèze and Sen (1989), who recognise the dual role of what they term 'social security': that is, *preventing* deterioration in current living conditions and actively *promoting* improved living conditions, including eradicating persistent deprivation.

While this distinction is certainly useful in clarifying what a given intervention aims to do, Drèze and Sen (1989) rightly recognise that the two aspects, prevention and promotion, are closely interrelated. Norton et al. (2002), on the other hand, by restricting their conception of social protection to the former, seem to be taking an unnecessarily narrow interpretation of their own definition. Where poverty is a deficiency in 'substantive freedoms' and justice is determined by equality in the space of capabilities, a socially unacceptable level of deprivation could reasonably be expected to include one which precludes the capability to influence one's own development through protecting and enhancing one's asset holdings. Moreover, given the importance of individual, household and community agency within the CA framework, an enforced passivity due to confinement beneath the dynamic asset threshold is in itself an important form of deprivation that can and should be addressed by social protection, even within the definition offered by Norton et al. (2002) This paper therefore follows the definition presented above while interpreting it less restrictively than its authors do.



### 2.2.1 Defining Conditionality

It is important to recognise up front that the notion of 'conditions' as applied to social grants could be separated into three distinct issues. Receipt of a protective grant might be conditional on participation in a complementary promotional programme; conditionality could be imposed within each type of protective or promotional support by requiring a particular action of the recipient, such as attending school; or conditionality could simply refer to the qualification parameters, such as income level or age.

The Child Support Grant in its current form is only conditional in the last sense as it is not required that recipients take part in any other programmes or undertake any particular actions. Throughout this paper, the term 'conditional', as applied to social protection measures, refers to the second type of conditionality identified. Similarly, *un*conditional cash transfers refer to those that do not require the recipient to undertake particular actions. Where disbursement of a social grant is dependent on participation in complementary promotional programmes, this will be referred to as

a ‘promotion-dependent grant’. A grant that sets specific qualification parameters, as opposed to universal provision, will be referred to as ‘targeted’.

### 2.2.3 Can Social Protection Address Chronic Poverty?

The debate between broad versus narrow conceptions of social protection is broadly akin to the question of whether social protection measures are capable of, or indeed appropriate for, addressing chronic poverty. While a protective-only framework could benefit the chronic poor by keeping them above some socially-determined level of ‘acceptable’ deprivation, it would, by definition, stop short of actively supporting these households to ‘get ahead’. In other words, protective measures can alleviate the symptoms of poverty by, say, providing income support or protection of existing livelihoods, but they are unlikely to tackle the root causes that perpetuate poverty. Within a broader social protection framework, however, there becomes a clear role for addressing chronic poverty (Barrientos et al., 2005; Devereux, 2002). Moreover, as Devereux (2002) observes, due to the fungibility of household income, while the distinction between ‘protective’ and ‘promotional’ measures may be straightforward in theory, in reality any transfer can be directed towards current consumption or productive investment, or various combinations of both.

So social protection measures such as targeted cash transfers can, at least in theory, have an impact on chronic poverty via asset-building by providing recipients with the means to invest in their own future. However, the extent to which this will take place in reality may be affected by a number of factors; not least the presence of asset poverty traps that hold the poor in low asset equilibria. As Dercon (2007: 40) points out, in the presence of asset poverty traps, “regular small transfers have zero impact in terms of chronic poverty” because, unless transfers are sufficiently large to overcome the threshold, recipients simply absorb the additional income and quickly fall back to the initial equilibrium.

Carter and May (2001) contend that the distinction between chronic and transitory poverty is misleading and what policymakers should focus on is the distinction between stochastic and structural poverty. The former refers to households or individuals that are observed to be poor based on consumption measures but hold asset levels in excess of the asset poverty line. Structural poverty, on the other hand, occurs when assets held lie below the asset poverty line. A critical difference between the groups is that the stochastically poor can be expected to eventually escape poverty over time, whereas the structurally poor would require fundamental changes to

underlying social, economic or political structures in order to do so. This more nuanced view of poverty fits well within a CA approach, which recognises the importance not just of endowments of goods and services but also the critical role of structural conversion factors that determine the returns that can be obtained from these and therefore the likelihood of escaping poverty. As Devereux (2002) concludes, "cash injections without structural transformation mean unsustainable outcomes." The pertinent question for this study, then, is whether this structural change can come from household agency effects generated by cash transfers or whether it must come from additional, parallel measures.

## 2.3 SUMMARY AND RATIONALE FOR RESEARCH METHODS

The CSG provides much-needed cash transfers to low-income families with children thereby giving much-needed and reliable assistance to vulnerable people. Given this, rather than discussing expenditure impacts for their own sake, it is important to be explicit about why we actually care about the impacts of the grant beyond the income support function. As the current literature on South African social grants does not answer this question explicitly, this paper has attempted to construct an appropriate conceptual framework that distils current thinking about poverty and social protection in order to conceptualise the role of social grants and provide a means by which to appraise their impacts. Within the framework developed, grant income, like any other source of income, provides a means to reducing poverty by expanding assets and, in turn, the ability to be and to do. Examining the extent to which this impact is realised will thus provide insight into the question of whether grants are addressing the causes or merely the symptoms of poverty.

Even if the CSG is found to have no significant impact on the expenditure patterns of recipient households, it remains the case that, in the absence of the grant, these households would be consuming or investing less than they otherwise do. Nevertheless, if, as the literature suggests, even those social protection mechanisms intended to be preventative can bring about promotional outcomes, it is pertinent to ask whether the CSG in its current form is one such mechanism, as this has important ramifications for the likelihood of recipient families eventually escaping poverty. Moreover, within this conceptual framework, which sees the inability to influence one's own development through asset-building as an aspect of poverty, there is an important overlap between protection and promotion.

An asset-based framework recognises that social and economic development cannot focus solely on current consumption and that a household's income flow will often fall short of providing the

resources necessary for longer term development. While income support can provide invaluable assistance to the poorest households, cash transfers alone may not be adequate to strengthen the recipient's capacity to shape his or her own future and address these longer term objectives. The literature on asset thresholds and poverty traps thus provides further rationale for investigating the asset impacts of the grant. Doing so can provide insights into whether the CSG is lifting recipient households over the threshold, wherever that may lie, or whether they are generally remaining at low asset equilibria after grant receipt. If CSG recipient households are not found to invest more in assets, this could indicate the presence of an asset poverty trap which the grant is not large enough to overcome. In this case, the CSG operating in isolation may be addressing the symptoms but not the underlying causes of poverty for these households.

# 3. THE POVERTY SITUATION IN SOUTH AFRICA

Turning now to Objective 4 as described in Section 1, this section will briefly review the poverty situation in South Africa in the post-Apartheid era and the broad policy responses attempting to address it; specifically presenting an outline of the history of the system of social grants in South African. The CSG, a key component of the social grants system, which has become the leading anti-poverty device during this period, will then be introduced before reviewing the existing literature on this transfer in light of the conceptual framework developed in the preceding section. This contextual discussion will set the scene for the subsequent empirical analysis and, by providing a clear overview of the current position, it will establish the magnitude and complexity of the poverty problem facing South Africa today.

## 3.1 BACKGROUND: POVERTY AND POLICY

Following the end of Apartheid in 1994, the African National Congress (ANC) administration inherited a legacy of striking inequalities between racial groups[2] with huge structural disparities in basic infrastructure and service delivery as well as high crime rates and escalating prevalence of HIV/ AIDS (Hoogeveen & Özler, 2006). The country has since made considerable progress on several key macroeconomic indicators, with GDP growth averaging 3% between 1994 and 2003, rising to over 4% each year until the onset of the global recession in 2008 (McGrath & Akoojee, 2007). Nevertheless, South Africa's consistently poor performance in global comparisons of poverty and inequality indicators belies its status as an upper middle income country[3].

There is some disagreement in the literature regarding poverty trends between 1994 and 2000, with some finding an increase and other work finding a reduction, although the latter tends to show that, although incidence has fallen, the depth of poverty has worsened (Leibbrandt et al., 2010: 17). Since 2000, the consensus seems to be that money-metric poverty has declined but not substantially. Non-money measures of poverty provide a relatively more positive picture with evidence that access to services such as housing, water and electricity have improved substantially

[2] This paper will follow the convention in the local literature by referring to four major population groups: Africans, Coloureds, Asians/Indians and Whites.

[3] South Africa had a GDP per capita of US$9,757 in purchasing power parity terms in 2008 (United Nations Development Programme, 2009)

in the post-Apartheid period although access to key services remains divided along racial lines (*ibid*.).

South Africa's long run development trajectory has generated one of the most unequal societies in the world, with a strong racial dimension to that inequality. Leibbrandt et al. (2010) demonstrate that average real incomes rose for all population groups between 1994 and 2008, including for Africans, the poorest group. Nonetheless, many of this group remain in acute poverty and, regardless of the poverty line used, "Africans are very much poorer than Coloureds who are very much poorer than Asians/ Indians, who are poorer than whites" (Leibbrandt et al., 2010: 9). The geographic and human capital legacies of the Apartheid era have proven extremely difficult to reverse and these features continue to affect the human development potential of most South Africans.

An important issue in both international and South African poverty literature is the extent to which experienced poverty among citizens is chronic; that is, how far households are restricted from getting ahead by various 'poverty traps' (Aliber, 2003: 473). Applying the work of Carter and Barrett (2006), Adato, Carter and May (2006) analyse asset dynamics between 1993 and 1998 and find evidence of a dynamic asset poverty threshold in South Africa. This work suggests bifurcated asset accumulation, pushing those below the threshold to a low level equilibrium from which it is difficult to escape. Similarly, Woolard and Klasen (2005) analyse income mobility in the same period and find four types of poverty trap, relating to household size, education level, employment access and asset levels. These findings highlight the critical importance of addressing underlying structural inequities if significant inroads are to be made in tackling the many dimensions of poverty experienced in South Africa.

Soon after the 1994 election, the government outlined its plans to address the inequalities of the past in the Reconstruction and Development Programme (RDP), which afforded top priority to providing access to healthcare, education, employment and land but offered little detail on the country's macroeconomic direction (Aliber, 2003: 475). Two years later the Growth, Employment and Redistribution (GEAR) framework, a standard export-driven macroeconomic formula for growth, was launched, superseding RDP as the primary focus of government activity (Aliber, 2003). GEAR, however, was premised on strong assumptions about expected GDP and employment growth rates that did not materialise (Hoogeveen & Özler, 2006).

The Accelerated and Shared Growth Initiative for South Africa (ASGISA), published in 2006, replaced GEAR and contained the primary objectives of halving unemployment and poverty by

2014 (Republic of South Africa, 2006). ASGISA recognises that, despite economic growth and the rollout of a social grant programme, a significant proportion of South African households remain unable to benefit directly from the economic development of the country.

With the realisation that significant inroads in poverty reduction are yet to be achieved, a Draft Anti Poverty Strategy (APS) was released in 2009 by The Presidency. This document rightly recognises that "systemic changes" are needed and that these must "bring about more equitable access to assets and education" (Republic of South Africa, 2009b: 3). On paper, the APS acknowledges the main cause of poverty to be reduced asset bases (*ibid*.: 21). It is unfortunate therefore that no detail is given on how these asset bases will in fact be strengthened. The closest the APS comes to specific policies once again follows a standard neoclassical growth path, seeking a "high rate of savings and investment and rising productivity" (Republic of South Africa, 2009b: 28).



## 3.2 SOCIAL GRANTS IN SOUTH AFRICA

In parallel to the various macroeconomic strategies intended to grow the economy, the post-Apartheid government has launched "a bewildering array of anti-poverty initiatives, programs, and projects" (Aliber, 2003: 483). However, government efforts to tackle indigence directly have focused predominantly on a system of unconditional social grants for vulnerable groups. Given the failure of post-Apartheid South Africa's macroeconomic strategies to generate substantial reductions in poverty and deprivation, these social grants remain the principal weapon in the fight against poverty. Consequently, and having established the potential of social protection measures to tackle chronic poverty in Section 2.2, this paper is concerned with the likely long term effects of these cash transfers. The stated aim of the social protection system is a largely protective role, with income security cited as the primary rationale for the transfers (Republic of South Africa, 2009a: 6). However, the distinction between protection and promotion is not always straightforward and, to understand the potential of the CSG to address the underlying causes of poverty, it is important to look beyond the intended protective role to investigate whether any promotional impacts can be detected.

The post-Apartheid government inherited a well-developed system of social grants, atypical of middle income countries (Van der Berg, 1997). Since then, social protection provisions have been actively reformed and extended (Leibbrandt et al., 2010: 52). The system of means tested unconditional cash transfers to the elderly, disabled, and carers of young children was initially

established to provide social security to the white minority, but was later extended to cover all population groups. Total expenditure on social grants transfers has risen from R57 billion in 2006-07 to R71 billion in 2008-09, representing around 3.2% of GDP (South African National Treasury, 2010: 105).

### 3.2.1 The Child Support Grant

The CSG was introduced in 1998, replacing the State Maintenance Grant following the recommendations of the Lund Committee. The CSG is administered by the South African Social Security Agency (SASSA) and originally involved a number of conditionalities, with recipients expected to take part in various 'development programmes' and demonstrate that the beneficiary children were up to date with immunisations. These conditions were subsequently dropped when it became clear that such services were simply not available to many applicants (Woolard & Leibbrandt, 2010).

At its introduction the grant provided R100 per month to the primary caregiver of children under seven. The means test was initially based on household income but later revised to consider only the personal income of the caregiver and his or her spouse. Between 1998 and 2008 the means test did not change in nominal terms but a reform in 2008 changed it to ten times the value of the grant, such that it rises in line with the grant value (Leibbrandt et al., 2010: 54). The grant is currently R250 per month per child, thus the means test value is R2,500.

The age limit for CSG eligibility has similarly been adjusted over time, with the initial limit of 7 being extended to cover those up to age 9 in 2003, 11 in 2004, 14 in 2005 and 15 in 2008 (ibid: 54). As of January 2010, the eligible age was extended to 18 thereby substantially increasing the number of qualifying families. In 2008-09 8.8 million children benefited from the CSG nationally, making it by far the biggest social grant in terms of reach (South African National Treasury, 2010: 105). Delany et al. (2008: 51) estimate that around 69 per cent of CSG recipients collect the grant in cash each month and 27 per cent have the money paid into a bank account.

