Expert Panel on Basic Income Support

FINAL REPORT

December 2021

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Expert Panel on Basic Income Support

FINAL REPORT

Report into the appropriateness and feasibility of a system of Basic Income Support for South Africa

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A report produced under the supervision of the International Labour Organisation for the Department of Social Development and the South African Government

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Panel members

Alex van den Heever: Chair

Margaret Chitiga-Mabugu

Stephen Devereux

Murray Leibbrandt

Michael Sachs

Jan van Heerden

Gemma Wright

DECEMBER 2021

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ABBREVIATIONS

BIG	Basic Income Grant
BIS	Basic Income Support
CGE	Computable General Equilibrium (model)
COVID-19	Coronavirus disease of 2019
COVID-SRD	Special Social Relief of Distress Grant created during COVID-19
CPI	Consumer Price Index
CT	Corporate Tax
DSD	Department of Social Development
DSLI	Decent Standard of Living Index
EPWP	Expanded Public Works Programme
FPL	Food Poverty Line
FTAA	Free Trade Area of Americas
GDP	Gross Domestic Product
HFIAS	Household Food Insecurity Access Scale
IEJ	Institute for Economic Justice
LBPL	Lower Bound Poverty Line
MS	Microsimulation
NIDS	National Income Dynamics Study
NSNP	National School Nutrition Programme
OECD	Organisation for Economic Co-operation and Development
OPG	Older Persons Grant
PIT	Personal Income Tax
SALDRU	Southern Africa Labour and Development Research Unit
SAMOD	South African Tax-benefit Microsimulation Model
SASSA	South African Social Security Agency
CGE-Sim	Computable General Equilibrium Model Simulation
SRD	Social Relief of Distress
UBIG	Universal Basic Income Grant
UBPL	Upper Bound Poverty Line
UNICEF	United Nations Children's Fund
VAT	Value Added Tax

PART 1: PURPOSE AND APPROACH TO THE WORK OF THE PANEL

An overview is provided of the members and terms of reference of the Panel.

PART 1.1: PURPOSE

1. This Expert Panel (Panel) was established as part of an International Labour Organisation (ILO) initiative together with the Department of Social Development (DSD) to examine the salience and feasibility of a Basic Income Grant option for South Africa.

PART 1.2: PANEL MEMBERS

2. The Panel of experts was made up of a mix of economic and related disciplines, including specialist expertise in the field of social protection, specialist expertise in microsimulation modelling in the field of social protection; computable general equilibrium (economic) modelling; and public finance.

3. The Panel deliberations included staff from the Social Security division of the Department of Social Development (DSD) and the ILO regional office based in South Africa.

4. Members of the Panel:

    4.1. Prof (adjunct) Alex van den Heever: Panel Chair;[1]

    4.2. Prof Margaret Chitiga-Mabugu;[2]

    4.3. Prof Stephen Devereux;[3]

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[1] Holds the Chair of Social Security Systems, Administration and Management Studies at the Wits School of Governance.

[2] Dean of the Faculty of Economic and Management Sciences, University of Pretoria.

[3] Prof Stephen Devereux is a Fellow of the Institute of Development Studies at the University of Sussex, United Kingdom. He also holds the SA-UK Bilateral Research Chair in Social Protection for Food Security at the Institute for Social Development, University of the Western Cape, South Africa.

4.4. Prof Murray Leibbrandt;[4]

4.5. Prof (adjunct) Michael Sachs;[5]

4.6. Prof Jan van Heerden;[6] and

4.7. Prof Gemma Wright.[7]

5. The scope of work of the EP involves the following:

5.1. Conduct a comprehensive review of evidence and on-going work and engagements on the Basic Income Grant or BIG in South Africa;

5.2. Identify knowledge/evidence gaps, and propose and undertake further research;

5.3. Identify BIG policy options and conduct economic appraisals (this will include feasibility assessments) (quantitative and qualitative analyses) of options for South Africa;

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[4] National Research Foundation Research Chair in Poverty and Inequality Research, Director of the Southern Africa Labour and Development Research Unit and the African Centre of Excellence for Inequality Research and a Non-Resident Senior Research Fellow at UNU-WIDER.

[5] Is an adjunct Professor in the Southern Centre for Inequality Studies at the University of the Witwatersrand. He is also the Deputy Chairperson of the Financial and Fiscal Commission in South Africa and formerly held the post of Deputy Director General of the Budget Office in the South African National Treasury.

[6] Professor of Economics in the Faculty of Economic and Management Sciences at the University of Pretoria.

[7] Is a research director at Southern African Social Policy Research Insights (SASPRI); Professor Extraordinarius at the College of Graduate Studies, UNISA; and Research Affiliate, Centre for Microsimulation and Policy Analysis, at the University of Essex; and was for 11 years a Senior Research fellow at the University of Oxford.

5.4. Identify/advise on complementary policy actions (e.g., labour activation, linkages and policy reforms towards a comprehensive social security framework); and

5.5. Provide written submissions, including research outputs, analysis/briefs on policy appraisals, design options, for input to processes considering the adoption of a BIG for South Africa.

PART 2: THE SOUTH AFRICAN CONTEXT

Context is offered regarding the Basic Income Support policy options evaluated in **Parts 4, 5** and **6**. This includes: some consideration of the terminology to be used; the rights-based framework for social security; the social and policy context; and the fiscal context.

PART 2.1: UNDERSTANDING BASIC INCOME SUPPORT IN THE SOUTH AFRICAN CONTEXT

Introduction

7. Within the field of social security various terms are used interchangeably and occasionally with some ambiguity. This includes references to "*social security*", "*social protection*", "*social assistance*", "*non-contributory schemes*", and "*contributory schemes*".

8. This section of the report clarifies the terms used to guide the Panel's work as well as to contribute to a wider understanding of relevant social security terminology. This section clarifies that the focus of the Panel was on a social security support framework for adults in the age range from 18 to 59.

9. In this report, the options considered are referred to generically as basic income support (or BIS), which can encompass a range of different policy designs.

Social security and social protection

10. The terms social security and social protection are often used interchangeably in many settings (Department of Social Development & Wits School of Governance, 2021). In South Africa a distinction has been made between the two arising from the approach used by the Taylor Committee of Inquiry (Taylor Committee, 2002), with social protection regarded as encompassing a wider set of programmes than social security.

11. In this approach social protection refers to both income protection schemes and all in-kind services (subsidised or free) that provide a general system of social support. Social security, which is expressly referred to in the Bill of Rights, is seen as involving financial transfers, either through insurance schemes (contributory) or social assistance (non-contributory means-tested benefits) and social allowances (non-contributory non-means-tested benefits).

12. This terminology also corresponds to the terms used in the Southern African Development Community's Code on Social Security (South African Development Community (SADC), 2008)

13. The focus of this Report is on social security with an emphasis on an expanded system of social assistance or social allowances, and their social and economic outcomes. The Report also notes instances where the assessed expanded coverage needs to articulate with in-kind services – such as those that address labour activation or social services.

14. The expansion of social protection systems is also consistent with the relatively recent articulation of the concept of a social protection floor, which has as its focus the progressive closing of important gaps, typically through the prioritisation of coverage first followed by a deepening of benefits. The main messages are as follows (International Labour Organisation, 2012, p. v to vi):

    14.1. "*Social security is a human right and all people, regardless of where they live, should be guaranteed at least a floor of basic social protection*."

    14.2. "*Social security is a social and economic necessity to combat poverty and social exclusion and promote development, equality and equal opportunity*."

    14.3. "*A floor of social protection is economically affordable and can be introduced, completed or maintained everywhere, in accordance with national circumstances*."

    14.4. "*A floor of social protection should consist of at least four basic social security guarantees: essential health care; and basic income security during childhood, adulthood and old age for all residents and all children*."

    14.5. "*All societies should also develop strategies to enhance their levels of social security, guided by ILO social security standards as their economies mature and fiscal space widens*."

    14.6. "*At the heart of these messages is this: there is no excuse for any society to put off building social security for its members, and it can be done at any stage of development, even if gradually. All societies can grow with equity*."

Contributory and non-contributory

15. South Africa's social security system can be broadly divided into contributory and non-contributory schemes.

    15.1. Non-contributory schemes are those where the entitlement is entirely based on need, with the source of revenue derived from general taxes and the funds appropriated by Parliament.

    15.2. Contributory schemes involve entitlements tied to a contribution and includes social insurance schemes, where the institutional arrangements are statutory, and private insurance, where the premiums and entitlements are contractual.

16. Given the very limited range of South Africa's social insurance arrangements private coverage plays an oversized role in offering social protection – despite significant weaknesses in the ability of private insurance to adequately address the social needs of income-earning families (Department of Social Development & Wits School of Governance, 2021; van den Heever, 2021).

17. Whereas this Report focuses on the non-contributory social assistance aspect of social security, interactions with contributory social insurance are noted at a high level where they may need to articulate with the expanded coverage under discussion.

Means-tested, income-tested and universal schemes

18. Social security benefits are typically targeted in resource-constrained settings, either specifying population sub-groups, limited by age or contingency (e.g., disability status, illness, etc.), together with eligibility based on some measure of socioeconomic status such as a means or income test.

19. A means test involves a comprehensive assessment of an individual or household's income and assets, while an income test focuses only on income.

Box 2.1: Methods of targeting social assistance benefits

Means test

An entitlement to social protection benefits is determined based on a comprehensive review of all financial means available to a household (or sub-unit), including all sources of income and assets. A means test is difficult to apply completely in practice and may be subject to errors of exclusion.

Income test

An income test is narrower than a means-test and takes account only of sources of income. It can be applied at the level of the household or sub-unit, for example by assessing the income of an individual and their spouse if they have one. Assets will not be considered. This form of assessment is easier to apply than a means-test.

Universal schemes

Exist where benefits are made available to all residents/citizens irrespective of the person's income or financial means. Technically the idea of a universal scheme would involve the removal of all eligibility criteria. Here we refer exclusively to instances where targeting is implicit as no income-related eligibility criteria are applied. Costs could be reduced through a tax clawback for higher income groups. Such schemes seek to remove poverty traps and other disincentives. Their disadvantage lies in the financial outlay for low-priority high-income earners.

Categorical

Benefits are specified according to an age category, for example to target children or the aged, or to address a specific issue, such as invalidity (persons with disabilities) or the decision to foster a child.

Conditional

Attaching conditions to benefits can have two purposes. First, it can be used to leverage behaviour seen as socially desirable. Second, it can be used to integrate services with benefits where the services face a demand problem (ante-natal care services, basic education participation, adult skills development, job-seeking), though in low- and middle-income countries the problem is more usually a supply problem (availability and quality of services). The attaching of conditions to benefits can prove counterproductive where compliance is affected by structural barriers that coincide with socioeconomic status.

20. Universal social assistance schemes can also apply eligibility limits by age, contingency, but the socioeconomic targeting operates differently. Universal schemes provide the relevant benefit to everyone (in this instance everyone refers to some category of resident) regardless of their income or means.

21. The financing of the benefit is usually derived from general taxes, with the benefit allocated to those with greater means implicitly clawed back through an adjustment to the tax system (see for instance the analysis in Samson, 2007).

22. Clawback designs could reasonably involve a combination of changes to the tax rebate (threshold) and a mix of tax rates applicable to the main tax bases. To avoid behavioural effects, the relevant rate changes would have to be kept moderate.

23. Universal schemes have a number of advantages over means or income tested schemes.

    23.1. First, they are administratively simpler as applicants can forego complicated assessment processes to determine entitlements.

    23.2. Second, there are fewer errors of exclusion – where income-vulnerable individuals are left without protection.

    23.3. Third, poverty traps are avoided. These occur where individuals deliberately avoid income earning opportunities to avoid falling foul of the means test.

Basic income grant

24. A basic income grant or BIG is generally understood as a universal benefit provided to everyone (as indicated above, this would involve some specified group of residents), including children and all adults. It was recommended by the Taylor Commission in 2002 (Taylor Committee, 2002), but although various financing studies were conducted (BIG Financing Reference Group, 2004; Meth, 2008; Roux, 2002) it was not implemented. Instead, the system of categorical grants was significantly expanded focusing on income support for families with children.

25. Following the onset of the COVID-19 pandemic and the introduction of a means-tested benefit (the COVID-19 Social Relief of Distress grant or COVID-SRD), calls for a BIG

have increased sharply, though the focus has mostly been on people aged 18 to 59. Although some options that have been considered include a temporary universal benefit due to the pandemic (Bassier, Budlender, Zizzamia, Leibbrandt, & Ranchhod, 2020; Sibeko & Isaacs, 2020) the debates about a BIG have mostly focused on the introduction of something more permanent (Adelzadeh, 2021b; Climate Justice Charter Movement, 2021; Senona, Torkelson, & Zembe-Mkabile, 2021; Wright, Noble, & Barnes, 2021).

26. The Department of Social Development has conducted a round of consultations with stakeholders along with a Discussion Paper entitled *Income Support for the Unemployed Aged 18-59* and in a Green Paper on Comprehensive Social Security Reform (Minister of Social Development, 2021)[8].

27. A recent evaluation of BIG scenarios (Adelzadeh, 2021b) distinguished between several alternative variants and associated naming conventions:

    27.1. *Unemployed BIG*: which excludes recipients of all other grants and is allocated to persons from 18 to 59 years of age who are unemployed and not in receipt of UIF;

    27.2. *Adult BIG*: provided in addition to other social assistance grants and is allocated to all persons aged 18 to 59 years of age; and

    27.3. *Universal BIG*: which is provided to all regardless of age but substitutes for the child support grant where children are recipients.

28. While these distinctions are valid, the question is whether use of the term BIG is usefully retained in benefits with quite different characteristics.

Social security for adults in the age group 18 to 59

[8] While the Green Paper was withdrawn, it remains an actively debated report.

29. Whereas social assistance is available in respect of children below the age of 18, people with disabilities, and for people over the age of 60, there is no income support for adults from the age of 18 to 59 unless they are disabled.

    29.1. This includes adult caregivers of children who are recipients of the *child support grant* (CSG).

    29.2. While *social relief of distress* (SRD) is offered (not to be confused with the SRD introduced as part of the COVID-19 social package), it is short-term and temporary while the contingencies of poverty and unemployment are protracted and related to systemic causes and in any event poverty and unemployment are not regarded as eligibility criteria for the SRD.

30. Proposals for social security for this age group have often been referred to as a BIG. However, in most, but not necessarily all, cases what is meant is social assistance for unemployed and/or income compromised adults of working age.

31. If a means test is applied, it could have similar characteristics to an unemployment benefit. From an administrative perspective employment, earnings and means would need to be routinely assessed to review eligibility. The behavioural implications are likely to be similar to all other means-tested grants, with a potential poverty trap that in some instances may need to be mitigated.

32. A reservation wage effect is also possible, where benefit recipients will be reluctant to accept work unless the compensation offered is sufficiently more than the social assistance benefit. This benefit can therefore operate as an indirect minimum wage – at least with respect to formal employment. If offered through a universal approach, the administrative and behavioural implications substantially fall away.

33. Internationally an unemployment social assistance benefit (i.e., one that is offered on condition of unemployment and the absence of adequate income) tends to incorporate measures to mitigate disincentives to seek employment through the application of conditions for continued access to benefits (Ozkan, 2014; Rønsen & Skarðhamar, 2009).

34. The conditions articulate with labour activation schemes involving job placement and participation in re-skilling. The evidence of unemployment income support negatively influencing employment is however far from clear (Howell & Rehm, 2009). Also, job-seeking or training conditions are problematic in a context of insufficient job and training opportunities (Marais, 2020).

35. At present South Africa lacks an institutional framework that can articulate employment-related social protection benefits with labour activation at the level of the individual. This is partly due to the absence of a social security benefit for people of working age unless they are disabled. Without this in place to support participation in labour activation schemes they are unlikely to prove very effective. It is worth noting that South Africa has also not articulated a clear labour activation vision to date.

Beneficiary criteria and naming convention adopted

36. Given that social assistance for people aged less than 18 and for those 60 and over exists, this report focuses on adults from the ages of 18 to 59.

37. Although social security arrangements could be redesigned to apply to all age groups – and some of the BIG options considered in other studies do consider people of all age groups – the Panel identified the priority group as being those who are not currently covered by social assistance unless they are disabled, i.e., those aged 18-59.

38. To encompass different policy design options, this Report refers to the support framework for adults in the age range from 18 to 59 as Basic *Income Support (BIS)*.

39. The terms “benefit”, “grant’, ‘social grant’, “transfer’, ‘cash transfer’ and ‘social transfer” are used interchangeably.

40. While such a benefit will ultimately require articulation with unemployment protection schemes (involving both income protection and labour activation) its final form, which is not set at this point, will need to determine the specific nature of any such relationship.

41. Several options for a BIS are considered in this report, with a range of means-tests and grant values.

42. Regarding the targeting mechanism, two options are considered as part of the modelling exercise (**Part 4**): the first involves a universal benefit. The second is means tested, thereby expressly excluding high income groups in the eligibility design.

PART 2.2: CONSTITUTIONAL COMMITMENT TO SOCIAL SECURITY

Introduction

43. Section 27 of Bill of Rights (Republic of South Africa, 1996) establishes an overarching rights-based framework for a guarantee of access to social security. Although all rights in the Bill of Rights are justiciable (Budlander, 2003; Constitutional Court of South Africa, 2000), in practice enforcement of any comprehensive failure to implement "*reasonable legislative and other measures*" presents significant challenges for any potential litigation.

44. While litigation is not precluded, any convergence on the intentions of the Bill of Rights ultimately depends on political imperatives arising from intensive public deliberation. It is potentially through such processes that a more fundamental understanding of the relevant rights can emerge and become part of a wider discourse that is able to guide the policy-making process.

45. Considering this, the purpose of this section is to clarify the Panel's understanding of the right to social security as it affects questions relating to the potential expansion of social assistance to address the needs of vulnerable groups that may lack adequate levels of social protection. Of particular interest is the absence of adequate income protection for adults in South Africa.

46. In guiding the panel's work, therefore, this section addresses two questions that flow from the Bill of Rights.

    46.1. First, how are the words of the relevant section(s) of the Bill of Rights to be interpreted?

46.2. Second, how are the limitations of the rights to be understood for the purposes of practical policy?

Bill of Rights

47. There are two broad approaches to the rights framed in the Bill of Rights.

47.1. First, are the positive rights that make someone subject to the actions of another person or group.

In large part this places an obligation on the state to perform but is arguably not limited to the state where private persons play a role in making such a right accessible.

47.2. Second, there are negative rights that prohibit others, including the state, from acting against the right holder.

Box 2.2: Bill of Rights – sections 27 and 28

Section 27

(1) Everyone has the right to have access to -

(a) health care services, including reproductive health care;

(b) sufficient food and water; and

(c) social security, including, if they are unable to support themselves and their dependents, appropriate social assistance.

(2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.

(3) No one may be refused emergency medical treatment.

Section 28

(1) Every child has the right-

…(d) to family care or parental care, or to appropriate alternative care when removed from the family environment;…

…(e) to basic nutrition, shelter, basic health care services and social services;…

…(f) to be protected from maltreatment, neglect, abuse or degradation;…

(2) A child's best interests are of paramount importance in every matter concerning the child.

(3) In this section "child" means a person under the age of 18 years.

48. When interpreting the nature of a right, the foundational value of dignity is a central consideration. For instance, inherent human dignity is compromised when people lack reasonable material conditions.

> "*A society must seek to ensure that the basic necessities of life are provided to all if it is to be a society based on human dignity, freedom and equality*." (Constitutional Court of South Africa, 2000, Yacoob Par 44)

49. However, the rights entrenched in the Constitution have little meaning if the administrative frameworks that are meant to deliver on these rights are inadequate.

> "… *a precondition for the effective guarantee of all rights and the various duties they impose is the establishment of appropriate institutional machinery… This includes, for example, the appointment and training of public officials, monitoring mechanisms, and the establishment and maintenance of judicial and quasi-judicial accountability mechanisms. All of these require positive measures and an intensive investment of resources*." (S. Liebenberg, 2010, p. 219)

The right to social security

50. The right to social security specified in section 27(1)(c) plainly sets out positive rights which in terms of section 27(2) places an obligation on the state to bring them to life. The state is required to ("*must*") take "*reasonable legislative and other measures*" to realise these rights.

51. These "*other measures*" include making resources available as reflected in the words "*within its available resources*" either through provision of in-kind benefits or financial transfers.

52. The broad wording of section 27(2) suggests that the state must implement well-governed systems, supported by coherent legislative frameworks, to enable the delivery of both services and transfers.

53. Wider than this, it is also obligated to provide institutional frameworks for those with adequate incomes to access social security arrangements such as social insurance which would not exist but for the enabling interventions of the state (van den Heever, 2021).

54. A Constitutional Court of South Africa (CCSA) decision related to housing (Constitutional Court of South Africa, 2000, Par 35) with wider implications for all socio-economic rights clarified that a…

> "…*right of access to adequate housing also suggests that it is not only the state who is responsible for the provision of houses, but that other agents within our society, including individuals themselves, must be enabled by legislative and other measures to provide housing. The state must create the conditions for access to adequate housing for people at all economic levels of our society. State policy dealing with housing must therefore take account of different economic levels in our society*."

55. Applied to section 27 this reasoning implies that state policy seeking to address the right to social security must take account of different economic levels in South African society and that different approaches will be needed depending on the type of state support required.

56. In other words, for people without adequate incomes, resources in the form of in-kind services and financial transfers will be necessary, while for people with adequate incomes the enabling conditions for self-coverage must be established via, *inter alia*, legislative measures. In both instances positive obligations are placed on the state.

57. However, legislative approaches that enable self-coverage do not constrain the resources of the state and are therefore not subject to any limitation based on available resources. By implication there is therefore no requirement for progressive realisation (as found in section 27(2)) in this instance.

58. This distinction appears to be relevant when reference is made to the right of access to "…*social security, including if they are unable to support themselves and their dependents, appropriate social assistance*…" (Republic of South Africa, 1996a, Section 27 (1)(c)).

59. Here the term social assistance is used as a sub-category of social security, and applicable to those "*unable to support themselves*". The full range of social security measures would therefore include contributory schemes for those able to support themselves and social assistance for those unable to support themselves.

60. The Bill of Rights has left it open to engagement within an open and democratic society to determine what would reasonably constitute a framework of social security institutions and benefits and the extent to which the resources of the state need to be deployed to support that framework.

61. A further consideration arises from section 28 of the Bill of Rights which deals with the rights of children. Also consistent with analysis in the Grootboom case, the rights of children can be affected by the condition of the family. In such instances, social security and social assistance benefits targeted at the family may be central to the proper achievement of the rights of the child and therefore in some measure distinct from achieving the rights of the parents.

62. Finally, there is the question of who is entitled to these rights.

63. The use of "*everyone*" in the case of section 27 and "*Every*" in the case of section 28 implies that access goes beyond narrow considerations of citizenship.

64. While this does not imply that the legal frameworks governing these rights cannot differentiate between different types of residents, any implemented distinction becomes a limitation of a right contained in the Bill of Rights and must therefore comply with a test of reasonableness as well as with international obligations.

65. For instance, it may be reasonable to differentiate access to avoid systematic gaming by non-citizens. However, even when faced with gaming it may not be justifiable to create an absolute barrier to a system of protection if there were a less onerous way to address this contingency.

Limitations on the rights

66. Section 27(2) of the Bill of Rights allows the state to tailor its obligation to deliver on the right to social security subject to available resources. This is however made subject to a requirement for progressive realisation where the right is temporarily not available based on resource constraints.

67. To avoid any arbitrary limitation of any protected right in the Bill of Rights, Section 36 introduces strong qualifications.

    67.1. First, this limitation can only be by way of a law of general application.

    67.2. Second, the limitation must be "*reasonable and justifiable in an open democratic society*".

    67.3. Third, the justification must take "*into account human dignity, equality and freedom taking into account all relevant factors*…".

    67.4. Fourth, a set of factors to be considered is listed (but not restricted to): "*the nature of the right*"; "*the importance of the purpose of the limitation"; "the nature and extent of the limitation*"; "*the relation between the limitation and its purpose*"; and importantly a requirement to identify whether a "*less restrictive means to achieve the purpose*" [of the limitation] is available.

68. Section 36 therefore sets out an onerous *reasonableness test* that goes beyond a simple test of *rationality*.

69. A test of rationality merely examines whether any law is rationally connected to its purpose. The rationality test would be applied to any law of general application that limits a right that is not protected by the Bill of Rights.

70. The original 1997 CCSA test case for section 36 involved the right to healthcare and clarified that "…*the Constitution accepts that it cannot solve all of society's woes overnight, but must go on trying to resolve these problems…*" (Constitutional Court of South Africa, 1997, Par 43).

71. The *reasonableness* test, together with all the factors listed in section 36, must therefore be considered when resource limitations or differential access restrict a right and when evaluating the achievement of progressive realisation.

72. As clarified by Liebenberg (Sandra Liebenberg, 2001, p. 257):

> "*At both a constitutional and political level, the availability of resources will be a central issue in arguments concerning the expansion of social assistance programmes. The challenge facing advocates of improved access to social assistance is to demonstrate that it is indispensable to economic and social development. This recasts the 'available resources' debate. The question then becomes not whether South Africa can afford social assistance for all in need, <u>but whether South Africa can afford not to provide it</u>*." [Underline added].

73. With respect to the above, the expansion of social assistance benefits poses a very specific challenge to policymakers, as the economic consequences arising from an expansion can sometimes be argued to diminish rather than exacerbate resource constraints.

    73.1. To the extent that this is a reasonable possibility, an onus should lie on the State (see for instance S. Liebenberg, 2010, p. 203)[9], rather than advocates of a policy, to determine the true dimensions of any resource constraint on the realisation of a right to (for instance) social assistance.

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[9] "*The court does not adopt a rigid approach to allocating the burden of proof and persuasion to either party. It tends to evaluate reasonableness in light of all evidence and arguments presented in the case. However, placing the burden to present evidence and arguments in relation to the reasonableness of its measures on the State may well be critical to ensuring that socio-economic rights litigation is practically accessible to disadvantaged groups. At the very least a failure to present such evidence should lead to negative inferences being drawn regarding the reasonableness of the State's conduct*."

73.2. This should take account of both the direct and indirect consequences of any expansion on resource constraints.

73.3. Not doing so may be construed as a failure of the State to comply with its Constitutional obligations where the right to social assistance is as a result *unreasonably* restricted.

74. To comply with a test of reasonableness, the State therefore has an obligation to establish a comprehensive programme for the achievement of the rights to social security.

75. This framework should establish clear obligations for the State as well as detailed evidence and justifications for any limitations that can be subject to appropriate scrutiny in an open and democratic society.

Relevance to the work of the Panel

76. Considering the above, the following needs to be considered.

77. First, the expansion of social assistance benefits to people who would otherwise have no other source of adequate income clearly falls within the ambit of section 27(1) and section 28 of the Bill of Rights.

78. Second, any gap in access to social security, which in all reasonable definitions of social security includes income protection, must be addressed by the State in some or other manner.

79. Third, consideration must be given to the extent to which an absence of adequate incomes impacts severely on human dignity.

80. Fourth, for people that are unable to support themselves it is reasonable that this protection takes the form of social assistance in the absence of other equivalent measures.

81. Fifth, the sources of finance for social assistance depend entirely on revenue and expenditure mechanisms established by the State.

82. Sixth, any limits to social assistance must be reasonable in relation to the rights they are protecting, with the onus to justify such limits placed on the State.

83. Seventh, any appraisal of resource constraints for social assistance would need to account for both the direct and indirect effects of the programme.

    83.1. For instance, a government programme that expressly redistributes income could involve economic effects that reduce the resourcing requirements (and any associated required trade-offs) relative to an equivalent level of expenditure for a programme that is not redistributive.

    83.2. Where an appraisal fails to account for both direct and indirect effects it may raise legitimate questions about the reasonableness of any limitation.

84. Eighth, the absence of an explicit progressive realisation framework for social security supported by, *inter alia*, adequate appraisals of gaps and resource constraints, could be regarded as a violation of the reasonableness test, and by virtue of this, a violation of the Bill of Rights.

PART 2.3: SOUTH AFRICA'S SOCIAL CONTEXT – UNDERSTANDING THE BASELINE

Introduction

85. Before exploring different policy options (see **Parts 4** and **5**) it is important to understand the contemporary socioeconomic context in which the policy options are being tested – what can simply be referred to as the baseline scenario.

86. This section therefore describes the household distribution of income and some key features of the way that social protection benefits, access to labour market income and taxes underpin this distribution.

87. To evaluate a policy reform pathway, it is first important to understand the very different life circumstances that generate such an income distribution, as this is the milieu into which any proposed policy is implemented.

88. The analysis in this section uses SAMOD's[10] modified input dataset, supplemented by other sources of information as appropriate.

89. The SAMOD model has an underpinning dataset that was derived from the fifth wave of the National Income Dynamics Study (NIDS) (SALDRU, 2018).

90. Although NIDS was designed as a panel study, a specific set of weights enables the dataset to be used as a cross-sectional and broadly nationally representative dataset (Branson and Wittenberg, 2019).

91. SAMOD's underpinning dataset is further adjusted for this study by recasting the survey weights to reflect the most up-to-date available data about demographic and labour market changes that have occurred since 2017 when the fifth wave of NIDS was conducted.[11]

92. Much has changed since then, and a more recent nationally representative cross-sectional survey is not available at the level of detail required for SAMOD.

93. This re-weighting step was necessary therefore to ensure that SAMOD's input dataset reflects demographic and labour market changes since 2017, including the impact of the COVID-19 pandemic and associated non-pharmaceutical measures on people's incomes.

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[10] The microsimulation analysis presented in this report was undertaken using a South African tax-benefit microsimulation model called 'SAMOD'. SAMOD is a static tax-benefit model which measures the first order effects of policy reforms.

[11] Specifically, the survey weights were adjusted to reflect the 2020 mid-year population estimates supplied by Statistics South Africa, and the labour market profile of the final quarter of 2020 using the Quarterly Labour Force Survey (QLFS) Q4 (Statistics South Africa, 2021a). The technique for adjusting the weights in this way is called iterative proportional fitting (IPF) (also referred to as 'raking') and the Stata .ado file 'ipfraking' was utilised for this purpose. For further details about this technique see annexure 2 of (Barnes et al., 2021).

94. Without this modification, the pre-pandemic labour market situation would be reflected in the input dataset which would, for instance, understate the extent of poverty.

95. Nevertheless, the Covid-19 pandemic is ongoing, and its full impact on people's earnings and incomes throughout 2021 and into 2022 cannot be completely known at this stage.

96. This means that the analysis using SAMOD relies on the assumption that the labour market circumstances in 2021 will remain broadly the same as in the final quarter of 2020.

97. These updated data serve as the baseline dataset for the SAMOD simulations used in this report (see **Part 5**). This section provides context to explain and understand the results of the consequent SAMOD simulations reflected in **Part 5**.

98. It also serves to highlight the relevance of any income-support programme. The main tax and benefit policies are simulated that were in place in 2021, except for TERS (the temporary employer/employee relief scheme implemented via the unemployment insurance fund) and the COVID-SRD grant which are not simulated as part of this exercise.

Profiling the Household Distribution of Income

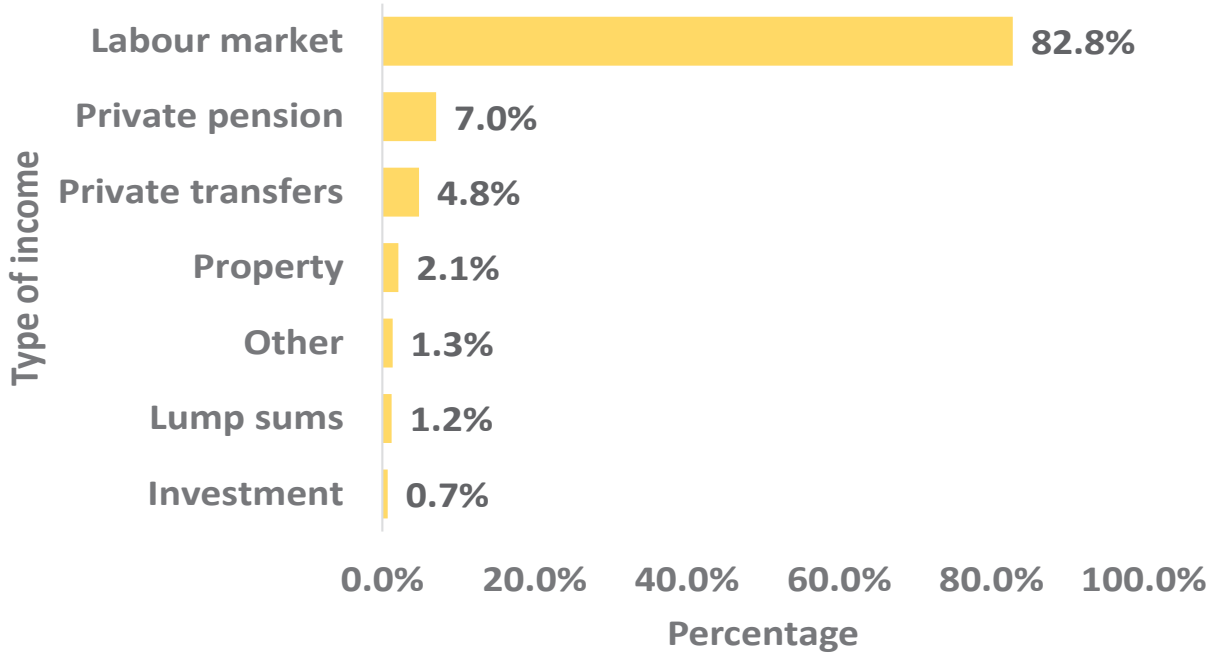
99. If we consider market income (that is, the household income before payment of taxes and receipt of benefits), most income is derived from earnings from employment and self-employment (83%), followed by income from private pensions (7%) and income from private transfers (5%) (**Figure 2.1**).

100. **Annexure A** contains more information on market income. This includes the recipients for each market income category (**Table A1**) and the aggregate annual income by market income category (**Table A2**).

101. The market income analysis shows how private income is generated from the labour market and from wealth. However, it is pre-policy in the sense that it reflects the situation before grants are added and social insurance contributions and taxes are deducted.

102. A more useful income concept for our purposes is disposable income, which is calculated here as the sum of market income[12] plus simulated benefits (or social grants), minus simulated taxes and minus simulated social insurance contributions.

Figure 2.1: Percentage share of total market income[13]



Source: Analysis of input data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

[12] Market income is the sum of income from employment, self-employment, property, private pension, interest, private transfers, workman's compensation, so-called 'other income', and non-taxable income. Lump sums are not included.

[13] Labour market: income from employment and self-employment; Investment: income from interest; Other: Workman's compensation, 'other' income and non-taxable income.

103. To look across this income distribution, households were divided into ten equal groups (deciles), based on their per capita household disposable income, with decile 1 being the poorest decile and decile 10 the richest.[14]

104. The demographic profile across deciles is characterised as follows:

    104.1. **Table 2.1** shows the number of individuals and households in each decile, as well as the mean household size and composition.

    104.2. The poorest decile is predominantly made up of single-person households (62% of these households contain only one person).

    104.3. The composition of the second decile is very different: households in this decile contain around 4.5 people on average. The mean household size reduces from decile 2 through to decile 10, with decile 10 having a similar mean household size to the first decile.

[14] The deciles used in the following analysis are of per capita disposable income at household level (weighted using the variable dwt). The number of households in decile 1 is greater than in the other deciles since over 10% of households all have zero income. To avoid an artificial split of these zero income households, they are grouped together by Stata in decile 1, which results in fewer households in decile 2. The other deciles (3-10) are unaffected by this unequal division of households into deciles 1 and 2, representing approximately 10% of households.

Table 2.1: Number of individuals and households and household size, by per capita household disposable income decile

Decile	No. of individuals	No. of households	Mean household size	Percentage of households containing…			
				1 person	2-3 people	4-5 people	6+ people
1 (poorest)	3 987 912	2 243 855	1.78	62.4	26	8.8	2.8
2	7 721 429	1 726 026	4.47	12.3	29.1	29.8	28.8
3	9 112 069	1 970 709	4.62	12.8	30.2	24.1	33
4	7 966 036	1 995 061	3.99	17.8	30.6	29.6	22
5	7 512 719	1 966 302	3.82	15.4	35.5	29.2	20
6	5 047 842	1 982 051	2.55	40.9	34.7	16.2	8.2
7	5 662 877	1 978 384	2.86	39.3	29.7	19.2	11.8
8	5 045 515	1 996 121	2.53	43.1	29.5	21.3	6.1
9	4 057 282	1 964 409	2.07	47.7	36.4	14	2
10 (richest)	3 508 679	1 978 506	1.77	55.7	34	9.9	0.4

Source: Analysis of output data for SAMOD using NIDS wave 5 re-weighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

105. What is the age profile of these income deciles?

105.1. **Table 2.2** shows that around a fifth of people in the poorest decile are children aged under 18.

105.2. In contrast, almost half (46%) of people in the second decile are children.

105.3. The proportion of children then reduces (except for decile 7) from decile 2 through to decile 10 in which only 16% are children.

105.4. Adults aged 18-59 feature most prominently in the poorest decile (79%) and in the richest decile (71%).

Table 2.2: Age composition of households, by per capita household disposable income decile

Decile	Percentage of…		
	Children aged 0-17	Adults aged 18-59	Older adults aged 60+
1 (poorest)	20.6	79.4	0.0
2	46.1	51.3	2.6
3	44.1	48.1	7.8
4	40.0	49.4	10.6
5	36.7	54.1	9.2
6	27.5	51.1	21.4
7	29.2	63.0	7.9
8	26.7	63.4	9.9
9	21.3	66.6	12.1
10 (richest)	15.9	71.2	12.9

Source: Analysis of output data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

106. Having profiled the deciles by household size and composition, we move to a description of income levels across the income distribution.

106.1. **Table 2.3** shows the minimum, maximum, median and mean per capita household disposable income for each decile.

106.2. Median household disposable income per capita ranges from R0 per month for the poorest decile through to R30,134 per month for decile 10.

106.3. Average incomes range from R65 per person per month in the poorest decile, rising slowly through the first five deciles, then rising steadily to the 8th decile before rising sharply to R8,926 per month in the 9th decile and then sharply again to R24,649 per person per month in the richest decile.

Table 2.3: Monthly household disposable income, by per capita household disposable income decile

Decile	Median household disposable income	Per capita household disposable income			
		Min	Max	Median	Mean
1 (poorest)	0	0	230	0	65
2	1 503	230	562	380	394
3	2 830	562	899	726	725
4	3 821	899	1 279	1 078	1 082
5	5 343	1 280	1 880	1 556	1 569
6	3 820	1 880	2 529	2 054	2 104
7	6 856	2 529	3 734	3 106	3 098
8	9 486	3 735	6 398	4 755	4 926
9	13 792	6 398	12 465	8 696	8 926
10 (richest)	30 134	12 483	582 640	18 995	24 649

Source: Analysis of output data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

107. Income distribution is highly skewed. This inequality is illustrated in **Figure 2.2** which takes mean monthly per capita household disposable incomes by decile from **Table 2.3** and plots them. **Figure 2.2** illustrates the texture of South Africa's extremely high-income inequality.

108. For example, it is the double step increase in incomes right at the top of the income distribution that pushes South Africa's income distribution to the top of the world inequality tables. The ratio of average per capita incomes of the 9th decile to the lowest decile is 137 to 1 and the highest decile to the lowest decile is 379 to 1.

Box 2.3: South African's have a strong aversion to extreme inequality

South African society has expressed an aversion to such high levels of inequality. For example, in response to a question in the nationally representative 2012 module of the South African Social Attitudes Survey (SASAS), 29 percent of adults strongly agreed and 46 percent agreed with the statement that 'the gap between rich and poor people in South

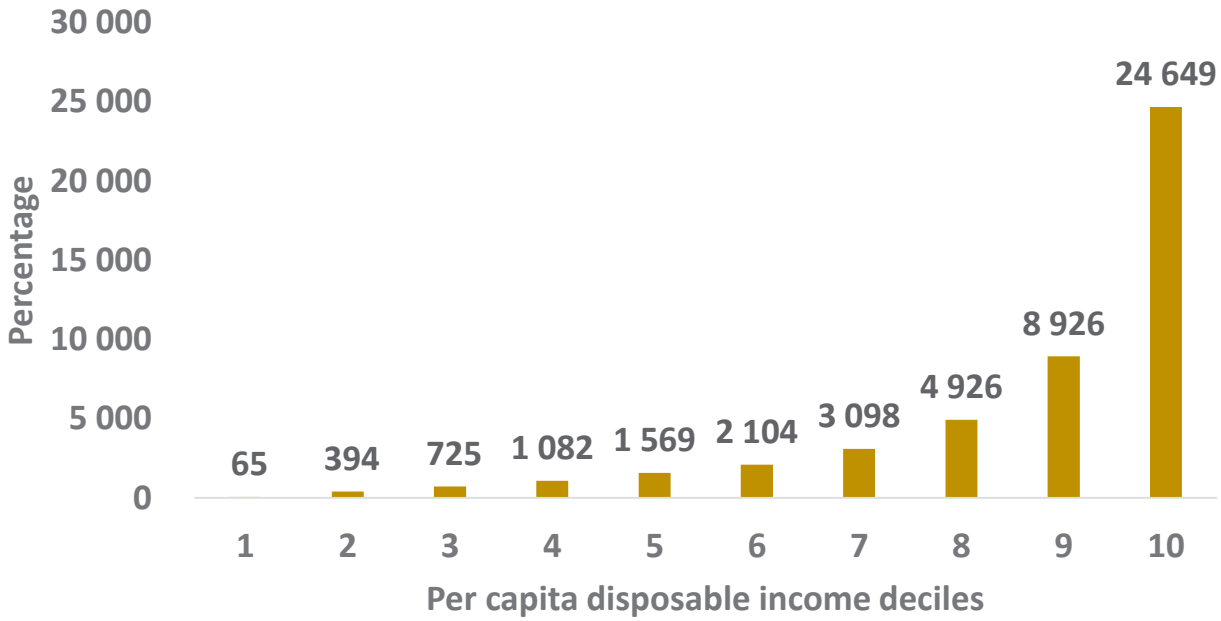
Africa undermines the dignity of us all' (Wright, Ntshongwana, Noble, & Neves, 2019, p. 313).

More recently, in response to a question in the 2017 SASAS, 84 percent of adults agreed or strongly agreed with the statement that 'the government should provide a decent standard of living for all unemployed people.' Decomposed by self-defined poverty status, this rose to 88 percent for people who found it 'very difficult to make ends meet' but was still very high at 73 percent for people who said it was 'very easy to make ends meet.'

109. Poverty characterises the bottom half of the income distribution and low incomes stretch into deciles 6 and 7 too. For the Panel's work it is important that this situation is understood in some detail. Three poverty lines will be used in this report, the food poverty line (R595), Lower bound poverty line (R860) Upper bound poverty line (R1,300)**.** (**Annexure B** provides an enhanced list of the monthly amount in Rands in 2021 for a selected set of per capita income/earnings and other thresholds in South Africa).

110. **Table 2.4** adds to the information shown in **Table 2.3** by showing the percentage of households with per capita household disposable income below the three poverty lines, the CSG means test thresholds and the PIT threshold.

Figure 2.2: Mean monthly per capita household disposable income, by per capita household disposable income decile



Source: Analysis of output data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

111. It is a harrowing picture.

111.1. FPL is the lowest of these lines. All households in deciles 1-2 fall below this line. At the higher LBPL almost all (90%) of the households in decile 3 are added.

111.2. All households in deciles 1-4 fall below the UBPL.

111.3. The CSG single means test covers all households in deciles 1-7 and 43% of households in decile 8.

111.4. All households in deciles 1-8 and a fifth of those in decile 9 lie below the PIT income threshold requiring the submission of a tax return.

Table 2.4: Percentage of households with per capita household incomes falling below key poverty lines, means-test lines and tax threshold lines, by decile[15]

Decile	Food poverty line (R595)	Lower bound poverty line (R860)	Upper bound poverty line (R1,300)	CSG single means test (R4,600 per month)	PIT threshold (R7,275 per month)
1 (poorest)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
2	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
3	**12.7**	**90.9**	**100.0**	**100.0**	**100.0**
4	0.0	0.0	**100.0**	**100.0**	**100.0**
5	0.0	0.0	**4.8**	**100.0**	**100.0**
6	0.0	0.0	0.0	**100.0**	**100.0**
7	0.0	0.0	0.0	**100.0**	**100.0**
8	0.0	0.0	0.0	**43.3**	**100.0**
9	0.0	0.0	0.0	0.0	**21.2**
10 (richest)	0.0	0.0	0.0	0.0	0.0

Income sources across income deciles

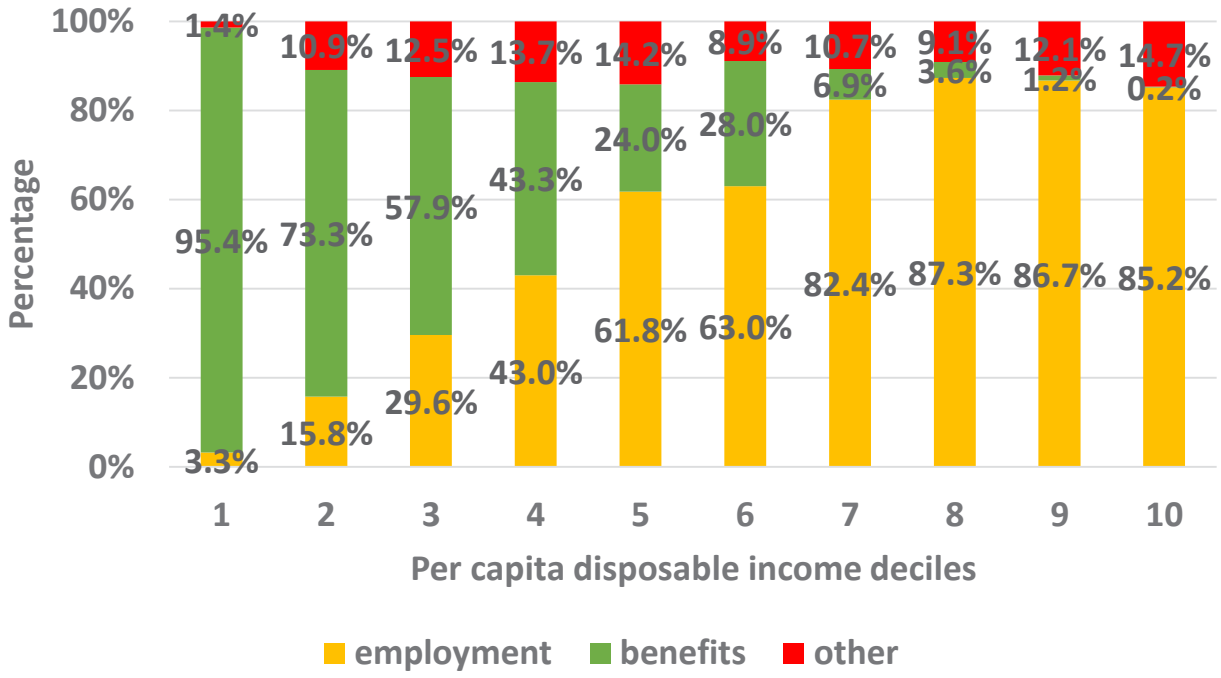
112. It is instructive to examine the sources of income across this income distribution. **Figure 2.3** shows the sources of income by decile broken down into three categories: employment (which includes income from employment and self-employment), benefits (i.e., social grants), and all other income sources.

[15] The poverty lines are all per capita monthly amounts and were inflated from April 2019 Rands to February 2021 Rands using the CPI. The CSG means-test and PIT threshold have been applied in this table to the per capita household income (in the same way as for the three poverty lines), though in practice for the purposes of the calculation of CSG eligibility and PIT liability, the unit of analysis is the individual (or the couple, for CSG applicants with a spouse). Results are shown by per capita household disposable income decile.

113. The share of income from employment is very low in the poorest deciles and increases across the deciles until decile 8 (87.3%), and then falls slightly for deciles 9 and 10 (86.7% and 85.2% respectively).

114. In contrast, the share of income from benefits (grants) decreases across the deciles, except for decile 6. It should be kept in mind that although benefits are the primary source of income in decile 1, household incomes in decile 1 are extremely small: the mean per capita household disposable income in decile 1 is just R65 per month.

