SPECIAL ISSUE ARTICLE

The macroeconomics of establishing a basic income grant in South Africa

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Abstract

This paper quantifies the effect of fiscal transfers on the trade-off between social relief and debt accumulation and discusses the economic growth and fiscal implications of different combinations of expanded social support and funding choices. Given South Africa's already high level of public debt, the opportunity to fund a basic income grant through higher debt is limited. Using a general equilibrium model, the paper shows that extending the social relief of distress grant could be fiscally feasible provided taxes rise to fund such a programme. Implementing such a policy would, however, have a contractionary impact on the economy. A larger basic income grant (even at the level of the food poverty line) would threaten fiscal sustainability as it would require large tax increases that would crowd-out consumption and investment. The model results show that sustainably expanding social transfers requires structurally higher growth, which necessitates growth-enhancing reforms that crowd-in the private sector through, for example, relieving the energy constraint, increasing government infrastructure investment and expanding employment programmes.

KEYWORDS
basic income grant, DSGE, fiscal sustainability, redistribution

JEL CLASSIFICATION
D58, E62, H63

1 | INTRODUCTION

South Africa's broad unemployment rate (i.e. including those that are too discouraged to seek work) is currently 44%. Approximately 29 million South Africans, or 48% of the population, receive a grant of some form.[1] Given the extent of South Africa's unemployment and poverty, there has been an active

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[1]This number includes the social relief of distress (SRD) grant.

debate about extending the safety net further, with a type of basic income grant (BIG) as the centrepiece of a near-universal income support system. Existing analyses on the implications of extending income support measures in South Africa, including a BIG, have focused on cost estimates, static revenue raising calculations or distributional effects. While these provide important contributions, there has not yet been any public macroeconomic modelling of the dynamic and long-term macroeconomic implications of different basic income support options.[2]

Our paper attempts to fill this gap. It estimates the macroeconomic adjustment required to accommodate an expansion of social assistance in South Africa using a dynamic stochastic general equilibrium (DSGE) model developed for the National Treasury of South Africa. The model includes both high- and low-income households, allowing an assessment of the overall economic impact of transfers between these two types of households. The DSGE approach comes with a few caveats, but it provides a useful approach to think through the macroeconomic impact. We focus our attention on the macroeconomic implications of different funding options, including raising taxes, increasing debt or cutting government spending programmes. The model structure allows for a comparison of the macro-fiscal trade-offs of different social relief interventions. In doing so, the paper sheds light on the policy strategy that best balances social relief with fiscal sustainability.

The model shows that the 'first best' solution to reduce poverty, inequality and unemployment is to undertake economic reforms that enhance economic growth and employment.[3] But, with growth and employment enhancing economic reforms slow to be implemented, there are increasing pressures to expand the redistributive fiscal system further. This paper therefore assesses a set of potential 'second best' policy options—a set of sustainable policies that would ensure that those in need can survive.

Our overall findings are as follows:

Converting the social relief of distress (SRD) grant into a permanent BIG is the least costly option by all measures. That said, the impact of the increase in debt and taxes will slow economic growth. Our model estimates that, after 5 years, the economy will create 0.4% fewer jobs, which is approximately 69,000 jobs based on the current level of employment.

A larger BIG, benchmarked at the food poverty line (R624 in 2020 prices), will lead to a rise in debt of around 8% in gross domestic product (GDP) and will require value added tax (VAT) and personal tax increases. We estimate that the economy will create 1.3% (or 198,000) fewer jobs.

The largest BIG, which we estimate as a grant of R840 reaching 33 million people and costing R333 billion (in 2020 prices), will, after 5 years, require debt to rise by over 40% of GDP, value-added (effective) tax rate to rise 2.6 percentage points (pp) and more than a doubling of the personal income (effective) tax rate (28.5 pp). This is estimated to lower employment by 6% (or 914,000 fewer jobs).

In short, introducing a BIG brings trade-offs. In the current fiscal environment, raising taxes and debt will lead to reduced economic growth and higher interest rates—ultimately harming job creation. Expanding the social safety net may therefore have the unintended consequence of creating more people without work, deepening structural poverty and inequality.

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[2]For a discussion of the literature related to this paper see Hollander et al. (2022). One of the few existing macroeconomic modelling exercises is van Seventer et al. (2021). They undertake a CGE analysis of the impact of a set of policy options, including a grant, during the COVID-19 shock. We discuss important limitations of their study for making policy inferences and assessing the long-run economic impact of an increase in the grants system. The Expert Panel on Basic Income Support (2021) also presents CGE-based estimates. Their scenarios generally have unemployment increasing from negative GDP growth impacts of the programme. One of the most careful studies on the distributional impacts of the BIG, under the auspices of the Southern Africa Labour and Development Research Unit (Goldman et al., 2021), notes that "further research on the wider macroeconomic impacts of both the grant expenditures, and the financing mechanisms used to fund them is important to better understand the implications of each of the grant options."