There is a growing body of literature concerned with assessing the impacts of social grants, although this has largely focused on the Social Old Age Pension (SOAP) to date[4]. The SOAP has a

[4] For example, Posel et al (2006) look at the effects of household SOAP receipt on migrant labour and find a positive and significant effect for rural African women; Duflo (2000) finds a positive effect on weight for height and height for

considerably larger cash value, set at a maximum of R1,080 per month from April 2010 (South African Government Services, 2009). A number of studies have estimated the expenditure effects of this grant[5] although similar analysis has not yet been carried out on the CSG. Given that the CSG carries a substantially lower cash value but reaches over three times as many beneficiaries (South African National Treasury, 2010: 105) as well as targeting an entirely different subset of the population, it cannot be assumed that the expenditure impacts would mirror those of the SOAP. Moreover, given this paper's focus on asset-building, it could be argued that households containing young children are of more interest in terms of examining the likely long term effects than those containing pensioners; notwithstanding the substantial overlaps between the two.

The studies focusing on the CSG have analysed various socio-economic indicators, such as school enrolment, nutrition and health outcomes, which all have the potential to generate positive long term feedback effects for the next generation. For example Case, Hosegood and Lund (2005) examine data from KwaZulu-Natal and find that grant recipient children are significantly more likely to be enrolled in school than similarly aged children of comparable poverty levels; Woolard, Carter and Agüero (2005), also using the KwaZulu-Natal data, find that children who received the CSG for two-thirds of the period before their third birthday exhibited significantly higher height-for-age scores; and Agüero, Carter and Woolard (2007) estimate the nutrition effects of the CSG and find that large doses of the grant in the early stages of childhood are associated with increased nutrition, measured by height for age.

When examined through the lens of the asset-based framework developed in Section 2, the CSG literature, and to some extent the South African grants literature in general, primarily examines the effects of transfers on single assets, such as health human capital of children. However, as argued previously, despite the lack of recognition in the literature, assets differ in several dimensions and are closely interrelated, such that examining individual assets in isolation cannot provide a comprehensive picture of likely long term poverty dynamics.

It is therefore important to consider not just the magnitude of asset holdings but also the composition in order to understand the likely impacts for sustainable poverty reduction. The

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age measures of girl children living with a female SOAP recipient but no significant effect for boys or those living with a male pensioner.

[5] For example, Case and Deaton (1998) find that pensioner households tend to spend pension income in much the same way as other income; Maitra and Ray (2003), on the other hand, find that public transfers crowd out private transfers for poor households and that expenditure effects are influenced by who receives the transfer.

particular assets chosen will strongly affect the timescale in which returns can be expected and whether escape from poverty is likely for current or only future generations. It follows that, to gain a more complete picture of these longer term impacts, a broader examination of the potential asset effects is required. This will facilitate an analysis of the extent to which South Africa's social grants system is performing a 'promotional' role as well as an insight into the ability of cash transfers to enhance the freedom of recipients to make choices about their future.

# 4. METHOD

The preceding sections have focused primarily on the first of the twin objectives identified upfront, namely developing a conceptual framework within which to situate analyses of South Africa's social grants. This section and the two which follow will deal with Objective 5, as set out in the Introduction, thereby shifting the focus to the second major goal: examining the likely longer term impacts of the grants system through an examination of the CSG. In light of the conceptual framework proposed, this analysis is critical for ascertaining the extent to which the CSG is indeed influencing asset-building among recipients and, thus, what effect it is likely to have on the underlying causes of poverty. Before presenting the results of the empirical work and considering their implications, the method applied will be comprehensively detailed in this section in order to outline why the chosen method was pursued and any important practical issues arising in the process.

## 4.1 RATIONALE FOR EXAMINING EXPENDITURE PATTERNS

Data limitations preclude longitudinal assessments of the effect of grant receipt on specific households making it difficult to reliably assess the effect of the CSG on asset stocks. However, it is possible to examine asset flows by considering expenditure patterns to determine whether recipient households are investing differently than non-recipients in asset-building. This approach fits well within a capabilities-based framework by focusing on active choices by CSG households, rather than examining side effects of grant receipt. Analysing current expenditure also allows a 'revealed preference' comparison of the priorities of recipient households in relation to non-recipient households.

To examine whether CSG income is being channelled in such a way as to influence asset-building, this empirical analysis seeks to test the hypothesis that **CSG recipient households exhibit significantly different spending patterns from comparable non-recipient households**. It has been established that the grant provides much needed income support to vulnerable households but this analysis aims to establish whether this important component of anti-poverty policy in its current form is capable of making long term and sustainable reductions in poverty.

A key insight of the conceptual framework developed in Section 2 is that monetary income is not important in itself but instrumentally so. Within this perspective, development is concerned with what people are able to do and to be, such that we are interested primarily in how household

income is used, rather than how much is received per se. Examining expenditure patterns permits just such an assessment. The following analysis closely follows the method of Gao et al. (2010), who use a propensity score matching method to examine the expenditure impacts of a cash transfer in rural China. Gao et al. find that grant recipient households spend significantly more on education and health and are thus deemed to be investing grant income primarily in human capital development.

## 4.2 DATA

This analysis uses the first wave of the National Income Dynamics Study (NIDS)[6], a national household panel study administered by the Southern African Labour and Development Research Unit (SALDRU) at the University of Cape Town. The field work was carried out in 2008, with 7,305 households surveyed across the country and each household member completing a separate questionnaire. NIDS examines income, expenditure and consumption patterns as well as a rich set of variables concerned with economic participation, wellbeing, human capital formation and vulnerability.

In order to reduce the recall bias that can occur when attempting to elicit annual figures, the NIDS monetary data focus primarily on monthly values, with income focusing on 'last month' and expenditure on 'the last thirty days'. This may however create some element of lumpiness due to sources of income that are not received on a monthly basis, such as inheritances or remittances. It is not clear whether this will have a significant effect on the results, although, given that this analysis focuses on a subset of the NIDS sample, namely recipients of the CSG and comparable control households, the relative importance of these income sources between the two groups can be examined to assess whether there are any significant differences[7].

Recognising that households derive economic benefit from living in dwellings that they do not pay rent for, the NIDS dataset contains implied rent figures for both income and expenditure; omitting this flow of welfare risks understating the effective income of those who own their own homes. However, as this analysis is concerned with actual monetary values of income that can be invested in assets, implied rental is stripped out of both income and expenditure. However, the value of a

[6] The NIDS data and all supporting documentation and questionnaires are available on the NIDS website at: http://www.nids.uct.ac.za/home/

[7] It is found that average incomes from these sources are broadly equivalent between treated and control groups.

home that is owned does represent an investment in assets and so the significance of this is tested in the sensitivity analysis, which repeats the analysis incorporating implied rent.
In some cases missing income and expenditure figures have been imputed in order to correct for item non-response for specific income and expenditure items. Details of how these imputations have been carried out can be found in Finn et al. (2009) and Argent (2009). These imputations are used in the analysis and, again, for sensitivity, the analysis is also run without any imputed values

## 4.3 THE EVALUATION PROBLEM

The main challenge in evaluating the impact of a programme such as the CSG that is universally available to all who qualify lies in constructing a suitable counterfactual. It is not appropriate to approximate the programme impact by simply comparing the mean outcome of participants and non-participants as these groups will tend to differ in a variety of ways, even in the absence of the programme (Caliendo & Kopeinig, 2008: 1). In order to account for this bias, propensity score matching can be used to approximate a randomised experiment, in which random programme assignment is the only difference between programme and control groups (Gibson, 2003: 447).

In keeping with the notation used in the programme evaluation literature, households can occupy one of two mutually exclusive states, 'treated' or 'control', where treatment in this case refers to receipt of the CSG. Let the binary variable $T_i$ represent the treatment status of household *i*, with $T_i=1$ if treatment is received and $T_i=0$ if treatment is not received. Let $Y_i(0)$ denote the outcome for household *i* under the control scenario and $Y_i(1)$ the outcome under treatment. The treatment effect for household *i* is therefore $Y_i(1) - Y_i(0)$ and the average effect of treatment on the population is $E[Y_i(1) - Y_i(0)]$. However, the evaluation problem arises from the fact that we observe $Y_i = T_i.Yi(1) + (1-T_i).Y_i(0)$ but we can never observe the pair $(Y_i(1), Y_i(0))$ as a household either receives the CSG or it does not. The unobserved outcome, or counterfactual, is not known and so individual treatment effects cannot be seen. One must therefore focus on population average treatment effects (Caliendo & Kopeinig, 2008: 1).

A vector of pre-treatment variables, or covariates, can be observed and denoted $X_i$. We can then construct the propensity score, the conditional probability of receiving the treatment, as:

$p(x) = Pr(T_i=1 \mid X_i=x)$; where $0 < p(x) < 1$

Having calculated propensity scores, these can then be used to construct a weighted counterfactual from the non-treated sample. The kernel matching method allows the construction of kernel weights such that a weighted regression can then be run for each of the outcome variables on a constant, the treatment indicator and the vector of covariates, $X_i$. Estimates of the average treatment effect can thus be attained by comparing outcomes of the treated with a relevant subset of the untreated population. As we are interested in the asset effects of the grant for poor households, the regression is restricted to those households falling into the bottom three income quintiles[8]. In line with Gao et al. (2010), the robustness of the findings are tested by running OLS regressions following the method of Case and Deaton (1998) to examine whether CSG income is spent in the same way as other income. The expenditure outcomes are regressed on both pre-CSG and CSG income and the two coefficients compared to examine whether both income sources are treated in a similar way.

## 4.4 KEY ASSUMPTIONS OF THE MODEL

Two important assumptions lie beneath a reliable estimation of the average effect of receiving the CSG among CSG-recipient households. The first is variously referred to in the literature as the selection on observables, unconfoundedness or exogeneity assumption (Imbens, 2004). This states that, given $X_i$, treatment is random (Rosenbaum & Rubin, 1983; Dehejia & Wahba, 1999). This can be represented by:

$Y_i(0), Y_i(1) \perp T_i \mid X_i$ where $\perp$ denotes independence.

In other words, conditional on the pre-treatment variables, the potential outcomes are independent of treatment assignment. This is clearly a strong assumption and effectively says that all important observable covariates are captured in the specification of the propensity score and, further, that no unobserved variables significantly affect both probability of treatment and outcome variables. The likelihood of this assumption being met depends on how informative the dataset is and whether it is sufficiently rich to account for selection into treatment. Fortunately, NIDS is extremely rich in demographic and socio-economic data.

[8] Based on monthly household income per adult equivalent prior to CSG receipt.

Ideally, all variables included in the vector $X_i$ would have been collected prior to the initiation of the treatment. Unfortunately, in the case of the CSG, this is not possible as the programme has already been in place for several years. However, the specification of the propensity score is carried out by carefully selecting variables that can reasonably be expected to be exogenous by focusing on enduring factors, such as household head's socio-economic status. Moreover, given the intended analysis, care is taken to avoid the use of any 'asset' variables, such as ownership of consumer durables, in the specification as well as any expenditure variables as these form the outcome variables of interest. Therefore, even if the unconfoundedness assumption is not fully satisfied, it is likely to be a reasonable approximation, especially where such a rich dataset is available to provide extensive information about household characteristics.

One important variable that could potentially violate the selection on observables assumption is that of the number of children in the household. If there is evidence that the existence of the CSG actually incentivises childbearing then matching on this variable may introduce bias. However, despite public perception to the contrary, it has been demonstrated (Makiwane & Udjo, 2006) that there is no link between the provision of the CSG and fertility. This is perhaps not surprising given the relatively low monetary value of the grant.

The second assumption, referred to in the literature as common support, precludes perfect predictability of $T_i$ given $X_i$ (Caliendo & Kopeinig, 2008: 4). Formally, the common support assumption requires that:

$$0 < Pr(T_i = 1 \mid X_i) < 1$$

This enforces the condition that households with the same values of X have a positive probability of being both participants and controls (Lechner, 2002: 62). Common support can be further strengthened by removing any treatment observations with a propensity score that is higher than the maximum or lower than the minimum of the control group values. Appendix 1 demonstrates that the common support assumption is met, as the distribution of propensity scores for both groups overlap.

## 4.5 MATCHING METHOD

Using Stata's PSMatch2 module (Leuven & Sianesi, 2003), the propensity of CSG receipt for each household is estimated. PSMatch2 performs propensity score matching to determine the

propensity of CSG receipt for household *i* in demographic group *g* using the following logistical regression model:

$Pr\ (T_i = 1 \mid \sum X_{ig}, \theta_g)$

where $\sum X_{ig}$ represents the sum of socio-demographic factors that may influence the likelihood of CSG participation. The vector $X_{ig}$ comprises the following observed socio-demographic variables: household head's age, years of schooling, employment status, self-rated health condition, marital status and community participation; as well as household level monthly income per adult equivalent less CSG income, province, geo-type, the number of children aged 0-6, children aged 7-14, youths aged 15-18, adults aged 18-39, adults aged 40-60 and pensioners in the household, and whether a household member has been seriously ill or injured in the last 24 months.

A kernel matching method is chosen using an Epanechnikov kernel with a bandwidth of 0.06 and common support is enforced. Unlike nearest neighbour matching, which matches treated households to control households with the closest match in terms of propensity score, regardless of how similar the scores are, kernel matching uses weighted averages of households in the control group to construct a suitable counterfactual. This has the advantage of using more information in the propensity score specification and thus a lower variance (Caliendo & Kopeinig, 2008).

The kernel weights are derived from a kernel function of the propensity score:

$$w_j = \frac{K\left[\frac{\hat{p}(x_i) - \hat{p}(x_j)}{b}\right] . sw_j}{\sum_{j \in \{T=0\}} K\left[\frac{\hat{p}(x_i) - \hat{p}(x_j)}{b}\right] . sw_j}$$

where K(.) represents the kernel function and b is the bandwidth (Branson et al., 2009). The bandwidth determines the subsample of non CSG recipients to be used in the counterfactual and the kernel function determines the importance of each household included for each CSG household. The NIDS survey weights are taken into account, with $sw_j$ denoting these, and the weights are constructed to sum to one.

### 4.5.1 Defining Treatment

The unit of analysis in this study is the household as we are interested in expenditures, which generally take place at the household level. Given that the CSG is received by individuals, there are

a number of ways to define 'treatment'. To illustrate, treatment could either be deemed to occur where a household contains a child for which CSG is received, or where a household contains an adult reporting CSG receipt. In the NIDS dataset, the relevant variables would be w1_c_grcurtyp in the child survey and w1_a_incchld in the adult survey respectively. In the majority of cases, these measures would identify the same households, but in the event that the caregiver receiving the grant is not actually co-resident with the relevant child or if data are missing in one or other of the questionnaires, the two methods would return different results[9].

Since we are interested in the potential effects of receiving CSG income on expenditure patterns, this study will focus on the grant rather than the child; that is, treatment is defined as households in which at least one adult receives the CSG on behalf of a child. A household is therefore classified as a CSG recipient if either (i) an adult reports receiving the CSG or (ii) CSG is reported for at least one child in the household and the person code of the recipient relates to a current household member. Any households reporting CSG in the child survey where the recipient is not resident are not regarded as recipient households.