Figure 2.3: Share of income from different sources, by per capita household disposable income decile[16]



Source: Analysis of output data for SAMOD V7.3-BIG using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using

[16] Employment income: employment and self-employment; Benefits income: CSG, CDG, FCG, DG, OPG; Other income: property, private pension, interest, private transfers, workman's compensation, other, and non-taxable income.

2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

115. **Table 2.5** presents a profile of households with earnings in each of the disposable income deciles. Mean monthly earnings increase by decile, reaching R50,121 for the richest decile. The percentage of households with earnings generally increases by decile, the greatest exception being decile 6 which is likely to be driven by recipients of the OPG (see below).

116. In the poorest income decile, only 5% of households are in receipt of earnings from employment or self-employment and, on average, these households have total labour market earnings of just R136 per month.

117. Thus, nearly all households in the lowest decile have no employed members and those that do have employed members have access only to very low paying jobs. In decile 2 too, only 38% of households have access to employment and the total earnings contribution coming into these households is R768 on average. Remembering that household size in this decile is 4.5 on average the support coming into these households from the labour market is very low.

118. This situation extends to at least the first four deciles. As noted above, all households in deciles 1-2 fall below the FPL, most households in deciles 1-3 fall below the LBPL, and all households in deciles 1-4 fall below the UBPL.

119. The earnings brought into the households in the lowest four deciles – in which 48% of South Africa's population live – fail to bring their inhabitants above the UBPL.

Table 2.5: Percentage of households with earnings and the mean gross earnings of these households, by per capita household disposable income deciles[17]

Decile	Percentage of households with earnings	Mean monthly earnings (Rand)
1 (poorest)	4.8	136
2	37.5	768
3	56.3	1,774
4	60.8	3,090
5	79.8	4,643
6	57.3	6,069
7	88.4	8,499
8	89.5	12,873
9	87.6	20,384
10 (richest)	90.9	50,121

Source: Analysis of input data for SAMOD V7.3-BIG using NIDS wave 5 re-weighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

120. **Table 2.6** presents a profile of households with income from benefits in each of the disposable income deciles. In the poorest income decile, only 30% of households are in receipt of income from grants, which is a lower percent than households in each of the deciles 2-7 inclusive. On average the households with income from benefits in decile 1 receive R652 per month, which is lower than for any of the other deciles. Close to 80% of households in deciles 2 and 3 receive benefits.

121. This percentage falls marginally to 75% in decile 4 and close to 70% in deciles 5 and 6. The total amount of grant income coming into households averages at least R1700 per month in each of deciles 2-8.

[17] In the calculation for the final column, gross income from earnings is pooled within a household and so the mean monthly earnings do not necessarily reflect an individual's earned income, as more than one person in a household could be in receipt of earned income. The mean monthly earnings amount was calculated using only those households that had earnings greater than zero.

Table 2.6: Percentage of households in receipt of grants and the mean income from grants of these households, by per capita household disposable income deciles[18]

Decile	Percentage of households in receipt of one or more grants	Mean monthly benefits (Rand)
1 (poorest)	29.5	652
2	78.6	1,704
3	79.9	2,443
4	76.5	2,471
5	70.8	2,033
6	68.5	2,259
7	32.4	1,944
8	26.4	1,788
9	17.9	1,337
10 (richest)	9.5	981

Source: Analysis of output data for SAMOD V7.3-BIG using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

122. **Figure 2.4** presents the same information about income from grants, but now in terms of the share of overall expenditure on benefits being received by each decile. As can be seen, a very small share of the grant income is received by households in each of deciles 1, 9 and 10.

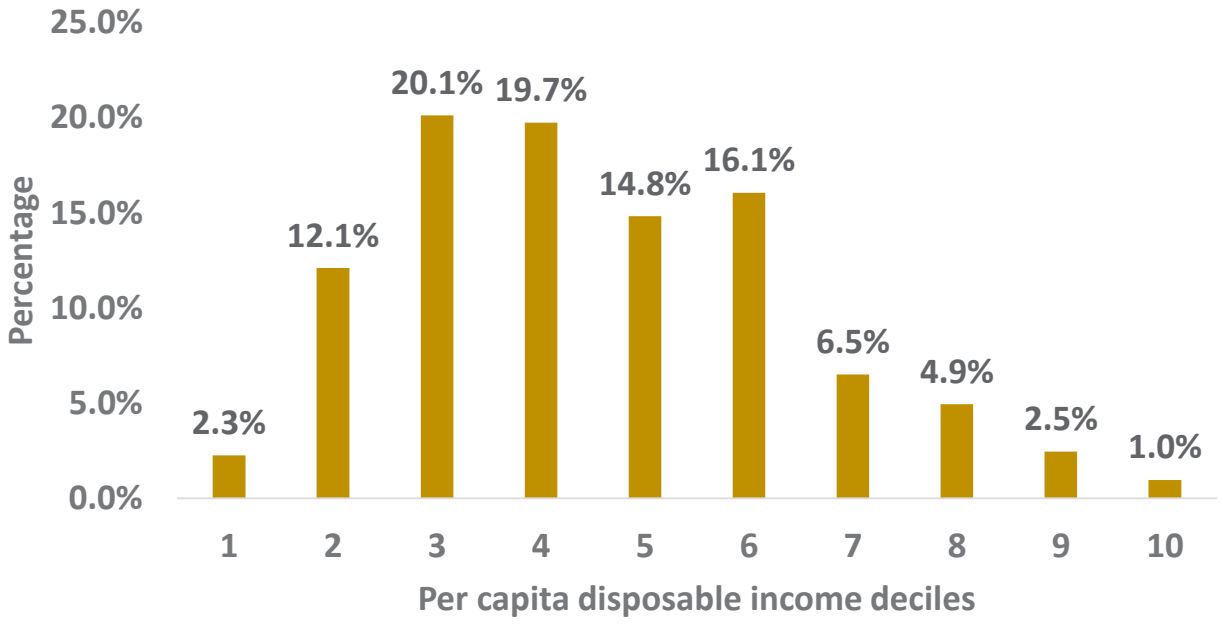
123. In contrast, almost 40% of benefit income is received by households in deciles 3 and 4. Income from benefits (as well as income from employment) move households *out* of the lowest deciles, leaving behind households that have no or low employment incomes and yet are not eligible for the existing social grants.

[18] In the calculation for the final column, mean monthly grant amount was calculated using only those households that had income from grants greater than zero. The simulations assume full take-up by eligible individuals.

124. From the results shown earlier, we know that the households in decile 1 have a smaller percentage of children in them than any other decile apart from decile 10; a smaller mean household size than any other decile apart from decile 10; and the highest proportion of people aged 18-59 (79%).

125. As highlighted in the policy context below, this corresponds to the group for whom there is currently no social assistance.

Figure 2.4: Share of benefit income going to each decile of per capita household disposable income[19]



Source: Analysis of output data for SAMOD V7.3-BIG using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

[19] The simulations assume full take-up by eligible individuals.

126. **Figure 2.5** shows how benefit income received by each decile is composed: by CSG, OPG and all other grants combined. This helps to demonstrate the role that the level of the grant amount plays in moving people out of poverty, or higher up the income distribution.

    126.1. For example, we know from **Figure 2.1** that the average per capita disposable household income in decile 1 is extremely low, but from **Figure 2.2** that the income that is received by households in that decile is mainly from benefits.

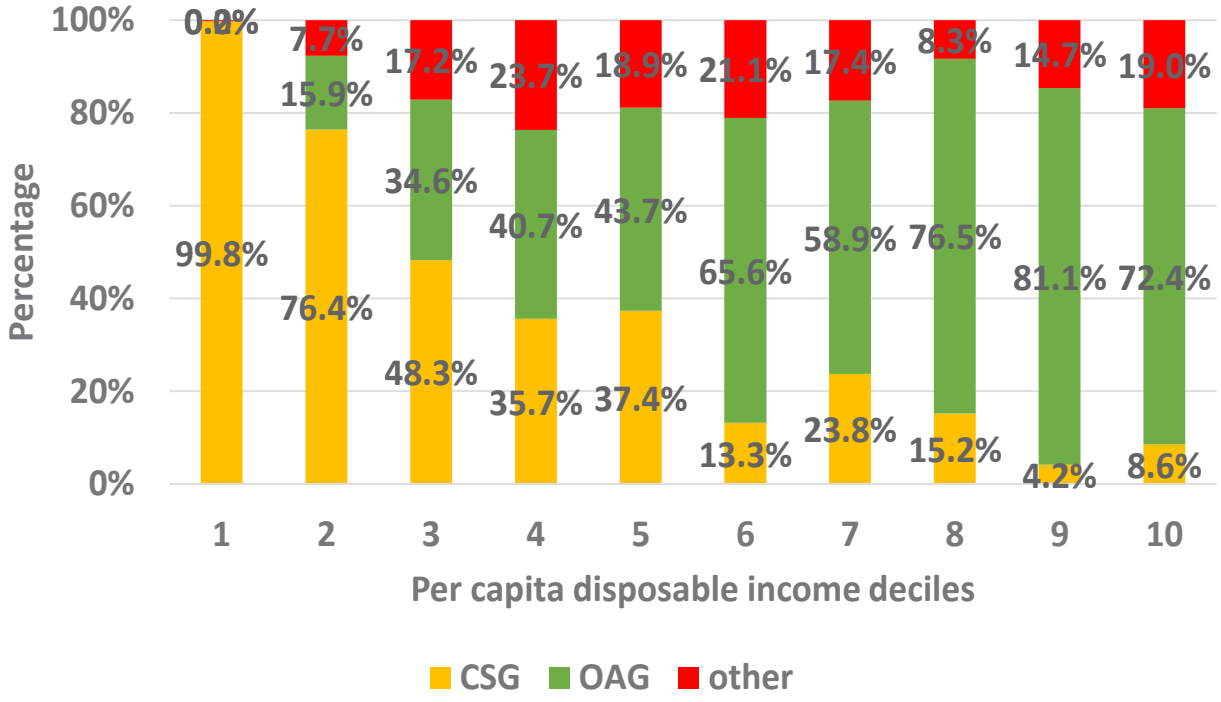
    126.2. In **Figure 2.5** we see that the grant income in decile 1 is from the CSG which is paid at R460 per month.

    126.3. In contrast, the OPG which is paid at R1,890 per month (or R1,910 per month if aged 75 or over) helps move households with a pensioner in receipt of an OPG higher up the income distribution.

127. **Table A3** in **Annexure A** shows the number of individuals in receipt of each type of benefit as simulated in SAMOD and **Table A4** shows simulated annual revenue from PIT and expenditure on each of the social grants (CSG, CDG, FCG, DG and OPG).

128. The tables also benchmark these numbers against administrative data to give comfort that this baseline picture closely matches the administrative data.

Figure 2.5: Share of total grant income of different grant types, by per capita household disposable income decile[20]



Source: Analysis of output data for SAMOD V7.3-BIG using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

129. The next section looks at taxes across the income distribution.

[20] The simulations assume full take-up by eligible individuals. Other: DG plus FCG plus CDG.

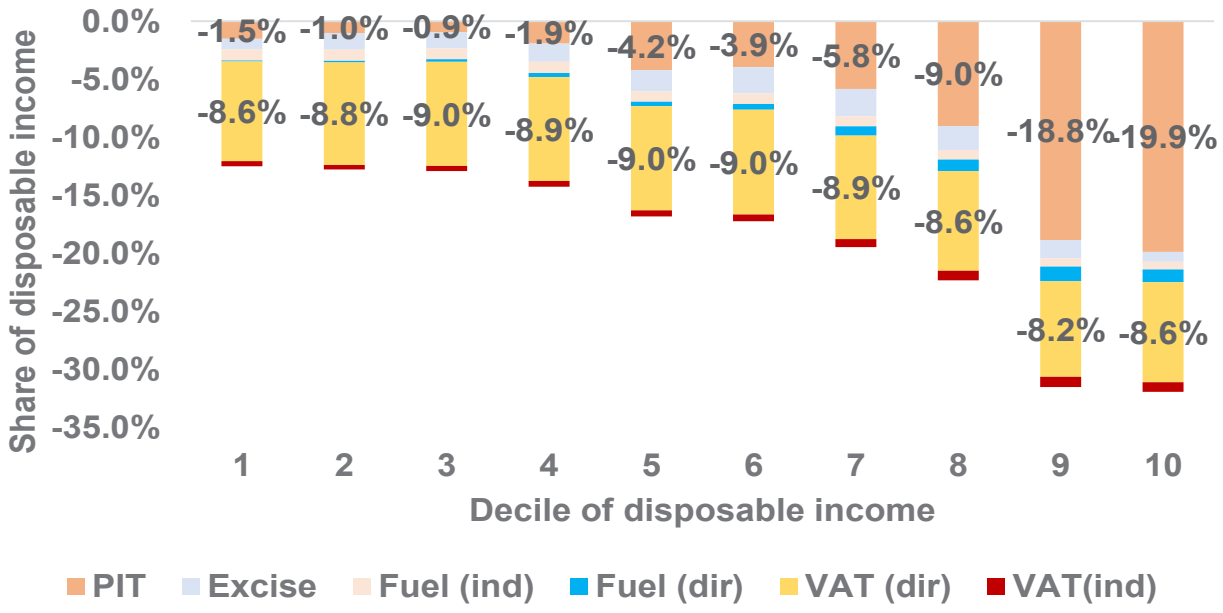
Taxes and taxpayers across income deciles and across tax bands

130. To bring taxes alongside the above picture of benefits, **Figure 2.6** presents, by decile, the share of income paid for a range of taxes, including personal income tax (PIT) and value added tax (VAT). Taxes lower income hence the reason the shares are negative.

131. Looking at PIT, the incidence in terms of the PIT paid as a share of disposable income rises sharply, especially when incomes start to rise more substantively from decile 7. This reflects the progressiveness of South Africa's PIT schedule.

132. Value added tax looks very different with the incidence across the deciles being constant or even slightly declining. Thus, VAT is not progressive and even slightly regressive.

Figure 2.6: The incidence of direct and indirect taxes across the income distrbution



Source: Calculations by Maya Goldman using the 2014 Living Conditions Survey (see Goldman, Woolard, & Jellema, 2020).

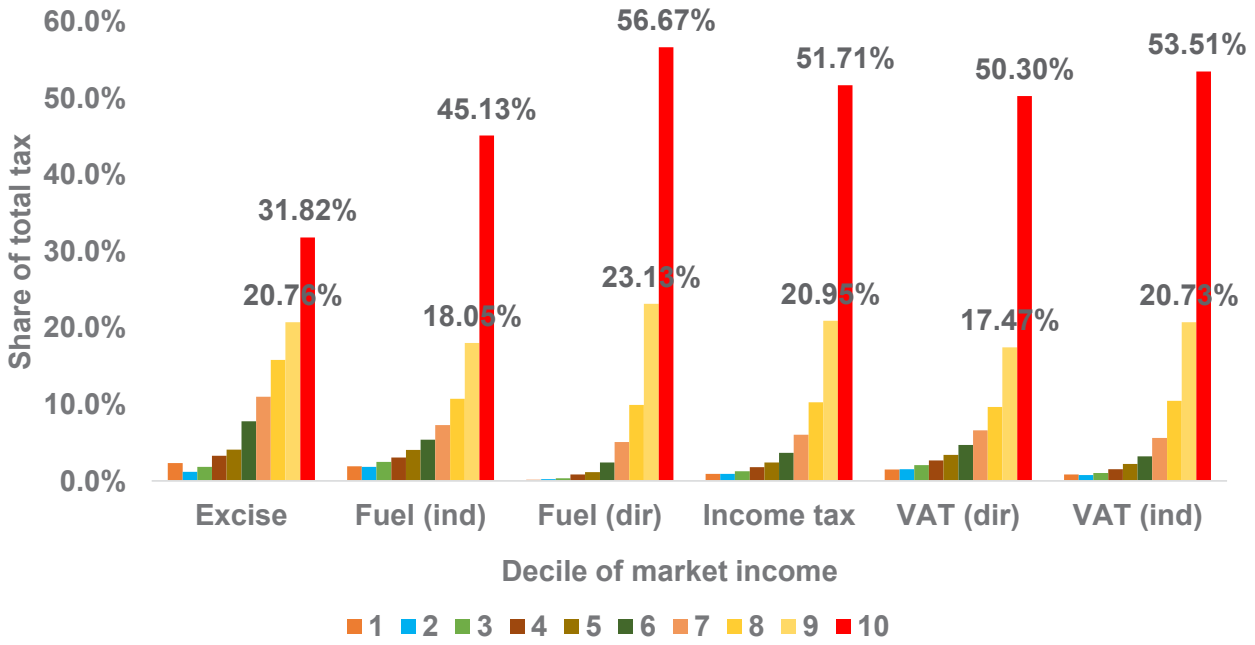
133. Given the wide dispersion of income levels across the deciles, paying the same share of income on any tax across the deciles implies paying very different rand values in taxes across the deciles.

134. **Figure 7** gives substance to this point by showing, for the same taxes as before, the share of tax revenue contributed by different deciles.

135. South Africa's inequality is such that even for VAT, which was mildly regressive, the 10th (richest) decile contributes 50% of the total revenue from VAT and deciles 9 and 10 cumulatively contribute 70% of this revenue.

136. This is approximately true of nearly all the taxes shown in **Figure 2.7** including PIT. The only exception is the excise tax (alcohol and cigarettes) in which deciles 9 and 10 cumulatively contribute 50% of the revenue.

Figure 2.7: Share of total tax revenue paid for different taxes, by per capita household disposable income decile



Source: Calculations by Maya Goldman using the 2014 Living Conditions Survey (see Goldman et al., 2020).

137. **Figures 2.6** and 2.**7** draw out some important points, but it is important to note that they were taken from a study by Goldman et al (2020) and are not derived using the SAMOD baseline data. Importantly, the disposable income deciles are not the same as used in the rest of this section. We return now to the PIT data as simulated using SAMOD's dataset.

138. Regarding the simulated PIT in SAMOD, a recent study compared the amount of PIT that was simulated in an earlier version of SAMOD (for the tax year 2017/18), with reported PIT revenue, and with a microsimulation model that is underpinned by an anonymised full set of taxpayer records called PITMOD (Steyn et al., 2021).

    138.1. **Table 2.7** below shows that for the tax year 2017/18, SAMOD simulated between 77 and 78% of the reported PIT revenue of R460 billion.

    138.2. **Table 2.8** provides a profile of the distribution of tax payers across the income tax bands and in so doing offers insight into why SAMOD under-simulates PIT.

    138.3. **Table 2.8** also compares the number of tax payers, taxable income, and tax payable as simulated by SAMOD, and as simulated by PITMOD which is underpinned by a full set of anonymised tax payer records.

139. Here we see that although SAMOD simulates a similar number of tax payers and taxable income to PITMOD, the income tax payable is only 80% of PITMOD's figure. This is because SAMOD's underpinning dataset slightly over-represents low income tax payers (120% of the the PITMOD taxpayers in the lowest band), and under-represents tax payers in the highest tax band (50% of the the PITMOD taxpayers in the highest band). The main implication of this is that any simulated adjustment to PIT in SAMOD to the higher tax bands will under-estimate the extra revenue gained.[21]

[21] The same NIDS dataset was used for SAMOD's underpinning dataset in the Steyn et al. (2021) study and for the results shown in this report. However, for the analysis in this report the dataset was further updated and reweighted to reflect a more up to date timepoint. It is not possible to update **Tables 2.7** and **2.8** to a more up to date timepoint as PITMOD currently only contains tax data for 2017/18. However, at an aggregate level (as shown in **Annexure D**), the version of SAMOD used in this report simulates 80% of reported payers of PIT, and 68.5% of PIT revenue, so a similar pattern persists.

Table 2.7: Reported and simulated revenue from personal income tax in 2017/18[22]

	Reported (Rm)	SAMOD		PITMOD	
		SAMOD simulated (Rm)	% captured (simulated/reported)	PITMOD simulated (Rm)	% captured (simulated/reported)
SARS	465,270	359,039	77.2	460, 439	99.0
National Treasury	460,953	359,039	77.9	460,439	99.9

Source: Calculations using SAMOD Version 7.4 and PITMOD Version 1.0 using 100% dataset (Steyn et al., 2021).

[22] The SARS reported figures are derived from National Treasury and SARS (2019). 'Tax Statistics 2019'. Pretoria: National Treasury and South African Revenue Service.

Table 2.8: Simulations of taxpayers and taxable income using SAMOD and PITMOD by taxable income band, 2018

Taxable income band (R thousand)	SAMOD			PITMOD			Ratio (SAMOD/PITMOD)		
	Taxpayers (n)	Taxable income (R million)	Income tax (R million)	Taxpayers (n)	Taxable income (R million)	Income tax (R million)	Taxpayers	Taxable income	Income tax
0–189,880	3,468,148	872,969	26,452	2,918,120	602,464	30,938	1.2	1.4	0.9
189,881–296,540	1,427,634	335,741	40,023	1,571,450	379,245	48,059	0.9	0.9	0.8
296,541–410,460	796,027	271,522	45,766	982,340	341,156	59,025	0.8	0.8	0.8
410,461–555,600	455,633	212,178	44,871	578,540	273,741	59,499	0.8	0.8	0.8
555,601–708,310	325,514	203,744	51,488	293,790	183,360	47,313	1.1	1.1	1.1
708,311–1500,000	347,306	319,607	95,870	390,410	371,601	115,704	0.9	0.9	0.8
1500,001 and over	41,055	136,051	54,568	85,630	244,735	99,878	0.5	0.6	0.5
TOTAL	6,861,316	2,351,812	359,039	6,820,280	2,396,302	460,416	1.0	1.0	0.8

Source: Calculations using SAMOD Version 7.4 and PITMOD Version 1.0 (Steyn et al., 2021).

Food security

140. Despite being an upper-middle-income country, prevalence rates of food insecurity and malnutrition in South Africa are persistently and unacceptably high. Child stunting, an indicator of undernutrition that is closely associated with chronic poverty, has been estimated at around 25%, or one in four children under five years old, since at least the early 1990s.

141. In terms of Food and Agriculture Organisation of the United Nations (FAO) four pillars of food security framework – availability, access, stability, and utilisation – inadequate food supply or aggregate *availability* is not the explanation.

142. South Africa is self-sufficient in food, "*through a combination of own production and food imports*" (Food and Agriculture Organisation of the United Nations, 2015, p. 10). At the national level, food availability exceeds food needs, even in drought years such as 2015.

143. It follows that food insecurity and hunger result from the inequitable distribution of available food, which is closely correlated with poverty, or lack of effective resources to *access* adequate food. The proportion of people in South Africa living below the food poverty line was 25.2% in 2015 (StatsSA, 2017), almost identical as a ratio to the proportion of stunted children.

144. Economic access to food is constrained by high rates of unemployment and low incomes among large segments of the working population.

145. *Stability* of food access is compromised by seasonality in sectors such as agriculture, where farm workers are effectively unemployed for half the year (Stephen Devereux & Tavener-Smith, 2019).

    145.1. A survey in the Northern Cape found that 88% of seasonal farm workers experienced severe food insecurity during the winter months, as measured by the Household Food Insecurity Access Scale (HFIAS).

    145.2. This fell to 49% during the summer harvest period, when agricultural employment and earnings peak.

146. Biological *utilisation* of food is compromised by poor health and inadequate care practises.

146.1. This aspect is best addressed by interventions that improve access to quality healthcare, safe water and sanitation facilities, as well as education and behaviour change communication on the importance of exclusive breastfeeding of infants, hygienic practices such as handwashing, dietary diversity, and so on.

147. While these are all important drivers of malnutrition, in South Africa they are secondary to poverty, which has been identified as the main driver (May & Timæus, 2014).

147.1. "*The poor bear the brunt of food insecurity … Households in the poorest quintile recorded the highest level of both severe and moderate food insecurity in all years*" from 2012 to 2015 (The World Bank, 2018, p. 26).

148. Across the world, social grants have been proven to reduce household food insecurity and rates of malnutrition, mainly by directly boosting household incomes and purchasing power.

148.1. A meta-analysis of 39 social protection programmes found that average caloric intake and food consumption or expenditure improved significantly, relative to the baseline (Hidrobo, Hoddinott, Kumar, & Olivier, 2014).

148.2. A systematic review found statistically significant improvements in dietary diversity, in more than half of cash transfer programmes reviewed (Bastagli et al., 2018).

148.3. In South Africa children living with Older Persons Grant recipients recorded better anthropometric outcomes, and this effect was stronger for girl children and female pensioners (Duflo, 2003).

149. The evidence on the impact of the Child Support Grant (CSG) is more equivocal.

149.1. Children who received the CSG were significantly less likely to be stunted (Agüero, Carter, & Woolard, 2007).

149.2. An evaluation by DSD, SASSA and UNICEF (Department of Social Development, 2012) found no impact of the CSG on stunting across their full sample, but a significant positive impact on children with educated mothers.

149.3. A weak impact of the CSG on child stunting has however been found (Coetzee, 2013, p. 429; S. Devereux & J., 2017) using various data sources.

150. Overall, despite the number of beneficiaries rising from zero before its introduction in 1998 to 12 out of 18 million children by 2015, the CSG appears to have had little discernible impact on anthropometric outcomes at national level, specifically child stunting rates which plateaued at around 25% throughout this period.

151. Two possible explanations are offered (S. Devereux & J., 2017).

151.1. First is dilution of the CSG among multiple users (the whole household, not only the designated beneficiary); and multiple uses (various household needs, not only food).

151.2. Second is the inadequate value of the grant, which remains too low to meet the child's food needs. As of April 2021, the CSG (R460) could purchase less than two-thirds (61%) of a nutritious food basket – estimated to cost R752 (Pietermaritzburg Economic Justice & Dignity Group, June 2021) – assuming all CSG cash was spent on food, exclusively for the beneficiary child.

152. Nutrition/stunting/wasting is a longer-run outcome. Hunger varies more over the shorter run. The evidence from NIDS-CRAM is clear that hunger rose dramatically under the severe lockdowns and that the emergency relief grant top-ups notably ameliorated this situation.

Unemployment

153. Employment levels reflects the levels of domestic economic output, which went into severe decline from the second quarter of 2020. Employment is however also important to the distribution of income, with implications for the social context, in particular the levels of income poverty described above.

154. An important feature of the social context is South Africa's overall poor employment achievements over a long period, and more recently exacerbated by the economic impacts of the COVID-19 pandemic. Employment levels went into steep decline in the second quarter of 2020 and have not as yet fully recovered (**Table 2.9** and **Figures 2.8** and **2.9**).

155. The lockdowns impacted negatively on deciles 2 to 7 (see for instance **Figure 2.3**), where incomes from labour are important. Many households have therefore faced a substantial change in circumstances.

156. An anomaly exists for the second quarter of 2020 when the number of unemployed declines to 4.4 million from a previous quarter value of 7.1 million (**Table 2.9**).

    156.1. This appears to be because the official statistics allocated the reduced employment to the "*other*" category of the not economically active population.

    156.2. This reduced the Labour force denominator by that amount, resulting in a reduction in the narrow definition of the unemployment rate from 30.1% in January-March 2020 to 23.3% in April-June 3020.

    156.3. The correct trend is restored from July-September 2020.

157. The extent of the hardship faced by households lies in the broad definition of unemployment which includes discouraged worker in the calculation. This part of the workforce would have continued to seek work if they had not given up looking. This shows an increasing trend from January-March 2020 to April-June 2021, moving from a rate of 42.6% to 48.9% (**Table 2.9**).

158. *Roughly half the labour force, or 11.1 million adults, are unable to work, with the situation deteriorating*.

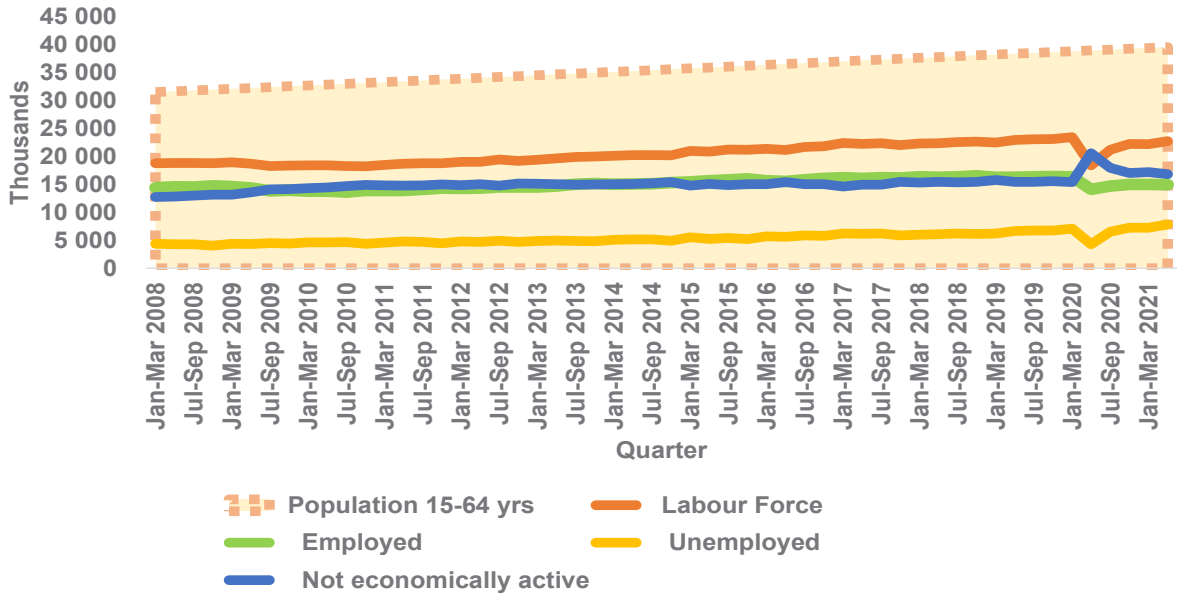
159. The loss of employments has also particularly impacted on the younger age groups, with the greatest impact on the youth – reflected by the age range 15-24 years (**Figure 2.9**). These shifts in the employed population are likely negatively impact on the life paths of the individuals themselves and the health and well-being of the households they belong to.

Table 2.9: Key labour force statistics

	Jan-Mar 2020	Apr-Jun 2020	Jul-Sep 2020	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021
Population 15-64 yrs	**38 874**	**39 021**	**39 167**	**39 311**	**39 455**	**39 599**
Labour Force	**23 452**	**18 443**	**21 224**	**22 257**	**22 237**	**22 768**
Employed	16 383	14 148	14 691	15 024	14 995	14 942
Unemployed (narrow)[23]	7 070	[4 295]	6 533	7 233	7 242	7 826
Unemployed (broad)[24]	9 988	6 766	9 229	10 164	10 373	11 143
Not economically active	15 422	20 578	17 944	17 054	17 218	16 832
Discouraged work-seekers	*2 918*	*2 471*	*2 696*	*2 930*	*3 131*	*3 317*
Other	*12 504*	*18 107*	*15 248*	*14 124*	*14 086*	*13 515*
			Rates (%)			
Unemployment (narrow)	30.1	23.3	30.8	32.5	32.6	34.4
Unemployment (broad)	42.6	36.7	43.5	45.7	46.6	48.9
Employed/population ratio (Absorption)	42.1	36.3	37.5	38.2	38.0	37.7
Labour force participation rate	60.3	47.3	54.2	56.6	56.4	57.5

Source: (Statistics South Africa, 2021)

Figure 2.8: Labour force, employment and unemployment trends by quarter from January-March 2009 to January-March 2021

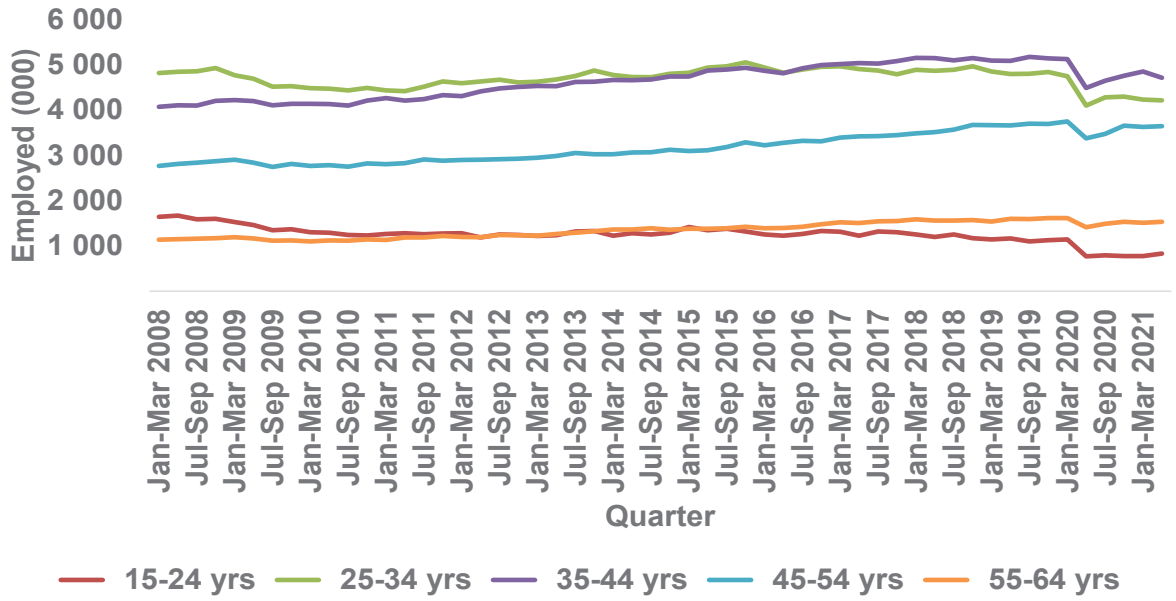


Source: Based on (from data files published with Statistics South Africa, 2021)

[23] The narrow definition includes only those adults actively looking for work.

[24] The broad definition includes discouraged workers who actually want work, but have given up looking.

Figure 2.9: Employment trends by age group and quarter from January-March 2008 to January-March 2021



Source: Based on (from data files published with Statistics South Africa, 2021)

PART 2.4: PROFILING THE POLICY SCENE – COVERAGE GAPS

Overview

160. South Africa's social protection system is described by some analysts as comprehensive and generous, but by others as having serious coverage gaps and delivering inadequate benefits to meet basic needs.

161. Both views can be defended: the coverage of social assistance and social insurance is relatively comprehensive compared to other countries in Africa, but certain groups fall between the cracks, notably the long-term unemployed and low-paid informal or self-employed workers.

162. Also, social assistance benefits are relatively high by African standards, but high levels of malnutrition and poverty confirm their inadequacy relative to needs in the South African context.

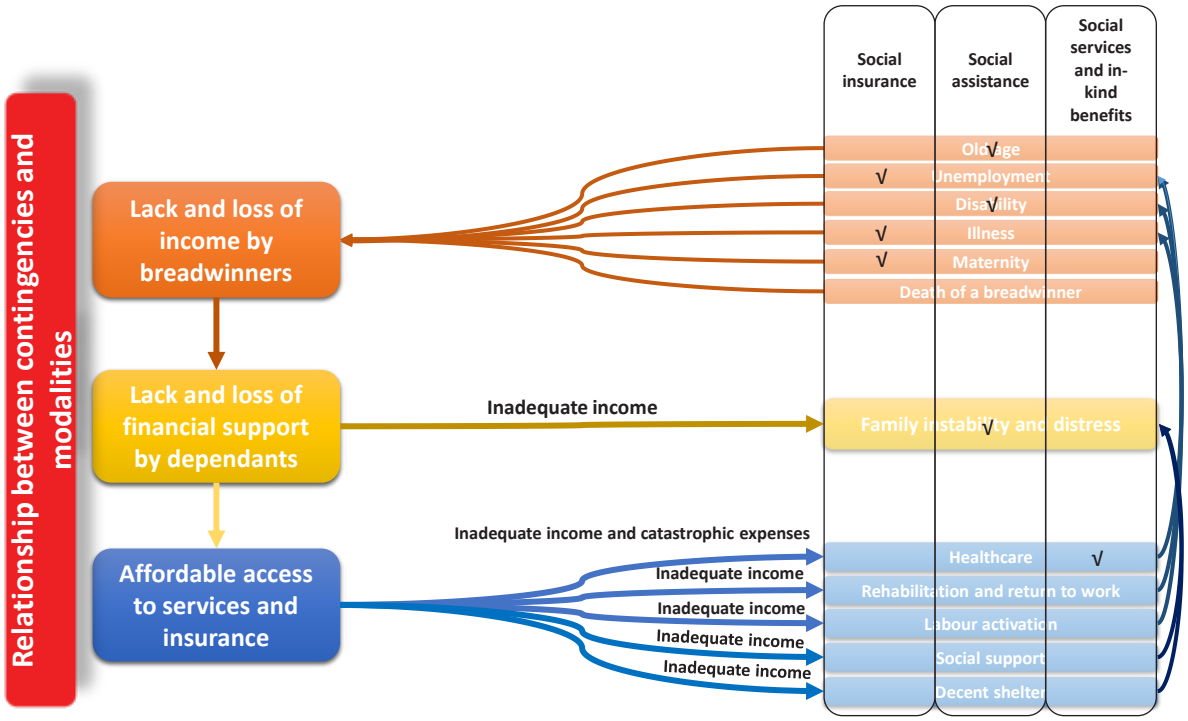
163. Social protection systems are dominated by two pillars: *social assistance* (non-contributory transfers, also known as social welfare) and *social insurance*

(contributory schemes, sometimes known as social security). In South Africa, social assistance is dominated by seven social grants.

164. Statutory social insurance is dominated by the Unemployment Insurance Fund (UIF) and the Compensation Fund (CF). In-kind free services are also an option in the case of healthcare and social services.

165. A complete system of protection would balance in-kind-services with social assistance and social insurance. The basic structure of the social protection system as we have it today is illustrated in **Figure 2.10**.

Figure 2.10. Social protection in South Africa – what we have by contingency and type of social security scheme[25]



[25] the ticks indicate where some form of social protection exists. A tick with an asterisk indicates where an incomplete arrangement exists. No tick indicates the absence of any form of substantive protection for a contingency. The left-hand side indicates the more general contingency while the right-hand side shows specific contingencies. The arrows indicate causal inter-relationships between contingencies. For instance, a lack of income (which can arise from the life cycle and associated contingencies) leads to a lack of income for dependents which in-turn leads to reduced access to services and insurance. The loss of family income places the family in distress with multi-faceted impacts.

Social assistance schemes

166. Social protection systems are often organised around the life cycle, with different schemes targeting different age cohorts.

166.1. South Africa's social grants are designed to provide support to poor children (CSG, up to 18 years of age) and poor older persons (OPG, over 60 years of age).

166.2. Poor working-age adults (18-59 years of age) are not normally eligible for any social assistance (as seen below, this changed during the COVID-19 pandemic) unless they are disabled, because they are expected to be in work or covered by social insurance although in practice this is not the case.

166.3. Social grants received by working-age adults are means-tested: the disability grant and grant in aid have the same means-test threshold as the OPG, but the care dependency grant means-test is set at a higher level.

166.4. The eligibility criteria for the foster care grant do not include a means-test of the caregiver – but access to the grant is constrained by an inefficient social worker support system.

Table 2.10: Number of social grants beneficiaries by grant type, 2021

Social grant	Beneficiaries	% of total	R/month
Child Support Grant (CSG)	12,992,589	70.5%	460
Older Person's Grant (OPG)	3,722,675	20.2%	1,890
Disability Grant (DG)	997,752	5.4%	1,890
Foster Care Grant (FCG)	309,453	1.7%	1,050
Grant in Aid (GIA)	267,912	1.5%	460
Care Dependency Grant (CDG)	150,151	0.8%	1,890
War Veteran Grant (WVG)	40	0.0%	1,910
Total	**18,440,572**	**100.0%**	

Sources: SASSA 2021, **Table 2** (Beneficiaries, as of end March 2021); Mboweni 2021 (Rands per month, from April 2021)

167. Two-thirds of social grant recipients live in four provinces:

167.1. KwaZulu-Natal (22%), Eastern Cape (15.5%), Gauteng (15.4%) and Limpopo (14.4%). KwaZulu-Natal, Eastern Cape and Limpopo are three of the poorest provinces, but Gauteng is one of the richest.

167.2. A better indicator of whether social grants target poorer provinces is by comparing the provincial shares of beneficiaries and population size (**Table 2.11**).

167.2.1. *% beneficiaries* > *% population*: KwaZulu-Natal, Eastern Cape, Limpopo, Mpumalanga, North West, Free State, Northern Cape.

167.2.2. *% beneficiaries* < *% population*: Gauteng, Western Cape (the two wealthiest provinces).

Table 2.11: Number of social grants beneficiaries by province (2021)

Social grant	Beneficiaries	% of total beneficiaries	% of national population
KwaZulu-Natal (KZN)	4,065,512	22.0%	19.4%
Eastern Cape (EC)	2,849,184	15.5%	11.2%
Gauteng (GP)	2,847,820	15.4%	25.8%
Limpopo (LP)	2,647,292	14.4%	10.2%
Western Cape (WC)	1,640,057	8.9%	11.6%
Mpumalanga (MP)	1,555,838	8.4%	7.9%
North West (NW)	1,291,307	7.0%	6.8%
Free State (FS)	1,040,837	5.6%	5.0%
Northern Cape (NC)	502,725	2.7%	2.1%
Total	**18,440,572**	**100.0%**	**100.0%**

Sources: SASSA 2021, **Table 3** (Beneficiaries, as of end March 2021); Statista 2021 (% of national population, 2019)

168. Several simulation studies have estimated the impact of variants of the social grants on indicators of poverty and wellbeing.

168.1. Coetzee (2013) evaluated the impact of the CSG on child health, nutrition and education, and found small but significant treatment effects on child stunting (height-for-age z-score), household per capita food expenditure, and progress through school.

168.2. Coetzee (2013, p. 446) speculates that the small size of these effects might be due to cash being used to purchase other goods that do not benefit only children, that the CSG amount is relatively small, and that "*the cash is spread across the entire household*".

169. Beukes *et al* (2015) found that the CSG alone reduced the national poverty headcount from 52.9% to 44.6%, and that doubling the monthly amount paid would reduce poverty further, to 39.6%. Across a range of simulations, doubling the CSG was found to deliver "*the most cost-effective decrease in the number of poor people*" (Beukes, Jansen, Moses, & Yu, 2017, p. 10).

170. Schiel *et al* (2014, p. 9) found that social grants "*have either a negligible effect or small equalising effect on total income inequality*", despite being targeted towards the poorer deciles.

171. The authors speculate that this could be due to the small share of total income derived from these sources – most inequality in South Africa is driven by labour income, which contributed 73% of total income inequality in 2008.

172. Leibbrandt and Levinsohn (2011, p. 20) nuanced this finding, with evidence that the social grants play a stabilising role on poverty and inequality indicators, which would be much worse in their absence: "*the child support grant in particular … counterbalances a strongly negative set of changes coming from the labour market*".

173. More recently, Gasior et al. (2021) found that although direct taxes make more of a contribution to the reduction of income inequality than benefits, the combined impact of pensions and grants reduces poverty considerably from 32.6% to 11.9%, using the international poverty line of $1.90 per day.

Social insurance schemes

174. Public contributory schemes, which in many countries provide a crucial tier of protection, amounted to a mere 1.6% of GDP in 2018 (Department of Social Development & Wits School of Governance, 2021, p. 67).

    174.1. "*Unemployment Insurance Fund (UIF)*: This fund is established in terms of the Unemployment Insurance Act (Republic of South Africa, 2001) and is operated through the Department of Employment and Labour."

    174.2. **"***Compensation Fund*: This fund is established in terms of the Compensation for Occupational Diseases and Injuries Act (Republic of South Africa, 1993) and is operated through the Department of Employment and Labour."

174.3. "*Road Accident Fund (RAF)*: This fund operates through a principal act, The Road Accident Fund Act (Republic of South Africa, 1996b) and the Road Accident Fund Transition Act (Republic of South Africa, 2012)."

174.4. "*Compensation Commissioner for Occupational Diseases (CCOD)*: This fund/arrangement is provided for in legislation through the Occupational Diseases in Mine Workers Act (Republic of South Africa, 1973). The arrangement falls under the control of the National Department of Health."

175. The Social Budget analysis (Department of Social Development & Wits School of Governance, 2021) makes three observations regarding social insurance:

175.1. First, the overall policy framework demonstrates no development from the structural features of the system prior to 1994.

175.2. Second, despite dramatic increases in administrative expenditure, the benefits offered by these schemes has shown no material improvement from 1994.

175.3. Third, until the COVID-19 crisis, two key funds, the Compensation Fund and the UIF have tended to accrue substantial asset accumulations out of all proportion to their current liabilities.

176. In summary, the Social Budget concludes that the "current system of social insurance for South Africa appears to be a severely neglected area of policy. A degree of institutional inertia has set in that prevents any structural shift from the Apartheid institutional frameworks which supported a privileged few…" (Department of Social Development & Wits School of Governance, 2021, p. 72).

Universal health coverage

177. While the South African health system is broadly universal in terms of coverage it demonstrates key weakness in the areas of performance and fairness. The state-run health services are characterised by ongoing failures in the quality of care provided due to governance weaknesses, while private coverage faces systemic cost increases and residual discrimination on the basis of health status (Department of Social Development & Wits School of Governance, 2021; Rispel, de Jager, & Fonn, 2015; van den Heever, 2019).

178. South Africa's health system involves two large systems, a tax-funded state-run health system and a regulated market for private coverage involving medical schemes (funders) and private health service providers. As of 2018 the population using state-run health services is around 48 million in comparison to around 8.8 million covered through medical schemes. (Department of Social Development & Wits School of Governance, 2021)

179. This framework predates 1994 and broadly mirrors the stark income and wealth inequalities in South Africa. The free state-run health services operate as a default arrangement for families without adequate incomes, while medical schemes cater for families with sufficient incomes to pay for their own healthcare. The private system is quasi mandatory through various regulatory measures that encourage participation and (incompletely) prohibit many forms of discrimination based on health status.

180. Access to free state-run hospital services excludes those with adequate incomes and those on medical schemes through the application of a means test. Given this, in the absence of medical scheme coverage higher income groups would have to pay for state-run hospital services on an out-of-pocket basis.

181. As part of the universal coverage framework, a per capita tax subsidy, in the form of a tax credit, is provided to medical scheme members in lieu of their entitlement to some form of public coverage protection. The value of this subsidy is roughly 17% lower than the per capita expenditure on those who make use of free state-run health services.(Department of Social Development & Wits School of Governance, 2021)

COVID-19 social protection schemes

182. In 2020, COVID-19 triggered the declaration of a national disaster (15 March), a national lockdown (23 March) and the introduction of significant social protection responses (26 March), which included the temporary employer/employee relief scheme (TERS) from April onwards, and from May onwards the COVID-SRD grant, and higher payments for 5 social grants (child support, disability, foster child, care dependency, and older persons).

183. From June 2020 the child support grant top-up was replaced with another new but also temporary benefit, the caregiver social relief of distress grant.

184. According to SASSA, between 4.4 and 6.1 million COVID-19 COVID-SRD grants of R350 per month were paid each month between May and December 2020. After a slow start with registration challenges and delays, the number of beneficiaries increased each month, peaking in October (**Table 2.12**).

185. The special SRD grant was extended until April 2021, and then reintroduced from August 2021 until the end of March 2022. Other COVID-19 benefits (the caregiver SRD and benefit top-ups) were terminated at the end of October 2020.

Table 2.12: COVID-19 SRD beneficiaries in 2020

Month (2020)	Beneficiaries
May	4,423,810
June	5,057,415
July	5,549,417
August	5,962,787
September	6,036,457
October	6,112,660
November	5,943,494
December	5,254,746

Source: (South African Social Security Agency, 2021, Table 61)

186. According to the Department of Labour, between March and September 2020, 12.9 TERS payments were made from the UIF to "*millions of workers*", amounting to R55.6 billion.[26]

187. Simulations estimated that food poverty[27] in South Africa would have risen from 20.6% in March to 32.1% in April (an increase of 56%) if no COVID-19 relief measures had been introduced. Instead, food poverty rose to 26.3% in April (only

[26] http://www.labour.gov.za/uif-pays-outstanding-covid-19-ters-claims-as-payments-for-september-october-commence [accessed 23 June 2021].

[27] The food poverty line (FPL) is the most stringent of South Africa's three official poverty lines.

half of the projected increase). In May it had fallen back to 20.9% and by June food poverty was lower than in March, at 18.8% (Barnes et al., 2021: 9).