[3]For a review of why South Africa's growth performance is so slow, see Hausmann et al. (2022). For the fiscal implications of stagnant growth see an earlier, related study on the optimal fiscal strategy for South Africa by Havemann and Hollander (2022). Hollander et al. (2022) summarise these stylized facts on socioeconomic developments and the fiscal framework.

TABLE 1 The South African grant system.

Grant	Recipients	% population	Cost (R bn)	% spending	% GDP
Child support	13.2	22.1%	73.32	3.5%	1.1%
Old age	3.7	6.3%	86.49	4.2%	1.3%
Disability	1.0	1.7%	23.58	1.1%	0.4%
Foster care	0.3	0.5%	4.34	0.2%	0.1%
Care dependency	0.2	0.3%	3.66	0.2%	0.1%
SRD-350	10.5	17.6%	31.56	1.5%	0.5%
Total	28.9	48.4%	222.94	10.7%	3.5%

Abbreviation: GDP, gross domestic product; SRD, social relief of distress.
Source: National Treasury (2021, 2022), StatsSA population data (https://www.statssa.gov.za/) and authors' calculations.

2 | APPROACH

2.1 | What we model: income support measures under alternative fiscal scenarios

A BIG was mooted as early as 1997. The initial proposal was a R100 BIG, equivalent to approximately R275 in 2022-rand terms.[4] Although the BIG was not implemented, in the intervening years, the social security system has been expanded significantly. With the introduction of the SRD-150, the number of social grant beneficiaries has risen to nearly half the total population. The debate in 2002 was about introducing a BIG into a relatively underdeveloped social security system. Twenty years later, the debate is about introducing a BIG on top of a relatively comprehensive grant system that accounts for 10.7% of all government spending and costs 3.5% of GDP (see Table 1).

The paper compares several scenarios benchmarked to current public proposals. For the purposes of this analysis, it is assumed in the baseline that the income support is extended permanently over a horizon of 5 years, after which allowance is made for model dynamics to stabilise to their steady states. This approach is adopted to capture how a permanent increase in transfers, under alternative funding and economic scenarios, impact the economy over an extended horizon and to understand how the economy responds if this permanent increase ends. Extending the BIG beyond 5 years simply extends (unboundedly) the projected path observed over the period 2022Q1 to 2027Q1. The core scenarios discussed in more detail are those that relate to expanding social transfers at the food poverty line, for the 'best-case' tax funding options, which ultimately illustrates the necessity of private sector growth for long-run macro-fiscal sustainability.

The macro-fiscal implications of each of three fiscal strategies, together with three funding strategies (that is, tax financing, debt financing and/or cutting expenditure), are considered. Since a policy of significant expenditure reduction to make room for the BIG is not expected at this time, it is assumed that government consumption and investment expenditure follow their historical reactions to changes in output and debt—so-called automatic stabilisers. Unless otherwise stated, allowance is only made for tax buoyancy effects for all scenarios (i.e. how effective tax rates have historically responded to the business cycle, as opposed to both output and debt dynamics). Both assumptions are important for fiscal projections to better capture the actual behaviour of macroeconomic and fiscal variables in response to shocks. Ignoring this would unrealistically treat fiscal policy (and therefore the government's balance sheet) as an independent feature of the economy.

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[4]See, for example, the discussion in the 2002 Committee of Inquiry into a Comprehensive Social Security System for South Africa (Taylor, 2002, the 'Taylor Committee').

TABLE 2 Scenarios considered in this paper (sizes are per annum).

	Size of intervention	VAT	PIT	CIT	Debt
Scenario 1 Expand social transfers *with baseline values*	R44 bn to R332 bn (SRD to Universal)	✓	✓	✓	✓
Scenario 2 Expand social transfers *with tax financing*	∼ R74 bn (FPL)	✓	✓	✗	✗
Scenario 3 Expand social transfers *with tax & iG* *with tax, iG & efficiency gains*	∼ R74 bn + R60 bn ∼ R74 bn + R15 bn	✓ ✓	✗ ✗	✓ ✓	✗ ✗
Alternatives not considered Employment tax incentive	✗				
Work-linked intervention	✗				

Note: Baseline denotes estimated model where all fiscal instruments adjust based on historical sample at different levels of income support. Tax financing denotes tax instrument optimised to stabilise the trade-off between debt and output. Tables in the paper provide more details on each scenario and their outcomes.

