2023/24

Technical Report

SUBMISSION FOR THE DIVISION OF REVENUE

FINANCIAL AND FISCAL COMMISSION

For an Equitable Sharing of National Revenue

FINANCIAL
AND FISCAL
COMMISSION

TECHNICAL REPORT:

SUBMISSION FOR THE DIVISION OF REVENUE

2023/24

Financial and Fiscal Commission
Montrose Place (2nd Floor), Bekker Street,
Waterfall Park, Vorna Valley, Midrand,
Private Bag X69, Halfway House 1685
www.ffc.co.za
Tel: +27 11 207 2300
Fax: +27 86 589 1038

RP25/2022
ISBN: 978-0-621-50021-9

Table of contents

List of tables

List of figures

List of acronyms

ABMS	Anti-bribery Management System
ACA	Anti-corruption Agency
ACCC	Anti-corruption Coordinating Committee
ACTT	Anti-corruption Task Team
ADF	Augmented Dickey-Fuller
AG	Auditor-General
AIDS	Acquired Immunodeficiency Syndrome
BIG	Basic Income Grant
BRICS	Brazil, Russia, India, China, South Africa alliance
CFO	Chief Financial Officer
CoGTA	Department of Cooperative Governance and Traditional Affairs
COVID-19	Novel Coronavirus Disease
CPI	Consumer Price Index
CSG	Child Support Grant
DBE	Department of Basic Education
DCEC	Directorate on Corruption and Economic Crime
DDM	District Development Model
DEA	Data Envelopment Analysis
DG	Disability Grant
DiD	Difference-in-Difference
DJ&CD	Department of Justice and Constitutional Development
DM	District Municipality
DMU	Decision-making Unit
DPRU	Development Policy Research Unit
DPSA	Department of Public Service and Administration
DPWI	Department of Public Works and Infrastructure
DSA	Debt Sustainability Analysis
DSD	Department of Social Development
DWS	Durbin-Watson Statistic
ECD	Early Childhood Development
EIG	Education Infrastructure Grant
EMBI	Emerging Market Bond Index
EMIS	Education Management Information System
EPWP	Expanded Public Works Programme
ERRP	Economic Reconstruction and Recovery Plan
ETI	Employment Tax Incentive

FDH	Free Disposal Hull
FFC	Financial and Fiscal Commission
FIC	Financial Intelligence Centre
FTE	Full-time Equivalent
G20	Group of Twenty (countries)
GDP	Gross Domestic Product
GFN	Gross Financing Needs
GIACC	National Centre for Governance, Integrity and Anti-corruption
GLC	Government-linked Company
GVA	Gross Value Addition
HIV	Human Immunodeficiency Virus
HP filter	Hodrick-Prescott filter
HPC	High-performance Computing
HSDG	Human Settlements Development Grant
ICU	International Corruption Unit
IDP	Integrated Development Plan
IFI	Independent fiscal institutions
IGFR	Intergovernmental Fiscal Relations
ILO	International Labour Organisation
IMF	International Monetary Fund
IPCMC	Independent Police Complaints and Misconduct Commission
LED	Local Economic Development
LEXP	Log of Municipal Expenditure
LFS	Labour Force Survey
LGES	Local Government Equitable Share
LM	Local Municipality
MACC	Malaysian Anti-corruption Commission
MEC	Member of the Executive Council
MIG	Municipal Infrastructure Grant
MoU	Memorandum of Understanding
MSA	Municipal Structures Act
MTBPS	Medium-term Budget Policy Statement
MTEF	Medium-term Expenditure Framework
MTSF	Medium-term Strategic Framework
NACP	National Anti-corruption Plan
NACS	National Anti-corruption Strategy
NACSAP	National Anti-corruption Strategy and Action Plan
NCA	National Crime Agency
NDP	National Development Plan

Nedlac	National Economic Development and Labour Council
NEET	Not in Education, Employment or Training
NIDS	National Income Dynamics Study
NPA	National Prosecuting Authority
NSC	National Senior Certificate
NSFAS	National Student Financial Aid Scheme
NTB	National Tender Board
NYC	National Youth Commission
NYDA	National Youth Development Agency
OACP	Organisational Anti-corruption Plan
OAG	Office of the Auditor-General
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary Least Squares
OPG	Older Persons' Grant
PALMS	Post-Apartheid Labour Market Series
PAYE	Pay-As-You-Earn
PCAC	Presidential Commission Against Corruption
PCC	Presidential Coordinating Council
PED	Provincial Education Department
PES	Provincial Equitable Share
PERSAL	Personnel Salary System
PFMA	Public Finance Management Act
PIT	Personal Income Tax
PPA	Public Procurement Authority
PPE	Personal Protective Equipment
PSC	Public Service Commission
PTR	Pupil-teacher Ratio
PYEI	Presidential Youth Employment Invervention
QLFS	Quarterly Labour Force Survey
RAF	Road Accident Fund
RBIG	Regional Bulk infrastructure Grant
RRA	Rwanda Revenue Authority
RSC	Regional Services Council Levy
QLFS	Quarterly Labour Force Survey
SALDRU	South African Labour and Development Research Unit
SALGA	South African Local Government Association
SAPBO	South African Parliamentary Budget Office
SAPS	South African Police Service
SARB	South African Reserve Bank

SARS	South African Revenue Service
SA-SAMS	South African School Administration and Management System
SASSA	South African Social Security Agency
SBU	Shanduka Black Umbrellas
SDG	Sustainable Development Goals
SETA	Sector Education and Training Authority
SFA	Stochastic Frontier Analysis
SIU	Special Investing Unit
SMG	State Maintenance Grant
SMME	Small, Medium, and Micro Enterprises
SOE	State-Owned Entity
SONA	State of the Nation Address
SRD	Social Relief of Distress
Stats SA	Statistics South Africa
TB	Tuberculosis
TERS	Temporary Employer(ee) Relief Scheme
TFP	Total Factor Productivity
TVET	Technical and Vocational Education and Training
UIF	Unemployment Insurance Fund
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
UWF	Unsobomvu Youth Fund
VAR	Vector Autoregression
WID	World Inequality Database

About the authors

Sasha Peters has an MPhil in Public Policy from the University of Cape Town. Her focus areas at the Commission include service delivery arrangements, public education and LG capacity in South Africa. Previously, she was employed in the Presidency and in IDASA's budget information services, where her focus was mainly on the social sectors.

Eddie Rakabe holds a Master's degree in Economic Development from the University of Johannesburg. His research at the Commission focuses on public education and health finance, housing, public expenditure management and intergovernmental fiscal relations issues. Prior to joining the Commission, he worked as an economist at the National Treasury and on the South African Square Kilometre Array (SKA) bid at the National Research Foundation. He is also part of the Research Project on Employment, Income Distribution and Inclusive Growth (REDI3X3), where he publishes occasionally on informal sector activities.

Chen Tseng is the Head of Research at the Commission, and he holds a Master's degree in Economics from the University of Cape Town. He was the Strategic Research Advisor to the late Chairperson of the Commission: Professor Daniel Plaatjies. His research focuses on the empirical analysis of economic growth and productivity through pricing and costing as it relates to public finance management within the intergovernmental fiscal relations system. His research interests are understanding the impacts of public policy and finance management on economic growth and development and issues of poverty, inequality, and unemployment facing South Africa. Before the Commission, he worked as an economist at the Western Cape Provincial Treasury, Fiscal Policy, and economic advisor to the then Provincial Member of the Executive Council and Finance Minister of the Western Cape, Dr Ivan Meyer.

Nomonde Madubula holds a Ph.D. in Development and Management (Disaster Risk Studies) from the North-West University. Her work at the Financial and Fiscal Commission focuses on local government and the intergovernmental fiscal relations, and Gender Responsive Budgeting. Nomonde's research interests are in the areas of disaster risks and environment, gender budgeting, public finance, and socio-economic issues.

Sabelo Mtantato holds a Master's Degree in Economics from the University of KwaZulu-Natal. His work at the Financial and Fiscal Commission focuses mainly on intergovernmental fiscal relations issues and research work on public finance. Sabelo's research interests are in the areas relating to public transport, roads and human settlements sectors.

Thando Ngozo holds a Masters degree in International Economics and Public Policy from Cardiff University in the United Kingdom and an MBA from Milpark Business School. His work at the Financial and Fiscal Commission focuses mainly on macroeconomic analysis, provincial government budget analysis, taxation issues and fiscal decentralisation. Thando's research interests are in the areas of development finance, taxation policy, domestic resource mobilisation and economic development.

Siyanda Jonas holds a Master's Degree in Economics from the University of Pretoria and MTech in Local Development from Tshwane University of Technology. His work at the Financial and Fiscal Commission focuses mainly on macroeconomic analysis, government budget analysis, and fiscal policy issues. Siyanda's research interests are in the areas of Economic Growth, Local Economic Development, Income and Wealth Inequality.

Gianni Delle Donne holds a Master's degree in Economics from the University of Cape Town and an LLB degree from Stellenbosch University. She is currently completing a research internship at the Financial and Fiscal Commission. Her research interests include the study of inequality and socio-economic development in the South African context.

Neo Malungane is currently completing his Master's degree in Economics from Nelson Mandela University. He has been an Intern at the Financial and Fiscal Commission since late 2020. His area of focus is on Budgeting and Socio-Economic Rights. Neo's research interest is on budgeting techniques, socio-economic issues and entrepreneurship.

Khayakazi Mswephu holds a Masters Degree in Maritime Economics at the University of KwaZulu Natal. Her role at the Commission focuses on providing research assistance in analysing and interpreting data, assisting in budget and policy analysis and interpreting data, assisting in budget and policy statements related to the Division of Revenue Bill, Appropriation Bill. Her research interest is on the infrastructure developments and economic related issues.

Lauren Stevens is currently completing her Master's degree in economics at Stellenbosch University. Her work at the Financial and Fiscal Commission focuses on the social sector, especially the South African social assistance programme. Lauren's research interests are in the areas of public finance, education, government initiatives that aid development and socio-economic issues.

Ronewa Candy Sadiki holds an Honours degree in Economics from the University of Venda. Her work at the Financial and fiscal Commission focuses mainly on local government budget analysis. Ronewa's research interests are in the area of local economic development and sustainable resources in urban space. Prior to joining the Commission, she worked at Old Mutual as a financial advisor.

Khutso Baltimore Makua holds a master`s degree in economics from Nelson Mandela University. He is a research intern in the Local government unit of the Financial and Fiscal Commission, where his focus is on Local government finance and local economic development. Khutso's research interests are in areas relating to Public debt, municipal finance, and gender inclusivity.

Inger Aneen Ruiters is currently completing a Master's degree in Applied Economics from Cape Town. Her work at the Financial and Fiscal Commission focuses on labour economics. Her research interests are in public finance, labour economics, development, and issues such of poverty and inequality facing South Africa.

Nikita Bhavan holds an Honours degree in Economics from the University of Johannesburg. She has been a research intern at the Financial and Fiscal Commission since 2020. Her research interests mainly focus on macroeconomic analysis, government budget analysis and fiscal policy issues.

Sanele Simayile holds an Honours degree in Economics from the University of Fort Hare. He started working at the Financial and Fiscal Commission as a research intern on the 12th of April 2021. At the Financial and Fiscal Commission, He has currently conducted some work on the theory and practice of regulations on the Public Sector, and the progressive realisation and how it is accounted for in budgeting practice as well as how governments react in times of fiscal crisis. His research interest is understanding the effectiveness of the fiscal policy on unemployment.

Hannah MacGinty holds an Honours degree in Economics from the University of Cape Town. Her current research at the Financial and Fiscal Commission, as an intern in the research unit, centres around public debt, fiscal sustainability, and economic growth. Hannah's research interests include public policy analysis, intergovernmental fiscal relations, macroeconomic trends, and environmental economics.

Boitumelo Thabane is currently a Research Intern at the Financial and Fiscal Commission with research interests that include social and economic justice, inequality and environmental economics. She holds a Bachelor of Commerce in Law and a Bachelor of Commerce Honours in Economics from the North West University.

External contributors

Seán Mfundza Muller is a Senior Research Fellow at the Johannesburg Institute for Advanced Study (JIAS) and in 2022 is also an IASH-SSPS Fellow at the University of Edinburgh's Institute for the Advanced Study of the Humanities (IASH). He holds degrees in economics from the University of Cape Town (UCT) and University of Oxford. His PhD dissertation concerned the theoretical limitations to drawing policy conclusions from randomised trials, illustrated by econometric analysis of class size effects on schooling outcomes. Now his research and writing span areas from philosophy of science to political economy and public policy, and he regularly contributes to policy debates in South Africa. He has previously produced reports on education financing in South Africa for Oxfam/AIDC and the EU-funded 'Putting People in Parliament' project. He has published in a wide range of academic journals, including *World Development*, *Higher Education*, *World Bank Economic Review*, *Economics Letters*, *International Journal of Educational Development*, *History and the Philosophy of Life Sciences*, and *Development and Change*. In 2021 *Springer* published his first book, *The Incentivised University: Scientific Revolutions, Policies, Consequences*.

Jugal Mahabir is the Director at the Public and Environmental Economics Research Centre (PEERC) based at the University of Johannesburg. Prior to him joining PEERC, he worked at the National Treasury of South Africa and the Financial and Fiscal Commission (FFC). During his time at the National Treasury and the FFC, he was mainly involved in research around local government financing, including sub-national taxation and intergovernmental fiscal transfers. He was instrumental in the introduction of the sharing of revenue from the general fuel levy between national government and metropolitan municipalities and was part of the task team that introduced the current local government equitable share formula. Jugal's research interest is in public economics, public finance and labour economics. He holds a Bachelor of Social Science (Honours) degree in Economics from the University of KwaZulu-Natal and a Master of Commerce (*awarded cum laude)* in Economics from the University of Johannesburg.

Haroon Bhorat is Professor of Economics and Director of the Development Policy Research Unit at the University of Cape Town, South Africa. He serves on the Presidential Economic Advisory Council (PEAC), and holds a prestigious SARChI Chair in Economic Growth, Poverty and Inequality Research. Prof Bhorat is a Non-resident Senior Fellow at the Brookings Institution and a UNU-WIDER Board Member, he sits on the UN/WHO's High Level Commission on Health Employment and Economic Growth; was a member of the World Bank's Advisory Board of the Commission on Global Poverty. He served as economic advisor to two past Ministers of Finance, and previous South African Presidents Thabo Mbeki and Kgalema Motlanthe, formally serving on the Presidential Economic Advisory Panel.

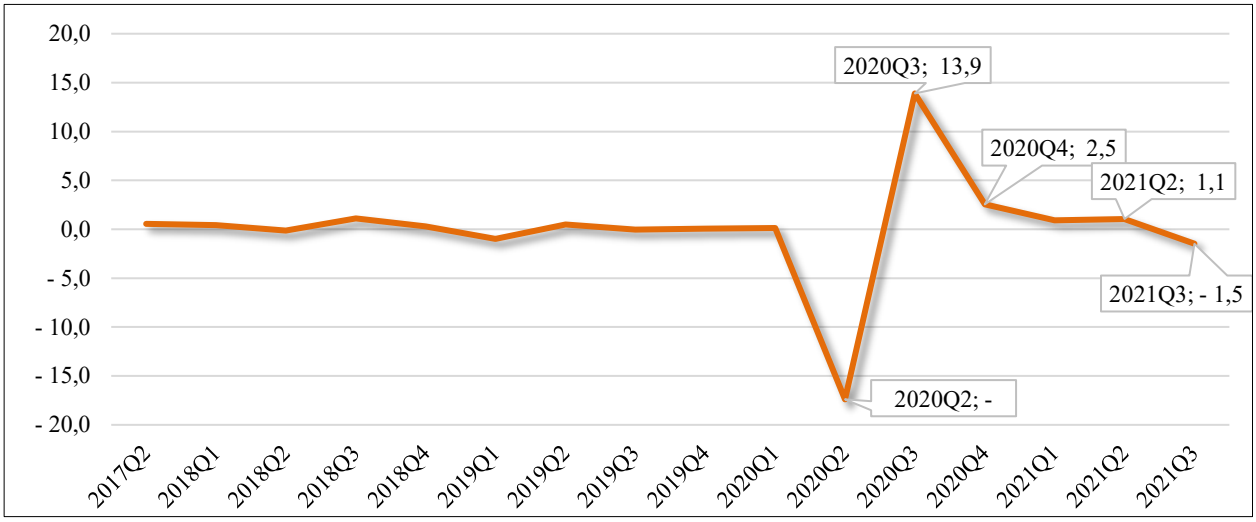
Ben Stanwix is a Senior Research Analyst with the Development Policy Research Unit (DPRU) at the University of Cape Town (UCT). He obtained a Masters degree in Applied Economics from UCT, and also holds a Masters degree in Economic and Social History from the University of Oxford. His research interests are in labour economics, and he has published in both local and international journals.

Timothy Köhler is a Junior Research Fellow at the Development Policy Research Unit based in the School of Economics at the University of Cape Town (UCT), where he is also a PhD candidate. He obtained his Masters and Honours degrees in Economics from Stellenbosch University. His research focuses on applied development micro-economics, and has published in both regional and international journals.

Executive summary

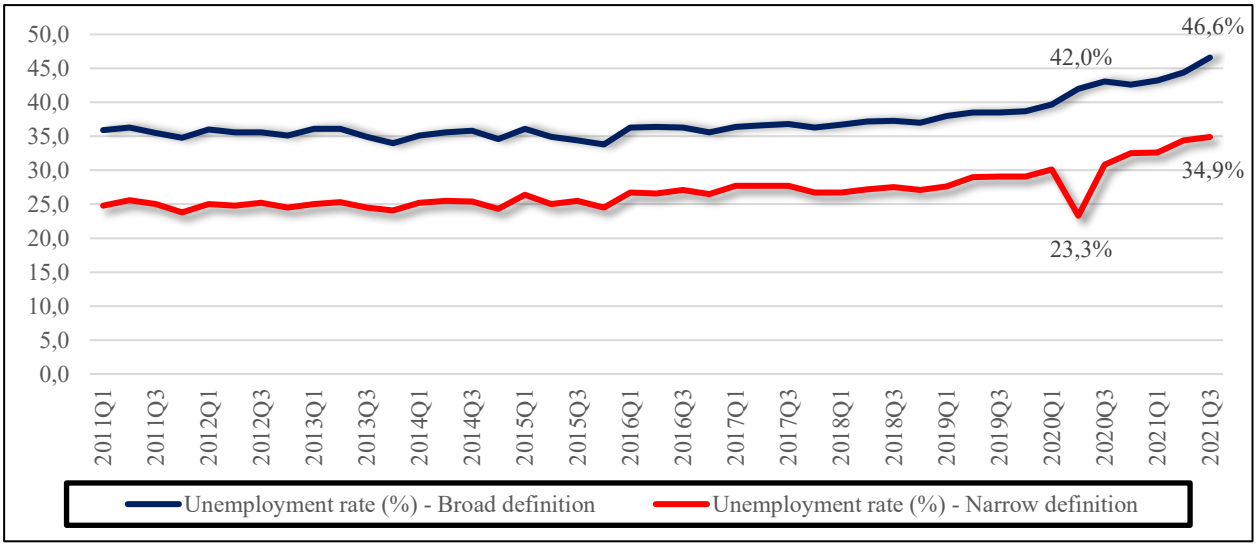
South Africa is experiencing growing concerns of deteriorating fiscal performance and the persistently poor service delivery outcomes of public finances. Signs of a slow recovery in growth (see Figure a) have largely been thwarted by recent events, including, for example, the civil unrest in KwaZulu-Natal and Gauteng during July 2021, ever-mutating COVID-19 strains and, more recently, the Ukraine-Russia war and floods in KwaZulu-Natal. Inflation is expected to continue to rise in 2022. Unemployment, having reached a record high of 34.9% in 2021, remains stubborn (see Figure b).

Figure a: Gross domestic product (quarter-on-quarter changes)



Source: Commission's Submission on Budget Review 2022

Figure b: Unemployment rate



Source: Commission's Submission on Budget Review 2022

In terms of public finances, the government faces significant debt and growing debt service costs. These costs are currently the largest public expenditure item, and essentially serve to divert funds from more productive and service delivery-related spending (see Table a).

Table a: Main budget framework

R billion/% of GDP	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
	Outcome			Revised estimate	Medium-term estimates		
Main budget revenue	1,275.3	1,345.9	1,238.4	1,549.1	1,588.0	1,660.2	1,774.2
	23.5%	23.7%	22.2%	24.8%	24.7%	24.4%	24.5%
Main budget expenditure	1,506.6	1,691.0	1,789.0	1,896.0	1,975.3	1,992.0	2,096.6
	27.8%	29.7%	32.1%	30.3%	30.7%	29.3%	29.0%
Of which: Debt-service costs	181.8	204.8	232.6	268.3	301.8	335.0	363.5
Main budget balance	-231.3	-345.1	-550.6	-346.9	-387.2	-331.8	-322.4
	-4.3%	-6.1%	-9.9%	-5.5%	-6.0%	-4.9%	-4.5%
Primary balance	-49.5	-140.3	-318.0	-78.6	-85.4	3.2	41.1
	-0.9%	-2.5%	-5.7%	-1.3%	-1.3%	0.0%	0.6%

Source: Budget Review, 2022

Over the past two years, the government has tried to balance the maintenance of fiscal sustainability alongside the need to provide social protection in the face of rising unemployment and inequality. This balancing act has been challenging. Not only has the COVID-19 pandemic highlighted, but also further exacerbated, the country's vulnerable fiscal position, and exposed deep-seated delivery challenges. This was evident as many of the relief interventions introduced during the pandemic were marred by a myriad of delivery shortcomings, irregularities, fruitless and wasteful spending, and a deepening of corruption.

This Technical Report focuses on 11 areas, which, the Commission believes, if adjusted in line with the research conducted, can serve to position South Africa on a path of sustainable social and economic recovery. Under the theme of "Addressing socio-economic vulnerabilities through fiscal transparency and strategy", this year's Technical Report hones in on how the element of good governance and coherent, goal- oriented long-term planning in key sectors can serve to buoy growth and development.

The research in this technical report focuses on a range of issues across the intergovernmental fiscal relations system, and is divided into three parts:

Part 1: Combatting corruption and unemployment
Part 2: Economic and fiscal monitor
Part 3: Reviewing and refining division of revenue instruments

Part 1, comprising Chapter 1 and Chapter 2, focuses on curbing corruption and youth unemployment, respectively. Various corruption measures indicate that corruption within the South African public sector is severe and contributes to, among others, income inequalities, the inequitable distribution of resources and inefficient social welfare programmes. Drawing from case studies and a combination of budget and institutional analyses, Chapter 1 hones in on strategies for preventing corruption in the public sector, as well as an evaluation of funding models supporting anti-corruption agencies. Chapter 2 tackles the stubborn challenge of youth unemployment, in South Africa. While general unemployment reached 34.9% in 2021, youth unemployment is a staggering 66.5% for youth aged 15–24 years and 43.8% for youth aged 25–34 years, using the official definition. The chapter aims to understand and evaluate the effectiveness of various public institutions and intergovernmental fiscal relations instruments in addressing youth development and unemployment challenges.

Part 2 of the report is made up of four chapters, two of which are central to macroeconomic debates in South Africa, while the other two explore the very relevant public sector challenges of income support to the poor and the ever-increasing public sector wage bill. Chapter 3 evaluates debt sustainability in South Africa. The level of indebtedness facing South Africa and the associated risks of unstable debt are investigated. This is done with the aim of concluding whether or not the public sector is in debt distress. Persistent high levels of economic inequalities in South Africa impact on the power asymmetries that embed social exclusions and create social unrest. This serves to undermine sustainable economic growth and threaten constitutional democracy. There is thus a need for carefully tailored, structural policies that are both growth enhancing and inequality reducing. To this end, Chapter 4 looks at affluence and inequalities in South Africa. It investigates the extent of earnings inequality and identifies key shortfalls in the current policy environment. Chapter 5 looks at the effects of social grants on household behaviour and expenditure patterns. The effectiveness of the grant system in South Africa is considered on the grounds of poverty and inequality reduction, but rarely on consumption. This chapter evaluates whether social grants facilitate the inclusion of disenfranchised individuals into the economy and how they affect the fiscal envelope. In Chapter 6 of the report, the Commission investigates public sector wage trends in South Africa. This research is prompted by the exponential growth in the public sector wage bill that has, over the years, exceeded both the GDP growth rate and tax collection revenue. This chapter thus seeks to determine the country's wage trends and understand the size and shape of the wage bill.

Part 3 of the report shifts the focus to subnational issues of concern. Chapter 7 and Chapter 8 review the two primary components of the provincial fiscal framework; the provincial equitable share (PES) formula and provincial conditional grants. Chapter 7 looks at what happens to the PES allocation once it reaches the province. While weights are assigned to various components within the PES formula, there is little analysis concerning what happens to the funding once it is at the (discretionary) disposal of provinces. The other challenge often raised by provinces is the responsiveness (or lack thereof) of the PES formula and funding to the changing social structure. In Chapter 8, a 25-year review of provincial conditional grants

is conducted with the aim of understanding whether there is a need to repurpose and/ or realign the grants to better align them with the constitutional prescripts around intergovernmental fiscal transfer design. The study identifies the changes in the number of conditional grants over the past 25 years, looking at reasons for the constant and abrupt introduction, reclassification and termination of grants, including reluctance to incorporate long-existing grants into the PES.

Using basic education as a case study, Chapter 9 tackles the issue of value for money. The largest share of consolidated spending is allocated to basic education. This chapter look at whether the sizeable resources allocated to this sector are being used efficiently. Alongside the consideration of value for money and in recognition of the fact that access to basic education is a justiciable right enshrined in the South African Constitution, the analysis also reflects on how spending on basic education should be reprioritised to ensure that the most essential elements related to the right to basic education are protected.

This is important given the high probability of a tighter fiscal framework over the next few years. The starting point for Chapter 10 is the view that fiscal governance, and particularly independent fiscal institutions (IFIs), can play a central role in improving fiscal performance. Using seven international case studies, this analysis tests this assertion and evaluates how IFIs have affected fiscal outcomes.

Lastly, focusing on local government, Chapter 11 looks at the topical issue of the District Development Model (DDM), which is positioned to improve planning and coordination across the three spheres of government. District municipalities are envisaged to play a leading role in the implementation of the DDM. Unfortunately, this is against the backdrop of district municipalities that are dysfunctional, with many in financial distress. The pertinent question and focus of this chapter is whether district municipalities can, in fact, take on the leading role as envisaged by the DDM.

The Commission makes the following recommendations:

1. *Regarding strategies for preventing corruption in the public sector and funding for anti-corruption agencies:*

- The prerequisite for any measure to fight corruption and move towards support for anti-corruption reforms is consistent political will for good governance and accountability. Political leadership and a commitment to fight corruption should therefore come from the highest office and the top levels of a country's political system, with the following understanding of accountability:

  - Accountability should identify who needs to be accountable to whom and for what? For instance, accountability of political leaders and public officials to organisational

effectiveness and efficiency through compliance measures, rules and ethics codes, and oversight bodies taking their legislated responsibilities seriously and committing to repelling corruption by taking swift action and imposing sanctions when the need arises.

- The Presidency, in line with political commitment at the top, needs to renew the governance structure of the anti-corruption agencies, through the National Anti-corruption Strategy, on the need for reconfiguration and coordination, among the existing institutional arrangements to repel duplication in these anti-corruption institutions for optimum results, including a reconfigured or dedicated funding framework for the anti-corruption agencies or institutions as a sign of commitment towards the support of anti-corruption agencies.

- The Presidency should consider establishing a Public Procurement Authority (PPA) that is mandated to show greater transparency and standardisation of government contracts, to organise and manage the public procurement process (rules, regulations, guidelines and policies) and implement a general public procurement policy on behalf of the government, guided by the principles of transparency, fairness and equity, as contained in the Constitution.

- A dedicated or joint civil society organisation should be established that educates and empowers society about the dangers and adverse effects of corruption, and advocates for anti-corruption reforms as bottom support to the top-down approach (political will).

2. *Regarding youth unemployment and intergovernmental fiscal relations:*

- The Commission welcomes the expansion of the Employment Tax Incentive (ETI). To better target and increase the impact of the incentive, the Commission recommends revising the employee eligibility age from 18 to 29 years old. The age group 24−34 years has a relatively high rate of individuals not in employment, education or training (NEET) compared to 15- to 24-year-olds. National Treasury can also consider deepening the ETI to encourage hiring young women whose NEET rate is relatively higher than that of their male counterparts for both youth categories. The NEET group represents the most vulnerable section of the youth.

- The Department of Employment and Labour, the Department of Higher Education and Training, and the Department of Women, Youth and Persons with Disabilities should coordinate all labour markets and skills programmes. The Department of Women, Youth and Persons with Disabilities has a mandate to enable the empowerment and socio-economic upliftment of the youth and women. Well-coordinated labour market interventions could bolster the impact of existing labour market programmes through more significant integration and leveraging of initiatives.