188. Three factors explaining this are the introduction of the Caregiver SRD in May, and the rollout of the COVID-19 SRD grant to more than 5 million people by June (**Table 2.12**), as well as the fact that this analysis assumes full take up of benefits by those who are eligible for them (apart from the COVID-SRD benefit which was restricted to actual numbers of beneficiaries).

189. These positive effects are greater among female-headed households, households with children, and households with older persons – where food poverty fell from 15.6% to just 0.8%, thanks to the R250/month increase in the Older Person's Grants (Barnes et al., 2021: 10).

190. These findings confirm the importance of public action, specifically social protection, in alleviating poverty in South Africa.

191. Conversely, removing these temporary benefits – by ending most COVID-19 relief measures in October 2020 and the COVID-SRD grant in April 2021 – will certainly have raised poverty headcounts, at least to baseline (pre-lockdown) levels but probably higher, and this will be only partially mitigated by the reintroduction in August 2021 of only the COVID-SRD grant.

Other social protection programmes

192. Among other social protection programmes in South Africa, two of the largest are considered here.

193. The *National School Nutrition Programme* provides in-school meals to 9.2 million learners in 21,000 schools in low-income communities (quintiles 1-3).[28] The NSNP has 3 pillars: school feeding, nutrition education, and school food gardens, but the second and third pillars receive very little attention or budget.

[28] https://section27.org.za/wp-content/uploads/2020/08/0017-DG-and-minister-affidavit-equal-education-07-08-2020-report-2020-08-11-1-1.pdf [accessed 19 June 2021].

194. The NSNP aims to reduce hunger, food insecurity and malnutrition among poor children by providing nutritious daily meals, and to improve education access (enrolment, attendance and retention) and education outcomes (learner performance and promotion rates).

195. There is limited empirical evidence for all these impacts (Graham, Hochfeld, Stuart, & Van Gent, 2015). Despite its scale (9.2 million beneficiaries) and budget (R7.7 billion in 2020/21), the NSNP is a relatively low-profile government programme. No comprehensive evaluation has ever been conducted, and the most recent NSNP Annual Report on the Department of Basic Education website is from 2013/14.[29]

196. The *Expanded Public Works Programme* (EPWP) is the main social assistance protection programme targeting adults, though unlike social grants access is conditional on the recipient providing labour.

197. The EPWP was launched in 2004, with the objective of providing short-term employment and skills development to unemployed South Africans, in four sectors: Infrastructure, Environment and Culture, Social, and Economic (later replaced with non-State).

198. According to the Department of Public Works which administers the programme, the EPWP aims "*to create work opportunities for the unemployed*" and to provide "*income transfers to poor households*".[30] Phase I (2004-09), Phase II (2010-14) and Phase III (2015-19) aimed to create 1 million, 4.5 million and 6 million work opportunities respectively.

199. *Despite its achievements, EPWP has not made a significant dent on unemployment and is seen mainly as a social assistance programme*. The EPWP continued to

[29] https://www.education.gov.za/Portals/0/Documents/Reports/NSNP%20ANNUAL%20REPORT%202014%20 website%20upload.pdf?ver=2015-07-06-153339-633 [accessed 19 June 2021].

[30] http://www.publicworks.gov.za/EPWP.html [accessed 19 June 2021].

function during COVID-19, creating 515,862 work opportunities between April and December 2020.[31]

PART 2.5: SOCIAL ASSISTANCE AND DEPENDENCY

200. A common complaint against social welfare programmes across the world is that they might induce 'dependency syndrome' or 'dependency culture', meaning that welfare recipients will 'choose leisure' and prefer to survive on 'handouts' from the state, remaining unemployed rather than looking for paid work. This concern also explains why social grants typically prioritise groups seen as 'deserving', particularly older persons, persons with disability, and children.

201. Working-age adults are offered assistance, if at all, only with a labour requirement, on public works projects such as the Expanded Public Works Programme in South Africa. Former President Thabo Mbeki and former Finance Minister Trevor Manuel both argued that the expansion of social grants could create a 'dependency culture' (cited in Surender, Noble, Wright, & Ntshongwana, 2010, p. 204).

202. Countries with generous benefit schemes often introduce mechanisms to discourage such behaviour, for instance by making unemployment benefits conditional on recipients proving they are searching for employment. In the UK, unemployment benefit is paid as a "*Jobseeker's Allowance to help you when you're looking for work*".[32]

203. A crucial determinant of this behavioural response is the relationship between the level of benefits paid and the recipient's reservation wage (i.e., the lowest wage rate at which a worker would be willing to accept a particular type of job). If benefits are close to or above the reservation wage, the recipient might be discouraged from working or looking for work.

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[31] http://www.publicworks.gov.za/PDFs/epwp_pub/EPWP_Newsletter_March_2021.pdf [accessed 19 June 2021].

[32] https://www.gov.uk/jobseekers-allowance [accessed 25 June 2021].

204. However, social grants in South Africa are too low to meet subsistence needs and do not allow recipients to escape poverty, suggesting that they fall well below most workers' reservation wage. An unemployed woman, interviewed while she was receiving the Child Support Grant (R190 per month in 2010) for her child, explained: "*There's no way you won't want to work, in order to live on R190 a month. When you work, you earn more than that…*" (quoted in Surender et al., 2010, p. 213).

205. Moreover, qualitative research in Western Cape and Eastern Cape found that unemployed people attach high non-income values to work, including overcoming social isolation and providing a sense of dignity, self-worth, and belonging to a community (Surender et al., 2010, p. 208; Zizzamia, 2020).

206. Rather than discouraging labour force participation and incentivising leisure, several studies have found a positive association between receiving social grants, job-seeking behaviour, and employment.

    206.1. A 2004 analysis found that South African households in receipt of social grants allocated some of their grant income to child-care, transport, and other costs associated with searching for work (Samson et al., 2004).

    206.2. A 2011 analysis found that women who received the CSG were 15% more likely to become employed (Eyal & Woolard, 2011).

    206.3. The arrival of an OPG in a poor household was also found to relax financial constraints, allow young men to migrate in search of work opportunities elsewhere and increase employment among working-age household members (Ardington, Bärnighausen, Case, & Menendez, 2015; Köhler, Bhorat, Hill, & Stanwix, 2021).

207. These findings concur with international evidence. In a paper titled 'Debunking the Stereotype of the Lazy Welfare Recipient' (Banerjee, Hanna, Kreindler, & Olken, 2017, p. 157) data from seven randomised controlled trials (RCTs) of government-run cash transfer programmes in six countries was analysed[33] and found "*no*

[33] Honduras, Indonesia, Mexico, Morocco, Nicaragua, and the Philippines.

systematic evidence of the cash transfer programs on either the propensity to work or the overall number of hours worked, for either men or women. […]"

208. In short, despite the rhetoric that cash transfer programmes lead to a massive exodus from the labour market, no evidence can be found to support these claims.

209. Similarly, a study of large-scale government cash transfers in sub-Saharan Africa concluded that "*the idea of a 'lazy welfare recipient' is simply not borne out by hard evidence in LMIC [lower- and middle-income country] settings*" (Handa et al., 2018, p. 279).

210. A pilot '*Basic Income Grant*' in Namibia generated evidence that recipients strengthened their autonomy and self-reliance in several ways (Basic Income Grant Coalition, 2009).

    210.1. Unemployment fell from 64% to 52% within six months, because recipients invested some grant money in informal micro-enterprises.

    210.2. Low-paid workers were empowered to demand fair wages and decent working conditions from their employers.[34]

    210.3. Poor community members depended less on their relatives and neighbours for assistance. Women gained financial autonomy from men.[35]

211. A recent study examined the '*laziness discourse*' in South Africa with respect to attitudes towards grant recipients, migrants, and government bureaucrats (Dawson & Fouksman, 2020).

    211.1. Regarding pejorative attitudes to grant recipients and expanded social security, they conducted interviews with young men in townships to explore why a concern around grant dependency persists.

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[34] A similar effect was found in cash transfer programmes in Ethiopia and in India (A., Wadugodapitiya, & Evans, 2015).

[35] This is also supported by findings elsewhere (François, Joana, & Joana, 2021; World Bank Group, 2020).

211.2. They highlight the ongoing expectation that people should undertake paid work, even in the context of rising unemployment, and argue that: "*Young men's resistance to expanded social grants are thus part of wider social anxieties and contestations around the reconfiguration of intergenerational and gendered social relationships and obligations. This reconfiguration is itself at least in part a result of the distribution of social grants…*" (Dawson & Fouksman, 2020, p. 236).

212. This is an important study as it engages with attitudes towards social security expressly within the context of insufficient jobs (on which also see Marais, 2020) and incomplete social security coverage:

212.1. "*Ultimately, we make the case that to begin thinking 'beyond the proper job' […] we must first understand and then interrogate the nuanced logics that continue to bind together hard work, deservingness and income, even for those no longer needed by labour markets*." (Dawson & Fouksman, 2020, p. 230).

213. Another perverse incentive associated specifically with the Child Support Grant is that it could induce increased fertility among young women. However, an empirical analysis found "*no association between teenage fertility in South Africa and the Child Support Grant*" (Makiwane & Udjo, 2006, p. 15).

213.1. The authors found that teenage fertility rates had risen, but this rise predated the introduction of the CSG in 1998, and it occurred among non-recipients as well as among recipients of the CSG.

213.2. They also established that most CSG recipients were over 35 years old. Only 3% of recipients were teenagers, disproving the belief that adolescent girls would deliberately fall pregnant to access the CSG.

214. Labour market outcomes of cash transfers are also examined by Baird et al. (2018) (also see Banerjee et al., 2017). The study challenged basic assumption that cash transfers should influence the labour/leisure choice and lead to decreases in labour supply (Baird, McKenzie, & Özler, 2018).

215. The authors claim that there are many studies on the effects of transfers on education, health, early childhood development, poverty and inequality, but not

many on labour market outcomes, and their paper therefore attempts to synthesize the existing evidence on cash transfers and labour market outcomes.

216. In their brief literature review of the theoretical predictions of labour market outcomes when individuals receive cash transfers, Baird et al. (2018) identify a few channels through which labour supply could be affected by cash transfers.

    216.1. As a result of missing financial markets, the poor generally do not have access to liquidity. They cannot borrow money for food, but cash transfers could help them to eat a healthy diet and be able to work more hours.

    216.2. Self-employed persons would be enabled to buy more capital goods and expand their businesses or take more risks if they receive a secure stream of income. Others would be enabled to afford job search activities.

    216.3. "*Cash transfers lead to children getting more education, and this education in turn then can affect the likelihood of work, the type of work, and the income earned from work as adults*" (Baird et al., 2018, p. 4).

217. Baird et al. continue to present a comprehensive report of the empirical evidence of what has happened when individuals in low- and middle-income countries receive cash transfers. They report on government conditional and unconditional cash transfer programmes, charitable giving and humanitarian cash transfers, private transfers of cash in the form of remittances, and specific programs that provide cash with the hope of specifically getting people to work.

218. The latter includes cash transfers for search assistance and finding work, cash transfers for small business start-up and growth, and combination interventions of transfers and training. They study the outcomes of various programs across the world and compare results. **Table C1** (**Annexure C**) briefly summarises all their findings.

PART 2.6: FISCAL CONTEXT FOR BASIC INCOME SUPPORT IN SOUTH AFRICA

Introduction

219. The discussion of a basic income grant in South Africa suggests a significant extension of the redistributive system. This section reviews the fiscal context for an expanded system of basic income support for income-vulnerable households.

Fiscal policy, redistribution and development

220. South Africa's fiscal system results in extensive redistribution and poverty reduction. Tax rates are high and progressive, while social spending is effectively targeted towards the poor. Studies show that the fiscal system reduces the inequality generated by the market system from a Gini coefficient of 0.74 to 0.64, even leaving out the impact of health and education expenditures (Goldman et al., 2020).

221. However, the primary distribution of income generated by the market is so bad that even after this large impact the gap between rich and poor remains extreme. So extreme that South Africa's '*post fiscal*' inequality is higher than anyone else's '*pre fiscal*' inequality (**Figure 2.11**).

222. This is not down to lack of effort. South Africa's fiscal operations reduce inequality by Gini points, equal to Brazil and far greater than other developing countries in this data set (**Figure 2.12**). The fiscal system goes further than others in reducing inequality, but we are still left with the highest level of inequality in the world.

223. It is often thought that more extensive redistribution through taxes and transfers will undermine economic efficiency and retard growth. This supposed trade-off between equity and efficiency is very deeply embedded in economic thought. A cursory glance at the nations on the right-hand side of figure 1b shows that it is quite possible to grow, develop and become '*efficient'* while engaging in significant fiscal redistribution.

224. Peter Lindert's (2004) analysis of the rise of the fiscal state is that the evidence for a negative effect of redistribution on growth in actual development processes is weak at best. There is no necessary negative feedback from social programmes to

productivity levels or productivity growth at a macroeconomic level over the span of modern history.

225. But his conclusion is highly contingent. The absence of any apparent empirical trade off reflects the fact that highly redistributive regimes have designed their taxation and transfer programmes in a manner that limits the potential for redistribution to constrain economic expansion.

226. As budgets for social policies have grown, the consequences of design failure also rise, and welfare-states have invested more heavily in avoiding mistakes. High spending welfare regimes have tended to (Lindert, 2004):

    226.1. Be more open economies with lower import barriers, competitive markets and a thriving export sector;

    226.2. Use more regressive, less distortionary taxation to finance progressive expenditure policies;

    226.3. Prioritise social investments that complement productivity growth and fine-tune the work incentives of their programs to limit welfare dependency, especially among young adults;

    226.4. Have high levels of democratic accountability, which limits inefficiency and corruption in the execution of programmes; and

    226.5. Use universalism rather than strict means testing, which lowers the cost of administration.

227. All these points are instructive in the South African context, especially as the extension of basic income support fits within a context of competing claims on state resources.

228. But South Africa is not amongst the club of developed countries that Lindert is concerned with. Its peripheral status in the world economy, its position on the southern tip of Africa, and its painful history of growth based on violence and dispossession add complexity to the relationship between social provision and economic development.

229. While social democratic projects in the Nordic states began when these countries were poor and depressed, and facing social and economic conditions that might be

compared with contemporary South Africa or Brazil, it is also argued that the Nordic development strategy protected private concentrations of wealth, avoided any disruption to property rights, maintained free trade and compressed the wages of employed workers while achieving rapid productivity growth (Wallerstein & Moene, 2006).

230. Full employment was a necessary condition for the fiscal sustainability and effectiveness of the welfare programme (Esping-Andersen, 1990), since it simultaneously reduced the demand for transfers and raised the base of taxation, and full employment was achieved largely through export competitiveness (Wallerstein & Moene, 2006).

231. This enabled universalism on the expenditure side, and public services used widely by the working and middle class, financed by taxation across a similarly broad base.

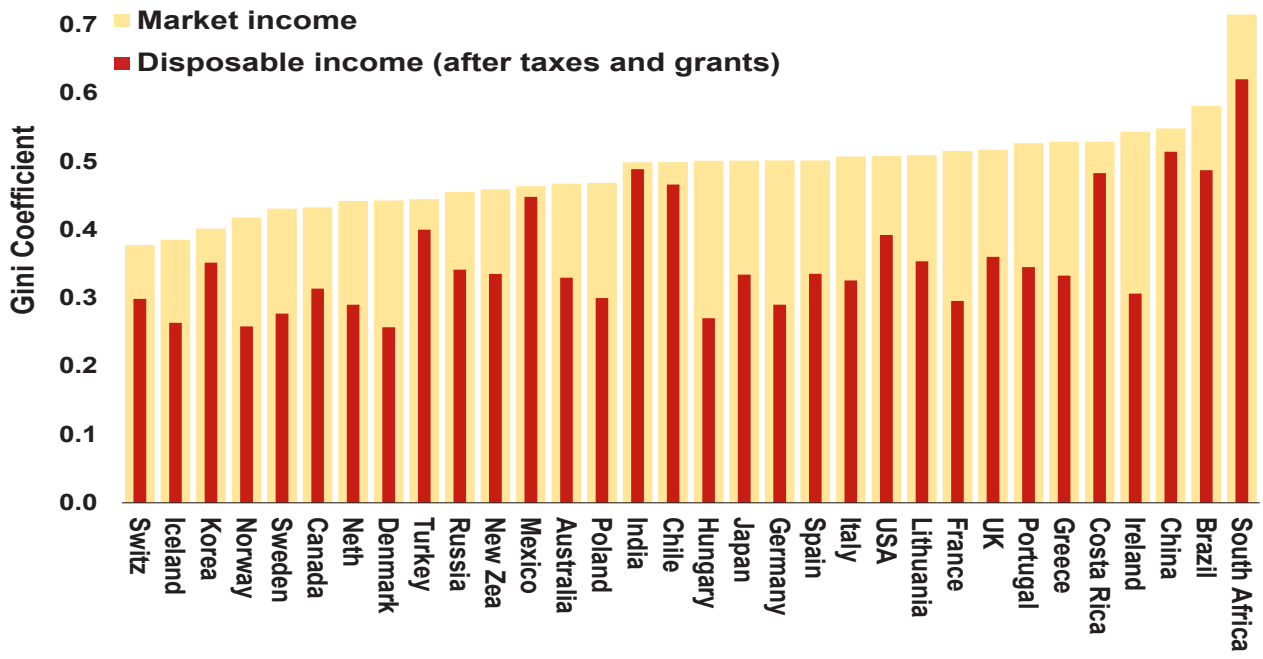
232. South Africa is striving for this kind of development path, but it is unlikely that these types of commitments can be made with credibility by the state or social partners in South Africa today.

233. Mass unemployment and segregation in the provision of collective goods (between public and private sectors) limit the scope for dramatic improvements in social solidarity and the resources available for redistribution.

234. Tax contributions are concentrated on the affluent, but public services are used almost exclusively by the poor.

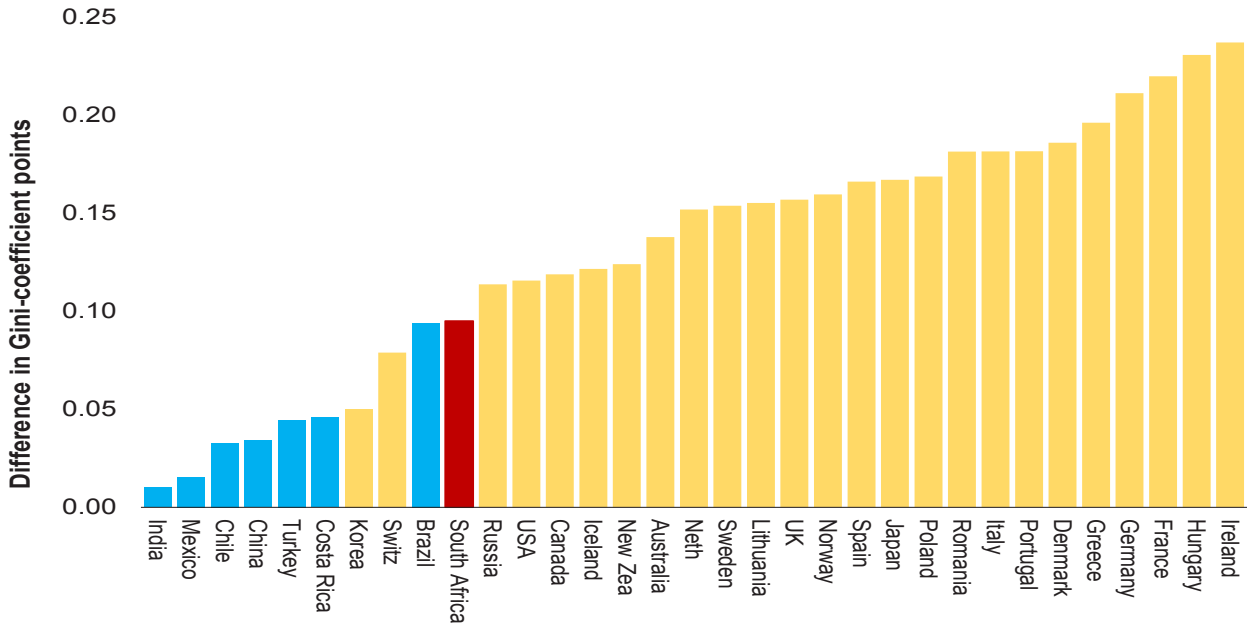
235. In a context of extreme income and wealth inequality and a small and vulnerable middle class, it will be exceedingly difficult to construct a development path based on wage restraint.

Figure 2.11: Inequality and fiscal policy (Gini coefficient on market income and disposable income) (Most recent information as at 2021)



Source: (OECD, 2021) and Sach's (Panel member) own calculations.

Figure 2.12: Fiscal effort (percentage point change in the Gini coefficient resulting from taxes and transfers) (Most recent information as at 2021)



Source: (OECD, 2021) and Sach's (Panel member) own calculations.

236. Social policy is not necessarily without a role in this context. Importantly, it can be argued that strategies to improve welfare, redistribute wealth and assets and develop human capabilities are a prerequisite for successful capitalist development as well as being desirable in their own right (Arrighi, Aschoff, & Scully, 2010).

237. Time will tell whether an expansion of basic income support is the catalyst to achieve such a transformation. It certainly has the capacity to eliminate poverty and hunger, and such an achievement would be historic.

238. It may also promote productivity growth, employment, and human capabilities. But these possibilities only make sense if the transfer system is implemented in a sustainable manner, without requiring a roll back of other aspects of the South Africa's large public economy.

239. Given the fiscal pressures that South Africa faces (and the contested legitimacy of the public sector) possible trade-offs with important social services need to be weighed up with care.

Economic stagnation and fiscal crisis

240. Income transfers financed by higher taxes on the affluent are not necessarily bad for economic growth. But it is by no means certain that they will, on their own, catalyse a new path of development and accumulation.

241. If they do not, and if South Africa remains confined to the growth path of recent decades, then the question of fiscal sustainability will become increasingly pressing. Were this to arise, the extension of taxes and transfers may worsen the fiscal crisis.

242. In the years prior to the COVID-19 pandemic, South Africa was in a deep and entrenched crisis of slow growth, deindustrialisation, stagnant productivity, low investment, falling exports and massive unemployment (Bhorat, Cassim, & Hirsch, 2014).

243. In the early 2000s, government had expanded the resource envelope for redistribution and social policy, increasing public employment in healthcare, basic education and policing, improving the pay of public servants and extending social grants to children and pensioners (Sachs, 2021).

244. This was complemented by an infrastructure push that would, it was hoped, jolt the country from the morass of stagnation. This however did not materialise.

245. The unwinding of the commodity super cycle from 2011 meant that growth continued to decelerate, while the deep erosion of political and public institutions (due to processes of state capture) combined with electricity-supply constraints deterred investment and undercut attempts to reignite growth.

246. Slow growth meant falling revenue – with a particularly strong drop in collection of corporate income tax.

247. Consequently, the new, higher level of public expenditure to which South Africa was now committed could not be funded from tax revenue. The primary budget surplus that the country had run until 2009 turned into a deteriorating debt position. In response, government relied largely on increased taxation to close the fiscal gap.

248. Primary spending was held constant, but new unfunded expenditure commitments were made (to free higher education and national health insurance), while the salaries of public servants grew faster than the budget, resulting in falling headcounts and a squeezing out of complementary inputs (like textbooks and medicines) and maintenance spending.

249. Unfortunately, the public infrastructure programme collapsed together with the balance sheets of state-owned companies, adding to the fiscal burden and reinforcing the collapse of private investment (Sachs, 2021).

250. Against this backdrop, South Africa's fiscal position has become increasingly difficult. The budget deficit has been entrenched for a decade. Borrowing largely pays for interest on past borrowing.

251. But fiscal dynamics are only part of this concerning context. An increasingly tight financial constraint has raised the cost of capital to government to levels unprecedented in post-1994 period[36].

252. But the most important factor has been falling growth.

253. Without growth the budget deficit is higher as the revenues needed to close it are not emerging. On current projections, per capita GDP will continue to decline over the medium-term, with important consequences for fiscal sustainability.

254. If not addressed, the risks of adverse spill-overs to finance, investment and growth will deepen. Where holders of financial capital doubt that Government is willing or able to meet its financial commitments, they begin to also doubt the stability of the monetary order. These are not conditions which encourage long-term investment.

Fiscal sustainability

255. There has been a fundamental reappraisal of the role of fiscal policy and the salience of debt sustainability as the global crises of the last decade unfolded.

256. A new fiscal consensus has emerged in advanced economies, but questions remain about the application of this reappraisal in the developing world (Blanchard, Felman, & Subramanian, 2021).

257. It appears reasonable to presume that in South Africa's case fiscal sustainability (and related economic factors) needs to be considered in context – where the conditions differ considerably from those of large and well-diversified economies.

258. There are two facts which mark South Africa as an outlier in terms of fiscal sustainability.

    258.1. The first is that the ratio of public debt to national income has been on an upward trajectory since the global financial crisis of 2009.

[36] The deficit and the build-up of debt partly explains the rise in interest rates, as capital markets react to a worsening fiscal position. But they are only part of the explanation. Shifts in the global cycle and "political risk" are also important factors. See Sachs (2020) for a discussion of this.

258.1.1. Whereas most countries saw a substantial increase in this ratio followed stabilisation at a new higher level, South Africa did not achieve any such stabilisation.

258.1.2. Instead, slowing growth and rising interest rates on public debt, led to an accelerating path of debt accumulation in the period leading into the coronavirus crisis.

258.1.3. Since the pandemic, a large addition to the debt ratio has been incurred, as is common in most of the world.

258.1.4. But again, unlike most of the world, it is doubtful that the ratio of public debt to national income will stabilise over the medium term in the absence of one of two factors: either a deep and painful fiscal correction; or a fundamental change in the path of economic growth and interest rates.

258.2. The second fact which distinguishes South Africa's fiscal position is that interest rates on public debt are higher than the growth rate of the economy.

258.2.1. The significance of this differential is that as the existing stock of debt is rolled over, it grows in line with its own rate of interest.

258.2.2. On the other hand, the resources needed to service that debt grows in line with national income.

258.2.3. When the interest rate is higher than growth, the implication is that the burden of the existing debt grows faster than a country's capacity to service it.

258.2.4. Tax increases and/or reductions in non-interest spending are required to service the existing debt, even if no new debt is incurred.

258.2.5. A further implication is that a (primary) budget balance is insufficient to stabilise the increase in debt.

258.2.6. A larger gap between interest rates and growth rates implies a large primary deficit, implied cuts to non-interest expenditure or

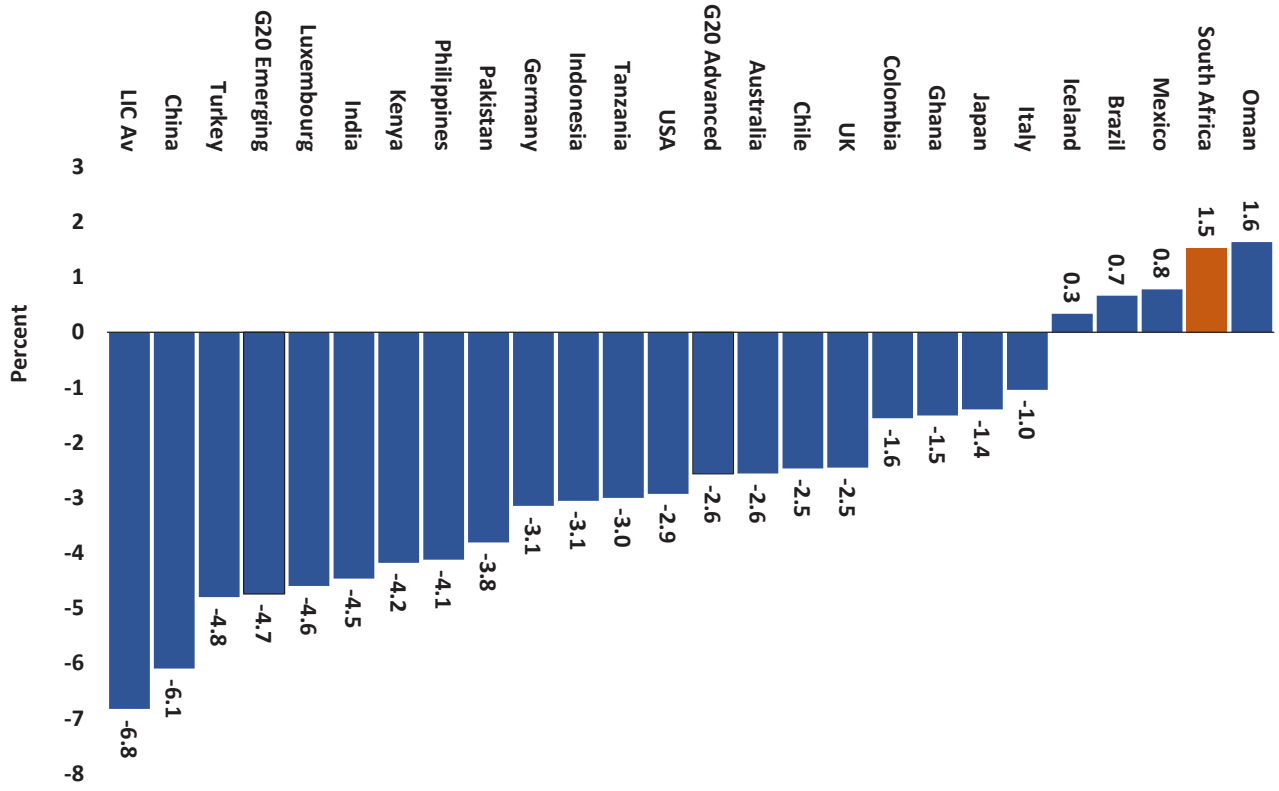
tax increases that may not be politically feasible (Blanchard et al., 2021).

259. Since 2008 bond yields on South Africa's debt have increased substantially, while nominal growth in GDP has decelerated to historically low levels.

260. Forecasts by the International Monetary Fund (IMF) suggest that over the next six years, there are five countries in which the interest rate on government debt will exceed the rate of economic growth – Iceland, Brazil, Mexico, South Africa and Oman (**Figure 2.13**).

261. While the rest of the world benefits from debt reducing implications of low interest rates, these five outliers face fiscal distress in the years ahead. Except for Oman, South Africa's gap is the largest.

Figure 2.13: Interest rate variation from economic growth



Source: (International Monetary Fund (IMF), 2021)

Fiscal Consolidation (and Implications for Social Provision)

262. The only durable solution to the emerging fiscal challenge in South Africa is a sustained acceleration in economic growth. Government has proposed a set of *structural reforms* to raise productivity and potential output growth. But over the medium-term, growth forecasts appear insufficient to stabilise the increase in debt.

263. It is in this context that government has proposed a very large fiscal consolidation over the next three to five years.

264. The consolidation is focussed on government expenditure, while the former Minister of Finance (Mboweni, 2021) has also indicated tax reductions in the year ahead. The expenditure retrenchment is strongly aimed at government consumption (which excludes social grants, other transfers and capital spending).

265. **Figure 2.12** places the proposed consolidation in perspective: government plans to reduce the nominal growth in government consumption to an unprecedented low, not much different from zero.[37]

266. The impact of the reduction in government consumption will be felt directly in the value of core public services such as basic education, health care and the criminal justice system.

    266.1. The consolidation programme depends largely on reducing real incomes for public servants (the bulk of which are teachers, nurses and police officers) over the next five years, but also implies falling employment levels in the provision of these services and continued reductions in budgets for essential goods and services.

[37] **Figure 12** does not take account of the R38.9 billion fiscal response package announced in July 2021. The bulk of the package, however, consists of transfers (i.e., social grants and business incentives). The only elements of the package that might affect government consumption are the R950 million allocation to defence and the police, which are for once off operations associated with the unrest during July 2021. At this stage government is also planning to withdraw other elements of the package at the end of the fiscal year.

266.2. Given the continuing increase of the population, all this means a downward adjustment to the levels of social provision on which the poorest half of the population depend.

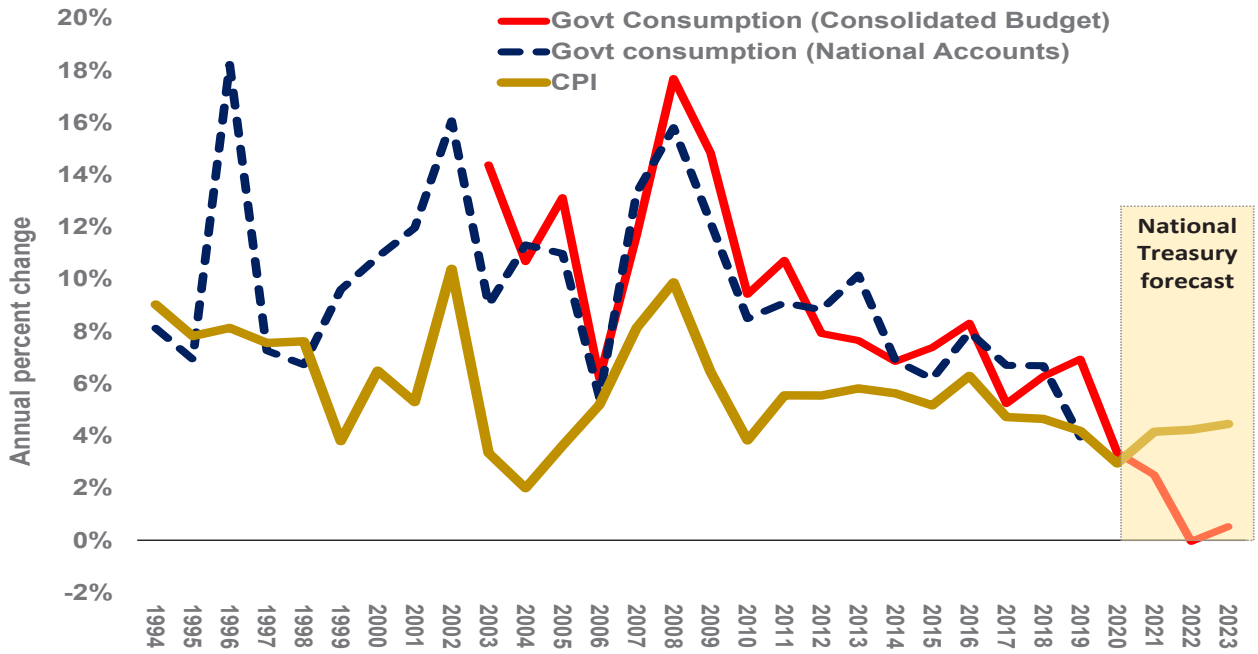
267. The 2021 budget also proposed real reductions in the value of social grants and the budget for social development over the medium-term.

267.1. Taking the budget projections of social grant recipients and budgeted amounts per grant, **Table 2.13** shows the implied average monthly values over the medium term, which are reproduced in **Figure 2.14**.

267.2. The value of the child support grant was increased by 3.4% in 2021, broadly in line with inflation. But budget projections suggest that this critical grant, which is received by more than 13 million children will grow in value by 2.4% each year over the medium-term.

267.3. This implies a significant fall in its real value. The real value of the Older Persons Pension, accessed by nearly 4 million South Africans, will also fall over the medium-term.

Figure 2.14: Nominal change in government consumption expenditure 1994 forecasted to 2022



Source: Data from South African Reserve Bank, Statistics South Africa, IHSMarkit, National Treasury, and Sachs (Panel member)

268. Provincial departments of social development employ significant numbers of social workers that serve in poor communities.

269. Both the number of employees and their remuneration will however fall in the next few years according to the National Treasury approach.

270. Along these lines there is likely to be squeeze on the budget of South African Social Security Agency (SASSA) which will need to accommodate only nominal increases in its allocation over the next three years.

271. Even were this plan to be executed fully, it is not certain that the debt-to-income ratio will stabilise, especially if the interest rate on public debt remains above the rate of economic growth.

272. In such a case debt service costs will continue to rise as a share of revenue. This would place government in a position where it must either further reduce social provision or raise taxes continuously to service increasing interest payments.

273. Two factors have emerged since the 2021 budget which may lead to a reconfiguration of the proposals for fiscal consolidation.

    273.1. The first is that government has taken a more accommodative stance on public sector wages than envisaged in the budget.

        273.1.1. Agreement has been reached on a 1.5% increment on all salaries plus an after-tax R1,000 across the board, which is estimated to add around R18 billion to the wage bill.

        273.1.2. However, the Minister of Finance and Treasury officials have advised on several occasions that the overall expenditure ceiling “remains sacrosanct” (Omarjee, 2021).

        273.1.3. This implies that any slippage on estimates of remuneration growth will be accommodated within the budget ceiling.

        273.1.4. The most likely consequence of this approach is reduced public sector employment, with some spill over into other budget lines, such as goods and services.

    273.2. The second more positive factor since the budget has been an unanticipated increase in commodity prices. This feeds directly into the incomes of

corporations and affluent households, and therefore both widens inequality and provides a boon for tax revenue.

273.2.1. Government is committed to using part of this windfall to finance the fiscal response package announced in July 2021. Whatever is left over will lead to a faster reduction in the budget deficit than anticipated in the 2021 budget.

274. By raising nominal growth, easing financial constraints and adding to tax revenue, elevated commodity prices may even provide the basis for apparent progress towards the stabilisation of debt.

275. It is also the case that in the short run the impetus from elevated export prices will offset the negative headwinds imposed by the sharp fiscal consolidation, enabling economic growth to continue through 2021.

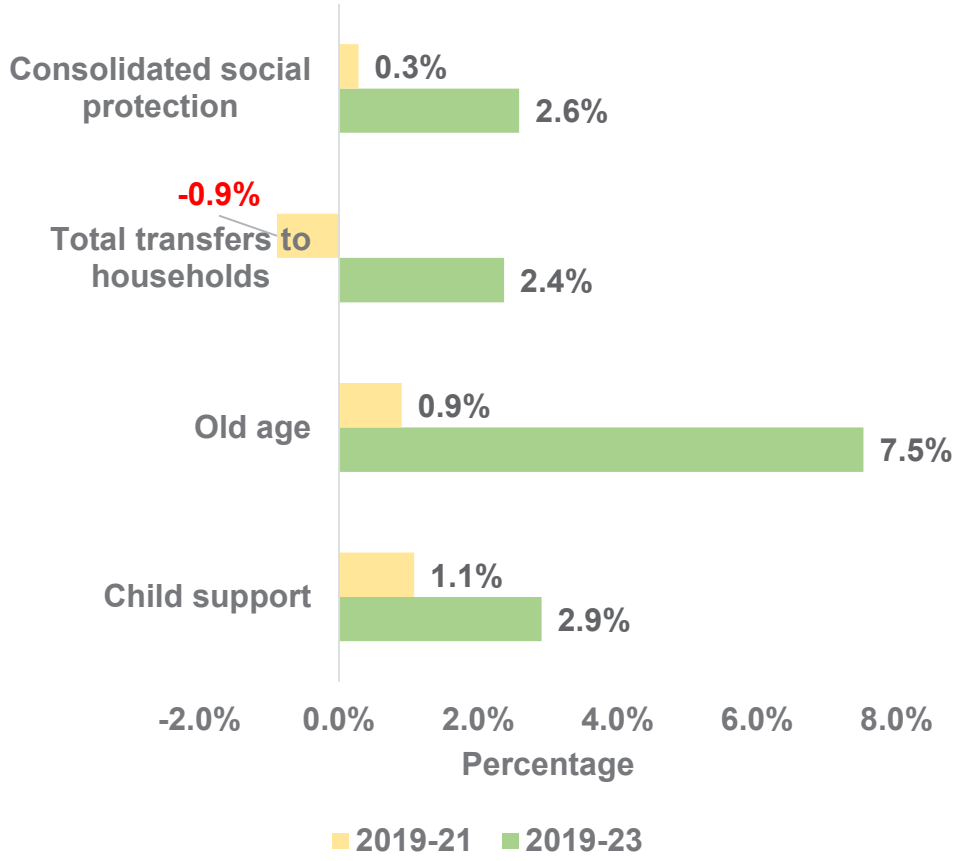
276. But, while predictions of commodity price developments are notoriously unreliable, there are good reasons to believe that the boom will not be permanent, but rather cyclical. If this is right it is likely that the fiscal conditions outlined above will return when the cycle turns negative.

277. The combination of elevated commodity prices and fiscal retrenchment is likely to widen inequality over the medium term – in the absence of a sustainable countervailing strategy. Core government services – health, education and criminal justice – constitute a large share of the consumption basket of poor South Africans and if retrenched would have important social implications (Oosthuizen, 2019).

278. The falling real value of the child support and older persons grants will further erode the purchasing power of income-vulnerable households.

279. If the fiscal consolidation outlives the commodity boom, the former will increasingly constrain growth. On the other hand, failure to stabilise debt will lead to increasing interest rates on government debt. Without decisive action to ignite a new and sustainable path of growth and productivity improvement, these constraints could become increasingly binding.

Figure 2.15: Real increases in expenditure from 2019 to 2021 and projected to 2022 for social protection (excluding the COVID-SRD allocation) (Percentage)



Source: **Table 2.13**.

Table 2.13: Budget for social protection - 2017 to 2023 (2021 prices) R'billion

Social protection	Estimated expenditure				Budget	Projections		% change[38]	
Social assistance	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	***2019-23***	***2019-21***
Child support	59.3	63.2	72.5	86.2	73.3	*76.0*	*74.6*	***2.9%***	***1.1%***
Old age	68.1	73.6	85.7	84.4	86.5	*91.7*	*92.2*	***7.5%***	***0.9%***
Disability	22.2	22.9	25.8	24.8	23.6	*24.3*	*23.6*	***-8.6%***	***-8.5%***
Foster care	5.5	5.3	5.5	5.1	4.3	*4.0*	*3.5*	***-37.4%***	***-21.6%***
Care dependency	3.0	3.2	3.7	3.6	3.7	*3.8*	*3.8*	***2.1%***	***-0.9%***
Grant in aid	0.9	1.0	1.4	1.7	1.6	*1.9*	*1.8*	***22.0%***	***11.3%***
Social relief of distress[39]	0.6	0.4	0.4	18.3	0.4	*0.4*	*0.4*	***-8.9%***	***-5.4%***
Total transfers to households	**159.6**	**169.7**	**195.1**	**224.0**	**193.4**	***202.2***	***199.7***	***2.4%***	***-0.9%***
Administration (SASSA)	**7.7**	**8.1**	**7.8**	**7.6**	**7.5**	***7.4***	***7.3***	***-5.5%***	***-3.9%***
Total allocated to social assistance	**167.3**	**177.8**	**202.9**	**231.6**	**200.8**	***209.5***	***207.1***	***2.1%***	***-1.0%***
Other social protection									
Transfers to non-profits	6.8	7.0	7.5	8.5	8.3	*8.4*	*8.6*	***14.0%***	***9.8%***
Provincial social development	20.0	21.1	22.9	23.4	23.6	*23.5*	*23.5*	***2.6%***	***3.3%***
Compensation of employees	13.2	13.4	14.8	15.3	15.4	*15.2*	*15.0*	***1.4%***	***4.0%***
Goods and services	8.8	7.4	7.8	9.3	8.5	*8.6*	*8.7*	***11.9%***	***9.4%***
Payments for capital assets	1.0	0.9	1.0	0.3	0.9	*0.9*	*0.6*	***-34.0%***	***-6.7%***
Total	**49.8**	**49.7**	**54.0**	**56.8**	**56.7**	***56.5***	***56.4***	***4.5%***	***5.1%***
Consolidated social protection	**217.1**	**227.6**	**256.8**	**288.4**	**257.6**	***266.1***	***263.5***	***2.6%***	***0.3%***

[38] Based on historical nominal growth rates.

[39] This excludes the COVID-SRD grant

Source: (Public Economy Project, 2021)

Finding fiscal space

280. Fiscal space is conventionally defined as “the availability of budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of a government’s financial position” (Heller, 2005).

281. A recent International Labour Organisation (ILO) working paper considered how fiscal space might be found to extend social protection programmes (Ortiz, Cummins, & Karunanethy, 2017).

282. It argues that space can be found even in the most constrained contexts if governments are prepared to make appropriate and careful choices.

283. The options are presented as eight financing alternatives. The rest of this section touches mainly on only four of these options due to their relevance for South Africa:

    283.1. re-allocating public expenditures;

    283.2. increasing tax revenues;

    283.3. expanding social security coverage and contributory revenues; and

    283.4. adopting a more accommodative macroeconomic framework.

284. Two other options (*lobbying for aid and transfers* and *borrowing or restructuring existing debt*) are regarded as self-evidently not appropriate in South African conditions.

285. The last two of the eight are briefly addressed here:

    285.1. *Eliminating illicit financial flows:* It is widely acknowledged that South Africa suffers from significant capital flight, both legal and illegal (Ashman, Fine, & Newman, 2011).

        285.1.1. The question of base erosion and profit sharing has also featured prominently in recent policy initiatives of government and public debates.

        285.1.2. It is essential that government continue to give priority to efforts to create fiscal space by combatting capital flight.

285.1.3. As these efforts succeed additional public resources should become available to the fiscus, but it would not be prudent to bank on these achievements in advance.

285.2. *Using fiscal and foreign exchange reserves:* Unlike many developing countries, South Africa lacks significant fiscal or foreign exchange reserves.

285.2.1. The basic macroeconomic conditions for such surplus funds (i.e., a sustained current account or budget surplus) have not existed in South Africa in recent history.

285.2.2. This contrasts strongly with fast growth Asian economies that achieved rapid growth together with sustained current account surpluses by restraining consumption and using reverse accumulation to 'self-insure' against global turbulence and underpin a competitive exchange rate.

285.2.3. Oil producers (for instance Norway) also generally accrue large current account and budget surpluses during times of high oil prices or because of large windfall discoveries.

285.2.4. South Africa has very small revenues from resource royalties, a matter which should receive greater attention.

285.2.5. The use of mineral resources windfall taxes has also been considered and should be placed firmly back on the policy agenda.

285.2.6. These issues are discussed further below in relation to the proposal for a resource rent tax.

286. The ILO paper contains a snapshot of indicators for 187 countries that can be used as a starting point for discussions about fiscal space.

287. **Table 2.14** shows data extracted from this snapshot for the world and for South Africa, which provides an illustrative point-of-departure for the discussion below.

288. In most cases, additional fiscal space in South Africa is not indicated strongly by this data.

288.1. Expenditures on health and education are higher than the world average, whereas defence spending is far below it.

288.2. Taxation is far above the world average, although social security contributions appear far lower.

288.3. Debt and debt service costs appear moderate in 2012, but this picture has subsequently changed considerably.

288.4. Foreign reserves – as indicated above – are low and illicit financial flows look moderate.

288.5. The relatively high budget deficit and inflation rates indicate little space for macroeconomic policy expansion.

289. None of these indicators however make a decisive case on their own. As the ILO points out these numbers are useful to carry out a rapid analysis of resource options, but only serve as a starting reference point.

290. In what follows deeper consideration is given to these indicators focusing on the four options outlined above.

Table 2.14: *Snapshot* indicators of fiscal space: South Africa and the world average (percentage of GDP)

	World Average	South Africa
Government Expenditure		
Total (2014)	34.7	33.7
Health (2012)	4.1	4.2
Education (2011)	4.6	6.2
Military (2012)	2.0	1.2
Revenue		
Total (2014)	31.9	28.8
Tax (2012)	17.2	26.5

	World Average	South Africa
SS cont. (% of SP expenditure)[40]	57.2	12.1
Debt (% of GNI) (2013)		
External stocks	45.5	40.7
Total Service	5.1	2.8
ODA received (2012)	6.3	0.3
Illicit financial flows (2012)	6.8	4.2
Foreign reserves (2013)	21.1	14.3
Budget deficit (2014)	-2.1	-4.9
Inflation (% change) (2014)	4.4	6.3

Source: (Ortiz et al., 2017).

Reallocating public expenditures

291. South Africa undertook a significant *reallocation of expenditures* to support the expansion of social protection in the 1990s. The main elements of this were reductions in the budget for defence and, until around 2012, increasing fiscal space made available by falling debt service costs.

292. **Table 2.15** excludes debt service costs and reports the shares of non-interest expenditure across all levels of government. It shows a rising share for social protection since the democratic transition in 1994.