### 4.5.2 Matching within Strata

Given the unconfoundedness assumption, it is important to consider any observables that may capture additional contextual factors as, if any important variables are not included, households can be mismatched and estimates of treatment effects may be biased. Background differences within population group, for example, might mean that matching a household of a given race with an otherwise similar household of a different race would miss these underlying factors. Similarly, there may be geographic factors which affect the decision to apply for, or access to, grant income. In order to account for this possibility, socio-economic strata were constructed and matching carried out within these.



[9] In 100 households, CSG was reported for at least one child and a current household member identified as receiving the grant income but the adult data did not correspond. In the adult questionnaire, the question on whether CSG is received was either recorded as no or missing. It was assumed that, when the adult variable was missing, these households do in fact receive the grant; but when the adult reported no CSG income, the adult response was given precedence on the grounds that the questionnaire was completed by the individual in question. In this latter case, these households are considered non-recipients.

Care must be taken to prevent strata sizes from becoming too small for matching to be possible. Of all the CSG-recipient households in the survey, 99.1% comprised African or Coloured members[10]. It was therefore decided to focus the analysis on these two groups and exclude the white and Indian/Asian households from the matching, as otherwise the sub-groups would be too small for within-group matching. Disaggregating households by province generated insufficient observations in several provinces so geo-type[11] was selected as a more suitable variable to capture geographic variation; indeed barriers to access are perhaps more likely to be demarcated along urban-rural lines than province boundaries[12]. Population group, an urban/ non-urban indicator and gender of household head were thus used to construct the strata used. The total number of households in each of the defined strata is shown in Table 1. A total of 1,886 treated households and 1,422 control households are included in the analysis[13].

TABLE 1: NUMBER OF HOUSEHOLDS IN EACH MATCHING STRATA

| | **Population Group** | | | | |
|---|---|---|---|---|---|
| | African | | Coloured | | **Total** |
| **Geo-type** | Male | Female | Male | Female | |
| Urban | 452 | 677 | 207 | 179 | 1,515 |
| Non- Urban | 616 | 1,067 | 75 | 35 | 1,793 |
| Total | 2,812 | | 496 | | 3,308 |



### 4.5.3 Definition of Income

Following Gao et al. (2010), matching is based on pre-CSG household income per adult equivalent[14]. Treated households are thus matched to untreated households that are demographically similar but have lower actual incomes on account of not receiving the CSG.

[10] This figure is 98.1% when survey weights are applied.
[11] Geo-types are decomposed into: Urban Formal; Urban Informal; Rural Formal and Tribal Authority Area.
[12] Province dummy variables are still included in the vector $X_i$ and in the subsequent regressions such that any province effects should still be adequately captured.
[13] Households with missing values for any of the $X_i$ variables cannot be reliably matched so are excluded from the analysis. 476 CSG households were eliminated due to missing values and are not included in these totals.
[14] Following Woolard and Klasen (2005), the adult equivalence scale is given by: (adults + 0.5 children)$^{0.9}$

Monthly household income minus CSG income may underestimate pre-CSG income if displacement effects occur following receipt of the grant. Suppose, for example, a household had been receiving remittances from friends or relatives outside the household which are subsequently reduced or stopped when CSG income begins. In this case, the estimated value of pre-grant income will not include the displaced remittance income and could therefore match that household with a control household that is "too poor". Given the relatively low value of the grant this is not expected to be a large effect however the magnitude can be estimated by looking at mean remittance income for the treated and control groups. It is found that average household monthly income from remittances is R151 for treated households and R142 for control households. Conducting t-tests for equality of means finds that these values are not significantly different. The CSG does not therefore appear to crowd out remittances hence no adjustments are necessary to address this effect.

### 4.5.4 Balancing Tests

After matching, the PSTest module (Leuven & Sianesi, 2003) is run to test the balancing of the variables in the vector $X_i$. For each covariate, t-tests for equality of means in the treated and untreated groups are conducted before and after matching. If any of the t-tests indicate the persistence of statistically significant differences between the groups at the 5% level, higher order or interaction terms of the unbalanced variables are used in the matching specification (Dehejia & Wahba, 2002: 161)[15]. To increase the robustness of the matching, 'external' balancing tests are also carried out on a range of variables that are not used in the propensity score specification.

It should be noted that survey weights cannot be applied during the matching process with the PSMatch2 module. There is no consensus in the literature regarding the use of survey weights during propensity score matching (Leuven & Sianesi, 2003). Weights were not therefore applied during the matching specification or in the balancing tests performed by the module. However, by manually calculating the balance of control and treated groups it is possible to compare the results both with and without weighting.

Having completed this process, the effects of CSG receipt on household expenditures are estimated as the regression-adjusted differences in expenditures between treated households and

[15] The additional terms used are: income squared, income cubed, age squared, urban informal x income, Northern Cape x income, Free State x income and Limpopo x income.

untreated control households. Following Gao et al. (2010), the covariates used in the specification of the propensity score, the vector $X_i$ , are included in the regression models. As the authors note, doing so can help eliminate any remaining differences between treated and control households thereby increasing the chance of detecting significant treatment effects (Gibson, 2003; Hill et al., 2003). Ordinary least squares (OLS) regression is conducted to estimate the effects of CSG on a range of outcome variables as follows:

$$O_{ig} = \beta_0 + \beta_1 T_{ig} + \beta_2 X_{ig} + \theta_g + \varepsilon$$

where $O_{ig}$ represents the expenditure outcome of household *i* in matching strata *g*; $T_{ig}$ is the binary treatment variable; $X_{ig}$ is the vector of covariates as described in Section 3.3; $\theta_g$ denotes the within-strata fixed effects; and $\varepsilon$ is a random error term.

### 4.5.5 Outcome Variables

All outcome variables are constructed to examine monthly household expenditure per adult equivalent. As well as examining total expenditure, more detailed spending patterns are considered by decomposing this into twelve major spending categories: food; housing; clothing; health; education; utilities; transport; insurance; household goods; leisure; alcohol, tobacco and gambling; and miscellaneous purchases[16].

Clearly some of these expenditure categories could be more appropriately interpreted as asset-building expenditure than others. Spending on education, for example, would be expected to increase human capital assets; and household goods expenditure could increase the physical assets held. Conversely, spending on alcohol, tobacco and gambling could be seen as detrimental to asset-building, such that only a significant and negative coefficient on this expenditure category could indicate additional asset-building expenditure. Nevertheless, the analysis includes all expenditure categories in order to provide a more complete assessment of household expenditure patterns. Where significant results are found, the implications of the coefficient, and its sign, for the expenditure in question will be explored.

[16] Miscellaneous purchases comprise: cleaning agents, childcare, membership dues, domestic labour, swimming pool maintenance, pets, toys and gifts.

# 5. RESULTS AND ANALYSIS

Following on from the preceding methodological discussion, this section will present the results of the analysis described and discuss their implications in terms of the conceptual framework established in the first part of this study. Unless otherwise specified, the discussion that follows relates to the baseline matching and regression specification, which strips out implied rent, includes imputed income and expenditure values, matches within race, geo-type and gender of household head, and restricts the regressions to households falling into the bottom three income quintiles prior to receipt of the CSG[17]. All estimates presented apply the post-stratified sampling weights provided[18] in order to make the results reflective of the South African population, rather than the NIDS sample.

Appendix 2 shows the balance tests on the mean values of household demographic variables of treated and non-treated households before and after matching. Mean values for non-recipient households before matching are shown in column 1, recipient households in column 2 and non-participants after matching in column 3. It is clear that before matching the CSG recipient households exhibit many significant differences from their non-recipient counterparts. Prior to matching, recipient households had significantly lower incomes, contained on average more than two additional members and were more likely to contain a household member who had experienced serious illness or injury in last 24 months. Moreover, compared to non-recipient households, recipient household heads were older, more likely to be female, had two years fewer schooling and were more likely to be unemployment or not economically active.

The balance tests conducted with survey weights are also presented in Appendix 2. This version also demonstrates strong balance, with only one variable, namely the dummy variable for household head's rating their health status as 'good', remaining significant after matching.

To further test the robustness of the balancing, quintiles of the propensity score are constructed and the balance tests rerun for each quintile. This technique highlights whether balance is broadly achieved throughout the full distribution of propensity scores or whether a subset of the control households is driving the overall balance. For brevity, this analysis is not presented, however it shows that for the bottom three quintiles there are no significant differences between treated and

[17] The results from alternative specifications are presented in the sensitivity analysis in Appendix 6.
[18] The relevant NIDS weight variable is w1_wgt

control households. A number of significant differences do however emerge among the higher propensity score groups, namely the proportion of households living in the Northern Cape and the number of pensioners in the fourth quintile; and in the fifth quintile, the number of households containing a member that has been seriously ill or injured in the past 24 months, household heads that are non-economically active, those that are divorced or separated and households living in the Eastern Cape, Free State, KwaZulu-Natal and Limpopo. However, on the whole, the balance appears to remain fairly strong across the whole sample of treated and control households. For sensitivity, the analysis is rerun using only those quintiles of propensity score for which no significant differences are found.

The balance tests suggest that the assumption of selection on observables is indeed met, as any significant differences between the treated and untreated groups are eliminated when the latter is restricted to the weighted control group. An analysis of propensity score quintiles also demonstrates strong balance, especially among the groups with lower propensity scores. The propensity score matching method therefore appears to allow the construction of a comparable weighted control group based on the covariates included in the specification.



## 5.1 POVERTY IMPLICATIONS

Before investigating the estimated effects of CSG on household expenditures, it is worth briefly examining the impact of household CSG receipt on some basic income poverty measures. The stated purpose of the grant is, after all, to provide income security to vulnerable groups and so the income implications are worth bearing in mind throughout the following analysis. Foster-Greer-Thorbecke (FGT) measures of poverty are presented in Table 2 for the treated and control groups based on income before and after CSG transfer. Following Leibbrandt et al (2010), upper and lower income poverty lines of R515 and R949 per adult equivalent are applied[19].

FGT measures are defined by:

$$P_\alpha = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z-y_i}{z}\right)^\alpha$$

[19] Leibbrandt et al. apply these poverty lines to *per capita* monthly income.

where n is the total number of households; q is the number of households falling below the poverty line; z is the rand value of the poverty line; $y_i$ is the income of the *i*th household; and α can be viewed as a measure of poverty aversion. When α=0, $P_0$ simply returns the poverty headcount ratio, q/n. However, this measure does not capture the extent to which household incomes fall below the poverty line. The poverty gap index, α=1, gives the sum of the income shortfall of poor households as a proportion of the poverty line normalised by total population size. The poverty gap measure can capture income dynamics among subsets of the poor, which would be missed by the headcount ratio. For even greater emphasis on the depth of poverty, the squared poverty gap, α=2 can be used (Foster et al., 1984).

TABLE 2: FGT POVERTY MEASURE ESTIMATES FOR TREATED AND CONTROL HOUSEHOLDS

| POVERTY MEASURE | HEADCOUNT | POVERTY GAP | SQUARED POVERTY GAP |
|---|---|---|---|
| α= | 0 | 1 | 2 |
| Lower poverty line of R515 per adult equivalent per month | | | |
| Control Households | 0.68 | 0.39 | 0.28 |
| Treated Households Before CSG Income | 0.65 | 0.39 | 0.30 |
| Treated Households With CSG Income | 0.56 | 0.25 | 0.15 |
| Upper poverty line of R949 per adult equivalent per month | | | |
| Control Households | 0.89 | 0.59 | 0.44 |
| Treated Households Before CSG Income | 0.86 | 0.57 | 0.44 |
| Treated Households With CSG Income | 0.82 | 0.47 | 0.31 |



Looking first at the poverty headcount measure, it can be seen that without the CSG the treated households exhibit similar levels of income poverty to the control households, with 65% of households in this group falling below the lower poverty line compared to 68% of the control households. After the cash transfer, however, this falls to only 56% for treated households. The poverty gap measure (α=1) shows an even more dramatic reduction, from 39% to 25%. This measure captures changes within the subset of poor households and shows that households receiving the CSG have monthly incomes that are, on average, closer to the poverty line than untreated households. This is not surprising given that the control group have been selected as households with income levels similar to the pre-transfer levels of treated households. Nevertheless, it is worth keeping this income effect in mind throughout the subsequent analysis.

## 5.2 EXPENDITURE EFFECTS

The estimates of $\beta_1$, the effect of CSG receipt on monthly household expenditures per adult equivalent, and robust standard errors are presented in Table 3, with each cell containing the treatment coefficient from a different regression following the baseline specification. The

coefficients can be interpreted as the estimated rand value of the change in monthly household expenditure attributable to CSG receipt. For comparison, coefficients are also presented from a naïve OLS regression on the whole sample[20]. The sample size for each regression is displayed in the bottom row.

TABLE 3: EFFECTS OF CSG RECEIPT ON EXPENDITURES PER ADULT EQUIVALENT (R/ MONTH)

| | Naïve model | | Propensity Score Reweighted Model | |
|---|---|---|---|---|
| | Coefficient | Robust Standard Error | Coefficient | Robust Standard Error |
| Total Expenditure | -234.4 | (58.53)*** | -52.22 | (33.98) |
| Food | -33.11 | (10.14)** | 4.03 | (8.00) |
| Housing | -35.32 | (7.00)*** | -9.37 | (3.40)** |
| Clothing | -4.67 | (2.29)* | -2.93 | (5.08) |
| Health | -4.66 | (1.55)** | -4.64 | (2.14)* |
| Education | -32.71 | (12.08)** | -0.82 | (10.08) |
| Utilities | -9.88 | (3.07)** | -3.61 | (4.81) |
| Transport | -9.36 | (4.07)* | 1.98 | (4.74) |
| Insurance | -4.15 | (1.29)** | -2.37 | (1.83) |
| Household items | -1.82 | (2.91) | 1.64 | (6.86) |
| Leisure | -11.94 | (3.80)** | -33.39 | (22.68) |
| Alcohol, tobacco and gambling | -8.87 | (2.78)** | -2.08 | (1.20) |
| Miscellaneous | -3.61 | (1.25)** | -1.02 | (1.99) |
| N = | 3,352 | | 2,410[21] | |

* p<0.05, ** p<0.01, *** p<0.001

The naïve model finds negative and significant coefficients on every expenditure category except household items. This model shows that, when comparing to all low-income non-recipient households, CSG households can clearly not be argued to invest disproportionately more in asset-building.

However, when propensity score matching is used to identify a comparable weighted control group, most of these significant differences disappear and the spending patterns of the two groups become extremely similar. The propensity score reweighted model returns only two significant coefficients, housing costs and health.

[20] Also excluding the top two income quintiles.

[21] Note that this figure is not the same as the total number of treated and control households in Table 1 as it excludes those not on common support as well as any households in the top two income quintiles.