Abbreviations: CIT, corporate income tax; FPL, food poverty line; iG, public investment stimulus; iG & efficiency gains, public investment stimulus with efficiency gains for private investment; PIT, personal income tax; SRD, social relief of distress; VAT, value added tax.

Source: Authors' calculations.

We look at three scenarios, summarised in Table 2:

- Scenario 1 allows for tax- and debt-financing according to the estimated structural parameters based on historical data. Essentially, we assume that the National Treasury will fund a BIG in a similar way to how it has funded spending in the past.
- Scenario 2 compares tax-funding approaches only. Here, the tax funding instrument mix is optimised to minimise the costs of higher debt and the losses of lower output such that the debt-to-GDP ratio is stabilised over time. The results suggest that VAT or a combination of VAT and personal income tax (PIT) produce by far the most favourable outcomes. Corporate income tax (CIT) funding is therefore excluded from this scenario.[5]
- Scenario 3 introduces a government investment stimulus alongside a tax-funding combination of VAT and CIT. Here, VAT follows its optimised path to limit economic and fiscal losses and CIT adjusts along a path determined by its historical reactions to output and debt. Allowance is made for CIT to adjust to the extent that the government investment stimulus promotes crowding-in of private sector investment, which would lead to improved CIT revenue collect as the economy grows.

Although a first-best ('optimal') fiscal strategy can be inferred from the results of the scenarios considered in this paper, no explicit comparison on optimality in terms of household welfare is performed. An extension of this work to assess the impacts of alternative strategies on household welfare and the optimal policy for fiscal sustainability and social relief would be valuable. In Section 3, the focus is on the discussion on the most favourable outcomes for fiscal sustainability and growth.[6]

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[5]The paper does, however, evaluate the efficacy of all tax funding options possible in the model. A summary of the results for any alternative scenarios can be reproduced upon request.

[6]As mentioned in the previous section, the framework requires estimating or calibrating the share of each type of household in the model, which may not be a sufficient statistic for welfare analysis on the full income distribution. For example, since 'poor' households make up a small share of total consumption, the likely outcome of a welfare analysis of fiscal transfers would, on net, minimise crowding-out of 'rich' households' lifetime consumption. A more comprehensive study of the welfare effects of fiscal transfers requires a more detailed and focused analysis, which is a natural extension of the investigative policy research conducted here.

Finally, an important aspect of the modelling exercise is whether the economic stimulus from higher transfers is counterbalanced by higher taxes, crowding-out effects, interest rates and debt servicing costs. A sustainable expansion of fiscal transfers depends most notably on the following: (1) how binding the fiscal constraint is; (2) whether the consumption multiplier of grant recipients is higher than tax multipliers for taxpayers facing a higher tax burden, which affects the degree of crowding-out of private expenditure and public non-transfer expenditure; (3) what the net impact on labour supply will be from redistribution between groups in the economy; (4) the scope of the BIG (its level but also whether it is universal or targeted); and (5) the financing approach (funded through tax revenue, expenditure reprioritisation, debt accumulation or economic growth). These aspects are explored in the results.

2.2 | An overview of the NT-DSGE model

No model is a perfect representation of the macroeconomy. As tools of analysis, DSGE models have advantages and disadvantages that must guide inference for the real world. But, as an internally consistent system, these models incorporate several key channels and feedback effects for policy to influence and be influenced by macroeconomic dynamics (through, for example, its impact on interest rates and incentives for firms and individuals to consume, invest and supply labour). Notably, DSGE models take into account the expected behavioural responses of households and firms to changes in economic conditions (for example, income, interest rates or effective tax rates). These features make DSGE models particularly well-suited to analyse counterfactual policy scenarios, and it therefore complements alternative BIG projections to date that are based on static, deterministic and/or time inconsistent estimates.[7]

A medium-scale DSGE model is estimated with Bayesian methods on historical South African macroeconomic and fiscal data and used to make quarterly projections based on alternative fiscal policy scenarios. This model is being developed for the National Treasury ('NT-DSGE' hereafter) for fiscal policy analysis (see Havemann & Hollander, 2022; Hollander, 2021; Kemp & Hollander, 2020). The NT-DSGE model incorporates several distinguishing features in the context of assessing the impact of a BIG:

1. The model is dynamic (it is multi-period), stochastic (it includes uncertainty) and general equilibrium (it captures the interaction of supply and demand in key markets).
2. The model distinguishes between two types of households (poor and rich) allowing for an analysis of both macroeconomic and redistributive policies, as well as net consumption and labour supply effects.
3. Firm and household behaviour is guided by forward-looking expectations.
4. The model identifies the relative impacts of different tax policy mixes (VAT, PIT and CIT) and adjustments to the composition of public expenditure (consumption, investment and transfers).
5. The simultaneous reactions of fiscal and monetary policy to economic outcomes.
6. The model includes channels through which the domestic economy is affected by foreign trade and capital markets.