[40] SS = Social Security; SP = Social Protection

Table 2.15: Share of non-interest expenditure (general government)

Government function	1994	2004	2014	2018
Social protection	***10.7%***	***14.6%***	***14.5%***	***16.0%***
Education	23.6%	20.5%	21.1%	22.3%
Health	10.5%	10.4%	12.5%	13.5%
Housing and community amenities	4.0%	3.9%	4.9%	4.4%
Defence	7.7%	5.4%	3.3%	2.9%
Public order and safety	10.1%	10.7%	11.1%	10.8%
Recreation, culture and religion	1.8%	2.0%	2.7%	2.6%
Environmental protection		0.7%	0.9%	0.9%
General public services	14.1%	22.2%	18.5%	15.8%
Economic affairs	17.5%	9.4%	10.6%	10.9%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: South African Reserve Bank data, IHSMarkit, Sachs (Panel member)

293. **Figure 2.14** shows annual consolidated expenditure of government averaged over the three years before the covid pandemic. At this most general level, South Africa's public expenditures appear well distributed.

293.1. As indicated in **Table 2.15**, South Africa's allocations to health and education are much higher than the world average, while military expenditures are well below the world average.

293.2. Two thirds of spending is allocated towards functions identified in the constitution as core social and economic rights.

293.3. The remainder includes essential services such as the criminal justice system and public services (which includes home affairs, foreign affairs, central government departments and constitutional bodies such as Parliament).

293.4. Economic development gets a very large allocation, but the idea that this should be cut to finance greater social protection is likely to be controversial.

294. South Africa does not (yet) have large categories of obviously wasteful and regressive allocations, such as the energy and fuel consumption subsidies identified in ILO report (Ortiz et al., 2017, p. 7).[41]

294.1. However, the "*Payments for Financial Assets*" illustrated in **Figure 2.14** include bailouts of state-owned companies, which have ballooned in recent years, especially for ESKOM and South African Airways.

294.2. This drain on public resources was required to keep inefficient public companies afloat, and to prevent energy tariffs that could militate against industrial policy objectives.

294.3. Assuming that the deep structural problems that face these and many other state companies can be resolved, pressure on general taxation can be eased, but no new resources are likely for reallocation.

295. This raises the question of whether there are other large public spending imperatives that are not meeting their goals, and which the country can afford to dispense with.

296. There is no doubt that improvements could be made on the margin, but it is doubtful that a large gain in social protection expenditure could be made at the expense of other public spending imperatives.

296.1. For instance, the system of Sector Education and Training Authorities, which receives ring-fenced financing to the tune of around R18 billion per annum, without clarity on the social returns.

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[41] It should however be noted that South Africa has extraordinary levels of irregular expenditure which is principally attributable to improper tenders and possible corruption (Auditor General of South Africa, 2019-2020). In these instances, the productivity of the expenditure will be very low. It is therefore possible for government to improve the productivity of expenditure even with a reduced overall allocation.

296.2. Nevertheless, skills development remains a core development priority in South Africa, and even those most critical of this spending would be loath to see it reallocated.

296.3. Similar remarks could be made about the public housing system, which continues to undermine South Africa's development by allocating resources in a manner that can be argued to entrench and reinforce the patterns of human settlement created by apartheid.

296.4. However, if government were to dispense with this programme, the need for a well-resourced intervention in public housing would remain.

297. **Figure 2.16** shows consolidated national spending reflected by inputs.

297.1. Half of spending is on consumption – goods and services and compensation of employees.

297.2. The vast bulk of this consumption spending is for the provision of core government services such as basic education, healthcare, policing and criminal justice.

297.3. The rest consists largely of transfers to municipalities, households and other public agencies.

297.4. As mentioned already, government's consolidation plan focusses strongly on government consumption, particularly to reduce the real value of compensation of employees.

297.5. If this succeeds additional resources may be released for other uses.

297.6. But if resources are released by lowering the remuneration of teachers, police offices and nurses, there are many uses towards which such funds could be put in in those same programmes.

297.7. Efforts to combat corruption and wasteful expenditure may yield some returns to the fiscus, but examples to date are few and far between and can't be relied upon to be realised.

298. There is scope to improve the efficiency and quality of existing spending and make greater efforts to eliminate waste and combat corruption.

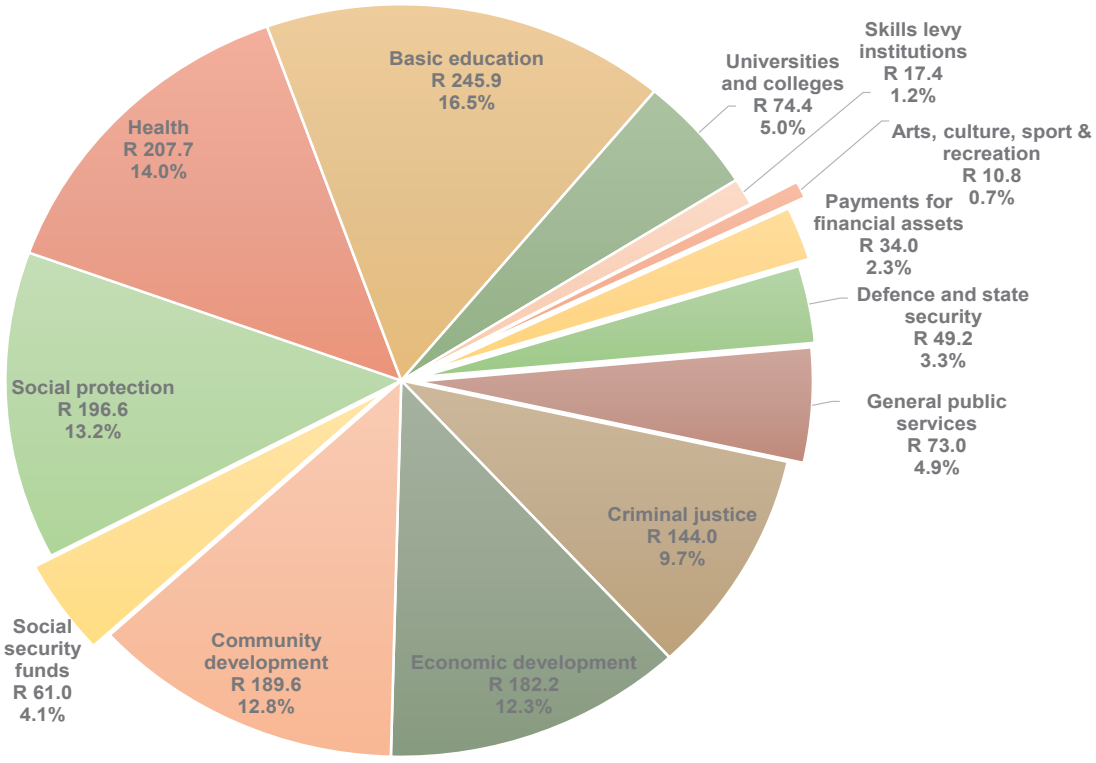
298.1. However, there are several reasons to be circumspect about the potential for such initiatives to yield significant fiscal space.

298.2. As the ILO report points out "*expenditure reforms take time to advance and are unlikely to yield significant, immediate resources*" (Ortiz et al., 2017, p. 6).

298.3. Moreover, using efficiency gains made in one sector of spending to finance expenditure elsewhere in the system is not incentive compatible.

298.4. The best gains in efficiency and quality of spending can be expected where those making the effort also benefit from the gains of improvement.

Figure 2.16: Consolidated non-interest expenditure by function, Average over period, 2017 - 2019 (R billion and percent of consolidated non-interest spending)



Source: National Treasury (Public Economy Project, 2021)

299. There are suggestions resources could be mobilised by reducing "*wasteful and irregular expenditure*" (for instance, Institute for Economic Justice, 2021). However, this may not result in large-scale and reliable fiscal space.

    299.1. The budget allocates resources in advance based on political choices by parliament.

    299.2. Audits of expenditure outcomes (i.e., the execution of the budget) may reveal that resources were used in line with budget objectives, or that funds procurement regulations were breached, or that unnecessary waste was incurred.

    299.3. These range from major breaches of the law in furtherance of corrupt ends to minor infractions of regulation while furthering delivery.

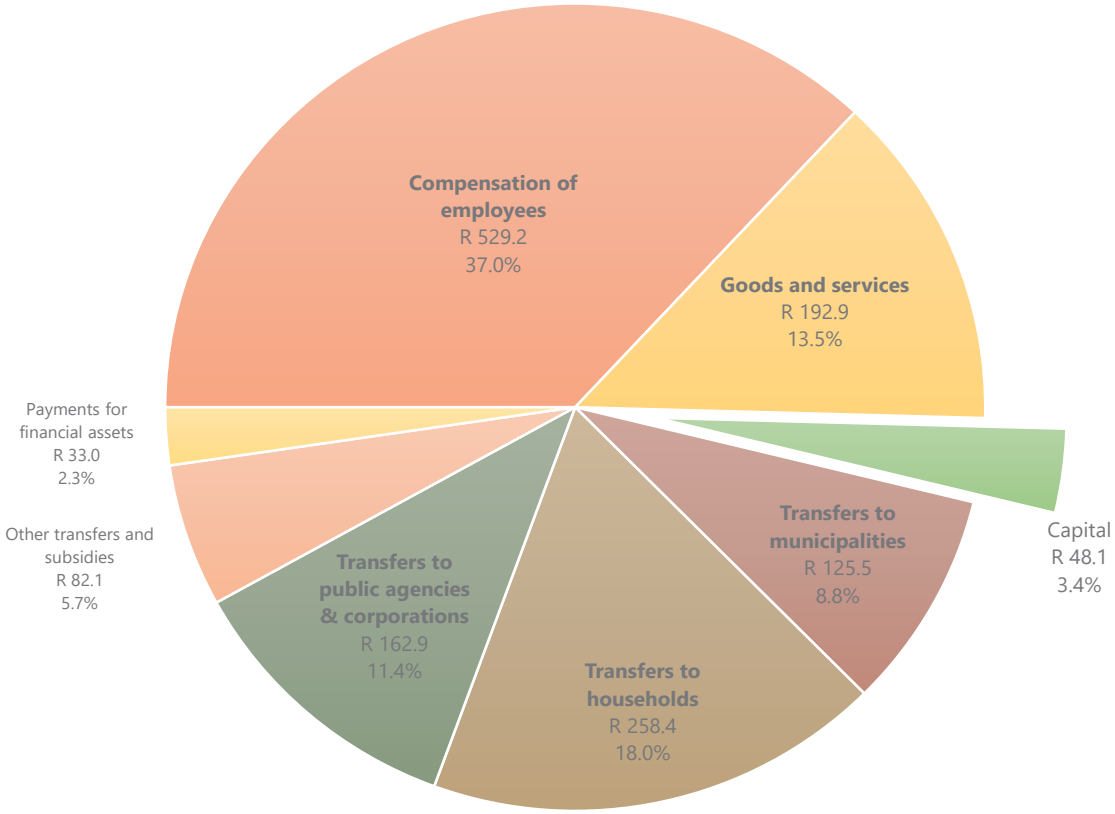
    299.4. Whatever the cause, it does not necessarily invalidate the policy objective the resources were allocated for.

    299.5. Deviations from law and good accounting practice in budget execution should be corrected. If this can be done, state spending will be more closely aligned with the objectives set out in the budget presented by government to citizens.

300. More practically, the elimination of negative audit outcomes requires an improvement in the overall quality of public financial management and other capabilities, changes to fiscal institutions and the restoration of a professional public service that is autonomous from party politics.

301. If these challenges are addressed, we will have a more effective and more efficient public service better able to use the resources allocated through the democratic process to achieve social and economic goals. But this will not necessarily yield a free cash flow in the absence of a purposive technical exercise to achieve this.

Figure 2.17: Economic classification of primary spending 2017 – 2019 (consolidated national budget)



Source: National Treasury (Public Economy Project, 2021)

Increasing taxes

302. The next option for creating fiscal space is to increase tax revenues or expand social security contributions.

303. This section attempts to locate South Africa's tax system in international context, and then discuss the options for tax increases.

South African taxation in context

304. In comparative terms, taxation is high as a percentage of GDP in South Africa relative to other countries. **Figure 2.18** shows tax revenue expressed both as a percent of GDP and GDP per capita.[42]

305. In general, higher income countries tend to collect more tax because rising national income is associated with a broader tax base. This effect (broadening the tax base as national income rises) explains the higher shares of revenue in GDP far better than policy choices about tax rates in individual countries (Besley & Persson, 2014).

306. Relative to its national income, South Africa already stands out as a high-tax country. The tax to GDP ratio shown in **Figure 2.18** is on par with the highest income countries, including France, Norway, Germany and the United Kingdom. There are no countries at South Africa's level of development that have a higher tax burden, except for Azerbaijan.

307. However, this data does not include social security contributions.

308. These are compulsory payments which finance social security (insurance) schemes. The distinction between the two is not always simple (see Williams, 1996).

309. They are both compulsory payments, but whereas general tax revenue can be allocated to any use irrespective of who paid the tax, social contributions generally finance a scheme in which the benefits accrue to the contributor and have some relation to the amount contributed.

310. In the case of social health insurance or unemployment insurance, these contributions can be thought of as a compulsory insurance premium. In the case of pensions, they

[42] This data is for general government (i.e., taking account of national, provincial and local government) and counts all government revenue excluding development assistance (grants), social contributions and revenue from resources such as oil.

might be considered a form of compulsory savings (or insurance as surviving to retirement is not a certainty).

311. South Africa's public social security schemes include the unemployment insurance fund, the road accident fund and compensation funds for occupational injuries and diseases. Compared to other countries, the size of contributions to these funds is exceedingly small (including administration costs amount to roughly 1% of GDP (Department of Social Development & Wits School of Governance, 2021).

312. Once included, however, South Africa no longer comes across as an outlier.

313. Countries such as the United Kingdom, France, Norway or Germany also collect large shares of their national income into universal pension or healthcare schemes.

314. The same is true of Brazil and many (developing) countries in Eastern Europe. Therefore, once these contributions are included in tax revenues, shown in **Figure 2.19**, South Africa no longer stands out as a high tax country relative to its level of income.

315. It might be concluded from this that – in comparative terms – there is space for South Africa to fill this gap on its tax system to finance social security.

316. Before reaching this conclusion, however, two caveats need to be borne in mind.

    316.1. First, the fact that South Africa has only a small system of public social security scheme based on compulsory payments, does not imply that social contributions are not made. In fact, South African households do make large *voluntary* contributions to *private* social security schemes[43]. However, these contributions are not regarded as formal social security due to the absence of

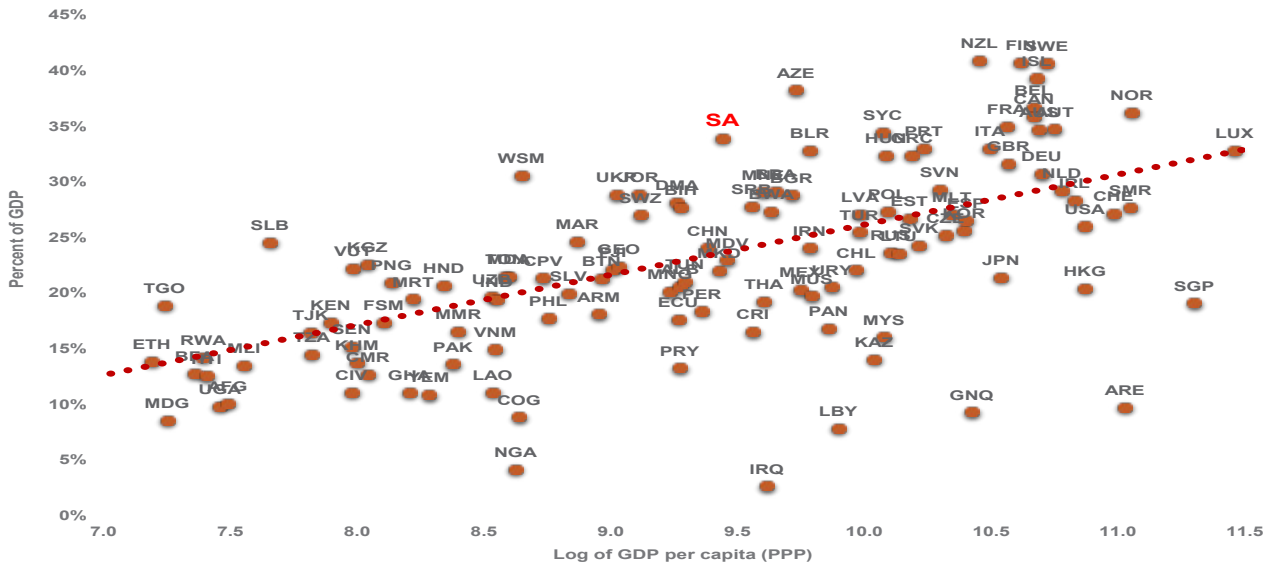
[43] These contributions receive substantial fiscal support in the form of tax subsidies which annually amount to upward of R100 billion (Department of Social Development & Wits School of Governance, 2021).

any system of socially assured guarantees associated with the system (Department of Social Development & Wits School of Governance, 2021).

316.2. Second, social security schemes in many countries tend to be regressive when compared to expenditure financed from general taxation. Contributions are charged at a flat rate on payrolls with earnings above certain limit excluded. As (Saez & Zucman, 2019, p. 20) point out *"[a]ny earnings above that cap are exempt from taxation, making Social Security taxes deeply regressive*".

Benefits are usually related to earnings and contributions, and therefore are similarly skewed towards those employed with high incomes. In contrast personal income taxation has a progressive rate structure, no cap on earnings and generates revenue that can be redistributed in the favour of the poor.

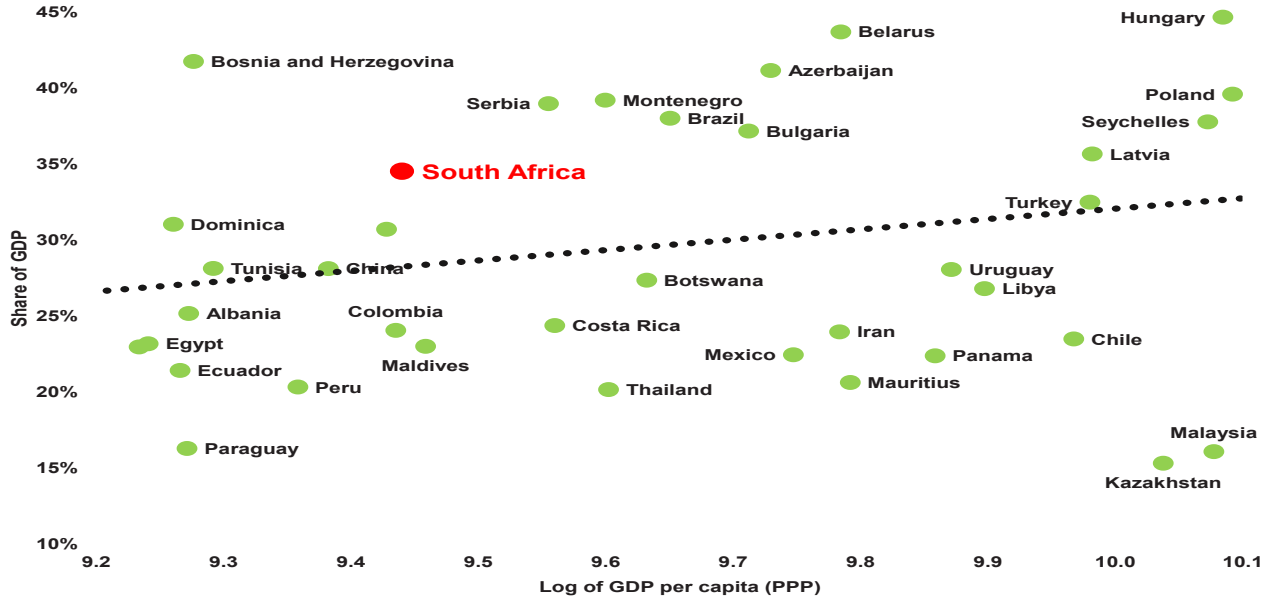
Figure 2.18: General government tax revenue as a share of GDP (2020)[44]



[44] Total revenue excluding grants, social contributions and resource revenues. Data shows the average of available data points after the year 2000 for all countries where data is available in the dataset. However, Norway, Lesotho and Timor-Leste are not shown in the graph – all collect more around 50% of GDP in taxes.

Source: ICTD / UNU-WIDER Government Revenue Dataset 2020: General Government, author's calculations

Figure 2.19: General government tax revenue from tax and social security contributions as a share of GDP: Middle-income countries (2020)[45] [46] [47]



Source: ICTD / UNU-WIDER Government Revenue Dataset 2020: General Government as calculated by Sachs (Panel member)

317. While international comparisons of the progressivity of fiscal systems are not simple to undertake, it can be argued that South Africa's tax structure is more progressive than most developing counties and direct taxes make a larger contribution to reducing

[45] Tax" is defined as total revenue excluding grants, social contributions and resource revenues. Norway, Lesotho and Timor-Leste are not shown in the graph – all collect more than around 50% of GDP in taxes.

[46] Data is for general government and shows the average of available data points after the year 2000.

[47] Total revenue excluding grants and resource revenues.

income inequality than in other middle and low income countries (Goldman et al., 2020; G. Inchauste, Lustig, Maboshe, Purfield, & Woolard, 2015).

318. Payroll taxes and social security contributions are less progressive in the South African system, while consumption taxes – such as VAT, fuel levies and excise – are neutral, being distributed proportionally across the population (Goldman et al., 2020; G. Inchauste et al., 2015).

319. Aside from the absence of a public social security system, South Africa's tax system is relatively well developed in terms of the balance between direct and indirect taxes. Many developing countries rely to a far greater extent on trade taxes or international aid flows or are dependent on resources such as oil for a large share of state revenue, with a smaller contribution from broad-based income taxes (Besley & Persson, 2014). South Africa's tax structure is far more focussed on income taxes.

320. **Figure 2.20** shows the composition of taxes classified along lines suggested by Thomas Piketty and co-authors (Piketty, 2014; Saez & Zucman, 2019).

321. The largest burden of taxation falls on consumption.

    321.1. This includes VAT, excise, and levies on fuel and imports. The VAT rate is low by international standards, but fuel levies, import tariffs and excise all raise significant additional revenue.

    321.2. Over the last 20 years there has been a large increase in revenue from PIT, also reflected in **Figure 2.20** as a rising burden of taxation on households.

    321.3. This has offset the dramatic fall in corporate income tax following the global financial crisis of 2009.

    321.4. While taxes on capital have continued to stagnate – reflecting lower profitability after the unwinding of the global commodity super cycle – government has made up for this with increases on PIT as well as efforts to hike consumption taxes, particularly the fuel levy and VAT.

322. A last element of the tax system worth considering is the revenue foregone through various refunds and exemptions from taxes. Government foregoes revenue to the tune of around R250 billion, as shown in **Table 2.16**.[48]

323. Since these are intended to achieve various public objectives, they are similar in policy terms to an expenditure, and are formally (but somewhat confusingly) called "*tax expenditures*". The largest tax expenditure, it should be noted, provides subsidies in respect of private pension contributions, returns on investment and final lump-sum pay-outs.

324. In principle, taxation is most effective when directed to the broadest possible base of economic value. By and large, South Africa's tax expenditures are well targeted and aligned with clear public policy objectives.

325. The estimates of tax expenditures don't take account of the behavioural responses that are likely to occur if the policy is removed. For instance, government foregoes about R30 billion in annual revenue to support the automotive industry.

326. Were these subsidies to be removed it is likely that investment in the industry would decline, reducing the size of the sector and offsetting much of the revenue no longer forgone. Similar considerations in respect of taxpayer behaviour apply to the tax revenue in general (see discussion below).

[48] Note that these estimates do not include the tax-free returns on investment that accrue to pension funds. National Treasury does not offer an estimate of this tax expenditure. An estimate is however offered in the Social Budget Report (Department of Social Development & Wits School of Governance, 2021).

327. Nevertheless, additional revenue for basic income support could be gained by eliminating or reducing some tax expenditures. This would be similar, in principle, to a choice to reallocate an expenditure item towards a new policy.

328. The other major deduction from South Africa's revenue collections are the transfers made from import tariffs to the countries of the Southern African Customs Union (SACU) – Eswatini, Lesotho, Namibia and Botswana.

329. These amount to around R50 billion each year. While the intention of the SACU agreement is to distribute customs revenue fairly, these transfers are better considered as development aid to South Africa's neighbours.

330. In the case of Lesotho and Eswatini the transfers account for a very large share of the national budget. While this constitutes a large deduction from revenue, removing these transfers in favour of basic income support is likely to be counterproductive, as they currently sustain efforts at poverty alleviation in neighbouring countries.

Table 2.16: Estimated tax expenditures (Average 2015-2018)

Instrument	R billions	Public policy objective[49]
Personal income tax	**112.5**	
Retirement fund contributions	78.6	Promotion of savings
Medical tax credits	25.7	In lieu of in-kind health services not used
Rebates for income below the tax threshold	3.6	Progressivity of the tax structure
Interest exemptions	3.2	Promotion of savings
Other	1.4	
Corporate income tax	**16.8**	
Exemptions for small business	2.8	Promote small business
Participation exemption	6.4	
Employment tax incentive	4.4	Promote employment
Energy-efficiency savings	1.2	Promote energy efficiency
Other incentives	1.9	
Value-added tax (zero rating and exemptions)	**59.6**	
Basic food items	25.7	Progressivity of the tax structure
Petrol, diesel and paraffin	24.4	Taxed by way of a levy
Municipal property rates	7.8	Forms part of a system of government revenue
Public transport and education	1.5	Provision of public goods
Other	0.3	
Customs duties and excise	**35.3**	
Automotive industry	28.8	Job creation and investment
Diesel refund	4.7	

[49] This has been assumed by the Panel where possible.

Instrument	R billions	Public policy objective[49]
Other	1.8	
Total tax expenditure	**224.2**	
SACU transfer to neighbouring countries	54.5	Solidarity and regional trade integration

Source: (National Treasury, 2021)

Recent proposals for tax reforms to financing a basic income grant

331. Proposals for tax increases to finance a basic income grant were recently put forward by the Institute of Economic Justice (IEJ), with the consultancy DNA economics providing research input, including an estimate of revenues from new taxes (Venter, Ismail, Capazario, & Capazario, 2021).

332. This section reflects these proposals, which have the virtue of presenting a broad range of potential options together with reasonable ballpark estimates of additional revenues that are likely to be gained on each instrument.

333. The discussion is not offered as a set of counter proposals or alternative estimates, but rather an engagement at the level of principle to clarify the range of feasible options.

334. It is important to note, however, that the IEJ analysis examines tax options for the implementation of a basic income grant at scale. Where a grant of this nature is implemented on a phased basis, the tax implications are quite different.

335. This review nevertheless uses the indicative IEJ proposals to engage on the merits/demerits of specific tax increase proposals without questioning the scale of the proposal.

336. In summary, the IEJ's proposals are as follows:

    336.1. The proposals lean strongly on increased personal income taxation (PIT). An increase in revenue from PIT is estimated at R100 billion, or 1.8% of GDP or a 20% increase in the current tax take from this source.

        336.1.1. Most of this revenue (R70 billion) would come from a "*social security tax*".

336.1.2. It should be noted, however, that this proposal is better described as an earmarked surcharge on personal income taxation rather than conflating it with an adjustment to the general tax system[50].

336.2. It is suggested that government reduce the tax expenditures that subsidize private contributions to social security.

336.2.1. This would be applied to those with taxable income of R500 000 per annum for medical tax credits and R1 million for pension fund contributions.

336.2.2. DNA estimates that these reforms could raise around R30 billion per annum in additional PIT collections.

336.2.3. No consideration is taken of the fact that various proposals from the Department of Health regard these tax credits as part of the health system budget (National Department of Health, 2017).

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[50] As mentioned earlier, the distinction between taxes and social contributions is not always clear cut. But there is no indication in the DNA or IEJ papers of a social security scheme with legally defined benefits linked in some measure to contributions which are pooled in a fund managed outside of the annual budget on behalf of contributors (as is the case for instance with UIF).

Moreover, social security schemes usually involve some combination of risk pooling and redistribution. In the context of a broader reform to South Africa's fragmented system of health, retirement and social protection, the expansion of social contributions should certainly be considered.

In the case of basic income support, a very large share of recipients of the new grants would be in long term unemployment, and thus not in a position to be contributors.

Relative to most developed countries, the effect of basic income support will be directly redistributive, rather than functioning to provide insurance against temporary unemployment or over the course of the lifecycle.

This means financing a transfer to the poor majority out of general taxation. It is a programme of pure redistribution from the employed and affluent to most of the population who find themselves outside of formal. Such a policy cannot be described as a 'social security scheme'

336.3. The reforms to taxes on *capital, corporate income and wealth* feature three proposals:

336.3.1. A *resource rent tax* would target the additional profit resulting from factors beyond a firm's control, such as a commodity price boom, when mining and other companies earn windfall gains.

DNA estimated that a tax of 25% on the value of resource rents in South Africa could generate revenue to the value of R38,8billion. (Venter et al., 2021, p. 12).

336.3.2. The IEJ also suggest that a *wealth tax* of 1% for those with net personal wealth above R4 million and 3% for those with wealth above R30 million could raise around R60 billion if executed in 2023.

Their argument is largely based on (Chatterjee, Czajka, & Gethin, 2021), and the 'wealth tax calculator' associated with that paper is used to estimate the revenue.

Embedded in these estimates are the assumption that tax base would fall by 30% due to evasion, and a further 20% due to fall in the value of South African wealth because of the tax.

The IEJ has prudently suggested that it be executed only after a few years to allow time for design work.

336.3.3. The last suggested tax on capital takes the form of a *financial transaction tax*, which the IEJ estimates could raise R40 billion per annum.

It is however not clear why this estimate is included in their proposals since, by their own admission:

> "*we do not know by how much the tax would increase total transaction costs and cannot, therefore, reliably estimate actual potential revenue*" (Venter et al., 2021, p. 12).

336.4. Increases in consumption taxes are very limited in the proposals to preserve and extend the progressive impact of a BIG. It is suggested that a higher (25%) rate of VAT be introduced on *luxuries* which, it is estimated, could raise around R9 billion.

337. The size of the proposals is gauged in **Figure 2.20**, which shows the impact against the recent performance of taxes using National Treasury's estimates of GDP over the medium term.

338. Taken together (and assuming that the IEJ/DNA estimates of revenue mobilisation are realised) the proposals suggest a tax increase of 3.5% of GDP if implemented immediately at scale.

339. Over time, tax increases of the size and scope proposed are likely to have deep consequences for the tax system which are difficult to predict. The short- and long-term implications of such a shift however need careful appraisal if implemented rapidly.

339.1. Over the short-term the effects on aggregate demand would be substantial. Tax reform across a wide range of instruments is likely to result in *interaction and feedback* between revenue sources.

339.2. A straightforward example is the proposed Financial Transactions Tax. If – as the IEJ argues – this would raise R40 billion in revenue, we need to ask the question where would this revenue come from? If the tax leads to a fall in profits in the financial services sector, including banking, there would be consequences for corporate income tax.

339.3. A second example relates to PIT. This is strongly concentrated on the top 10% of households, and these same households account for around 60% of household consumption.

339.3.1. The tax increase will reduce their disposable income.

339.3.2. The fall in aggregate demand will be offset by new purchasing power in the hands of the poor because of the grant.[51]

339.3.3. The net effect is difficult to judge. Initially, sectors such as retail, personal services, hospitality and others that largely cater to the consumption needs of affluent households are likely to face pressure on their profits.

339.3.4. Over time the solution would be to pivot towards new profit opportunities created by enhanced consumption in poor areas.

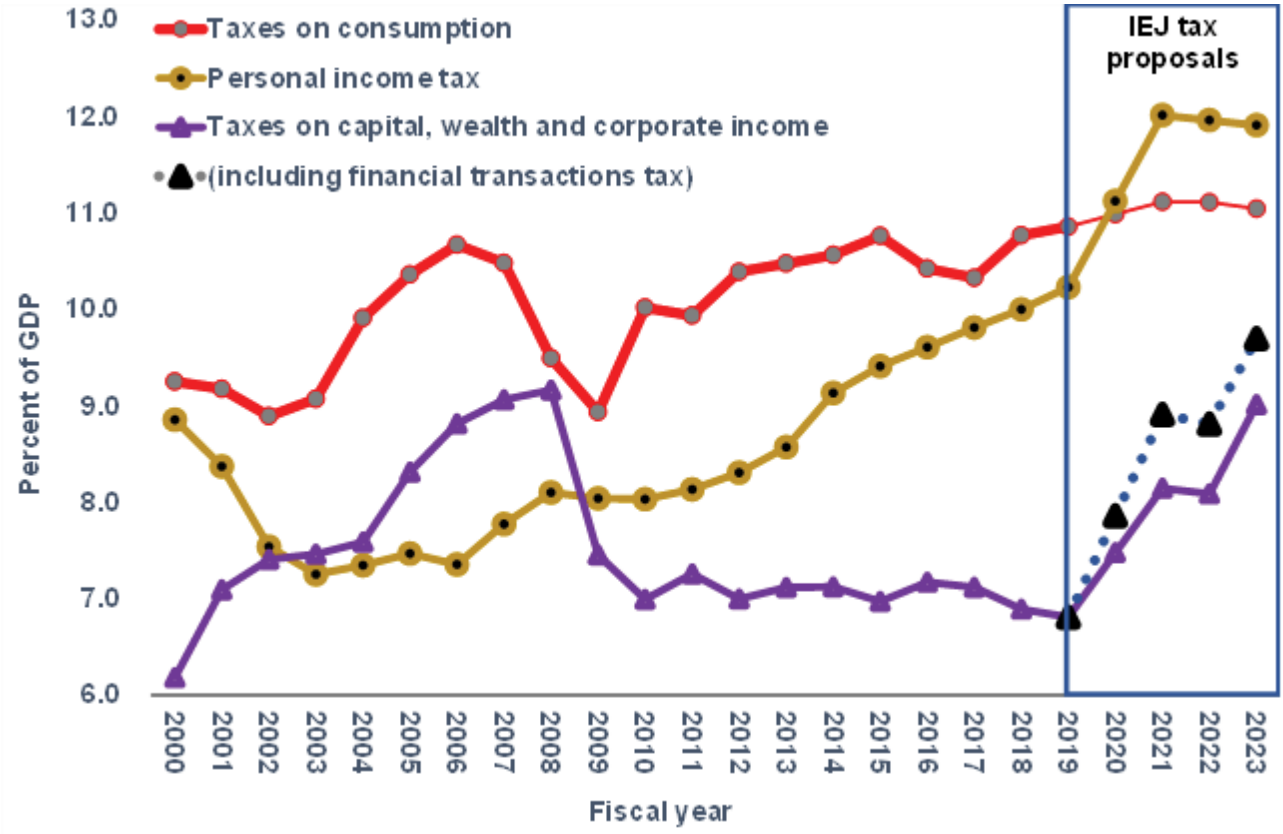
339.3.5. But this would take time, involve new risks and require innovation and operational changes.

339.3.6. The short-term shock to corporate income (i.e., profit) in the services and consumer goods sectors could be significant. Projections of revenue from corporate income tax would need to take account of this effect.

340. It is to better understand these interactions that the modelling reported in **Part 5** is carried out by the Panel.

[51] This type of scenario is evaluated in **Part 4** of this report.

Figure 2.20: Tax proposals for the financing of a UBIG



Sources: Based on (IEJ, 2021; National Treasury, 2021, Table 2), IHSMarkit and compiled by Sachs, M. (Panel member).

341. It appears that the analysis performed by DNA and IEJ has not measured these interactions.

342. Each tax reform is estimated on the assumption that it is the only reform. The results are then aggregated to yield a final total. The combined impact of all the proposals taken together will be significantly different from each individual change.

343. Over the longer-term, higher taxes mean stronger incentives to avoid, evade, shift and exit from the system – behavioural responses that can significantly erode the tax base. Some estimates of these effects are attempted in the DNA report but appear limited in scope.

344. The truth is that behavioural impacts are inherently difficult to gauge and there are few studies conducted in South Africa. The size of these effects will correspond with

the size of the tax increase on any one tax base. In the case of a tax shock of the size and scope suggested by IEJ, the effects are likely to be large. As indicated earlier, phased approaches may yield a completely different tax requirement.

345. The dynamic effect on economic growth, migration, consumption, savings and investment are highly uncertain. These dynamics might be fruitfully engaged through a framework of contemporary macro theory or econometric modelling. But even in the best of circumstances the results of such work will not be too distant from conjecture[52].

346. With respect to PIT, the proposals require significant increases in the progressivity of the PIT schedule. Since the burden of the increase is designed to fall on those with incomes above R1 million per annum, the tax increase that this group would face would be very large – perhaps in the region of a 7-percentage point increase in their effective tax rate[53].

347. The DNA/IEJ research gauges the potential for a behavioural response on one study. This element was based on the impact of very small bracket creep adjustments over a short period and warns that "*one should be careful in using the estimates in the present study to predict the effects of a legislated tax reform*" (Kemp, 2019, p. 445).

348. The study also warns repeatedly that the estimate obtained for the elasticity of taxable income is a lower bound that should be treated with caution. It reaches the conclusion that "*significant increases in the legislated marginal tax rate could trigger*

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[52] The IEJ and DNA papers rely on the proprietary ADRS model which has been criticised for overlooking supply constraints, economic trade-offs, financial market dynamics and key monetary and fiscal policy relationships (Loewald, Mjandana, & Makrelov, 2020).

[53] This estimate was obtained by adding the 3% "social security tax", retirement contributions (R20 billion) and medical tax credits (R3 billion) to the current tax liability of those earning more than R1 million. This raises the effective tax rate on this group from 37% to 45% if we use the taxable income estimates contained in (National Treasury, 2021, Table 4.5).

behavioural responses that would nullify any potential revenue gain" (Kemp, 2019, p. 444). These limitations are not reflected in the estimates presented.

349. Nevertheless, the idea of an *earmarked surcharge on personal income taxation* is a useful starting point for a discussion about financing a BIG.

350. As DNA acknowledges, ring-fencing revenues can reduce fiscal flexibility by decreasing the discretionary portion of the budget (Venter et al., 2021, p. 8).

351. However, *soft earmarking* of an explicit revenue source (or combination of sources) to a large, new and enduring expenditure obligation like a BIG may have advantages. For instance, the idea of using a surcharge as a general instrument, applied to PIT, CIT or VAT, would establish a clear link to a policy and enable informed public discourse concerning the specific levies and the transfers they fund.

352. This might serve to sustain tax morality since the resources will be transferred as cash to the needy, rather than consumed by public services.

353. In the context of wide-ranging economic uncertainty, however, any link between revenue source and expenditure destination is probably best kept indicative and managed on a discretionary basis.

354. The creation of statutory, regulatory or institutional structures that result in automatic adjustments to mimic a social insurance scheme of some kind should be explicitly avoided as the structure of contributors, contributions, beneficiaries and entitlements are quite different.

355. The estimates presented for a *resource rent tax* suffer from three problems. It appears that account has not been taken of the fact that South Africa already imposes a levy on mineral and petroleum royalties, which even prior to the current commodity uptick was projected to yield around R17 billion per annum over the medium term (National Treasury, 2021, Table 4.2).

356. DNA economics' revenue estimate is based on resource rents estimated by the World Bank, which are shown in **Figure 2.21**.

357. As noted above, taxes on corporate incomes and capital have been highly variable over the last two decades. The main driver of this variation has been the commodity cycle.

358. As the prices of South Africa's export commodity cycle move up and down, the gross operating surplus accruing to the mining and related sectors vary similarly.

    358.1. When they are high – such as in the early 1980s and the commodity boom during 2005-2011 – it is likely that mining companies earn windfall profits.

    358.2. In terms of South Africa's current tax system, part of this windfall will accrue to the State through corporate income taxes and mineral royalties.

    358.3. Along these lines, the current boom in revenue collection shows this effect, as rising commodity prices have led to increased CIT collection.

359. The same pattern is evident, to an even larger degree in the variability of mineral resource rents over the commodity cycle (**Figure 2.21**).

360. There may be a case for a strengthening of the tax system so that a greater share of this windfall is channelled into the public sector.[54]

361. *But if this is the case, it would not be appropriate to channel such resources into a recurring expenditure that is likely to remain stable, or grow, such as a BIG*[55].

362. The last problem is more fundamental and concerns the definition of *rent* and how we might distinguish it from *profit*.

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[54] This has indeed been considered before in the context of the syn-fuel industry (see Rustomjee, Crompton, Maule, Mehlomakulu, & Steyn, 2007).

[55] If such a windfall tax regime were to be adopted, it would make more sense for the funds to be placed into a capital, infrastructure or sovereign wealth fund that would enable South Africa to manage the volatile nature of mineral revenues, as part of a broader strategy to stabilise the macroeconomy and transform mineral resources into other forms of national wealth.

363. DNA's revenue estimate is, in fact, not based on a temporary windfall due to high commodity prices. Rather it is based on the World Bank's estimate that resource rents were 3.9% of South Africa's GDP in 2019, a year in which they were not unusually high.

364. The suggestion is that some share of the difference between costs and revenues earned as *profit* by the mining sector should in fact be deemed rent, even when commodity prices are not at elevated levels. This rent could be extracted to the tune of R40 billion a year.

365. The World Bank estimates rent by taking revenues in the mining sector and subtracting production costs including a 'normal' rate of return on fixed capital (Lange, Wodon, & Carey, 2018, p. 101).

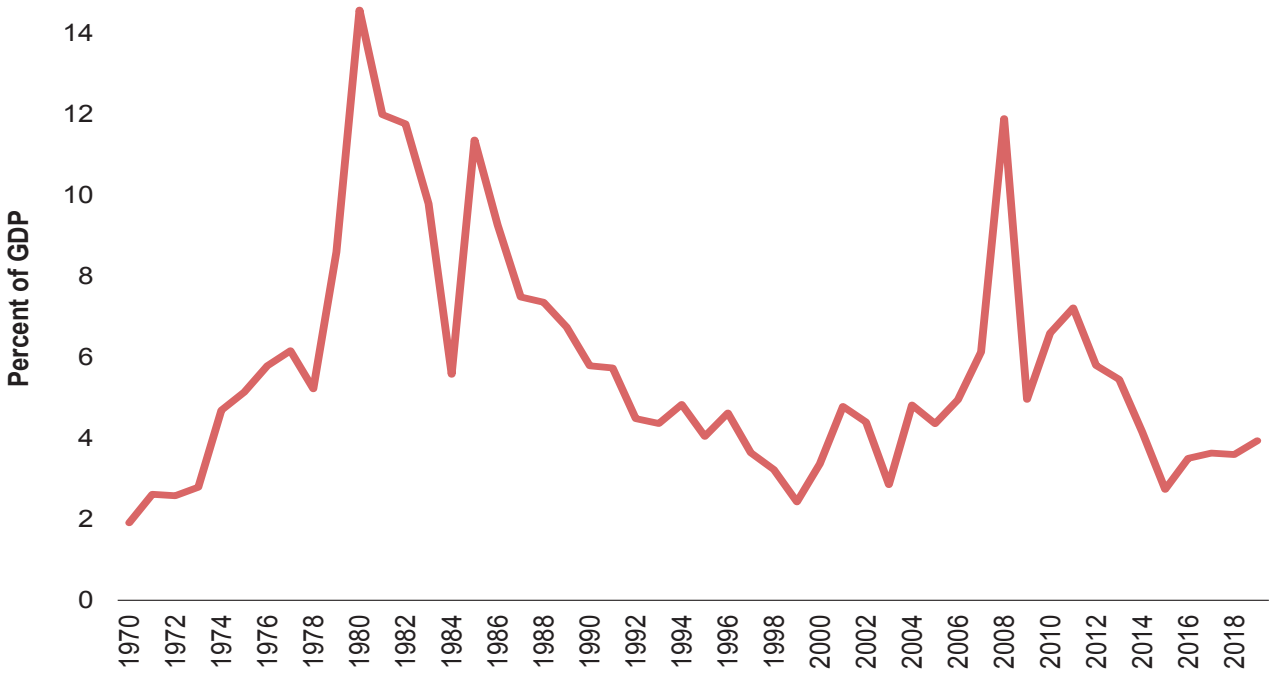
366. This normal rate of return is based on long-term average global returns and "does not reflect the country-specific risk premiums that may be necessary to compensate investors for investing in certain environments" (Lange et al., 2018, p. 112).

367. There is evidence that returns on investment are high in South Africa (see The World Bank, 2018). In fact, such an observation is common in developing countries on the periphery of global investment (de Paula, Fritz, & Prates, 2017).

368. Declaring that part of this return is *rent* and allocating it to a BIG may on the surface be morally defensible, but it does not follow that such a move "*should, by definition, not impact on investment decisions*" (Venter et al., 2021).

369. In fact, the proposal would involve significantly reduced investment returns in the mining sector. The investor could easily evaluate these prospective returns against the benchmark of a long-term government bond which is also subject to country specific risk premiums.

Figure 2.21: Total natural resources rents (% of GDP)



Source: (Lange et al., 2018; The World Bank, 2018)

370. The case for greater use of *wealth taxes* in South Africa's system is set out in compelling terms in (Chatterjee et al., 2021).

371. An ambiguity in their paper however concerns whether such a tax should be thought of as a recurring charge or a once off levy to deal with the consequences of the COVID-19 shock and the resulting sharp rise in government debt.

372. Such capital levies have been broached many times in the past as the "*scientific remedy*" for a large public debt overhang (Keynes, 2013, p. 55; Landais, Saez, & Zucman, 2020).

373. However, the historical examples of success are not well supported. In democratic conditions, investors are able to take advantage of delay and liberal freedoms to resist the levy or transfer their capital elsewhere (Eichengreen, 1990).

374. In any case, action to resolve a debt overhang makes more sense once debt has stabilised, which as we discuss above is far from being the case in South Africa.

375. Chatterjee et al (2021) point out that while behavioural responses might be less pronounced with a once-off capital levy, "*a recuring wealth tax would require typically low marginal tax rates*".

376. They provide a preliminary discussion of the likely behavioural responses, and these should be considered in further research as South Africa examines how to raise additional public resources from the taxation of wealth.

377. The establishment of new taxes is often a turbulent process in both technical and political terms, and in the short-term South Africa would probably do well to rely on existing taxes.

378. Existing taxes have the advantage of familiarity. Taxpayer behaviour is not simply the result of a cost-benefit calculus on the part of taxpayers, but depends on habit and culture (Friedman, 2003).

    378.1. The implication is that new taxes are always likely to face greater resistance to existing taxes, which are taken for granted and accepted, whereas existing taxes have the advantage of inertia.

    378.2. Wealth taxes offer an alternative to the existing tax base that are potentially more efficient and equitable than the taxation of income.

    378.3. Taxing wealth is potentially a large source of revenue. But an attempt to introduce an entirely new tax instrument at a high rate is fraught with peril. Rather, the work of nurturing and growing this new tax base should proceed carefully but deliberately.

379. Lastly, the IEJ proposals do not seriously address *consumption taxes*. A VAT on luxuries might not be rejected out of hand, although even the IEJ/DNA estimates show its limits as a revenue raising option.

380. It appears that the only principle of tax design that motivates the discussion is progressivity of the tax in question.

381. However,

381.1. The distributional consequences of all fiscal choices are jointly determined by the incidence of the spending and the measures that finance that spending (Lambert, 2001).

381.2. We can separate the progressivity of a tax for analytical purposes. But it is the fiscal system which must be taken to be progressive or regressive, not individual spending or tax measures.

381.3. Given that the proposed transfer is so progressive, and that virtually all tax instruments in South Africa are either progressive or neutral, even a BIG financed exclusively by an increase in VAT would have large and progressive implications for the distribution of income.

381.4. A recent study finds that removing the zero rating of basic food items (i.e., the most progressive element of the VAT system) and reassigning the revenue gained to targeted transfers could result in reductions in poverty and inequality (Gcabo et al., 2019).

382. In a static sense a VAT-financed BIG framework might be less progressive than one financed exclusively by direct taxes on the most affluent. But while progressivity is an important dimension in design choice, it is not the only dimension.

383. Account should also be taken of revenue-raising capacity in both the short- and the long-term, the consequences for growth and investment and the sensitivity of the instrument to cyclical shifts in the economy.

384. Failure to take account of these factors in favour of a single dimension, static progressivity, could well undermine the progressivity of the whole fiscal system over time.

385. Personal Income Tax is the most progressive element in the current tax system but compared to VAT it targets a smaller and more elastic tax base.