- National Treasury and the Jobs Fund should consider other alternative funding channels that take the limitations faced by the youth regarding access to capital to provide challenge funds into account. The challenge funding principle of the Jobs Fund disadvantages those small and medium businesses that have no access to capital. The match challenge fund is a financing

mechanism to allocate (donor) funds for specific purposes using competition among organisations as the lead principle. Proposals are assessed against transparent and predetermined criteria. Successful applicants must usually match a certain percentage of the grant with own financing.

- The proportion of gross fixed capital expenditure in the composition of the budget should be systematically increased. Consumption expenditure should be reduced. There is also a need to remove structural and institutional rigidities that impact on private investment in the reduction of unemployment.

3. *Regarding debt sustainability in South Africa:*

- The fiscus, through the Minister of Finance, must strive to rein in rising debt service costs, which comprise a substantial portion of the budget, detracting from allocations for the provision of essential services.

- The Minister of Finance must exercise and maintain fiscal discipline, via active debt management and regular reporting regarding debt accumulation, costs and sustainability under the current strained debt conditions. Such discipline should be exercised throughout all spheres of government.

- Weak productivity in expenditure should be addressed in order to create job-enhancing, income-generating growth (i.e. inclusive growth) through quality expenditure and investment-enticing reforms.

- Investor confidence must be boosted and promoted through signalling that public debt is sustainable in the long run to reduce sovereign risk ratings and thereby the cost of debt, as well as to ensure the continuation of economic support.

4. *Regarding inequality in South Africa's labour market:*

- Policies aimed at reducing inequality should, as a point of departure, be targeted at reducing inequality in the labour market. This requires policies that enable large-scale job creation and more equitable wage growth across different sectors of the economy, which, in turn, may require greater investment into labour-intensive industries that are able to absorb low-skilled workers into the labour market.

- Statistics South Africa should increase its efforts to increase the transparency of data and harmonisation of datasets to allow for more comparable, accessible and reliable income statistics. Transparency should extend to data collection, data cleaning and imputation methods applied.

5. *Regarding social grants:*

- The recalculation of the amount of the Child Support Grant
- Partnering with the private sector to support child support policy intentions
- Integrating social grants into existing social development programmes
- An in-depth investigation into the current social grant network

6. *Regarding the public sector wage bill:*

- The Department of Public Service and Administration, through the bargaining council, should consider balancing notch progression and cost-of-living adjustments and pressures to the fiscus during wage negotiation. The Commission highlights that the growth of the wage bill has largely been driven by wage increases relative to the increase in the number of employees.
- Wage growth at the top end of the wage distribution in the public service has not been excessive, but after 2010, it appears that wages for those in the bottom 20% of the distribution fell in real terms, potentially widening the wage gap in the sector. The Commission recommends that National Treasury commissions further research to determine what is driving the decreases in real terms of wages for those at the bottom distribution of wages.
- The demographic composition of the public sector has changed over time, but the proportion of young people has not grown. The Commission recommends that the Department of Public Service and Administration, together with the Department of Women, Youth and Persons with Disabilities, develops frameworks to guide the public sector on the inclusion of youth in public service.

7. *Regarding the provincial equitable share formula:*

- In line with the Commission's recommendation on a costed norms approach, full costing exercises should be undertaken by all provinces, particularly for the provision of education and health. The costing results will be used to determine allocations by provinces to these key functional areas. This will ensure consistency and fully informed resource allocation.
- The national Department of Basic Education, as a custodian of conditional grants (particularly indirect grants and being responsible for capital spending), and all provincial departments of Basic Education, as recipients of the PES and being responsible for school infrastructure delivery and maintenance, should improve the coordination of infrastructure delivery plans and programmes to ensure alignment.

- The national Department of Basic Education should undertake skills audits to identify the skills gap with respect to the old and the new curriculum, and based on the audit results:
  a) Identify the number of teachers who need to be trained and the funding requirements
  b) Develop and implement a training programme.

8. Regarding the system of provincial conditional grants:

- National Treasury, in conjunction with the national departments responsible for conditional grants, must revise the Division of Revenue Act's system of grant scheduling as it creates no fiscal incentives for provinces to reveal their expenditure preferences or sustain expenditure previously funded by conditional grants. Instead, government must invest the capacity to improve overall grant design, taking account of all good grant design imperatives, such as types of grants and their implications, pre-grant introductory due diligence, sunset clauses, conditioning schemes and allocation methodologies.

- National Treasury, in conjunction with the national departments responsible for conditional grants, should undertake three-yearly reviews of their respective grants to ensure alignment across grant objectives, conditions and grant outcomes. These reviews must be informed by an overarching conditional grants guideline, setting out the circumstances under which grants are introduced and terminated, applicable minimum and type conditions, and the applicable minimum outputs. Further, there should be a mandatory grant introduction and termination pre-assessment by the Financial and Fiscal Commission to determine suitability, impact on the fiscal framework and overall grant outcome. Grant conditions are generally administrative, while the outputs are seemingly unconnected to the long-run outcomes.

- The Department of Basic Education, in conjunction with National Treasury, must update the allocation formula for the Education Infrastructure Grant to ensure the alignment of grant needs indicators with grant objectives and further streamline expected and reported grant outputs to improve focus and ease of monitoring. At the very least, the allocation criteria may include learner enrolment, learner densities by area, index of schools with access to learning infrastructure and travel time to schools. The actual formula must be published in the grant framework for transparency purposes.

- The Department of Health and other custodians of grants with multiple components must halt the over-compartmentalisation of provincial health responsibilities through multiple grant funding windows unrelated to the main objective of the main grant. Conditional grants must, as a matter of principle, accommodate not more than two sub-components or take the shape of a traditional block grant to allow provinces the flexibility to prioritise within the set sub-functional responsibility. Sub-components that are unrelated to the main grant objective must be incorporated into the provincial equitable share and be monitored through the normal budget and accountability system instead of subdividing or itemising provincial health responsibilities to be funded by grant sub-components. The formulae for the newly restructured HIV/Aids grant must be published in the grant framework for transparency purposes.

9. Regarding the constitutional right to basic education:

- The Commission reiterates its previous recommendations that a proper costing of the delivery of education services be undertaken to address the cost drivers of education and differences in spending pressures across provinces to assess the adequacy of basic education spending.

- Government needs to protect the redistributive nature of the basic education funding system in the face of potential basic education budget constraints.

- Availability and access to credible, reliable, consistently collected and easily comparable financial and non-financial data is critical to conduct research to better understand the impact of government spending and to assess school performance. To this end, the Commission acknowledges the government's work to implement a school-level data collection instrument in the form of the South African School Administration and Management System. The Commission recommends that the Department of Basic Education leverages the collection of this data and other sources of school-level data to compile a consolidated basic education sector database that integrates the financial and non-financial aspects of basic education.

- The Minister for Basic Education should use the matrix as the foundation of a framework to consult broadly with stakeholders to agree on a guide for spending prioritisation in the basic education sector that is underpinned by a socioeconomic rights approach.

10. Regarding the effectiveness of independent fiscal institutions:

- With respect to improving the mandate and functions of independent fiscal institutions in South Africa:
  - Forecasting or validating macroeconomic and fiscal variables
  - Costing of legislation and policy
  - Monitoring fiscal rules or objectives

- With respect to improving the independence of independent fiscal institutions in South Africa:
  - Establishment of minimum standards for independent fiscal institutions
  - Access to information

- With respect to improving the compliance and impact of independent fiscal institutions in South Africa:
  - Improvement of the compliance or explanation of deviance from recommendations principle
  - Formal consultations on budget formulation and execution

11. Regarding the powers, functions and funding framework of district muncipalities:

- The Department of Cooperative Governance and Traditional Affairs should speedily review and repeal section 84 of the Municipal Structures Act to streamline the powers and functions of district municipalities to correspond with those of local municipalities.

- The Department of Cooperative Governance and Traditional Affairs should review and amend section 85 of the Municipal Structures Act to allow an adjustment of powers and functions by the Member of the Executive Council for Local Government to be followed by the adjustment of funding.

- National Treasury should immediately abolish the Regional Services Council Replacement Grant and combine the Local Government Equitable Share for district municipalities and the Regional Services Council Replacement Grant under one funding instrument.

CHAPTER 1

Strategies for preventing corruption in the public sector and funding for anti-corruption agencies

Chapter 1: Strategies for preventing corruption in the public sector and funding for anti-corruption agencies

Nomonde Madubula

1.1 Introduction

Corruption is a global problem that exists in varying degrees in different countries. Numerous corruption indicators suggest that the challenge of corruption in South Africa is vast and deep seated. The Commission of Inquiry into State Capture (2021) found that the government is the biggest procurer of goods and services, estimated at over R800 billion a year.

The Commission found that individuals pursued personal interests by not following or grossly abusing procurement processes and procedures. The COVID-19 pandemic created an additional opportunity for corruption in South Africa, where individuals took advantage of concessions made for emergency procurement, using irregular and corrupt practices. The Auditor-General (AG) found that irregular and corrupt practices, in the form of irregular appointment of service providers and overpricing related to the procurement of goods and services to combat the pandemic were endemic (Auditor-General, 2020 of South Africa, 2020).

Corruption alters public spending on goods and services, negatively affecting the quality of public services. According to Transparency International (2014), corruption undermines inclusive development and growth by promoting the inefficient allocation of scarce resources. It also affects the equitable distribution of resources, exacerbates income inequalities, and undermines the effective targeting of social welfare programmes to the needy as funds are diverted from these programmes by well-connected people for their private gain. Corruption shifts public spending away from essential public services, thus leaving fewer resources available for the state to fulfil the socio-economic rights of citizens as enshrined in the Constitution. The National Development Plan (NDP) (National Planning Commission, 2010), the "government's development blueprint document", underscores the point that corruption undermines good governance and the effective operation of government. The opportunity cost of resources lost to corruption is poor economic growth, growing unemployment, poverty and inequality. The NDP believes that fighting corruption and enhancing accountability should be the core to realising sustainable and inclusive development and building a capable and developmental state. There is, therefore, an urgent need to effectively eradicate corruption if the country is to prosper.

There is no single, precise definition of corruption as it manifests in diverse forms (e.g. bribery, embezzlement, graft and patronage) (Enste and Heldman, 2017; Hashem, 2014). Although various indices (e.g. the Corruption Perception Index published annually by Transparency International) have been used to measure corruption, it is a phenomenon that cannot be measured in absolute terms (Jajkowicz and Drobiszova, 2015). According to Transparency International (2014), corruption is the "abuse of public office for private gain". This definition is accepted in many jurisdictions as it encapsulates many forms of corruption (Enste and Heldman, 2017; Timofeyev, 2011; Hashem, 2014**)**. In South Africa, the Prevention and Combatting of Corrupt Activities Act (2004) define the general offence of corruption as:

"Any person who, directly or indirectly, accepts or gives or agrees or offers to accept or give any form of gratification from any other person, whether for the benefit of themselves or for the benefit of another person to act personally or by influencing another person to act in a manner that amounts to be illegal, unauthorised, designed to achieve an unjustified result, or any other unauthorised or improper inducement to do or not to do anything."

This definition implies that corruption is any conduct by a person entrusted with responsibilities in any office who violates those duties to obtain undue gratification for themselves or other persons. The Public Service Commission (2011) lists seven common manifestations of corruption in South Africa: fraud and bribery, mismanagement of government funds, abuse of government resources, identity document fraud, procurement irregularities, appointment irregularities and unethical behaviour. This paper denotes bribery, embezzlement, facilitation payment, fraud, collusion, extortion, patronage, clientelism and nepotism as manifestations of corruption.

Although South Africa has put together a range of laws, strategies, and institutions to combat corruption, the challenge is severe and exacerbating. This chapter aims to examine the efficacy of an alternative corruption prevention strategies and the effectiveness of the funding frameworks of various public sector anti-corruption agencies in addressing corruption in South Africa, and alternatives strategies and measures used elsewhere to eradicate corruption.

1.2 Problem statement

According to Transparency International (2020), South Africa's corruption levels have increased dramatically. Out of 180 countries assessed in 1995, South Africa's Corruption Perception Index stood at 56, and almost 30 years later (in 2020), the score had declined to 44 (an index closer to zero is classified as being most corrupt, and one closer to 100 is considered least corrupt). The cost of corruption in the country is also huge, whatever yardstick is used. Manyaka and Nkuna (2014) indicated that the Consumer Goods Council of South Africa loses between R50 -to R150 billion annually to corruption. Corruption Watch (2016) notes that R25 to R30 billion of the annual government budget is lost to tender-related corruption.

Despite the devastating effects of the COVID-19 pandemic on peoples' lives and livelihoods, it also became an arena for corrupt and fraudulent practices in South Africa. The Special Investigating Unit (SIU) (2021) reported that COVID-19-related procurement of goods and services by the three spheres of government resulted in irregular spending of over R7.8 billion. While procurement can play a transformative role by advancing service delivery to the poor and to vulnerable individuals, the Commission of Enquiry into State Capture (2021) notes that procurement processes in South Africa were grossly manipulated and abused to advance the interests of individuals at the expense of the deserving groups. The Commission of Enquiry and the SIU reports also noted that goods and services not needed were procured in some instances, or monies were paid to service providers before work was undertaken. Instructions issued through the National Treasury Regulations for deviations from procurement processes were frequently ignored. Procurement using allowed deviations became the norm rather than the exception and exposed government systems to corrupt practices and fraud. While officials did not carry out standard due diligence exercises during procurement processes, they also ignored National Treasury's pricing guidelines. In many instances, suppliers were awarded contracts for higher personal protective equipment (PPE) pricing than was prescribed by National Treasury. Those in positions of authority interpreted the declaration of a national disaster as permitting them to forgo compliance with emergency procurement. In conclusion, the reports noted that public sector procurement in South Africa is inundated by bribery, fronting, bid rigging, collusive bidding, misconduct, and maladministration; actions that undermine the mandates of the various spheres of government and ultimately service delivery.

These corrupt activities occur against the background of many structures and institutions established to prevent and eradicate corruption (e.g., the Special Investigating Unit, the Public Protector, the National Prosecuting Agency, and the Financial Intelligence Centre). Despite these institutions being in place, the problem of corruption continues to be on the rise (Davis, 2014; Nkuna and Manyaka, 2014; Webb, 2005). While the statistics on corruption highlighted above are alarming, little attention has been given to the effectiveness of the measures adopted to eradicate corruption. The objectives of the present chapter were to: evaluate the effectiveness of the funding models for selected anti-corruption institutions; review international case studies of strategies that the government can adopt to prevent or eradicate public sector corruption and recommend steps and mechanisms that can be put in place to prevent or eradicate corruption.

1.3 Research methodology and data

To achieve the objectives of the research, a combination of research methods was used:

- Review of international case studies: International case studies were reviewed to understand the steps and measures used elsewhere to eradicate corruption in the public sector.
- Budget and institutional analysis: The Chapter adopted a budget analysis approach to fully understand the efficacy of the funding frameworks and institutional arrangements of the selected anti-corruption institutions in combating corruption. This approach will use secondary data from various reports and planning documents of the selected institutions.

1.4 Literature review

This section reviews the literature on corruption. It begins by articulating the conceptual framework of corruption, followed by a theoretical analysis of the costs of corruption. This is followed by an institutional analysis of the literature that identifies the institutional weaknesses that allow corruption to thrive. Lastly, this section reviews the literature on steps that have been adopted elsewhere to combat corruption.

1.4.1 Conceptualisation of corruption

As noted above, corruption is the "abuse of power for private gains" (Transparency International, 2020). It often assumes various forms and dimensions in different countries, e.g. bribery, embezzlement, facilitation payment, fraud, collusion, extortion patronage, clientelism and nepotism (Menocal et al., 2014; Public Service Commission, 2011). Naidoo (2012) suggests that corruption includes extortion, abuse of power, conflict of interest, abuse of privileged information, favouritism, and nepotism in the South African context. The Public Service Commission (2011) identified seven critical manifestations of corruption in the South African public service: fraud and bribery, mismanagement of government funds, abuse of government resources, identity document fraud, procurement irregularities, appointment irregularities and unethical behaviour.

1.4.2 Cost of corruption

The costs associated with corruption are huge and place a burden on economic development. Corruption, if not addressed, leads to theft, wastage, and the misuse of scarce resources. It also entrenches elite privileges and inequality (World Bank, 2020). Public sector corruption has direct and indirect effects on the effectiveness of institutions. According to KPMG (2016), the direct costs include funds wasted on inflated procurement contracts, prices and stolen public assets. Indirect costs include inefficiencies resulting from deteriorating institutions and criminal activities. Corruption in South Africa has affected public revenue and expenditure (Naidoo, 2012). The allocation of resources has been distorted, which has affected government performance. While there are no precise estimates of the costs of corruption, the statements below suggest that corruption in South Africa is costly:

- In the last 20 years, South Africa has lost R700 billion to corruption, equivalent to more than half of the annual budget (Open Society Initiative for Southern Africa, 2017).
- In 2017, the government channelled R967 billion through public procurement, which equated to 19.5% of the gross domestic product (GDP) (Zondo Commission, 2021).
- In 2017, National Treasury noted that more than 50% of the annual R800 billion budget was lost due to the intentional abuse of the system (Institute for Security Studies, 2021).
- In 2021, in response to the COVID-19 pandemic, the SIU investigated cases of maladministration and corruption to a total value of R14.3 billion. With the R14.3 billion under investigation, about R2.1 billion has been referred to the Special Tribunal to set the contracts aside and recover losses (SIU, 2021).

The Auditor-General, which conducts regular audits on national, provincial and local governments on how budgets were adhered to, found that in 2019/20 (see Table 1.1), the national and provincial governments registered R18.2 billion in unauthorised expenditure[1] (mainly due to overspending of the budgeted amounts). Transgressions in supply chain management processes and legislation resulted in R54.34 billion in irregular expenditure[2]. According to the Auditor General of South Africa (2020), this was a result of a culture of no consequences for non-compliance established by political and administrative leadership, resulting in an environment that was vulnerable to misappropriation, fraud and corruption; wastage, and the abuse of funds. In the same year, R2.39 billion was recorded as fruitless and wasteful[3] expenditure due to interest and penalties for late payment to creditors, litigation claims and procurement irregularities (procuring higher than market-related prices). The Auditor-General of South Africa (2020) alludes that the R2.39 billion fruitless and wasteful expenditure could have been avoided if reasonable care had been taken, now lost to national and provincial governments to deliver on their respective mandates.

Similarly, at the local government level, in 2019/20, the Auditor-General of South Africa (2020) reported R3.47 billion in fruitless and wasteful expenditure due to interest and penalties charged for late payments, which resulted in material financial losses, litigation and claims, as well as write-offs on assets.

Non-compliance with supply chain management processes (preference points not being applied, procurement without following competitive bidding and inadequate contract management) resulted in irregular expenditure of R26 billion. The unauthorised expenditure stood at R22 billion due to outstanding audits at the cut-off date.

[1] According to Republic of South Africa (1999) PFMA, and Auditor-General of South Africa (2020), unauthorised expenditure means expenditure not in accordance with the purpose of a vote or, in the case of the main division, not in accordance with the purpose of the main division. Unauthorised expenditure therefore occurs when departments used more funds than had been allocated (in other words, overspending) or used allocated funds for purposes other than those intended. Budget provisions can also be made for items that do not involve cash (non-cash items), such as reducing the value at which assets are reflected in the financial statements or other types of potential financial losses.

[2] Irregular expenditure is expenditure that was not incurred in the manner prescribed by legislation. Such expenditure does not necessarily mean that money was wasted or that fraud was committed. It is an indicator of non-compliance in the process that needs to be investigated by management to determine whether it was an unintended error, negligence or done with the intention to work against the requirements of legislation. Through such investigation, it is also determined who is responsible and what the impact of the non-compliance is. Based on the investigation, the next steps are determined. One of the steps can be condonement if the non-compliance had no impact and negligence was not proven. Alternatively, if negligence was proven, the steps can be disciplinary action, the recovery of any losses from the implicated officials, or even cancelling a contract or reporting it to the police or an investigating authority.

[3] According to the PFMA (Republic of South Africa (1999) and the Auditor-General of South Africa (2020), fruitless and wasteful expenditure is expenditure that was made in vain and would have been avoided had reasonable care been exercised. Fruitless and wasteful expenditure is money that is lost to the state or that could be permanently lost if not recovered. It is also a good indicator of the financial management of the public purse.

Table 1.1: Government unlawful expenditure for 2019/20

2019/20	Fruitless and wasteful expenditure	Irregular expenditure	Unauthorised expenditure
Local government	R3.47 billion	R26 billion	R22 billion
National and provincial government	R2.39 billion	R54.34 billion	R18.2 billion
Total	R5.86 billion	R80.34 billion	R38.2 billion

Source: Auditor-General of South Africa (2020)

Prior to the amendment of the Public Audit Act in 2019, the Auditor-General, over the years, constantly withheld clean audit certification based on material irregularities found with no consequence management, mainly because of a lack of monitoring by the accounting officers in terms of identifying irregularities, which, in turn, exacerbated corruption. In strengthening the accountability mechanisms, the Public Audit Act was amended in 2019 so that the Auditor-General could report on material irregularities (procurement and payments, interest and penalties, revenue management, investments and assets) and take action against accounting officers who fail to take remedial action by issuing a certificate of debt, for losses to be recovered from the accounting officer.

For a matter to be classified as a material irregularity, there needs to be irregularity (non-compliance, fraud, theft) and the irregularity must have an impact (loss, misuse or harm). National and provincial government material irregularities for 2019/20 amounted to R6.9 billion (due to non-compliance in procurement processes resulting in the overpricing of goods and services procured, resulting in the appointed supplier not delivering, payment for goods or services not received or being of a poor quality, invoices or claims not paid on time resulting in interest or penalties, revenue not being billed, debt not being recovered and inefficiencies).

Material irregularities in local government (2019/20) stood at R2 billion (due to non-compliance in procurement processes resulting in the overpricing of goods and services, payment for goods or services not received or invalid salary payments, creditors not being paid on time, resulting in interest on penalties, revenue not being billed, debt not being recovered, the loss of investments and assets not safeguarded. The Auditor-General of South Africa further states that these material irregularities identified in government are not complex issues but rather basic disciplines and processes that should be in place in government, such as procuring at the best price, paying for what was received, making payments on time, recovering the revenue owed to the state, safeguarding assets, and using government resources efficiently and effectively. These material irregularities could have been avoided if preventative controls had been in place. Furthermore, while the Auditor-General has been given amended powers to implement various measures, the success of its powers will only be evident when a culture of responsiveness, consequences, good governance and accountability becomes the norm rather than the ideal.

Therefore, the Auditor-General is of the view that it has done everything within its mandate to support government departments, including the accountability process through the material irregularity process. Still, it has not worked, and as such, leadership should set the tone at the top cause if those in leadership or accountability positions are unethical, disregard governance issues as well as compliance and control, and are not committed to transparency and accountability that filters through the lower levels and ranks of the government where inevitably, a culture of poor discipline, impunity and non-delivery will occur. It is also worth pointing out that the amended powers of the Auditor-General, as per the Public Audit Act of 2019, consider non-compliance with legislation or contravention of legislation as fraud, theft, or breach of fiduciary responsibilities.

1.4.3 Institutional analysis, funding, and capacity issues related to corruption

Weak governance institution is one fundamental cause of corruption (Malyniak et al., 2014; Menocal et al., 2014). According to the World Bank (2020), various countries and cities across the globe have opted for institutional approaches in the fight against corruption, as this has been identified as key in addressing corruption. One such city is Hong Kong, which has established a single agency to fight corruption. However, this method has not been successful in other countries and has fallen short due to limited budgetary, human, and financial resources. In sub-Saharan African countries, legal and institutional frameworks have been in place but have not been effective or adequately addressed corruption (Chikova, 2020). Some of the reasons for the limited resources appropriated to these institutions are funding and human resource capacity. Chikova (2020) argues that anti-corruption units and measures to prevent, fight and prosecute corruption on the African continent are grossly underfunded or are overseen by executive government branches that are less autonomous.

In South Africa, despite the various structures and institutions whose mandate is to combat corruption, the challenge of corruption continues to escalate (Davis, 2014; Manyaka and Nkuna, 2014; Webb, 2005). These institutions face similar challenges as those of other anti-corruption agencies on the continent. Weak governance systems and regulation applications, lack of complementary preventative and investigative measures, resource constraints and inadequate personnel training has rendered these institutions ineffective in combating corruption (Malyniak et al., 2014; Menocal et al., 2014). Thus, corruption will thrive where there are weak institutions and the weak application of regulations. The Public Service Commission (2011) notes that limited resources hamper various departments' investigations of alleged corruption cases. The absence of coordination and a clear delineation of responsibilities among anti-corruption institutions results in inefficient mandate overlaps (DPSA, 2003; The Presidency, 2020; Pillay, 2017). These institutions' broad mandates and lack of cooperation and coordination limit their effectiveness. For instance, according to South Africa's Corruption Assessment Report (2003) and the Review of South Africa's Anti-Corruption Agencies by the Public Service Commission (2001), the SIU has a broad mandate, which overlaps with other agencies, such as the Public Protector and the Asset Forfeiture Unit (DPSA, 2003; Public Service Commission, 2001).

Furthermore, these two reports state that non-compliance with legislation by organs of state, lack of resources by agencies that are supposed to deal with corruption, the non-existence of a central database of incidents of corruption or cases related to corrupt activities due to the non-collation of information by agencies, as well as a lack of preventative and reactive measures, have negatively affected all efforts to combat corruption.

The National Treasury report on the Public Sector Management Review of the Supply Chain (National Treasury, 2015) revealed the perennial violation of supply chain management processes, which has become the norm in the public service, such as high prices paid for goods and services. These contracts favour certain suppliers, collusion, unethical behaviour, non-performance, and poor-quality products and services, with 45% of supply chain activities conducted manually. This has increased the risk of fraud and corruption. The National Treasury report (National Treasury, 2015) also indicates other obstacles to the fight against corruption in South Africa, such as a lack of consequence management, inexperienced leadership, a high staff turnover and a lack of motivation, a lack of clarity on the roles and responsibilities of technical officials of government and political office bearers, and political interference. The various reports of the Auditor-General over the years also emphasised a lack of accountability and leadership, inappropriate planning by officials, the lack of internal controls and supervision, the lack of political oversight, and the monitoring of budgets as obstacles to the fight against corruption (Auditor-General of South Africa, 2020; Odeku 2019). According to Odeku (2019) and the Auditor-General of South Africa (2020), if government officials apply the basic principles of accountability, such as internal controls and good governance, and leadership adheres to its legislated responsibilities and commits to taking swift actions when the Auditor-General notifies it of material irregularities, corruption will be eradicated. In concurring with the arguments above, the National Anti-corruption Strategy report (Republic of South Africa, 2020) assessed the status quo of the country with regard to corruption and corrupt activities in identified sectors (such as local government, health, transport, energy, water, education, information, and communication technology (ICT)) as the most vulnerable to corrupt activities. Contributing factors to their vulnerability were highlighted as ineffective processes and systems in place, conflict of interest, misrepresentation of information and fraud, collusion between officials and private individuals, inadequate fraud and corruption detection strategies, lack of effective consequence management, ineffective collaboration with stakeholders, and weaknesses in the regulatory environment (monitoring). According to the report, these contributing factors cause the collapse of governance and its integrity systems, resulting in billions of rands lost to irregular contracts.

Another matter closely related to non-compliance in South Africa is the lack of political support in combating corruption in government (Manyaka and Nkuna, 2014; Sebake, 2020). Naidoo (2012) support this notion by noting that, while anti-corruption measures are in place in South Africa, they often fail because there is no political will to implement comprehensive anti-corruption strategies. In South Africa, over the years, the anti-corruption agencies have been weakened by chronic political interference in the leadership and operations of their activities (Pillay, 2017).

Similarly, Phahlane (2021) also argues that a significant cause of the weakened institutional capacity to manage the scourge of corruption in South Africa is the lack of political will and ethical leadership. Some of the reasons for lack of political will are politicians being corrupt themselves and being fearful of consequences. Lekubu (2021) supports these arguments by further stating the lack of ethics and accountability by those in authority has resulted in corruption in the country. Corroborating the above statements are the repeated reports on audit outcomes by the Auditor-General across government departments regarding the lack of credible financial statements and poor performance due to a lack of accountability, a lapse in oversight and lack of controls relating to compliance consequence management. The situation is dire for local government. The Auditor-General argues that nothing has worked despite various interventions and strategies, such as consultants, additional monitoring, and the Auditor-General assisting within its mandate to support municipalities on accountability processes. This called for the leadership to set the tone of ethical and accountable leadership. The lack of ethical and non-accountable leadership filters down to lower levels, resulting in a culture of poor accountability and impunity. Lekubu (2021) is of the view that ethics and morality are founded on integrity, competence, responsibility, accountability, fairness, and transparency, including anticipating and preventing or avoiding corrupt practices. Therefore, ethical leadership can be achieved through an institutional or organisational culture that is anchored on ethical behaviour.