### 5.2.1 Subgroup Expenditure Categories

An assessment of the twelve major spending categories provides little evidence of CSG households exhibiting significant differences in household spending patterns compared to the control group. It may be useful to decompose some of these spending categories to examine whether any differences can be detected. The NIDS dataset allows further disaggregation of the spending categories such that, for those with sufficient observations, it is possible to re-run the analysis on subsets of the major spending categories identified. With regard to asset-building, the main categories of interest for this analysis are food, health and education.

Food expenditure is interesting as, without spending significantly more on average, treated households could still be shifting consumption towards more nourishing items, thereby improving the nutrition of household members, especially children. Health is worth probing more deeply to establish whether separating into curative and preventative care sheds any light on the significant difference detected, as a negative coefficient on health spending is somewhat ambiguous in terms of asset-building[22]. If treated households are spending less on curative healthcare, this could provide some support for the view that they experience better health, on average, and therefore do not need to spend as much on health. Finally education expenditure is pertinent as CSG recipients are exempt from paying school fees (Education and Training Unit, n.d. para. 2). It follows that, if removing this category from education expenditure reveals a positive coefficient, it may yet be possible to conclude that treated households are investing more in the education human capital of their children.

The results of the subgroup expenditure analysis are presented in Appendix 3. It is found that when food expenditure is separated into eight spending categories, no significant differences are found between treated and control households. With regard to health spending, while the coefficients on curative and preventative health are indeed negative and positive respectively, neither is found to be significant. Nor does removing school fees from education expenditure and rerunning the OLS regression on school materials find any significant difference between the two groups. It is, however, important to note that treated households do still report expenditure on school fees, albeit at a lower level than control households. This may indicate a lack of awareness regarding the fee exemption for CSG beneficiaries.

[22] 'Curative' healthcare includes spending on medical professionals; hospital fees; and homeopaths, physiotherapists and dietitians. 'Preventative' health spending incorporates health insurance and medical supplies.

## 5.3 DISCUSSION

The only significant coefficients in the baseline model are found on housing expenditure and health. The ambiguity of a negative coefficient on health has been discussed, however the negative coefficient on housing requires closer examination as the majority of households in the NIDS sample report home ownership and most do not pay housing costs. For home owners yet to pay off their property, a higher bond payment could either mean the dwelling has a higher market value or that the bond holder is nearer the beginning of repayment, thus further from full ownership of the asset.

An examination of the data reveals that, for those households in the bottom three income quintiles, the mean market value of treated and control group properties is broadly similar, at R29,700 for treated households and R26,500 for control households. A robust examination of the outstanding bond value is not possible as only seven households in each group report non-missing values for this variable. However, it is found that the dwellings of treated households are more likely to be owned by a household member, with 87% reporting home ownership, compared to only 82% of control households. This difference is statistically significant. The negative coefficient on housing costs could thus be due to higher likelihood of ownership among treated households and thus lower current housing costs, thereby implying higher investment in housing assets.

This can be tested by including implied rental values for those that do not pay housing costs in order to capture the welfare effects of living in an owned property. If the negative coefficient on housing in the baseline model is due primarily to greater incidence of home ownership among treated households, one would expect this significant effect to disappear when implied rental value is included in place of zeros for housing costs among owners. However, it is found that when implied rentals are included for those that do not pay housing costs, the coefficient remains negative and significant. It cannot therefore be concluded that treated households are investing more in housing assets than the control group.

The lack of significant coefficients in the reweighted regressions is an interesting result. By matching treated households to control households based on pre-CSG income, the treated households, by construction, have a significantly higher income than non-treated households, yet they do not spend significantly more; either overall or on any specific expenditure category. This could provide some tentative support for the view that treated households are using some of their additional income to reduce current debt, build up savings or send as remittances.

This is supported by the application of the Case and Deaton method, presented in Appendix 4. This analysis shows that CSG income is treated broadly as other income in terms of most expenditure categories, although a weakly significant result is found with regard to education. It shows that, on average, 17 cents per Rand of CSG income are directed towards education, compared to only 2 cents per Rand of non-CSG income. This result is significant only at the 10 per cent level and it is not supported by the propensity score matching method, however it may provide some grounds for investigating education expenditure more closely in the future.

The remittance behaviour of both groups can be examined to determine whether any significant differences emerge in the sending of remittances. The OLS regressions described above were rerun using remittances in cash and in kind respectively as the dependent variables. However in neither case was the coefficient on the treatment indicator found to be significant.

Some insight into why households, on average, do not spend all of the additional grant income could be provided by the permanent income hypothesis (PIH), originally advocated by Milton Friedman. The hypothesis states that consumption decisions are based not on current income but on longer term income expectations, such that income changes regarded as temporary have little bearing on consumption decisions (Eisner, 1958). If the CSG is not regarded as permanent, this hypothesis may partly explain why treated households do not exhibit significantly different spending patterns than control households. Of course, the CSG is, by design, a temporary source of income support, although the current maximum of fifteen years represents a fairly considerable time period[23].

If the PIH is an appropriate representation for the consumption decisions of CSG households then this implies that a sizable proportion of the grant income may be being saved in some way. It is useful therefore to consider the financial assets of the treated and control groups to examine whether the former is more likely to contain members that, for example, hold bank accounts. The NIDS data permit an analysis of the financial instruments held by the two groups of households. The findings are presented in Appendix 5 and illustrate considerable similarities between the two groups. What is perhaps most striking about this financial analysis, however, is the overall lack of ownership of formal financial instruments among both treated and control households. Treated households are more likely to hold bank accounts, although fewer than half of these households contain even one member that holds a bank account. It seems likely, then, that if the treated

[23] An examination of the effects of duration of grant receipt was considered, however there was insufficient data on date CSG was first received to undertake this analysis.

households are indeed saving part of their additional monthly income from the CSG, they are not necessarily doing so within the formal financial system and so they may not be doing so in the most efficient way.

Another issue worth considering is the effect of other social grants on expenditure patterns. Although the control group do not receive the CSG, it is possible that they are receiving other government transfers, such as the SOAP, and this may be pushing their expenditure patterns in line with those of CSG households, thereby masking the impact of the CSG. To investigate the potential magnitude of this effect, the regressions are re-run excluding those control households that receive another social grant. For brevity the results are not presented but it is found that the only significant coefficient is on housing costs.

In summary, the preceding analysis does not find the same human capital effects as Gao et al. (2010) find in China; there is little evidence of investment in household assets and treated households do not appear more likely to hold formal financial assets. Given the higher income of treated households, the absence of a significant and positive coefficient on total expenditure may provide some tentative evidence of higher savings, although it is not possible to draw any firm conclusions in this direction.



## 5.4 SENSITIVITY ANALYSIS AND LIMITATIONS OF METHOD

The method set out above was repeated several times under the following alternative specifications:

1. Matching within strata defined by the four geo-type variables only;
2. All income and expenditure variables use per capita terms instead of adult equivalents;
3. Household equivalence measures use OECD equivalence scales[24];
4. Implied rents are included in income and expenditure;
5. Imputed income and expenditure figures are excluded from analysis;
6. Top two quintiles of propensity score are excluded from the analysis.

[24] OECD equivalence scale is given by: household head + 0.5(adults) + 0.3(children)

The coefficients and standard errors generated by each of these specifications are presented in Appendix 6. The sensitivity analysis reveals that the results are robust to a range of adjustments as all specifications return housing expenditure as significantly negative and three of the six specifications also finding the coefficient on health significantly negative. When imputed income and expenditure figures are excluded total expenditure also becomes significant and negative.

Taking the results of the base case and the various specifications considered in the sensitivity analysis, the key result is very clear. **This method does not provide sufficient grounds to conclude that treated households exhibit significantly different spending patterns from comparable non-recipient households**.

While the propensity score matching method attempts to estimate the causal impact of receiving treatment, it cannot completely remove all selection bias issues. Specifically, if the unconfoundedness assumption is not met, the results are likely to overestimate the effects of treatment. However, as this analysis has not in fact found treatment to be associated with large effects on the outcome variables considered, the possibility of having overestimated these effects is less of a problem. Moreover, a thorough sensitivity analysis tests the robustness of the model to changes in a range of underlying variables and finds the broad result, namely that treated households do not exhibit significantly different expenditure patterns from non-treated households, remains unchanged.

Moreover, it should be noted that the method chosen examines average effects between two groups of households and cannot therefore identify sub-patterns in expenditure within these groups. For example, it is possible that within the group of treated households there are subgroups of households that respond to the grant in different ways. Nevertheless, this study will provide a useful first step in establishing a broad picture of expenditure behaviour and identifying any potential areas for future research.

# 6. IMPLICATIONS FOR ASSET-BUILDING

The foregoing empirical discussion indicates that, based on an examination of expenditure patterns, CSG-recipient households do not invest disproportionately more in asset-building than comparable non-recipient households. The analysis shows that treated households do not spend more on education or health human capital, nor are they significantly more likely than control households to send remittances, a potential indicator of investment in social capital. Of course, lack of statistical significance does not equate to practical irrelevance; just because differences in expenditure patterns are not statistically significant does not mean that the CSG is not having a 'significant' effect on the lives of the recipients. The discussion in Section 3.2 demonstrated that the CSG is generating a range of positive socio-economic effects. The outcome of the preceding analysis simply indicates that receipt of the CSG in itself does not appear to generate significant changes in spending behaviour. This section will build on this key finding by setting out the case for seeking a stronger asset effect from the CSG. The rationale behind a linking approach will be discussed in order to contextualise the subsequent section.

The empirical findings presented by no means represent a failure of the grant and, indeed, given the government's focus on income poverty, the CSG is undoubtedly contributing to income security. However, within the conceptual framework established, the grant does not appear to be boosting the asset holdings of treated households in a way that is different from other income flowing into low income households. This may not be altogether surprising when considering the literature on asset thresholds; in the presence of an asset poverty trap, an increase in monetary income alone will be insufficient to allow escape from poverty unless it can raise asset levels above the threshold. If the grant value is not sufficient to achieve this, the underlying structural barriers to escaping poverty are likely to dominate.

Despite arguing in Section 2.2 that social protection measures have the potential to reduce chronic poverty by facilitating increased asset holdings, the empirical analysis shows that, in the case of the CSG, unconditional cash transfers do not automatically change the expenditure patterns of recipients and thus cannot in themselves be said to boost asset-building. If recipient households are, on average, treating grant income in the same way as other sources of income, this may simply reflect the grants' ability to provide much-needed income support as intended: the extra income is subsumed within the household budget and spending decisions are based on overall pooled income rather than ring-fencing certain income sources for particular expenditures. This would imply that the phenomenon of mental accounting, whereby households divide their income into separate non-transferable sources, is not driving spending decisions and household income is

fully fungible. At the household level, this undoubtedly represents efficient and rational behaviour, all other things being equal[25].

The CSG provides income support to vulnerable households to alleviate the symptoms of poverty but it does not ensure the conversion of that additional income into assets; neither does the preceding empirical analysis find support for the view that this is happening indirectly. However, the conceptual framework developed in Section 2 demonstrates that, in the absence of increased asset-building, longer term poverty reduction is unlikely to be achieved as the underlying causes of poverty will persist.

So, if the CSG has been demonstrated to reduce income poverty and recipients are responding efficiently to the cash transfer yet long-term investment in assets does not appear to be taking place, does this mean that influencing the underlying causes of poverty is ultimately beyond the power of the CSG? I will argue that the answer is no: there may be scope for a child-targeted cash transfer to generate longer term poverty reduction effects by combining the protective cash transfer element with more explicitly promotional measures. The next chapter attempts to bring to light relevant lessons from international experience in linking protection and promotion as a first step in thinking about how this could be achieved in South Africa; however, before turning to this, it is useful first to firmly establish the rationale for pursuing such a course to determine whether it is indeed socially desirable.



## 6.1 RATIONALE FOR LINKING PROTECTION WITH PROMOTION

This paper presents assets as the primary means of development and posits that households experiencing poverty are those holding insufficient or vulnerable asset stocks. It follows that a key objective of a developmental society, and by extension the democratic state, is enhancing asset holdings. Any justification for intervention thus hinges on the ability to achieve this in the most efficient way. Although CSG-recipient households appear to be responding efficiently to the additional grant income, as neoclassical economic theory demonstrates, privately optimal behaviour may not always lead to socially optimal outcomes. In the presence of market failures, there may be grounds for incentivising certain private behaviours in order to increase overall

[25] It is beyond the scope of this paper to discuss the extensive literature on the formation of household expenditure decisions. This paper simply considers spending from a household perspective, regardless of any process of bargaining that has arrived at those decisions

societal welfare. In light of this, I will argue that the grounds for linking the cash transfer element of the CSG with promotional measures to incentivise asset-building are threefold and relate to (i) asset poverty traps; (ii) the merit good aspect of assets; and (iii) the productivity impacts of linking.

As illustrated by Figure 2, conversion of income into capabilities depends on both a household's ability to convert money into asset stocks through asset-building expenditure and the returns that can subsequently be generated from those assets. The propensity to invest in assets will thus be driven by expectations of both factors. If market failures, as opposed to personal choice, limit the ability of poor households to accumulate assets or to generate returns from an existing asset stock, then there may be grounds for attempting to correct those failures.

Carter and Barrett (2006) argue that in the presence of locally increasing returns, there will be a positive relationship between a household's existing level of assets and the marginal return they can gain from them. The authors provide three reasons why this positive relationship could occur and outline how this situation is likely to manifest itself in the form of asset poverty traps. The discussion in Section 3.1 established support for the view that poverty traps exist in South Africa, indicating that market failures are indeed at work. A systematic review of the potential market failures leading to poverty traps in South Africa is beyond the scope of this paper but some possibilities include: credit constraints; imperfect information about investment options; and labour market failures preventing access to wage employment. If poor households are prevented from investing in their desired asset level by structural poverty traps, there will be grounds to intervene to undermine these barriers.

A second rationale for attempting to channel expenditure towards asset-building lies in the fact that there may be positive externalities in the accumulation of assets which cause the social benefits of doing so to exceed the private benefits. Poverty has been found to contribute to a number of social problems that affect the poor and non-poor alike, such as crime and diminished 'social capital'. The assets literature, especially the work of Michael Sherraden emphasises the importance of 'asset effects' over and above the monetary value of the assets held. Assets yield a range of behavioural benefits, such as creating an orientation toward the future and encouraging human capital, that income alone cannot guarantee. As Sherraden argues, "income only maintains consumption but assets change the way people think and interact in the world", (Sherraden, 1991: 6). Reducing poverty, herein conceptualised as a lack of assets, therefore confers benefits not only on those households that escape poverty but also on the wider community.