386. Depending on how we think about tax incidence we might assign the burden of CIT to owners of capital (see Saez & Zucman, 2020), which could well be even more progressive than PIT in South Africa's context of extreme wealth inequality.

387. If we look again at **Figure 2.20** and imagine ourselves in 2007, the taxation of capital appeared a solid foundation for redistribution. What once appeared solid has since dissipated.

388. These issues are considered in the most progressive states in the world (the Nordic social democracies) which have made use of more regressive, less distortionary taxation to finance progressive expenditure policies.

389. The proposal to target *luxury items* also misses an important macroeconomic point about the policy objective[56].

390. A tax-financed BIG should aim to reallocate command over commodities and consumption from the wealthy to the poor.

391. The maldistribution of consumption in South Africa is not only a matter of luxuries however.

392. The affluent consume too much water, electricity, food, clothing, healthcare and housing (in addition to fine scotch whisky) and the poor consume too little of these goods.

393. This excessive consumption by affluent households is the underlying cause of South Africa's consumption-led growth path.

394. Increasing the consumption levels of the poor is necessary but will quickly run against macroeconomic limits if the rich are left to continue to overconsume (note the model results in **Part 5**).

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[56] Aside from the issue raised in what follows there are many other objections to a luxury VAT, viz: the tax base is highly elastic, the administrative and operational complexity and the opportunities for all kinds of unintended distortions in the course of tax avoiding behaviour. Given these objections it is not clear why proponents of higher taxes on "luxuries" do not pursue this goal through other instruments, such as excise taxes or import levies.

395. Around 60% of VAT receipts are paid by the most affluent 10% of South African households (G. Inchauste et al., 2015, Table 4). The best way to lower their consumption levels is to raise VAT. If these resources finance transfers to the poor, the net effect on poverty and inequality will still be huge, and a more sustainable growth path might also be achieved.

396. This is not to argue that a BIG must be financed only by a VAT hike, but to illustrate that revenue raising potential, stability and long-term economic consequences need to be figured into the discussion in addition to a simple binary view of whether a particular tax instrument is progressive or regressive.

Macroeconomic considerations

397. The ILO paper discussed above notes that:

    397.1. "As the multiple shocks of the global economic crisis unfolded and intensified, support shifted from restrictive and narrow macroeconomic frameworks to a more accommodating one. In practice, this means that the conditions for more manoeuvrability in policy making and resources could be achieved through both fiscal and monetary policy…" (Ortiz et al., 2017, p. 46).

398. As discussed above, there are strong empirical grounds to suggest that the new consensus on macro policy should be treated with caution, at least in respect of fiscal policy and in relation to small, undiversified open economies.

399. But macroeconomic policy remains a matter of intense debate. Choices about the stance of fiscal and monetary policy involve more art than science and these debates cannot be easily concluded empirically.

400. The narrower question considered here is whether (and to what extent) an increase in transfers that is not financed from taxation will have the effect of creating fiscal space by boosting economic growth, either in the short-run or over a longer time horizon.

401. In the short-term, this turns on the size of the multiplier.[57] All multiplier estimates are rooted in a particular theory of behavioural responses applied to historical data. The effect of fiscal changes on output and other variables potentially depends on a range of contingent and context-specific factors. Many economic models attempt to internalise the multiplier effects.

402. However, multiplier estimates, arising from models, are also highly sensitive to the nature of the model employed. The range of models deployed and estimates found in South Africa's case is very wide (Merrino, 2021).

403. One recent analysis of the reintroduction of the Covid-19 SRD grant reached the important conclusion that these transfers will not raise the debt-to-GDP ratio in the short- to medium-term (van Seventer et al., 2021):

    403.1. "… *even in the most aggressive scenario financed by reduced government savings, the government debt-to-GDP ratio declines, as higher GDP and higher tax collections more than fully offset the increment to government debt*."

404. There are two important caveats to this conclusion, however. The first concerns the underlying model, which is based on input-output relations between macroeconomic aggregates and sectors.

405. This class of model, which has tended to produce high multiplier estimates for South Africa (Merrino, 2021), does not take account of financial-sector effects.

    405.1. In the real-world economic behaviour is mediated through a hierarchy of claims and obligations contracted in money, and the dynamics associated to these relations are important to economic performance.

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[57] This is where a given change in some variable affecting economic demand causes a more than proportional change in overall economic growth.

405.2. Models that take account of the impact of interest rates generate far lower multiplier impacts, because a rise in interest rates tends to dampen aggregate demand.[58]

405.3. We can expect this effect to be more prominent in conditions of fiscal uncertainty, which, it could be argued, South Africa faces today. We return to this issue below.

406. A second caveat is that the model assumes substantial slack in the economy, which is obviously the case at present under conditions of partial *lockdown*.

407. In most theoretical approaches, multiplier analysis concerns a short-run impact over the business cycle. Once *normal* levels of economic activity are restored, the impact of multipliers becomes more controversial and less clear.

408. A fiscal expansion that continues even once the output gap has closed is usually assumed to be inflationary. If the economy is characterised by secular stagnation (Summers, 2015), a condition of permanent slack, there may however be a case to sustain the fiscal impulse beyond the short-term.

409. It is more likely that, beyond the recovery from the lockdown, the South African economy is constrained by conditions of supply rather than permanent lack of demand. There are obvious domestic constraints on the expansion of supply, such as the supply of electricity.[59]

410. More generally, 'normal' levels of economic activity in the United States or Europe are taken to mean full-employment, and this is the policy objective that demand management seeks to achieve.

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[58] It should however be noted that in the real world, interest rate effects may be less sensitive to demand conditions than would be the case in a model.

[59] In the modelling analysis reported in **Part 5** (**CGE-Sim 3**), the supply constraints lead to current account deficits, resulting from increased imports, in the face of a large unfunded demand shock.

411. This does not make a lot of sense in South Africa, where 40% of the workforce is permanently unemployed. In South Africa's case, the path to full employment is not constrained by aggregate demand, but by the size of the capital stock.

412. Achieving full employment requires capital accumulation that expands the supply side of the economy, reduces import dependence and increases exports.

413. Attempts to expand aggregate demand beyond these limits will soon come up against external constraints, which typically takes the form of hyperinflation (if the demand shocks more than supply are sustained) under conditions of a devaluing exchange rate.

414. To avoid this, transfers might be offset with increased taxation. A tax-financed BIG implies a reallocation of command over commodities, rather than an increase in demand.

415. In any case, the fiscal impulse that drives the multiplier effect is usually thought of in relation to a *change* in deficit-financed expenditure.

416. Once the output gap is closed and the multiplier effects have dissipated (and assuming the size of the transfer remains constant), it will be necessary to show an increase in government revenue that fully offsets cost in nominal terms.

417. If an optimistic view is adopted, where an expansion of the grant system is assumed to trigger a new path of sustained capital accumulation, then the burden of this additional taxation will be eased.

418. But if South Africa returns to a path of slow growth which it had been on for a decade prior to the COVID-19 crisis, the additional taxation will be commensurately more burdensome.

419. But in either scenario there will have to be a rand-for-rand increase in taxes to finance the net cost of a BIG – or at least a very restricted unfunded portion.

420. The idea of the '*balanced budget multiplier*' suggests a tax-financed grant would still add to aggregate demand in the short to medium term (versions of this can be seen in **CGE-Sims 4** and **5** in **Part 5**).

421. Since taxes are progressive, and since the affluent tend to consume less of their incomes, redistributing incomes from taxes to transfers would expand consumption.

422. It might also be that such a redistribution of demand will result in a structural (i.e., permanent) improvement in the growth of potential output.

423. Microeconomic studies find that cash transfers have direct positive impacts on household behaviour and economic outcomes, tending to increase labour supply and earnings (Baird et al., 2018), raise educational attainment, geographic mobility and household living standards (Parker & Vogl, 2018), and reduce crime, school dropout and teenage pregnancy (Attanasio, Sosa, Medina, Meghir, & Posso-Suárez, 2021).

424. The idea that reducing inequality through redistribution would have a positive *macroeconomic* effects on growth, however, stands in tension with a long history of development thinking, which has often stressed the link between profit and capital accumulation and a consequent trade-off between growth and egalitarian distributions (Kanbur, 2000).

425. Mainstream macroeconomic thinking suggests that, while redistribution might stimulate demand in the short-term (because it shifts income to agents that consume a greater share of income), it would for the very same reasons tend to dampen growth in the long-run if the demand change does not influence the structure of domestic investments and savings (Bertola, 2000).

426. Heterodox approaches have been central to debates about '*wage-led*' growth, but there are both empirical and theoretical grounds to be cautious about any general and firm conclusions, especially in developing countries (Aboobaker, 2019).

427. More recent empirical work suggests grounds for greater optimism about the relationship between redistribution and growth. Ostry et al (2014) find that inequality is unequivocally bad for growth when measured as an average effect across time and countries.

428. Redistribution through taxes and transfers is weakly correlated with poorer growth outcomes. But, especially for moderate redistributions, this negative effect is outweighed by the growth-enhancing impact of lower inequality.

429. As mentioned above, this supports Lindert's (2004) finding that the trade-off between growth and redistribution does not exist over the long-run.

430. But again, this finding is contingent on political and fiscal institutions, and Ostry et al's average effect cannot be taken as conclusive proof that a substantial increase in redistribution will have large positive effects in South Africa next year.

431. South Africa already redistributes a significant share of GDP, has high taxation relative to its level of development and has been mired in a crisis of low investment and slow growth for decades.

432. In this context, the improvements in household capabilities realized from a BIG could well be overwhelmed by the macroeconomics of rising taxation and the associated politics of intensified distributive struggle.

433. The outcomes of these processes cannot be foretold by regression analysis as, (Kanbur, 2000, p. 792), "*the trade-off between growth and equity is ever present and needs to be negotiated by each society in the context of its own socio-political framework*".

434. Fiscal sustainability is an important element in such a negotiation. There are many factors – known and unknown - that will influence the path of growth and capital accumulation over the next few years and beyond.

435. There are strong reasons to believe that the grant would generate high multiplier effects in the short run, which may offset the costs of deficit financing over the next year or two. Nevertheless, these expectations are not certainties, and even this outcome may be confounded by a host of other factors.

436. Given these uncertainties about the future, a failure to clearly specify the funding source associated with an extension of grants could be unwise.

    436.1. It would imply an increase in government's unfunded obligations.

436.2. Reason suggests that this means an addition to the rate at which government debt accumulates.

437. Depending on the performance of economic growth this could well be a problem. If the expectation forms that government is unwilling or unable to impose the cost of the grant on domestic agents through higher taxation, the value of government debt as an asset class will fall, raising long-term interest rates and offsetting certain of the growth-enhancing effects the stimulus to aggregate demand may have.

438. While the multiplier effects may be lagged, taking time to percolate throughout the economy, the spike in interest rates on government debt could be instantaneous. Beyond the medium-term, the escalation of the government's debt crisis may compromise hopes of a new path of capital accumulation as the state and investors react negatively.

Conclusion

439. The fiscal implications of an expanded system of social transfers focusing on adults in the range 18 to 59 are complex where the framework is implemented at scale.

440. This review highlights the following:

440.1. All current and envisaged social assistance grants target poverty and inequality extremely well.

440.2. Any expansion of social assistance grants is likely to result in some accelerated growth together with longer-term supply-side adjustments resulting from a reconfiguration of the structure of consumption expenditure.

440.3. However, the length of time over which a growth impulse is sustained will depend on whether the supply-side of the economy can adjust to expand and diversify domestic production.

440.4. The quality of the long-term supply-side adjustment however cannot be reliably asserted if reliance is placed exclusively on demand-side measures.

440.5. Unfunded expansions of social transfers expand demand for the benefitting households while retaining the demand from those that do not. This can result in unsustainable demand growth which ultimately peters out (reflected by a depreciating exchange rate together with associated inflation).

440.6. Funded expansions of social transfers however reduce demand from those paying taxes while increasing demand for benefitting households. Here the social transfer regime is purely redistributive, with demand changes largely impacting on the structure of consumption rather than net demand.

440.7. Increased taxes can therefore serve the dual purpose of constraining demand, where required, while also addressing fiscal gaps.

440.8. However, dramatic changes to the tax regime, either through large increases to existing taxes or the introduction of new taxes, are likely to have uncertain implications for revenue generation.

440.9. The implementation of specific general tax measures earmarked for, or designed around, the system of social transfers could be considered, but this is typically more appropriate for social insurance schemes.

440.10. When considering adjustments to the general system of taxes, any financial appraisal of individual tax change options is unlikely to measure the behavioural and inter-dependent impacts of their simultaneous application.

440.11. The more rapid the escalation of the system of social transfers, the greater the pressure on government to mitigate unsustainable demand-side pressures and possible fiscal shortfalls with extreme changes to the tax system.

440.12. The more gradual the adjustments to the system of social transfers the lower the risks of excessive demand shifts, also lowering the need for structural changes to the tax system under conditions of uncertainty.

441. This review therefore suggests that an expanded system of social transfers can be implemented but should be incremental in nature to ensure that fiscal and economic shocks, both positive and negative, can be effectively managed.

PART 2.7: CONCLUSION

Social context

442. South Africa has some features of a comprehensive social protection system, but with significant gaps.

443. The biggest gap is unemployed and low-income 18-59-year-olds, who do not qualify for either social assistance (i.e., social grants) or social insurance (especially UIF) unless they are disabled.

444. This gap was exposed by COVID-19, because the lockdowns in 2020/21 deprived millions of working adults of their livelihoods and left them with zero income and no means of support.

445. The introduction of the Temporary Employee/Employer Relief Scheme (TERS) and the special social relief of distress or COVID-SRD grant, now renewed until March 2022, partially filled this gap in social protection provision, but only temporarily.

446. A more sustainable intervention is needed to deliver income support to chronically poor and structurally unemployed South African residents, even after COVID-19 lockdowns are lifted.

447. This report explores options for achieving this policy objective – presenting projected impacts, estimated costs, and possible sources of financing – for consideration by Government.

Policy context

448. South Africa's Bill of Rights established a constitutional right to "social security, including, if they are unable to support themselves and their dependents, appropriate social assistance."

449. Section 27 also provides that: "The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights."

450. Social grants are currently paid to over 18 million beneficiaries, almost one-third (31%) of the population. In the poorest decile, 95% of household income derives from social grants.

451. However, a significant number of South African residents are unable to support themselves and their dependents and have no access to social security or social assistance from the state.

452. In the poorest income decile, only 30% of households are in receipt of income from grants, which is a lower percent than households in each of the deciles 2-7 inclusive. But the challenge is not just in the poorest income decile: all households in deciles 1-2 fall below the Food Poverty Line. Using the LBPL, almost all (90%) of the households in decile 3 are added. All households in deciles 1-4 fall below the UBPL.

Policy choice: To replace or complement current benefits?

453. A basic income grant (BIG), as proposed for South Africa by the Taylor Committee in 2002, implies a regular flat rate cash transfer to every South African citizen or resident.

454. A basic income support (BIS), as proposed and discussed in this report, also involves regular flat rate cash transfers, but is restricted for pragmatic reasons to part of the population, not for everybody.

455. South Africa's social grants already provide income support to millions of children up to 18 years of age (Child Support Grant) and persons over 60 years of age (Older Persons Grant), as well to disabled adults of working age.

456. A BIG would either duplicate existing support for children, older persons and disabled people, or require the CSG, OPG and DG to be abolished and replaced with a flat rate BIG.

457. A decision was made by the Panel to focus only on the '*missing middle*' cohort of 18-59-year-olds, both to minimise complications for other aspects of the benefit system, and because this age-group is the most income-vulnerable at present.

Fiscal review

458. South Africa's fiscal position is precarious, and care needs to be taken about the future pathway to protect the integrity of government programmes and reductions in accumulated debt.

459. Increasing the obligations of the state too quickly have mixed implications that suggest that any expansion of social transfers should be kept at levels where the economic demand and supply implications can be optimised together with the fiscal implications.

Overall conclusions

460. An expanded system of social transfers along the lines of a BIS is merited given the social and economic context in South Africa seen together with the obligations placed on the state by the Constitution.

461. Pragmatic fiscal and economic considerations necessitate that a version of the BIS be designed to be introduced progressively on a phased basis.

PART 3: INEQUALITY, REDISTRIBUTION AND ECONOMIC GROWTH AND DEVELOPMENT

This part of the report offers an overview of the literature on inequality and its relationship to economic growth and development. This literature is divided into two parts. First, there is a general review of literature, addressing both conceptual issues and empirical findings. Second, there is a review of modelling approaches which attempt to measure these effects for the purposes of policy analysis. This then supports the work provided in **Parts 4** and **5**. While some aspects of this literature are also address in **Part 2**, the focus here is on the general relationship between inequality, redistribution and economic growth and development.

PART 3.1: OVERVIEW

462. A large literature has been examining the relationships between equality/inequality, redistribution and growth. In this section we give an overview of some of the applicable literature. We are specifically searching for economic pathways from redistribution to economic outcomes, and report on some of the channels that exist.

463. Ostry et al. (Ostry, Berg, & Tsangarides, 2014) stress the fact that there are multiple possible direct as well as indirect channels at play and urge researchers to separate the relationship between inequality and growth from the relationship between redistribution (i.e., the policy interventions) and growth. They argue that many researchers mix the two relationships and come to inaccurate conclusions.

464. In the next section we give a brief overview of some of the literature, starting with two South African studies. The literature review is followed by a summary of some specific literature on the use of Microsimulation and Computable General Equilibrium (CGE) models, to simulate the effects of redistribution on equality and poverty. In the subsequent section we explore a few transmission paths from redistributive actions to economic outcomes.

PART 3.2: LITERATURE REVIEW

465. As already noted above, Samson et al. (2004) and Bassier et al. (2020) have conducted comprehensive studies on the South African Social Security System. They find that South Africa's social grants successfully reduce poverty, regardless of which methodology is used to quantify the impact measure or identify the poverty line.

466. Samson et al (2004) used the microsimulation model of the Economic Policy Research Institute and find evidence that social grants are developmental in nature in South Africa, in that children in households that receive grants are more likely to attend school. They also demonstrate that "*people in households receiving social grants have increased both their labour force participation and employment rates*

faster than (others)… and have realised more rapid wage increases" (Samson et al., 2004, p. 134).

467. Inchauste et al. (2017) study South Africa as one of eight low- and middle-income countries and find that fiscal policy in South Africa achieves "*significant reductions in income inequality and poverty – the largest among the emerging-market countries so far included in the Commitment to Equity (CEQ) project*" (G Inchauste, Lustig, Maboshe, Purfield, & Woolard, 2017, p. 235).

468. They also find that spending on education and health "*is well targeted at the poor, although concerns remain about the quality and effectiveness of such spending*" (G. Inchauste et al., 2015, p. 235). Finally, they find that all components of fiscal policy, except for excise taxes, are equalising, including the VAT (also see Goldman et al., 2020).

469. With respect to income poverty, (Gasior, Leventi, Noble, Wright, & Barnes, 2021) found in a comparative study that poverty in South Africa - measured using the international USD1.90 per day poverty threshold - fell in 2019 from 32.6% (measured using original income, i.e., income before receipt of benefits and payment of direct taxes and social insurance contributions) to 11.9% (measured using disposable income, i.e., after receipt of benefits and payment of direct taxes and social insurance contributions).

470. Additionally, income inequality measured using the Gini coefficient fell from 0.73 (original income) to 0.65 (disposable income) (Gasior et al., 2021). In contrast, the tax and benefit systems in Ghana, Mozambique, Tanzania and Zambia were found to be much less effective at achieving redistribution.

471. Ostry et al present an excellent literature review in their paper (Ostry et al., 2014) on the relationships between equality/inequality, redistribution and growth. They summarise the theoretical literature by categorizing the papers into three main groups: (i) the relationship between inequality and redistribution, (ii) the relationship between redistribution and growth, and (iii) the relationship between inequality and growth (Ostry et al., 2014, p. 9).

472. Meltzer and Richard (1981) argue that the distribution of income in (all) countries is skewed to the right, so the mean income generally lies above the median income. The median voter lies below the mean so that most voters in a democracy would be inclined to vote in favour of redistribution (Meltzer & Richard, 1981).

473. On the relationship between redistribution and growth, Ostry et al. (2014) conclude that "the policy literature has focused on the direct effects and generally assumed that redistribution hurts growth, as higher taxes and subsidies dampen incentives to work and invest. Losses are likely to be a rising function of the tax or subsidy rate, given the convexity of deadweight costs." (Ostry et al., 2014, p. 8).

474. However, there are also arguments of a positive relationship between redistribution and growth, for example (i) if it involves reducing tax expenditures or loopholes that benefit the rich or as part of broader tax reforms, or (ii) when social insurance spending enhances the welfare of the poor, or (iii) when higher health and education spending benefits the poor. (Ostry et al., 2014).

475. On the relationship between inequality and growth, Ostry et al. conclude that improved levels of equality could be positive for growth if it provides incentives for innovation and entrepreneurship[60], or by allowing some individuals to accumulate the minimum to start a business and get a good education[61]. "*But inequality may be harmful for growth because it deprives the poor of the ability to stay healthy and accumulate human capital; or generates political and economic instability that reduces investment…"* (Ostry et al., 2014).

476. According to Ostry et al. (2014), earlier work on the inequality-growth relationship has generally confounded the effects of redistribution and inequality (Ostry et al.,

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[60] From Lazear, E.P., and S. Rosen, 1981, "Rank-Order Tournaments as Optimum Labour Contracts," Journal of Political Economy, Vol. 89(5), pp. 841–64.

[61] From Barro, 2000, "Inequality and Growth in a Panel of Countries," Journal of Economic Growth, Vol. 5(1), pp. 5–32.

2014, p. 25). They advocate that data be used that are appropriate to the question at hand: for example, when looking at the relationship between inequality and growth, researchers should ideally work with net inequality (post-tax), while many researchers mix pre- and post-tax data in their analysis (Ostry et al., 2014, p. 11).

477. Goni et al. (2011) do exactly as Ostry et al suggest and compare inequality levels between Latin America and Western Europe: they find that the gap between the two regions in terms of income inequality is much bigger after taxes and transfers than before, which is a reflection of the "*failure of the* [Latin America] *region's fiscal systems to perform their redistributive functions*" (Goni, Lopez, & Serven, 2011) (brackets added).[62]

478. Goni et al. confirm the possible negative effects of high inequality on growth, as a source of distributive conflict and social tension, "*which tend to undermine the legitimacy of policies and institutions as well as their stability, and in particular weaken property rights, thus discouraging investment and thereby growth*" (Goni et al., 2011, p. 1558).

479. They add a channel of influence between inequality and growth, namely through poverty: "*higher income inequality means higher poverty*"; the poor could fall into an underdevelopment trap "*in which financial market imperfections and institutional constraints prevent them from contributing to the growth process*" (Goni et al., 2011, p. 1558).

480. Goni et al. (2011) make three very important conclusions about the poor performance of fiscal redistribution in Latin America, which are directly applicable to this study. There are three potential explanatory factors, namely that *"(i) too low a*

[62] It is also recommended that the CEQ Working Paper Series be reviewed which can be found at https://commitmentoequity.org/publications-ceqworkingpapers/.

volume of resources gets collected and transferred; (ii) tax collection is regressive; and (iii) transfers are poorly targeted…" (Goni et al., 2011, p. 1566).

480.1. On the first point, the authors claim that Latin America has weak tax administrations across the region, with poor tax compliance by taxpayers, which is partly a result of the high level of informality in the economies.

480.1.1. The informal economy makes up 40% of total economic activity. Informality is a function of poor public service.

480.1.2. Moreover, the weak administrations are characterised by too many tax concessions such as exemptions, deductions and other loopholes.

480.2. Second, there is a large weight on indirect taxation in Latin America, rather than on income taxation which is normally more progressive. Most researchers on the incidence of taxation in Latin America found that taxes are either neutral or regressive, and hardly progressive. Even the income taxes are not progressive because of low effective tax rates (see for instance Goni et al., 2011, p. 1563).

480.3. Third, Goni et al. show that transfers in Latin America achieve little on the inequality front in comparison to Europe, for two reasons: the volume of transfers is much smaller in Latin America than in Europe, and the targeting of the given volume of transfers is often regressive in Latin America. They show that the upper quintiles of households tend to receive more transfers in all Latin American countries, where social insurance transfers (more than 80% of all transfers) typically accrue to the more affluent.

481. Lustig et al. (2012) confirm the findings of Goni et al. (2011), that the extent of inequality reduction induced by direct taxes and transfers is rather small in Latin America. According to them "*the impact of transfers on inequality and poverty reduction could be higher if spending on direct cash transfers that are progressive in absolute terms is increased, leakages to the non-poor are reduced and coverage*

of the extreme poor by direct transfer programs is expanded" (Lustig et al., 2012, p. 1).

482. Agnello and Sousa (2012) ask the question whether fiscal consolidation impacts on income inequality. They use a panel of 18 industrialised countries from 1978 to 2009 and find that income inequality significantly rises during periods of fiscal consolidation.

483. What is relevant for this Report is that they also find that "*while fiscal policy that is driven by spending cuts seems to be detrimental for income distribution, tax hikes seem to have an equalising effect*…" (Agnello & Sousa, 2012, p. 2).

484. It is important to model both the effects of government expenditure as well as the effects of implementing different methods of financing the expenditure in any government policy scheme.

485. Hirvonen et al. (2016) aim to jointly assess the distributional effect of taxes and transfers using Ethiopia as a case study. They use what they call a "*simple microsimulation model*" to compare different tax and transfer regimes.

486. The PSNP in Ethiopia was found to have a net positive effect on both equality and poverty. The PSNP is supplemented by two more programmes, namely the Other Food Security Programme (OSFP) and the Household Asset Building Programme (HABP), and according to 2012 study, the three programmes "*led to considerable improvements in the use of fertilizer and enhanced investments in agriculture likely to improve agricultural productivity among households receiving both programs (plus payments from PSNP)…*" (Hoddinott, Berhane, Gilligan, Kumar, & Taffesse, 2012, p. 765).

487. In the next section we continue with the literature review but focus more specifically on two types of models used to estimate or simulate changes in income distribution and poverty, namely microsimulation models and computable general equilibrium models.

PART 3.3: MODELLING APPROACHES

Microsimulation modelling of income redistribution

488. Bourguignon and Spadaro (2006) discuss microsimulation techniques and their theoretical background as a tool for the analysis of public policies, with the emphasis on tax incidence, redistribution and poverty analysis.

489. They say that Orcutt planted the seed in 1957, but that the use of microsimulation (MS) models only truly developed since the early 80's, for two reasons: first, large and detailed datasets on individual agents came into existence then, and second, computing power developed enough to handle these datasets (F Bourguignon & A Spadaro, 2006).

490. According to Bourguignon and Spadaro, microsimulation techniques are useful in the analysis of public policies for two reasons:

    490.1. First, one could fully consider the heterogeneity of economic agents observed in micro-datasets: "*Working with thousands of actual economic agents rather than a few hypothetical ones…. Identifies with precision who are likely to be winners and losers in a reform*" [63] (F. Bourguignon & A. Spadaro, 2006, p. 78).

    490.2. Second, the aggregate financial cost/benefit of a reform could accurately be evaluated: the results obtained at the level of individual agents are aggregated at the macro level, "*allowing the analyst to evaluate the effect of the policy on the government budget*" (F. Bourguignon & A. Spadaro, 2006, p. 78).

[63] They refer to the typical representative agent models.

491. Bourguignon and Spadaro present a taxonomy of microsimulation models applied to redistribution policies and categorise these models into two broad categories: Arithmetical and Behavioural microsimulation models.

Arithmetical microsimulation models

492. MS models that ignore behavioural responses altogether are sometimes called arithmetical or static models. Changes that households face because of reforms in redistribution policy are applied to their budget constraints, without considering other changes such as in their demographic composition or market income. Disposable income and net tax payments are arithmetically arrived at (F. Bourguignon & A. Spadaro, 2006, p. 78).

493. Bourguignon and Spadaro say that arithmetical models are appealing because they are simple to operate, and that the assumption of unchanged behaviour is not as restrictive as it would appear, since the first-round effects that they estimate are good approximations of final welfare effects if changes are small (F. Bourguignon & A. Spadaro, 2006, p. 80).

494. Microsimulation models are used to analyse income distributions and income redistribution as well for the purposes of policy analysis (see Figari, Paulus, & Sutherland, 2014 for a comprehensive review).

495. There is also an initiative underway to promote tax-benefit microsimulation modelling across developing countries – called SOUTHMOD - which builds on the lessons learned from the multi-country EUROMOD tax-benefit model and uses the EUROMOD microsimulation software (Decoster, Pirttilä, Sutherland, & Wright, 2019).

496. The South African model (SAMOD) which is used for the microsimulation modelling in this report was the first model to use the EUROMOD software in a developing country context (Wright & Mpike, 2021)

Behavioural microsimulation models

497. Behavioural microsimulation models go beyond the calculation of how much more or less everyone is receiving or paying because of the effects of some policy reform on his or her budget constraint. "*Behavioural MS models include a detailed representation of the behavioural response of individuals and households to changes in their budget constraint*." (F Bourguignon & A Spadaro, 2006)(p.79).

498. The types of behavioural responses differ between models, but most models compute optimal consumer demand as well as labour supply response functions, calibrated with the aid of econometric estimation techniques.

499. The literature is clear that microsimulation modelling by itself is very powerful, but often do not cater for behavioural responses to policy measures and are also often defined within a partial equilibrium framework.

500. According to Davies (2009) microsimulation modelling on its own may be appropriate for short-run impact analysis, but "*for longer-run analyses, where interest is in the interrelationship between changes in disposable income, consumption and labour supply, these models need to be supplemented (with pure macro models or CGE models)*" (J. B. Davies, 2009).

501. Redistribution policies may therefore have powerful general equilibrium effects if the sectoral structure of the economy is changed, and therefore models are often applied in tandem with other models such as CGE models.

502. In the next section we briefly give an overview of CGE modelling of income redistribution, and subsequently discuss the integration of microsimulation and CGE models.

CGE modelling of income redistribution

503. Savard (2005) gives a lapidary summary of the use of CGE modelling related to income distribution. He claims that the first attempts of using CGE models in this context started with the pioneering work by (Dervis, de Melo, & Robinson, 1982) and (Gunning, 1984), followed by the OECD sponsored papers in the early 1990s by

(Thorbecke, 1991), (Bourguignon, De Melo, & Suwa, 1991) and (de Janvry, Fafchamps, & Sadoulet, 1991).

504. A third wave to this literature came near the end of the 1990s with contributions by Cogneau (1999), Decaluwé et al. (1999a and 1999b), Cogneau and Robilliard (2000), Agenor et al. (2001), Cockburn (2001), Bourguignon, (A. Robilliard, Bourguignon, & Robinson, 2001) and Boccanfuso et al. (2003) among others.[64]

505. According to Savard each of these authors adapted standard CGE models to allow for income distribution or poverty analysis, and had one of three main approaches:

    505.1. First, CGE models with representative agents which "*perform poverty analysis with variation of the average income of the representative household*" (Savard, 2005, p. 2), used by (Dervis et al., 1982), and (Decaluwe, Lemelin, Robichaud, & Maisonnave, 2013) amongst others.

    505.2. Second, CGE models with multi-household analysis, containing as many households as what is found in income and expenditure household surveys. These models avoid pre-judgment about aggregating households into categories, while they allow for intra-group distribution of changes.

    505.3. Third, CGE models linked to microsimulation models, as elaborated on below.

CGE models linked to microsimulation models and income distribution

506. The literature is quite full of examples where microsimulation and CGE models are used in an integrated fashion to model income redistribution. Davies (2009) gives an overview of work that has attempted to bring together microsimulation, CGE and

[64] See (Savard, 2005) for the detail of these references, which do not all appear in our Bibliography.

macro models to perform distributional analysis in developing and transitional countries (Davies, 2009).

507. He is convinced that a combination of the different forms of modelling is imperative: "*While microsimulation is essential in modelling the distributive effects of taxes and transfers, it is limited by the fact that it is often non-behavioural and by its inability to model prices, wages and macro variables. CGE and macro models on the other hand, have in the past generally lacked the rich distributional detail found in microsimulation*."

CGE models linked in a top-down fashion to microsimulation models

508. Robilliard et al (2008) provides (according to Davies, 2009) a leading example of the top-down approach to the combination of microsimulation and CGE modelling.

509. Robilliard et al (2008) handle the two models separately, with the CGE model communicating with the microsimulation model through a vector of prices, wages and aggregate employment variables. "*There is no feedback from the microsimulation model back to the CGE model*" (A.-S. Robilliard, Bourguignon, & Robinson, 2008).

510. The authors do various sets of experiments in the CGE model, but the set that is applicable to this study consists of three policy simulations: (i) a price subsidy is put in place on food commodities; (ii) a public works program is implemented for unskilled workers, and (iii) income grants are transferred to poor households.

511. The results of the CGE simulations are fed into the microsimulation model and the authors find that among the three types of social policy packages, household transfers programmes "*are the most efficient to reduce poverty*." (A.-S. Robilliard et al., 2008, p. 23).

512. In the next section we provide an example of a successful integration of a microsimulation and CGE model for Brazil but conclude with a remark by Davies

that integrated models[65] are not in all instances more desirable than top-down models. "*The layered [top-down] models, in contrast, perhaps have an advantage where the concern is about short-term distributional impacts in a setting where realism is at a premium and theoretical niceties are not so important … whereas in doing more long-run analysis the luxury of an integrated approach may be more affordable*." (Davies, 2009, p. 56).

CGE models linked in a bi-directional fashion to microsimulation models

513. A seemingly optimal method of integrating microsimulation and CGE models is implemented by Ferreira-Filho and Horridge (2006). They link two models of Brazil together and solve them iteratively to get consistency between results.

514. The CGE model is shocked first, and then a vector of wages and employment by industry and labour type is communicated to the microsimulation model, where new expenditure patterns for each household are derived and communicated back to the CGE model. The process is repeated until the two models converge.

    514.1. "*Once the final results are obtained, the change in poverty indexes are calculated and reported*". (Ferreira Filho & Horridge, 2006, p. 6).

515. They use their models to analyse poverty and income distribution impacts of the Free Trade Area of the Americas formation upon the Brazilian economy, and find (i) increased employment, especially for lower-paid workers, and (ii) a reduction in poverty in all 27 Brazilian states.

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[65] An integrated model attempts to model inter-related dynamics between households and the economy whereas a top-down model imposes results on the economy and households. The top-down model effectively apportions distributional outcomes at the micro level rather than attempting to model them. These are discussed further below.

PART 3.4: TRANSMISSION PATHWAYS FROM REDISTRIBUTION TO ECONOMIC IMPACTS

Transmission pathways in microsimulation models

516. It was said above that microsimulation modelling "*is limited by the fact that it is often non-behavioural and by its inability to model prices, wages and macro variables*" (Davies, 2009, p. 49).

517. Even though consumer demand functions and commodity supply functions are econometrically derived in some behavioural microsimulation models, they do not show complete transmission pathways from redistribution to economic impact on their own, i.e., if they are not coupled to a CGE or macroeconomic model.

Transmission pathways in CGE models

518. Representative households:

518.1. Jensen and Tarr (2003) employ a CGE model of Iran to measure poverty gains (amongst others) from trade and pricing reforms in Iran. They have 20 representative household groups in the model – ten rural household groups and ten urban groups.

518.2. A very relevant feature of the modelling exercise for our study is that any loss or gain for the government in the model is offset by a lump sum tax or subsidy.

518.2.1. "*The decision rule (they) adopt is that lump sum distributions of the government are given to households in equal shares. … This implies that all individual households, rural and urban, receive the same Rial amount*"[66]. (Jesper Jensen & David Tarr, 2003, p. 12)

[66] "(They) suggest this decision rule for distributions for several reasons. First, although less efficient as a safety net for the poor than lump sum distributions targeted at the poor, more

518.2.2. Since rich and poor households receive the same lump sum transfers, the transfers are progressive, and the authors claim that this is a more equitable method of redistributing income than the current commodity subsidy practice in Iran, where the subsidies are proportional to consumption, with the rich benefiting more in absolute terms than the poor. (J Jensen & DG Tarr, 2003).

518.3. Jensen and Tarr (2008) simulate trade reforms (replacing non-trade barriers with moderate tariffs), exchange rate reforms (removing the dual exchange rate system) and price reforms (removal of large energy subsidies). (Iran subsidized 90% of energy cost, with the subsidies comprising 18% of GDP).

518.4. It is to be expected that the results would be significant, with all the gains given back to the households. The authors claim that if implemented, the combined reforms were implemented the poorest rural households gain by 290% and the poorest urban by 140% of their income.

518.5. Jensen and Tarr (2008) provide a detailed report of the changes in all commodity output and trade, as well as on the welfare of each of the 20 representative households in their model.

518.6. However, they do not consider or mention the feedback pathways that the improvement in household income and welfare would have on the economy.

519. '*Real'* households:

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targeted distributions have the difficulty that it may be administratively difficult to identify who are the poor. Some of the poor, who can ill afford a period of lowered income, may be excluded inadvertently. Second, on political economy grounds, if all households receive distributions, there is likely to be less opposition to the reforms. Third, if all households receive distributions, then there is no disincentive to work as a result of the distribution scheme, i.e., no income level at which additional earnings result in ineligibility for distributions and a net reduction in after distribution income."

519.1. Rutherford and Tarr (2008) employ a CGE model of Russia to assess the impact of accession to the WTO on income distribution and poverty. They incorporate all 55,000 households from the Russian Household Budget Survey as agents in their model. Each household maximises a Cobb-Douglas utility function of the 35 commodities in their model subject to a budget constraint, which consists of factor income net of transfers.

519.2. The results of the utility maximisation process are demand functions for all households which differ from each other, but which are dependent on the households' initial choices. The authors calculate each household's equivalent variation as a function of their chosen consumption bundle. (Rutherford & Tarr, 2008).

519.3. The shocks to the model in this paper are increased FDI into Russia, as well as decreases in import tariffs which would result from their accession to the WTO. The government's budget is modelled to remain neutral with all surpluses given back to households as lump-sum transfers.

519.4. The transmission pathways to the households' income distribution and welfare levels are through changes in skilled wages, unskilled wages, returns to capital, taxes and transfers, and goods' prices. In the specific simulations the Russian economy opens and foreign trade increases, while prices of commodities decline in the more competitive environment.

519.5. The transmission pathways from the households back to the economy lie in increased demand for consumer goods from the domestic and foreign markets, which stimulates industry production. (Rutherford & Tarr, 2008).

Transmission pathways in mixed models

Top-down models

520. Robilliard et al (2008) handle their CGE model and microsimulation model separately, with the CGE model communicating with the microsimulation model through a vector of prices, wages and aggregate employment variables. There is no

feedback from the microsimulation model to the CGE model. (A.-S. Robilliard et al., 2008).

521. The CGE model simulates price subsidies, public works programmes and the implementation of income grants, and the microsimulation model is used to calculate the impacts on the welfare of households. Even though the improvement in the welfare of households would have feedback effects on the economy in the CGE model, the authors do not consider any of them.

Integrated models

522. In the Ferreira-Filho and Horridge (2006) paper they start with shocks to the CGE model and then feed some results into the microsimulation model. If wages and labour demand change in the microsimulation model, household expenditure patterns change. They then feed household expenditure patterns back into the CGE model and simulate the results. In their paper the initial shocks to the CGE model are decreases in import tariffs due to Brazil joining the Free Trade Area of Americas (FTAA).

523. Any shock to a CGE model leads to winning and losing industries; all industries have specific capital-labour ratios, so that in each industry either capital or labour becomes the biggest winner in the industry. Industries employ different types of labour according to wages and occupation, and the specific results are then entered into the microsimulation model to determine changes in expenditure patterns. The CGE model is then shocked with the changes in the expenditure patterns by households, until the two models converge to an equilibrium solution.

524. The transmission pathways in these model simulations lie to a great extent in the specific closure that the modellers use: the trade balance is fixed in the closure, while real household consumption, investment and government consumption move together to accommodate it. "*The trade balance, then, drives the level of these three last aggregates…*" (Ferreira-Filho & Horridge, 2006, p. 16).

525. The model results show large increases in exports and imports, while the three said macroeconomic variables show small changes. Exporting industries and regions

benefit significantly, as well as all importing agents, since the import price index decreases.

526. However, even though the authors specifically create a feed-back loop from the microsimulation model to the CGE model to accommodate the increases in household consumption, they do not comment on the economic effects of the increases in expenditure. The reason for the iterative solution method is to gauge an accurate estimation on the welfare effects of the trade liberalisation policies.

Conclusion

527. One of the resounding remarks from the literature review above comes from Ostry et al (2014) who said: "*But inequality may be harmful for growth because it deprives the poor of the ability to stay healthy and accumulate human capital … or generates political and economic instability that reduces investment*" (Ostry et al., 2014, p. 8).

528. The violent events of July 2021 in Kwazulu-Natal and Gauteng underline this conclusion. It is good to study the benefits of redistribution, but probably equally important to think what would happen if we do not treat the poverty as well as unequal distribution of income.

529. Goni et al. confirm the possible negative effects of high inequality on growth, as a source of distributive conflict and social tension, "*which tend to undermine the legitimacy of policies and institutions as well as their stability, and in particular weaken property rights, thus discouraging investment and thereby growth*" (Goñi, L.J., & Servén, 2011, p. 1558).

530. We highlighted two major studies that compared the effectiveness of redistribution programmes in Latin America to those in Europe.

531. Goni et al give reasons for the failure of the Latin American region's fiscal systems to perform their redistributive functions, namely that *"(i) too low a volume of resources gets collected and transferred; (ii) tax collection is regressive; and (iii) transfers are poorly targeted*" (Goñi et al., 2011, p. 1556).

532. Lustig et al confirm the ineffectiveness in Latin America and claim that leakages to the non-poor are a problem, especially where the extremely poor are not adequately covered (Lustig et al., 2012).

533. There is wide consensus in the literature that redistributive programmes that are conducted properly have positive outcomes on the eradication of inequality and poverty.

534. The children from households who receive grants are better at attending school, and the education that they receive offers them better access to work later in their lives.

535. Labour force participation rates increase because of grants, and wages of the recipients rise faster than their counterparts who don't receive grants. Moreover, these workers are healthier and able to work better. They improve the productivity and potential productivity of labour and therefore especially support inclusive growth.

536. Recipients of grants could invest some of the funds in their agricultural or other production activities by buying seeds and fertilizer or investing in equipment. There is also evidence that grants promote innovation and entrepreneurship by allowing recipients to start small businesses.

537. The literature is unfortunately deficient in detail of transmission paths from redistribution to economic outcomes.

538. Rutherford & Tarr as well as Ferreira-Filho & Horridge show that economic benefits come from increased spending by households, which stimulates production and employment by the industries that benefit from the higher demand. (Ferreira-Filho & Horridge, 2006; Rutherford & Tarr, 2008).

539. However, we did not find modelling studies that specifically simulate improvement in labour productivity or human capacity, or increased investment in home production activities.

PART 3.5: CONCLUSIONS

540. The question of inequality and its relationship to economic growth is distinguishable from the question of the relationship between redistribution and growth. Understanding these relationships has important implications for public policy.

541. Attempts to understand the linkages fall to empirical analyses of various forms and economic modelling. This part of the report has evaluated elements of the empirical literature and two key modelling approaches, microsimulation and computable general equilibrium (CGE) models.

542. The empirical literature suggests the following:

    542.1. Improved levels of income equality can be good for long-term sustain growth;

    542.2. High levels of inequality appear to structurally segment elements of society that fall into an '*underdevelopment trap*' that excludes them from the growth process; and

    542.3. Weak post-tax redistribution is often associated with countries that have weak systems of taxation and redistribution.

543. The modelling review indicates that although not perfect, the different modelling approaches can offer insights into how an economy may react to alternative redistributive policies.

    543.1. Microsimulation approaches are useful in illustrating direct costs, distributive effects (poverty and inequality and direct tax implications. However, their static top-down design features cannot properly examine economic multiplier effects and any behaviour changes.

    543.2. Computable general equilibrium (CGE) models offer the opportunity to examine more indirect effects of a policy withing reasonable parameters. However, their ability to assess long-term supply-side effects cannot be relied upon. As with other types of economic model, the immediacy of certain effects may be overstated.

543.3. The use of CGE models together with microsimulation models is increasing in attempts to take advantage of what each does well. This extends to iterative simulations where the outputs of one become the inputs of the other in several simulation cycles.

543.4. The use of models for policy analysis however comes with a health warning. Economic models only provide broad indications of how aspects of the economy may react to policy designs and are as good as the model designs and assumptions. They cannot however be used as projections or even firm indications of a holistic economic response.

543.5. Model results should therefore always be interpreted, with consideration given to how features of the real-world economy that cannot be accurately modelled may qualify the model results.

544. This part of the report therefore supports the methodologies deployed to analyse a range of BIS scenarios and simulations to better understand both the social and economic implications of this kind of policy intervention.

PART 4: MODELLING ANALYSIS – APPROACH AND METHODOLOGY

A methodology and approach are provided to inform the quantitative analysis reported in **Part 5**.

PART 4.1: INTRODUCTION

546. The purpose of this part of the report is to provide a broad outline of the analytical approach and methods used by the Panel to appraise BIS options for South Africa.

547. Options for a BIS range from entry-level approaches to those that more substantially address poverty – as defined by an upper-bound poverty line (UBPL).

548. Whereas the social benefits and certain of the economic benefits of an expanded system of social assistance are well-established, the central obstacle to implementation has involved understanding two questions:

    548.1. First, does the expansion come at the cost of economic growth, development and employment?

    548.2. Second, what are the implications of the expansion in government expenditure for the fiscal position of government?

549. It is arguable that the pace of social assistance expansion arising from policy decisions has centred around assumptions regarding these two questions. It is for this reason that the Panel has chosen to expand the standard microsimulation modelling approaches to include use of a computable general equilibrium (CGE) model.

PART 4.2: METHODOLOGICAL APPROACH

550. The gathering of conclusive evidence on the implications of social grant expansion is notoriously difficult, as real-world experiments are difficult and modelling approaches fall short of providing a complete picture.

551. Whereas the direct (or first order) financial costs and benefits can be estimated quite well, the stumbling block involves building a reliable picture of the (second order) economic and fiscal impacts.

552. The second order effects involve feedback effects on economic growth and tax revenues resulting from the demand stimulus caused by the introduction of new social grants. An important consideration is to understand the transmission

mechanisms from any stimulus to key social outcomes such as growth, employment and government revenue.

553. From a modelling perspective, these feedback effects are often driven by assumptions regarding the size of so-called multipliers – which are difficult to determine from observed data.

554. For this appraisal it was therefore important to avoid approaches where the assumptions drive all the results.

555. Two modelling approaches were utilised by the panel supported by two modelling teams (Chitiga, 2021; Wright, 2021).[67]

    555.1. The first included use of a microsimulation model approach (see the discussion in **Part 3.3** of this report above) which was able to examine partial results related to costs, social outcomes and financing options.

    555.2. The second involved use of a CGE model (see the discussion in **Part 3.3** of this report above) where an attempt was made to understand the second-order effects.

556. In this section only the high-level features of the CGE model are noted in sufficient depth to allow for an understanding of how the panel sought to evaluate the BIS options.

Computable general equilibrium (CGE) model description

557. The model uses the Social Accounting Matrix (SAM) for South Africa built by van Seventer et al (van Seventer & Davies, 2019) for 2015 and is updated using the GDP changes to 2019 (it is important to mention here that the structure of the economy has not therefore been changed from the 2015 data).

[67] Both reports will be made available as separate publications.

558. A SAM provides a picture of the economy for a given year. Within a consistent framework, it represents the different flows existing between the activities (i.e., the different sectors of the economy) and the institutions (households, government, firms and the rest of the world), as well as the flows among institutions (direct taxes paid, dividends received etc.). Each cell of the SAM is identified with a variable in the model.

559. The model we use is based on the PEP 1-t model by (Decaluwe et al., 2013), which is a dynamic model for a single economy. We changed some assumptions to better represent the South African economy.

560. In line with the SAM, the model has 51 activities and 79 commodities.

    560.1. Each activity uses capital, labour (skilled and unskilled) and intermediate goods to produce output.

    560.2. The production is represented with nested functions. We assume there is a four-level production process.

    560.3. For each sector, at the first level, production is a Leontief function of intermediate consumption and value added.

    560.4. Then, at the second level, we assume value added is a Constant Elasticity of Substitution (CES) function between composite labour and capital.