Transparency International (2014) defines political will as the "demonstrated credible intent of political leaders", i.e., a demonstration by political leaders of their intention to address challenges facing society, such as corruption, by a political pledge to effect reforms.
Transparency International (2014) states that political leadership and a commitment to fight corruption are prerequisites for initiating and sustaining reforms to eradicate corruption. Transparency International lists components that show whether the country has the political will or a lack thereof (a weak or non-existent legal or the al institutional framework, inadequate allocation of powers and resources, poor governance, weak accountability, and the lack of appropriate sanctions and enforcement). Table 1.2 shows the characteristics of a country with a political will, which is the political commitment to fight corruption and apply anti-corruption efforts and its associated outcomes.

Table 1.2: Political commitment and associated characteristics

Commitment	Associated characteristics
Government initiative	This characteristic relates to where the impetus to implement reforms comes from. "Home-grown" initiatives to fight against corruption show that the government sees the issue as necessary and is willing to do something about it. On the other hand, externally imposed or imported anti-corruption initiatives face the challenge of building true commitment and ownership among political leaders.
Degree of analytical rigour	Anti-corruption policies that are decided on or implemented utilising evidence-based analyses of the options and related costs and benefits are likely to represent a higher degree of willingness to act and achieve

Commitment	Associated characteristics
	positive results. On the other hand, window dressing anti-corruption measures are likely to be implemented without considering the country's context, needs and costs. They show a lack of commitment to achieving change effectively.
Mobilisation efforts	Efforts to mobilise support from other stakeholders (such as civil society organisations and the private sector) in the implementation of reforms are also seen as a sign of strong political will by political actors.
Long-term public commitment and allocation of resources	The amount of human and financial resources allocated to support the reform, its goals and objectives also offer some insights into the level of political will. If new anti-corruption agencies are created, but they suffer from underfunding and a shortage of personnel, this can indicate that political will is half-hearted. In the long run, policy makers often see anti-corruption strategies as a one-shot endeavour or a symbolic gesture. It is also essential to look into resource allocation for the anti-corruption strategy or institution.
Application of credible sanctions	Without well-crafted sanctions, corruption cannot be reduced. Therefore, a practical, proportionate and enforced sanctions regime signals a serious commitment to fight corruption and a higher political will. On the other hand, symbolic and selective sanctions point to a lesser degree of political will.
Learning and adaptation	Establishing a process of tracking and monitoring the progress and results of anti-corruption policies and programmes is also relevant. This allows one to adapt the strategies to emerging circumstances. It also shows a certain commitment to learning from past experiences to monitor achievements more transparently.

Source: Transparency International (2014)

Transparency International (2014) argues that often, the political will to fight corruption comes from the top, but bottom-up approaches (empowering and mobilising citizens) can also solicit political will. That is, civil society is actively engaged and committed through advocacy, education, and training on corruption, reporting corruption and efforts that can exert pressure on political leaders to act against corruption and initiate anti-corruption reforms.

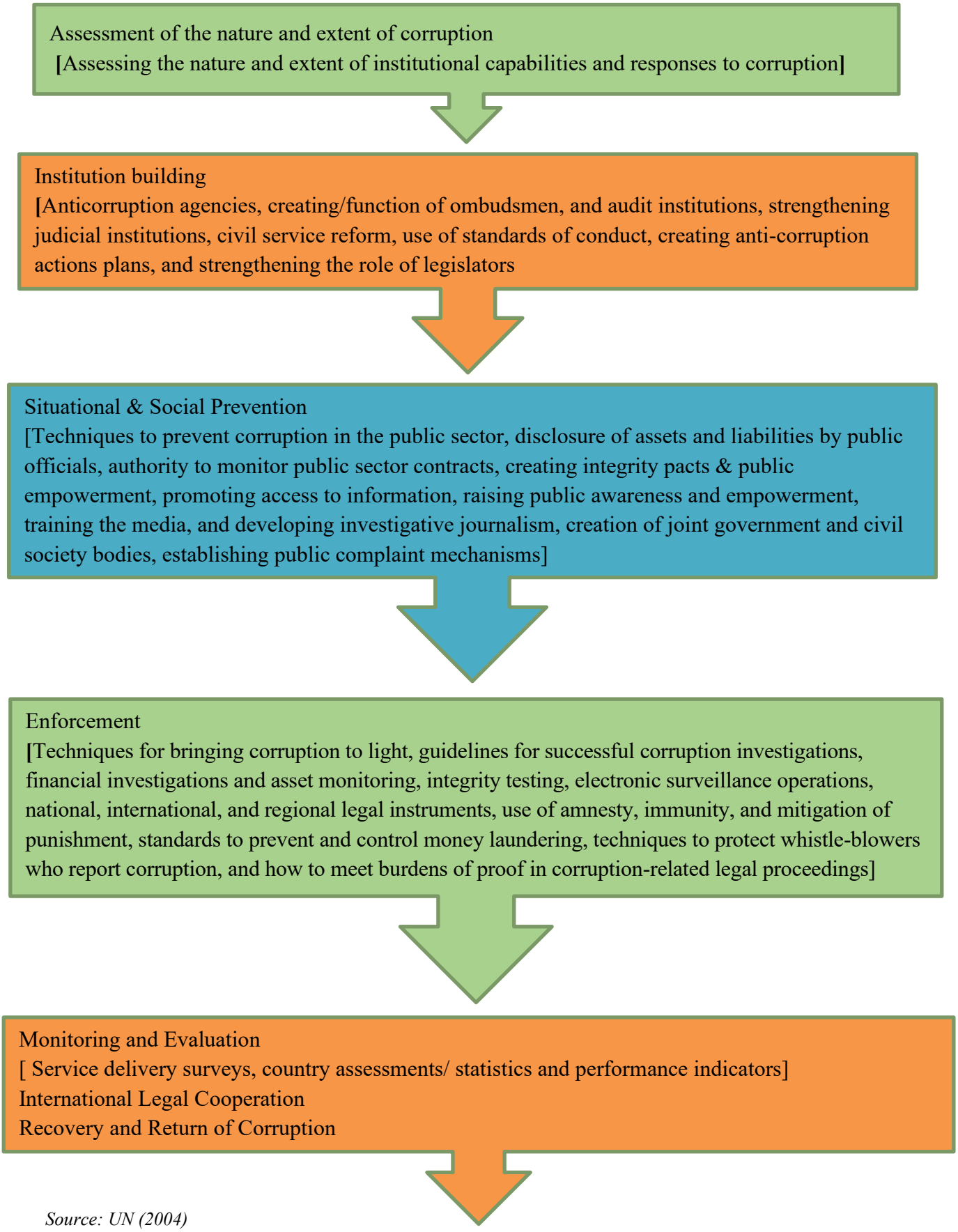
1.4.4 Steps and measures to eradicate corruption

As highlighted elsewhere in this chapter, there are anti-corruption institutions in South Africa whose mandate is to curb corruption. The Anti-Corruption Task Team (ACTT) was established in 2010, consisting of anti-corruption institutions. The ACTT aimed to coordinate the anti-corruption agenda established across different government structures. However, the Open Society Initiative for Southern Africa (2017), in its assessment of the anti-corruption institutions in South Africa, found that the ACTT is an advisory body that lacks powers, is mainly dominated by government executive management and is "overly subjected to the

whims of the executive". Evidence of the ACTT structure indicates unstable leadership by the executive towards efforts on eradicating corruption, hence its failure. Advocacy of corruption and its adverse effects on the country are also weak due to poor levels of awareness; thus, the public ambivalence by society at large (Open Society Initiative for Southern Africa, 2017). Hope (2020) and Manyaka and Nkuna (2014) propose strengthening institutions through anti-corruption policy frameworks and strategies that are multifaceted and sustainable, promoting political will and ethical leadership to ensure that anti-corruption measures are mainstreamed and implemented. According to the NDP (National Planning Commission, 2020), South Africa has favoured a multi-agency approach to dealing with corruption as the independence of a single anti-corruption agency can be compromised by political interference. The NDP further recommended various measures to address corruption, including reviewing the mandates and functions of current structures, putting additional funding resources in place and employing skilled personnel.

The United Nations (2004) published toolkits that governments or agencies in anti-corruption efforts could use. Although these toolkits are not blueprints for fighting corruption, they offer suggestions and information on how other countries have successfully used them to combat corruption. In implementing these toolkits, governments first need to assess the nature and scope of corruption problems, then develop an anti-corruption strategy, set overall priorities, and develop a comprehensive framework with specific programmes and activities. Progress should be monitored throughout the process, and information about what is or is not adequate should be used to reconsider and modify each element of the strategy. These tool kits cover prevention, enforcement, institution building, awareness-raising, empowerment, anti-corruption legislation, and monitoring (see Figure 1.1).

Figure 1.1: Tools on anti-corruption efforts



Source: UN (2004)

South Africa adopted the National Anti-corruption Strategy (2020-2030) (NACS), using the United Nations (2004) toolkits as guidelines. Thus, the NACS is premised on preventing corruption based on good governance, transparency, integrity management, accountability in society and the early detection of potentially corrupt practices to supplement the reactive measures executed by law enforcement agencies and other anti-corruption communities. According to the NACS, the political will of those who serve in public office and ethical leadership in all sectors of society are crucial in eliminating corruption. Not only that, NACS highlighted various challenges that need to be addressed for South Africa to become a corrupt-free country: lack of coordination by the anti-corruption institutions, the need for improving transparency and accountability in the use of the public procurement system, and the need to empower citizens in combating corruption through awareness campaigns. It further proposed that the President champions the NACS with the support of the compact social system. The strategy document envisages that the NACS will commence its implementation phase in 2020/21. Its implementation would require establishing an overarching body that will play an oversight role and monitor the roll-out of the strategy. However, to date, no progress or update regarding its performance or outcomes as envisaged. The Commission of Inquiry into State Capture (2021) highlighted South Africa's procurement processes as being grossly manipulated and abused, given that no specialised oversight body has been given the specific mandate to fight corruption in all spheres of procurement. Thus, the Commission of Inquiry recommended the need to establish an independent Public Procurement Anti-corruption Agency, free from political oversight and subjected only to Constitutional Law, to re-establish trust in the procurement of goods. It will also monitor activities in the procurement of services. Further, the Commission of Inquiry recommended the creation of a procurement officer's profession, to which all officials who work in procurement would belong, with qualifications and the necessary training and experience required for membership in the profession. The training and qualification will include standards of integrity and a commitment to resist the mismanagement of funds and corruption. Where a member has mismanaged funds, they would be referred to a Tribunal Agency that acts as the disciplinary committee of the profession, with the power to strike a member from the roll or impose any other disciplinary sanctions as the case may require.

1.5 Review of international case studies on steps and measures to eradicate corruption in the public sector

This section reviews case studies of measures or steps other countries have successfully adopted to prevent or eradicate corruption-related activities in the public sector. These include legislative changes, judiciary reforms, public finance management reforms, the establishment of an anti-corruption commission and budgets or funding reforms for institutions mandated to fight and prevent corruption, reconfigurations of existing institutions that fight corruption, reforms in the public procurement systems, accountability mechanisms, active citizens' involvement, monitoring, evaluation and political will, as well as ethics and integrity. A variety of countries were chosen as case studies from Africa, South America, Europe, and Asia, as indicated in Figure 1.2. The findings for each country are summarised in Table 1.3:

Figure 1.2: Case study countries

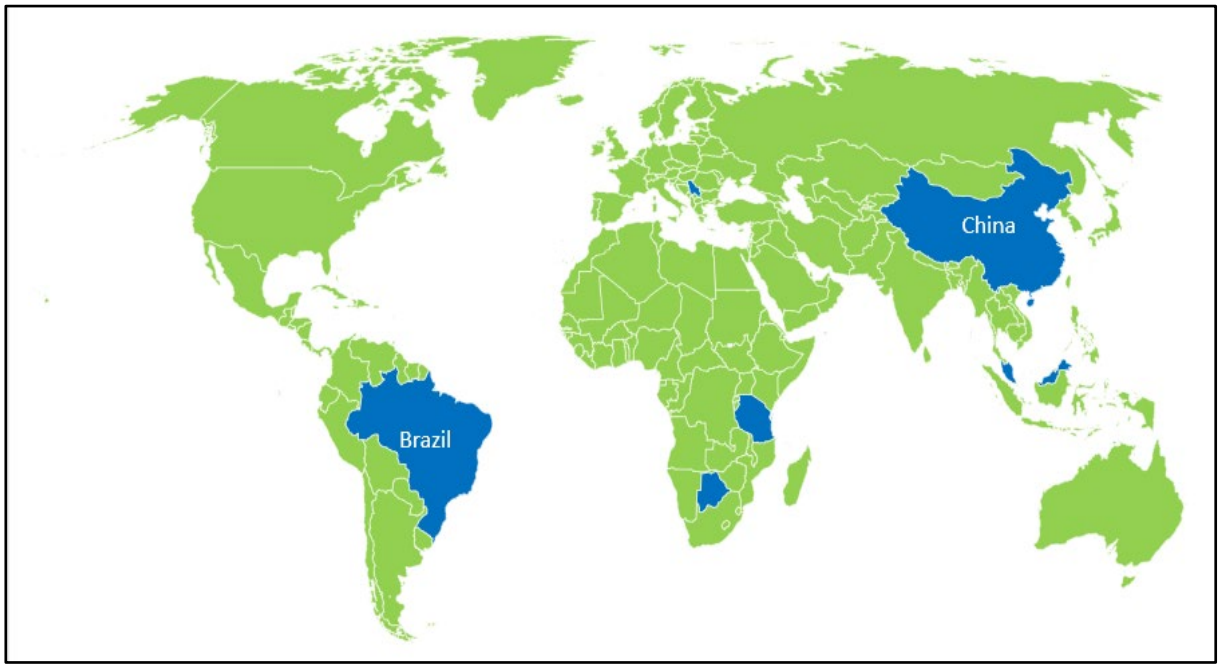


Table 1.3: Country case studies on measures to eradicate corruption

Country	Findings
United Kingdom (World Bank, 2020)	In 2015, the UK's National Crime Agency warned that the scale of laundering criminal proceeds was a real threat to the UK's economy and reputation. The government's Anti-corruption Plan (2014) aimed to more effectively tackle those who engaged in corruption or launder their corrupt funds in the UK and return the proceeds of corruption. In the UK, about 50 agencies with different and competing mandates investigated international corruption and the proceeds of global corruption. No new agency was created, but existing ones were reconfigured. The UK established the International Corruption Unit through a reconfiguration of expertise within existing institutional arrangements. This enabled dedicated investigation and intelligence unit allocation within existing law enforcement agencies. The outcome was the establishment of the International Corruption Unit (ICU) within the National Crime Agency (NCA). The ICU was given dedicated staff and a budget, and its capacity was enhanced, including support from the NCA, which yielded positive results.
Malaysia (World Bank, 2020)	Malaysia's anti-corruption efforts received a significant boost in 2018 with the new government's election. The government's first step was to set up the National Centre for Governance, Integrity and Anti-corruption (GIACC) as the special Cabinet committee for anti-corruption (JKKMAR) secretariat, reporting directly to the Prime Minister. The GIACC, in consultation with other agencies and departments, formulated and launched the National Anti-corruption Plan (NACP) and is currently overseeing its implementation. The primary enforcement agency continues to be the Malaysian Anti-corruption Commission (MACC), the two being the central anti-corruption bodies in the country. The NACP outlines the government's strategies and measures for combatting corruption, strengthening governance, integrity and transparency in government operations. The five-year plan has six strategic thrusts: • Strengthening political integrity – strengthening the Parliament: Re-introducing the Parliamentary Services Act 1963 to provide greater independence and autonomy to Parliament to ensure checks and balances on the functioning of the executive.

Country	Findings
	• Accountability and effectiveness of public service delivery – asset declaration: For all executives to declare assets extended to members of Parliament. The asset declaration information has been published on the MACC portal. • Efficiency and transparency in public procurement – procurement reform: Efforts on various procurement reforms are on track with a plan to table the Procurement Act in Parliament in 2020. • Enhancing the credibility of the legal and judicial system – strengthening the Judiciary: Special courts were established to expedite trials on corruption cases. • Institutionalising the credibility of law enforcement agencies – Independent Police Complaints and Misconduct Commission (IPCMC): The draft IPCMC Bill was under discussion with the Chambers of Attorney-General • Inculcating good governance in corporate entities – Ombudsman: The Ombudsman Act, in draft stages, was meant to replace the Public Complaints Bureau to improve the management of public complaints in Malaysia Additional initiatives included the following: • Reform of Government-linked Companies (GLCs): The Ministry of Finance is finalising guidelines for senior management, a Chairman and Board of Directors in GLCs and subsidiary companies, banning all political appointments in GLCs. • Support letters: A new policy has been introduced that forbids politicians from issuing support letters for government tenders and projects. • Organisational Anti-corruption Plan (OACP) and Anti-bribery Management System (ABMS): It is compulsory for all government agencies to have an OACP specific to their workflow and the implementation of the ABMS was launched government-wide after a pilot project in 2021.
Botswana (UN, 2004; Chikova, 2020)	The Corruption and Economic Crime Act 1994 of Botswana provided for the establishment of a Directorate on Corruption and Economic Crime (DCEC) with an extensive mandate that includes the investigation of alleged or suspected offences, the apparent or suspected infringement of fiscal and revenue laws, the conduct of any person that may be connected with or conducive to corruption, the examination of the practices and procedures of public bodies established to eliminate those that may be conducive to corrupt practices, the education of the public about the evils of corruption, and the fostering of public support against corruption. The Act also creates several offences, including the possession of unexplained property. The early division of responsibilities into the investigation (operations), prevention (mainly management advice) and education (including public relations) followed a pattern adopted successfully elsewhere. The government funds the directorate. Funding for the directorate has been increasing, especially towards efforts to fight corruption and improve corruption scores for the country. An Intelligence Group was established to supplement information gained from public complaints. A reporting centre for receiving messages from the public became fully operational in March 1995. By 1998, there were five branches, each headed by an Assistant Director. The branches were responsible for Prosecutions and Training, Investigations, Intelligence and Technical Support, Administration, Development and Financial Investigations, Corruption Prevention and Public Education.
Tanzania (UK Aid, 2015)	In curbing corruption in Tanzania, the government adopted the following five measures at the national level: • An in-depth diagnostic study of the causes and extent of corruption in the country through the Presidential Commission Against Corruption (PCAC), commonly known as the Warioba Commission.

Country	Findings
	• Involvement of all stakeholders in brainstorming, formulating and proposing the basic structure and content of a strategy to combat corruption in the country. • Political will, developing sector-specific action plans against corruption, and setting out priority areas to attack corruption. • Mainstreaming with the ongoing reforms in the country. • Developing and building capacities in institutions directly charged with combatting corruption, i.e. the Prevention of Corruption Bureau and the Institutionalising Coordinating, Evaluation, and Monitoring Unit. Good governance has two distinct dimensions: The political dimension relates to the degree of genuine commitment to good governance. The technical dimension refers to efficiency and public management issues. The government instituted or formed a Good Governance Coordinating Unit in 2001 within the President's Office that will coordinate all good governance programmes in the country to establish the evaluation and monitoring of all activities undertaken in the good governance reforms, including the National Anti-corruption Strategy and Action Plan (NACSAP). It is about harmonisation, consistency, uniformity and close follow-up of the implementation of action plans as set out in the timeframe matrix of each sector. This also assisted in terms of determining budget allocation requirements for the action plans identified by each sector-specific implementation programme. The overall objective of the coordination was to measure performance and compare the perception indicators, access and transparency from the initial diagnostics so that those involved could see which areas have shown improvements and why. Tanzania's vision of good governance is contained in the government's policy paper, Vision 2025.
China (United Nations, 2011)	Since the start of the 21st century, China has been prominent in the work of combatting corruption and building a clean government. It adopted the principle of addressing both the symptoms and root causes of corruption, enforcing comprehensive treatment, giving simultaneous stresses to punishment and prevention, prioritising prevention, and establishing the national anti-corruption strategy by setting up and perfecting a punishment system. In 2007, China established the following: • The National Bureau of Corruption, which aims to organise and coordinate the national work of corruption prevention, make overall plans in this regard, formulate relevant policies, examine, coordinate and direct the work of corruption prevention in enterprises, public institutions, social groups, intermediate agencies and other social organisations, and take charge of international cooperation and technical assistance in this regard. Some provinces and municipalities also established corruption prevention bureaux. • The Implementation Outline aimed to establish and improve the corruption, punishment and prevention system to ensure that leading cadres work cleanly and honestly, including codes of conduct and ethical rules for party members who hold leading positions. China publicises exemplary public officials' deeds through news media, films and television programmes and holds meetings to promote their meritorious deeds. China also compiles educational materials, shoots films warning people against corrupt behaviour, holds relevant exhibitions, and organises corrupt officials to give speeches from their own experiences. • China promotes clean governance education for civil servants, mainly to help them build correct concepts, urge them to abide by laws and consciously abide by regulations, perform official duties honestly and consolidate their moral defence line of resisting corruption in their minds. China makes cadre training and education a routine task. Public officials should execute duties with integrity as a critical content of such education and training, making it a required course for leading cadres of all levels.

Country	Findings
	• Integrity education for university, middle school, and primary school students fosters their moral consciousness and legal concepts of integrity, honesty and lawfulness, and raises their awareness of integrity. e.g. visual images and exciting activities are more often used in primary and secondary schools. Universities frequently resort to more rational forms of thinking, analysing, reasoning and discussions in their integrity education programmes.
Rwanda (Khan and Pillay, 2019; Bozzini, 2013; Chêne, 2008; World Bank, 2020)	Since the 1994 genocide, Rwanda has undergone a painful reconstruction process, including rebuilding governance systems, structures and institutions. Rwanda has performed relatively well in terms of government effectiveness, compared to several of its neighbours. The fight against corruption has also been led by the country's highest institutions and has followed a top-down approach. The establishment of new laws and institutions, sensitisation campaigns and public calls for integrity have mostly come from the highest levels of government, including from the President, with the Rwandan government's effectiveness being rated the highest in sub-Saharan Africa at 95%. However, for these commitments at a higher level to be sustained in the long term, accountability structures need to be strengthened and transparency in the management of public affairs enhanced. Since the late 1990s, top government officials have seen the fight against corruption as essential in stopping the cycle of violence that previously culminated in genocide. The perception of corruption as endangering society underpinned the government's zero tolerance for corruption policy. That perception is also reflected in the link between corruption and injustice that factored into creating the Office of the Ombudsman to lead the anti-corruption movement. Corruption opportunities have been further curtailed by improving the application of business regulations. The revision of Rwanda's public procurement rules and the creation of the National Tender Board (now Rwanda's Public Procurement Authority) enabled Rwanda to establish greater transparency and standardisation in the state's contract with the private sector. The fight against corruption is one of the government's official priorities. Consistent policy and efforts to combat corruption have demonstrated the political will to fight corruption. Both members of the political elite and civil servants were prosecuted when allegations of corruption were brought against them. There have been several cases of high-ranking officials being forced to resign, dismiss, or charged when involved in corruption activities, such as anti-corruption measures and institutions. The government has several anti-corruption measures at the national level. These include establishing the following: • The Office of the Ombudsman, which monitors transparency and compliance with regulations in all governmental sectors. The Ombudsman has taken a strong stand against corruption and regularly exposes fraud, malpractice and corruption cases • The Anti-corruption Unit of the Rwanda Revenue Authority (RRA) has a good Code of Conduct and extensive and active internal campaign mechanisms to raise staff awareness of this code. The RRA also has effective disciplinary procedures to promote a culture of integrity within the institution. • The Auditor-General and the National Tender Board (NTB) (now called Public Procurement Authority). These institutions identify corruption cases while the police and National Prosecutor's Office prosecute the actual acts of corruption. The NTB was established in 1997 to organise and manage the public procurement process and implement the general public procurement policy on behalf of the government. The guiding principles for the NTB's operations are transparency, economy and equity. The NTB issues and manages procurement rules, regulations, guidelines and policies. The body is currently serving as the procurement agency for most government purchases, including those made by parastatals and international donors. The Office of the Auditor-General (OAG) was established in 1999 to audit government adherence to fiscal controls.

Country	Findings
Brazil Transparency International (2019)	Various reforms have been conducted in curbing corruption in Brazil. In 2013, new anti-corruption legislation was adopted. It established civil and administrative liability to companies engaged in corruption and the existing personal liability of its directors and staff. The law prohibits companies from offering or giving an unfair advantage to domestic or foreign public officials or related third parties. The Anti-corruption Law imposes severe sanctions, including fines that can reach 20% of a company's gross annual revenues. In 2004, the federal government created the Transparency Portal to increase transparency in public administration, enabling citizens to track the allocation of public money and play a monitoring role in this process. The Transparency Portal has been instrumental in supporting the direct social control of the government's activities. The media and watchdog groups have been using the portal's information to denounce wrongdoings and monitor how the federal government spends public money. Brazil does not have a single institution responsible for curbing corruption. Several bodies share this task at the federal and regional levels. The lack of a single anti-corruption institution leads to the increased relevance of inter-institutional cooperation mechanisms. The National Strategy for Combatting Corruption and Money Laundering was established in 2003. The Forum's main aim was to discuss anti-corruption within the government. Although civil society participation remains limited, it gathers specialists from several public bodies from all branches of power and the federal, state and municipal levels. They decide on action plans, which may involve conducting a study, drawing legislation, or monitoring the implementation of a policy.

1.6 Key lessons learnt from the literature review and case studies in combatting corruption

Some key lessons can be learnt from the international experiences regarding measures and steps that need to be in place to prevent and eradicate corruption-related activities. The prerequisite for any measure to fight corruption and move towards support for anti-corruption reforms is consistent political will for good governance and accountability, i.e. ethical and accountable leadership and a commitment to fight corruption should come from the highest office or the top levels of a country's political system, which should be through the following:

- Enhancing institutional capabilities to conduct checks and balances and ensure accountability, where accountability identifies who needs to be accountable to whom and for what; for instance, accountability of political leaders and public officials to organisational effectiveness and efficiency through compliance measures, rules and ethics codes, as well as oversight bodies taking their legislated responsibilities seriously and committing to repelling corruption by taking swift action and imposing sanctions when the need arises.

- Genuine political commitment to the governance structures of the anti-corruption agencies. Establishing an anti-corruption agency is not a panacea to addressing corruption. National corruption strategies should be established to assess whether an anti-corruption agency is needed. An alternative can also be found among the existing institutional arrangements through reconfiguration and coordination to avoid duplication and execute effective results on time to support enforcement agencies, including a long-term commitment to allocating human and financial resources to support anti-corruption

agencies to realise anti-corruption efforts. The literature points out that having anti-corruption agencies in place that suffers from underfunding and a shortage of personnel and skills indicate that political will is "half-hearted", with policymakers seeing these agencies and their strategies as "symbolic gestures". Once anti-corruption strategies are implemented, tracking and monitoring the progress are needed.

- As is the case in Rwanda, corruption opportunities in the procurement system can be prevented by establishing a public procurement authority (PPA). The mandate of the PPA in Rwanda is clear: to show greater transparency and standardisation of government contracts. The PPA organises and manages the public procurement process and implements the public procurement policy on behalf of the government. The guiding principles for the PPA are transparency, economy and equity. The PPA issues and manages procurement rules, regulations, guidelines and policies. The PPA in the Rwandan case is similar to what the Zondo Commission proposes, as discussed elsewhere in this chapter. The chapter highlights that there is no single specialised oversight body with a specific mandate to fight corruption in all spheres of procurement.

- There is a need for bottom-up approaches through a dedicated civil society organisation that empowers citizens by educating society about the dangers or adverse effects of corruption, e.g. that it negatively affects their lives and the economy. The organisation should be involved in public awareness campaigns, emphasising the importance of reporting corruption. The collective effort of the organisation should be able to advocate for anti-corruption reforms, which will put pressure on political leaders to act against corruption.

- South Africa can also learn from some specific countries, such as the Rwandan case study, given the similar characteristics they share. Since the 1994 genocide, Rwanda has undergone a painful reconstruction process through rebuilding governance systems, structures and institutions. Rwanda has performed relatively well in government effectiveness in fighting corruption, led by the highest office (the President) and has followed a top-down approach. The introduction of new laws and institutions, sensitisation campaigns and public calls for integrity have mostly come from the highest levels of government, including the President. The government has several anti-corruption measures at the national level, such as the Office of the Ombudsman and the Public Procurement Authority. These institutions identify corruption cases, while the police and the National Prosecutor's Office prosecute the actual acts of corruption.

- From the Tanzanian case study, South Africa can learn from the development of the NACSAP, which has similarities with the NACS in South Africa. Tanzania's NACSAP includes the following:
  - The involvement of all stakeholders in brainstorming, formulating and proposing the basic structure and content of the strategy to combat corruption in the country.
  - Political will.
  - Developing sector-specific action plans against corruption.

- Mainstreaming anti-corruption reforms in the country.
- Developing and building capacities in institutions directly charged with combatting corruption, i.e. the Prevention of Corruption Bureau and the Institutionalising, Coordinating, Evaluation and Monitoring Unit.