When the social benefits of a good or service exceed the private benefits such that individual consumers systematically under-invest in it, the good can be considered a 'merit good'. Unlike a pure public good, merit goods are excludable and will be provided by the market to some but the social benefit in ensuring access for all is considered to be sufficiently large to warrant public provision. The merit good argument is often used to justify state provision of healthcare and primary education and supports the idea of encouraging recipients of cash transfers to invest in asset-building.

The objectives of conventional promotional measures are generally centred on enhancing the productivity of recipients; an aim that can be readily justified on economic grounds. Moreover, I would argue that the CSG, by identifying low-income households containing children, offers an ideal opportunity to target promotional measures towards the next generation by encouraging investment in assets intended for the children themselves or the productive assets of working age caregivers. The CSG is considerably more likely to be paid to household members with 'productive capacity' than other grants. Recipients of the disability grant and social pension, for example, are, on the whole, outside of the labour force. The substantial literature on the enduring effects of child poverty provides convincing grounds to seek to mitigate and offset the effects of poverty on young people (Duncan et al., 1998; Heckman & Masterov, 2007). While providing income support to families with children goes some way toward achieving this, combining this support with promotional measures to encourage investment in assets will increase the likelihood of these effects enduring once the child is no longer eligible for the cash transfer.

Having established the rationale for linking protection and promotion, it is perhaps surprising that the literature on linking relief from chronic poverty, which could reasonably be characterised as a 'permanent emergency' (Duffield, 1994), with developmental objectives is limited. As discussed by Matin and Hulme (2003: 647), the protection versus promotion debate has increasingly given way to recognition of the need to combine both elements for effective poverty reduction. However, while the interrelationship between protection and promotion is increasingly acknowledged in the theoretical literature, the practical application of combined social protection measures is somewhat lagging behind.

During the 1990s the literature on linking relief with development focused on the need for interventions in crisis situations to pursue developmental goals for more sustainable impacts. Buchanan-Smith and Maxwell (1994) summarise this literature and argue that interventions in emergency situations should attempt to maximise synergies between livelihood protection and

promotion. This literature does not however appear to have infiltrated the social protection agenda.

Nevertheless, individual programmes and interventions pursuing this linking approach are increasing and evaluations suggest that these are proving relatively successful in addressing the longer term poverty situation by facilitating 'graduation' out of poverty. It is thus useful to conduct a brief review of selected experiences with such programmes to attempt to draw out any lessons that may inform the implementation of a more explicitly promotional element to the CSG. This approach will thus be pursued in the following section.

# 7. LESSONS FROM THREE CASE STUDIES: ENHANCING THE LINK BETWEEN CSG RECEIPT AND ASSET-BUILDING

The following section addresses Objective 6, the final specific objective detailed in Section 1. When viewed through the lens of the conceptual framework established in Section 2, the findings of the empirical analysis of Section 5 demonstrate that the CSG as it stands cannot be argued to stimulate asset-building among recipient household. Rather than concluding the study at this point, it is useful to take these findings one step further by reflecting on some potential policy adjustments that could improve the poverty-reducing credentials of the grant. With this in mind, this section will briefly examine three programmes following a linking approach with a view to drawing out any lessons that could inform the development of complementary measures to improve the longer-term poverty impact of the CSG.



## 7.1 OVERVIEW OF CASE STUDIES

The first two case studies focus on linking basic protective measures, cash transfers, with a specified range of productivity-enhancing measures. While these provide strong support for the idea of combining social protection mechanisms for sustained impact, an important type of asset that should not be overlooked is the accumulation of financial assets through savings and this is addressed in the third case study. As the empirical analysis in Section 5 highlights, there may be some tentative evidence that CSG recipient households are holding back some of their grant income from current consumption although they do not appear to be much more likely to use formal financial systems. Participant households might wish to save a small proportion of current grant income for their children's future education or, if they already engage in income-generating activities, they may wish to save some of the proceeds.

### 7.1.1 Ethiopia: Productive Safety Net Programme

For decades, the threat of starvation has been a central feature of the lives of Ethiopia's poor, especially the rural majority, dependent on rainfed agriculture (Gilligan et al., 2009: 1684). Since the 1980s, the government's response has been frequent but ad hoc emergency appeals for food aid and disaster assistance. This strategy prevented mass starvation but was unable to diminish the likelihood of future famine and remained separate from the country's economic development

programme (Gilligan et al., 2009). It was therefore recognised that a more integrated and proactive approach was required and, beginning in 2005, the government, supported by a number of international donors, implemented the Productive Safety Net Programme (PSNP) in a bid to address the root causes of food insecurity, rather than simply reacting to the symptoms each year.

The PSNP was designed to provide transfers to the most food insecure households of the worst-affected regions by combining a safety net element with the Other Food Security Programme (OFSP) in order to facilitate 'graduation' from food insecurity. The safety net comprised a public works programme, paying participants a daily wage for work on community asset-building projects or direct support of cash or food transfers for those households unable to provide labour, due to age or illness. The OFSP is a collective term for various productivity-enhancing services, including technological advice, access to credit and irrigation schemes (Gilligan et al., 2009: 1685).

The OFSP is intended to complement the protective function of the safety net by facilitating income generation to build assets, although it has more limited coverage with not all PSNP beneficiaries enjoying access to the OFSP measures. The decision was taken early in the PSNP implementation to explicitly target the OFSP measures at PSNP beneficiaries for maximum impact. Over seven million beneficiaries have been reached by the PSNP and the annual budget runs to around US$500 million (Gilligan et al., 2009).

Gilligan et al. (2009) use a propensity score matching technique to assess the effect of participation in the PSNP on various household outcomes, including consumption patterns, business activity and production and investment activity. Using three different measures of participation, the authors find that access to the safety net element alone does not bring about significant impacts. A second definition of participation involves receiving at least half of the transfers that should be received according to the design of the programme. By this measure, programme participation is found to improve two indicators of household food security. However, it is when participation is determined by access to both the safety net and OFSP components of the programme that the largest impacts are found. In this case, treated households are "more likely to be food secure, and are more likely to borrow for productive purposes, use improved agricultural technologies, and operate non-farm own business activities" (Gilligan et al., 2009: 1703). Andersson et al. (2010) also find that the programme leads to increased forestry activity and the combined OFSP aspect generates increases in livestock holdings, an important rural asset.

### 7.1.2 Bangladesh: Income Generation for Vulnerable Group Development

Bangladesh has embraced the use of microfinance as a route out of deprivation and this approach has indeed helped to reduce the extent of poverty in the country (Khandker, 2005). However, for those trapped in chronic poverty and holding little or no assets with which to mitigate the effects of their vulnerability, microfinance is unlikely to be effective, and taking on debt may even be detrimental (Matin & Hulme, 2003: 653). Food transfers have traditionally been the primary method of assistance for chronically poor households in Bangladesh; however, these alone do not address the underlying causes of long term poverty. The Income Generation for Vulnerable Group Development (IGVGD) programme sees poverty reduction as a two stage linear process that requires 'two steps up': protective measures create greater income and food security, which can then be built upon by promotional measures for income generation and asset-building (Matin & Hulme, 2003).

Despite the many successful poverty reduction programmes in operation in Bangladesh, it is generally understood that most fail to reach the chronic poor (Matin & Hulme, 2003). The IGVGD programme, which specifically targets poor women, therefore seeks to expand the reach of anti-poverty measures beyond the 'moderate poor' to incorporate the 'hardcore poor' and provide a viable route out of poverty for the very poorest households. Jointly led by the national government, the World Food Programme and the Bangladesh Rural Advancement Committee (BRAC), the world's largest NGO, the IGVGD programme began as a pilot in 1985 but has since expanded to become a national programme targeting very poor women (Hashemi, 1996).

IGVGD participants continue to receive food relief but, once selected for IGVGD, they can also choose from a range of skills training options, such as livestock raising, vegetable gardening or training in the hospitality industry (Hashemi, 1996). When training is complete, usually after six months, participants receive the first of two small loans, begin attending weekly meetings and making small savings each month. Participants are strongly encouraged to continue membership of BRAC with its regular microfinance programme but those that do not 'graduate' can repeat the IGVGD cycle and continue to receive food aid.

In recent years, the programme has been reaching around 500,000 women in each programme cycle of 18 months (Hossain, 2008). Programme evaluations have found that the incomes of IGVGD participants rose significantly, material assets increased and participation in microfinance schemes on completion of the programme were considerably higher (Matin & Hulme, 2003).

An important facet of the IGVGD programme is undoubtedly the apparent willingness to constantly monitor outcomes and implementation and adapt the programme in line with findings. Experience from IGVGD, itself modified frequently, generated a wealth of knowledge that has been subsequently applied to its successor, the Challenging the Frontiers of Poverty Reduction (CFPR) programme.

### 7.1.3 Uganda: The Suubi Project

Like many sub-Saharan African countries, Uganda is home to a large and growing proportion of orphans[26], largely on account of a twenty year civil war and high prevalence of HIV/AIDS (Ssewamala & Ismayilova, 2009). As the number of orphans grows, the extended families that traditionally care for them are increasingly stretched, leading to greater incidence of family breakdown (Curley et al., 2009). Without the support of kin, children are forced to drop out of school to support themselves or younger siblings, foregoing education: a vital foundation for a productive future. Following implementation of its Poverty Eradication Action Plan in 1997, the government of Uganda committed to providing free primary education for the first seven years of schooling. Primary enrolment subsequently increased substantially, including among orphans (Curley et al., 2009: 2). However as secondary schooling was excluded from universal state provision, rates of post-primary education remain low, especially among orphans, limiting the employment prospects of poor children.

The Suubi project recognises the importance of keeping vulnerable young people within their communities and provides a three-stage intervention aiming to increase asset holding among AIDS orphans and their caregivers to reduce the pressures leading to family breakdown. A total of 286 youths aged 11-17 were randomly selected to participate, with around half receiving the intervention and the rest assigned to a control group (Ssewamala & Ismayilova, 2009: 5). The project consists of asset-building and career workshops; mentoring sessions; and a matched child development account (CDA) (Curley et al., 2009: 3). Over a ten-month period, participants attend twelve workshops covering topics such as career planning, financial skills and small business development as well as receiving monthly mentorship sessions. A CDA is opened in the child's name but access is not permitted until after completion of all workshops. Friends and family of the child are encouraged to make deposits into the account and each dollar deposited is matched with an additional two dollars (*ibid*.). The Suubi project is thus an example of a promotion-dependent

[26] Defined as children who have lost one or both parents.

grant as the CDA is opened only when the child participates in the other aspects of the programme.

Rather than a simple cash transfer, the project incorporates a promotional element in order to enhance participants' optimism about their future. Suubi provides a tangible financial asset that, when combined with the supplementary training, orphaned children can use to broaden their future choices (Curley et al., 2009). The multidimensional intervention provides orphans and their families with the confidence to plan for a productive future. This knowledge is thought to increase the motivation of the children to work hard and stay in school rather than dropping out due to feelings of hopelessness. Compared to the control group, participants performed better in primary school leaving exams; over the ten month period, they were significantly more likely to have positive changes in their education plans and to be more confident of achieving those plans (Curley et al., 2009: 5). Although this is a small study in one region of Uganda, the results provide some initial indication that poor households are able and willing to save modest amounts for the future of vulnerable youths in their care.



## 7.2 SUMMARY OF FINDINGS FROM CASE STUDIES

Table 4 provides a summary of this basic case study review, highlighting the main strengths and weaknesses, as well as the rationale for choosing a linking approach.

Despite an unfortunate lack of linking projects internationally, all of the projects examined have been found to lead to important and sustainable reductions in poverty through an asset-building approach. A possible source of bias in this analysis should however be noted upfront as, if there are linking projects that have not been successful, they are less likely to be examined in the literature. However, the case studies selected pursue a range of approaches and broad lessons can be drawn for initial reflection.

Based on the examples studied, it appears that combining measures can generate longer term poverty reduction when stand alone measures have proven unable to do so. Each of the linking examples studied was initiated after policymakers recognised the limitations of existing measures for bringing about long term reductions in poverty. This finding is highly relevant for South Africa, where, rather than social grants providing one component of a broader package of anti-poverty measures, they have become the dominant mechanism for directly addressing poverty. By

specifically targeting the same households with multiple levels of intervention, linking programmes seem to offer sustainable impacts in a way that disparate parallel programmes cannot.

TABLE 4: SUMMARY OF CASE STUDIES

| Programme | Motivation for Linking Model | Target Group | Strengths | Weaknesses |
|---|---|---|---|---|
| **Ethiopia: PSNP** | Separate stand-alone interventions were unable to generate sustainable reductions in food poverty. | Poor women in regions worst affected by food poverty | Addresses root causes of food insecurity rather than just the symptoms;<br><br>Enhances productivity of participants. | In some cases cash transfers were insufficient and recipients used loans to buy food;<br><br>Criticised for effectively excluding the very poorest by focusing on 'productive poor' and neglecting welfarist aspect of social protection in favour of developmental objective |
| **Bangladesh: IGVGD** | Standard poverty reduction models were unable to reach the 'hardcore poor'. A new approach was needed to graduate this group into regular microfinance programmes | Very poor rural women | Adaptive to needs of beneficiaries and realities on the ground;<br><br>Provides assistance to the poorest of the poor, who had previously been excluded from anti-poverty initiatives, and graduates them into regular microfinance programmes. | The graduation objectives led to those deemed 'hopeless' being excluded;<br><br>Access determined at community level - some evidence of patronage playing a role;<br><br>Some women reported inability to recover from removal of food aid. They sold off assets, used loan for consumption and worried about repayments. |
| **Uganda: Suubi Project** | No existing national policy to support orphaned youth thus seeks to combine traditional family care with promotion of opportunities and reduce the burden of care for extended families. | AIDS orphans in primary school. | Builds assets in the child's own name;<br><br>Combines savings with financial education to try to maximise the returns gained by orphans. | Excludes those orphans that have already dropped out of school and might be most vulnerable. |

(Sources: Curley et al., 2009; Matin & Hulme, 2003; Gilligan et al., 2009; Andersson et al., 2010; Khandker, 2005; Hashemi, 1996; Hossain, 2008; Ssewamala & Ismayilova, 2009; Devereux et al., 2005; Sabates-Wheeler & Devereux, 2010; Sharp et al., 2006; Ahmed, 2009; Hulme, 2006; Matin, 2004; Hashemi, 2001; Ssewamala et al., 2009)

A dominant theme emerging from these examples is that the design of projects and programmes must make concerted efforts to include the very poorest. Studies of the IGVGD programme found that the graduation model pursued, while making important gains in sustainable poverty reduction, had the side effect of excluding the very poorest households who were deemed incapable of creating productive assets. Similarly, Ethiopia's PSNP has also been found to focus on the 'productive poor', to the detriment of the most vulnerable households unable to engage in productive activity; and the Suubi project, by design, excludes those orphans that have already been compelled to drop out of school. An important lesson to be drawn, then, is that there will always be a role for basic welfare provision for those unable to engage in income generation.