    560.5. At the third level, composite labour is a CES function between skilled and lower skilled workers.

    560.6. At the fourth level, skilled workers are a CES function between workers who have finished their secondary education, and highly skilled workers, who are workers with tertiary education.

    560.7. Lower-skilled workers are a CES function between semi-skilled workers (workers with middle school) and unskilled workers (workers with some primary education).

    560.8. Each activity uses intermediate inputs, capital and the different types of labour, but in different proportions. For instance, a sector such as the basic

iron and steel industry relies particularly on intermediate consumption (88.8% of its production) to produce while the fisheries sector uses intensively value added (71.5% of its production).

561. The structure of the production is very important to understand the results and the interlinkages of the economy. Indeed, to continue with the two sectors mentioned above, if the basic iron and steel industry is positively affected by a shock, then in order to increase its production, it will need additional inputs, and consequently, this will have a positive impact on the other sectors.

562. The opposite is also true if this sector were negatively affected by a shock. Then in that case it would reduce its intermediate demands, and consequently, this would have negative impacts on other sectors of the economy. Impacts on the fisheries sector will likely have higher impacts on labour (and capital) than would shocks on iron and steel industry on the other hand.

563. The value-added composition is different across sectors. This reflects the intensity with which different industries use labour and capital. This also allows us to understand what happens to labour and capital demand should there be a shock/ policy on specific industries.

564. In line with the SAM, we have four different institutions: households, firms, government, and the rest of the world.

564.1. In the model, households are disaggregated per decile of income as specified in the SAM.

564.2. They receive income from labour, capital and transfers.

564.3. The sources of income are the same among households, but the shares are different.

564.4. Nearly 70% of the income of households at the bottom of the distribution comes from transfers from the government and 15% from unskilled labour income, while richest households receive income mainly from highly skilled labour, dividends from firms and capital.

564.5. Households use their income on consumption, paying direct taxes, transfers to other institutions, and to save.

564.6. The structure of spending is different among households. Households in the first two deciles spend almost all of their income on consumption (more than 99%) while this proportion is only 55% for households in the last decile.

564.7. On the consumption side, household behaviour is modelled as a *linear expenditure system* and subject to the household's budget constraint.

565. The structure of consumption spending is different among households.

565.1. Households at the bottom of the distribution spend more than 30% of their consumption budget on food commodities (from meat to other food items) while this share drops to 7.14% for the richest household.

565.2. This information is important to keep in mind as with an increase in their income following the BIS expansion, there will be a spike in their consumption and these commodities will be positively impacted.

566. In addition to representative households, we have a representative firm in the model.

566.1. Firms mainly derive their income from capital, and they receive transfers from other institutions.

566.2. They pay dividends to other institutions, pay corporate tax, and save the remainder.

566.3. Government's income is derived from direct taxes paid by households and firms, indirect taxes on domestic sales, import tariffs, transfers from other institutions, and a share of capital income.

566.4. The SAM data shows that direct taxes represent more than a third of government's income.

566.5. Among direct taxes, taxes paid by the richest households represent 43%. In this model, government savings are computed as government income less its consumption on commodities and transfers paid to other institutions (e.g. social grants, pensions etc.).

567. The SAM and the model consider the links between South Africa and the rest of the world.

567.1. In terms of modelling, we follow the traditional CGE modelling approach, whereby trade is modelled based on the assumption of imperfect substitutability of commodities given their origin (the Armington assumption).

567.2. South African producers have the choice to sell their production either on the local market or on the foreign market.

567.3. However, they need to be more competitive to increase their world market shares.

567.4. In terms of modelling, it implies that we have a finite elasticity for the export demand. The greater the value of the elasticity, the less the producer has to lower their price to be able to export more.

568. In the standard version of the PEP model (and in standard CGE models in general), full employment is assumed.

568.1. In the case of South Africa, this hypothesis needs to be adjusted as unemployment has been a major problem for decades.

568.2. The beverage curve approach of Blanchflower et al (Blanchflower & Oswald, 1995) is used to model a negative relationship between unemployment rates and wage rates.

568.3. In econometrically estimating the curve for South Africa, Kingdon et al (Kingdon & Knight, 2006) found that a 10% increase in the unemployment rate leads to a 1% decrease in wages.

568.4. Labour is mobile across sectors whereas capital is sector specific.

568.5. The stock of capital of a given sector is equal to what it was at the previous period (less the depreciation) plus the new investments that were made in the sectors.

568.6. To allocate the new investment, we follow the approach of (Jung & Thorbecke, 2003) where the new investment by sector depends on the ratio

between the rental rate of capital in the sector and the user cost of capital in the same sector.

568.7. In other words, if the rental rate of capital in the sector is relatively higher than the cost of capital in that sector, then the sector will attract new investments that will become productive in the next period.

568.8. Labour supply is increasing at the population rate. These are the mechanics behind the dynamic nature of the model through which variables are updated.

569. In terms of other closure rules, the nominal exchange rate is the numeraire of the model. Government's spending is fixed and government savings is endogenous. The rest of the world's savings is exogenous. Following the small country assumption, world prices (imports and exports) are exogenous.

570. In addition to the SAM, we use additional data such as elasticities. Income elasticities are borrowed from (Burger, Coetzee, Kreuser, & Rankin, 2017) and trade elasticities are taken from (Ntombela, Kalaba, & Bohlmann, 2018) which are the most recent econometric estimations for South Africa we could find.

Microsimulation model description[68]

571. The microsimulation analysis was undertaken using a South African tax-benefit microsimulation model called 'SAMOD'.[69]

572. SAMOD is a static tax-benefit model which measures the first order effects of policy reforms and has been used extensively for policy research (Wright & Mpike, 2021).

[68] This overview is also provided in **Part 3** where it explains the baseline analysis.

[69] SAMOD Version 7.3-BIGEP was used for this study and was run using EUROMOD microsimulation software version 3.1.8 (University of Essex, 2019)

573. The model has an underpinning dataset that was derived from the fifth wave of the National Income Dynamics Study (NIDS) (SALDRU, 2018).

574. NIDS is a national panel study carried out by the University of Cape Town. Although it is designed as a panel study, a specific set of weights enables the dataset to be used as a cross-sectional, and broadly nationally representative dataset (Branson and Wittenberg, 2019).

575. The underpinning dataset was further adjusted for the Panel by recasting the survey weights to reflect the most up-to-date available data about demographic and labour market changes that had occurred since 2017 when the fifth wave of NIDS was conducted.[70]

576. This reweighting step was necessary to ensure that SAMOD's input dataset reflects demographic and labour market changes since 2017 including the impact of the Covid-19 pandemic and associated lockdown on people's incomes.

577. Without such a modification, the pre-pandemic labour market situation would be reflected in the input dataset which would understate the extent of poverty.

578. Nevertheless, the Covid-19 pandemic is of course ongoing, and its full impact on people's earnings and incomes throughout 2021 cannot be known at this stage. This means that any estimates of costs for means-tested options relies on the assumption that circumstances in 2021 will remain broadly the same as in the final quarter of 2020.

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[70] Specifically, the survey weights were adjusted to reflect the 2020 mid-year population estimates supplied by Statistics South Africa, and the labour market profile of the final quarter of 2020 using the Quarterly Labour Force Survey (QLFS) Q4 (Statistics South Africa, 2021a). The technique for adjusting the weights in this way is called iterative proportional fitting (IPF) (also referred to as 'raking') and the Stata .ado file 'ipfraking' was utilised for this purpose. (For further details about this technique see annexure 2 of Barnes et al., 2021).

Modelling approach

579. The two models are driven by variables that are at different levels of specificity.

579.1. Whereas the microsimulation model can model very specific policy variables, the CGE model can only work with an initial transfer of income to households specified by decile.

579.2. Using the two models together therefore, the policy scenario is first run through the microsimulation model to determine the income increases by decile.

579.3. These results are then entered into the CGE model to mimic the government transfers.

579.4. The CGE runs are referred to as simulations (CGE SIM) to differentiate them from the microsimulation policy scenarios.

579.5. Technically, however, the CGE simulations involve some elements of a policy distinct from the microsimulation work when alternative funding options are considered.

580. Due to time constraints the models were not used iteratively, as each CGE simulation required time-consuming closure adjustments.

580.1. Therefore, the microsimulation modelling was used for the full range of policy options while the CGE analysis focused on attempts to examine the direction of effects for two variations of the BIS (**Scenarios 5** and **10** as indicated in **Table 4.1** plus a baseline with no BIS).

580.2. The microsimulation therefore offered good information on direct social outcomes (poverty and inequality) and some fiscal outcomes (direct government outlays and first-order tax recoveries)

580.2.1. Various simulations were performed with different model closures.

580.2.2. The different closures involved attempts to stress test the proposals with both extreme and possible real-world assumptions.

580.2.3. It was understood at the outset that the CGE results would require interpretation for what could not be completely modelled. This interpretation was performed by the Panel together with the modellers.

Scenarios (policy options) modelled

581. Whereas the Panel considered other grant types[71], only BIS options were seen as systematically addressing the income poverty resulting from mass unemployment.

582. All alternative options effectively *ration* coverage through categorical grant approaches that exclude people in income poverty for no other reason than they fall outside the relevant category.

583. Where a means test is applied it excludes people from coverage based purely on their implied lesser need due to having some income. Categorical exclusions however don't take account of income –you qualify only in terms of some category.

584. Allocations based on families at risk are exclusionary if coverage is rationed and are administratively complicated (Goldman et al., 2021) which render it inferior to assistance based on individual assessments of need related to earnings.

585. The complete range of policy options evaluated therefore focuses on BIS approaches (social security for adults from 18 to 59) only.

585.1. The options are examined both with and *without the application of a means test*. In other words, either universal or subject to a means test.

[71] For a review of microsimulation assessments of alternatives see (Goldman et al., 2021)

585.2. *The means tests are set at*: R0 (i.e., an income of zero is required for eligibility; an amount equivalent to the single person[72] means test presently applied to the CSG (R4,600 per month); and set at the PIT threshold (i.e., anyone earning less than the tax threshold is eligible) (R7,257 per month)

585.3. The grant values are set at different levels depending on their policy target:

585.3.1. The current value of the COVID-SRD grant: R350 per month;

585.3.2. The food poverty line (FPL) value: R595 per month;

585.3.3. The lower bound poverty line (LBPL): R860 per month; and

585.3.4. The upper bound poverty line (UBPL): R1,300 per month.

586. The distinction between universal and means tested BIS approaches can however be blurred where a tax adjustment is used to neutralise the transfers to higher income groups. The scale of the transfer is then over-stated as the net expenditure over-and-above a means-tested option is effectively offset.

587. The means test merely does this explicitly. The various simulations for universal options should therefore be seen in this light as the tax system is not used for targeting.

588. The means-tested scenarios can therefore also be regarded as akin to universal scenarios where the tax system has been used to entirely offset transfers to individuals who would have been excluded by the means test. The CGE simulations therefore focus on means-tested scenarios with this understanding.

589. All the scenarios modelled are summarised in **Table 4.1**.

[72] A means test can sometimes consider family income and assets. For modelling purposes, the single person income approach is regarded as a reasonable assumption to capture real-world eligibility.

Table 4.1: BIS policy options analysed using both SAMOD and the CGE model

System name	System description	BIS amount pm		CGE model
		Rands	M-test (Rands)	
	Status quo - baseline			
(S1) Baseline	All usual tax and benefit policies (no COVID-SRD and no BIS)	**0**	**N/A**	√
	A. Universal options			
(S2) BIS350	(1) …+ BIS paid at 350	**350**	**N/A**	
(S3) BISFPL	(1) …+ BIS paid at FPL	**595**	**N/A**	
(S4) BISLBPL	(1) …+ BIS paid at LBPL	**860**	**N/A**	
(S5) BISUBPL	(1) …+ BIS paid at UBPL	**1 300**	**N/A**	√
(S6) BISFPL_phased	(1) …+ BIS paid at FPL for 18-24s and 55-59s only	**595**	**N/A**	
(S7) CSGFPL_BISUBPL	(1) …+ BIS paid at UBPL and CSG raised to level of FPL	**1 300**	**N/A**	
	B. Means tested options			
(S8) BIS350_MT0	(1) …+ BIS paid at 350 to people with **zero income** (but disregarding child benefits)	**350**	**0**	
(S9) BISFPL_MTCSG	(1) …+ BIS paid at FPL with CSG **(single person) means-test**	**595**	**4 600**	
(S10) BISLBPL_MTCSG	(1) …+ BIS paid at LBPL with **CSG (single person) means-test**	**860**	**4 600**	√
(S11) BISUBPL_MTCSG	(1) …+ BIS paid at UBPL with **CSG (single person) means-test**	**1 300**	**4 600**	
(S12) BISFPL_MTPIT	(1) …+ BIS paid at FPL with **PIT threshold means-test**	**595**	**7 275**	
(S13) BISLBPL_MTPIT	(1) …+ BIS paid at LBPL with **PIT threshold means-test**	**860**	**7 275**	
(S14) BISUBPL_MTPIT	(1) …+ BIS paid at UBPL with **PIT threshold means-test**	**1 300**	**7 275**	
(S15) CSGFPL_BISFPL_MTPIT	(1) …+ BIS paid at FPL with **PIT threshold means-test** + CSG raised to level of FPL	**595**	**7 275**	

Notes: FPL: Food poverty line (R561 in April 2019 Rands); LBPL: Lower-bound poverty line (R810 in April 2019 Rands); UBPL: Upper-bound poverty line (R1,227 in April 2019 Rands) (StatsSA, 2019, p. 3) The poverty lines were inflated from April 2019 Rands to February 2021 Rands using the consumer price index (StatsSA, 2021). BIS: Basic Income Support; CSG: Child Support Grant; MT: Means-test; PIT (Personal Income Tax).

Source: SAMOD V7.3-BIGEP.

CGE simulations

590. CGE models can be structured differently to examine a set of policy scenarios from several perspectives. To make this explicit we distinguish between policy scenarios and simulations. Different closure assumptions therefore result in more than one simulation per assumption.

591. Aside from a baseline scenario, only two BIS scenarios are examined - **Scenarios 5** and **10** (**Tables 4.1** and **4.2**).

    591.1. ***Scenario 5*** is examined purely for illustrative purposes to examine an outer limit policy option, where an unfunded universal BIS is offered without even a tax clawback (where the transfers to higher income groups are effectively reversed through adjustments to the tax system). For this scenario only one simulation is performed (**CGE-Sim 1**).

    591.2. ***Scenario 10*** is examined as a potential mainstream BIS option that effectively illustrates two scenarios in one. As the means test is a targeting mechanism that excludes higher-income adults (and families) from the grant, it is financially equivalent to a universal version of the same grant with a tax clawback that reclaims the transfers from the same adults (and families) that would have been excluded by the means test. Four simulations (**CGE-Sims 2–5**) are performed of this scenario to get a more complete understanding of the economic implications under different assumptions.

592. While scenario 10 allows for a modelled version of two variants of same BIS option, they should however not be regarded as economically equivalent in one important respect. As already noted in **Part 2.1** of this report, a means test can result in a poverty trap (creates a disincentive to earn more) while a universal option does not.

593. To evaluate the complex economic interactions arising from the scenarios funding and closure assumptions were varied.

593.1. Closure assumptions involve adjustments to the structure of model in deciding which variables are endogenous (to be determined by the equation structure of the model) or exogenous (set by the modelling team).

593.2. The funding options reflect alternative approaches for financing the increased government expenditure arising from the BIS transfers. These are set in the model through the mix of closures and exogenously set variables.

594. There is complexity in the funding scenarios as the BIS generates tax revenues arising from the expanded consumption. This occurs both directly and indirectly. The latter occurs when there are economic growth effects that result in rising tax revenues over the period of the simulations.

595. It is important to note that the various simulations <u>are not projections</u>. They merely offer insights into economic effects arising from the structure of the model as a reflection of the real economy that would not otherwise be comprehensible. It is however recognised that the real economy may demonstrate effects that cannot be internalised into the model.

596. The simulation assumptions (summarised in **Table 4.2**) are structured as follows:

596.1. **Simulations 1** and **2** are identical, differing only with respect to the policy scenario, with **CGE-Sim 1** applied to **Scenario 5** and **CGE-Sim 2** to **Scenario 10**. This simulation represents an extreme simulation where the relevant BIS transfers are financed entirely through borrowing. Government dissaving is therefore maximised, with access to foreign savings fixed. As a consequence, the savings available for investment in both government and the private sector is reduced.

596.2. Given that investments in any country are not restricted to the availability of domestic savings, **CGE-Sim 3** (applied only to **Scenario 10**) allows all government dissaving to be offset by foreign savings. This allows the model to determine the full economic growth implications of the BIS, assuming that foreign capital inflows fully support all domestic demands for investment. This simulation therefore offers insight into upper growth boundary of the **Scenario**

10 on the assumption that the government consumption expenditure increase does not crowd out investment in either the public or private sectors.

596.3. **CGE-Sim 4** builds on **CGE-Sim 3** but adopts a more conservative approach financing the BIS. Here foreign savings are only permitted to offset 20% of the BIS, with the remainder financed through a commodity tax increase (1% added to value added tax or VAT), with the residual financing requirement financed through direct taxes. The tax increases are assumed to reduce disposable incomes and consequently consumption expenditure in the economy. The direct demand-improving effects of the BIS are therefore offset by the taxes, slowing economic growth.

596.4. **CGE-Sim 5** adds an additional funding element to **CGE-Sim 4** by assuming a productivity improvement in government expenditure (equivalent to 1% per annum), which is then transmitted to the general economy.[73] In effect, this is a proxy scenario for financing some of the BIS through government expenditure reprioritisation – on the assumption that this reprioritisation does not diminish government service delivery. While the model cannot drive these productivity improvements (they are set exogenously), it offers some insight into the implications such an approach could have for a BIS strategy.

[73] Note that both **CGE-Sims 4** and **5** have broad similarities to the scenario assumptions used in the ADRS simulations using a combined macroeconomic and microsimulation model analysis (Adelzadeh, 2021b). The scenarios are characterised as fiscally neutral and therefore offset the potential stimulation with tax increases and assess only the net growth effects arising from fully financed programmes. An unfinanced equivalent to **CGE-SIM 3** is not modelled by ADRS.

Table 4.2: Simulation assumptions by scenario

Scenario	Simulation	Funding assumptions	Closure assumptions
5	**CGE-Sim1**	• Deficit financed – with government driving overall dissaving	• Investment determined by domestic and foreign savings, • Foreign capital inflows endogenously determined
10	**CGE-Sim2**	• Deficit financed – with government driving overall dissaving	• Investment determined by domestic and foreign savings, • Foreign capital inflows endogenously determined
10	**CGE-Sim3**	• Foreign capital inflows permitted to offset any government dissaving thereby protecting domestic investment expenditure	• Current fiscal deficit fixed • Current account endogenous
10	**CGE-Sim4**	• Foreign capital inflows limited to 20% of government dissaving • Commodity tax increase: 1% added to VAT • Direct taxes endogenously determined (make up any residual funding shortfall)	• Government savings fixed • Current account balance fixed exogenously
10	**CGE-Sim5**	• Foreign capital limited to 20% of funding required • Commodity tax increase: 1% added to VAT • Direct taxes endogenously determined (make up any residual funding shortfall) • Productivity improvements in all sectors driven by government productivity improvements set at 1% per annum	• Government savings fixed • Current account balance fixed exogenously

PART 4.3: QUALIFICATIONS

597. As noted in the concluding remarks to **Part 3**, there are important qualifications to economic modelling that need to be identified up front.

598. The microsimulation modelling is good for costing purposes and the direct effects of any policy scenario. But they cannot evaluate the indirect effects of social transfer programmes.

599. Any alteration in the distribution of income in South Africa will directly influence the wellbeing of transfer recipients and the businesses that benefit from their demand for basic goods and services. However, the effects of changed demand by those business and the people they subsequently employ in response to that demand cannot be measured.

600. The CGE model can measure both the direct and certain, but not all the indirect effects. While it is possible to gain some understanding of a more complete set of economic effects some important effects cannot be measured. These include:

    600.1. behavioural responses to tax system changes;

    600.2. deep sectoral changes in the industrial structure of the economy; and

    600.3. increased employment opportunities resulting from productivity improvements (productivity improvements in the model reduce employment, while in the real economy these generate opportunities for economic expansion and price reductions).

PART 5: MODELLING ANALYSIS – RESULTS

This part of the report provides the results of the technical work carried out by the Panel.

PART 5.1: SOCIAL OUTCOMES

Poverty, inequality and food security

601. The microsimulation modelling provides a wider spectrum of results indicating the direct effects of 15 BIS scenarios (noting that the CGE analysis focused on three scenarios including the baseline) on poverty and inequality. These are provided together with the aggregate unfinanced cost of the various scenarios.

602. While over the past three decades South Africa has made little progress in addressing income inequality despite some improvements in addressing severe poverty, the various scenarios indicate that significant progress is possible on both fronts depending on the value of the BIS grant.

603. The results against both poverty (reflected against three measures of poverty – the food poverty level (FPL), the lower-bound poverty level (LBPL) and the upper-bound poverty level (UBPL) and inequality (reflected in the form of a Gini coefficient) are provided in **Figure 5.1** and **Tables 5.1** and **5.2**.

604. The results indicate that the impacts on poverty and inequality are broadly similar for equivalent grant values for both the *universal* (**Scenarios 2 – 7**) and *means-tested* scenarios (**Scenarios 8 – 15**). This is because the allocations to the higher-income groups in the universal approaches are so small relative to their incomes that the overall result is barely affected.

605. For this reason, the means-tested results are focused on (**Scenarios 8** to **15**) as the costs of the unfunded universal options are over-stated as they could be accompanied by a tax clawback arrangement that recoups the transfers to higher income groups. Nevertheless, the results for the universal options are reflected in **Table 5.2**.

606. The scenario results for poverty and inequality against the various poverty and inequality measures indicate the following (with reference to **Figures 5.1** and **5.2** and **Tables 5.1** and **5.2**).

606.1. **Scenarios 11** and **14**, both of which have a grant value of R1,300 per month produce similar impacts on inequality (Gini moves from 0.65 to 0,55) and poverty despite having different means-test thresholds.

606.2. For all scenarios the alternative means-test thresholds make little difference to overall eligibility, and therefore to the overall cost.

606.3. This reduction in income inequality is dramatic, but at full take-up costs approximately R429 billion and R396 billion for **Scenarios 14** and **11** respectively. Even at these levels of expenditure, poverty as measured by the UBPL remains at around 28.1%. However, poverty using the FPL is effectively eliminated while poverty at the LBPL is reduced to only 5.6%.

606.4. The reason for continued poverty at the higher measures, despite the value of the grant, is mainly due to the low value of the CSG.

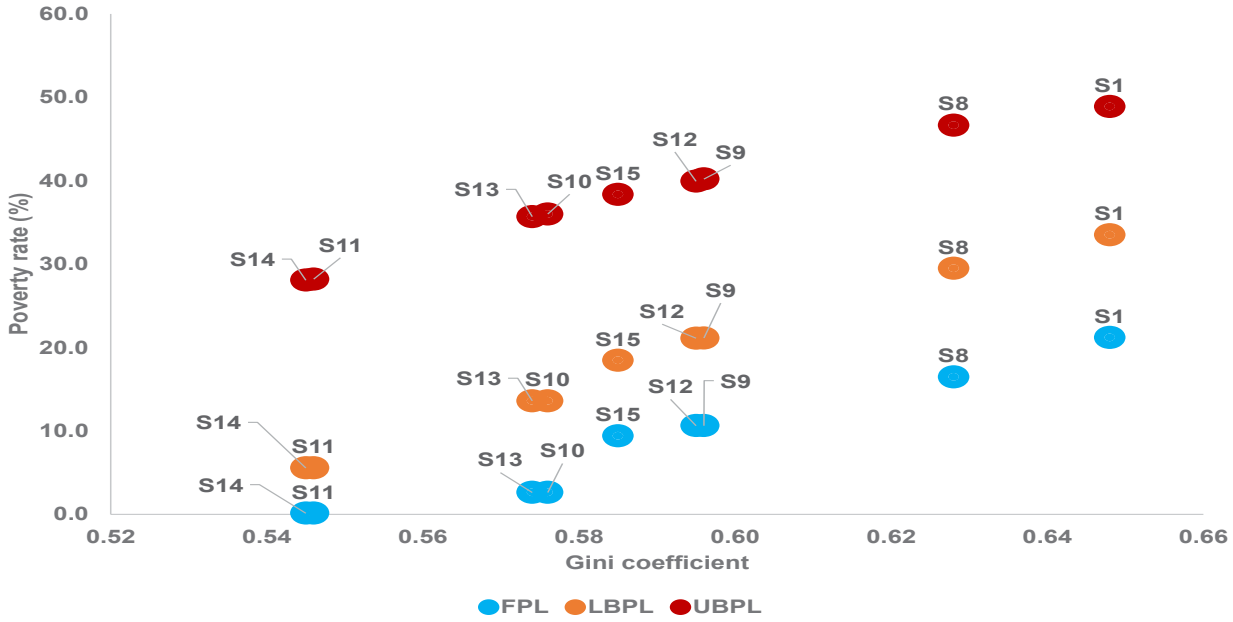
606.5. The scenarios valued at the LBPL, **Scenarios 10** (i.e., the scenario assessed with the CGE model) and **13**, also demonstrate valuable impacts on inequality, with the Gini coefficient moving from 0.65 to 0.58 and 0.57 respectively.

606.6. The total grant cost for **Scenarios 10** and **13** are R262 billion and R284 billion respectively – considerably lower than the cost of **Scenarios 11** and **14**.

606.7. The COVID-SRD grant (**Scenario 8**) (in its initial guise which had a zero income means-test) costs roughly R56 billion on an annual basis but has a limited impact on inequality with the Gini coefficient moving only from 0.65 to 0.63. Poverty at the FPL adjusts from 21.2% to 16.5 while poverty at the LBPL moves only slightly from 33.5% to 29.5%.

606.8. While there is some remedial impact from **Scenario 8**, therefore, it is unlikely to have structural economic and social effects. Structural effects appear possible with the BIS **Scenarios** in the region of **10** and **13**.

Figure 5.1: Impact of policy options (scenarios) on poverty and inequality (S = Scenario)



Source: **Table 5.2**.

Figure 5.2: Cost to achieve a specified reduction in inequality by policy options as indicated by the Gini coefficient (R' billion) (S = Scenario)

Source: **Table 5.2**.

Table 5.1: Summary of universal BIS scenarios modelled in SAMOD - number of eligible BIS beneficiaries, annual cost, and impact on income inequality and on poverty using three poverty lines, 2021[74]

Policy option	BIS amount (Rands pm)	Means-test (Rands pm)	Eligible (million)	Annual cost (R'billion)	Income inequality (Gini)	Poverty line (%)		
						FPL	LBPL	UBPL
Scen 1	**n/a**	**n/a**	**0.0**	**R0**	**0.65**	**21.2**	**33.5**	**48.9**
Scen 2	350	n/a	32.7	R137	0.62	13.8	26.3	43.3
Scen 3	595	n/a	32.7	R233	0.60	10.6	21.1	39.9
Scen 4	860	n/a	32.7	R337	0.58	2.6	13.6	35.7
Scen 5	1 300	n/a	32.7	R509	0.55	0.1	5.6	28.1
Scen 6	595	n/a	8.4	R60	0.63	16.5	29.5	46.2
Scen 7	1 300	n/a	32.7	R534	0.54	0.1	3.2	26.4

Table 5.2: Summary of means-tested BIS scenarios modelled in SAMOD - number of eligible BIS beneficiaries, annual cost, and impact on income inequality and on poverty using three poverty lines, 2021 (assumptions as for Table 5.1)

Policy option	BIS amount (Rands pm)	Means-test (Rands pm)	Eligible (million)	Annual cost (R'billion)	Income inequality (Gini)	Poverty line (%)		
						FPL	LBPL	UBPL
Scen 1	**n/a**	**n/a**	**0.0**	**R0**	**0.65**	**21.2**	**33.5**	**48.9**
Scen 8	350	0	13.4	R56	0.63	16.5	29.5	46.7
Scen 9	595	4 600	25.4	R181	0.60	10.6	21.1	40.2
Scen 10	860	4 600	25.4	R262	0.58	2.6	13.6	36.0
Scen 11	1 300	4 600	25.4	R396	0.55	0.1	5.6	28.2
Scen 12	595	7 275	27.5	R197	0.60	10.6	21.1	39.9
Scen 13	860	7 275	27.5	R284	0.57	2.6	13.6	35.7
Scen 14	1 300	7 275	27.5	R429	0.55	0.1	5.6	28.1
Scen 15	595	7 275	27.5	R221	0.59	9.4	18.5	38.4

[74] FPL: Food poverty line (R561 in April 2019 Rands); LBPL: Lower-bound poverty line (R810 in April 2019 Rands); UBPL: Upper-bound poverty line (R1,227 in April 2019 Rands) (Statistics South Africa, 2019: 3). The poverty lines were inflated from April 2019 Rands to February 2021 Rands using the Consumer Price Index (Statistics South Africa 2021b). BIS: Basic Income Support; CSG: Child Support Grant; MT: Means-test; PIT: Personal Income Tax. The results in this table assume full take-up. All results sourced from SAMOD V7.3-BIGEP.

Gender

607. Alternative social grant configurations can have important positive and negative gender impacts. The allocation of funds to only certain members of a household can distort patterns of behaviour at the family level.

608. Unless there is some compelling reason to generate these disparities, as far as possible social grant distributions should attempt to be neutral at an intra-household level.

609. Social grants as presently allocated are heavily biased toward female caregivers in the case of the CSG – which is the largest social grant at present.

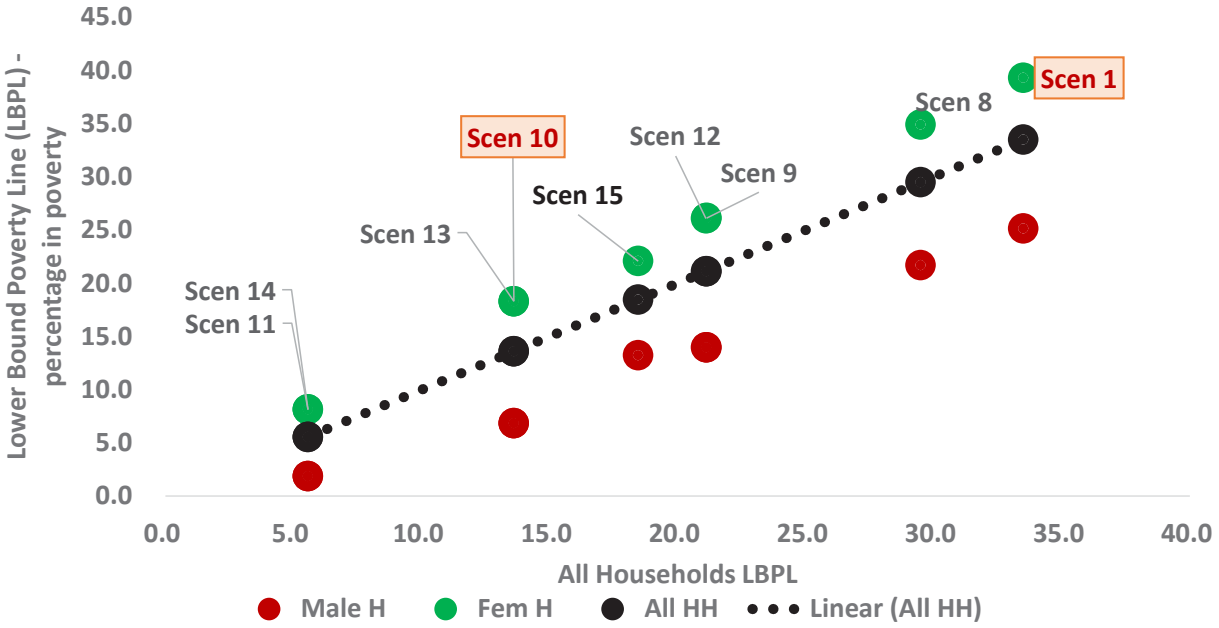
    609.1. First, an important consideration with the BIS is that the grant is provided evenly to all adults aged 18-59 living in income-compromised families.

    609.2. Second, a further aspect addressed by the BIS is the fact that households headed up by females tend to be more vulnerable than male-headed households.

610. **Figure 5.3** indicates how the various scenarios impact on the poverty outcome for all households (All HH), male-headed households (Male H) and female-headed households (Fem H). Only the results for **Scenarios 8** to **15** are presented for the reasons already discussed above.

611. The results show that while the *relative positions* of male- and female-headed households do not alter materially by scenario, except for **Scenarios 11** and **14**, the position of vulnerable female-headed households shows an important reduction in poverty (measured against the LBPL) for key scenarios. For instance, female-headed households move from 39.4% in poverty in the baseline (**Scenario 1**) to 18.3% in **Scenario 10**.

Figure 5.3: Female headed household poverty rates (Lower Bound Poverty Level) by scenario compared to male headed households and all households



Conclusion

612. The results indicate that material changes in poverty and inequality occur with grant values set at the LBPL and above (**Scenarios 10**, **11**, **13** and **14**), while the current COVID-SRD grant (**Scenario 8**) makes little overall impression.

613. The central question arising from these results is whether a scenario of sufficient scale to make a structural difference to the social and economic conditions of the country is affordable and economically sustainable.

PART 5.2: ECONOMY-WIDE IMPACTS

614. **CGE-Sims 1** and **2** generated negative GDP growth largely as an artefact of the CGE model, which limited investment to domestic savings (**Figures 5.4** and **5.5**).

    614.1. Any government dissaving resulting from its increased expenditure without financing the deficit consequently reduces the funds available for investment and thereby causing a negative impact on growth.

614.2. The difference in impact between **CGE-Sims 1** and **2** is the difference between policy **scenarios 5** and **10 (Table 4.2** above**)**.

615. To remove the artificial restriction on investment due to government dissaving, **CGE-Sim 3** relaxes the domestic saving for **scenario 10** (**Figures 5.4** and **5.5**).

615.1. This results in a growth rate of 6.2% per annum arising from the demand effect due to the increased social assistance transfers. Investment expenditure increases substantially relative to the baseline, financed by foreign savings.

615.2. This offers an indication of the scale of the potential growth effect resulting from the demand stimulus of lower-income household consumption if investment expenditure is protected.

615.3. However, this growth is financed by foreign capital inflows as demonstrated by the negative movements in the current account of the balance of payments shown in **Figure 5.6**.

615.4. Over the entire period from 2021 to 2030 the variation from the baseline deteriorates, beginning at -157.4% in 2021 and ending at -176.6% by 2030.

615.5. This illustrates that the growth stimulus from the increased expenditure drives an increase in imports relative to exports that may not be sustainable over the longer term.

615.6. While government finances may not be negatively impacted (see below), the balance-of-payments implications may not be sustainable without significant levels of import substitution and improved exports.

615.7. Active measures by government to achieve this switch in the medium-term would need to be feasible to achieve the required long-term economic effects.

616. **CGE-Sims 4** and **5** adopt conservative assumptions regarding the financing of transfers, which constrain GDP growth rates. **CGE-Sim 4** is slightly negative because of tax increases on overall demand (impacting on both disposable incomes and investment demand). When government finances a portion of the increase in social

transfers from productivity improvements in **CGE-Sim 5** the GDP and investment expenditure turns positive.

Figure 5.4: Changes in GDP – CGE-Sim1 - 5 (2021 and 2030)

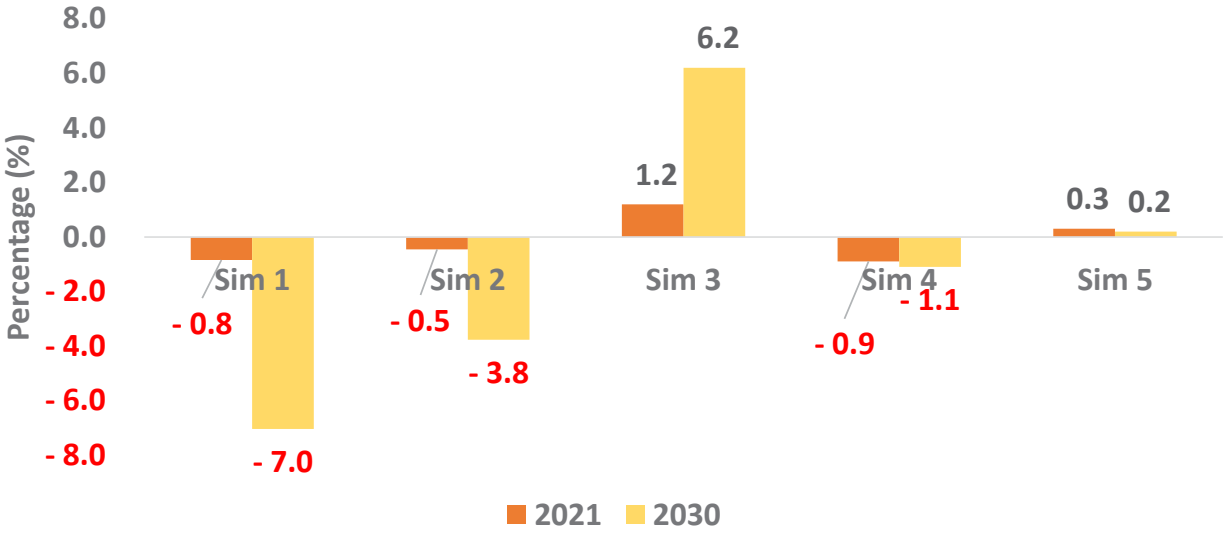


Figure 5.5: Changes in overall investment CGE-Sim1 – 5 (2021 and 2030)

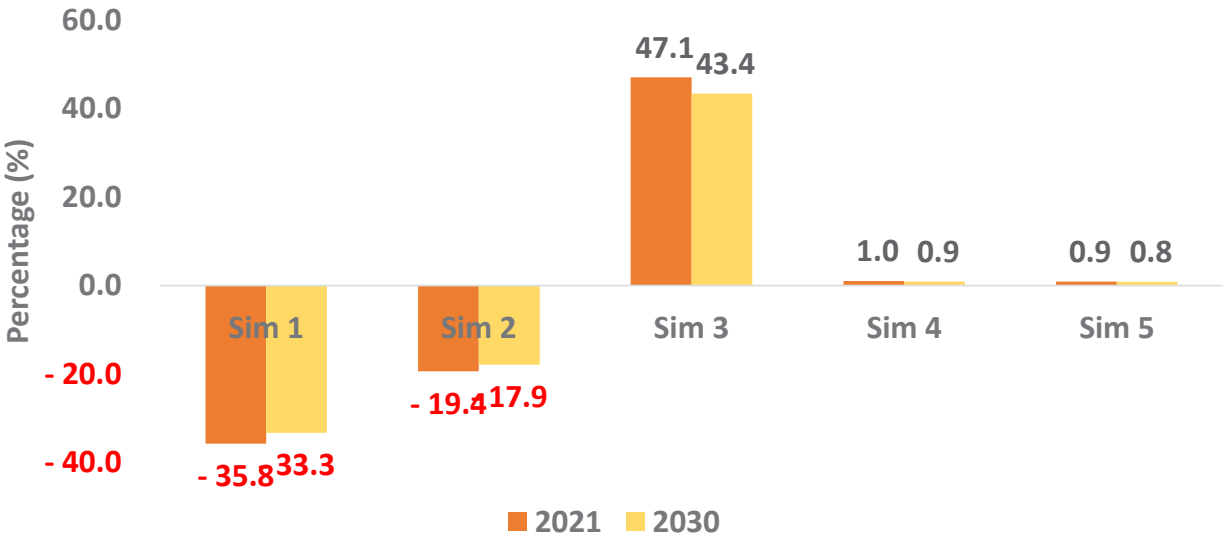
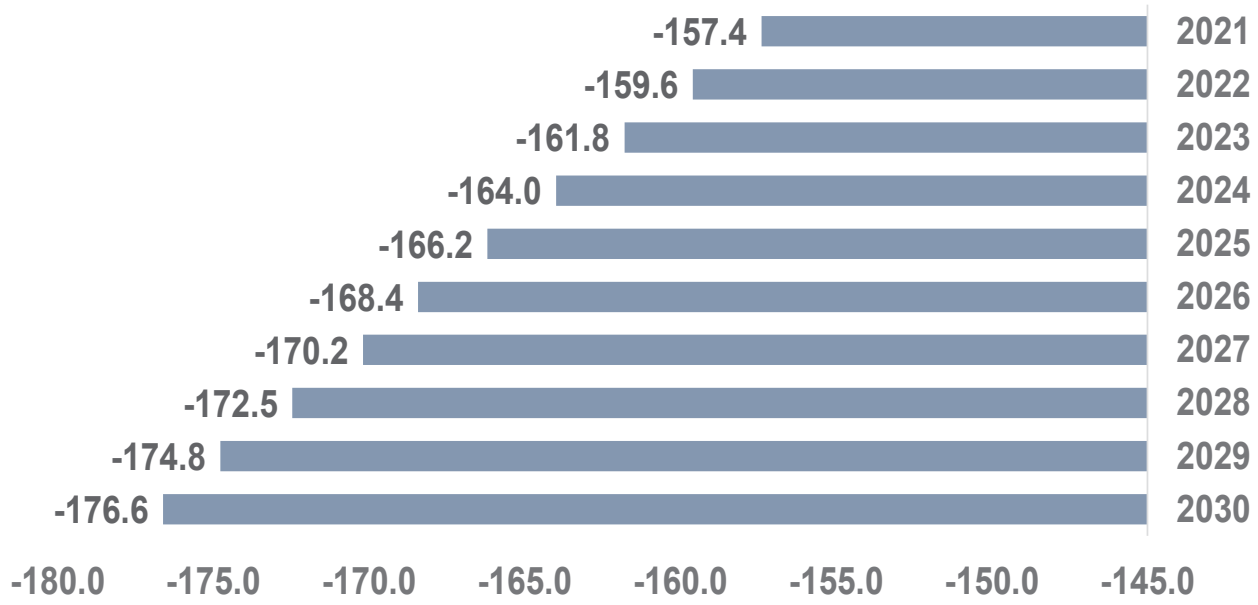


Figure 5.6: Annual changes in the current account balance relative to the baseline for Simulation 3 for the period 2021 to 2030



617. The changes to the consumer price index (CPI) reflect general changes in prices relative to foreign prices (**Figure 5.7**).

    617.1. In effect this feature of the model amounts to a *real exchange rate appreciation*, with domestic prices increasing relative to foreign prices.

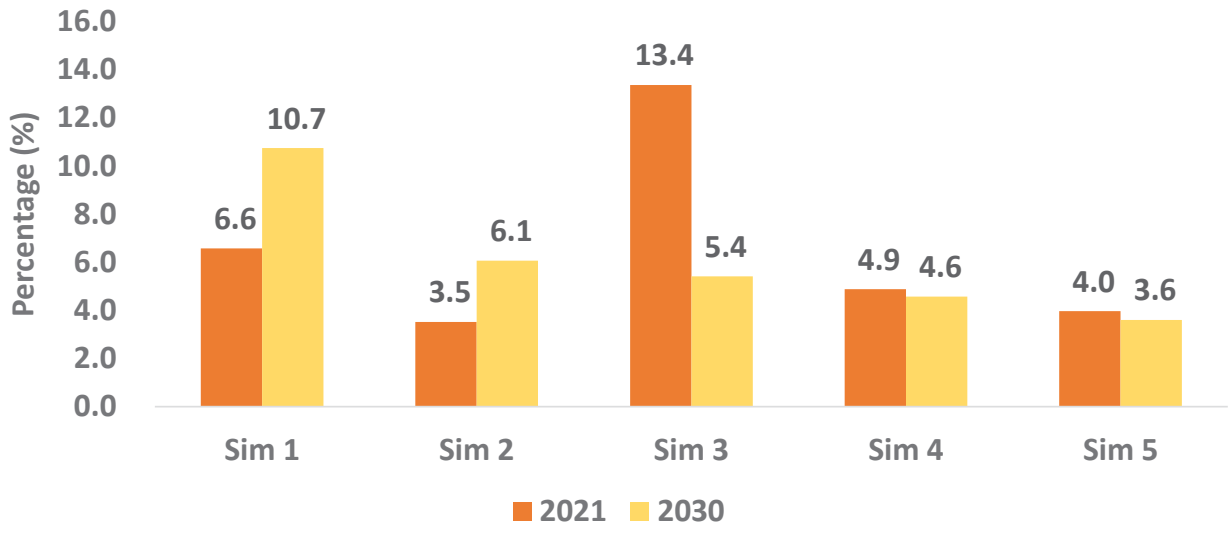
    617.2. As a consequence, imports increase and exports decrease relative to the model baseline – with a negative impact on domestic production and employment.

    617.3. However, the overall price differential in **CGE-Sim 5** amounts to approximately 3.6% (**Figure 5.7**), resulting in an overall weighted decrease in exports of 2.3% and an increase in imports of 2.6% (**Figure 5.8**).[75]

[75] Driving the results is not the nominal exchange rate but rather domestic prices compared to foreign prices (Real Exchange Rate). The nominal exchange rate in this model is a *numeraire* or *anchor.*

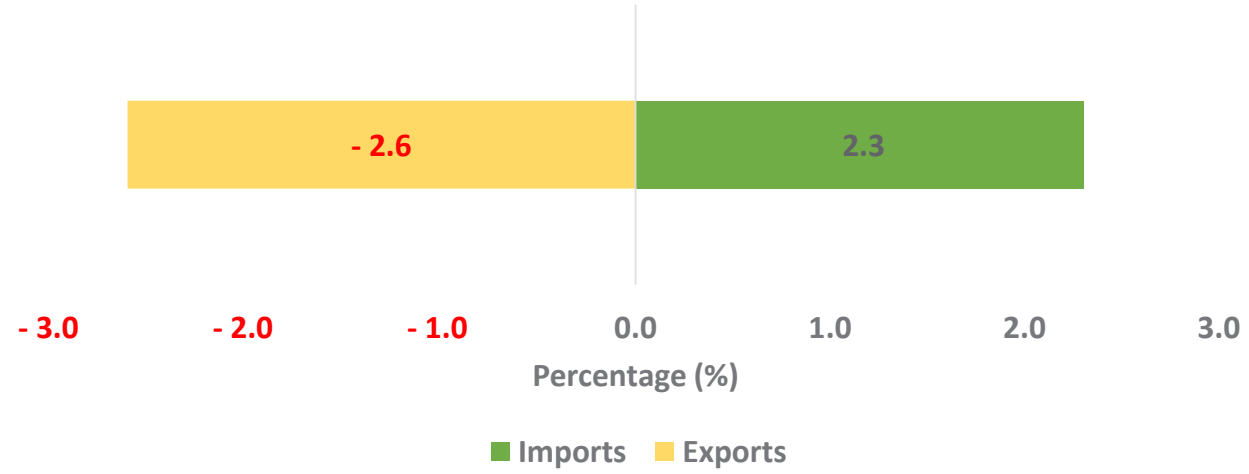
617.4. Importantly, without this price effect there would be no adverse impacts on exports. Domestic production (i.e., the supply-side of the economy) would be enhanced by the restructuring of domestic demand.

Figure 5.7: Changes in the consumer price index (CPI) CGE-Sims 1 – 5 (2021 and 2030)



So, whether it is under- or over-valued per se is immaterial to the results - reallocations are being driven by relative price shifts for a given nominal exchange rate whether overvalued or undervalued.