Two features of the model structure are important for the analysis. The first feature (#2 above) is the distinction between rich and poor households, so-called 'Ricardian' and 'non-Ricardian' (hereafter 'poor') consumers,[8] which creates the ability to assess the impact of redistributive policies. We leverage this feature of the model to show that a universal BIG produces less favourable macro-fiscal outcomes than a commensurate targeted BIG.

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[7]See Havemann and Hollander (2022) for a discussion of time inconsistency in South African fiscal policy.

[8]Ricardian households are forward-looking and have access to financial instruments that allow for smoothing consumption over time. The presence of these types of households attenuates the impact of policy because they anticipate the effect of policy actions in their consumption decisions (for example, debt financed government spending implies future taxes which can leave lifetime income unaffected from the Ricardian household's perspective). In contrast, poor households do not optimise over time and therefore consume all income, including transfers, each period. Consumption is therefore more volatile for poorer households because they have limited access to finance to smooth consumption over time. As a result, these households consume all of their income from wages and government transfers. The key adjustment to the model for this paper is to allow for 'targeted transfers' to poor households.

The second feature (#4 above) is that fiscal policy actions are identified within the whole scope of the economic system. In the short to medium run, the different tax revenues and expenditures can fluctuate independently of each other, which means that the government can run a balanced budget, a surplus, or a deficit. In the long run (that is, as any number of observed shocks to the economy dissipate), the government adjusts expenditure, tax rates and transfer payments to stabilise the ratio of debt to GDP and therefore maintain long-run fiscal sustainability. Specifically, 'automatic stabilisers' to output and debt allow for spending and tax receipts to adjust to the business cycle and government debt. The effects of automatic stabilisers are estimated through changes in all six fiscal instruments to the deviations of output and debt from their respective steady-state trends. Using historical data, the model provides estimates for the coefficients that determine the degree of influence of automatic output and debt stabilisers for each fiscal instrument, as well as identifying the size of independent policy innovations to these instruments. Section 3 focuses on this aspect of the results in more detail. The appendix accompanying the longer working paper version of this article provides more technical details about the fiscal block and the six fiscal instruments (see Hollander et al., 2022). Lastly, the framework assumes that monetary policy and fiscal policy respond contemporaneously to achieve their policy objectives (e.g. debt sustainability and stable inflation). The implication of this feature of the model is that policy authorities will respond to counteract macroeconomic destabilisation associated with unsustainable trajectories. That said, no time horizon is specified over which policy objectives must be achieved.

It is worth noting a few limitations of the approach in this paper. Modelling the macroeconomic effects of social policies and their fiscal ramifications is inherently complex, particularly for dramatic policy changes that have not been implemented previously. A lack of empirical evidence on these dynamics in South Africa means that the estimated effects and the adjustment of the economy back to its steady state is illustrative. Unprecedented policy changes (particularly if they create a non-linear debt profile) and unprecedented economic circumstances (particularly in the context of political and social instability) are very difficult to model accurately. That said, by presenting results from a general equilibrium model estimated with a wide range of macroeconomic data, this paper is unique in the literature on the impacts of different fiscal strategies to accommodate a BIG.

2.3 | Applying the model: calibration and estimation

To simulate fiscal projections beyond 2022Q1, the key structural parameters in the model for the South African economy are estimated following Kemp and Hollander (2020). The model is estimated using Bayesian methods with 20 observable variables and 21 shocks.[9] The sample period to estimate the structural parameters of the model is 1994Q1–2019Q4. The model is then re-run up to the end of 2021 to generate counterfactual projections to compare alternative fiscal scenarios—that is, forecasts conditional on a set growth path for government transfers. The baseline projection is a permanent once-off increase in the growth rate of real transfers. It is permanent in the sense that, after the once-off growth rate shock, households and firms anticipate the path of the fiscal intervention and respond according to their estimated behavioural responses. Notably, this projection is maintained for 5 years, after which the economy is allowed to stabilise at a new steady state level.