Applying the conceptual framework of this study, linking programmes aim to supplement increased resources with positive impacts on the conversion of these into assets. If individuals have their conversion factors constrained by, for example, ill health or old age, their productive potential will be limited. If the CSG is to be linked with a promotional element, this must therefore remain an important add-on without changing the CSG to a 'promotion-dependent' grant. Furthermore, poverty reduction does not follow one defined path for everybody but occurs at different speeds and any successful poverty reduction programme must avoid converting slow progressors to 'dropouts' (Matin & Hulme, 2003).

In the IGVGD programme, a small proportion of participants experienced negative shocks during the programme cycle and were consequently unable to make repayments on their loans. Similarly, in the areas where the PSNP provided its safety net element in the form of food aid, it was not always sufficient, such that loans had to be used for food rather than productive investment. These findings provide a strong rationale for ensuring that when pursuing a linking approach, the protective component is adequate in order to provide a stable base on which the promotional elements can build assets. Moreover, escaping poverty is not a linear process but rather reverses can occur at any time and the safety net aspects must be available throughout the programme. Withdrawing protection too early risks reversing the gains made by increasing vulnerability and forcing participants into the very emergency coping strategies that these initiatives are designed to mitigate.

## 7.3 OPTIONS FOR ENHANCING THE PROMOTIONAL EFFECTS OF THE CSG

The conceptual framework developed in Section 2 contends that assets are the principal means by which an individual's ability to be and to do can be expanded. Within this framework, the capability

set available is determined by both the ability to invest in assets and the returns that can be generated from those assets. Measures that attempt to link protection and promotion are therefore seeking to support a household's initial endowments through protective measures while at the same time applying promotional measures to facilitate asset-building and, where possible, boost the likely returns on assets.

The importance of maintaining sensitivity to local factors has been consistently demonstrated in the literature on development interventions and any new initiatives in South Africa would have to be carefully designed to complement the prevailing structural, cultural and socio-economic situation. Nevertheless, consideration of the examples discussed above and the prevailing policy environment in South Africa permits an initial attempt to formulate some potential options for enhancing the promotional ability of the CSG.

Any thorough option appraisal must take as its starting point the 'do nothing' option. In this case, this represents the current CSG construction, which has been demonstrated to have little effect on long term asset-building. When comparing alternatives, then, policymakers should be interested in the additionality that new options can bring; that is, the extra benefit in terms of assets compared to any extra costs. An assessment of the relative costs and benefits of the various options is well beyond the scope of this paper, but rather this section seeks to outline a number of broad choices that may warrant further development.

Options for incorporating a promotional component to the cash transfer of the CSG can be delineated in a number of dimensions. As noted in Section 2, assets vary in a number of ways and the types of assets that promotional measures aim to build are also likely to vary. Firstly, promotional measures could target the child directly and aim to build a strong asset base for the next generation; or target caregivers and seek to arrest the intergenerational transmission of poverty today. Options will also vary in terms of the likely magnitude and timescale of the benefit accrual, as well as in the fiscal costs of delivery. As a first step in exploring the possibility of complementing the cash transfer element of the CSG, the following discussion presents a range of potential promotional measures separated into those targeting the child directly and those focusing on generating household impacts while the child is still a child.

### 7.3.1 Measures Targeting the Child

**Option 1**: Child Savings Account

Savings are a vital cushion against risk and allow poor households to develop an asset base to protect themselves against future income shocks. Financial assets can be built over time and transformed into other productive assets for self-development in the future (Zimmerman & Moury, 2009). Linking cash transfers with savings provision could thus offer significant scope for expanding the future choices available to recipient households. There are relatively few examples of such projects, although the concept is gaining ground in Latin America (*ibid*.).

Supplementing the cash transfer with a child savings account would build financial capital in the child's own name and provide family and friends with a formal method with which to save for the child's future. Various sub-options could be examined, such as restricting access until the child completes high school; providing incentives to invest in assets, such as matching savings up to a certain level when savings are to be used for investing in productive assets; or complementing with financial education programmes sponsored by banks. The degree to which funds would be matched would of course have a major impact on the likely fiscal costs of this option.

Following the rationale behind Uganda's Suubi project, asset theory suggests that the existence of assets for their own development will increase the child's optimism about the future and elicit more productive behaviour today. A savings account in the child's name would also encourage the development of financial skills and knowledge as well as familiarity with the formal financial system which could bring benefits as the child reaches adulthood.

An existing initiative, the Fundisa Fund, already exists to provide dedicated matched savings accounts for education and so linking CSG receipt with information about this existing opportunity could provide a powerful promotional element without the need to start a new programme from scratch. Fundisa, a partnership between government and the private sector, offers a bonus of 25 per cent of the value saved, up to a maximum of R600 per year (Association for Savings and Investment South Africa, 2010).

**Option 2**: Imposing Conditions

The experience of conditional cash transfers (CCTs) in Latin America is widely regarded as successful in generating long-term human capital development by incentivising behavioural changes in recipients. It has been demonstrated that, on the whole, the CSG income is spent in broadly the same way as other income rather than investing disproportionately in asset-building. If conditions were attached to CSG receipt, such as school enrolment or regular attendance at clinics, it may be possible to channel spending towards desirable human capital outcomes for the children.

Despite the popularity of CCTs in Latin America, however, it is not clear that attaching conditions to cash transfers would be appropriate in South Africa, nor that the conditions themselves actually generate benefits exceeding their costs. Schubert and Slater (2006) argue that a number of important socio-cultural and structural factors may limit the success of CCTs being replicated outside of the Latin America region. The authors rightly acknowledge the absence of cost-benefit analyses to demonstrate that the conditions themselves are efficient before going on to outline some key issues that must be addressed if CCTs are to work in Africa.

Crucially, imposing conditions such as school attendance or regular visits to medical clinics cannot be expected to generate significant improvements in human capital if access is constrained on the supply side rather than the demand side (Schubert & Slater, 2006). In this case, imposing conditions could actually be counterproductive by excluding households that are already disadvantaged by poor access to basic services. Realising the human capital benefits of health and education depends as much on quality as quantity, such that imposing conditions would require that adequate services are available to all citizens. However, a number of studies have found service delivery problems that raise questions about the suitability of imposing conditions on cash transfers (see for example Scott et al., 2008 on HIV-related health services; Coovadia et al., 2009 on health systems in general; Van der Berg, 2008 on education).

Moreover, regarding education, a common focus of CCTs, South Africa already has high rates of school enrolment, with a gross enrolment ratio[27] of 98% in 2008 for primary and 84% for secondary (Republic of South Africa, 2010a: 8). It seems unlikely then that much additional benefit could be gained from imposing enrolment conditions, compared to the extra costs. In addition to the efficiency arguments against imposing conditions on South Africa's social grants, it could also be argued that doing so would go against the country's strong rights-based constitution.

Given these arguments, it is somewhat surprising then that the National Government has decided to impose the condition of school enrolment as of Jan 1st 2010 (Republic of South Africa, 2010b). The human capital and fiscal effects of this condition remain to be seen; but given the preceding discussion, it is difficult to believe that the additional benefits will exceed the costs.

[27] The Gross Enrolment Ration (GER) is defined as the number of learners enrolled as a percentage of the appropriate school age population. It is thus possible for the GER to exceed 100% if under- or over-aged learners are enrolled in the school system.

**Option 3**: Pay the cash transfer directly to the child

Given that the CSG has recently been extended to cover children up to the age of eighteen, it is worth reflecting on the changing needs of children throughout the various stages of their youth. While infants undoubtedly require the care and nurturing of parents or caregivers, as children grow older and enter their teens, they tend to take on increasing responsibility for their own life course. There may thus be scope for differentiating grant provision at different stages of the child's life. Paying the grant directly to the child after a certain age could foster independence and encourage the young person to think about their own development, as well as reducing pressure to drop out of school to look for work. This option could be combined with Option 1 by paying the grant directly into the child's account.

**Option 4**: Offer advice on careers, bursaries and tertiary education opportunities

Providing financial assistance to young people can provide the means to invest in their future through education, training or starting a small business. Nevertheless, the existence of poverty traps indicates that an individual's ability to do and to be is driven not only by the amount of money they have but also by the ability to overcome structural barriers. In Section 6.1, it was argued that imperfect information is an important market failure preventing efficient asset-building. It follows that supplementing cash transfers with information and advice on the options open to young people in terms of further education, bursaries, training and employment could help to overcome this barrier and allow young people to make informed choices about their own future. This option could assist young people to pursue their own optimal asset-building strategy, as well as help to maximise the returns they can expect on the assets they possess.

Despite the potential benefits of offering tailored advice to young CSG beneficiaries, government staff may not be the best candidates to impart the requisite technical knowledge. However, South Africa contains a wealth of non-governmental organisations (NGOs), non-profit companies and business leaders that are already providing similar services to disadvantaged young people, such that the actual provision could potentially be outsourced. An examination of the capacity of the NGO sector to effectively deliver such services would be a useful research activity if this option is to be pursued.

### 7.3.2 Measures Targeting Caregivers

**Option 5**: Encourage recipients to receive grant electronically

There is some evidence that simply paying a transfer into a bank account rather than as cash can encourage savings (Zimmerman & Moury, 2009). Regular saving, even if only small amounts, provides a number of benefits to poor households by building up financial assets that can function as a buffer against future income shocks. Savings can also be converted into other productive assets, such as children's education, skills training or inputs to small business development.

In order to encourage more grant recipients to open bank accounts, the banks themselves would have to offer more flexible and low-fee products. However an important trade-off exists between the extent of electronic transfers and contact time with recipients. As more people choose bank transfers, there will be fewer people visiting SASSA offices each month to wait in line and collect their cash. Given that this process provides the main contact opportunity with which to provide information about complementary measures offered, this may limit the potential of some of the other proposed options.

**Option 6:** Ensure CSG recipients are aware of school fee exemptions

Despite government policy automatically exempting CSG beneficiaries from school fees, the analysis of expenditure patterns find that CSG households still pay school fees, albeit less than non-recipients. This suggests that recipients are not always aware of the exemption and may be spending more than they need to on education. Informing CSG recipients about additional entitlements is a low cost way to implicitly raise the value of the CSG, without actually increasing the grants budget.

**Option 7**: Provide skills training

Although not targeting households with children specifically, two of the case studies examined above focused on skills training to promote asset-building. These methods on the whole proved successful in bringing about sustained reductions in poverty and providing participants with the means to pursue their own development. Similar opportunities could be offered to the caregivers or other household members of CSG-eligible children in order to encourage employment or small business development.

Again, it is important to bear in mind the varying stages of child development as caregivers of very young children should be free to care for the child. However, once the child reaches school age, caregivers could be encouraged to engage in income generation in order to provide a source of earned income for the household and the means with which to construct a path out of poverty.

Of course, offering skills training to the caregivers of all nine million CSG beneficiaries would represent a huge task for government; it would almost certainly be prohibitively expensive and it is unlikely that government would have the capacity to deliver nationally. However, many NGOs and faith-based organisations (FBOs) are already providing skills training. A more appropriate role for government in this regard would therefore be one of coordination and active dissemination of information to CSG recipients at the point of application or collection.

**Option 8**: Microfinance

A commonly cited barrier facing the poor is access to credit. The asset poverty trap literature highlights the problem of low asset bases generating low returns and thus low levels of investable capital such that poor households may be trapped with inefficiently low asset levels. Improved access to credit can provide the necessary seed capital required to start a small business or expand home-based production.

While microfinance can provide poor households with the start up capital needed to pursue income generation activities and begin to lift themselves out of poverty, it should be borne in mind that the small, medium and micro enterprises (SMME) sector is by no means a panacea for poverty reduction. It is doubtful that these businesses can generate substantial reductions in unemployment and it is unlikely that the South African economy could absorb vast numbers of new micro businesses. Nevertheless, for some poor households, microfinance can fill a gap in the formal financial markets and provide credit to those constrained by asset poverty traps.

### 7.3.3 Summary

Some of the options proposed would require significant fiscal commitments, while others aim to raise the implicit value of the grant by increasing the 'value added' of grant provision by conceptualising the CSG as a gateway to other poverty reduction measures. Table 5 provides a brief summary of the options presented with an initial estimate of the types of assets promoted and the source of additional costs that might be incurred. Quantifying the costs and benefits is

beyond the scope of this study and further research would be required if a full option appraisal was to be produced.

TABLE 5: SUMMARY OF OPTIONS

| | Option | Main Type of Asset Promoted | Source of Additional Fiscal Costs |
|---|---|---|---|
| Targeting child | 1. Child Savings Account | Savings/ Education human capital | Depends largely on matching level |
| | 2. Imposing conditions | Health or education human capital | Determined by administrative costs of compliance |
| | 3. Pay directly to the child | Savings; Education human capital; Self esteem | Additional recipients may increases administrative costs |
| | 4. Offer careers advice | Education human capital | Coordinating information from non-state actors |
| Targeting caregiver | 5. Encourage electronic receipt of grants | Savings | Possibly subsidising private banks |
| | 6. Ensure recipients are aware of school fee exemption | Savings | Dissemination of Information |
| | 7. Provide skills training | Education human capital; Self esteem | Research on existing programmes, coordination and administration |
| | 8. Microfinance | Access to Credit; Human Capital; Productive Capital | Start-up funds and coordination of expertise |



The poor are not a homogenous group and households will require a range of different measures to bring about sustained reductions in poverty. NGOs and other non-state actors already provide a range of services to disadvantaged South Africans. While national or local government may not possess a comparative advantage in the provision of certain promotional measures, such as skills training or business advice, there remains potential for government to assume a coordinating role and ensure that CSG recipients are better informed about services on offer in their area. Moreover, in considering options for supplementing the CSG, it will be important to recognise the varying needs of young people of different ages and ensuring appropriate sequencing of interventions to maximise the likely asset effects.

Based on this initial scoping exercise, most of the options proposed offer some potential for further examination. Interestingly, despite Option 2 appearing to offer perhaps the least viable approach for South Africa, it is the only option that has actually been pursued, with a school enrolment condition being attached as of January 2010. Option 5 is the only other option that may not necessarily enhance the promotional capacity of the CSG as pursuing this option would limit the ability of several other options by rapidly diminishing contact time with recipients.

The options likely to offer the lowest additional cost while still generating promotional benefits are Option 3, which essentially involves changing the direct recipient of the grant from caregiver to child without any additional alternations; and Options 4 and 6, both of which relate to linking CSG provision to enhanced information about existing complementary services. Option 1 could be pursued in a number of different ways and the viability would depend on the extent to which matching would be provided as well as the willingness of private financial institutions to provide banking services to children from poor families.