1.7 Findings

This section uses budget analysis tools to examine the adequacy and efficacy of government allocations to institutions meant to prevent and eradicate corruption. The analysis focuses on the following anti-corruption agencies: the National Prosecuting Authority (NPA), the Financial Intelligence Centre, the Special Investigation Unit and the Public Protector.

1.7.1 Institutional overview

The Department of Justice and Constitutional Development (DJ&CD)'s Budget Vote funds five programmes. Programme 4 is the NPA, with four sub-programmes, including the Asset Forfeiture Unit and the Witness Protection Office. Programme 5 is Auxiliary Services, with the Public Protector[4] as one of its sub-programmes. Other than these five programmes, the DJ&CD has entities such as the SIU[5]. What is notable about these institutions is that they are reported within various budget votes of government departments, with the Asset Forfeiture Unit, and the Witness Protection Office reported as sub-programmes of the NPA (see Table 1.4). National Treasury's Budget Vote has the Financial Intelligence Centre[6] as one of its nine programmes.

Table 1.4: Anti-corruption institutions and their purpose

Responsible department	Sub-programmes	Purpose
Justice and Constitutional Development vote	**National Prosecuting Authority** *National Prosecutions Service*	Primarily responsible for general and specialised prosecutions and the appeals that might follow. These include resolving criminal matters outside of the formal trial process and considering dockets brought by the police where people have not been charged.

[4] The Public Protector of South Africa was established in terms of section 181 of the Constitution, which mandates the institution to strengthen constitutional democracy by investigating any conduct in state affairs, or the public administration in any sphere of government, which is alleged or suspected to be improper or to result in any impropriety or prejudice, report on that conduct and take appropriate remedial action.

[5] The SIU derives its mandate from the Special Investigating Unit and Special Tribunals Act of 1996. The Unit's principal functions are to investigate serious malpractice, maladministration and corruption in connection with the administration of state institutions, and to take or assist in instituting appropriate and effective action against wrongdoers.

[6] The Financial Intelligence Centre serves to combat financial crime, including money laundering and terror financing activities, and to gather intelligence for national security, defence and the combatting of crime.

Responsible department	Sub-programmes	Purpose
	Asset Forfeiture Unit	Seizes assets acquired from the proceeds of crime or have been part of an offence through a criminal or civil process.
	Witness Protection Office	Provides temporary protection, support and related services to vulnerable and intimidated witnesses and associated persons in judicial proceedings in terms of witness protection.
	Public Protector of South Africa	
	Investigations	Focuses on rooting out improper conduct and maladministration in all state affairs.
	Stakeholder Management	Ensures that the Public Protector of South Africa's services is accessible to all persons and communities. The programme also aims to assist state organs in establishing internal complaints-handling mechanisms.
	Special Investigation Unit programmes:	
	Investigations and Legal Counsel	Ensures adequate execution of the mandated service delivery of the SIU in line with the Special Investigating Units and Special Tribunals Act, 1996 (Act 74 of 1996); investigates severe malpractices or maladministration in connection with the administration of state institutions, state assets and public money.
	Market Data Analytics and Prevention	Implementing relevant and proactive initiatives to prevent the reoccurrence of fraud and corruption cases due to systematic weaknesses in the public sector and to positively influence South African citizens' behaviour.
National Treasury vote	**Financial Intelligence Centre (FIC)**	
	Delivery of intelligence on financial crimes and regulatory services in terms of the Financial Intelligence Centre Act (2001)	Focuses on enhancing compliance with the FIC Act. Delivery of intelligence on financial crime and FIC Act-related regulatory services, focusing on the improved production and utilisation of financial intelligence products.

Responsible department	Sub-programmes	Purpose
	Enablement of financial intelligence regulatory capabilities	Enhances the ability to deliver services to internal clients and other identified stakeholders, thus significantly contributing to the FIC becoming a sustainable and capable organisation.

1.7.2 Institutional financing

In terms of funding arrangements, the budget allocations of the main institutions established to combat corruption vary widely (see Table 1.5). What can be noted from Table 1.5 is that the compensation of employees accounts for a significant portion of the budget of virtually all these institutions. Over the years, this line item has remained above 80% for the NPA, 60–70% for the Public Protector, 60–80% for the SIU and 50–56% for the FIC. The most significant portion of the budget dedicated to the compensation of employees can plausibly be explained by the skill sets required in these institutions, especially in the areas of specialised investigations and prosecutions. However, caution should be exercised, as high compensation of employees' budgets can crowd out other critical corruption-busting measures that these institutions are tasked to conduct, such as research, early detection mechanisms and prevention, monitoring and evaluation efforts, and educational awareness campaigns.

Table 1.5: Budgets allocations of the anti-corruption institutions

R million	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
NPA's budget of	3 742.9	3 799.4	4 009.2	4 266.9	4 446.2	4 487.6	4 543.6
NPA compensation of employees	3 202.8	3 317.2	3 442.0	3 659.7	3 836.6	3 865.1	3 895.9
Public Protector's budget	345.2	321.6	366.4	325.7	331.9	340.9	345.2
Public Protector compensation of employees	238.9	238.2	252.8	249.9	251.8	257.7	258.3
SIU budget	536.9	619.9	502.9	702.1	907.8	1 069.1	1 325.8
SIU compensation of employees	362.1	399.6	431.5	521.2	708.7	854.4	1 093.9
FIC budget	251.9	262.3	307.7	342.1	347.6	332.7	334.1
FIC compensation of employees	155.5	160.7	187.8	186.6	187.6	197.9	195.0

Source: National Treasury (2021)

1.7.3 Budget analysis by sub-programme

1.7.3.1 National Prosecutions Authority

The NPA has four sub-programmes: the National Prosecution Services, Asset Forfeiture Unit, Office for Witness Protection Services, and Support service (see Table 1.6 below). The National Prosecutions Services, which is mandated to prosecute corruption, dominates the NPA's budget as it accounts for 80% of the expenditure of these four sub-programmes (see Table 1.6).

Its average share remains 80% over the Medium-term Expenditure Framework (MTEF). The Asset Forfeiture Unit and the Office for Witness Protection play a critical role in the fight against corruption by acquiring assets that are proceeds of crime and corruption and providing temporary protection to vulnerable witnesses in judicial proceedings. The average expenditure of these two units accounts for 3% and 5%, respectively, over the years under analysis and 4% over the MTEF. These figures are very low, given that protecting witnesses is essential for the success of various cases, especially those associated with corruption and organised crime. However, what is worth noting is that Support Services, which provides corporate support services to the NPA in terms of finance, human resources, and information communication and technology, among other things, is the second-largest expenditure programme (after National Prosecutions Services), accounting for an average share of 12% over the past four years. It is expected to decrease to 10% over the MTEF period.

Table 1.6: NPA's sub-programmes – real values

Audited outcome					Average percentage share	MTEF			Average percentage share (MTEF)
R million	**2017/18**	**2018/19**	**2019/20**	**2020/21**		**2021/22**	**2022/23**	**2023/24**	
National Prosecutions Services	1 975.3	1 973.4	1 994.6	1 974.8	80%	2 043.3	1 979.5	1 915.3	81%
Asset Forfeiture Unit	84.8	82.4	78.7	102.5	3%	108.6	105.2	102.0	4%
Office for Witness Protection	127.4	124.9	119.6	112.1	5%	110.2	107.5	105.3	4%
Support Services	321.9	270.5	293.9	324.2	12%	260.7	255.1	251.3	10%
Total	**2 509.4**	**2 451.3**	**2 486.7**	**2 513.6**	**100%**	**2 522.8**	**2 447.3**	**2 373.9**	**100%**

Source: National Treasury (2021) and Commission's calculations

In terms of real growth rates, these sub-programmes have generally recorded low average growth rates over the years under review (2018/19 to 2020/21), except for the Asset Forfeiture Unit at 8% (see Table 1.7). Even over the MTEF period, negative real growth rates are expected for all the programmes, except for the Asset Forfeiture Unit, which has an envisaged 0% average growth rate. Overall, the four programmes are envisaged to register negative growth rates of -3% over the MTEF period. This is a worrying trend, given the importance of these sub-programmes in the fight against crime and corruption. This may also mean that the impact of the NPA in the fight against corruption will be severely undermined by allocations that are contracting in real terms.

Table 1.7: NPA real growth rates

Subprogrammes	Audited outcome			2017/18–2019/20 average real growth rates	MTEF			MTEF average real growth rates
	2018/19	2019/20	2020/21		2021/22	2022/23	2023/24	
National Prosecutions Services	0%	1%	-1%	0%	3%	-3%	-3%	-1%
Asset Forfeiture Unit	-3%	-5%	30%	8%	6%	-3%	-3%	0%
Office for Witness Protection	-2%	-4%	-6%	-4%	-2%	-2%	-2%	-2%
Support Services	-16%	9%	10%	1%	-20%	-2%	-1%	-8%
Total average	**-5%**	**0%**	**8%**	**1%**	**-3%**	**-3%**	**-2%**	**-3%**

Source: National Treasury (2021) and Commission's calculations

1.7.3.2 The Public Protector

The Public Protector has three programmes: Administration, Investigations and Stakeholder Management. The two programmes that deal directly with corruption are Investigations, which deal with reported maladministration cases and improper conduct in state institutions and government, and Stakeholder Management, which ensures that the Public Protector's services are accessible to all communities, including strengthening Ombudsman-related services in South Africa. As can be expected, Investigations dominate the Public Protector's budget, with an average budget of over 50% for the three years under review (see Table 1.8). The trend is projected to remain the same over the MTEF period.

The second-biggest programme is Administration, with an average budget of over 40% over the entire review period and the MTEF period. Administration mainly focuses on information technology, human resources and skills, ensuring that the Public Protector's mandate is effectively delivered. Stakeholder Management receives the lowest budgetary share and has consistently registered an average expenditure share of 4% over the last three years. This figure is expected to remain the same over the MTEF period. That is concerning, given the critical role that this programme is mandated to deliver, such as public awareness on what the Public Protector is about so that communities can report cases of maladministration.

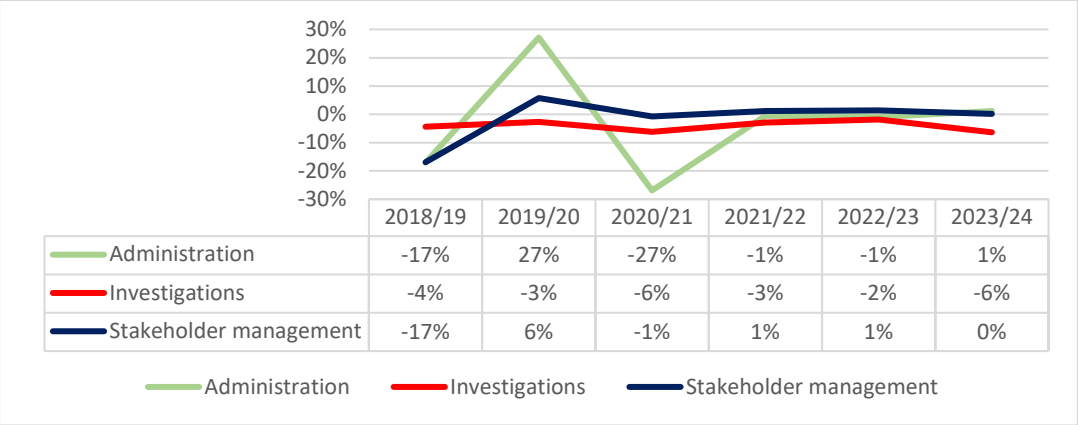
Table 1.8: Public Protector programmes – real values

	Audited outcome				Average percentage share	Medium-term expenditure estimate			Average percentage share
R million	2017/18	2018/19	2019/20	2020/21		2021/22	2022/23	2023/24	
Administration	100.1	83.0	105.6	77.2	41%	76.8	76.0	76.9	41%
Investigations	122.0	116.6	113.6	106.6	52%	103.4	101.5	95.1	54%
Stakeholder management	9.3	7.7	8.2	8.1	4%	8.2	8.3	8.4	4%
Total	**236.1**	**236.4**	**227.3**	**191.9**	**96%**	**188.3**	**185.9**	**180.4**	**100%**

Source: National Treasury (2021) and Commission's calculations

In terms of real growth rates, these sub-programmes have recorded negative growth rates (-10%), which is expected to persist over the MTEF period (-4%) (see Figure 1.3). These trends are worrying and imply that the Public Protector would not be able to fulfil its mandate effectively.

Figure 1.3: Public Protector real growth rates



	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Administration	-17%	27%	-27%	-1%	-1%	1%
Investigations	-4%	-3%	-6%	-3%	-2%	-6%
Stakeholder management	-17%	6%	-1%	1%	1%	0%

1.7.3.3 Special Investigating Unit

The SIU has three programmes: Administration (financial management, human capital, information and communication technology, communication and stakeholder management, and audit risk), Investigations and Legal Counsel (central case registration and monitoring, case assessment, case management and investigations, and forensic, legal and litigation) and Market Data Analytics and Prevention (market data analytics, prevention and advisory, and awareness).

Investigations and Legal Counsel accounted for the most significant average budget expenditure in the years under review at 67%. This share is expected to increase by 72% over the MTEF period (Table 1.9). This is followed by Administration, where the average budget share stood at 31% in the last three years. This share is expected to decrease to 25% over the MTEF period. Market Data Analytics and Prevention accounted for merely 2% over the years under analysis. Its average share is expected to maintain a steady rate at 3% over the MTEF period. The trend is worrying, given that the purpose of this programme is to implement measures to prevent the reoccurrence of fraud and corruption and increase public awareness of anti-corruption efforts. Yet, it records an average share even lower than Administration.

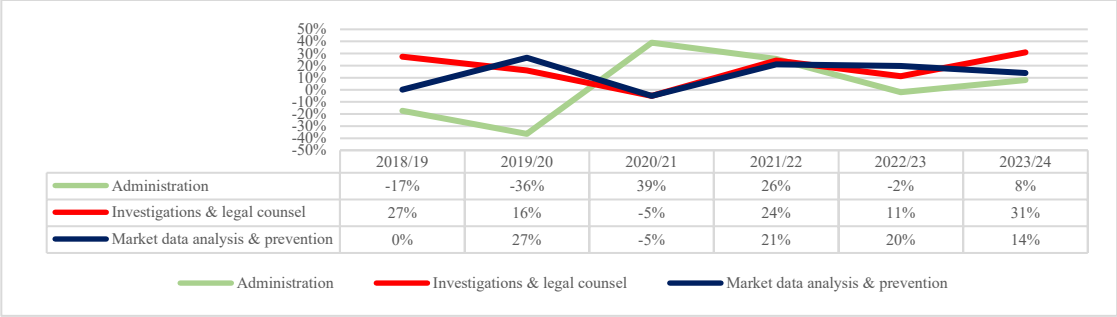
Table 1.9: SIU programmes – real values

	Audited outcome				Average percentage share	Medium-term expenditure estimate			Average percentage share
R million	**2017/18**	**2018/19**	**2019/20**	**2020/21**		**2021/22**	**2022/23**	**2023/24**	
Administration	155.8	128.7	81.8	113.7	31%	142.8	140.0	151.5	25%
Investigations and Legal Counsel	204.2	260.1	301.6	286.4	67%	356.0	396.2	518.9	72%
Market Data Analysis and Prevention	–	11.2	14.2	13.5	2%	16.3	19.6	22.3	3%
Total	**360.0**	**400.0**	**397.6**	**413.6**	**100%**	**515.1**	**555.8**	**692.7**	**100%**

Source: National Treasury 2021 and Commission's calculations

Generally, the allocations of the SIU's programmes have registered favourable average real growth rates over the last three years (at 5%) and at about 17% over the MTEF period. What is notable is the extraordinary average real growth rate increase in the Investigations and Legal Counsel (22%) and Market Data Analytics (18%) programmes over the MTEF period (see Figure 1.4). This indicates that more attention is given to the core programmes of the SIU in terms of investigating cases of maladministration and corruption and providing advice and awareness on anti-corruption measures.

Figure 1.4: SIU real growth rates



Source: National Treasury (2021) and Commission's calculations

1.7.3.4 Financial Intelligence Centre

The FIC has three programmes: Administration provides strategic leadership and services to staff to ensure that the organisation is managed efficiently. Delivery of Intelligence on Financial Crimes and Regulatory Services focuses on criminal prosecutions relating to non-compliance, identifies crimes and perpetrators and assets derived from the proceeds of crime, and provides operational intelligence, including administering the FIC Act and giving advice on matters of strategy and policy relating to money laundering and terrorist financing. Enablement of Financial Intelligence Regulatory Capabilities covers the internal units that enable the efficient, effective and economic functioning of the FIC's service delivery processes through its corporate services.

The FIC's expenditure programme is dominated by the Delivery of Intelligence on Financial Crimes and Regulatory Services, with an average share of 56%. This share is expected to remain the same over the MTEF period (Table 1.10). This is commendable given the critical functional role fulfilled by this programme, such as criminal prosecution relating to non-compliance. The second-largest expenditure in Enablement of Financial Intelligence Regulatory Capabilities, with an average expenditure share of 25% over the years under analysis. This share is expected to grow by 2% over the MTEF period to 27%. Administration takes the lowest average share with an average expenditure share of 18%. This is projected to decrease to 17% over the MTEF period. What is notable is the close similarity of functional programmes (Administration and Enablement of Financial Intelligence Regulatory Capabilities), which are supportive. Caution should be exercised that there are no overlaps or duplication among these programmes. When these two programmes are combined, they make up over 40% of the average share expenditure.

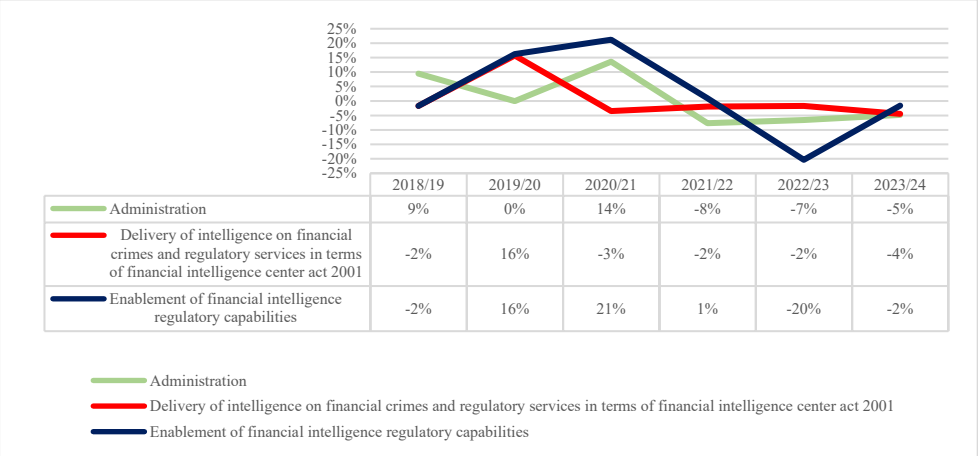
Table 1.10: Financial Intelligence Centre programmes – real values

	Audited outcome				Average percentage share	Medium-term expenditure estimate			Average percentage share MTEF
R million	**2017/18**	**2018/19**	**2019/20**	**2020/21**		**2021/22**	**2022/23**	**2023/24**	
Administration	29.8	32.6	32.6	37.0	18%	34.2	31.9	30.4	17%
Delivery of Intelligence on Financial Crimes and Regulatory Services	97.6	95.9	111.0	107.1	56%	105.1	103.3	98.7	56%
Enablement of Financial Intelligence Regulatory Capabilities	41.5	40.8	47.4	57.4	25%	58.0	46.2	45.5	27%
Total	**56.3**	**56.4**	**63.6**	**67.2**	**99%**	**65.7**	**60.5**	**58.2**	**100%**

Source: National Treasury (2021) and Commission's calculations

Regarding real growth rates, it is concerning that Delivery of Intelligence on Financial Crimes and Regulatory Services continues to constantly record negative growth rates in the years under review and over the MTEF period (see Figure 1.5). The negative growth rate of this programme is concerning. Given the critical role, it is tasked with closing the loopholes in the South African financial system, especially related to money laundering, and strengthening efforts to combat the financing of terrorism. An overall negative average growth rate (-5.3%) over the MTEF period is recorded in all the programmes of the FIC, which has negative implications for the institution in terms of delivering on its mandate of combating money laundering and the financing of terrorists and related activities, as well as the enforcement of the Act, among other things.

Figure 1.5: FIC real growth rates



	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Administration	9%	0%	14%	-8%	-7%	-5%
Delivery of intelligence on financial crimes and regulatory services in terms of financial intelligence center act 2001	-2%	16%	-3%	-2%	-2%	-4%
Enablement of financial intelligence regulatory capabilities	-2%	16%	21%	1%	-20%	-2%

Source: National Treasury (2021) and Commission's calculations

In summary, what is notable in the institutions investigated above is that there are several overlaps in the mandates of these agencies. For example, the SIU, Public Protector and NPA (the Asset Forfeiture Unit) have similar functional programmes that investigate and identify crimes and perpetrators and assets derived from the proceeds of crime. Such overlaps call for effective mechanisms for the coordination and rationalisation of mandates and programmes.

In terms of funding arrangements, the budget allocations of these institutions vary, with the most significant chunk of the budget taken by compensation of employees. That can be explained by the specialised skill set required for these agencies. On the other hand, these risks crowd out different programmes and services essential to eradicating corruption, such as research, prevention, monitoring and evaluation, and educational awareness campaigns. Generally, what is noted with concern from these institutions is that support programmes or administration consume the second-largest share of their budgets relative to other core subprogrammes, such as the Asset Forfeiture Unit and the Office of Witness Protection Services within the NPA. Likewise, the Stakeholder Management programme in the Public Protector accounts for the lowest total average share. Yet, it is critical to raise public awareness of what the Public Protector does. A similar pattern can be observed in the SIU, where Administration takes the second-largest portion of the total budget, and Market Data Analytics and Prevention takes the lowest share. This latter programme is about implementing measures to prevent fraud and corruption in the public sector and increasing public awareness of anti-corruption efforts. Likewise, the FIC has an Administration programme offering support services to the institution, while the Enablement of Financial Intelligence Regulatory Capabilities also offers service delivery through corporate services. Therefore, caution should be exercised to ensure no overlaps or duplication among these programmes.

1.8 Conclusion

South Africa has committed itself to various national and international commitments to eradicate corruption. To that effect, multiple legislations, policies and institutional frameworks are in place, which should repel corruption.

However, corruption continues to escalate. The main reason for the failure to effectively address corruption is the lack of accountable and ethical leadership and the lack of consequence management. There is also weak oversight and monitoring by the political and administrative leadership. Reports of the Auditor-General, National Treasury, the SIU and the Zondo Commission, among others, and other reviews, repeatedly indicate that the material irregularities found in all three spheres of government are due to accountability failures. The absence of an independent procurement authority and anti-corruption agency with limited political support frustrates the country's efforts to fight corruption. The existing institutions are subject to chronic political interference.

In terms of institutional analysis, what is notable is that the institutions investigated have similar programmes and have mandates that overlap (such as in the SIU, Public Protector and the NPA), limiting their efficiency and the effective execution of their tasks. In terms of budget analysis, it was found that the budget allocations of these institutions vary and are within budget votes of various government departments, with a significant portion of the budget taken by CoE, which on the other hand, crowds out other programmes and services that play an essential role in eradicating corruption such as research, prevention, monitoring and evaluation as well as educational awareness campaigns. Generally, in the budgeting programmes of these institutions, what is notable, is that support programmes or administration consume the second-largest total average share of the budget compared to main programmes of the institutions – such as the Asset Forfeiture Unit and the Office of the Witness Protection Services in the NPA, the Stakeholder Manager programme in the Public Protector, the Market Data Analytics and Prevention in the SIU. In terms of total average real growth rates, these institutions and their programmes recorded negative growth rates, which will impact executing their mandate related to combating corruption-related activities. The following key lessons were learnt from the country case studies and the literature reviewed for this chapter:

- Legislative and public finance management reforms are critical in the fight against corruption.
- Establishing anti-corruption agencies or reconfiguring the existing agencies is a crucial factor in addressing corruption.
- Adequate budgets or funding streams are the cornerstones for the effectiveness of institutions mandated to fight and prevent corruption.
- Reforms in the public procurement systems and accountability mechanisms are vital to combat procurement-related corruption, which is endemic in South Africa.
- The active citizenry, public awareness and education programmes in institutions of learning and for government officials on the effects of corruption and its prevention and eradication are critical for South Africa.
- The political will, ethics and integrity institutionalisation in government and society is a critical lever for South Africa's fight against corruption.

1.9 Recommendations

The Commission makes the following recommendations:

Recommendation 1

The prerequisite for any measure to fight corruption and move towards support for anti-corruption reforms is consistent political will for good governance and accountability. Political leadership and a commitment to fight corruption should therefore come from the highest office and the top levels of a country's political system, with the following:

- Accountability should identify who needs to be accountable to whom and for what? For instance, accountability of political leaders and public officials to organisational effectiveness and efficiency through compliance measures, rules and ethics codes, and oversight bodies taking their legislated responsibilities seriously and committing to repelling corruption by taking swift action and imposing sanctions when the need arises.

Rationale:

The government has established various structures and institutions to prevent and eradicate corruption, despite corruption levels remaining on the rise. The literature points to the fact that where there is a lack of political support to combat corrupt activities coming from the highest office (Presidency), institutions and structures meant to curb corruption become weak due to non-compliance and lack of enforcement. In light of the international arguments above, even though the National Anti-Corruption Strategy is currently in place, it is proposed that it be championed by the President. Therefore, to support these institutions, strengthening and protecting their independence requires a genuine and consistent political commitment to good governance by the highest level of office in government (Presidency) and its top political leaders, where tough sanctions on those who are found guilty of the corrupt activities. Further, the Auditor General is of the view that it has done everything within its mandate to support government departments including the accountability process through the material irregularity process but it is not working, and as such leadership should set the tone at the top-cause if those in leadership or accountability positions are unethical, disregard governance issues as well as compliance and control, not committed to transparency and accountability that filters through the lower levels and ranks of the government where inevitably, a culture of poor discipline, impunity and non-delivery will occur.

Recommendation 2

The Presidency, in line with political commitment at the top, needs to renew the governance structure of the anti-corruption agencies through the National Anti-Corruption Strategy on the need for reconfiguration and coordination among the existing institutional arrangements to repel duplication on these anti-corruption institutions for optimum results. Including a reconfigured or dedicated funding framework for the anti-corruption agencies/institutions as a sign of commitment toward the support of anti-corruption agencies

Rationale:

In some of the anti-corruption institutions/agencies investigated, it was found that they have similar programmes with mandates overlapping due to a lack of coordination, limiting their efficiency and the effective execution of their tasks. Not only that, in terms of the budget analysis, it was found that budget allocations of these institutions vary and are within budget votes of various government departments an indication of the need for a clear funding framework for these anti-corruption agencies that is streamlined. South Africa adopted the National Anti-corruption Strategy (2020-2030) (NACS) and highlights that lack of coordination by the anti-corruption institutions has hampered efforts toward eradicating corruption and ensuring its implementation. The NACS suggest, among other things, a single high-level entity which would be responsible for the coordination and implementation of anti-corruption measures. The chapter has underscored the importance of funding and independence for entities with the mandate of combating corruption. Poor funding leads to half-hearted execution of mandate, while lack of independence leads to political interference. Therefore, there is a need for a review of the funding framework of the anti-corruption institutions. Similarly, their independence should be guaranteed. The Presidency should lead in supporting the independence of these institutions.

Recommendation 3

The Presidency should consider establishing a Public Procurement Authority (PPA) that is mandated to show greater transparency and standardisation of government contracts, to organise and manage the public procurement process (rules, regulations, guidelines and policies) and implement a general public procurement policy on behalf of the government, guided by the principles of transparency, fairness and equity, as contained in the Constitution.

Rationale:

Government is one of the country's largest procurers of goods and services. Procurement per se has the potential to be a transformative tool, while also it can be a fertile ground for corruption. Various reports reviewed in this research chapter indicated that the many incidences of procurement-related corruption around the Covid-19 process have only demonstrated that procurement-related corruption in South Africa has reached epidemic proportions. Further, the case study reviewed also shows that corruption activities can be curtailed through the establishment of PPA as it allows greater transparency and standardisation in the government's contract. Establishing a Public Procurement Authority will therefore go a long way towards demonstrating a political will to tackle corruption and assist in coordinating efforts to address procurement-related corruption across all spheres of government. A PPA will promote a culture of compliance with procurement regulations and consequence management and create an environment that limits misappropriation, fraud and corruption, wastage, and abuse of funds. Also, one of the major issues identified as a challenge in the drafting of the NACS was the need to improve the transparency and the accountability of the public procurement system to ensure transparency and efficient use of public resources.

Recommendation 4

A dedicated or joint civil society organisation should be established that educates and empowers society about the dangers and adverse effects of corruption and advocates for anti-corruption reforms as bottom support to the top-down approach (political will).