3 | RESULTS

On one hand, a BIG would decrease economic growth through three main channels: an increase in borrowing costs, an increase in taxes and crowding-out of private and public non-transfer spending. On the

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[9]The domestic variables are output, private consumption, private investment, employment, consumer inflation, real wages, short-term interest rate, import inflation, export inflation, government debt-to-GDP and the inflation target. The foreign variables are output, inflation and the short-term interest rate. The six fiscal policy variables are estimated by six fiscal reaction functions that respond to output and debt.

other hand, it would have a positive impact on economic growth through one main channel: an increase in consumption by poor households. Given South Africa's high level of debt and constrained fiscal space, the results suggest that the negative economic effects of an expansion in social grants (at any level) would outweigh the positive effects. Table 3 provides a summary of our key results, and Figures 1 to 3 compare the dynamic effects of alternative funding and policy scenarios at the food poverty line for macroeconomic and fiscal variables.

The results of Scenario 1 show that converting the SRD-350 into a permanent BIG is estimated to require an increase in public debt of about 3 percentage points of GDP after 5 years and require a marginal increase in effective indirect taxes (mainly the VAT), an increase in the effective PIT of about 2 percentage points and an increase in the effective CIT rate of about 0.25 percentage points. Although the consumption of poor households would rise, the model predicts there would be some job losses owing to the contractionary impact on investment and growth from higher debt and higher taxes.

Introducing a grant at the food poverty line (R585 per person in 2020 prices for an eligible population of 10.5 million at a cost of R74 billion) would lead to higher debt, VAT and PIT increases, with debt rising by 8 percentage points of GDP, VAT by about half a percentage point and personal income by about 5.3 percentage points. The model predicts job-losses amounting to about 200,000. These come about because of the fiscal impact of a permanent increase in spending (higher taxes and higher interest rates).

The contractionary effects operate through (1) higher debt, which leads to relatively higher borrowing costs and lower long-term economic growth, (2) direct crowding-out of government expenditure in an attempt to maintain fiscal sustainability and (3) crowding-out of private sector expenditure through higher taxes. These effects dominate any expansionary effects from higher transfers. Simply put, a large fiscal transfer that has limited direct impact on aggregate demand or employment will result in a large contraction akin to a negative demand shock.

TABLE 3 Impact of income support after 5 years for alternative scenarios.

| | Grant | | Cost | | Fiscal variables | | | Social variables | | |
| | rand | no. | (Rbn) | Debt-to-GDP | VAT (% pt) | PIT | CIT | Poor cons. | Jobs | |
	(pppm)	(m)	(Rbn)	(%pt)	pt)	(%pt)	(%pt)	(%)	(no.)	(%)
Scenario 1: Mix of fiscal instruments										
Social relief of distress	350	10.5	44	2.87	0.23	2.07	0.25	16.4	−69,000	−0.5
Food poverty line	624	10.5	79	7.72	0.56	5.33	0.53	43.3	−198,000	−1.3
Upper-bound poverty line	1335	10.5	168	17.37	1.21	11.84	1.09	96.9	−455,000	−3.0
Targeted at poor	840	33	333	41.6	2.59	28.51	1.5	188.2	−914,000	−6.1
Scenario 2: Tax financed (balanced budget, at food poverty line)										
VAT only	624	10.5	79	0.21	7.17	0.09	0.38	50.7	84,000	0.6
VAT and PIT	624	10.5	79	0.76	4.05	3.4	−0.04	46.7	−9000	−0.1
Scenario 3: Alternative policy: government investment and structural reform and balanced-budget grant										
VAT and gov. investment	624	10.5	79	−0.64	9.01	0.39	1.25	51.6	182,000	1.2
VAT, gov. invest. and reform	624	10.5	79	−5.79	5.17	−0.05	5.32	52.3	1,010,000	6.7