Options 7 and 8 are both concerned with encouraging the caregivers of CSG-beneficiary children to pursue self-employment or gain new skills that could facilitate their access to wage employment. The success of these options would depend critically, arguably more than for the other options, on external macroeconomic and political factors creating appropriate enabling conditions. For example, skills training can provide the competencies required to successfully gain employment, but if there are simply no job opportunities available, or if the participants are unable to travel to the location of employment, then the programme is essentially redundant. Similarly with a microfinance scheme; access to credit is a major obstacle to the development of small and micro businesses but it is not the only one. Only when the local economy is able to absorb additional businesses and where the business manager possesses appropriate skills does a new micro business stand much chance of success. Combining elements of Options 7 and 8 may offer one way to strengthen their success but a careful study of the economic and political climate would be required before pursuing these options as potential extensions of the CSG.

# 8. CONCLUSIONS AND RECOMMENDATIONS

This Section concludes the study and summarises the recommendations made. It also reviews the areas for future research that have emerged during this work and some key limitations of the method applied.

This study set out to achieve two main goals: developing a framework through which to assess the impact of South Africa's Child Support Grant, and understanding the likely longer term effects of the CSG on poverty, specifically whether it can be said to address the underlying causes. In doing so, the fulfilment of six specific objectives, outlined in Section 1, guided the research throughout. To recap, these objectives were as follows, to:

1. Examine the evolution of the concept of poverty;
2. Critically assess the role of social protection in addressing poverty;
3. Construct a logical and relevant conceptual framework within which to appraise the poverty impacts of South Africa's social grants;
4. Establish the current poverty situation in South Africa;
5. Analyse the likely impact of CSG receipt on future poverty reduction in South Africa;
6. Formulate options for enhancing the poverty impacts of the CSG.

This concluding section will revisit these objectives, recapitulate the key findings of the research and summarise the recommendations flowing from the preceding case study review. This structure will allow the opportunity to reflect on whether the research objectives have indeed been met and whether the intended contribution of the study has been realised.



## 8.1 SUMMARY OF FINDINGS

Despite a growing body of literature examining various socio-economic impacts of social grants, particularly the SOAP and the CSG, it remains the case that this literature lacks a clear and explicit discussion of exactly *why* these impacts are important, over and above the income support directly provided. The conceptual framework developed in Section 2 and illustrated in Figure 2 thus proposed an 'assets-augmented' capabilities approach, which sees the ultimate end of anti-poverty measures as enhanced capabilities, where this is in turn achieved by increased asset holdings. Within this framework the rationale for examining the various socio-economic impacts of the

grants, as the literature is currently concerned with, becomes much clearer. The construction of this framework directly achieved Objective 3, while Objectives 1 and 2 were addressed in the background analysis.

To understand the potential for transitions out of poverty, static 'snapshot' information such as income may be inadequate. Focusing instead on the assets of the poor can provide a longer term assessment of the likelihood of households overcoming the underlying causes of poverty and 'graduating' out. Assets provide benefits in excess of their financial value and represent a critical element of poverty reduction. Asset poverty traps can occur when those with low asset bases are unable to invest in increased asset stocks due to the very low returns on their existing asset portfolios and thus remain trapped in low asset equilibria. In order for any anti-poverty measure, including social protection, to successfully generate sustainable reductions in poverty it follows that asset bases must be boosted in the process. Only when the poor are able to increase their assets can they begin to tackle the underlying causes of poverty and in turn enhance their capabilities. It is in this argument that the rationale for examining a range of non-monetary grant impacts lies.

In tackling Objective 4, it was found that South Africa has focused largely on a system of unconditional cash transfers to address poverty, with the CSG by far the largest in terms of numbers of beneficiaries. In order to assess whether this grant is addressing the causes or the symptoms of poverty, Objective 5, an examination of the asset-building behaviour of recipients was conducted by analysing the expenditure patterns of both CSG-recipient households and a comparable non-recipient group. Based on this analysis, it was not possible to conclude that the expenditure patterns of CSG households are significantly different from those of similar non-CSG households. It cannot thus be said that the CSG is generating greater asset-building as CSG recipients do not appear to engage in more asset-building expenditure than comparable non-recipients. Instead, it appears that CSG income is treated broadly as other income and subsumed within the household budget.

Following the terminology of the social protection literature, this empirical analysis implies that the CSG in its current form is 'protective' but not 'promotional' in that, while it provides much needed financial support to low-income households with children, it does not appear to increase a household's ability to get ahead and actually improve their longer-term prospects. There is limited but growing international experience of explicitly linking protection and promotion to develop social protection measures that actively seek to build the assets of the poor and encourage

graduation out of poverty in the longer term. A brief examination of such experiences informed the attainment of Objective 6.

## 8.2 SUMMARY OF RECOMMENDATIONS

Motivated by the experiences of three specific programmes from Ethiopia, Bangladesh and Uganda, a number of options have been proposed for enhancing the promotional impacts of the CSG. The desirability of this objective flows from the conceptual framework developed in Section 2 and the detailed rationale presented in Section 6. Without wishing to duplicate the discussion of Section 7, a common theme of the options explored is the pursuit of better linkages with existing government programmes and those of other providers of services for the poor. **By ensuring that the CSG acts as a gateway to other complementary services and benefits, the value of the grant could be considerably increased with relatively little additional effort or cost**. This is thus an important recommendation that has the potential to raise the implicit value of the CSG for beneficiaries without putting excessive pressure on the public purse.

In addition to the options seeking greater coordination, a number of more interventionist measures were examined, some of which may warrant further investigation if it is deemed desirable for the CSG to bring about more promotional impacts for its beneficiaries. Among the most promising of these measures appears to be the introduction of Child Savings Accounts, paying the grant directly to the child beyond a certain age and providing skills training to the caregivers of poor children. Nevertheless, if complementary measures to extend the asset impact of the CSG are to be pursued, it will be important to bear in mind the heterogeneity of the poor and to ensure that a range of options are available in order that each household can choose the right path for their own unique situation.

Ultimately, the combination of protective cash transfers and complementary promotional elements may be able to provide a platform on which to build more productive investments and cushion poor households against risk. However, the ability to fully graduate out of poverty will always be heavily influenced by the wider socio-economic context and the presence or absence of a range of enabling conditions. Of particular relevance in South Africa is the issue of unemployment. The availability of paid employment for the low- or unskilled is critical in determining the long term poverty trajectory. No social protection measure, regardless of how promotional its design, can achieve sustainable and comprehensive reductions in poverty in isolation but must take place within a broader employment-enhancing macroeconomic strategy.

## 8.3 AREAS FOR FUTURE RESEARCH

To build on the findings of this study, a number of areas for future research have been identified throughout the study and it is worth reflecting on these.

It has been noted that the propensity score matching method examines average effects between two groups of households but cannot identify sub-patterns in expenditure within groups. If subgroups of treated households, such as dividing households by gender or age of CSG recipient, respond to the grant in different ways, this will not be captured within the analysis. It should however be noted that to do this using the same method would require redefining the matching strata to include the parameter of interest and this may lead to a situation of too few households in each stratum such that the analysis cannot be performed.

While the method pursued provides a useful high level picture of the longer term poverty effects of the CSG, it would be valuable to add greater depth to these findings with some qualitative analysis of the grant-induced expenditure behaviour of specific households. Within the conceptual framework developed, it would be interesting to look beneath the surface and examine whether certain subgroups of CSG-recipient households do indeed consciously prioritise asset-building expenditure.

The method followed in this study takes the household as the unit of analysis on the grounds that spending generally occurs at this level. However, it may be interesting to consider matching treated and control groups at the individual level in order to explore whether similar results are found.

Given the relatively small size of the CSG compared to other social grants, it would also be informative to repeat this analysis for other larger cash transfers to examine whether similar results are found or whether significant differences in asset-building expenditures emerge when the size of the transfer is higher.

One possible explanation for CSG households not spending significantly more than control households was that, in line with the permanent income hypothesis, treated households do not consider the grant to be permanent. As a result they may be saving the income. Empirical testing of the permanent income hypothesis would be a useful area for future work in order to shed some light on whether recipient households might indeed be behaving this way.

One of the options considered in Section 7 proposed outsourcing delivery of complementary promotional programmes to the NGO and non-profit sector. If this option is to be pursued, an analysis of the current impacts of this sector and the capacity to effectively deliver scaled-up services would be useful. Furthermore, this study has aimed to generate some initial options for further consideration, but before pursuing any new options for enhancing the promotional aspect of the CSG it will be vital to conduct a rigorous impact assessment of each of the proposed options.

## 8.4 LIMITATIONS OF STUDY

This study has a number of limitations that may influence the interpretation of the key findings and it is worth drawing these out more explicitly. Firstly, the purpose of the work was to evaluate the impact of the CSG on asset building. In the absence of clear and measurable data capturing asset formation directly, expenditure was used as a proxy for asset flows, however this may not be a perfectly appropriate proxy.

Furthermore, as noted in the discussion of the propensity score matching method, it is not possible to eliminate all selection bias completely. It is therefore possible that the control group selected do not represent a sufficiently similar group of households.

The method applied in this study examines flows of assets to consider the process of asset-building, however asset stocks could also offer some useful insights into the effects of the CSG. Propensity score matching may not, however, be the best method for such an analysis as it would be difficult to conclude that any differences in asset stocks are generated by access to the CSG, as opposed to some external factor that makes both asset holdings and take-up of grants more likely for a given household.

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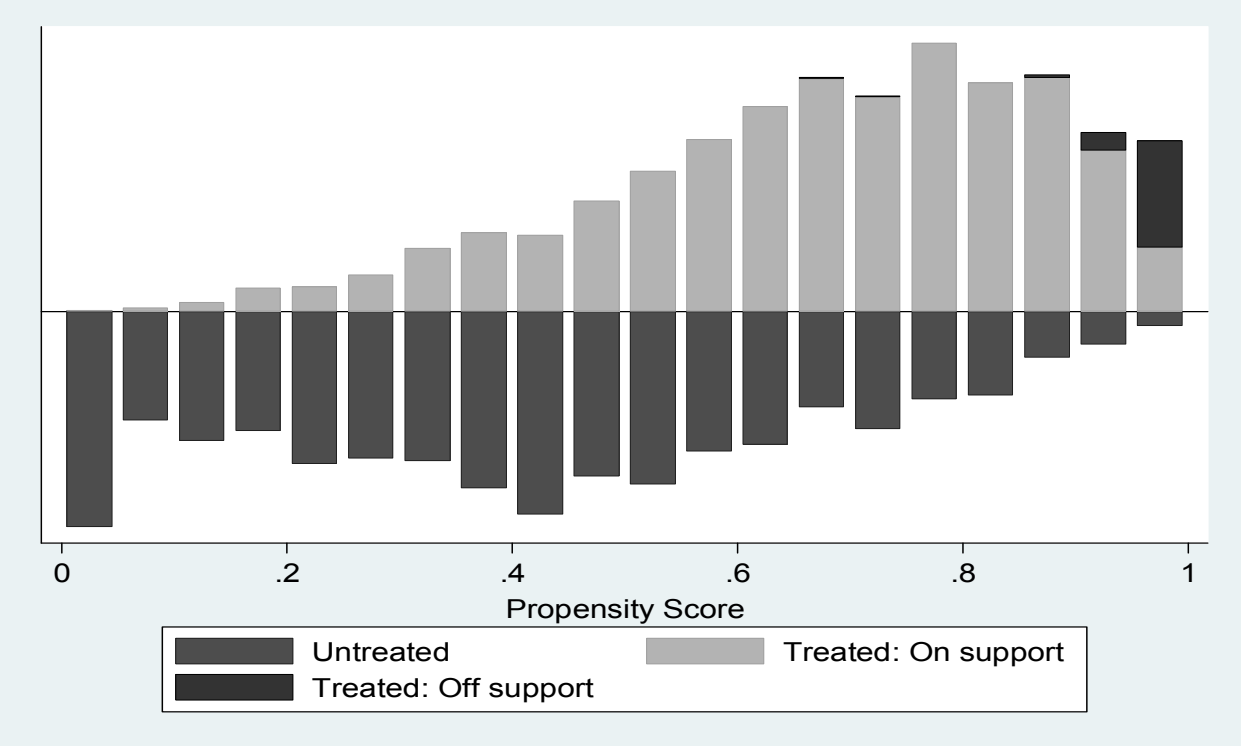
# APPENDIX 1: PROPENSITY SCORE GRAPH

**Propensity Scores of Treated and Control Households**




The Stata PSGraph command (Leuven & Sianesi, 2003) was used to produce this graph of the propensity scores of treated and control households. The sections marked 'off support' represent those CSG-recipient households deemed to violate the common support assumption. This occurs when the propensity score is higher than the maximum or lower than the minimum of the control households.