Rationale:

Empirical evidence shows that the bottom-up approach in tackling corruption is essential, as is the top-down approach. A bottom-up approach is when society is part and parcel of efforts to combat corruption. The organisation should be involved in public awareness campaigns, emphasising the importance of reporting corruption. Also, in the drafting of the NACS, the need to empower citizens to combat corruption through awareness campaigns was identified as a major challenge identified. The collective effort of the organisation should be able to advocate anti-corruption reforms, which will put pressure on political leaders act against corruption.

1.10 References

Auditor-General of South Africa. 2020. Consolidated General Report on National and Provincial Outcomes 2019-2020.

Auditor-General. 2020. Consolidated General Report on the Local Government Audit Outcomes 2019-2020.

Auditor-General of South Africa. 2020. On the Financial Management of Government's Covid-19 Initiatives. Citizens Report. Pretoria, South Africa.

Bozzzini, A. 2013. Successes and limitations of a top-down approach to governance: The case of anti-corruption in Rwanda. ISPI Analysis.

Chêne, M. 2008. Overview of corruption in Rwanda. Anti-Corruption Resource Centre. Transparency International and CMI Institute.

Chikova, R. 2020. The role of fiscal policy in addressing corruption. Policy Brief. AFRODAD.

Constitution of the Republic of South Africa. 1996. Republic of South Africa.

Corruption Watch. 2016. Understanding corruption in tenders. Parktown North. South Africa.

Davis, B. 2014. Control, discipline and punish: Addressing corruption in South Africa. Institute of Security Studies.

Department of Public Service Administration and United Nations Office Drugs and Crime. 2003. South Africa's Corruption Assessment Report.

Enste, D. & Heldman, C. 2017. Causes and consequences of corruption. IW-Report No. 2/2017. German Economic Institute (IW), Cologne.

Hashem, E.A. 2014. The effects of corruption on government expenditure: Arab countries experience. Journal of Economics and Sustainable Development.

Hope, K.R. 2020. Corruption reduction as a target of the Sustainable Development Goals: Applying indicators and policy frameworks. The Emerald Handbook of Crime, Justice and Sustainable Development.

Institute for Security Studies. 2021. Despite new revelations of mega-public sector corruption, delays in adopting the Public Procurement Bill persist. Institute for Security Studies, South Africa.

Jajkowicz, O. & Drobiszova, A. 2015. The effect of corruption on government expenditure allocation in OECD countries. Acta Universitatis Agriculture et Silviculturae Mendelianae Brunensis, 63(4): 1251–1259.

Judicial Commission of Inquiry into Allegations of State Capture/Zondo Commission. 2021. Corruption and Fraud in the Public Sector Including Organs of State Report: Part 1, Vol. 1: Chapter 1 – South African Airways and its Associated Companies.

Khan, F. & Pillay, P. 2019. Corruption and its repercussions on employment, poverty and inequality: Rwanda and South Africa compared. Journal of Reviews on Global Economics, 8.

KPMG. 2016. The impact of corruption: Tackling corruption could reap significant benefits for the South African economy. South Africa.

Lekubu, B.K. & Sibanda, O.S. 2021. Moral values and ethics as antidotes for corruption in the South African public service and administration. KOERS — Bulletin for Christian Scholarship, 86(1).

Malyniak, B.S., Martyniuk, O.M. & Kyrylenko, P.O. 2014. The impact of corruption on the efficiency of public spending across countries with different levels of democracy.

Manyaka, R.K. & Nkuna, N.W. 2014. The phenomenon of corruption in the South African public sector: Challenges and opportunities. Mediterranean Journal of Social Sciences.

Menocal, A.R., Taxell, N., Johnson, J.S., Schmaljohann, M., Montero, A.G., De Simone, F.,Dupuy, K. & Tobias, J. 2014. Why corruption matters: Understanding effects, causes, and how to address them. Evidence Paper on Corruption. Department for International Development, UKaid.

Naidoo, G. 2012. The critical need for ethical leadership to curb corruption and promote good governance in the South African public sector. Journal of Public Administration, 47(3). University of South Africa.

National Planning Commission. 2010. The National Development Plan for the 2030 Vision: Our Future – Make it Work. South Africa.

National Planning Commission. 2020. A Review of the National Development Plan. The Presidency, Republic of South Africa.

National Treasury. 2015. Public Sector Supply Chain Management Review. National Treasury, Republic of South Africa.

National Treasury. 2021. Budgets. Estimates of National Expenditure. National Treasury, Republic of South Africa

Odeku, K.O. 2019. Unmasking life-style audit as a proactive mechanism to root out corruption: The case of South Africa. Journal of Legal, Ethical and Regulatory Issues, 22(6). University of Limpopo.

Open Society Initiative for Southern Africa. 2017. Effectiveness of anti-corruption agencies in Southern Africa: Angola, Botswana, DRC, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. A review by the Open Initiative for Southern Africa. Johannesburg, South Africa.

Phahlane, M. 2021. Political will to fight corruption in the South African public service: An ethical political leadership perspective in the line departments. Masters thesis in Public Administration, Faculty of Management Science, Stellenbosch University, South Africa.

Public Service Commission. 2001. A review of SA's national anti-corruption agencies. The Public Service Commission., South Africa.

Public Service Commission. 2011. Profiling and analysis of the most common manifestations of corruption and its related risks in the public service. The Public Service Commission, South Africa.

Republic of South Africa. 2020. National Anti-Corruption Strategy 2020–2030.

Sebake, B.K. 2020. Crime against humanity: Social perception of public service corruption in South Africa. African Journal of Development Studies, 10(3). Nelson Mandela University, South Africa.

Special Investigative Unit. 2020. Investigation into the Procurement of, or Contracting for Goods, Works and Services, Including the Construction, Refurbishment, Leasing, Occupation and Use of Immovable Property, During, or in Respect of the National State of Disaster, as declared by Government Notice No. 313 of 15 March 2020, by or on behalf of the State Institutions. 23 July to 30 September 2021. Republic of South Africa.

The Republic of South Africa. 1999. Public Finance Management Act (PFMA).

The Republic of South Africa. 2020. National Anti-Corruption Strategy 2020–2030.

Timofeyev, Y. 2011. How corruption affects social expenditures: Evidence from Russia. Global Journal of Business Research.

Transparency International. 2014. Building political will topic guide. Compiled by the Anti-Corruption Helpdesk. Transparency International and European Commission.

Transparency International. 2014. Corruption Perception Index report. Transparency International – Global Coalition Against Corruption. Germany.

Transparency International. 2019. Brazil: Overview of corruption and anti-corruption. Transparency International Anti-Corruption Helpdesk Answer. Transparency International, The Global Action Against Corruption.

Transparency International. 2020. Corruption Perception Index. Germany.

UK Aid. 2015. Why corruption matters: Understanding causes, effects and how to address them: Evidence paper on Corruption. Department for International Development, UK Aid from the British People.

United Nations Office on Drugs and Crime. 2011. Brief introduction to the work of corruption prevention in China. United Nations.

United Nations. 2004. The Global Programme Against Corruption: UN Anti-Corruption Toolkit. United Nations Office on Drugs and Crime, Netherlands and Norway.

Webb. 2005. Applying the public service anti-corruption strategy in pursuit of accountable South African public administration, 40(2). Department of Politics and Governance, University of Johannesburg, South Africa.

World Bank. 2020. Enhancing government effectiveness and transparency: The fight against corruption. The World Bank Group.

World Bank. 2020. Rwanda's anti-corruption experience: Actions, accomplishments and lessons. The World Bank Group.

CHAPTER 2

Youth unemployment and intergovernmental fiscal relations: The case of South Africa

Chapter 2: Youth unemployment and intergovernmental fiscal relations: The case of South Africa

Siyanda Jonas

2.1 Introduction

South Africa's estimated population stands at 59.6 million, and 64 per cent is between 0 – 34 years, with the youth defined as the population between 14 and 35 years and the proportion of the population aged 15–34 years stands at 35.1 per cent (20.6 million) (Stats S.A., 2018). South Africa is currently experiencing its demographic transition, a phenomenon where declining mortality and fertility shift the country's population structure. The demographic shifts have created a lower ratio of dependents to working-age adults. Other areas which have undergone this transition have benefited from economic growth, known as the demographic dividend, resulting from this lowered dependency ratio.

Over the past decade, South Africa has experienced slow economic growth and high unemployment rates. The prevailing high levels of unemployment have affected the youth more than other sections of the population. There is broad consensus that youth unemployment in South Africa is at crisis levels and constitutes a national emergency. The high level of youth unemployment can lead to an increased feeling of exclusion and frustration, resulting in instability. Youth unemployment is estimated at 66.5 per cent for youth aged 15-24 years and 43.8 per cent for youth aged 25-34 using the official definition (excludes discouraged work-seekers) compared to 35.3 per cent national unemployment (Stats S.A., 2022). The 2022 Quarterly Labour Force Survey (QLFS) also indicates that amongst young people aged 15-24, about 32.8 per cent were Not in Education, Employment, or Training (NEET), with the majority being female at 34.4 per cent. The poor record of youth employment represents an economic tragedy and poses a significant threat to the stability and eventual health of the South African democracy.

The prevailing high levels of unemployment are not the outcome of a lack of effort from a wide range of sectors and stakeholders in trying to address youth unemployment. A wide range of policies and interventions have focused on addressing the challenge of youth unemployment. Interventions have also included using intergovernmental fiscal instruments such as conditional grants and equitable share allocations to boost employment creation. The Employment Tax Incentive (ETI), Expanded Public Works Programme (EPWP), and the recently established Jobs fund to contribute to the objective job creation are other interventions. Youth employment interventions also include a variety of private sector and civil society interventions, such as the Harambee youth employment accelerator. However, the youth still face several constraints as they navigate their entry into the labour market in South Africa. The challenges faced by the youth in

entering the labour market can be categorised into three key types that negatively impact the transition from education to employment: demand-side challenges, supply-side challenges and institutional challenges.

Supply-side challenges can be considered the youth's educational and skills levels. Supply-side challenges are the result of the following factors: poor quality education system; weak foundational skills, low completion rates, and high dropout rates at the school level are significant weaknesses of South Africa's education system; a lack of entrepreneurial education and limited focus on non-cognitive skills such as problem-solving and time management, and social and community challenges like drug abuse, crime and chronic poverty.

Demand-side challenges are a result of some of the following factors: Low levels of economic growth; a structurally skewed labour market that is biased towards high-skilled experienced workers; a decrease in the relative demand for low-skilled labour has occurred because of the decline in sectors that constitute the least skill-intensive parts of the South African economy; low rates of youth entrepreneurial activity that limit the extent to which economic opportunities are generated in the economy.

Institutional challenges can be considered as market failures and uncoordinated labour market interventions, resulting in initiatives that seem successful at a micro-level but appear to have no significant impact on reducing the high unemployment rate among young people in the country. Such challenges stem from a lack of information on available jobs and weak employment services (e.g. counselling and career guidance); a lack of explicit coordination between actors like NYDA, Jobs Fund, Department of Employment and Labour and the Presidency.

Still, the youthfulness of South Africa's population presents both opportunities and risks for South Africa regarding its potential contribution to economic growth and stability. If properly harnessed, the youthfulness of the population has the potential to drive South Africa's economic transformation. Education, skills development, and job creation have become crucial for South Africa's future. The commitment to education is shown by the increase in student funding from R11.8bn in 2016/17 to R36.2bn in 2020/21[7]. The exponential growth is primarily driven by introducing fee-free higher education in South Africa. For instance, in 2019, NSFAS in the fee-free regime supported over 720 000 students constituting 42 per cent of university and 70 per cent of Technical and Vocational Education and Training (TVET) college registrations. The financial commitment by the government is because of the wide recognition of a positive correlation between skills, education, productivity, and economic growth. Young people's education and skills development improve their capacities and capabilities to participate in the labour market and enhance their employment opportunities. The development of any country depends, amongst others, on the number of persons in employment and how productive they are at work.

[7] National Student Financial Aid Annual Report 2021 and 2020

Against this background, this research project contributes to policy debates on youth employment in South Africa. It also contributes to the understanding of different skills development and training programmes that have been set up through various publicly funded institutions to facilitate entry into the labour market. Generally, it aims to understand the effectiveness of the fiscal framework and relevant public institutions in addressing youth development and unemployment challenges.

2.2 Problem statement and research questions

The state has over the years committed significant resources in terms of policies, legislation, and programmes to address the unemployment crisis, especially youth unemployment. South Africa has also set up an array of institutions or agencies to address employment, focusing on youth development and employment initiatives. These institutions include the National Youth Development Agency (NYDA), Sector Education Training Authority (SETA), Youth Employment Service (YES) programme and more recently, the Presidential Youth Employment Initiative (PYEI) to promote youth development and employment. These initiatives also find expression at the provincial sphere of government and provincial-own youth-focused programmes.

Besides allocating resources to youth employment initiatives, the government has also developed policies to alleviate the youth employment challenge, e.g., the Employment Tax Incentive (ETI), which came into effect in 2014 to reduce the national youth unemployment rate. Despite these initiatives, the youth unemployment rate increased from 35.7 per cent in 2010 to 46.3 per cent in 2020 (Stats SA, 2020), and the youth dividend has remained elusive.

Young people engaged in productive employment can potentially fuel economic growth. Investing in youth also offers important spill-overs because youth have a longer working life ahead of them; improving labour prospects among the youth can affect investment in their children and reduce the inter-generational transfer of poverty and inequality (Chakravarty et al., 2017).

2.3 Research aims and objectives

The main aim of the research project is to conduct a comprehensive and systematic investigation of youth unemployment and intergovernmental fiscal relations. The research findings recommend a suite of IGFR instruments/incentives to harness the youth dividend and measures to improve the institutional framework in addressing youth unemployment. The research project is answering the following key research questions:

- How effective have publicly funded institutions been in addressing youth unemployment?
- How effective has the fiscal framework been in addressing youth unemployment and development challenges or harnessing the youth dividend?

2.4 Key objectives

This study has three main objectives: the institutional framework, the role of the fiscal framework, and intergovernmental fiscal relations issues. The research project has the following objectives:

- To assess the effectiveness of the institutional framework in addressing challenges of youth unemployment and development
- To assess the role of the fiscal framework in harnessing the youth dividend
- To make recommendations on a suite of IGFR instruments/incentives to enable the harnessing of the youth dividend and measures to improve the institutional framework in addressing youth unemployment

Overall, the research project's objective will be to assess intergovernmental fiscal relations (IGFR) instruments that can be adapted or adopted to address the challenges of youth unemployment.

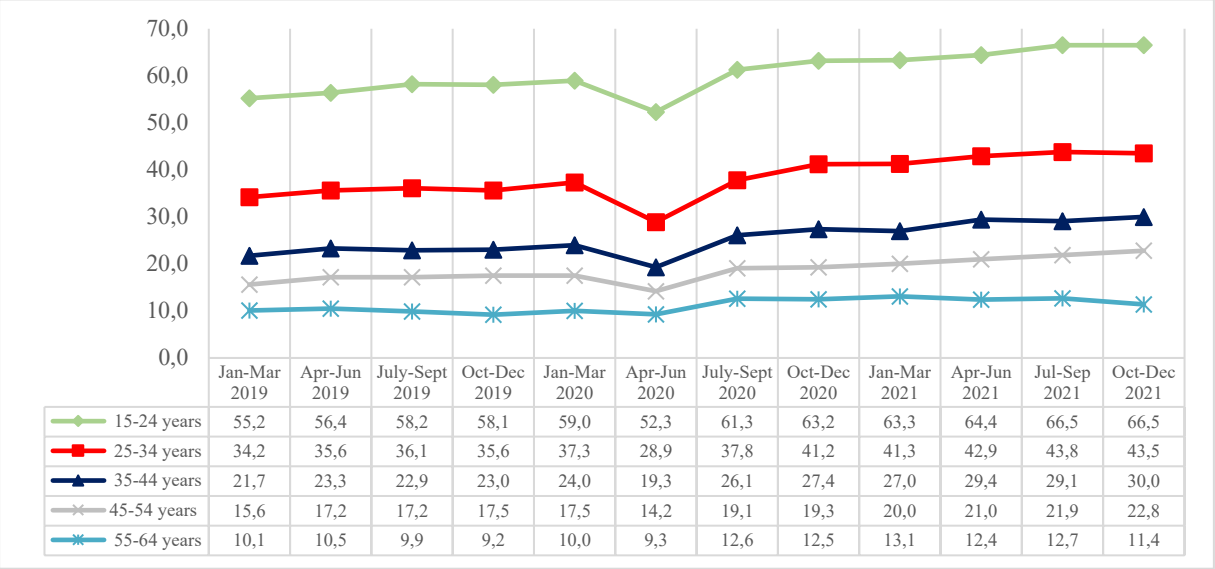
2.5 Literature review

2.5.1 Youth unemployment: A brief overview

The United Nations uses a definition of the youth that includes those aged between 15 and 24 years. However, it also recognises that each region may have its specific definition of youth suitable for their context. In South Africa, the definition of youth includes those aged 14 to 35 years. But, for statistical reporting and international comparison, data is collected in age cohorts of 15-24 years and 25-34 years while keeping with the country's definition. In 2019, Statistics South Africa (Stats SA) estimated the size of the country's youthful population (15 to 35 years old) to be 35.1 per cent of the total population. This age group presents both opportunities and risks for South Africa regarding its potential contribution to economic growth and stability. The youth bulge in South Africa should be harnessed to unleash a potential demographic dividend. Unlocking the youth dividend through employment, education and skills development and subsequent economic opportunities can significantly boost the economy and sustainability.

To seize the demographic momentum, addressing the labour market integration of young people is critical. Young people face the highest unemployment rates. Figure 2.1 shows the official unemployment rate for different age groups for 2019 to 2021. The incidence of unemployment among young people is twice as high as in older age groups. The unemployment rate among those aged 25-34 years increased since quarter 4 (Oct-Dec 2019) before decreasing due to lockdown measures that restricted job seeking and general economic activities. The unemployment rate increased from 42.9 in the second quarter of 2021 to 43.8 per cent in the third quarter of 2021. The unemployment rate of those aged 15-24 increased from 64.4 per cent in the second quarter to 66.5 per cent in the third quarter of 2021.

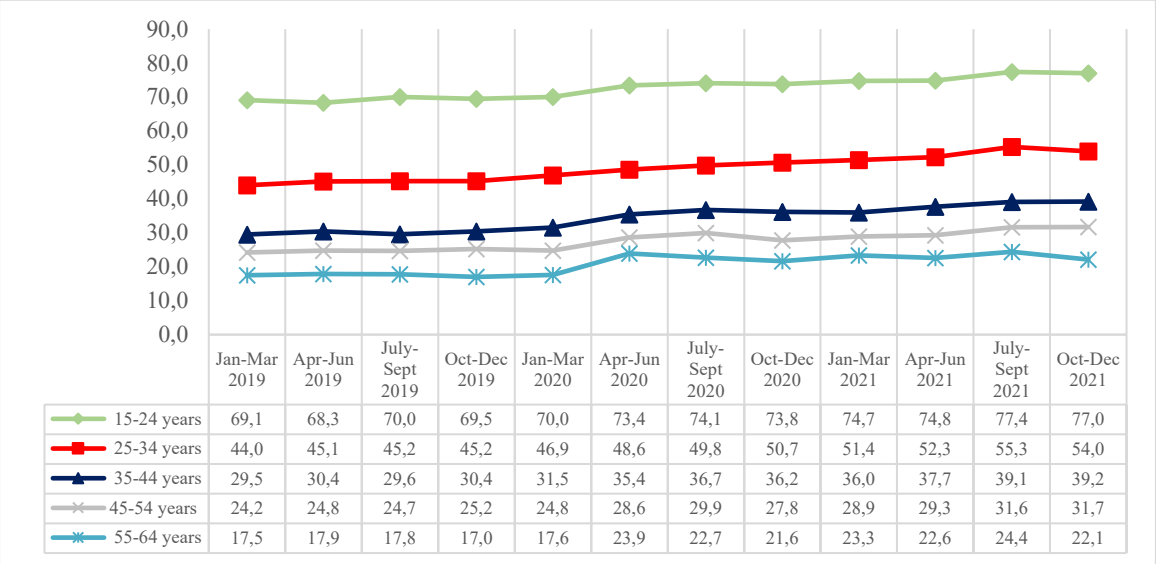
Figure 2.1: Unemployment rate by age group (official definition)



	Jan-Mar 2019	Apr-Jun 2019	July-Sept 2019	Oct-Dec 2019	Jan-Mar 2020	Apr-Jun 2020	July-Sept 2020	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021	Jul-Sep 2021	Oct-Dec 2021
15-24 years	55,2	56,4	58,2	58,1	59,0	52,3	61,3	63,2	63,3	64,4	66,5	66,5
25-34 years	34,2	35,6	36,1	35,6	37,3	28,9	37,8	41,2	41,3	42,9	43,8	43,5
35-44 years	21,7	23,3	22,9	23,0	24,0	19,3	26,1	27,4	27,0	29,4	29,1	30,0
45-54 years	15,6	17,2	17,2	17,5	17,5	14,2	19,1	19,3	20,0	21,0	21,9	22,8
55-64 years	10,1	10,5	9,9	9,2	10,0	9,3	12,6	12,5	13,1	12,4	12,7	11,4

Source: Statistics South Africa (2021)

Figure 2.2: Unemployment rate by age group (expanded definition)



	Jan-Mar 2019	Apr-Jun 2019	July-Sept 2019	Oct-Dec 2019	Jan-Mar 2020	Apr-Jun 2020	July-Sept 2020	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021	July-Sept 2021	Oct-Dec 2021
15-24 years	69,1	68,3	70,0	69,5	70,0	73,4	74,1	73,8	74,7	74,8	77,4	77,0
25-34 years	44,0	45,1	45,2	45,2	46,9	48,6	49,8	50,7	51,4	52,3	55,3	54,0
35-44 years	29,5	30,4	29,6	30,4	31,5	35,4	36,7	36,2	36,0	37,7	39,1	39,2
45-54 years	24,2	24,8	24,7	25,2	24,8	28,6	29,9	27,8	28,9	29,3	31,6	31,7
55-64 years	17,5	17,9	17,8	17,0	17,6	23,9	22,7	21,6	23,3	22,6	24,4	22,1

Source: Statistics South Africa (2021)

The expanded unemployment rate[8] (this measure includes discouraged workers who have not taken active steps to look for work or start some form of self-employment) shows an even more concerning picture.

[8] Unemployed persons according to the Expanded definition are those (aged 15–64 years) who:
a) Fall under official unemployment (searched and available); and
b) Were available to work but are/or:
1. Discouraged work-seekers
2. Have other reasons for not searching

Using the expanded definition, the unemployment rate among those aged 15–24 increased from 74.8 per cent in the second quarter of 2021 to 77.0 per cent in the fourth quarter of 2021. The increases in unemployment rates are across all youth age, excluding those aged 55-64. Unemployment for those aged 25–34 increased from 52.3 per cent in the second quarter of 2021 to 54.0 per cent in the fourth quarter of 2021. The increases are mainly driven by increased discouragement amongst young people. It is particularly worrying that the most significant increases in discouragement are among the youngest work-seekers.

2.5.2 Key constraints to youth employment

The youth face several constraints as they navigate their entry into the labour market in South Africa. Some of the youth's challenges also include limited technical skills, capital, networks, and occupational choice. The challenge of South Africa's education system to adequately prepare youth and the resulting difficulty in accessing employment indicate the need for government intervention to improve the public provision of education and training.

2.5.2.1 Marketable skills

The low levels of marketable skills among youth are widely recognised as significant barriers to youth employment. After completing primary or even secondary school, many youths lack the foundational and technical skills that employers need. Chakravarty et al., (2017) identify three types of critical skills that constrain youth employment: foundational skills, basic literacy, numeracy, and soft skills, which improve employability directly and prepare youth for subsequent skill acquisition.

South Africa's mathematics and science performance are among the lowest of the 64 countries and entities who participated at the Grade 4/5 level (HSRC, 2019). Western Cape, Gauteng and Free State obtained scores above the national average for mathematics. Four provinces got scores higher than the national average in science. There are around 55 000 Science, Technology, Engineering, and Mathematics (STEM) graduates each year, and this does not appear to be enough to match the current labour market demand (Reddy et at., 2016). Relying entirely on mainstream education and training systems to address the situation is insufficient. Well-structured work-based learning is more likely to impact the life chances of young people.

2.5.2.2 Occupational choices

Occupational and career choices are associated with youth unemployment. Information asymmetries, social norms, and discrimination all contribute to the determinants of youth engagement in a particular occupation. Information asymmetries about labour market demand and social norms about certain fields influence youth employment. The information asymmetries have resulted in a skills mismatch. In South Africa, the specific majors held by graduates affect employment status and the time it takes to find employment (Mncayi and Dunga, 2016).

2.5.2.3 Capital and networks

Capital and networks are also considered important for finding employment or starting businesses for self-employment. Youth find it challenging to access capital to start a business for self-employment and create employment for others. The South African government has established institutions and policies such National Youth Development Agency and Youth Enterprise Development Strategy to promote entrepreneurship and address access to capital for young people.

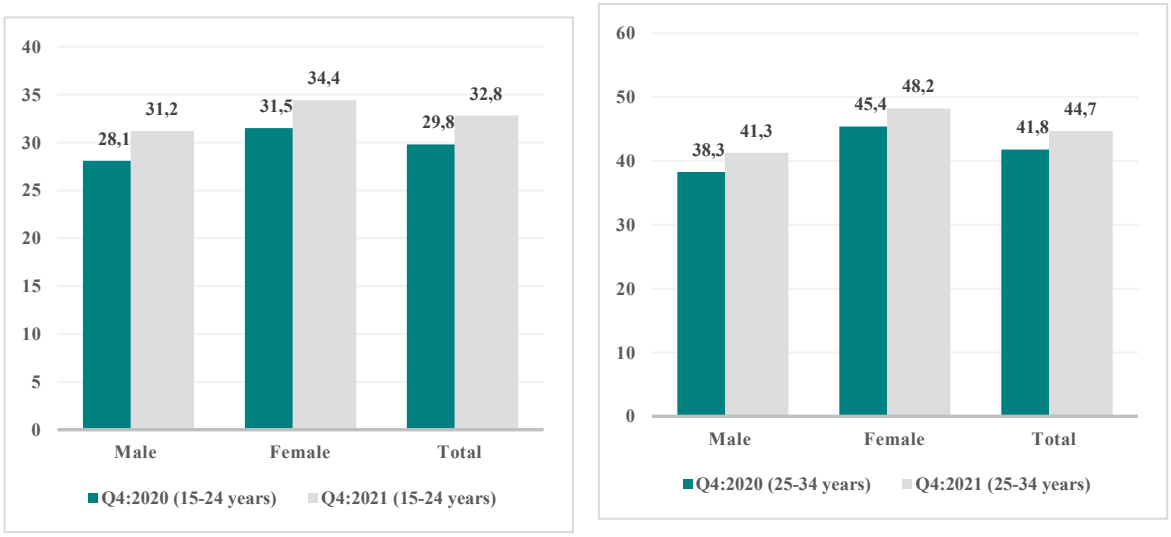
Social capital is the social network that can be leveraged to access information about the education system, the labour market, job availability, or access to jobs themselves. Networks are critical on decisions to join the labour force (Field, et al., 2015). Young people from low socio-economic backgrounds have very few 'productive' social networks of support that can provide them with the information needed for effective job searches. Decisions on investing in schooling or training and choosing an occupation are often based on networks. Networks are also an essential source of soft skills, and contacts are similarly central to success in business and employment.

2.5.3 Education and youth unemployment

A number of young people are jobless and out of school. Among young people aged 15–24 years in quarter 4 of 2021, 32.8 per cent were NEET. In this age group, the NEET rate for males and females increased by 3.1 and 2.9 percentage points respectively in quarter 4 of 2021 compared to the same period in 2020. The situation of young people categorised as NEET in South Africa has worsened over the past ten years. The NEET rate for females is higher than that of their male counterparts in both years. Creating opportunities for young women's employment contributes to economic development through its potential effect on agency[9] and fertility (Chakravarty et al., 2017).

[9] Chakravarty et al. define agency as the increased capacity to make decisions and act on them, thereby exerting more control over one's life.