Note: Poor cons. is the consumption increase for non-Ricardian (poor) households. Scenario 1 results are based on the estimated parameters from South African data. Scenarios 2 and 3 are based on the estimated model with an 'optimised' tax instrument response. The model and paper is in 2020 prices. Here, the results are scaled to current prices for expositional purposes. The number of recipients has been modelled at 10.5 million reflecting budget take up.
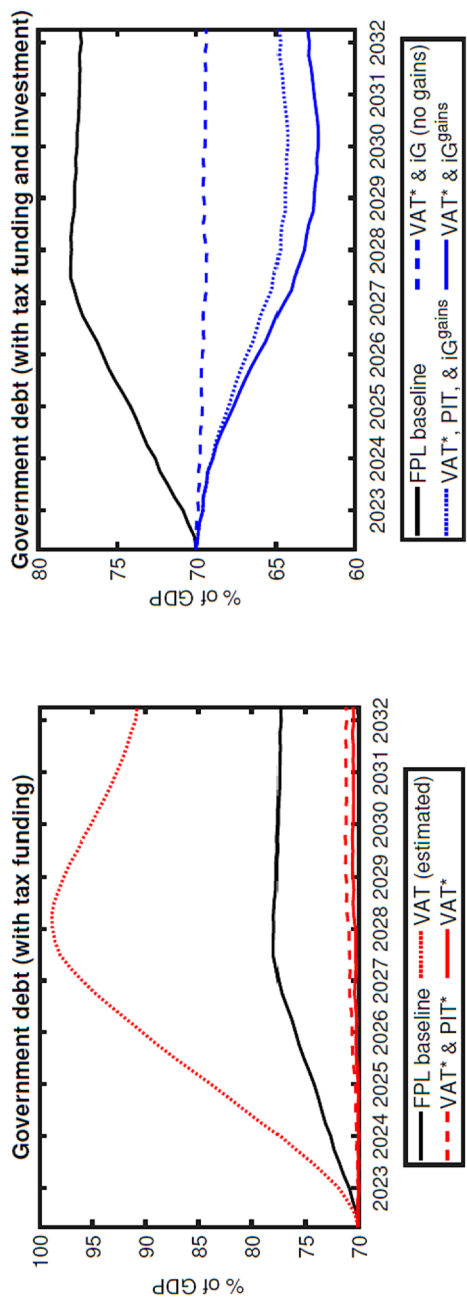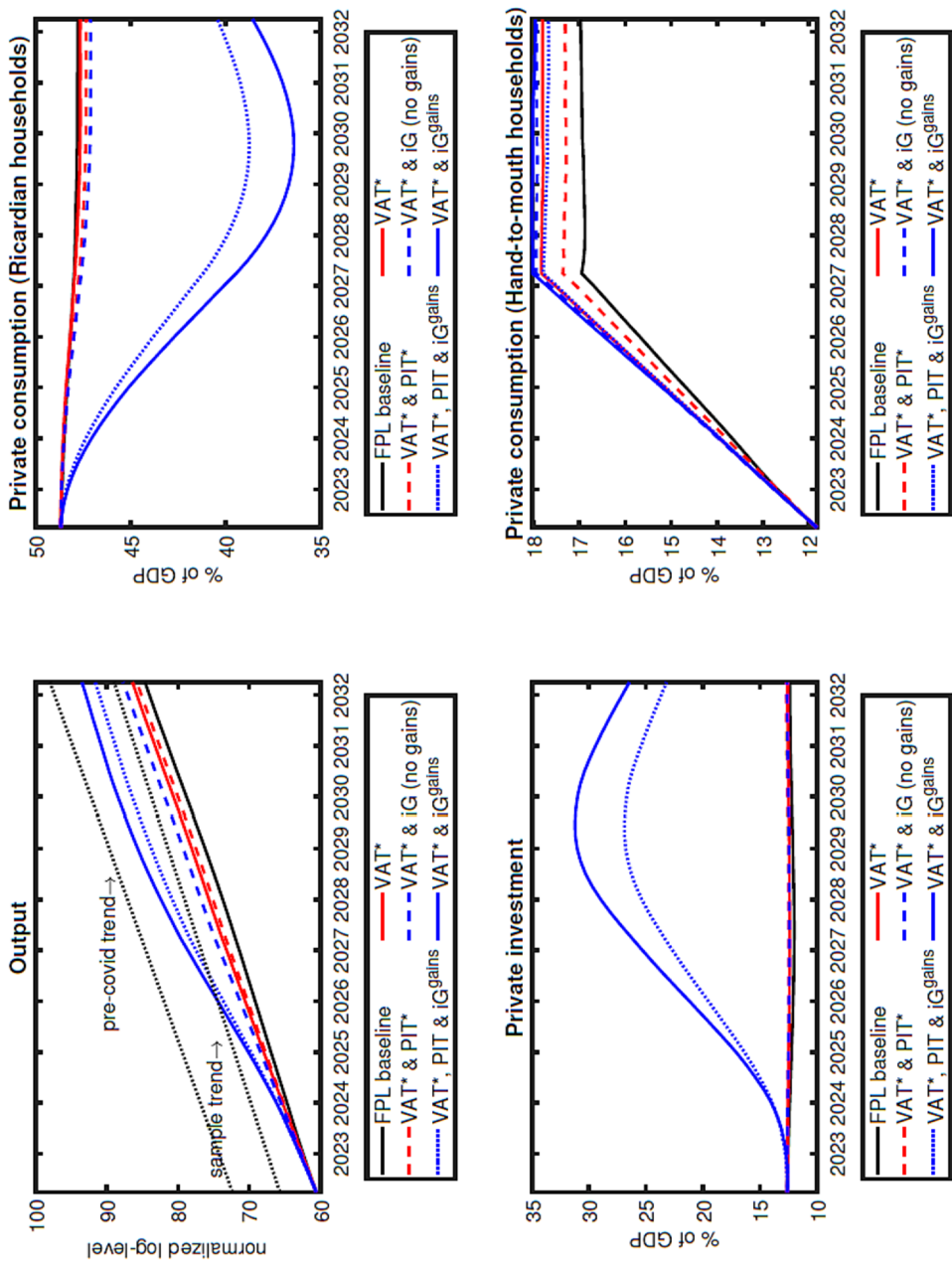
FIGURE 1 Government debt-to-GDP.