# APPENDIX 2: INTERNAL AND EXTERNAL BALANCING TESTS

## A2.1 Internal Balance Test

| | Variable | (1) Unmatched Non-Participants | (2) Participants | (3) Matched Non-Participants | p>t |
|---|---|---|---|---|---|
| Household characteristics | Monthly Income pre-CSG per adult equivalent (R) | 2033.5 | 496.8 | 479.6 | 0.490 |
| | Member experienced serious illness or injury in last 24 months | 3.7% | 2.8% | 3.4% | 0.310 |
| | Province | | | | |
| | Western Cape | 16.8% | 6.7% | 7.4% | 0.455 |
| | Eastern Cape | 11.6% | 17.0% | 18.5% | 0.236 |
| | Northern Cape | 7.2% | 5.5% | 4.8% | 0.317 |
| | Free State | 6.1% | 6.4% | 5.8% | 0.398 |
| | Kwa-Zulu Natal | 22.6% | 29.9% | 28.3% | 0.275 |
| | North West Province | 7.9% | 9.5% | 9.5% | 0.968 |
| | Gauteng | 11.5% | 6.9% | 7.0% | 0.985 |
| | Mpumalanga | 6.1% | 7.3% | 6.9% | 0.627 |
| | Limpopo | 10.2% | 10.7% | 12.0% | 0.227 |
| | Geo-Type | | | | |
| | Rural Formal | 10.5% | 7.2% | 6.9% | 0.766 |
| | Tribal Authority Areas | 35.4% | 52.5% | 52.8% | 0.879 |
| | Urban Formal | 47.9% | 33.2% | 33.1% | 0.954 |
| | Urban Informal | 6.2% | 7.2% | 7.3% | 0.916 |
| Household head characteristics | Age | 50.6 | 49.6 | 49.8 | 0.797 |
| | Participates in community group(s) | 21.2% | 17.9% | 17.1% | 0.694 |
| | Number of years schooling | 7.0 | 5.5 | 5.5 | 0.826 |
| | Employment Status | | | | |
| | Not Economically active | 35.3% | 42.6% | 42.8% | 0.931 |
| | Unemployed | 9.1% | 15.5% | 14.1% | 0.258 |
| | Employed | 55.6% | 41.9% | 43.1% | 0.468 |
| | Perceived health status | | | | |
| | Excellent | 22.4% | 18.0% | 17.3% | 0.622 |
| | Very good | 20.6% | 20.1% | 20.9% | 0.537 |
| | Good | 26.9% | 24.5% | 23.5% | 0.500 |
| | Fair | 18.7% | 22.3% | 23.4% | 0.407 |
| | Poor | 11.4% | 15.2% | 14.8% | 0.734 |
| | Relationship Status of Household Head | | | | |
| | Married or Living with Partner | 53.1% | 46.8% | 46.9% | 0.929 |
| | Widow/ Widower | 18.1% | 24.2% | 24.2% | 0.987 |
| | Divorced/Separated | 4.4% | 3.7% | 3.4% | 0.603 |
| | Never Married | 24.3% | 25.4% | 25.5% | 0.919 |
| | Composition of Household | | | | |
| | Household Size | 4.2 | 5.5 | 5.4 | 0.915 |
| | Number of Children aged 0-6 | 0.6 | 1.2 | 1.1 | 0.601 |
| | Number of Children aged 7-14 | 0.8 | 1.3 | 1.3 | 0.510 |
| | Number of Youths aged 15-18 | 0.4 | 0.4 | 0.4 | 0.945 |
| | Number of Adults aged 18-39 | 1.6 | 1.8 | 1.8 | 0.733 |
| | Number of Adults aged 40-59 | 1.1 | 0.9 | 0.9 | 0.501 |
| | Number of Pensioners | 0.3 | 0.3 | 0.3 | 0.744 |

## A2.2 External Balance Tests

| Variable | (1) Unmatched Non-Participants | (2) Participants | (3) Matched Non-Participants | p>t |
|---|---|---|---|---|
| Religion | | | | |
| No religion | 9.4% | 10.4% | 9.7% | 0.486 |
| Christian | 84.5% | 84.1% | 84.0% | 0.956 |
| Jewish | 0.4% | 0.2% | 0.5% | 0.221 |
| Muslim | 0.9% | 0.1% | 0.2% | 0.156 |
| Hindu | 1.0% | 0.1% | 0.0% | 0.157 |
| African traditional spiritual beliefs | 3.9% | 5.2% | 5.6% | 0.544 |
| Presence of street lighting near dwelling | | | | |
| Yes, currently working | 41.0% | 27.9% | 26.4% | 0.303 |
| Yes, currently not in working condition | 5.8% | 6.2% | 5.3% | 0.249 |
| No | 53.1% | 65.9% | 68.3% | 0.123 |
| Dwelling Type | | | | |
| Brick structure on separate stand/yard/ farm | 65.4% | 56.4% | 56.1% | 0.844 |
| Traditional structure made of traditional materials | 14.8% | 24.9% | 25.2% | 0.815 |
| Informal dwelling not in backyard | 6.4% | 7.3% | 8.6% | 0.163 |
| Flush or Chemical Toilet | 55.4% | 35.9% | 36.9% | 0.533 |
| Distance to nearest water supply | | | | |
| Less than 100m | 43.1% | 41.5% | 40.6% | 0.729 |
| 100m - less than 200m | 27.1% | 27.6% | 27.2% | 0.848 |
| 200m - less than 500m | 15.1% | 13.5% | 14.6% | 0.509 |
| 500m - less than 1km | 8.0% | 9.6% | 11.2% | 0.300 |
| 1km or more | 6.6% | 7.8% | 6.3% | 0.258 |
| Non-resident family member died in last 24 months | 13.9% | 12.3% | 11.9% | 0.683 |
| Positive event in household in last 24 months | 11.5% | 8.0% | 6.9% | 0.228 |
| Negative event in household in last 24 months | 7.5% | 6.9% | 7.2% | 0.792 |

Positive includes: a new job; inheritance; large gift; lottery winnings; large payout from firm; and scholarship.

Negative includes: widespread death and disease of livestock; major crop failure; reduction in hours of main financial provider; loss of job of main financial provider; and theft fire or destruction of household property.

Note: the p-values in the last column relate to comparison between participants and matched non-participants only.

## A2.3 Internal Balance Test with Survey Weights Applied

| | Variable | (1) Unmatched Non-Participants | (2) Participants | (3) Matched Non-Participants | p>t |
|---|---|---|---|---|---|
| Household characteristics | Monthly Income pre-CSG per adult equivalent (R) | 2804.2 | 526.1 | 497.7 | 0.446 |
| | Member experienced serious illness or injury in last 24 months | 5.0% | 3.3% | 3.9% | 0.756 |
| | Province | | | | |
| | Western Cape | 10.4% | 4.4% | 7.2% | 0.051 |
| | Eastern Cape | 12.6% | 18.5% | 21.4% | 0.284 |
| | Northern Cape | 2.2% | 2.0% | 1.5% | 0.131 |
| | Free State | 5.7% | 6.8% | 5.0% | 0.089 |
| | Kwa-Zulu Natal | 22.3% | 21.6% | 19.7% | 0.488 |
| | North West Province | 7.0% | 6.9% | 8.6% | 0.308 |
| | Gauteng | 20.7% | 17.7% | 14.6% | 0.248 |
| | Mpumalanga | 7.3% | 7.8% | 7.2% | 0.706 |
| | Limpopo | 11.8% | 14.2% | 15.0% | 0.753 |
| | Geo-Type | | | | |
| | Rural Formal | 6.6% | 6.2% | 4.7% | 0.260 |
| | Tribal Authority Areas | 34.9% | 45.9% | 47.3% | 0.661 |
| | Urban Formal | 47.7% | 35.0% | 35.4% | 0.900 |
| | Urban Informal | 10.8% | 12.9% | 12.5% | 0.880 |
| Household head characteristics | Age | 48.5 | 46.7 | 47.4 | 0.402 |
| | Female | 43.5% | 62.5% | 65.2% | 0.381 |
| | Participates in community group(s) | 20.3% | 22.0% | 17.7% | 0.281 |
| | Number of years schooling | 7.2 | 6.5 | 6.4 | 0.785 |
| | Employment Status | | | | |
| | Not Economically active | 33.7% | 36.8% | 40.2% | 0.294 |
| | Unemployed | 12.3% | 17.9% | 17.5% | 0.883 |
| | Employed | 54.1% | 45.3% | 42.3% | 0.355 |
| | Perceived health status | | | | |
| | Excellent | 23.6% | 21.4% | 21.5% | 0.954 |
| | Very good | 22.4% | 22.2% | 23.4% | 0.673 |
| | Good | 24.6% | 24.0% | 19.4% | 0.046 |
| | Fair | 17.9% | 19.1% | 22.0% | 0.318 |
| | Poor | 11.6% | 13.3% | 13.7% | 0.881 |
| | Relationship Status | | | | |
| | Married or Living with Partner | 53.9% | 48.2% | 46.3% | 0.574 |
| | Widow/ Widower | 16.6% | 21.4% | 18.9% | 0.336 |
| | Divorced/Separated | 4.5% | 4.1% | 4.2% | 0.945 |
| | Never Married | 25.0% | 26.3% | 30.6% | 0.174 |
| | Composition of Household | | | | |
| | Household Size | 5.3 | 5.3 | 5.5 | 0.410 |
| | Number of Children aged 0-6 | 0.9 | 1.1 | 1.2 | 0.318 |
| | Number of Children aged 7-14 | 1.1 | 1.3 | 1.3 | 0.674 |
| | Number of Youths aged 15-18 | 0.4 | 0.4 | 0.4 | 0.965 |
| | Number of Adults aged 18-39 | 2.1 | 1.9 | 1.9 | 0.926 |
| | Number of Adults aged 40-59 | 1.0 | 0.8 | 0.8 | 0.562 |
| | Number of Pensioners | 0.3 | 0.2 | 0.3 | 0.533 |

# APPENDIX 3: SUBGROUP EXPENDITURE ANALYSIS

| Expenditure Category | Coefficient | Robust Standard Error |
|---|---|---|
| | | |
| **Food** | | |
| | | |
| Cereals and pulses | -0.72 | (6.21) |
| Meat, fish and eggs | -6.22 | (4.76) |
| Fruit, vegetables and dairy | -1.57 | (2.17) |
| Fats and oils | -0.64 | (1.51) |
| Non alcoholic drinks | -0.76 | (1.33) |
| Eating outside the home | -0.14 | (1.03) |
| Biscuits, cakes and confectionary | -1.01 | (0.19) |
| Other food | -1.97 | (2.90) |
| | | |
| **Non Food** | | |
| | | |
| School materials | -1.31 | (7.34) |
| | | |
| Curative healthcare | -4.65 | (2.99) |
| Preventative healthcare | 0.22 | (0.55) |

* p<0.05, ** p<0.01, *** p<0.001

# APPENDIX 4: EFFECTS OF PRE-CSG AND CSG INCOME ON HOUSEHOLD EXPENDITURE PER ADULT EQUIVALENT

Following the method of Case and Deaton (1998), this table presents the OLS regression results where the expenditure output categories are regressed on pre-CSG income and CSG income controlling for the standard socio-demographic variables used throughout. This method aims to test whether CSG income is spent in broadly the same way as other income. The lack of significant differences indicates that CSG recipients do indeed treat their grant income in much the same way as other income sources. Education is the only expenditure category that returns a significant result, although this significance is very weak such that it is insufficient to draw any concrete conclusions.

| | (1) Pre CSG Income | | (2) CSG Income | | F-test on joint significance of coefficients in (1) and (2) |
|---|---|---|---|---|---|
| | Coefficient on treatment indicator | S.E. | Coefficient on treatment indicator | S.E. | Prob > F |
| Total Expenditure | 0.25 | 0.068 | 0.59 | 0.20 | 0.109 |
| | | | | | |
| Food | 0.08 | 0.03 | 0.21 | 0.08 | 0.187 |
| Housing | 0.01 | 0.01 | 0.02 | 0.01 | 0.490 |
| Clothing | 0.01 | 0.01 | 0.05 | 0.03 | 0.259 |
| Health | 0.00 | 0.00 | 0.00 | 0.01 | 0.876 |
| Education | 0.02 | 0.02 | 0.17 | 0.08 | 0.083 |
| Utilities | 0.04 | 0.01 | 0.00 | 0.03 | 0.255 |
| Transport | 0.02 | 0.02 | 0.06 | 0.05 | 0.492 |
| Insurance | 0.02 | 0.00 | 0.04 | 0.02 | 0.397 |
| Household items | -0.01 | 0.02 | 0.00 | 0.07 | 0.829 |
| Leisure | 0.05 | 0.02 | 0.04 | 0.05 | 0.766 |
| Alcohol, tobacco and gambling | 0.00 | 0.00 | 0.00 | 0.01 | 0.820 |
| Miscellaneous | 0.01 | 0.00 | 0.02 | 0.01 | 0.463 |

* p<0.05, ** p<0.01, *** p<0.001

# APPENDIX 5: FINANCIAL ASSETS OF TREATED AND CONTROL HOUSEHOLDS

| Asset | Percentage of Households containing at least one member reporting ownership of asset | |
|---|---|---|
| | Treated | Control |
| Personal loan from a bank | 4.8% | 2.9% |
| Personal loan from a micro-lender | 0.6% | 0.5% |
| Loan with a Mashonisa | 2.3% | 1.6% |
| Study loan with a bank | 0.7% | 0.2% |
| Study loan with another institution | 0.2% | 0.5% |
| Vehicle Finance | 1.4% | 1.4% |
| Credit card | 2.5% | 4.1% |
| Bank account | 46.9% | 38.3% |
| Loan from a friend or family member | 3.9% | 2.6% |

| | (1) | | (2) | | (3) | | (4) | | (5) | | (6) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Coef | SE | Coef | SE | Coef | SE | Coef | SE | Coef | SE | Coef | SE |
| Total Expenditure | -54.96 | (29.13) | -41.05 | (23.59) | -41.06 | (37.77) | -39.56 | (31.43) | -78.66 | (33.55)* | -65.89 | (37.67) |
| Food | 4.34 | (7.65) | -0.40 | (5.99) | 10.85 | (9.43) | 6.77 | (8.09) | -4.93 | (7.33) | -10.37 | (14.4) |
| Housing | 10.62 | (4.41)* | -6.54 | (2.45)** | -9.67 | (3.42)** | -7.85 | (2.74)** | -15.09 | (3.87)*** | -18.08 | (6.60)** |
| Clothing | -1.04 | (4.49) | -1.72 | (3.56) | -4.24 | (6.52) | -2.35 | (5.17) | 0.40 | (1.69) | -3.82 | (7.53) |
| Health | -8.60 | (3.45)* | -4.13 | (1.64)* | -7.65 | (4.35) | -5.43 | (3.23) | -1.77 | (1.40) | -8.88 | (4.14)* |
| Education | -4.87 | (9.97) | -0.67 | (6.08) | -4.35 | (11.72) | -5.84 | (10.55) | -5.43 | (4.84) | 0.63 | (11.35) |
| Utilities | 10.50 | (6.58) | -4.07 | (3.72) | -3.04 | (5.39) | -1.11 | (4.37) | -6.13 | (4.59) | 0.14 | (5.07) |
| Transport | 4.22 | (4.21) | 1.85 | (3.56) | 5.40 | (5.70) | 4.22 | (4.56) | -1.65 | (1.82) | -5.87 | (6.55) |
| Insurance | -2.03 | (1.82) | -2.62 | (1.49) | -3.30 | (2.33) | -2.71 | (1.84) | -1.48 | (0.96) | -4.16 | (3.94) |
| Household items | 1.22 | (6.16) | 0.06 | (5.88) | 1.39 | (7.61) | -1.22 | (5.24) | 2.29 | (1.54) | -10.51 | (12.28) |
| Leisure | 23.39 | (17.54) | 20.27 | (14.57) | 24.27 | (23.72) | 21.14 | (19.25) | -1.31 | (1.21) | -2.64 | (9.53) |
| Alcohol, tobacco and gambling | -2.31 | (1.02) | -1.75 | (0.94) | -2.21 | (1.29) | -2.01 | (1.08) | -0.55 | (0.44) | -2.02 | (1.58) |
| Miscellaneous | -1.74 | (2.03) | -1.01 | (1.55) | 0.17 | (2.00) | 0.89 | (1.84) | 0.91 | (0.99) | -0.26 | (1.89) |

**Alternative Specifications:**

(1) Matching within geo-type only

(2) Per capita values

(3) OECD Equivalence Scale

(4) Including Implied Rents

(5) Excluding all imputed values

(6) Excluding top two quintiles of propensity score