Figure 2.3: NEET by age



Source: Statistics South Africa (2021)

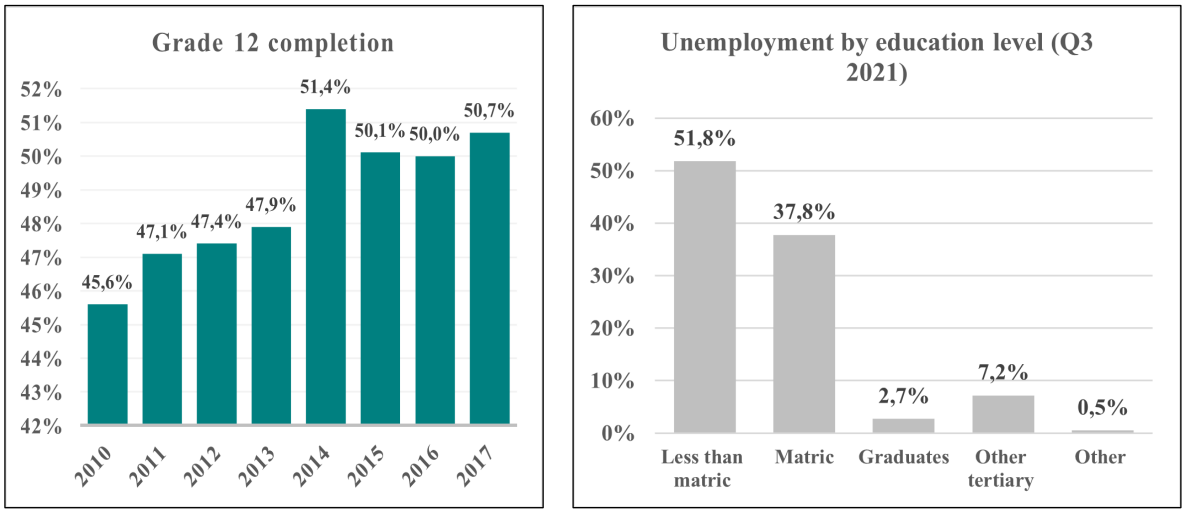
For young people aged 25-34 years, 44.7 per cent were not in employment, education, or training in quarter 4 of 2021. The NEET group represents the most vulnerable section of the youth. Having such a significant proportion of young people not engaged either in education or employment presents an obstacle to the eradication of poverty and inequality. Education plays a vital role in facilitating entry into the labour market.

South Africa has improved its access to education since the advent of democracy in 1994. Despite this, the completion rates of secondary schooling have remained relatively stagnant.

Figure 2.4 shows the secondary school completion rate has been around 50 per cent since 2014. The unemployment rate (53 per cent) is high among those with less than matric education. Young people with higher levels of schooling stand a better chance of finding employment and finding employment faster than their peers with lower levels of education.

The low completion rates in secondary school imply a low level of marketable skills among youth, which is recognised as a significant barrier to youth employment, placing them at a considerable disadvantage in the labour market. Increased access to quality education and skills training is internationally recognised as one tool to help youth from poor backgrounds escape the poverty trap (Spaull, 2015). Therefore, considering solutions to youth unemployment without considering the factors affecting access to quality teaching and learning in education may not be sufficient.

Figure 2.4: Secondary school completion (2002–2017)



Source: Department of Basic Education (2017)

Improving and strengthening the quality of education, apprenticeship, and vocational training schemes would improve employability, raising both employment rates and wages. Technical Vocational Education and Training (TVET) colleges offer an alternative pathway to gaining a qualification and facilitating labour market participation. Still, the quality of teaching and learning at many of these colleges has not attracted high participation rates among young people. There is a need to strengthen the quality of TVET education to attract more young people. It is critical to provide teachers, learners, and parents with sufficient information on career opportunities that TVET education can achieve.

The demand for skilled labour has risen due to globalisation, technological advancements, and the changing organisation of work (United Nations, 2018). South Africa needs to consider the investment choices it makes today to take advantage of the youth population. Developing human capital through investments in social infrastructure (e.g., schools and hospitals) can significantly enhance the demographic dividend (Drummond et al., 2014). The youth need relevant skills, knowledge, and competencies to help them obtain jobs and establish career paths.

2.5.4 Entrepreneurship and youth unemployment

High unemployment has compelled unemployed young people, particularly those not at school, to venture into self-employment in the informal sector. Many governments promote entrepreneurship to address young people's employment challenges (Chigunta, 2017). In South Africa, the government's Youth Enterprise Development Strategy aims to encourage youth entrepreneurship and self-employment and increase the number of youth-owned and youth-managed businesses. Small businesses are also considered an essential vehicle for creating new employment opportunities, given their high levels of innovation. In South Africa, it is relatively more challenging for people to start their own business or work as own-account workers. Figure 2.5 shows that about 10 per cent of employed workers are self-employed, against about 30 per cent in middle-income countries on average (World Bank, 2021).

Figure 2.5: Employed by the status of employment (%)

Source: Statistics South Africa (2021)

Some of the major inhibiting factors to youth entrepreneurship development include the lack of awareness and inaccessibility of youth entrepreneurship support structures and initiatives, entrepreneurship education and training, and access to funding/capital etc. (Gwija et al., 2014). The overall entrepreneurship environment in South Africa compounds the challenges of youth entrepreneurship development. The regulatory hindrances on entrepreneurship, micro and small businesses, and self-employment have contributed to relatively low self-employment rates in South Africa (World Bank, 2021). Thus, policy should address regulation around licensing and registratory burdens on small businesses, stringent policies, by-laws, and industry-specific protections that worsen an already challenging environment. There is also a need to coordinate the overlapping approaches between national, provincial, and local governments.

2.5.5 Youth employment and structural change

Formal sector (non-agriculture) employment and agriculture employment in South Africa has stagnated and remained muted, despite a slight rise in economic growth after 2008 and increased labour force participation. Semi-skilled and low-skilled workers still constitute a significant proportion of those employed in the formal sector. A considerable proportion of those employed in South Africa is unskilled low wage workers. Figure 2.6 shows that unskilled and semi-skilled workers constitute more than 50 per cent of those employed in quarter 4 of 2020. The employment of high-wage skilled workers increased from 23.2 per cent in quarter 4 of 2019 to 24.2 per cent in quarter 2 of 2020.

Figure 2.6: Employment by skill category (%)

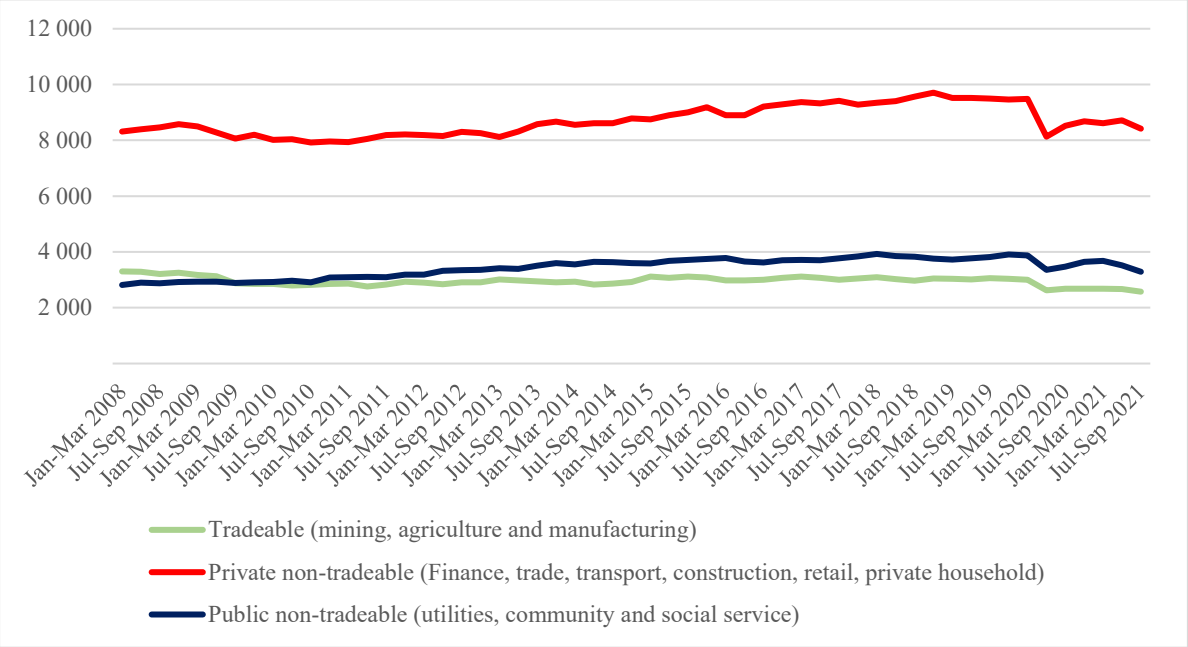
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Skilled	24,9	24,8	22,6	22,1	23,6	23,3	23,0	23,2	24,2
Semi-skilled	46,3	46,7	49,4	47,5	46,8	46,9	47,9	47,7	47,0
Low-skilled	28,7	28,5	28,1	30,4	29,6	29,7	29,1	29,1	28,9

Source: Commission's calculations from QLFS Statistics South Africa (2021)

The employment by skills category hides a crucial structural feature of the South African labour market. Non-tradeable activities have a considerable share of total employment compared to tradeable activities. Economic activities can be categorised into tradeable activities (mining, agriculture, and manufacturing); private non-tradeable activities (financial services, construction, trade, retail, transport, and other services); and public non-tradeable activities (utilities and government services). The share of total employment of tradeable activities come down from more than 23 per cent of employment in quarter 1 of 2008 to 18 per cent in quarter 3 of 2021. Public non-tradeable activities share of total employment increased from 19.5 per cent in quarter 1 of 2008 to 23 per cent in quarter 3 of 202.

The decline in tradeable activities is indicative of a decline in agricultural and mining employment, which has not been offset by increases in manufacturing employment. This pattern of structural change implies a significant decrease in the relative demand for low-skilled labour because the declining sectors constitute the least skill-intensive parts of the South African economy. The low levels of educational attainment and low skills levels place most young people at a considerable disadvantage in a labour market in which there is a relatively low demand for low-skilled labour. The challenge of low educational attainment and low-skills levels is compounded by the 'skills mismatch' and information asymmetries between young people and employers. South Africa's pattern of growth has taken a trajectory that follows the expansion of skills-intensive tertiary sectors relative to low-skill intensive tradable sectors; this places a premium on skills and human capital.

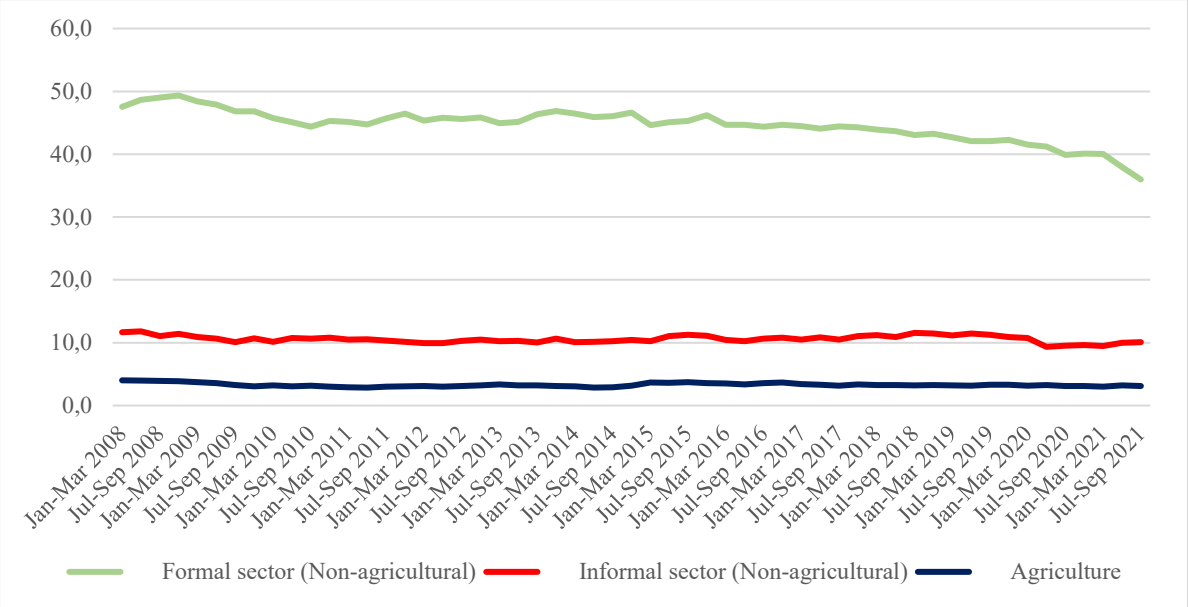
Figure 2.7: Total employment, by economic activity



Source: Commission's calculations from QLFS Statistics South Africa (2021)

Achieving long-run higher levels of economic growth and employment creation may require a different pattern of structural change. Developing a policy focus that supports the expansion of low-skilled intensive tradeable activities such as manufacturing in addition to skill-intensive non-tradable activities is essential. The high level of unemployment in South Africa can also be mitigated if young unskilled job seekers can be absorbed into the informal sector.

Figure 2.8: Total employment by sector



Source: Commission's calculations from QLFS Statistics South Africa (2021)

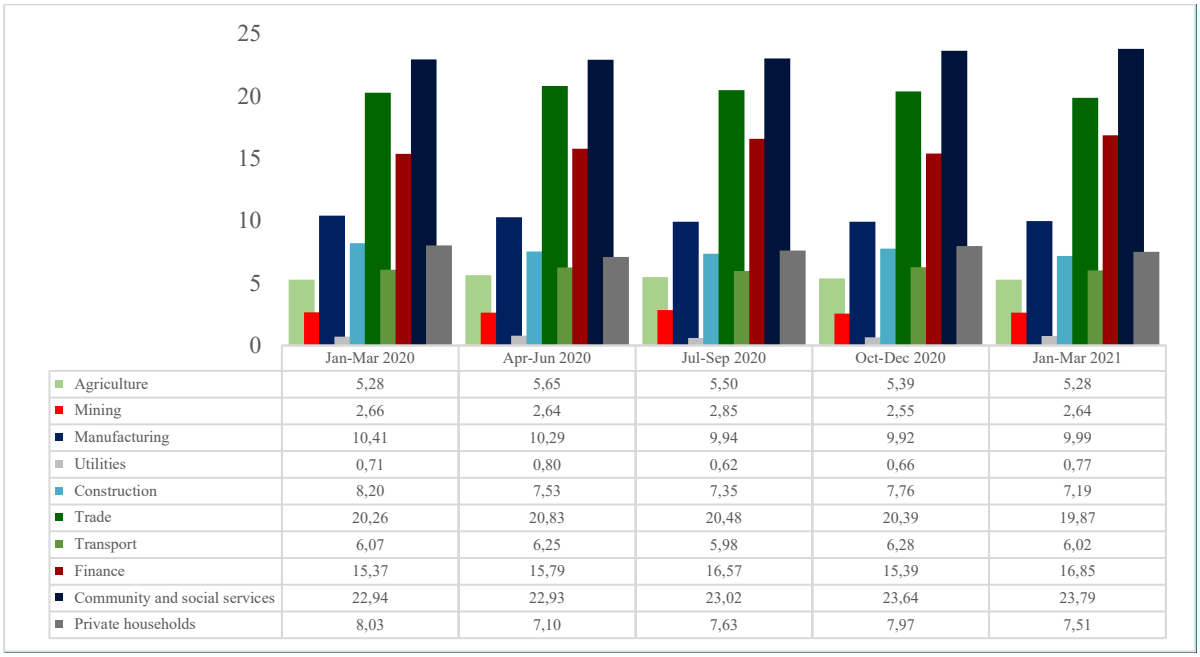
The informal sector is the employer of last resort in most developing countries with institutionalised formal labour markets. Although formal sector employment has decreased in South Africa, informal sector employment has not permeated the labour market as an alternative to formal sector employment. Figure 2.8 shows a decrease from 47.6 per cent in quarter 1 of 2008 to 44.7 per cent in quarter 3 of 2021. Similarly, informal sector employment slightly decreases from 11.6 per cent to 10.1 per cent for the same period. Informal employment (as a share of total non-agricultural employment) remains below elsewhere in Africa, Latin America and Asia (Chakravarty et al., 2017).

2.5.6 Labour market and Covid-19 shock

South Africa entered the Covid-19 pandemic with relatively low employment levels and weaker job creation than most middle-income countries. During the national lockdown, job losses were disproportionate higher among low-income unskilled workers than skilled and semi-skilled workers, thus worsening severe income inequalities. The pandemic also affected low-wage occupations such as domestic work, which suffered disproportionate job losses because of Covid-19.

Despite the government's decisive policy response with pro-poor transfer programmes (such as the special Covid-19 Social Relief of Distress Grant, Covid-19 Temporary Employer / Employee Relief Scheme (TERS) etc.), that partially cushioned the negative impacts of the pandemic, job losses widened wage inequalities. The trend of job losses was also unequal across labour market sectors, adding to long-existing trends of jobs losses. For instance, the finance and agriculture sectors were the most dynamic sectors for job creation over the past decade, whereas manufacturing jobs contracted during the past decade.

Figure 2.9: Employment by industry (%)



	Jan-Mar 2020	Apr-Jun 2020	Jul-Sep 2020	Oct-Dec 2020	Jan-Mar 2021
Agriculture	5,28	5,65	5,50	5,39	5,28
Mining	2,66	2,64	2,85	2,55	2,64
Manufacturing	10,41	10,29	9,94	9,92	9,99
Utilities	0,71	0,80	0,62	0,66	0,77
Construction	8,20	7,53	7,35	7,76	7,19
Trade	20,26	20,83	20,48	20,39	19,87
Transport	6,07	6,25	5,98	6,28	6,02
Finance	15,37	15,79	16,57	15,39	16,85
Community and social services	22,94	22,93	23,02	23,64	23,79
Private households	8,03	7,10	7,63	7,97	7,51

Source: Statistics South Africa (2021)

Sectors dominated by low-skilled workers such as the private households and construction sectors experienced job losses. Figure 2.9 shows that the agriculture sector accounted for only 5.3 per cent and the finance sector for 16.9 per cent of total employment. The private household sector accounted for 8.03 per cent in quarter 1 of 2020 but decreased to 7.51 per cent in quarter 1 of 2021. The lockdown measures such as working from home contributed to the decline in private households. Participating in small businesses often helps with smoothing consumption and adverse effects from jobs losses.

2.5.7 Labour market institutions and youth unemployment

The functioning of any labour market occurs within the context of the labour market institutions'[10] governing work conditions. Labour market institutions can influence the labour demand and the labour supply side, thus affecting hiring and wage-setting decisions. The relationship between labour market institutions and employment is complex. Both empirical and theoretical literature is not conclusive on the link and direction of the relationship between institutions and unemployment. Table 2.1 summarises some of the critical labour market institutions in South Africa.

Table 2.1: Summary of key labour market institutions/policies

Institution/policy	Key objective's objective
Labour Relations Act (1995)	Orderly collective bargaining Workplace democracy Effective labour dispute resolution (provision for the Council for Conciliation Mediation and Arbitration)
Basic Conditions of Employment Act (1997)	Improve minimum rights for all workers Improve enforcement mechanisms Makes provision for the Employment Conditions Commission to advise the Minister on minimum wages in 'vulnerable' sectors
Employment Equity Act (1998)	Eliminate unfair discrimination Ensure implementation of affirmative action
Skills Development Act (1998)	Devise and implement national, sector and workplace strategies to improve the skills of the workforce
Bargaining councils	Make and enforce collective agreements Prevent and resolve labour disputes Establish and manage a dispute resolution fund Promote and establish training and education schemes Establish and manage schemes or funds to benefit its parties or members Make and submit proposals on policies and laws that affect a sector or area
Statutory councils	Resolve labour disputes

10 Labour market institutions are often considered as policy interventions or collective organisations that influence determination of wages and employment. Examples include labour unions, legislation on minimum wages and employment protection, unemployment insurance and labour market policies

Institution/policy	Key objective's objective
	Promote and manage education and training schemes Form and manage schemes or funds for the benefit of its parties or members Make collective agreements Perform any other bargaining council functions
National Economic Development and Labour Council (NEDLAC)	Promote growth, equity and participation through social dialogue Ensure effective public participation in the labour market and socio-economic policy and legislation Facilitate consensus and cooperation between government, labour, business and the community in dealing with South Africa's socio-economic challenges

Source: Commission's compilation

Labour market policies can affect unemployment through various channels. Firstly, a generous unemployment benefit system increases the unemployed reservation wage, or the lowest wage employees are ready to accept. Unemployment insurances that are too generous may potentially result in job seekers staying out of work longer, resulting in a decrease in their job prospects and the wage they offer they may receive (Sachs & Smolny, 2016). Job seekers could become more selective regarding the salaries they may be willing to accept because staying unemployed is less costly when the system is more generous. For example, the government's current consideration of a basic income grant for the unemployed may increase the reservation wage while mitigating poverty.

The unemployed tend to have a higher reservation wage than their potential earnings, given their observable characteristics (Kingdon & Knight, 2003). Young people have a higher reservation wage than actual wages and may not work for smaller companies since wages are lower (Rankin & Roberts 2011). However, some argue that a negative relationship exists, indicating that a higher reservation wage is not associated with unemployment (Nattrass & Walker 2005), thus showing no evidence of higher reservation wages causing unemployment.

The notion of a reservation wage is primarily conceptual and difficult to measure in practice. It is also challenging to draw conclusions from international studies and practices since socio-economic factors affect the reservation wage. Job seekers are expected to have a higher reservation wage at a theoretical level when employment, social, and welfare benefits are widely available. In South Africa, the reservation wage is likely affected by the respondents' perception of their labour market value and degree of desperation (Rankin & Roberts, 2011).

Secondly, establishing a minimum wage will probably favour older workers with permanent contracts and job experience over younger ones who will be blocked out of the labour market (Gory, 2013). The minimum wage may increase the cost of hiring, thus potentially reducing the youth population's employment rate more than that of the older population, who might already have work. The national minimum wage (NMW) in South Africa potentially benefits youth engaged in formal employment (Patel, Khan, & Englert, 2020). It could also stimulate job-seeking behaviour for discouraged work seekers and is unlikely to crowd out investments in further

education. However, most unemployed youth will probably not benefit from a NMW since they are already unemployed.

Minimum wage policies are one of the government's instruments to promote economic justice in the labour market. The consequences of the NMW on both wage levels and employment outcomes remain debatable. Widespread non-compliance with the national minimum wage poses challenges to fully comprehending the impact of minimum wages on employment, especially youth employment.

Thirdly, employment protection regulations are also likely to favour older workers over new workers. If dismissal of permanent employees is costly, temporary contracts become attractive as instruments for short-run adjustment of staffing levels. Stricter job security provisions and stricter regulations on temporary contracts both affect aggregate unemployment rates through similar mechanisms. Lowering rates of dismissal or job losses reduces the exit rate from employment to unemployment.

Lastly, trade unions play an essential role in wage bargaining in South Africa. Greater union power tends to raise wages above the competitive equilibrium and can lead to unemployment, especially for new entrants (Buscher et al., 2009; Sachs & Smolny, 2016). Higher wages negotiated by unions through collective bargaining may have a depressing effect on youth employment. Again, this is as the cost of hiring increases for employers, thus creating a barrier for new entrants into the labour market.

Labour market policies and institutions play an essential role in protecting those employed already inside the market. Factors such as employment protection legislation, wage bargaining structure, transfer system, and active labour market policies protect those already employed. The South African labour market is characterised by stricter labour market regulations that make hiring and firing and raising wages more challenging. At the same time, high commuting costs raise reservation wages.

2.5.8 Fiscal framework and unemployment

South Africa has used active labour market programmes to address unemployment, but there is much room for systemic improvement. A wide range of policy efforts and various interventions and programmes are being implemented to deal with youth unemployment and overall unemployment. The interventions to address youth unemployment include the introduction of the Employment Tax Incentive (ETI). This tax incentive intends to stimulate demand for young workers. The Expanded Public Works Programme (EPWP) has youth targets and training programmes led by public sector agencies and civil society. Table 2.2 below summarises various publicly funded institutions to address skills shortages, youth unemployment and development.

Table 2.2: Summary of key youth employment interventions

Intervention	Purpose
Employment Tax Incentive	The ETI is a tax incentive that aims at encouraging employers to employ the youth. It was implemented with effect from 1 January 2014. It aims to reduce the employer's cost of hiring young people through a cost-sharing mechanism with the government, allowing the employer to reduce the amount of Pay-As-You-Earn (PAYE) while leaving the wage received by the employee unaffected.
Jobs Fund	One of the main objectives of the Jobs Fund is to co-finance projects by public, private and non-governmental organisations that can significantly contribute to the objective of job creation. It involves using public resources to catalyse innovations and investments on behalf of different stakeholders in activities that contribute directly to employment creation in South Africa.
Extended Public Works Programme	The Extended Public Works Programme is a government intervention aimed at contributing to government priorities of decent work and sustainable livelihoods, education, health, rural development, food security & land reform and the fight against crime and corruption. The object is to create work opportunities for poor and unemployed people in South Africa. In this intervention, public bodies from all spheres of government and the non-government sector (supported by government incentives) are anticipated to create work opportunities for the unemployed in South Africa through delivering public and community services.
National Youth Development Agency	The National Youth Development Agency (NYDA) operates in a context of legislative frameworks such as the NYDA Act, the National Youth Policy and the Integrated Youth Development Strategy as adopted by the Youth Convention of 2006. The institution was established to address youth development issues at the national, provincial and local government levels.
Sector Education and Training Authority	The Sector Education and Training Authority (SETA) is a vocational skills training organisation in South Africa. There are currently 21 SETAs in different sectors in South Africa. Each SETA has the responsibility for managing and creating learnerships, internships, skills programmes, and apprenticeships within their jurisdiction.

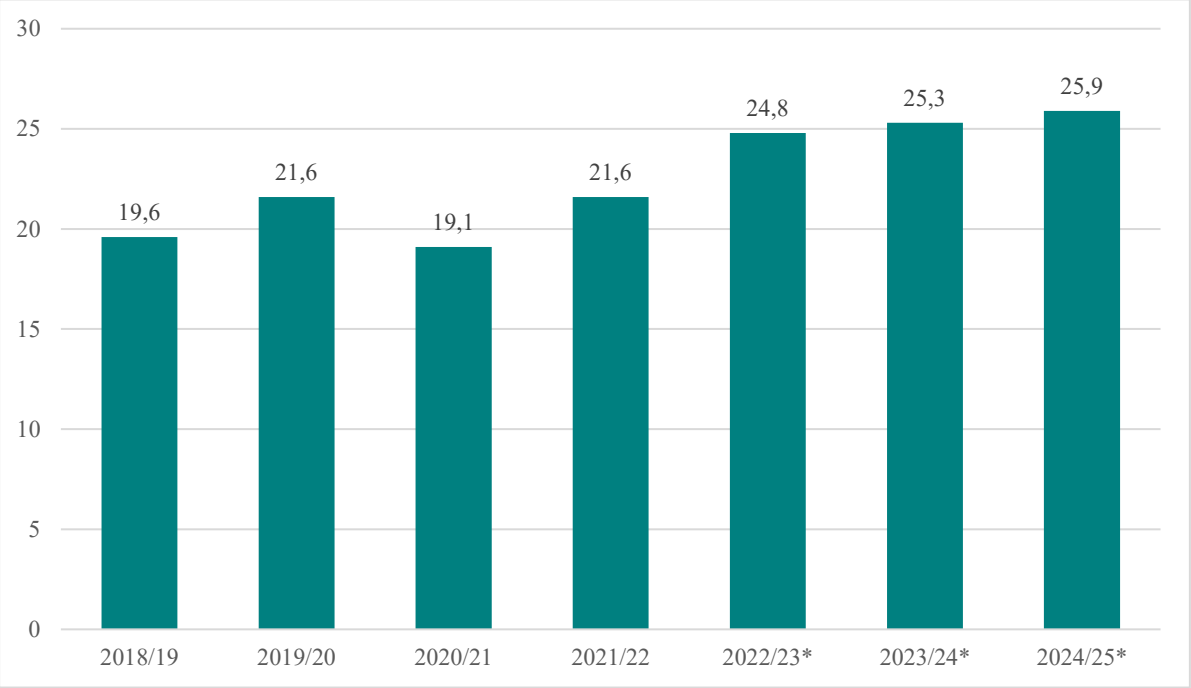
Source: Commission's compilation

These government interventions aim to tackle the high unemployment rate on two fronts. Firstly from the demand side, by increasing economic growth and job opportunities, and secondly, from the supply side, by improving the workforce's skills. Despite policy and programmatic attention focusing on both the demand and supply sides, South Africa has not shifted the youth unemployment challenge over the past two decades.

The government has committed significant resources to promote growth and employment needed to build on the recovery following a deep contraction due to Covid-19. The government aims to stimulate the economy through public employment programmes and tax incentives while implementing reforms that ease the skills constraint and make it easier to do business.

Figure 2.10 shows that the government allocated R 24.8 billion for employment programmes[11] for 2022/23. The allocation increases from the estimated expenditure in 2021/22 of R21.6 billion. Over the MTEF period (2022/23 - 2024/25), the government plans to spend R76 billion on employment programmes. Some of this expenditure will be through the Presidential Youth Employment Intervention.