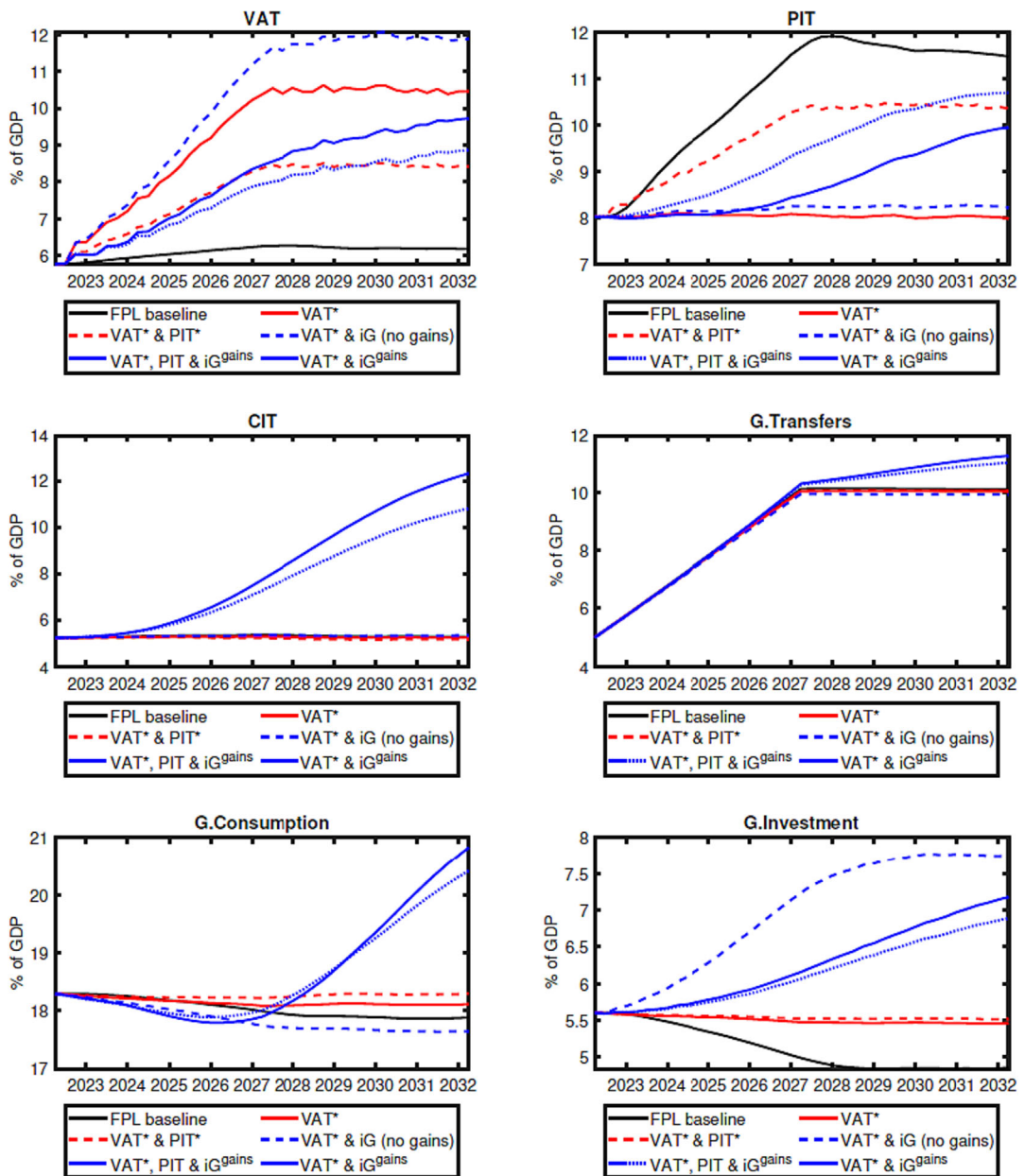**FIGURE 2** Output and private expenditures.