Figure 5.8: Changes in exports and imports for CGE-Sims 5 (2030)



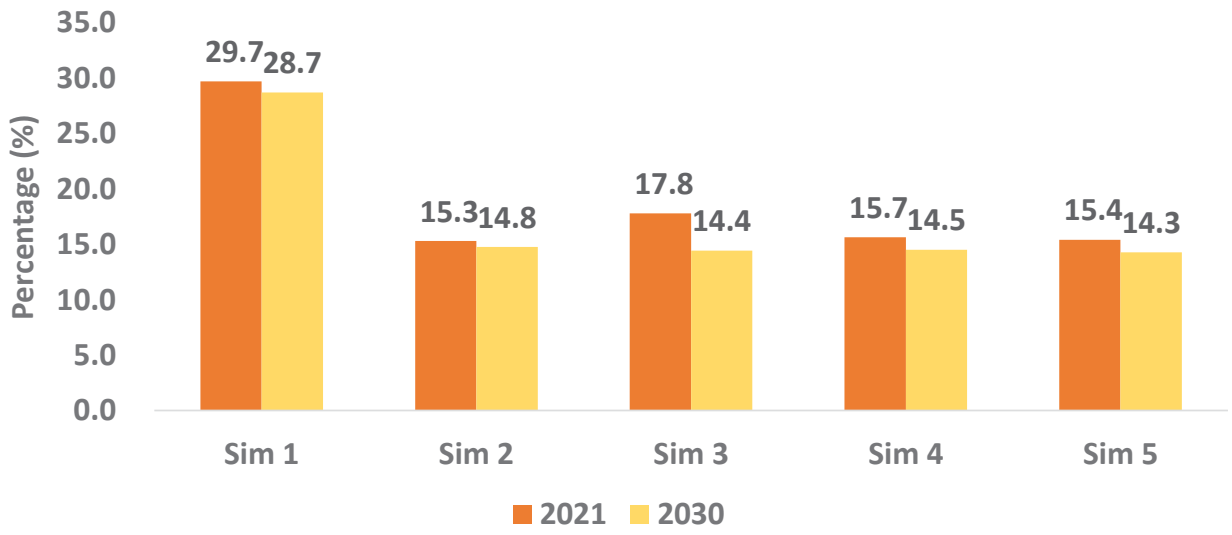
PART 5.3: FISCAL IMPACT

Government expenditure

618. The government expenditure implications of the BIS are broadly similar across all the simulations apart from **CGE-Sim 1**, which is universal and set at the UBPL. In **CGE-Sims 2 – 5** the increase from the baseline ranges from 14.3% to 14.8% (**Figure 5.8**).

619. These expenditure changes reflect the key shock applied to the model, which is to introduce a version of the BIS. The government expenditure increases are applied as transfers to households by income decile.

Figure 5.9: Changes in government expenditure CGE-Sims 1 – 5 (2021 and 2030)



Government income

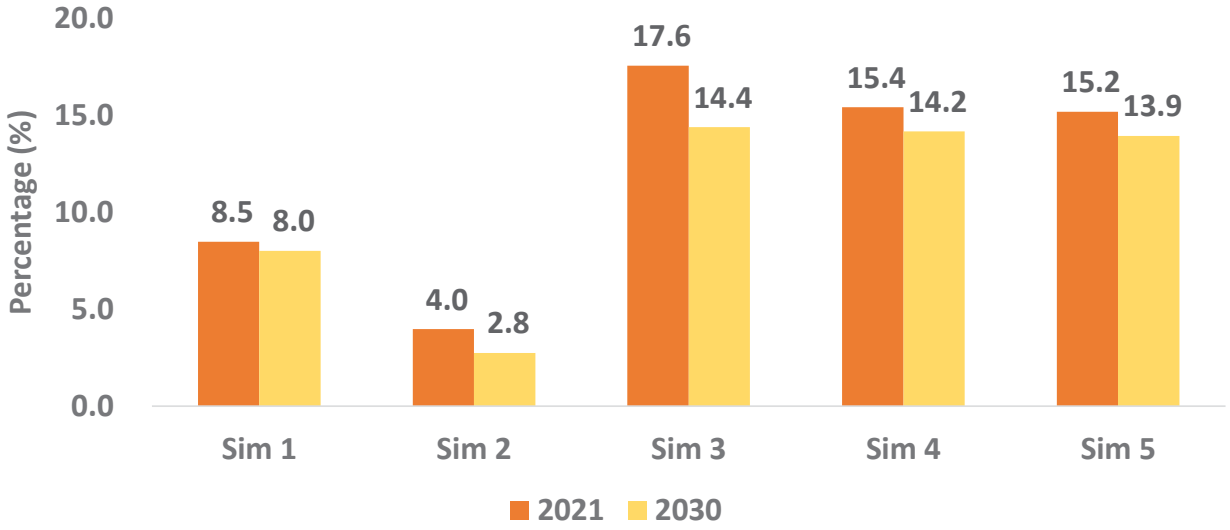
620. Given the tenuous condition of South Africa's fiscal position (see **Part 2**), the revenue impact of a BIS option needs to be well understood. The simulation results are presented in **Figure 5.10**.

620.1. **CGE-Sims 1** and **2** show improvements in government income due to the demand impact of **Scenario 5** and **10** respectively but are not as significant as those of **CGE-Sims 3 – 5**. This is due to the negative growth effects of reduced investment arising from the model's savings assumptions.

620.2. When the domestic economy is able to access foreign savings government revenue rises by between 13.9% and 14.4% per annum across **Sims 3 – 5** relative to the baseline.

620.3. An interesting result is that the unfinanced **CGE-Sim 3** (i.e., no tax increases) involves government revenue increases that are similar to the funded **CGE-Sims 4** and **5**. This indicates that the tax increases are offset by the resulting lost economic growth.

Figure 5.10: Changes in government income CGE-Sims 1 – 5 (2021 and 2030)



Government expenditure compared to income

621. When government expenditure and income are considered side-by-side an interesting picture emerges of the impact of the five simulations (**Figure 5.11**).

621.1. For both **CGE-Sims 1** and **2** where investment is entirely dependent on available domestic savings (an artificial constraint), government revenue fails to benefit from the growth impact of the BIS demand stimulus – resulting in a substantial shortfall in revenue relative to expenditure.

621.2. In **CGE-Sim 1** a 28.7% rise in government expenditure results in an 8% rise in government revenue.

621.3. Similarly, **CGE-Sim 2** only raises 2.8% in additional revenue from a 14.8% rise in expenditure due to the smaller BIS.

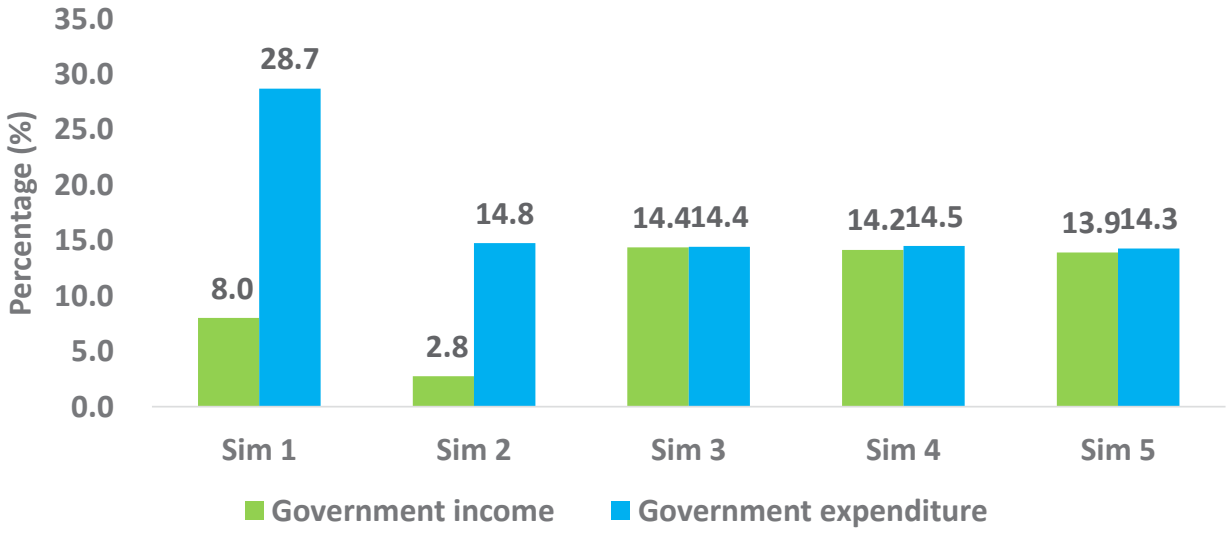
621.4. In both instances the government deficit will increase as a direct consequence of a decline in investments.

621.5. For **CGE-Sims 3** to **5** the government expenditure increase is entirely offset by increases in government revenue.

621.6. However, **CGE-Sim 3** achieves the revenue increase without any accommodating increase in taxation. The increased revenue results entirely from the economic growth arising from the BIS transfer.

621.7. By way of contrast **CGE-Sims 4** and **5** balance the budget in large part through tax increases combined with lower growth. The slower growth arises from the increased taxes.

Figure 5.11: Changes in government expenditure and revenue for CGE-Sims 1 – 5 (2030 only)



622. All three mainstream BIS scenarios (**CGE-Sims 3 – 5**) therefore balance government's budget, but only **CGE-Sim 3** achieves this without sacrificing economic growth. Importantly, the unfunded approach to the BIS indicated in **CGE-Sim 3** is fully offset by economic growth and higher tax revenues. However, as noted above, the balance-of-payments implications of **CGE-Sim 3** are likely to be too extreme to capture this growth in a sustainable manner.

623. By implication a range of financing options would present itself from Sim 3 to Sim 5 – where partial funding could be considered in place of attempts to fully finance an assumed budget shortfall. Importantly all attempts to fully finance a temporal shortfall result in slower growth – diminishing many of the positive effects of the social grants for the economy.

PART 5.4: EMPLOYMENT

624. As the CGE is a general equilibrium model, it assumes that labour markets clear.[76] Although it has been adjusted to reflect the structural unemployment context of South African, the results need to be interpreted outside of the model to fully understand the real-world implications. The CGE results are presented in **Figure 5.12**.

    624.1. **CGE-Sims 1** and **2** show increased unemployment resulting from the negative GDP growth outcomes due to reduced savings and investment, with the greatest impact on people with less education and skills.

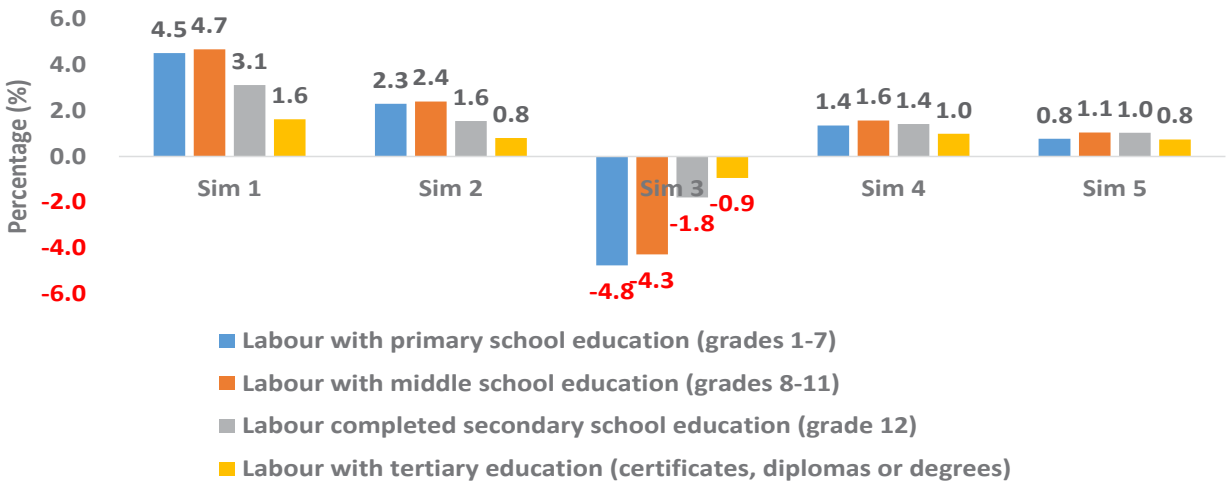
    624.2. **CGE-Sim 3**, which removes the savings impact on investment results in significantly reduced unemployment – with most of the effect falling on the less educated groups where most actual unemployment is concentrated.

    624.3. **CGE-Sims 4** and **5,** which adopt conservative government financing positions show slight increases in unemployment. In **CGE-Sim 4** this is largely due to the slight negative GDP growth result.

    624.4. For **CGE-Sim 5**, which has a positive economic growth result, the slight unemployment increase arises from the productivity increase assumption (i.e., less employment is needed for the same output).

[76] The supply of labour meets the demand for labour at prices that achieve this in the market.

Figure 5.12: Changes in unemployment by level of education CGE-Sims 1 – 5 (2021 and 2030)



625. The unemployment arising from productivity increases could arise in a real-world scenario where the labour market is inadequately supported by accommodative industrial policies tied to effective labour activations strategies and social support. These typically involve job re-skilling, job-placement and wider strategies aimed at deepening economic diversification and development.

626. The unemployment reducing effects of **CGE-Sim 3** are important however, given that government finances are not adversely affected by BIS transfers due to the growth effects. However, the conditions for **CGE-Sim 3** to achieve significantly improved and sustainable levels of domestic employment require a combination of achievable import substitution approaches[77] and export growth.

[77] It is accepted that South Africa may face reciprocal measures if aggressive import substitution policies are pursued. Increased localisation of production may not always require zero-sum measures. While increased localisation is clearly a necessary medium- to long-term strategy for South Africa, this report can do no more than support such an approach as necessary and reasonable. Importantly, demand-side strategies are not incompatible with this objective and can be regarded as complementary.

PART 5.5: HOUSEHOLD INCOME AND CONSUMPTION

627. All the BIS Sims impact significantly on the distribution of household incomes and consumption when considered by decile, with the lowest decile increasing by roughly 42.3% (for **CGE-Sim 5** – which is broadly similar to **CGE-Sims 2 – 4**) (**Figures 5.13** and **5.14**).

    627.1. The highest income deciles also experience slight improvements in income, although consumption decreases for **CGE-Sims 3**, **5** and **6**.

    627.2. The increase in incomes by decile are progressive across all simulations, mirroring the changes in household consumption.

    627.3. For both household income and consumption, the most dramatic impact arises from **CGE-Sim 1**, which is the unfunded universal BIS at the upper bound poverty level.

    627.4. For **CGE-Sims 2 – 5**, differences are negligible for both household income and consumption, although **CGE-Sim 3** is slightly higher due to the absence of growth offsetting funding assumptions.

    627.5. This altered distribution of income and consumption impacts on poverty, inequality and the structure of the economy.

    627.6. As the model does not feed-back structural changes of income back into the means test, BIS transfers remain fixed throughout the period 2021 to 2030. In reality, any structural changes in incomes from labour should reduce the need for transfers if allocated according to a means test.

628. The restructured distribution of income and consumption is likely to have long-term implications for the structure of the economy which cannot easily be modelled (see for instance **Par 627.6**). Effectively what is produced will demonstrate a shift to the consumption demands and needs of lower-income households. Some of this shift can be identified using the sectoral results discussed further below.

Figure 5.13: Changes in household income by income decile CGE-Sims 1 – 5 (2021 and 2030) (lowest income decile = hhd-0)

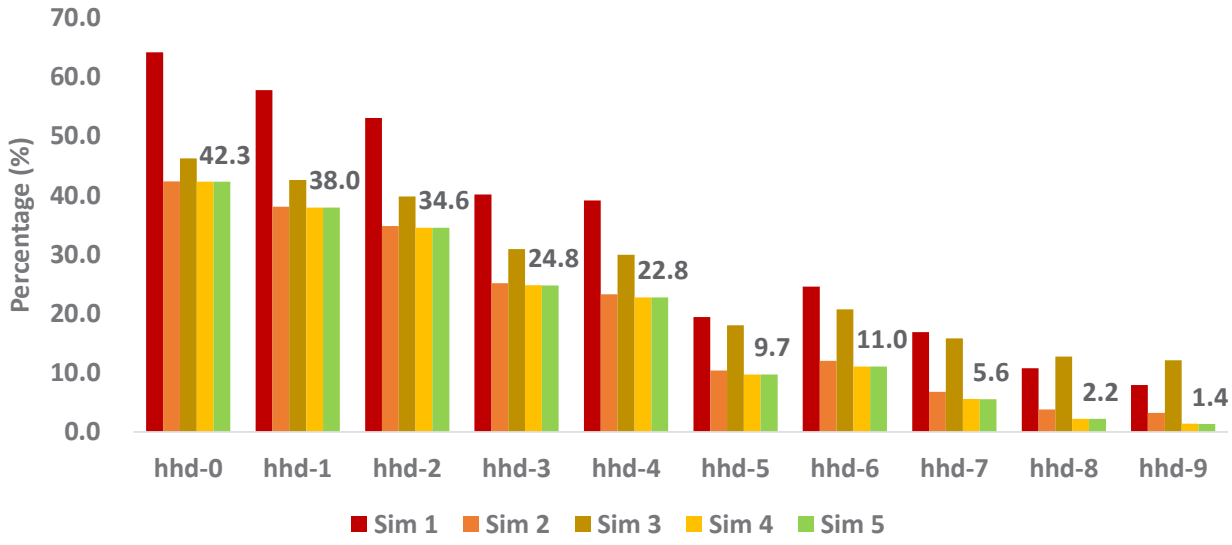
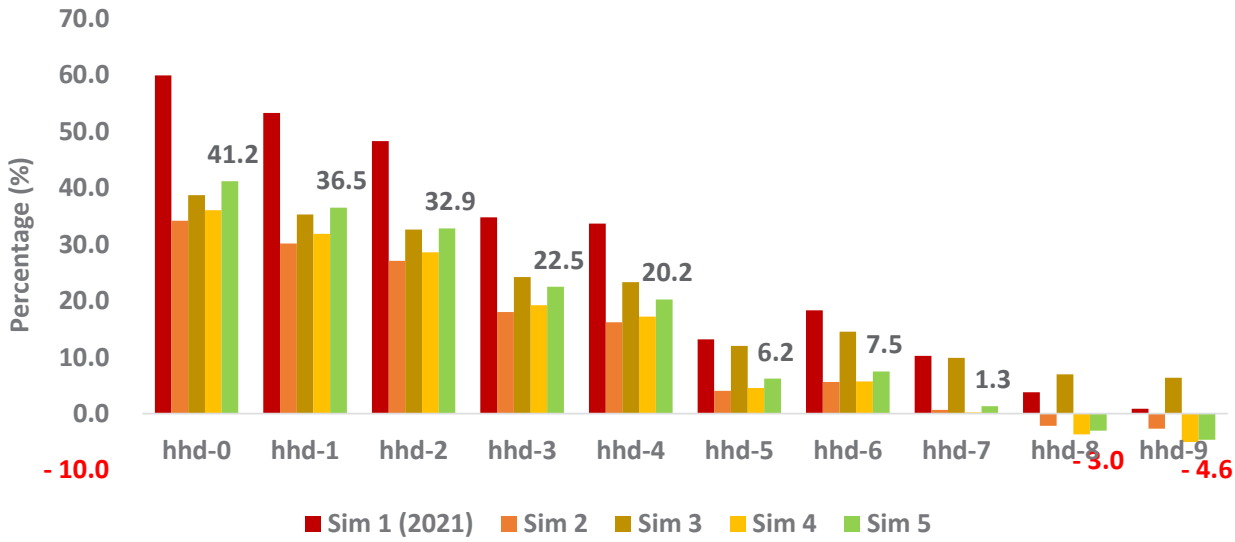


Figure 5.14: Changes in household consumption by income decile CGE-Sims 1 – 5 (2021 and 2030) (lowest income decile = hhd-0)



PART 5.6: SECTORAL EFFECTS

Production

629. Consistent with the GDP results **CGE- Sims 1** and **2** have negative production effects across all sectors apart from those that benefit overwhelmingly from the demand changes due to the BIS (**Table 5.3**). The negative effects are entirely a consequence of reduced investment due to the model constraining savings to domestic savings.

630. Where foreign savings accommodate any temporary government dissaving in **CGE-Sim 3**, the growth impact of the BIS is maximised, with most sectors showing significant increases in production.

631. The negative production effects, which impact mainly on manufacturing, result from CPI outcomes of the model (as discussed above and below) which have two effects:

    631.1. First, they cause some switching from domestic to international production; and

    631.2. Second, they cause exports to decline slightly in some sectors as foreign purchasers switch away from South Africa.

632. For **CGE-Sims 4** and **5** the sectoral outcomes are mixed. They are affected both by the reduced growth resulting from the tax increases and the CPI outcomes.

633. The productivity improvement assumption in **CGE-Sim 5** improves the production outcomes relative to **CGE-Sim 4** both through a reduced requirement for increased taxes to balance the budget and price moderation.

Table 5.3: Impact on production CGE-Sims 1 – 5 (2030)

Sector	S1	S2	S3	S4	S5
Agriculture	5.3	4.6	12.5	5.9	**7.2**
Electricity, gas, steam and hot water supply	2.0	2.0	16.8	4.3	**6.2**
Renting of machinery and equipment	11.6	7.9	-11.6	3.1	**5.1**
Food	5.7	4.6	8.0	5.2	**6.0**
Forestry	1.7	2.4	11.6	4.4	**5.8**
Collection, purification and distribution of water	0.6	0.8	13.9	2.1	**4.2**
Transports services	-3.5	-1.2	8.0	1.6	**2.6**
Sale, maintenance, repair of motor vehicles	-4.0	-1.8	13.4	1.7	**3.0**
Fishing	-2.6	-0.8	6.8	1.0	**2.4**
Coke oven, petroleum refineries	-7.2	-3.6	8.7	-0.1	**1.1**
Beverages and tobacco	-2.7	-1.0	4.5	0.5	**1.7**
Wholesale trade, commission trade	-3.7	-1.7	12.8	0.8	**1.6**
Textile	1.2	1.6	5.1	0.5	**1.9**
Retail trade	-8.7	-4.5	11.1	-0.1	**1.1**
Financial intermediation	-1.6	-1.1	6.8	-0.5	**0.8**
Post and telecommunication	-4.9	-2.6	6.4	-0.8	**0.5**
Other business activities	-4.2	-2.6	8.6	-0.9	**1.2**
Real estate activities	-9.0	-5.1	13.4	-1.8	**-0.5**
Mining of coal and lignite	-11.6	-6.3	2.7	-1.8	**-0.2**
Glass	-3.7	-1.9	5.4	-0.7	**0.7**
Education	2.3	0.8	5.7	-0.3	**0.9**
Furniture	-9.6	-5.0	10.7	-0.8	**0.5**
Health and social work	0.9	0.4	5.2	-0.3	**0.7**
Non-observed, informal, non-profit, households,	-13.2	-7.4	10.8	-1.4	**0.1**
Insurance and pension funding	-2.1	-1.7	6.4	-1.8	**-0.5**
Activities to financial intermediation	-9.4	-5.4	7.3	-1.7	**-0.3**
Footwear	-3.7	-1.7	2.5	-1.3	**0.1**
Research and experimental development	-26.9	-16.1	26.0	-1.3	**-0.4**
Publishing, printing, recorded media	-3.6	-2.0	6.7	-1.2	**-0.1**
Plastic	-10.7	-5.7	8.5	-1.5	**-0.2**
Paper	-7.6	-3.9	4.1	-1.9	**-0.6**
Hotels and restaurants	-5.5	-3.0	4.8	-2.3	**-0.7**
Manufacturing n.e.c, recycling	-11.4	-6.3	2.2	-1.8	**-0.6**
Sawmilling, planing of wood, cork, straw	-10.3	-5.5	5.3	-2.1	**-0.7**
Chemicals	-4.9	-2.6	-2.7	-3.3	**-1.8**
Rubber	-10.7	-5.9	-0.2	-3.5	**-2.0**
Government	-6.4	-3.4	-6.3	-3.2	**-2.1**
Other transport equipment	-8.6	-4.5	-6.4	-3.5	**-2.5**
Fabricated metal products	-18.8	-10.5	9.6	-4.1	**-2.6**
Medical, precision, optical instruments…	-19.9	-11.4	9.7	-3.8	**-2.5**

Sector	S1	S2	S3	S4	S5
Construction	-30.7	-17.5	33.1	-3.1	**-2.3**
Non-metallic minerals	-25.1	-14.5	22.1	-3.7	**-2.6**
Motor vehicles, trailers, parts	-14.9	-8.4	6.7	-4.6	**-3.4**
Other mining (gold, metal ores…)	-14.0	-7.8	-4.8	-4.5	**-2.9**
Radio, television, communication equipment…	-9.4	-5.1	-4.3	-5.3	**-3.3**
Machinery and equipment	-22.1	-12.3	9.2	-4.6	**-3.3**
Basic iron and steel, casting of metals	-14.9	-8.3	-0.4	-5.2	**-3.9**
Basic precious and non-ferrous metals	-15.0	-8.3	-2.2	-5.3	**-4.0**
Other activities	15.7	8.2	3.2	-3.9	**-4.1**
Sewerage and refuse disposal	-18.9	-11.3	12.8	-5.2	**-4.6**
Computer and related activities	15.6	11.4	-37.5	-10.0	**-15.5**

634. Overall, the results suggest that domestic production is likely to be positively affected from a BIS, unless extreme financing options are adopted which impact on economic growth.

635. The negative effects on production arise from domestic price increases which could cause some switching to imports.

Employment

636. The sectoral employment results follow the production results for similar reasons (**Table 5.4**). Overall **CGE-Sim 3** shows the largest positive impact, with the two financed simulations (**CGE-Sims 4** and **5**) showing mixed outcomes, with the manufacturing sectors slightly negative where they are affected by the price effects and the growth-reducing impacts of higher taxes.

Table 5.4: Impact on employment CGE-Sims 1 – 5 (2030)

Sector	S1	S2	S3	S4	S5
Agriculture	29.8	17.1	8.4	9.5	**10.0**
Electricity, gas, steam and hot water supply	24.0	13.1	14.2	8.1	**9.4**
Renting of machinery and equipment	38.4	22.2	-24.8	6.3	**7.9**
Food	20.3	12.5	5.2	8.0	**7.7**
Forestry	14.6	9.5	9.5	6.4	**7.0**
Collection, purification and distribution of water	21.9	11.4	11.0	4.7	**6.4**
Transports services	12.7	7.6	2.6	3.8	**3.9**
Sale, maintenance, repair of motor vehicles	4.0	2.8	12.3	3.1	**3.6**

Sector	S1	S2	S3	S4	S5
Fishing	14.3	8.2	1.7	2.8	**3.3**
Coke oven, petroleum refineries	12.7	6.8	1.0	2.0	**2.3**
Beverages and tobacco	7.0	4.3	0.9	1.6	**1.9**
Wholesale trade, commission trade	5.7	3.6	10.4	2.1	**1.7**
Textile	3.7	3.0	4.4	0.7	**1.2**
Retail trade	-3.1	-1.1	8.8	0.6	**0.8**
Financial intermediation	8.4	4.2	3.3	0.3	**0.7**
Post and telecommunication	6.6	3.5	2.0	0.2	**0.6**
Other business activities	-0.8	-0.8	7.5	-0.6	**0.6**
Real estate activities	14.2	6.6	5.7	-0.1	**0.4**
Mining of coal and lignite	-3.8	-1.5	-2.4	-1.1	**-0.0**
Glass	-3.6	-1.9	5.4	-0.7	**-0.3**
Education	5.5	2.0	13.9	-0.8	**-0.3**
Furniture	-8.3	-4.1	10.3	-0.8	**-0.4**
Health and social work	1.8	0.8	10.0	-0.6	**-0.5**
Non-observed, informal, non-profit, households,	-9.5	-5.2	8.8	-1.8	**-0.7**
Insurance and pension funding	9.7	4.1	2.1	-1.2	**-0.8**
Activities to financial intermediation	-5.7	-3.2	5.2	-1.5	**-0.9**
Footwear	-2.8	-1.2	2.1	-1.3	**-0.9**
Research and experimental development	-34.1	-19.6	31.3	-0.7	**-1.0**
Publishing, printing, recorded media	-3.6	-1.9	6.7	-1.2	**-1.1**
Plastic	-10.6	-5.6	8.4	-1.5	**-1.1**
Paper	-2.2	-0.8	1.3	-1.7	**-1.3**
Hotels and restaurants	3.1	1.7	1.1	-2.2	**-1.4**
Manufacturing n.e.c, recycling	-3.4	-1.8	-6.0	-1.9	**-1.5**
Sawmilling, planing of wood, cork, straw	-6.0	-2.9	2.6	-2.1	**-1.6**
Chemicals	-2.8	-1.4	-4.3	-3.4	**-2.8**
Rubber	-7.2	-3.7	-3.6	-3.9	**-3.2**
Government	-7.3	-3.9	-7.1	-3.7	**-3.5**
Other transport equipment	-7.7	-4.0	-7.7	-3.6	**-3.5**
Fabricated metal products	-18.9	-10.5	9.5	-4.2	**-3.7**
Medical, precision, optical instruments…	-20.5	-10.9	7.0	-4.2	**-3.7**
Construction	-38.4	-20.5	37.4	-3.6	**-3.8**
Non-metallic minerals	-29.4	-16.0	23.8	-4.4	**-4.2**
Motor vehicles, trailers, parts	-14.9	-8.4	6.7	-4.6	**-4.3**
Other mining (gold, metal ores…)	-11.6	-6.1	-10.0	-5.2	**-4.4**
Radio, television, communication equipment…	-7.9	-4.2	-6.2	-5.6	**-4.5**
Machinery and equipment	-22.9	-12.5	8.5	-5.0	**-4.5**
Basic iron and steel, casting of metals	-14.5	-7.9	-1.8	-5.6	**-5.3**
Basic precious and non-ferrous metals	-14.2	-7.7	-4.6	-5.8	**-5.3**
Other activities	37.2	18.8	-2.5	-4.4	**-6.1**

Sector	S1	S2	S3	S4	S5
Sewerage and refuse disposal	-23.0	-13.8	15.5	-8.1	**-8.7**
Computer and related activities	17.1	12.4	-39.0	-10.2	**-16.8**

Imports and exports

637. **Table 5.5** indicates the impact of **CGE-Sims 3 – 5** on both imports and exports for the year 2030. Only the implementable range of simulations are presented (i.e., **CGE-Sims 1** and **2** are left out) to make comparison easier.[78]

637.1. **CGE-Sim 3** shows a dramatic increase in imports due to the increased domestic demand.

637.2. However, exports decline in a large number of sectors due largely to the price effects discussed above. In other words, foreign purchasers reduce their imports from South Africa due to increases in real prices.

637.3. This effect is equivalent to an exchange rate appreciation (as noted above) which makes domestic goods and services more expensive to foreign markets.

637.4. The significant increase in imports will however generate balance of payments consequences over time that could impact on the sustainability of domestic demand levels.

637.5. While this demand may be financed from positive capital inflows for a period, it would be more sustainable if supported by increased local production and expanded exports. These effects cannot however be modelled.

638. Overall, the most likely consequence of an unfinanced BIS will be a significant increase in imports, with exports largely unaffected. The sustainability of the increased import

[78] While **CGE-Sim 3** is technically implementable, as it is merely a deficit-financed BIS, it is nevertheless an extreme option offered principally to clarify the scale of the various parameter outcomes.

demand over time from a balance of payments perspective will depend on the extent to which imports are increasingly switched to local production (due to scale effects) and whether certain export industries expand (for the same reason).

Table 5.5: Sectoral results for imports and exports CGE-Sims 3-5 (for 2030)

Sector	Imports 2030			Exports 2030		
	S3	S4	S5	S3	S4	S5
Iron, steel products	15.4	-1.9	**-1.0**	-4.0	-5.2	**-4.0**
Non-ferrous metals	8.7	-3.0	**-2.0**	-4.7	-5.1	**-3.9**
Motor vehicles, parts	19.8	-0.5	**0.0**	-1.2	-4.8	**-3.7**
Tanks, reservoirs	24.5	3.9	**4.2**	-1.1	-4.9	**-3.5**
Structural metal products	40.7	0.5	**0.5**	-1.1	-4.9	**-3.4**
Other fabricated metal	12.3	0.5	**1.2**	-1.1	-4.8	**-3.4**
Machineries	31.8	-0.6	**-0.1**	-0.8	-4.7	**-3.4**
Rubber tyres	8.8	2.0	**2.4**	-4.1	-4.4	**-3.1**
Other rubber products	6.5	-0.8	**0.0**	-4.0	-4.4	**-3.1**
Construction	49.2	1.5	**1.0**	6.8	-4.2	**-3.0**
Plaster, cement	23.6	-0.2	**0.4**	4.0	-4.1	**-3.0**
Non-structural ceramic	13.4	-0.5	**0.1**	4.1	-4.1	**-3.0**
Articles of concrete	39.7	-0.0	**0.1**	4.1	-4.1	**-3.0**
Paper products	13.0	3.8	**4.1**	-2.7	-4.3	**-2.9**
Structure non-refractory clay	39.6	-0.8	**-0.6**	4.1	-4.1	**-2.9**
Chemicals products	8.1	2.1	**2.8**	-4.5	-4.1	**-2.8**
Transport equipment	31.8	-0.9	**-0.5**	-5.6	-4.0	**-2.8**
Other minerals	12.2	-0.3	**0.4**	-5.6	-4.3	**-2.8**
Medical appliances	31.1	-0.2	**0.2**	-0.3	-4.0	**-2.7**
Wood products	16.7	3.9	**3.7**	-2.6	-4.2	**-2.7**
Construction services	50.3	1.4	**0.8**	3.9	-4.0	**-2.6**
Radio, television	8.4	-0.3	**0.6**	-2.8	-3.9	**-2.6**
Non-metallic products n.e.c.	24.4	-1.7	**-1.0**	3.0	-3.7	**-2.6**
Accommodation	15.5	2.1	**2.1**	-3.1	-4.0	**-2.5**
Catering services	21.9	8.7	**8.4**	-2.2	-4.0	**-2.5**
Leasing, Rental services	15.2	6.6	**6.3**	2.4	-3.8	**-2.5**
Other business services	15.6	3.8	**3.5**	-2.1	-3.8	**-2.4**
Printing	14.0	2.7	**2.8**	-2.3	-3.7	**-2.4**
Manufactured products n.e.c.	15.9	3.7	**4.3**	-1.5	-3.8	**-2.4**
Furniture	25.2	5.8	**5.9**	-0.6	-3.8	**-2.4**
Other services n.e.c.	13.9	2.9	**2.4**	-1.6	-3.8	**-2.4**
Footwear	13.9	5.4	**5.8**	-2.7	-3.6	**-2.3**
Real estate services	20.6	4.1	**3.7**	0.7	-3.8	**-2.3**
Plastic products	16.2	1.6	**2.0**	-1.5	-3.7	**-2.3**

Sector	Imports 2030			Exports 2030		
	S3	S4	S5	S3	S4	S5
Coal and lignite	22.0	7.3	**7.9**	-2.9	-3.6	**-2.1**
Research, development	35.6	2.4	**1.3**	-0.8	-3.5	**-2.1**
Jewellery	4.6	-1.6	**-0.7**	-1.8	-3.3	**-2.0**
Wastes, scraps	4.3	-1.7	**-1.3**	-2.0	-3.3	**-2.0**
Alcohol, beverages	16.4	8.5	**8.4**	-2.9	-3.4	**-2.0**
Tobacco products	12.1	5.6	**5.6**	-2.9	-3.4	**-2.0**
Soft drinks	18.8	8.7	**8.7**	-2.9	-3.4	**-2.0**
Public administration	4.2	0.3	**-0.3**	-8.4	-3.4	**-1.9**
Insurance, pension	19.6	3.2	**2.6**	-2.6	-3.4	**-1.9**
Glass products	15.9	3.4	**3.8**	-2.1	-3.2	**-1.8**
Textile	16.9	7.1	**7.5**	-2.0	-3.2	**-1.8**
Telecommunications	14.2	4.4	**4.3**	-1.0	-3.0	**-1.8**
Postal, courier services	16.1	4.1	**4.1**	-1.0	-3.0	**-1.8**
Other financial services	20.7	3.2	**2.8**	-3.2	-3.4	**-1.7**
Legal, accounting	18.9	0.3	**0.2**	-1.8	-3.3	**-1.6**
Manufactured services n.e.c.	10.5	1.3	**1.5**	-1.8	-3.3	**-1.6**
Petroleum products	14.1	3.1	**3.9**	0.1	-2.7	**-1.6**
Trade services	22.2	6.0	**5.2**	-0.3	-3.0	**-1.5**
Water distribution	28.1	9.5	**10.1**	0.9	-3.1	**-1.5**
Support services	29.1	5.9	**6.1**	-1.4	-3.1	**-1.5**
Health, social services	18.8	4.5	**4.0**	-4.1	-2.7	**-1.4**
Transport services	17.0	8.1	**7.4**	-0.7	-2.8	**-1.4**
Financial services	19.5	3.6	**3.1**	-2.2	-3.0	**-1.4**
Natural water	0.0	0.0	**0.0**	0.4	-3.0	**-1.4**
Education services	25.0	4.0	**3.8**	-5.1	-2.7	**-1.3**
Fishing	18.1	8.1	**7.9**	-1.4	-2.9	**-1.3**
Electricity and gas	2.1	0.3	**0.0**	-1.2	-2.8	**-1.2**
Fish	13.9	9.9	**9.5**	-1.3	-2.2	**-0.9**
Food n.e.c.	13.6	9.1	**9.0**	-1.6	-2.1	**-0.8**
Vegetables	15.7	11.1	**11.1**	-1.1	-1.8	**-0.8**
Bakery products	20.1	14.9	**14.1**	-1.3	-2.0	**-0.8**
Grain mill products	27.0	21.8	**20.9**	-1.5	-2.0	**-0.7**
Oils and fats	12.2	8.2	**8.7**	-1.3	-1.9	**-0.6**
Animal feeding	10.5	5.7	**5.6**	-1.4	-1.9	**-0.6**
Starches products	28.4	23.1	**22.2**	-1.3	-1.9	**-0.6**
Confectionary products	10.4	6.9	**6.4**	-1.3	-1.9	**-0.6**
Pasta products	12.2	8.5	**8.1**	-1.3	-1.9	**-0.6**
Dairy products	9.0	5.2	**5.7**	-1.2	-1.6	**-0.5**
Meat	16.7	10.9	**10.4**	-0.6	-1.0	**-0.4**
Electricity distribution	34.5	13.7	**14.2**	0.9	-2.0	**-0.4**

Sector	Imports 2030			Exports 2030		
	S3	S4	S5	S3	S4	S5
Forestry	20.5	11.0	**10.9**	0.4	-1.7	**-0.2**
Sugar	18.3	13.6	**13.7**	-0.5	-0.6	**-0.2**
Fruit and nuts	9.5	5.4	**5.7**	-0.0	-0.0	**-0.0**
Agriculture	26.2	17.0	**16.8**	0.9	-1.3	**0.1**
Live animal	14.7	6.8	**6.7**	0.9	-1.3	**0.1**

PART 5.7: CONCLUDING REMARKS

639. The results outlined in this part of the report are discussed further in **Part 6**, where an attempt is made to interpret their implications for a BIS policy framework.

PART 6: UNDERSTANDING THE RESULTS

The results from **Part 5** are discussed here.

PART 6.1: INTRODUCTION

640. The analytical part of this report has performed several modelling *experiments* to understand the possible social and economic dynamics of an expansion of the social transfer system to include the presently excluded income-compromised cohort of adults ranging in age from 18 to 59.

641. While various scenario options along these lines are explored, they are all broadly designated as BIS or basic income support scenarios.

642. The purpose of the overall analytical exercise was twofold:

    642.1. First, to examine the social impacts of a range of BIS options from present policy levels (the baseline) to grant values consistent with the UBPL.

    642.2. Second, to examine how any expansion of social transfers from present policy levels to grant values consistent with the various BIS options may impact on the economy.

643. While the social implications of social transfer expansion can be regarded as broadly settled from a technical perspective, the question of the positive or negative implications for the economy is often argued in sweeping conjectural terms but rarely evaluated in any formal sense.

644. This is because the relationship is complex and historically contingent. There is ample evidence to show that expanded redistribution can occur together with accelerated economic growth.

645. It is also possible that poorly designed redistribution[79] can dampen the pace of growth and slow down the accumulation of capital. It is however not possible for any modelling on its own to resolve what will occur.

646. Each country needs to negotiate in its own development path that takes account of the complementarities or tensions that might exist between growth and the structures of distribution.

647. The Panel has therefore attempted to address this gap in understanding the economic implications of expanded social transfers using a CGE model analysis.

648. The value and limitations of such models in analysing complex economic interactions is outlined in **Part 3** of this report.

649. The models were used to stress test options and to determine the directionality of effects, whether negative or positive.

650. The results of all simulations must therefore be seen in their totality as building a picture that allows for a more informed understanding of the likely implication of any expansion pathway for social transfers.

PART 6.2: SOCIAL IMPLICATIONS

651. The microsimulation analysis involved a wide spectrum of scenarios, fifteen altogether, which includes a baseline (do nothing) scenario (**Scenario 1**) and what may amount to a second baseline (**Scenario 2**) where an equivalent to the initial design of the COVID-SRD grant implemented as part of the COVID-19 response is measured.

[79] Schemes implemented at scale too quickly can impose shocks on the economy, such as excessive increases in taxes, that ultimately prove counterproductive where a more gradual approach would prove productive.

652. The spectrum of BIS scenarios varies according to whether a means test of some form is applied (which impacts on the eligible population) and the value of the grant, which ranges from the R350 (**Scenario 2**) to the UBPL of R1,300.

653. The results examine: poverty; inequality; and costs.

Poverty and inequality

654. The BIS scenarios demonstrate a significant direct impact on poverty and the distribution of income.

655. While the impacts are quite moderate for lower values of the grant, when introduced at scale poverty measured at the FPL and LBPL is almost eliminated for **Scenario 11** and **Scenario 14** (with the level of benefits set at R1,300 per month). In these scenarios inequality (as measured by the Gini coefficient) moves dramatically from 0.65 to 0.55.

656. By way of contrast, the scenario equivalent to the initial design of the COVID-SRD grant (benefits set at R350 together with a strict means test) mostly impacts poverty at the FPL (from 21.2% to 16.5%) but shows only a small shift at the LBPL (from 33.5% to 29.5%) and UPBL (from 48.9% to 46.7%). The Gini coefficient shift is also moderate, improving by 0.02 from 0.65 to 0.63.

657. The outcomes by female- and male-headed household type largely reflect the general headline results, with increased values of the grant structurally altering both poverty and income inequality.

658. However, the analysis shows that the relative position of female headed households changes little, even though female headed households improve their situation relative to the baseline with each BIS expansion.

659. Overall, the differences in outcome between scenarios indicate that scale (coverage seen together with the value of the grant) matters a great deal. However, even with a cautious entry level version of the BIS, coverage rates and intervention levels are nevertheless very impactful in reducing poverty and inequality.

Universal versus means tested

660. Eligibility for access to social grants is typically specified across two dimensions.

    660.1. The first uses a category of beneficiary, such as an age band (to target children or older persons) or a particular contingency (such as persons with a disability).

    660.2. The second uses a qualifying measure of income to target only those in income-related poverty through a means test, where only persons below a specified income threshold are eligible.

661. While eligibility is a form of targeting, universal schemes[80] remove the means test making the benefit available to everyone (see section **Part 2.1**).

662. The social outcomes for the different scenarios do not differ significantly between the universal (**Table 5.1**) or means tested (**Table 5.2**) options.

663. The differences in the direct costs of the scenarios are however significant, due entirely to the considerably larger eligible population in the universal options.

664. The limited social impact is because the universal options make very little difference to the incomes of higher income groups, with virtually all the improvement accruing to individuals that are typically targeted by means tests.

665. Universal options can however be made less costly in the context of limited resources if tax clawbacks are applied.

666. The expenditures for the universal scenarios that move from R130 billion per annum for a R350 BIS (**Scenario 2**) to R534 billion for a R1,300 BIS (**Scenario 7**) (**Table 5.2**) are therefore overstated, as payments to people who pay personal income tax could be recouped through a tax clawback (see discussion in **Part 2.1**).

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[80] Technically a universal scheme removes all eligibility criteria, making the benefit available to all unconditionally. In this report universal approaches refer exclusively to the removal of any form of income-related eligibility criteria – such as a means test.

667. **Table 5.2** rather than **5.1** therefore reflects the *net expenditures* of *targeted scenarios* irrespective of whether this is achieved by way of a tax clawback or a means test. [81]

668. The means tested BIS scenarios target eligibility in two ways: first using age – as it focuses on adults in the age range 18 to 59; and second by income poverty using a means test. While a universal option can be made to indirectly target poverty, a financing regime is conceptually and operationally distinct from eligibility.

669. The approach to targeting (by which is meant the precise specification of eligibility) is an important policy question as means tests have different behavioural, administrative and dignity effects to universal approaches (see **Part 2.1**). However, in the absence of definitive social advantages to universal social assistance schemes, means tests can remain an important approach to targeting eligibility to address income poverty.

Direct costs and implications for poverty

670. The direct fiscal outlay required for alternative BIS options to achieve key inequality and poverty outcomes is large. For instance, R181 billion per annum in **Scenario 9** is required to reduce the LBPL from 33.5% to 21.1% (**Table 5.2** and **Figure 5.3**).

671. The more ambitious **Scenario 14** (set at the UPBL) costs R429 billion (or 8.6% of GDP) to achieve a poverty rate of 5.6% at the LBPL.

672. **Table 6.1** and **Figure 6.1** translate the scenarios into a linear relationship between grant improvements incremented by 1.0% of GDP and resulting income poverty rates.

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[81] It is however accepted that a perceptual difference might always remain as the tax clawback effectively becomes invisible in a general tax system. After a period, governments will become tempted to increase access to additional resources by moving back from a universal to a means tested scheme. Where this is done, however, the relevant government will have indirectly increased taxes, as it will be accessing tax revenue that was intended to offset a financial benefit.

672.1. These calculations indicate that for each 1.0% of GDP spent on a BIS (roughly equivalent to R50 billion in 2021 prices), the poverty rate at the LBPL reduces by 0.1%).

672.2. Over the range from 1.0% to 5.0% the poverty rate moves from 29.9% to 16.3% measured at the LBPL.

672.3. It should however be noted that the GDP indicator used in this analysis is static as at 2021.

672.4. If implemented incrementally, the percentage of GDP required to achieve a reduction in poverty declines.

673. Three considerations arise from the direct costing analysis:

673.1. If implemented, a BIS will impact positively on social outcomes.

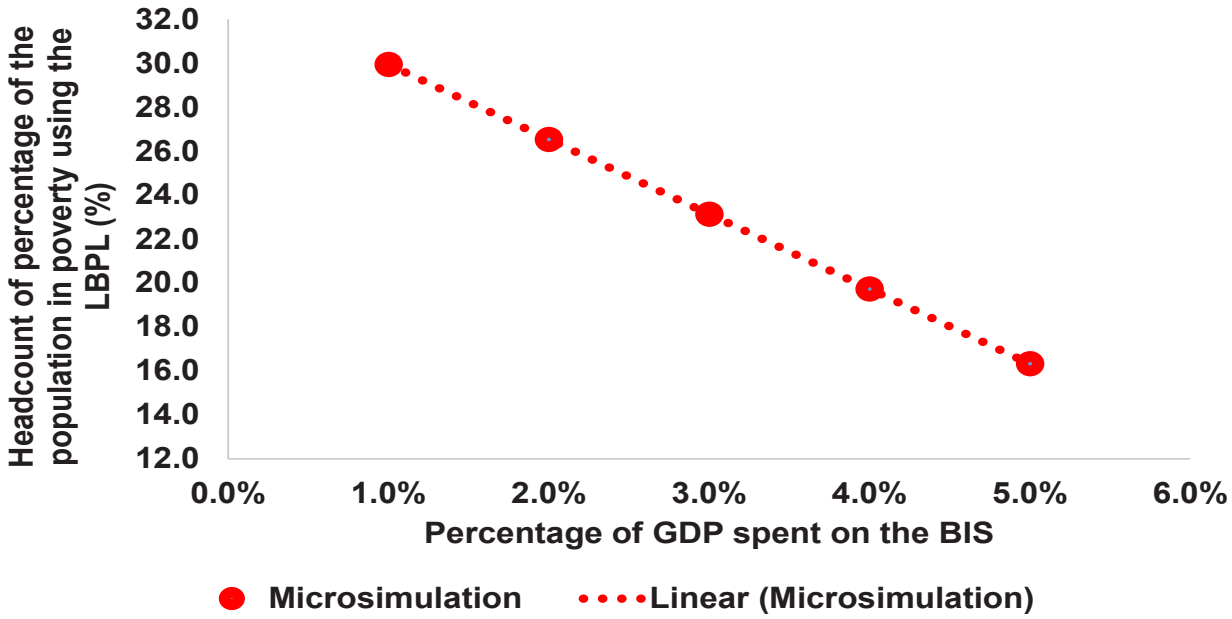
673.2. The achievement of systemic improvements in poverty however requires that social assistance in the form of the BIS ultimately be introduced at scale.