Figure 2.10: Employment programmes R'billion



Source: National Treasury 2022

The Presidential Youth Employment Intervention (PYEI) is a part of the Presidential Employment Stimulus Programme. PYEI is a multi-sector action plan/ programme addressing South Africa's chronic youth unemployment challenge. The funding framework used for PYEI is conditional grants and increases in equitable shares. An amount of R18.4 billion is allocated in 2022/23 and 2023/24 to support youth employment and the creation of short-term jobs under the presidential employment initiative. In 2022/23, R9 billion is allocated with a target of 513 905 short-term jobs, and in 2023/24, R9.4billion targeting 515 905 short-term jobs.

Short-term jobs play an important role in providing work experience for the youth and first-time entrants and facilitates entry into the labour market. Short-term employment also plays a vital part in providing income support and mitigating the effects of poverty, and boosting household consumption. Despite the critical role played by short-term work, sustainable long-term work still offers more benefits.

11 Employment programmes includes the Expanded Public Works Programme, the Community Works Programme and the Jobs Fund

Table 2.3: Presidential Youth Unemployment Programme

Department	Name of initiative	2022/23		2023/24	
		Budget allocation (R'thousand)	Targeted short-term jobs	Budget allocation (R'thousand)	Targeted short-term jobs
National Treasury: neighbourhood development partnership grant	Metro Presidential Employment Programme Innovation Grant placemaking in townships, informal settlements and inner cities	800 000	33 000	855 600	33 000
Employment and Labour	Pathway management network	304 934	127 500	372 234	127 500
Trade, Industry and Competition	Social employment fund	861 566	33 000	787 941	35 000
National Treasury: provincial equitable share	Basic Education: presidential employment initiative	6 199 000	250 000	6 463 000	250 000
Higher Education and Training	Graduate placement in universities	94 500	3 000	99 225	3 000
Higher Education and Training	National Skills Fund: Pay for performance model	100 000	8 000	110 000	8 000
Sport, Arts and Culture	Creative sector support	440 000	24 405	462 000	24 405
Women, Youth and Persons with Disabilities	National youth service	200 000	35 000	250 000	35 000
Total		9 000 000	513 905	9 400 000	515 905

Source: National Treasury, 2022

Sustainable labour market participation for younger employees has become increasingly important because it facilitates broader economic inclusion. Long-term employment can promote long-term decisions such as investment in human capital and assets. Sustainable work means achieving living and working conditions that support people in engaging and remaining in work throughout extended working life. The Presidential Youth Employment Intervention gives the youth work experience and income but remains limited in addressing long-term youth unemployment.

2.6 Methodology and data

2.6.1 Budget analysis

The research project uses budget analysis to determine the effectiveness of the fiscal framework in addressing the challenge of youth development and employment. The budget analysis will also look at the funding framework and performance of programs directed at youth unemployment. The budget analysis describes expenditures trends, and from these, inferences are drawn on the efficiency.

The research uses secondary data from the National Treasury and other official statistics sources. Secondary data analysis is a convenient and powerful tool for a research project addressing broad questions such as youth unemployment. A major advantage of using secondary data is the breadth of data available. The government keeps a large scale of spending data on labour market interventions that would otherwise be difficult and time-consuming to collect. Another significant advantage of using secondary budget data is that a consistent framework often guides the data collection process over several fiscal periods.

The research project adopts an institutional analysis approach method for identifying policy instruments and interventions facilitating youth labour market participation. The term institution refers to many different types of entities, including both organisations and the rules used to structure the functioning of the labour market. The institutional analysis looks at how effectively the established institutions support youth development and employment. Some organisations facilitating youth labour market participation include the National Youth Development Agency (NYDA) and Sector Education and Training Authority (SETAs).

2.6.2 Econometric model

The research estimates the effect of government spending on unemployment in South Africa, and this study uses an Ordinary Least Squares (OLS) model. Data is firstly tested for stationarity using the Dickey-Fuller and the Augmented-Dickey Fuller tests. The study adopts the model outlined in Baxter and King (1993), as discussed further by Fatas and Mihov (2001), who regressed employment against fiscal and non-fiscal variables.

Unemployment is modelled as a function of fiscal policy variables (government consumption spending, government investment spending and tax). This is expressed as follows:

$$Unemp = \beta_0 - \beta_{1\ govspending} - \beta_{2\ govinvestment} + \beta_{3tax} + \varepsilon$$

The variables are converted to logarithms to remove trends. The study uses annual time series data covering the period 2000 to 2021. Ordinary Least Squares regression (OLS) is a common technique for estimating coefficients of linear regression equations, which describe the relationship between one or more independent quantitative variables and a dependent variable.

2.7 Findings

The role of government spending as a source of growth and reduction of unemployment continues to be widely debated in both developing and developed countries. Theoretically, government spending can reduce unemployment by increasing aggregate demand and the rate of economic growth. In other words, the level of unemployment is dependent on aggregate demand. In this theoretical framework, the government pursues an expansionary fiscal policy to boost demand for workers. The South African government has committed significant resources to support employment and economic growth.

The econometric model presented below shows that government investment (gross fixed capital formation) reduces unemployment, and government spending has not decreased unemployment. Several reasons can explain the relationship between government spending and unemployment. Some of the key reasons include that unemployment is structural and the pattern of South Africa's labour market structure. Other reasons include that the effect of the expenditure can be related to the crowding-out effect of spending.

The study reviewed a selected number of labour market interventions to determine their effectiveness in addressing youth unemployment. Labour market interventions play an important role in facilitating entry into the labour market and broader economic participation. The evidence shows that even though labour market interventions have resulted in some economic opportunities at a micro-level for young people, they have had no significant impact on reducing the high unemployment rate. Policy and coordination need to break the silo approaches between government departments to promote better efficiencies and synergies.

2.7.1 Impact of government spending on unemployment

The evidence shows that increases in government spending have not reduced unemployment. The effect of the government expenditure could be related to the crowding-out effect of the spending. Rising public sector spending drives down or eliminates private sector spending needed to generate jobs.

Government investment has a negative sign which means government investment has a decreasing effect on unemployment. That is, government investment expenditures result in a reduction in unemployment. The government must focus more on investment expenditures that create employment for the people than **on** consumption expenditures. In other words, the proportion of gross fixed capital formation expenditure in the composition of the budget profile should progressively increase. Consumption expenditure should be reduced, and there is a need to remove structural and institutional rigidities (unemployment benefits, employment protection, minimum wage legislation) that impact private investment and the reduction of unemployment.

The evidence that increases in public spending may not reduce unemployment corroborates an earlier study by Murwirapachena et al. (2013), who**,** using a vector autoregression (VAR) model**,**

showed that government consumption expenditure and tax positively affect unemployment while government investment expenditure has a negative impact on unemployment in South Africa. More recently, Onodugo et al. (2017) showed that capital expenditure and private sector investment both in the medium- to long-run are catalysts toward the reduction of unemployment.

Table 2.4: Impact of government spending on unemployment

Dependent variable: log Unemployment				
Method: Ordinary Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	26.48315	3.814357	6.943017	0.0000
Government spending	0.187470*	0.091976	2.038242	0.0565
Gross fixed capital formation	-0.781852***	0.171004	-4.572134	0.0002
Tax	0.280909	0.311397	0.902094	0.3789
R-squared	0.768945	Mean dependent var		25.70768
Adjusted R-squared	0.730435	S.D. dependent var		2.067177
S.E. of regression	1.073270	Akaike info criterion		3.142263
Sum squared resid	20.73436	Schwarz criterion		3.340635
Log likelihood	-30.56490	Hannan-Quinn criter.		3.188994
F-statistic	19.96780	Durbin-Watson stat		1.283634

*Note: *** p<0.01, ** p<0.05, * p<0.1*
Source: Commission's estimates

The effect of government spending on unemployment can also result from the structural nature of South Africa's unemployment. Structural unemployment results from shifts in the economy, improvements in technology, and workers lacking the job skills required for them to find employment. Conversely, cyclical unemployment is related to swings in the business cycle and periods of negative growth such as recessions. In other words, cyclical unemployment is associated with the low demand for goods and services. In a simple Keynesian macroeconomic model, the solution to cyclical unemployment during a recession is expansionary fiscal policy, such as tax cuts to stimulate consumption and investment or direct increases in government spending that would shift the aggregate demand curve to the right. However, South Africa's unemployment has been persistent over long periods and has not been responsive to increases in government spending. The implication is that the scope for fiscal policy interventions to boost employment seems to have diminished.

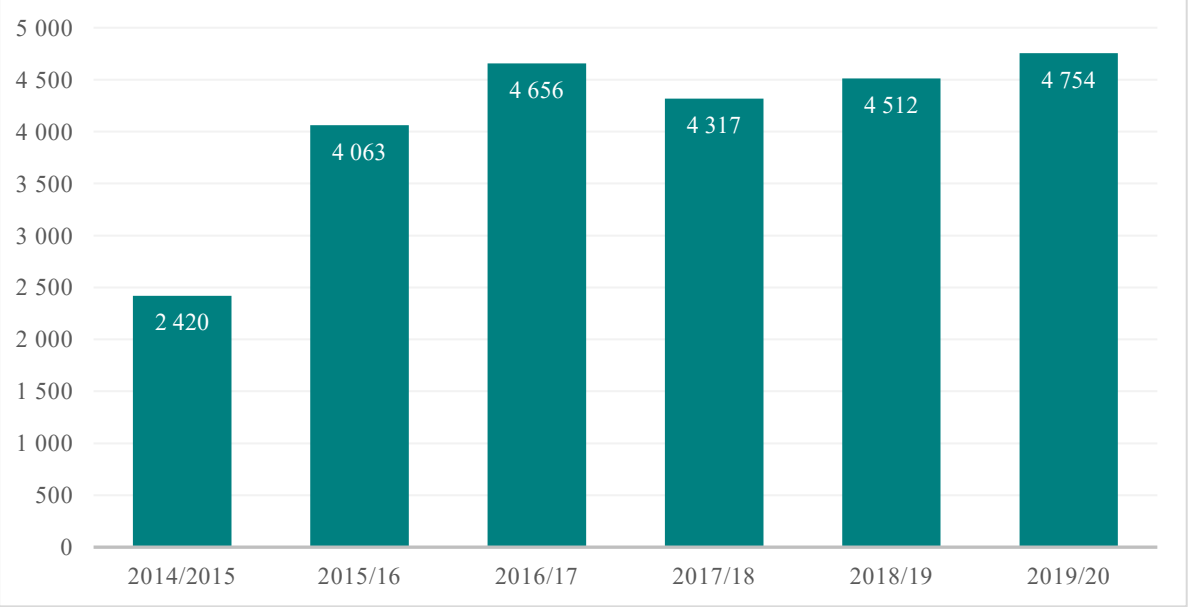
2.7.1.1 Employment Tax Incentive

The Employment Tax Incentive (ETI) is a South African wage subsidy intervention with tax relief for hiring young workers paid less than R6 000 per month. It is designed as a tool to combat high levels of youth unemployment.

Figure 2.11 shows the amount claimed by taxpayers under the employment tax incentive. In 2014/15, a total of R2.42 billion is claimed from the incentive. The amount has increased to R4.65 billion in 2016/17 before decreasing to R4.31 billion in 2017/18. The moderate increases in this incentive's claims indicate that the uptake has been slow, with only a small number of taxpayers

claiming the incentive. The low tax expenditure values and number of beneficiaries imply that this incentive may not be appropriate for achieving its objective.

Figure 2.11: Tax expenditure- Employment tax incentive



Source: National Treasury, 2022

The National Treasury announced in the budget 2022 that the employment tax incentive (ETI) is expanded to encourage businesses to increase youth employment. The expansion of the employment tax incentive is through a 50 per cent increase in the maximum monthly value to R1500 that can be claimed. Further to the expansion, the government must investigate whether to publish the number of corporate beneficiaries of incentives and the related amounts to enhance tax expenditure transparency. Publishing beneficiaries will enrich understanding and research on tax incentive dynamics and efficiency.

Empirical studies examining the effect of the ETI on youth unemployment show mixed results. An early survey of Ranchhod and Finn (2014) found that the subsidy had no statistically significant impact on youth employment. This study used the approach of comparing ETI and non-ETI claiming firms before and after the introduction of the ETI. In contrast to these findings, Rankin and Chaterjee (2016), when looking within ETI, claiming firms, find a positive effect of the ETI on overall job creation for youth, particularly in small firms. A more recent study by Bhorat et al. (2020) estimates the impact of the ETI using the individuals and firm-level tax returns for 2013 to 2016. The study uses a Difference-in-Difference methodology combined with propensity score matching. The impact of the ETI is small but statistically significant. When employment levels decreased, the paper estimates that for every one job lost in a non-ETI claiming firm, ETI firms only lost between 0.51 and 0.66 jobs on average.

The general understanding has been that high unemployment may result from wage levels that are too high. The labour cost, particularly the labour of new entrants where productivity is unknown, is a key determinant of unemployment, especially for youth who lack experience. The

existing labour market regimes, therefore, unfairly penalise new entrants. The introduction of ETI aims to reduce the cost of employing the youth, resulting in a reduction of youth unemployment, as employers would have an incentive to hire younger workers. The evidence of the effectiveness of ETI is not conclusive, but on balance, it seems to suggest it contributes to youth employment. The ETI shows some level of incentivising short-term employment by the private sector in South Africa. There is a need to consider expanding and deepening the employment tax incentive to encourage hiring in the private sector, particularly for those facing more constraints to labour market integration, such as young people and women. The expansions should focus on increased uptake among small businesses and include additional efforts to evaluate the impact and understand firm behaviour to strengthen effectiveness.

2.7.1.2 Jobs Fund

The Jobs Fund offers a targeted programme of support for effective labour market interventions that promises job creation in the short- to medium-term and the uptake of successful job creation models by the market in the long term. At its establishment, the Jobs Fund was capitalised with R9 billion to support initiatives that pilot innovative approaches to employment creation. The multi-year investment leverages complementary funding from public and private sector project partners. It operates as a "challenge fund" and allocates matching grants following a competitive, open and transparent application process. A challenge fund is a financing mechanism to allocate (grant) funds for specific purposes using competition among organisations as the lead principle. Proposals are assessed against transparent and pre-determined criteria. Successful applicants must usually match a certain percentage of the grant with own financing.

The Jobs Fund explores options for tackling barriers to job creation by providing public funding through four funding options, namely Enterprise Development, Support for Workseekers, Institutional Capacity Building and Infrastructure Investment.

Figure 2.12 shows expenditure in the national jobs fund for the period starting in 2015/16. The national jobs fund expenditure increased from R26.2 million in 2016/17 to R80 million 2020/21. This represents an average expenditure growth rate of 45 per cent from 2016/17 to 2020/21 . In the Medium Term Expenditure Framework (2021/22 – 2023/24), average expenditure growth is estimated to be at 10 per cent.

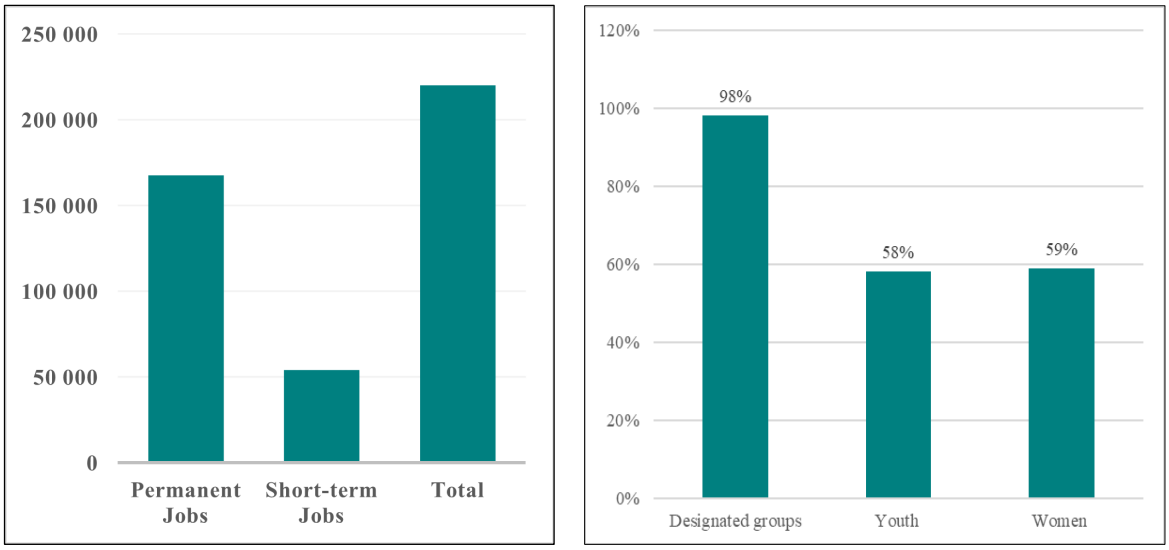
Figure 2.12: Jobs Fund expenditure

Source: National Treasury, 2022

The Jobs Fund aims to complement other efforts by both the public and private sectors with targeted programmes of support for effective labour market interventions. They support intervention with the promise of job creation in the short to medium term. The goal is to achieve successful job creation interventions that the government and the private sector can replicate to achieve maximum impact over the long term.

Figure 2.13 shows the fund has created a total of 220 000 jobs as of March 2019. In these jobs, 76.2 per cent (167 676) are permanent jobs and 24.5 per cent (53 891) are short-term jobs. The Jobs Fund targets designated groups such as women and the youth, and some of the largest projects they approved aim at youth employment. In the jobs created by the Jobs Fund, the youth accounted for 58 per cent, and women accounted for 59 per cent. Designated individuals accounted for 98 per cent of those who benefited from the jobs created. The Jobs Fund shows elements of success in creating employment at a micro-level. The success in targeting the youth and women is commendable, but this has not translated into a change in the overall unemployment trend in South Africa.

Figure 2.13: Number of Jobs created (as of March 2019)



Source: National Treasury

Box 1: Case study on Jobs Fund employment creation

The Jobs Fund has been funding innovative approaches to addressing unemployment in South Africa. This has included funding three quite different business incubators: A2Pay, Awethu Project, and Shanduka Black Umbrellas (SBU). As business incubators, these companies help new and start-up companies to develop by providing services such as management training, access to finance, and networks etc.

The Awethu Project, A2Pay, and Black Umbrellas were first awarded funding by the National Treasury's Jobs Fund in 2011. Over the three-year Jobs Fund funding period, each incubator had a jobs target for growth in incubate employment. A2Pay created a total of 2 868 jobs (target was 3 128), Awethu projects created 239 jobs (target was 1 000) and Shanduka Black Umbrellas created 294 jobs (target was 157).

Incubation training and mentorship is vital for young entrepreneurs and helps new entrepreneurs to obtain important business knowledge and to develop a wide range of personal and business skills which are vital for success as both an entrepreneur as well as a participant in the labour market. Incubation (including public sector funding for incubation) is one effective approach to addressing youth unemployment.

One of the key constraints identified by the Jobs Fund to scaling up the impacts of the business incubators is the shortage of opportunity-driven entrepreneurs in South Africa. A strategy is needed to enhance basic and higher education systems role in providing a foundation for opportunity-driven entrepreneurship, and it requires integrating entrepreneurship into the curriculum of the general schooling system as well as the higher education system. Other weaknesses that undermined the optimal achievement of objectives include poor support with networking, inconsistencies in the mentoring approach, and challenges in assisting with access to finance.

One of the critical limitations of the Jobs Fund is that it uses the principle of 'match 'challenge funding' to support employment facilitation. Access to capital is one of the critical constraints to the youth starting their businesses and creating their employment. Facilitating access to capital is essential to addressing youth unemployment, either directly by enabling youth to start businesses to employ themselves or indirectly by helping existing firms expand and hire youth. The youth is affected more by lower rates of financial inclusion than adults. They have not accumulated savings or assets as collateral, a precondition for most traditional loans.

The match funding principle of the Jobs Fund disadvantages those small and medium businesses that have no access to capital. There is therefore a need to consider alternative funding channels that take into account the limitations faced by the youth regarding access to capital. Accompanying this must be a general improvement of the business climate, the entrepreneurship ecosystem, access to financing, and investing in skills. The government can encourage self-employment and support micro and small enterprises by addressing barriers to entry and lack of competition.

2.7.1.3 Extended Public Works Programme

Public Works programmes are popular development interventions due to their potential 'double dividend' of transferring income to the poor while at the same time creating public infrastructure. South Africa's Expanded Public Works Programme (EPWP) is one of the government's key labour market interventions that aim to provide work opportunities and training while alleviating poverty. The EPWP is a nationwide programme aimed at poverty alleviation through the systematic use of public expenditure to boost productive employment and develop marketable skills among targeted groups. It has three key objectives: providing work to the unemployed, building the skills base of the unskilled, and building public infrastructures such as roads, schools, and other amenities.

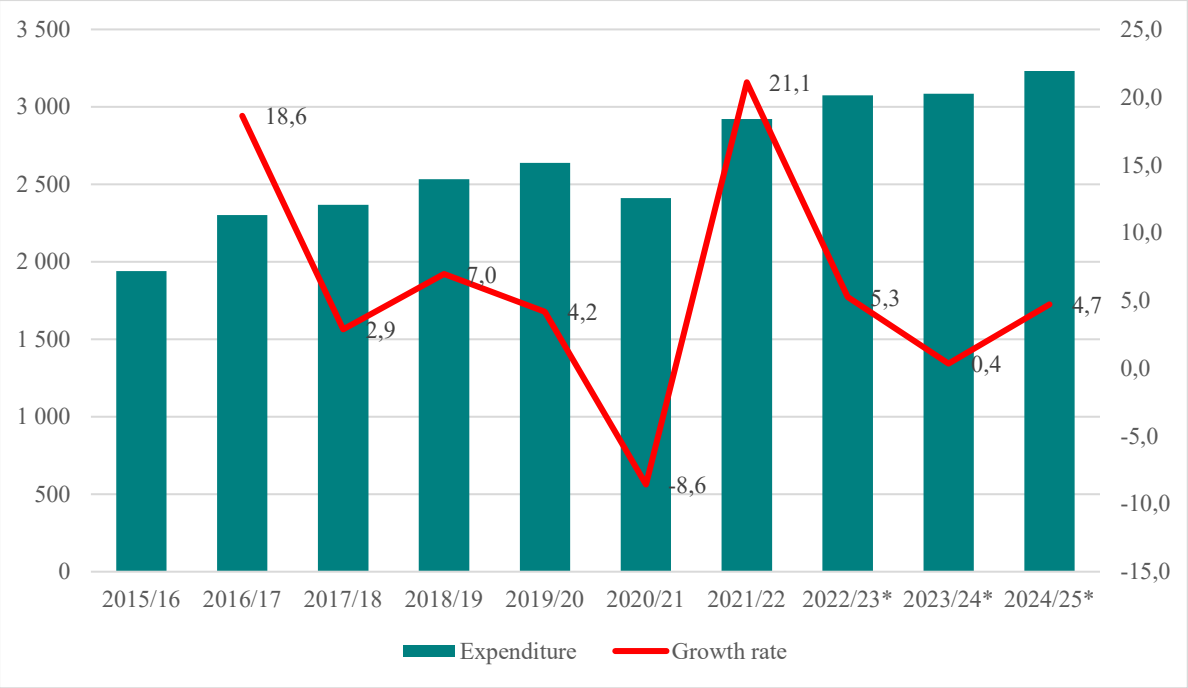
Figure 2.14 shows the expenditure trends from 2015/16. The expenditure trends show that the growth rate slowed from 7 per cent in 2018/19 to 4.2 per cent in 2019/20.

The slowdown in expenditure can be associated with lockdown regulations to curb the spread of Covid-19, which had a profound impact on economic activity and the labour market. Despite the slowdown in expenditure, the EPWP programme remains a crucial tool to protect the most vulnerable against shocks and to develop skills while improving local infrastructure and promoting social and economic development. EPWP has created 55 368 Full-Time Equivalent (FTE) [12] work at a national level. A full-time equivalent job refers to one person-year of employment. One person-year of work is equal to approximately 230 paid working days which

[12] Full-Time Equivalent work is one Person-Year of Work is equal to 230 paid working days including paid training days. A work opportunity is paid work created for an individual for any period of time. The same individual can be employed on different projects and each period of employment will be counted as a work opportunity.

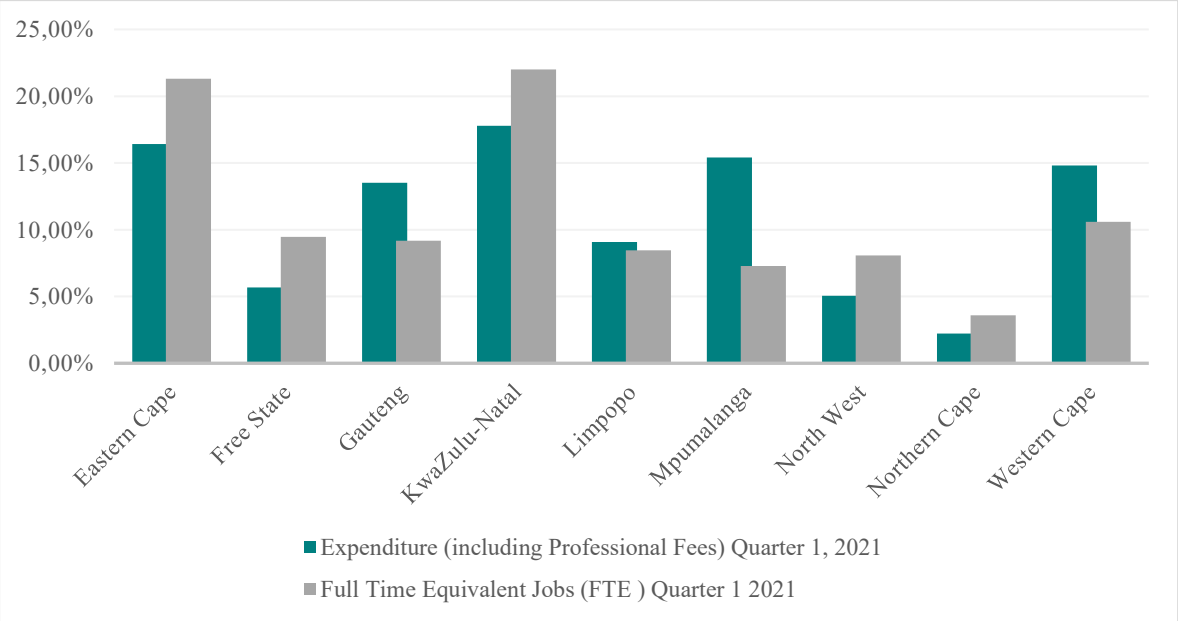
also includes paid training days. The wages paid out to employees on EPWP projects are calculated by multiplying the minimum wage rate with the person-days of work. The EPWP programme has positive welfare effects by providing income to participants and potential benefits in the labour markets and service delivery.

Figure 2.14: Extended Public Works Programme expenditure



Source: National Treasury, 2022

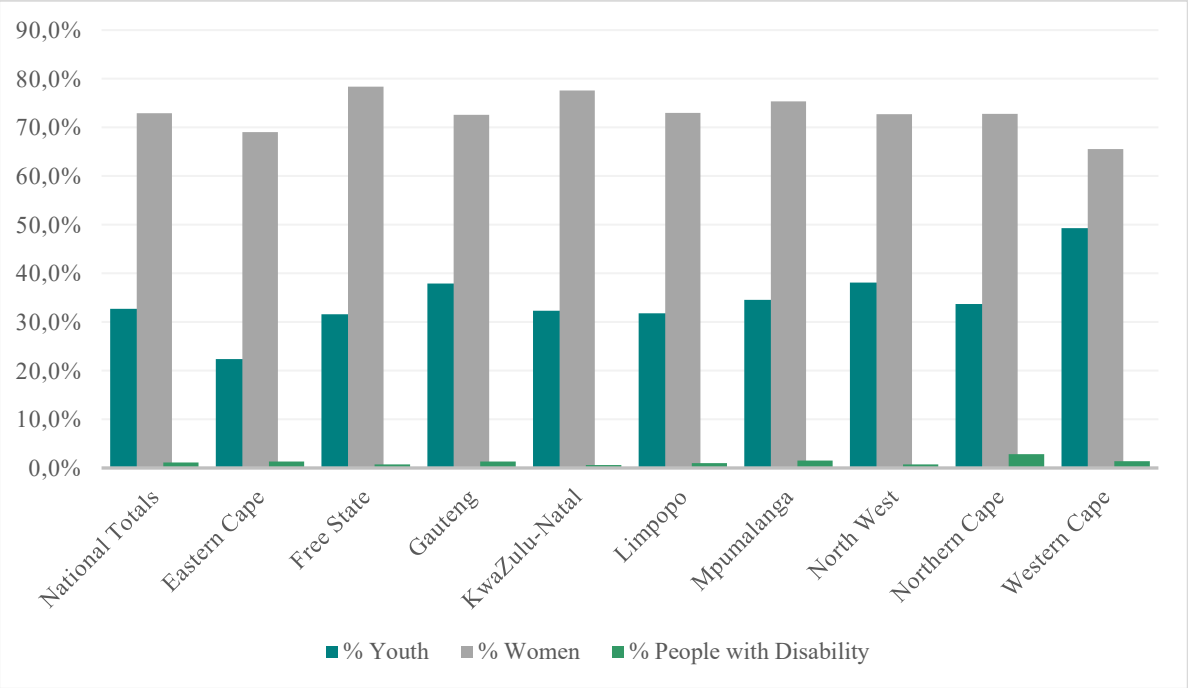
Figure 2.15: EPWP expenditure and full-time equivalent job by province



Source: Department of Public Works (2021 Quarter 1)

The programme is one way the provincial and local governments attempt to respond to service delivery issues and local unemployment. Figure 2.15 shows the provincial expenditure distribution and the percentage of full-time equivalent jobs created for the first quarter of 2021. The KwaZulu-Natal and Eastern Cape provinces accounted for 22.1 per cent and 21.3 per cent of FTE jobs created in the first quarter of 2021, respectively. The Northern Cape and Mpumalanga provinces accounted for 3.6 per cent and 7.3 per cent of full-time equivalent jobs created in the first quarter of 2021, respectively. Provinces such as Gauteng, Western Cape, Mpumalanga and Limpopo have higher spending than jobs created. Rural areas such as Eastern Cape, Free State and KwaZulu-Natal are doing comparatively well in creating FTE jobs.