FIGURE 3   Government revenue and expenditure.

The largest transfer expansion considered is a grant of R840 per month for 33 million households at a cost of R333 billion. The model estimates that such an extensive social relief programme would increase debt by 42 percentage points of GDP after just 5 years, requiring higher VAT of 3 percentage points and PIT to rise by 29 percentage points (essentially a doubling of the effective PIT rate). The contractionary impact on the economy is estimated to lead to nearly 1 million job losses.

Scenario 2 focuses on a BIG at the food poverty line (R585 per recipient in real 2020 prices at a cost of R74 billion per year) financed by an increase in taxes (a 'balanced budget' scenario). Debt would still rise marginally because the economy would slow.

Assuming that the new grant is instead funded by VAT alone would require an increase of 7 percentage points in the effective rate. If funded from a combination of higher VAT and PIT, VAT would need to rise by 4 percentage points and PIT would rise by almost 3.5 percentage points. For the average taxpayer, who earns R370,000 and pays an effective rate of 21.3%, this would mean an increase in taxes from R79,000 per year to R91,500 per year. This pecuniary externality would in turn lead to a significant economic contraction, even though there would be some short-term employment gains from the large direct income effects from higher transfers.

Scenario 3 models a grant at the food poverty line 'financed' by a combination of higher VAT and higher economic growth. In this scenario, the assumption is that government simultaneously expands government investment by R60 billion and successfully undertakes structural reforms (such as removing constraints on electricity availability).

In this scenario, VAT would still need to rise (by 9 percentage point without structural reform and 5 percentage points with reform) to fund the transfer expansion. This scenario is estimated to lead to job gains but only because the structural reforms permanently raise long-run growth and therefore government revenue. Moreover, by enhancing the economy's productive capacity, government investment would have long-run growth-enhancing effects.

4 | CONCLUSION

Poverty, inequality and unemployment are three interdependent socio-economic challenges policymakers seek to address. Addressing this 'triple challenge' in South Africa is important, but the approach adopted could lead to even worse economic outcomes—the medicine should not be worse than the disease. To date, there has been relatively little rigorous macroeconomic work done on alternative social relief options. This paper addresses this gap in the literature by identifying the various macroeconomic trade-offs that arise from alternative social relief options, thus providing input into an ongoing policy debate. Specifically, an assessment is provided of whether a BIG can be financed sustainably and what the macroeconomic implications of financing it in different ways would be.

To formally assess the macroeconomic implications of expanded social transfers, a model is presented that allows the trade-offs between social relief, economic growth and fiscal sustainability to be quantified. The model incorporates channels for fiscal policy to influence aggregate demand and economic growth through its impact on interest rates and incentives for firms and individuals to consume, invest and supply labour. There are several important distinguishing features of the analysis in the context of assessment of the impacts of a BIG. These include that firm and household behaviour is governed by forward-looking expectations, that the expected reactions of fiscal and monetary policy to the scenarios considered are explicitly modelled and that the model includes channels through which the domestic economy is affected by global trade and capital markets.

The paper considers three scenarios benchmarked to current public proposals, along with different funding options (i.e. tax financing, debt financing and expenditure reduction). The modelling results show that extending the SRD grant to a level means tested at the food poverty line could be fiscally feasible provided taxes rise to fund such a programme. This would have a contractionary impact on the economy. However, a BIG at the level of the food poverty line could threaten fiscal sustainability as it would still require large tax increases that would crowd-out consumption and investment.

The model shows that South Africa's debt position plays a crucial role in this assessment: Without fiscal space for expansionary policies and with a small tax base, any stimulus is impotent. If the BIG is predominantly debt-financed, the deteriorating fiscal position causes the risk premium on sovereign debt to rise and weigh on investment and growth. If the BIG is predominantly tax financed, significant crowding-out of private expenditure occurs. If the BIG is predominantly financed through government expenditure re-prioritisation, the provision of other important public services will be meaningfully hampered.

It is important to note that the framework applied assumes that monetary policy and fiscal policy respond contemporaneously to prevent a macroeconomic destabilisation associated with an unsustainable fiscal position under the BIG scenarios considered. In response to such a large fiscal expansion, the only way to prevent the economy from becoming destabilised in the model is for the Treasury to raise taxes so dramatically that the size of the economy shrinks. Given the negative implications for economic growth and a constrained fiscal position, the model suggests that a BIG is only feasible if economic growth rises sustainably—this necessitates, for example, increased government infrastructure investment, expansion of employment programmes and, critically, growth-enhancing economic reforms that leverage the private sector.

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