673.3. The fiscal outlays are large and will need to be phased to keep the increments manageable in relation to GDP.

Table 6.1: BIS expenditures increased at intervals of 1% of GDP to 5% of GDP with indicative Gini coefficient outcomes for the microsimulation and CGE models (2021 prices)

R'million	% of GDP spent on an expanded BIS	Poverty rate at LBPL (%)	Increment per 1% of GDP spent (%)
49 957	**1.0%**	29.9	
99 914	**2.0%**	26.5	
149 870	**3.0%**	23.1	-0.102
199 827	**4.0%**	19.7	
249 784	**5.0%**	16.3	

Figure 6.1: Expenditure (expressed as a percentage of GDP) required to reduce poverty (derived from the microsimulation analysis)



PART 6.3: ECONOMIC IMPLICATIONS

674. The modelling analysis used several simulations to reveal how a BIS policy framework may holistically impact on the economy and the fiscal position of government.

674.1. It was understood at the outset that no model can provide a complete and accurate picture of such a complex reform, and that the exercise should focus on generating an understanding of possible effects, positive or negative, rather than making any attempt at a projection.

675. In total five CGE simulations were carried out, with three reflecting extreme assumptions and two with more conservative assumptions.

675.1. Altogether they provide a comprehensive picture of how the economy and public finances would be expected to react to the BIS policy framework.

675.2. However, to generate clear indications of the economic effects, BIS scenarios at scale were adopted.

675.3. It was assumed, we think reasonably, that the results nevertheless inform scenarios implemented at any scale.

Economic growth

676. A tax-financed basic income grant in a context of no productivity improvements is likely to weaken growth and employment, as indicated in **CGE-Sim 4**. It is likely that a redistribution of purchasing power from affluent to poor households will have net positive impacts on growth and productivity over time, with the modelling offering important insights on key parameters.

677. **CGE-Sim 5** assumes an (exogenous) productivity shock to offset the negative growth and employment outcomes in **CGE-Sim 4**. This takes the form of an assumed 1% percentage point increase in the rate of productivity growth. This productivity improvement is most likely to occur through the household and corporate sector as the grant leads to the creation of new markets at the lower end of the income distribution and enables poor households to participate in labour markets and become more productive.

678. Note that in both **CGE-Sims 4** and **5**, some of the macroeconomic imbalances generated by the grant are absorbed by an increased current account deficit as 20% of the grant financing is absorbed by borrowing from foreign savings.

679. **CGE-Sim 3** takes this to an extreme, assuming that the full costs of the transfer are financed from foreign savings and as such there is no need to raise taxes, and the demand side multiplier effects of the grants lead to a substantial acceleration of growth.

680. In this simulation the increased demand results in a very large negative shift in the current account relative to the baseline (exceeding 10% of GDP), which is the counterpart of financing the grant from inflows of foreign savings. This reflects the fact that an unfinanced expansion of government spending can run up against supply constraints, especially in a relatively small undiversified economy such as South Africa.[82]

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[82] The Panel has taken note of the ADRS analysis of current account impacts of their fully financed scenarios (i.e., where taxes are increased to completely offset the grant expenditure (Adelzadeh, 2021a). Their results show a relatively mild impact on the current account. This scenario is however

681. **CGE-Sims 1** and **2** assume that the grant is financed solely by government borrowing out of a fixed pool domestic savings – an acknowledged extreme and unrealistic assumption. In these scenarios there is full crowding out of domestic investment and the rate of growth collapses. This is the other end of the spectrum – and indicates what may arise over the long-term if a significant unfinanced expansion of government spending ultimately peters out in the absence of a deepening of domestic production to replace imports.[83] It is worth noting that this will happen with any form of unfinanced fiscal expansion with high demand multipliers, such as a special employment programme.

Government finances

682. The results show that when financed by taxes and allowing for a large current account deficit, there is a negative impact on growth rate.[84]

683. When a BIS is introduced at scale, it is however difficult to be certain whether the required tax increases will result in behavioural shifts that impact on both economic growth and/or revenue collection; and second, whether any policy reform of this nature can make realistic assumptions about government productivity improvements.

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not comparable to **CGE-Sim 3** which is completely unfinanced. The ADRS results are however not inconsistent with the financed simulations for **CGE-Sims 4** and **5** where the demand stimulation is effectively sterilised by the tax increases. Consistent with the modelling results in this section, the ADRS modelling shows that it is possible to achieve net positive growth results despite the tax increases.

[83] Unlike in the model, the real-world economic effects would take the form of inflation and an associated exchange rate depreciation. The model merely reflects the current account deviation from the baseline. The real-world outcome may however be less pronounced than suggested by the model.

[84] This is also implied in the ADRS modelling (Adelzadeh, 2021a, 2021b).

684. However, an entry-level BIS (e.g., at the levels of the existing COVID-SRD grant) are unlikely to require significant tax increases or to increase government debt levels.[85]

PART 6.4: CONCLUSION

685. The modelling work largely confirms the positive social outcomes that should flow from a more complete system of social transfers following the implementation of a BIS framework.

686. The social outcomes of any expansion of social transfers along the lines of a BIS hold opportunities for substantial improvements in South Africa's social conditions. Each expansion will impact to reduce both poverty and inequality.

687. The systemic effects of any expansion are however better realised when the BIS framework achieves significant scale. This suggests that any incremental strategy should aim at the achievement of scale sufficient to eliminate poverty as a long-term goal.

688. The economic implications of a BIS are also likely to be beneficial. However, these may only be sustainably realised within an incremental implementation framework.

689. A phased implementation approach is therefore preferred over a rapid expansion at scale.

    689.1. First, it allows for a more secure and sustainable financing strategy

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[85] For instance, if a demand multiplier of between 1.3 and 1.6 were to apply to an entry level BIS (equivalent to the SRD) expenditure outlay of R76.8 billion (see **Annexure D**), and assuming a average tax recovery of 25%, between 40.0% (R28 billion) and 32.5% (R22.6 billion) of the initial expenditure is recovered in tax revenue. If PIT were used to finance the entire shortfall, a uniform percentage point increase across all bands would range between 1.9% and 2.1% using the analysis reflected in **Annexure D**.

689.2. Second, a coordinated economic strategy can be implemented incrementally to maximise the economic benefits of the BIS while avoiding the risks associated with rapid expansion.

PART 7: FINDINGS

The findings derived from all evidence collated and documented by the Panel is reflected here.

PART 7.1: OVERVIEW

690. Taking the evidence into consideration[86], the Panel is of the view that income poverty, hunger and inequality in South Africa are at such high levels that urgent intervention in the form of income protection by government is needed.

691. This needs to focus on the group of income-vulnerable adults between the ages of 18 and 59 who presently have no direct access to other forms of income protection.

692. The Panel feels that an expanded system of social assistance or BIS would improve both social and economic outcomes in South Africa – especially if ultimately implemented at scale.

693. Importantly, the Panel finds that the benefits of such a programme substantially outweigh the risks if implemented initially at the level of the existing COVID-SRD grant or even slightly higher.

694. However, the immediate implementation of the BIS at significant scale will pose administrative and economic risks that government would be wise to avoid.

695. It is therefore important that government sequence the implementation of an expanded system, focusing first on the establishment of sustainable platform for the BIS, which can thereafter be progressively improved in accordance with a set of explicit goals.

696. The importance of a BIS to the achievement of social and economic stability in South Africa requires that the programme comply with an explicit progressive realisation framework with the goal of the elimination of income poverty.

PART 7.2: SOCIAL AND ECONOMIC EFFECTS

697. From the evidence it appears reasonable to conclude that social conditions will be fundamentally transformed through significant reductions in income poverty. It also

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[86] See **Part 2.3**.

appears very probable that over time economic conditions will respond positively to the redistribution of purchasing power in South Africa.

698. The Panel also finds that social transfers in general, and the BIS options in particular, places income in the hands of those in the lower deciles of the income distribution and are therefore an important part of any strategy to support the diversification of South Africa's domestic economy while at the same time systematically improving socioeconomic conditions.

699. Basic Income Support for 18–59-year-olds would boost economic access to food and stability of food access, by raising the incomes of households, and by delivering predictable income throughout the year, compensating the poor for chronic and seasonal unemployment.

700. A BIS would also enhance nutritional outcomes for children, by allowing more CSG transfers to be spent on the needs of the child, instead of supporting entire households including unemployed and low-paid adults who are currently not covered by any form of social assistance or social insurance.

701. The outcomes by female- and male-headed household type largely reflect the general headline results, with increased values of the grant structurally altering both poverty and income inequality. However, the analysis also shows that the relative position of female headed households changes little, even though they improve their situation relative to the baseline with each BIS expansion.

702. There is however insufficient evidence to conclude at this stage that altering the distribution of purchasing power will be sufficient to fundamentally transform economic and social structures in the absence of other complementary measures that more directly address labour markets and industrial development.

703. The extension of social security should also occur, but not be dependent on, a broader growth and development strategy, in which several areas of strategic policy, including the transformation of production, the climate transition, industrial policy, labour market regulation and labour activation policies and social policy are better coordinated and integrated.

PART 7.3: ROLE OF OTHER SOCIAL GRANTS

704. The Panel considered whether existing social grants are well targeted and may achieve social outcomes more efficiently than the proposed BIS framework.

705. While the Panel felt that existing social grants make important contributions to reducing income poverty, their eligibility limitations[87] results in the absolute exclusion of adults from the ages of 18 to 59 from basic forms of income protection.

706. The Panel regards the exclusion of this category of adults from income protection as having serious adverse social implications that in the current context cannot be addressed through measures other than social assistance.

707. Even where statistical improvements in income poverty are possible using categorical forms of social protection, such approaches should not come at the cost of the absolute exclusion of the vulnerable economically active part of the population from any form of income protection.

708. The rationing of social protection can take many forms. Benefits can be targeted at certain demographic groups (the young, the disabled or those in old age) and/or through the application of means tests.

709. Age-related eligibility criteria, if specified quite narrowly, de-prioritise people in equal need of income support who fall outside of the targeted category. Means tests (or equivalent forms of income-related targeting)[88] prioritise support based on income vulnerability rather than categories of beneficiary.

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[87] This is where income support is only available in respect of certain categories of beneficiary such as children, persons with disability and those from the age of 60.

[88] Such as tax clawbacks in the case of universal forms of social assistance.

710. The Panel is of the view that the system of social grants needs to expand the age-related categories of coverage, and thereby move in the direction of more generalised forms of income protection for those in need based on income poverty.[89]

711. In doing so, the framework of support must also be administratively efficient at targeting income-compromised adults. By this it is meant that the grant system must not only avoid excluding income-vulnerable individuals in the design of programmes of support but must also avoid excluding them through poor administration and complex eligibility criteria.

712. In considering options for social grant expansion, therefore, the Panel regards the introduction of income support to the presently excluded adults in the age range 18 to 59 as an urgent priority that can build on the foundation established through the introduction of the COVID-SRD that formed part of the COVID-19 social package.

713. However, the means-test is much lower than for any of the other social grants and still excludes many adults in income poverty. Also, the value of the grant is very low, being set at an amount less than the level of the FPL.

714. Within this context, the version of the COVID-SRD grant implemented initially in 2020 as income support for adults and again in 2021 is an important step towards providing support for this group and provides a platform for enhancing support once this grant has been properly institutionalised.[90]

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[89] Although the BIS specifies an age range, it complements other social grants that support individuals outside of this age range. Seen together the BIS establishes an overall social assistance framework that seeks to include beneficiaries based on income need.

[90] While the SRD has in fact been existence for many years as a quite limited benefit established in terms of the Social Assistance Act, the SRD referred to here was implemented in terms of the Disaster Management Act and was far wider in scope.

PART 7.4: ENABLING EMPLOYMENT

715. The evidence of social assistance programmes implemented domestically and internationally supports positive employment effects in the form of income support for job search and entrepreneurial ventures and not the need for concern about cultivating a dependency culture.

716. In examining this issue, the Panel understood that dependency is a complex issue and has several dimensions.

    716.1. For instance, large parts of society are invariably financially dependent on income earners, or so-called breadwinners. Dependants can include spouses, children, extended family members, persons with disabilities and older persons.

    716.2. In the understanding of the Panel, this form of financial dependency involves inter-dependent roles and responsibilities, such as childcare and related contributions in-kind within any household.

    716.3. The form of negative dependency argued by others to result from social grants can be distinguished from this type and is best termed a '*dependency syndrome'* or '*dependency culture*'. It relates to a potential breadwinner rather than other forms of dependant.

    716.4. There is no evidence to support the view that a dependency syndrome exists in relation to existing social grants or will exist in relation to the proposed BIS framework.

PART 7.5: BENEFIT LEVEL

717. Effectively four benefit levels were reviewed by the Panel. These are: first, the R350 value of the COVID-SRD grant that can effectively be considered an initial BIS; the second is the FPL; the third the LBPL; and the fourth the UBPL.

718. Each grant level implies significant escalations in government expenditures and the Panel proposes to implement the framework on an incremental basis, as indicated earlier. However, the question remains as to what the final goal of a BIS should be.

719. The most reasonable approach, in the view of the Panel, would be to adopt a final target that at the very least eliminates income poverty. [91]

720. By setting a final target, a flexible progressive pathway can be established that is consistent with the fiscal capabilities of government and the economy.

721. Although an effective starting value of R350 for the BIS has implicitly been established through the COVID-SRD grant, it would make sense to review this value annually in accordance with the ultimate target of the UBPL.

722. This is a practical and very cautious start. The fiscal and economic risks associated with a BIS at the value of the COVID-SRD or even at a slightly higher value are minimal, with the benefits, both social and economic, outweighing any identifiable negative effects.

PART 7.6: ELIGIBILITY

723. Eligibility for social assistance transfers can be specified across two dimensions.

723.1. The first uses a category of beneficiary, such as an age band (to target children or older persons) or a particular contingency (such as persons with a disability).

723.2. The second uses a qualifying measure of income to target only those in income-related poverty through a means test, where only persons below a specified income threshold are eligible.

It should be noted, however, that an alternative approach with respect to the second dimension is to dispense with a means test and make a grant universally available, regardless of income and the category of beneficiary.

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[91] While recognising that even when the BIS is set at the UBPL it fails to eliminate poverty, it is reasonable to consider setting the ultimate value of a BIS at the UBPL. Residual poverty can be addressed through other measures and other social grants. In the case of other grants, their ultimate target values can also be set at the UBPL.

724. Across the first dimension, the Panel regards the prioritisation of income vulnerable adults from the ages of 18 to 59 as a priority for a new system of social transfers. This because coverage already exists for children below the age of 18 and for adults from the age of 60 and above.

725. Across the second dimension, the choices are more complex. These broadly fall into two approaches:

    725.1. First, a means test can be applied at a selected income threshold, which can vary in value depending upon the policy goal (e.g., which level of poverty is targeted); and

    725.2. Second, the means test is dispensed with, and no income-related qualification applied, generating a universally available benefit within the qualifying age categories.

726. Where income is removed as a criterion for the purposes of eligibility, the Panel however finds that the poverty outcomes for alternative benefit levels do not differ significantly between the means tested or universal options. This is because the universal benefit makes very little difference to the incomes of higher income groups as they are already above the poverty lines considered.

727. The direct costs of the two approaches are however quite different, due entirely to the larger eligible population where no income-related qualification is applied.

728. Given that no improved social outcomes flow from the additional expenditure on high income groups, the Panel therefore regards some form of targeting within the eligible age groups as reasonable to make the best use of public resources. This then leaves open the question of the options for targeting.

729. The Panel therefore looked at two approaches.

    729.1. First, use can be made of eligibility criteria, such as a means test, as already indicated.

    729.2. Second, a universal version of the scheme can be introduced together with an adjustment (or clawback) to the tax system to recover transfers paid to higher-

income households. (This is distinct from tax increases that may be required to finance part of the expenditure arising from the benefit provided to the target group).

730. Either of these two approaches is worth considering, noting that both are feasible but have challenges.

730.1. The means test approach has onerous administrative implications which would compromise efficiency and fairness if the administrative systems are not properly in place.

730.2. The universal option, which addresses the administrative problems, must face perceptions of high expenditure and behavioural considerations when adjusting taxes.

PART 7.7: PHASING PROGRESSIVE REALISATION

731. Consistent with the findings above, the Panel finds that a phased approach to the BIS is appropriate, provided it is located within an *explicit* progressive realisation framework that has been generated through public deliberation consistent with that of open democratic society.

732. This should take account of the following:

732.1. The right to be achieved should be made explicit, which the Panel regards as the elimination of income poverty.

732.2. Consistent with the goal of eliminating income poverty, the BIS should be established with an ultimate grant value that is able to achieve this together with other social assistance schemes.

732.3. The approach to phasing should consider broadening coverage to address the exclusion of those in income poverty, followed by real increases in the value of the benefit. This minimises the exclusion of income-vulnerable groups as a priority.

732.4. Taking the present COVID-SRD grant coverage into consideration, the first step would be to set the means test at the value of the FPL with a progressive target being the PIT threshold.

732.5. The second step would be to progressively enhance benefits through the application of above-inflation adjustments to the grant values until such time as the UBPL is achieved.

732.6. This approach, while clearly consistent with the Bill of Rights, is also aligned with the "leave no-one behind" principle of Agenda 2030.[92] At present, 18-59-year-olds are left behind (i.e., left out) of South Africa's social grant system. The priority is to include this excluded group in the system.

[92] See for instance, https://www.undp.org/publications/what-does-it-mean-leave-no-one-behind.

PART 8: RECOMMENDATIONS

Based on the findings of the Panel a set of recommendations regarding a future BIS for South Africa are outlined in this part.

PART 8.1: SHOULD SOUTH AFRICA HAVE A BASIC INCOME SUPPORT FOR WORKING AGE ADULTS?

733. The Panel is of the view that a Basic Income Support or BIS social transfer scheme is a necessary and urgent requirement for South Africa for the following reasons:

733.1. The prevailing realities of the South African economy condemn a substantial number of working age adults and their households to socially harmful levels of income-poverty;

733.2. Having a reliable income is essential to human dignity, economic and social participation and to the ability to withstand crises; and

733.3. Social transfer arrangements for the poor and vulnerable at the levels proposed here directly enable economic participation for the beneficiary and indirectly encourages economic activity in wider society.

PART 8.2: IMPLEMENTATION

734. Arising from the Panel's economic analyses, a relatively cautious approach is proposed for the implementation of the BIS:

734.1. The framework should be phased in over time rather than implemented immediately at scale (i.e., at the level of the UPBL);

734.2. The starting point should be the existing COVID-SRD grant, which appears fiscally and economically feasible;

734.3. Phasing should immediately aim to avoid the exclusion of those in greatest need of income support consistent with the "leave no-one behind" principle of Agenda 2030[93], followed by a deepening of benefits; and

[93] See https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind.

734.4. The pace of incremental advances in the BIS should be carefully appraised to ensure that each new change is sustainable.

PART 8.3: ELIGIBILITY

735. The question of which income groups to target irrespective of the targeting approach used is best achieved quantitatively using an indicative means test threshold.

736. As a first principle in setting this threshold, the Panel recommends that the criteria be set in relation to measures of income poverty, as this is the relevant indicator of need.

737. In this respect the Panel considered a lower and an upper level, with the former applicable to an entry level version of the BIS, consistent with a phased approach, and the latter to be achieved progressively over time.

738. Following this logic, the Panel identified three important thresholds.

738.1. *First, there is the level consistent with the continuation of the COVID-SRD grant until such time as the BIS can be implemented. Here the pragmatic approach is to set the means test at the FPL, or R595 per month, which reflects the grant as implemented in the 2021/22 financial year*.

738.2. *Second, the Panel sees an entry or lower-level version of the BIS implemented with a threshold equivalent to that used for the child support grant or CSG of R4,600 per month and support the accommodation of caregivers in the BIS. This would then take over from the COVID-SRD framework when this can be achieved in a sustainable manner*.

738.3. *Third, the Panel sees an upper level, to be achieved over time, set equivalent to the personal income tax (PIT) threshold which stands at R7,275 per month*.

739. In setting the lower level, the Panel was of the view that coverage should be as broad as possible to avoid excluding any adult living in income poverty.

740. The proposed upper-level threshold aligns access to the BIS with income earners that have insufficient incomes to pay PIT.

741. The maximum populations covered by each of these options would range from 13.4 million for the COVID-SRD grant where eligibility is equivalent to the FPL or R595 per month; 25.4 million with a R4,600 per month individual means test; and 27.5 million with a R7,275 (PIT) per month individual means test.

PART 8.4: BENEFIT LEVEL

742. Given that the eligible population for the entry level BIS is large, to ensure sustainability, the initial benefit value would need to begin low and incrementally improve thereafter.

743. To assess viability and impact the Panel looked at four monthly benefit levels, three of which are specified in relation to income poverty:

743.1. First, the R350 value of the COVID-SRD which has not been specified (by Government) in relation to income poverty;

743.2. Second is the food poverty line or FPL at R595;

743.3. Third the lower bound poverty line or LBPL at R860; and

743.4. Fourth the upper-bound poverty line or UBPL at R1,300.

744. While the social impacts are quite moderate for lower values of the grant, when introduced at the level of R1,300 per month, poverty measured at the FPL and LBPL is almost eliminated. In these scenarios income inequality (as measured by the Gini coefficient) also improves dramatically from 0.65 to 0.55.

745. In contrast, the scenario equivalent to the initial design of the COVID-SRD grant (benefits set at R350 together with a strict zero income means test and a maximum annual expenditure of R56 billion) mostly impacts poverty at the FPL (falling from 21% to 17%) but shows only a small shift at the LBPL (from 34% to 30%) and UBPL (from 49% to 47%). The Gini coefficient shift is also moderate, improving by 0.02 from 0.65 to 0.63.

746. The impact of a grant paid at the value of the FPL is, however, quite significant and offers what the Panel believes to be a viable entry level version of the programme. The

maximum total cost would be R181 billion and reduce income poverty at the FPL from 21.2% to 10.6%. Income poverty measured at the LBPL moves from 33.5% to 21.1% and at the UBPL income poverty moves from 48.9% to 40.2%.

747. *Given these impacts, the Panel is of the view that an entry level version of the BIS should begin with a grant value equivalent to the FPL. Thereafter it should increase in sustainable increments, determined by affordability, until it reaches the UBPL*.

748. *As it is recognised that the cost of the entry level version of the BIS is significant, it is proposed that it be implemented only once the COVID-SRD grant has been stabilised and appropriately institutionalised*.

749. As with eligibility, the Panel regards the present COVID-SRD as fiscally sustainable for continued implementation. *In this respect the Panel regards the continuation of the COVID-SRD as a critically necessary intervention until such time as an entry level version of the BIS can be fully implemented*.

PART 8.5: IMPROVEMENT OVER TIME

750. While The Panel accepts that the wide-spread income poverty prevalent in South African society cannot be eliminated overnight, it nevertheless recognises the urgency of the situation and recommends that a policy framework be implemented that places the value of the BIS at the UBPL as soon as is sustainably possible.

751. *Although the Panel has not proposed a timeline for the realisation of this goal, the following are seen as central elements of such a policy framework, which should be established through a deliberative process of social engagement*:

    751.1. *The objective that is to be realised must be made explicit and underpinned by legislation to make the nature of the right unambiguous*;

    751.2. *A pathway to the realisation of the objective should be established and should be reasonable in both conception and implementation*;

    751.3. *The pathway should clarify the obligations placed on the State to ensure realisation over time*; *and*

751.4. *While the State should retain flexibility to comply with the framework subject to available resources, the justifications for variations from the pathway should involve transparent deliberative processes consistent with an open and democratic society*.

PART 8.6: MEDIUM-TERM FOCUS

752. The Panel is aware of the following facts regarding the COVID-SRD grant and its administration:

752.1. The COVID-SRD grant depends for its existence on the Disaster Management Act No. 57 of 2002 (DMA), as it was implemented as a COVID-19 relief measure.

752.2. The COVID-SRD grant therefore has no institutional basis in the regular legislative framework for social assistance grants.

752.3. It is the understanding of the Panel that the promulgation of new legislation to institutionalise the COVID-SRD grant as the BIS could take time.

752.4. Reliance for the COVID-SRD on the DMA is therefore precarious and creates uncertainty for such an important programme.

752.5. The South African Social Security Agency (SASSA), which administers the COVID-SRD grant, also lacks the administrative systems to manage a means test for such a large group of applicants all at once.

752.5.1. SASSA can manage roughly one million applicants annually using existing systems.

752.5.2. The COVID-SRD grant was extended using a reduced administrative process to expedite enrolments.

752.5.3. This relied on a simple means test (no income) with assessments performed only on declined enrolments when faced with an appeal.

752.6. The inability of SASSA to manage a means test therefore restricts options for the adoption of a scalable approach to phasing.

753. *The Panel therefore recommends the medium-term focus for the implementation of the BIS should include*:

753.1. *The immediate initiation of a process, prior to April 2022, to implement a BIS to take over from the COVID-SRD grant*.

753.2. *An immediate investment in the capability of SASSA and the South African Revenue Services (SARS) to be able to efficiently administer income tests at scale*.

753.3. *Alternatively, consideration can be given to the removal of the means test together with implementation of an adjustment to the tax system to claw back benefits accruing to higher income groups*.

PART 8.7: FINANCING

754. Whereas the Panel considered the social and economic implications of a BIS implemented at scale (from both a coverage and benefit value perspective), the medium-term constraints, both economic and administrative, require that the initial phase involves the continuation of the COVID-SRD grant until such time as the BIS framework can be implemented.

755. In this respect, the following should be noted:

755.1. The COVID-SRD for adults from the ages of 18 to 59 has already been implemented and will be making payments to a significant number of beneficiaries in the 2021/22 financial year.

755.2. The beneficiary numbers could increase to maximum around 18.3 million over the medium-term, with an annualised cost (2021 prices) of R78.8 billion with the present means test approach.

755.3. This is up from the baseline COVID-SRD arrangement (with eligibility restricted to those with zero income) using the original 2020 income test which had an annualised cost in 2021 of R56.2 billion at maximum take-up.

755.4. If the means test is adjusted for marital status (individual test of R595 if no spouse, or double this with a spouse) the eligible population declines to 16.6 million with an annualised cost of R69.4 billion in 2021.[94]

756. The Panel therefore recommends the following medium-term configuration for the BIS:

756.1. *The COVID-SRD should continue at the current value into the 2022/23 financial year and be adjusted annually considering the entry level value of the BIS*.

756.2. *At a minimum a means test should be applied at the annually determined value of the FPL for the medium-term and include in the assessment the income of the spouse*.

756.3. *Without accounting for enrolment delays, this should result in a maximum annual BIS outlay of R69.4 billion per annum*.

756.4. *As coverage stabilises, the value of the grant should be improved together with the means test threshold*.

756.5. Using the microsimulation model available to the Panel, if the entry level BIS grant were to be financed from an adjustment to tax rates, the following are indications of the revenue that could be raised if PIT were used as the sole source:

756.5.1. A 3-percentage point increase on all income bands would raise R69 billion.

756.5.2. A 2-percentage point increase on all income bands would raise R45 billion.

[94] From these results we can conclude that almost 2 million of the 18.3 million potential beneficiaries have a spouse with an income which when pooled with the applicant would take them each above the FPL (R595 per month).

756.5.3. A 2-percentage point increase on bands 1 to 3, and 3 percentage points on bands 4 to 7 would raise R50 billion.

756.6. When combined with moderate VAT increases, the above PIT increases could be substantially lowered.

756.7. These numbers are however presented as indicative maximum value requirements and are not recommendations. This is because expenditure on the grant generates additional tax revenue even without any increase in taxes. These arise from the initial changes in consumer demand (for instance revenue from VAT resulting from any expenditures arising) and through multiplier effects.

756.8. *Over the medium-term, government should therefore consider sequencing expenditure increases and tax increases with a view to leverage short-term stimulus effects and macroeconomic fluctuations, while being careful not to compromise medium- to long-term fiscal sustainability*.

756.9. *It is nevertheless important that government clearly identify any appropriate tax adjustments that may be required to pay for the grant so that the fiscal implications are fully transparent*.

756.10. *It would also make sense to spread any tax burden arising from the BIS across several tax bases as required*.

756.11. *In our view, it would be reasonable to rely on existing and well-established taxes with a demonstrated capacity to raise the necessary revenue in a reliable fashion such as PIT and VAT*.

756.12. *New taxes, for instance a wealth tax, could be considered over time if required as part of Government's financing mix, but be introduced gradually so to minimise adverse behavioural responses and to ensure they can develop as permanent and reliable elements of the tax system*.

756.13. *Aside from explicit tax increases, additional financing options through streamlining tax expenditure subsidies assessed to be of lower social value to the BIS should be considered to increase inter alia the PIT revenue. For*

instance, the tax subsidy framework for private pensions arrangements could be considered for review.

756.14. *Where an increase in taxes is required, consideration should be given to the balance between the revenue raising and redistributive potentials of various taxes*.

756.15. *Progressive taxes on earnings (such as PIT) are, for instance, strongly redistributive. However, large redistributive effects are more effectively achieved on the spending side of the BIS. Given this, it is not always necessary to use a progressive tax to finance a very redistributive programme*.

756.16. *In raising finances to support this redistributive intervention, loading too much pressure on a narrower tax base could invite adverse behavioural responses and so limit revenue raising potential over time*.

756.17. *This strengthens the argument that, where required, financing be spread over several instruments and grant expansion spaced to as far as possible leverage off the benefits of economic growth*.

756.18. *Over time, Government could also consider "soft earmarking" a revenue stream from a surcharge on PIT, VAT or other taxes to the expenditure commitments associated with basic income support and other social protection measures*.

756.19. *This would have the advantage of linking the benefits of expenditure, for instance associated with future increases in grant values or coverage, to the cost and distribution of the additional tax burden*.

756.20. *At the same time, given the certainty of Government's obligation to pay the grants and the uncertainty associated with tax revenue as the economy develops, the Panel does not recommend any direct hypothecation of taxes to finance the grant*.

PART 8.8: COMPLEMENTARY MEASURES

757. As the goal of the BIS is to make progress toward the alleviation and ultimate elimination of income poverty, it should be seen as a foundational measure supporting the social inclusion of the most vulnerable adults in conjunction with a range of complementary measures.

758. In certain instances, however, important complementary measures remain under-developed in South Africa.

759. While it is beyond our scope to make in-depth recommendations in this regard, it remains within scope to identify where such measures would enhance both the social and economic impact of the BIS framework.

760. *The Panel therefore proposes that consideration be given to the progressive implementation of the following complementary measures*:

760.1. *A labour activation strategy should be developed in conjunction with industry with the following features: funded job-skilling and occupational learning initiatives for emergent industries; accessible job placement; and internships*.

760.1.1. *The labour activation opportunities should be automatically available to grant recipients at no cost to them*.

760.1.2. *The support framework should be accessible through a range of platforms, and not just at physical job centres*.

760.1.3. *Employment in the labour activation system should draw from but not be limited to BIS grant recipients and include on-the-job training for key skills*.

760.2. For the purposes of strong accountability to the public, programme efficiency and the elimination of unfair exclusions, it is necessary to establish a credible, independent, transparent and effective complaints procedure or grievance mechanism, where people who feel they have been unfairly excluded from the BIS (and any other social grant) can lodge their complaints and have them heard and actioned expeditiously through a competent process.

760.3. *Both the sectoral and macroeconomic effects of the BIS framework should also be evaluated on an ongoing basis and feed into deliberations on adjustments to the various parameters*.

760.4. *In addition, independent investigative structures are required to address accusations of fraud by beneficiaries and corruption by officials*.

PART 8.9: MONITORING AND EVALUATION

761. With the incremental expansion of the BIS, it would be important to implement an appropriate regime of surveillance and evaluation from the outset to improve opportunities for evidence-based adjustments to the policy framework.

762. Together with existing social grants and inter alia the Unemployment Insurance Fund or UIF, rich new sets of data can be generated which could augment existing labour market and household surveys.

763. *It is therefore recommended that appropriate systems for compiling new datasets be implemented, together with formal approaches to monitor and evaluate programme impacts, all of which should be publicly available and which should include*:

763.1. *A system of routine monitoring and reporting, especially during the inception phase, to ensure that the BIS is delivered in full, on time and with dignity to all eligible beneficiaries*;

763.2. *A single registry that compiles and maintains relevant information on all beneficiaries*;

763.3. *Regular impact evaluations to assess progress towards adequate levels of benefits*; *and*

763.4. *A complaints database that monitors all lodged complaints and how they were resolved, to minimise exclusion errors and ensure no-one is left behind*.

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ANNEXURE A: PROFILE OF INCOME SOURCES ACROSS THE DISTRIBUTION OF INCOME, AND SIMULATED TAXES AND BENEFITS IN SAMOD

Here further details are provided about the income data in SAMOD's input dataset, which was derived from NIDS Wave 5, as well as the simulated taxes and benefits.

Market Income

Table A1 shows the number of individuals in receipt of each type of income that is included in SAMOD's input dataset. For example, almost 13 million individuals are in receipt of income from employment, and 2.3 million are in receipt of income from self-employment. **Table A2** shows the total income received by income type, the largest being income from employment at R1.7 billion.

Table A1: Numbers of recipients by market income category[95]

SAMOD variable name	Type of income	Number of recipients
Yem	Employment	12,923,392
Yse	Self-employment	2,292,483
Ypr	Property	860,440
Ypp	Private pension	964,390
Yiyit	Interest	167,206
Ypt	Private transfers	4,661,888
Ycm	Workman's compensation	52,468
Ysv	Severance	48,573
yivls	Lump sums	37,650
yot	Other	168,789
ynt	Non-taxable	219,938

[95] Individuals can occur in more than one row.

Source: Analysis of input data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

Table A2: Aggregate annual income by market income category

SAMOD variable name	Type of income	Amount (Billion Rand per annum)
yem	Employment	1,660.0
yse	Self-employment	289.6
ypr	Property	48.8
ypp	Private pension	165.9
yiyit	Interest	16.7
ypt	Private transfers	113.0
ycm	Workman's compensation	2.8
ysv	Severance	18.1
yivls	Lump sums	10.2
yot	Other	10.1
ynt	Non-taxable	18.3

Source: Analysis of input data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index.

Tax-benefit Information

Table A3 shows the number of individuals in receipt of each type of benefit as simulated in SAMOD, as well as the simulated number of individuals paying personal income tax.

For example, using SAMOD it is estimated that 15.2 million children are eligible for CSG, which is 117% of the actual number of children in receipt of CSG.

The disability grant (DG) number is particularly important as recipients of the DG are excluded from the modelled options in this report.

Using SAMOD it is estimated that almost 1.4 million people are eligible for the DG whereas in March 2021 only 998,000 received the grant which is more than 400,000 fewer individuals than the simulated estimate.

The implication of this is that if all eligible people do receive the DG (i.e., there is full take-up and the SAMOD estimate is an over-estimate) then a further 400,000 individuals would be eligible for the non-means-tested BIS benefits presented in the main report.

However, given the likelihood that there is less than full take-up of the grant, and that the accuracy of the SAMOD simulation of the DG depends on how well disability is captured in NIDS, a decision was made to retain the emphasis on the policy design, and full take-up of the disability grant by those who are eligible should be promoted.

Table A3: Simulated number of tax contributors or grant recipients[96]

Grant or tax	Number of grant recipients, and payers of personal income tax (A)	External validation (B)	Percentage simulated (A/B) %
Child support grant	15,176,001	12,992,589	116.8
Care dependency grant	102,120	150,151	68.0
Foster child grant	494,342	309,453	159.7
Disability grant	1,397,981	997,752	140.1
Older persons grant	4,996,774	3,722,675	134.2
Personal income tax	5,593,614	6,960,267	80.4

Source: Column A: Analysis of output data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index. Column B: (South African Social Security Agency, 2021, p. Table 2) (beneficiaries as at end March 2021); (National Treasury, 2021, Table 4.5 (2021/22 estimate).

[96] The SAMOD simulations assume full take-up of benefits by eligible individuals.

Table A4 shows simulated annual expenditure on grants, and revenue from personal income tax, compared with external published figures.

Table A4: Simulated tax-benefit instruments: Aggregate rand amounts97

Grant or tax	Amount (Billion Rands per annum) (A)	External validation (Billion Rands per annum) (B)	Percentage captured (A/B) %
Child support grant	83.8	84.9	98.7
Care dependency grant	2.3	3.6	64.9
Foster child grant	6.2	5.0	123.4
Disability grant	30.9	24.4	126.8
Older persons grant	105.1	83.1	126.5
Personal income tax	330.3	482.1	68.5

Source: Column A: Analysis of output data for SAMOD using NIDS wave 5 reweighted to reflect labour market changes using 4th quarter 2020 QLFS and demographic changes using 2020 mid-year population estimates, and monetary variables uprated to February 2021 using the Consumer Price Index. Column B: NT (2021) Tables 4.1 and 5.8 (2020/21 revised estimates)

[97] The simulations assume full take-up by eligible individuals.

ANNEXURE B: SELECTED THRESHOLDS OF PER CAPITA MONTHLY INCOME

Table B1: Thresholds of per capita monthly income

Benchmark	Source	Amount (ZAR)	Date
COVID-SRD Grant (terminated)	1	350	Apr-21
Child Support Grant	1	460	Apr-21
Food poverty line (Statistics South Africa)	2	595	Feb-21
Average cost of basic nutritious diet for a child	3	752	Apr-21
Lower bound poverty line (Statistics South Africa)	2	860	Feb-21
Foster child grant	1	1,050	Apr-21
Upper bound poverty line (Statistics South Africa)	2	1,300	Feb-21
DSL 16 SPNs (see notes)	4	1,565	Apr-20
Disability grant	1	1,890	Apr-21
Older persons grant	1	1,890	Apr-21
Care dependency Grant	1	1,890	Apr-21
DSL 18 SPNs (see notes)	4	2,723	Apr-20
National Minimum Wage (see notes)	5	4,229	Apr-21
CSG single means test	6	4,600	Apr-21
DSL 21 SPN (see notes)	4	7,541	Apr-20
Personal Income Tax threshold	7	7,275	Mar-21
Average monthly earnings (see notes)	8	23,122	Feb-21

Sources: (1) SASSA (2021); (2) Statistics South Africa (2019) page 3. Uprated to February 2021 using the Consumer Price Index (Statistics South Africa, 2021a); (3) PMBEJD (2021); (4) SASPRI (2019); (5) Correspondence with Department of Labour; (6) Correspondence with Department of Social Development; (7) South African Revenue Service (2021); (8) Statistics South Africa (2021b) page 8.[98]

[98] This table is an updated version of the table in Frye et al (2018).

Definitions/abbreviations:

DSL: Decent Standard of Living, a per capita household income associated with possession of 16, 18, or all 21 of the 21 Socially Perceived Necessities (SPNs) that were defined as essential for a decent standard of living by two-thirds or more of respondents to a social survey (for more details see Frye et al., 2018).

National Minimum Wage: calculated at R21.69 per hour for 45 hours per week for 4.3 weeks per month which is the duration that 'an employee is deemed ordinarily to work' according the Basic Conditions of Employment Act 75 of 1997 (s35).

Average monthly earnings: paid to employees in the formal non-agricultural sector, including bonuses and overtime payments.

ANNEXURE C: LABOUR IMPACTS OF CASH TRANSFERS

Table C1: Summary of Adult Labour Impacts of Different Types of Cash Transfers

Transfer type	*Typical Impact on Labour Outcomes*
Government Cash Transfers: CCTs	No effect on total work or leisure; Small effects on self-employment and entrepreneurship in the short run; mixed evidence on adult labour outcomes for young adults who were children in beneficiary households.
Government Cash Transfers: UCTs	Cash transfers to working age adults have resulted in a change in the type of work, with more self-employment and own agriculture. Pensions decrease amount worked by the elderly and have mixed results on other adults living with them, with some doing more migration and self-employment, and others enjoying more leisure.
Charitable giving and humanitarian transfers	No short-term effect on total work or work income when given in non-disaster/non-refugee situation, reduced work slightly among refugees. Few studies consider labour outcomes or look long-term.
Remittance Transfers	Limited impact on labour of adults in receiving household; some evidence of a positive impact on self-employment in some cases, but more common is no impact.
Cash Transfers for Search Assistance and Finding Work	Increases job search, resulting in a temporary reduction in work, but then in a higher chance of being employed in higher paying work. Impacts strongest when subsidy is for finding work in a different labour market, including fostering internal migration.
Cash Transfers for Business Start-up and Growth	Small grants have typically increased business start-up and survival, and increased business earnings. Impacts on work, and total labour income tend to be smaller, but still positive. Larger grants targeted at higher-growth entrepreneurs also have created jobs for others.
Combination Transfers of Cash, Training and Assets	Ultra-poor programs changed type of work towards more livestock-rearing, increased total work hours and work income. Unclear how much of this is due to cash versus

	other program components. General equilibrium effect increases wages for other occupations in the village.

(Baird et al., 2018, p. 28).

ANNEXURE D: INCOME TAX SIMULATIONS USING SAMOD

Raising the finances via PIT

SAMOD under-simulates personal income tax (PIT) when compared with external validation figures of reported PIT revenue.

To address this here we therefore adjusted SAMOD's PIT using three different versions of multiplier, to reflect the fact that SAMOD under-simulates PIT, due to a lack of high-income individuals in NIDS which is the underpinning dataset for SAMOD.[99] The three different multipliers were as follows:

- Adjust simulations of PIT by a 1.28 multiplier. This reflects the total under-simulation of PIT by SAMOD in the 2018 tax year (Steyn et al., 2021).
- Adjust simulations PIT by a different multiplier per band.[100] This reflects the band-specific under (or over) simulation of PIT by SAMOD in the 2018 tax year (Steyn et al., 2021).

[99] The analysis could not be undertaken using PITMOD as this relates to the 2018 tax year, however we were able to take the findings from that study into account.

[100]

1.2	if	taxable	income>=1	&	taxable	income<=216200
1.2	if	taxable	income>=216201	&	taxable	income<=337800
1.3	if	taxable	income>=337801	&	taxable	income<=467500
1.3	if	taxable	income>=467501	&	taxable	income<=613600
0.9	if	taxable	income>=613601	&	taxable	income<=782200
1.2	if	taxable	income>=782201	&	taxable	income<=1656600
1.8	if	taxable	income>=1656601	&	taxable	income <=.

- Adjust simulations of PIT by a 1.46 multiplier. This reflects the total under-simulation of PIT by SAMOD, comparing the 2020 simulations and the most up-to-date external validation data in the BIS EP Report.

The revenue needed is not affected by the multipliers – it is fixed at R76.8 billion (assuming full take-up by the 18.3 million individuals that are estimated to be eligible).

Table D1 shows the amount of PIT that is simulated by SAMOD for 2020 and following the adjustment using the three multipliers.

Table D1: Options for adjusting PIT simulations in SAMOD to reflect PIT revenue

Options	Simulated PIT R'billion
SAMOD - PIT unadjusted	330
A. SAMOD - PIT adjusted by a 1.28 multiplier to reflect under-simulation in Steyn et al (2021)	423
B. SAMOD - PIT adjusted by band to reflect band-specific under- or over-simulation in Steyn et al (2021)	420
C. SAMOD - PIT adjusted by a 1.46 multiplier (see BIS EP report)	482

Taking the information in **Table D1** into account, several different financing scenarios were explored by adjusting the PIT tax rates and the three multiplier options – see **Table D2**. The objective was to recoup the R76.8 billion required to fully finance full take-up of a R350 BIS – see **Table D2**.

Clearly, the adjustment assumption makes a large difference, but the last four scenarios (F4-F7) result in (approximately) revenue neutral options whereby the cost of the R350 is covered by the additional PIT raised.

Behavioural responses to any PIT changes are not considered in the estimates.

Table D2: Additional PIT revenue obtained, using three assumptions to adjust simulated PIT in SAMOD

Financing Scenario	Description	A Simulated PIT adjusted by 1.28 R Billion	B Simulated PIT adjusted by band R Billion	C Simulated PIT adjusted by 1.46 R Billion
F1	2% points on bands 4-7	9	/	/
F2	2% points on all bands	45	/	/
F3	2% points on bands 1-3, 3 % points on bands 4-7	50	/	/
F4	3% points on all bands	69	67	79
F5	3% points on bands 1-3, 4 % points on bands 4-7	74	72	84
F6	3% points on bands 1-3, 5 % points on bands 4-7	78	76	90
F7	2% points on bands 1 and 2.4 % points on bands 3 and 4.5 % points on bands 5-7	62	61	71

Table D3 below summarises the various options that have been simulated here in Section 4.4, showing the number of eligible beneficiaries, the costs of the grant, and the income inequality and poverty results. Importantly, in **Table D3**, the results have not been adjusted to reflect the under-simulation of PIT in SAMOD.

As can be seen, using the FPL and the LBPL, the financed options for the R350 grant for 18.3 million people yield the same poverty results as the unfinanced versions, and almost identical results using the UBPL. However, the Gini coefficient falls for the financed options, as would be expected.

Table D3: Summary of means-tested BIS scenarios modelled in SAMOD - number of eligible BIS beneficiaries, annual cost, and impact on income inequality and on poverty using three poverty lines, 2021

System name	System description	BIS amount (R per month)	BIS means-test (R per month)	Number of eligible beneficiaries (million)	Annual cost (R' billion)	Income inequality Gini Coefficient	National Poverty Rate (FPL)	National Poverty Rate (LBPL)	National Poverty Rate (UBPL)
Counterfactual									
Baseline (no BIS)	All tax and benefit policies (no COVID-SRD and no BIS)	n/a	n/a	0	0	0.648	21.20	33.50	48.90
Means-tested options (not financed)									
BIS350_MT595	All tax and benefit policies plus BIS paid at 350 to people with income of R595 or less, and no employment income	350	595	18.3	76.8	0.624	15.03	28.48	45.44
BIS350_MT595_couple1	All tax and benefit policies plus BIS paid at 350 to people with income of R595 or less (including their spouse's income if they have one), and no employment income	350	595 (if no spouse); or 595 (if has a spouse, pooling both incomes)	16.4	69.0	0.624	15.26	28.62	45.73

System name	System description	BIS amount (R per month)	BIS means-test (R per month)	Number of eligible beneficiaries (million)	Annual cost (R' billion)	Income inequality Gini Coefficient	National Poverty Rate (FPL)	National Poverty Rate (LBPL)	National Poverty Rate (UBPL)
BIS350_MT595_couple2	All tax and benefit policies plus BIS paid at 350 to people with income of R595 or less (or R1190 or less if they have a spouse, pooling both incomes), and no employment income	350	595 (if no spouse); Or 1,190 (if has a spouse, pooling both incomes)	16.5	69.4	0.624	15.09	28.62	45.72
Means-tested options (financed)									
BIS350_MT595_fin4	All tax and benefit policies plus BIS paid at 350 to people with no employment income and other income of R595 or less, fully financed through changes to PIT (3 % points on all bands)	350	595	18.3	76.8	0.618	15.03	28.48	45.47
BIS350_MT595_fin5	All tax and benefit policies plus BIS paid at 350 to people with no employment income and other income of R595 or less, fully financed through changes to PIT (3 % points on bands 1-3, 4 % points on bands 4-7)	350	595	18.3	76.8	0.617	15.03	28.48	45.47
BIS350_MT595_fin6	All tax and benefit policies plus BIS paid at 350 to	350	595	18.3	76.8	0.617	15.03	28.48	45.47

System name	System description	BIS amount (R per month)	BIS means-test (R per month)	Number of eligible beneficiaries (million)	Annual cost (R' billion)	Income inequality Gini Coefficient	National Poverty Rate (FPL)	National Poverty Rate (LBPL)	National Poverty Rate (UBPL)
	people with no employment income and other income of R595 or less, fully financed through changes to PIT (3 % points on bands 1-3, 5 % points on bands 4-7)								
BIS350_MT595_fin7	All tax and benefit policies plus BIS paid at 350 to people with no employment income and other income of R595 or less, fully financed through changes to PIT (2 % points on bands 1 and 2, 4 % points on bands 3 and 4, 5 % points on bands 5-7)	350	595	18.3	76.8	0.618	15.03	28.48	45.45

Source: SAMOD V7.3-BIGEP.

Notes: FPL: Food poverty line (R561 in April 2019 Rands); LBPL: Lower-bound poverty line (R810 in April 2019 Rands); UBPL: Upper-bound poverty line (R1,227 in April 2019 Rands) (Statistics South Africa, 2019: 3). The poverty lines were inflated from April 2019 Rands to February 2021 Rands using the Consumer Price Index (Statistics South Africa 2021b). BIS: Basic Income Support; CSG: Child Support Grant; MT: Means-test; PIT: Personal Income Tax. The results in this table assume full take-up.

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