Figure 2.16: Distribution of FTEs by group



Source: Department of Public Works (2021 Quarter 1)

Public employment programmes are critical in addressing some barriers young people face in gaining meaningful skills and accessing decent work. South Africa aims to boost youth employment through expanded public works by reaching 40 per cent women and 30 per cent youth targets. The national average of youth who benefited from work and training is 32.72 per cent, and women are 79.9 per cent. Figure 2.16 shows that despite accounting for 21.3 per cent of full-time equivalent jobs, the Eastern Cape has a lower percentage of youth benefiting from EPWP work at 22.4 per cent. The Western Cape has a relatively higher youth benefiting from EPWP work and training at 49.32 per cent, even though it created only 10.5 per cent of FTE jobs.

The uneven success in targeting the youth and designated groups indicates limited collaboration and cooperation. Improved targeting of participants through community participation and strengthening collaboration can enhance the effectiveness of enabling youth participation. Synergies among lead departments and other stakeholders. Introducing greater uniformity and standardisation across the various EPWP programmes through universal principles is essential.

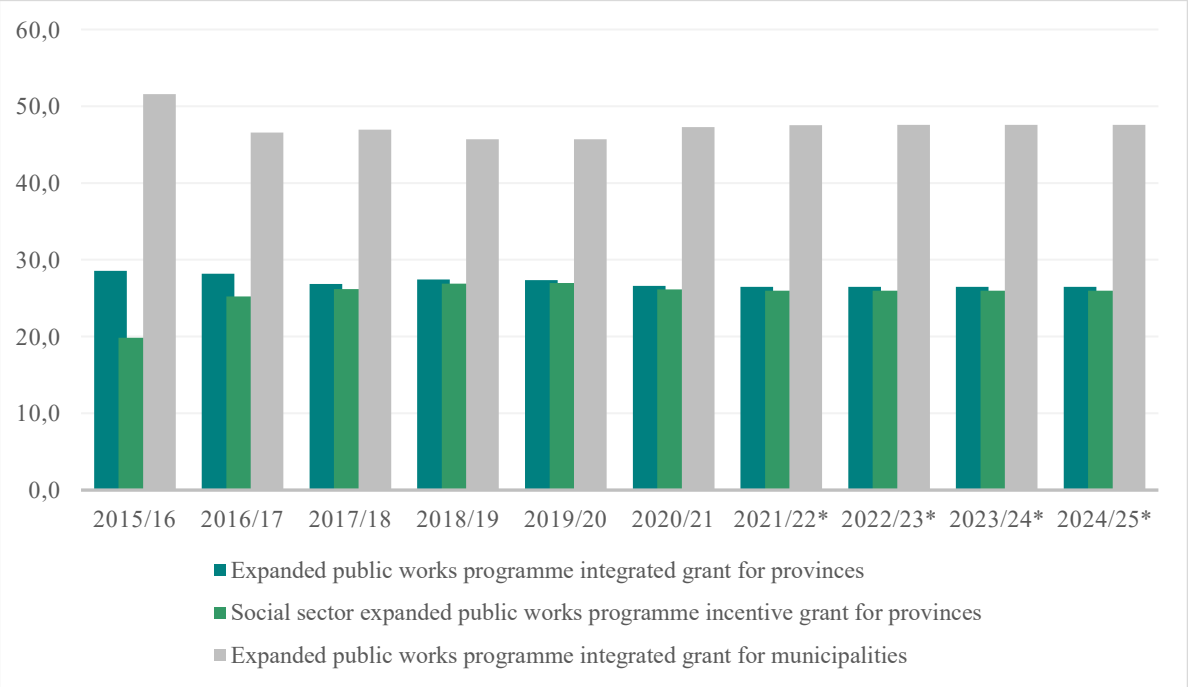
The programme is not aimed at tackling the structural roots of the unemployment problem but focuses on short-term work opportunities because of the constrained nature of work in some industries where it is most commonly involved (such as one-off maintenance projects). Creating temporary rather than sustained employment (which would be more suitable in the context of South Africa's unemployment challenge) means that the EPWP is limited in its ability to address the deeper problem of unemployment in South Africa.

To address the challenge of unemployment sustainability, which is primarily structural rather than cyclical, South Africa requires (amongst other things) inclusive economic growth. A stable macro-economic policy environment, foreign direct investment, infrastructure base, education system, and regulatory frameworks are essential for economic growth. Government should implement growth-enhancing structural reforms that promote economic transformation, support labour-intensive growth, and create a globally competitive economy.

2.7.1.4 EPWP Incentive Grant

The EPWP Incentive Grant is an intergovernmental fiscal instrument that encourages labour-intensive methods and approaches at a provincial and municipal level. The EPWP Incentive Grant aims to provide additional funds to those provinces and municipalities, creating more work using their available budgets. The grant incentivises provinces and municipalities that employ a certain number of low-skilled, unemployed persons willing to work, defined as the EPWP target group.

Figure 2.17: EPWP Incentive Grant for Provinces and Municipalities



Source: National Treasury, 2022

Figure 2.17 shows that local municipalities received a significant proportion of the EPWP incentive grant. In 2019/20, municipalities received 47.3 per cent of the EPWP incentive grant

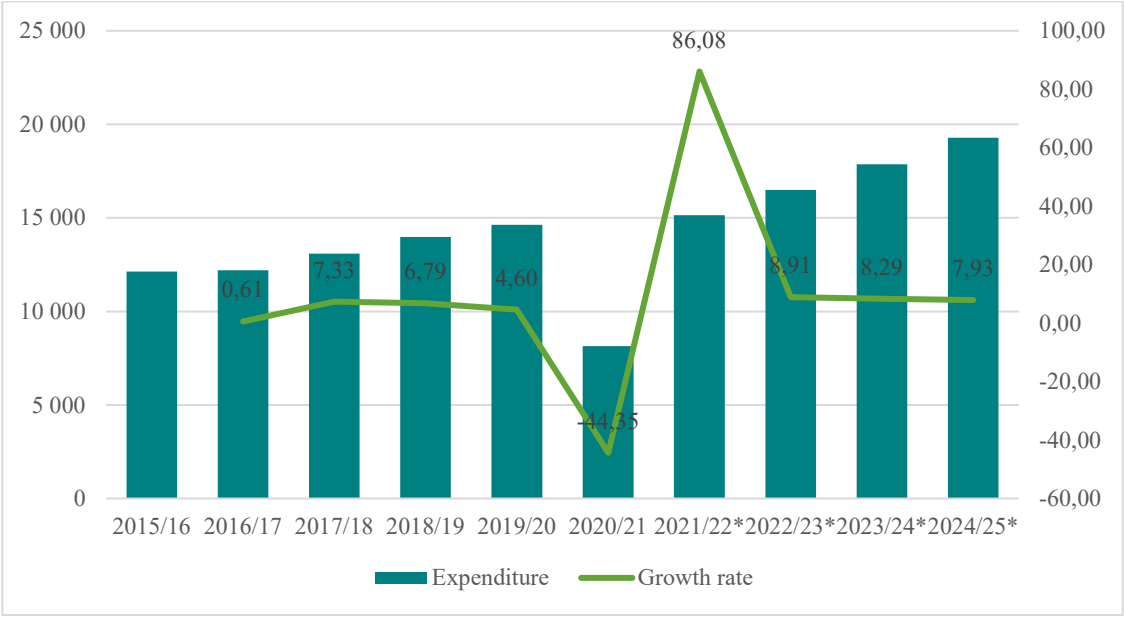
through the EPWP integrated grant for municipalities. Provinces received 27 per cent and 27.4 per cent of the grant through the social sector EPWP incentive grant for provinces and EPWP integrated grant for provinces, respectively. The incentive grant has primarily benefited rural municipalities because the minimum threshold is set at zero for jobs created for full-time equivalent (FTEs). The minimum number of FTEs jobs created is part of the eligibility criteria to receive the incentive grant.

The incentive grant is fraught with many challenges, including non-compliance with the Division of Revenue Act, delays in implementing grant-funded projects, delays in reporting grant-funded projects in the EPWP Reporting System, and poor spending performance (DPWI, 2020). Eligible provinces and municipalities must submit quarterly non-financial reports on a prescribed template by the timelines stipulated in the clauses of the Division of Revenue Act. Another risk area identified by the Auditor General is corruption and fraud in the EPWP in recruiting participants and reporting wrong participants into the EPWP reporting system.

2.7.1.5 Sector Education and Training Authority

Skills development can potentially contribute to structural transformation and economic growth by enhancing employability and labour productivity. South Africa has a strong policy focus and significant financial commitment to education and skills development. The focus has mainly been in the context of government seeking to overcome backlogs and expand access whilst also creating institutions focusing primarily on the terrain of skills development. Institutions focusing on skills are developed because of limited skill development for workers and to address the struggle the youth and unemployed face in accessing the labour market. Sector Education and Training Authority (SETA) is one of the vehicles used to improve skill levels.

Figure 2.18: SETA expenditure



Source: National Treasury, 2022

The primary function of SETAs is to facilitate skills development by establishing learning programmes such as learnerships, skills programmes, internships and other strategic learning initiatives. Currently, 21 Sector Education and Training Authority (SETA) are responsible for managing and creating learnerships, internships, unit-based skills programmes, and apprenticeships within their jurisdiction. Figure 2.18 shows the overall SETA expenditure trend from national revenue. The expenditure growth rate decreased from 6.97 per cent in 2018/19 to 4.6 per cent in 2019/20. In 2020/21, the expenditure growth rate is estimated to decrease by 44.35 per cent. The decrease in expenditure may be associated with measures taken amid the Covid-19 shock.

The SETAs are not directly involved in the creation of employment. Their mandate requires each SETA to identify priority skills needed in each sector they operate and develop sector skills plans and annual training plans. The plans intend to signal to education, training and skills development providers and learners about currently needed skills or those in oversupply. These sector plans help to inform the workplace skills plan and the annual training plan provided to SETAs by employers. Still, the challenge around skills development for employment continues in that there is no system to predict what skills are required by the economy. While employers submit the annual training report to SETA for payments, SETAs have limited capacity to evaluate the annual training report against the workplace skills plan to determine its relevance.

The SETAs have to strengthen and deepen their relationship and coordination with other entities focusing on skills development and foster a relationship with the TVET sector already playing a necessary (but constrained) role in skills development. Furthermore, there is a need to develop a monitoring framework and database that can provide indicators to track the implementation of the skills development processes within the SETA environment. The implementers should develop an indicator protocol with definitions (mapping outcomes), scope and data sources, and quality guidelines to gather comparable data across all SETAs.

The lack of coordination of labour market programmes and the absence of a robust private sector voice contribute to significant inefficiencies. Different departments offer similar programmes for similar target groups or offer potentially complementary programmes without leveraging such complementarities. Some programmes underperform in their potential to support jobseekers, and synergies are not used to create comprehensive support for them.

To maximise the support for jobseekers, government can consider strengthening partnerships on Training between EPWP and SETAs to provide accredited training programmes for low skilled workers. Many labour market programs place the public sector at the centre of employment creation, which is costly and unsustainable, instead of working with the private sector to identify how to leverage labour and product markets.

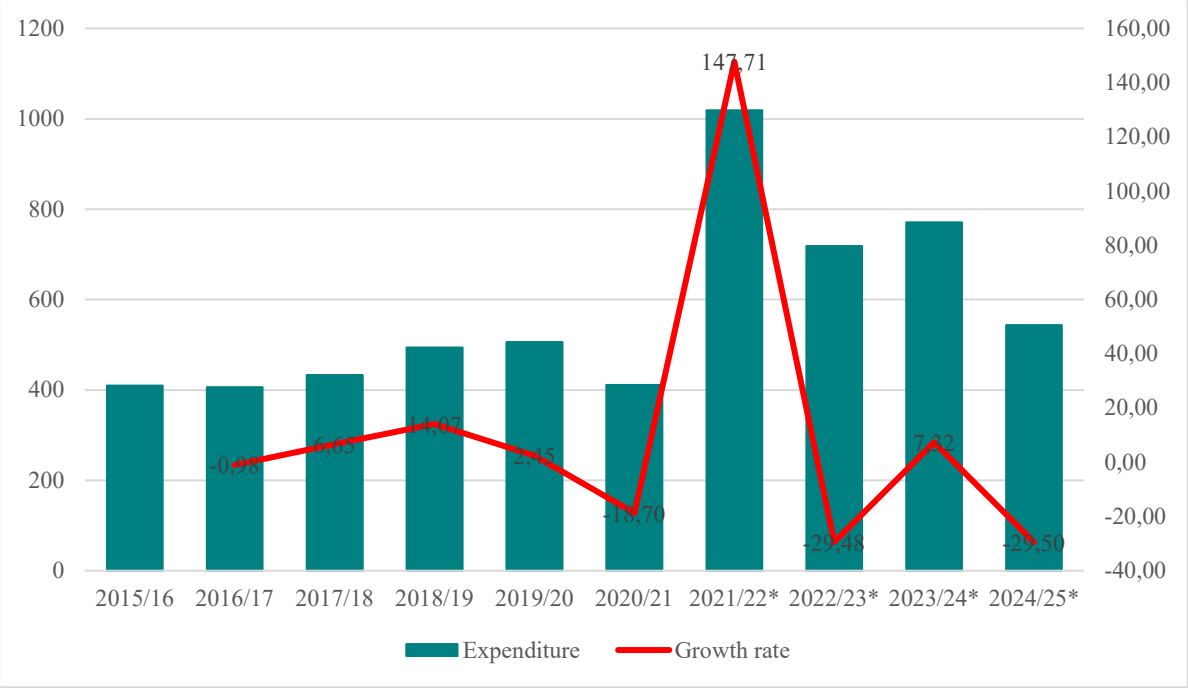
2.7.1.6 National Youth Development Agency

In South Africa, youth entrepreneurship received a considerable focus after establishing Umsobomvu Youth Fund (UYF) in 2001. The objective was to stimulate an entrepreneurial

mindset among young people and assist them with business funding and market access. In 2009 UYF merged with the National Youth Commission (NYC) to give birth to the National Youth Development Agency (NYDA). This establishment was formed to respond to various challenges for young people in the country, such as unemployment, drug and alcohol abuse and entrepreneurship.

The NYDA is an entity of the Department of Women, Youth and Persons with Disabilities. The Department of Women, Youth and Persons with Disabilities is mandated by section 9(3) of the Constitution to further the participation of women, youth and people with disabilities in interventions that enable their empowerment and socio-economic upliftment. In this context, the NYDA mobilises stakeholders such as the government, the private sector, and civil society to prioritise youth development and identify and implement long-lasting solutions that address youth development challenges.

Figure 2.19: NYDA expenditure trends



Source: National Treasury

The Department of Women, Youth and Persons with Disabilities transfers allocations to the National Youth Development Agency through its mainstreaming Youth and Persons with Disabilities Rights and Advocacy programme. Figure 2.19 shows the expenditure trend of the NYDA from 2015/16 to 2023/24. The expenditure growth rate is estimated to decrease by 29.4 per cent in 2022/23 after increasing by 147.71 per cent in 2021/22 following a decrease of 18.7 per cent. In 2024/25, expenditure will decrease by 29.5 per cent following an increase of 7.32 per cent in 2023/24.

The NYDA designs and implements programmes to improve the lives of young people and avail opportunities to youth. The National Youth Service programme is one of the initiatives through

which the NYDA plays an important role in promoting youth inclusion. The National Youth Service Programme (NYSP) is a government initiative aimed at engaging South African youth in community service activities to strengthen service delivery, build patriotism, promote nation-building, foster social cohesion, and assist the youth in acquiring occupational skills necessary to access sustainable livelihood opportunities. In the 2022 State of the Nation Address, the President announced that the National Youth Service will recruit its first cohort of 50 000 young people during 2023, creating opportunities for young people to contribute to their communities, develop their skills and grow their employability. The National Youth Service also assists in developing young people to create employment for others.

Facilitating entrepreneurial training for the youth is essential in improving self-employment endeavours. The NYDA grant Pprogramme aims to provide young entrepreneurs with an opportunity to access financial and non-financial business development support to establish or grow their businesses. The aim is to respond to the challenges of youth unemployment and low total entrepreneurship activity among youth (NYDA, 2020). Table 2.5 shows the number of beneficiaries supported through the NYDA grant programme. In 2018/19, a total of 1 103 youth-owned businesses were supported. The number of youth-owned businesses supported decreased to 1 000 in 2019/20. It is crucial to strengthen and scale up the number of youth-owned enterprises supported. Small-Medium Enterprise's access to domestic finance could also help foster entrepreneurship and stimulate formal job creation.

Table 2.5: Number of youth supported by NYDA

	Actual Achievement 2018/2019	Actual Achievement 2019/2020	Actual Achievement 2020/2021
Number of youth-owned enterprises supported through Grant programme	1103	1000	2316
Number of beneficiaries supported with business development support services offered by the NYDA	23942	20 000	4859
Number of jobs created and sustained through supporting entrepreneurs and enterprises	5025	3500	8653
Number of jobs facilitated through placements in job opportunities	5474	10 000	4962

Source: NYDA annual report (2020)

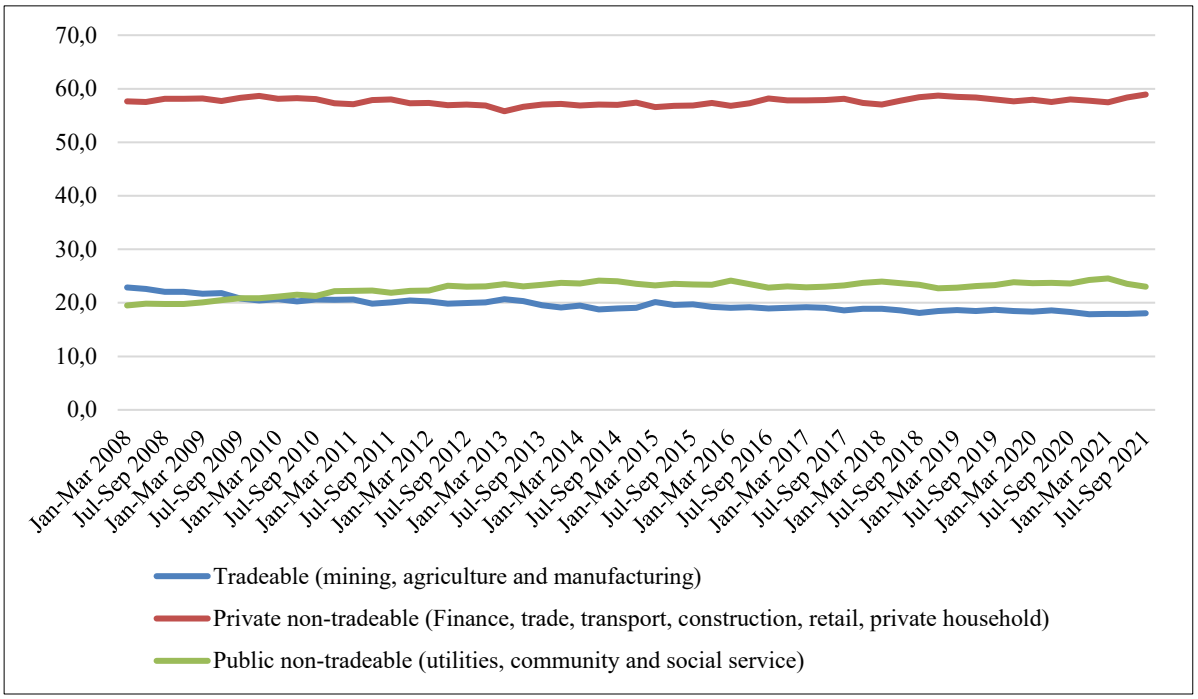
It is essential to address teaching entrepreneurial skills and attributes and behaviours that are often not adequately integrated into school curricula or not taught on different levels. The NYDA can play an essential role in mobilising for reforms of education systems to strengthen entrepreneurial skills. Governments and education authorities should include self-employment as a viable alternative within an overall careers advice structure.

2.8 A lack of progress: A multifaceted challenge

2.8.1 Labour market structural changes

Even though labour market interventions have resulted in some economic opportunities at a micro-level for young people, they have no significant impact on reducing the high unemployment rate. The evidence suggests that youth unemployment is a multifaceted problem. The challenge of youth unemployment is driven by labour market structural changes, poor education system and uncoordinated labour market interventions. It is also related to community, household, and individual-level issues. Conventional labour market interventions centring on education, training, and wage subsidies are necessary but on their own inadequate to addressing the youth unemployment challenge. Labour market interventions may be suitable for addressing supply-side challenges and preparing job seekers to enter the labour market. Their effect will remain limited if there is no corresponding increase in the supply of jobs.

Figure 2.20: Percentage of total employment by sector



Source: Commission's calculations based on Stats SA

South Africa's high unemployment and low growth can be associated with the decline of the non-mineral tradable sector since the early-1990s. The weakness in export-oriented sectors has denied South Africa growth and employment creation opportunities. This pattern of structural change is also a key driver of unemployment because tradable activities (including manufacturing and agriculture) are intensive in low-skilled labour compared to services. The ongoing pattern of structural change implies a significant decrease in the relative demand for low-skilled labour because the declining sectors constitute the least skill-intensive parts of the South African economy.

Box 2: The case for manufacturing

An export-oriented strategy focusing on manufacturing will generate growth and be labour absorbing for South Africa. Manufacturing is known to provide massive employment, more especially for low skilled job seekers. However, productivity and intensified import competition are identified as key hinderances to manufacturing. A comparative analysis between South Africa and Malaysia will underscore the possibilities manufacturing can play in addressing unemployment and also be equity promoting.

South Africa and Malaysia are both medium-sized economies with deep racially divided past, in which an ethnic majority controls the polity but economic power lies with an ethnic minority. The output per worker (productivity per worker) and total factor productivity (TFP) were similar, including human capital and dependence on mining. But these economies underwent different paths of economic evolution; while Malaysia was undergoing industrialisation, South Africa was deindustrialising. In 1998, approximately 12 per cent of South Africa's total labour force was employed in manufacturing, compared to about 8 per cent in Malaysia. But since then, Malaysia has industrialised by leaps and bounds, with this number reaching 16 per cent decade later. In South Africa, by contrast, the proportion of the workforce employed in manufacturing has come steadily down and this has resulted in high unemployment.

Table 2.6: Snapshot of South Africa and Malaysia

Country		Y/L	(K/Y)^a	H/L	A	Mining share as a percentage of GDP
South Africa	ZAF	0.250	0.959	0.568	0.460	0.111
Malaysia	MYS	0.267	1.004	0.592	0.450	0.103

Source: Hall and Jones (1999)

The expansion of manufacturing in Malaysia has been both growth and equity promoting with a similar output per worker and human capital as South Africa. Expanding manufacturing can be one of the solutions to addressing the unemployment problem in South Africa. To address the competitive prices, South Africa requires a combination of monetary and fiscal policies that will allow the South African Reserve Bank (SARB) to run a modified inflation targeting framework which allows considerations of competitiveness to affect its decision-making. Putting it more bluntly, SARB will need to develop views about the equilibrium real exchange rate – where 'equilibrium' refers to satisfactory outcomes in terms of tradable output and employment – and steer exchange rates accordingly.

The limited skills among the youth coupled with low secondary school completion rates mean that many young people are at a considerable disadvantage in finding employment in an economy biased towards high skills services activities. The share of total employment in tradeable activities decreased from more than 23 per cent of employment in quarter 1 of 2008 to 18 per cent in quarter 3 of 2021. Public non-tradeable activities share of total employment increased from 19.5 per cent in quarter 1, 2008 to 23 per cent in quarter 3, 2021. At the same time, private non-tradeable

activities' share of total employment increased. The evidence shows that a key difficulty facing youth seeking to enter the labour market is that South Africa's labour market favours skilled employees. In the late 1990s and early 2000s, the country's economy shifted from labour-intensive tradeable economic activities to technology-intensive non-tradeable economic activities.

The high unemployment and low growth in South Africa are linked to the non-mineral tradable sector (Rodrik, 2008). The result has been a higher absorption of skilled workers into the labour market than low-skilled workers. Many young people in South Africa are unskilled or lack the skills required in the labour market. But the demand for high skilled workers means that those with high qualifications are more likely to find employment. The research shows that the challenge of youth unemployment is a structural issue that requires long-term solutions such as massive structural economic reforms.

2.9 Conclusion

The youth unemployment situation in South Africa has become dire, receiving substantial attention from both policy makers and researchers. The policy frameworks and interventions that support youth employment remain uncoordinated, lacking in solid implementation plans and with no overall accountability. A more integrated and impactful approach to pathing young people into the labour market is required, encompassing a basic education system that is significantly improved with the ultimate result of inclusive economic growth.

A solid social compact is needed to address youth unemployment. This compact should brings employer, training providers, trade unions, government, and other relevant stakeholders on board to support, reconfigure existing programmes and develop a new approach to youth employment. Programme duplication, lack of coordination, and implementation failures have seriously hindered education, skills training, and youth development and employment and must be eliminated to enhance the effectiveness of labour market interventions.

Interventions must be better coordinated and, where evidence of success is available, scaled up. The EPWP is an important point of contact with unemployed youth. It could be leveraged to path young people into other services, back into the training system, or into employment support programmes. To achieve effective pathing of the youth, a monitoring framework and database that can track and trace beneficiaries must be coordinated and developed.

On the demand side, the ETI is currently the only primary intervention focusing on employers. Even though evidence on success of the ETI is uncertain, the intervention nevertheless has the potential to create employment. If the intervention is extended, it should focus on better uptake among small businesses and include additional efforts to evaluate the impact and understand firm (company) behaviour in relation to uptake.

The ETI can potentially mitigate the effects of the national minimum wage on the youth by subsidising employers who hire young people. There is a need to expand and deepen the

employment tax incentive to encourage hiring in the private sector, particularly for those who face constraints to labour market integration, such as young people and women. Alongside an intervention such as the ETI, job creation and youth employment must be promoted among employers. The Jobs Fund could continue to play a leading role in facilitating employment creation.

Self-employment is one of the mechanisms that South Africa can use to address the challenge of unemployment. Facilitating entrepreneurial training for the youth is essential in improving self-employment endeavours. The SETAs must strengthen and deepen their relationships and coordination with other entities focusing on entrepreneurial skills development. Equally important is to strengthen and scale up the number of youth-owned enterprises supported through the NYDA grant programme. Better access to finance for SMMEs could also help foster entrepreneurship and stimulate formal job creation.

Lastly, the general lack of coordination of labour market programmes and the absence of a robust private sector voice contribute to significant inefficiencies. Different departments offer similar programmes for similar target groups or offer potentially complementary programmes without exploiting such complementarities within their respective responsibilities. The government needs a task team to investigate how current institutions and available funds can be coordinated to work together for quality mass training of all trades that are in demand (electricians, plumbers, boilermakers, welders, millwrights. riggers, pipefitters, mechanics etc.) - an incentive scheme can be used for the private sector to offer apprenticeships to youth in trade training programmes, before a quality assured trade test is performed. Parastatals such as Eskom, Transnet and others have successfully been used in the past for such programmes.

2.10 Recommendations

The Commission makes the following recommendations:

1. *The Commission welcomes the expansion of the employment tax incentive. To better target and increase the impact of the incentive, the Commission recommends the employee eligibility age should be revised from 18 – 29 years old. The age group between 24 -34 years has a relatively high NEET rate compared to 15 - 24 years olds. The National Treasury can also consider deepening the employment tax incentive to encourage hiring young women whose NEET rate is relatively higher than that of their male counterparts for both youth categories. The NEET group represents the most vulnerable section of the youth.*

The Commission notes that the Employment Tax Incentive (ETI) has shown evidence to incentivise employment by the private sector in South Africa. The Commission also welcomes the extension of the ETI through a 50 per cent increase of the maximum value. Targeting the most vulnerable sections of the youth population will maximise the impact of the incentive. The expansion also requires an understanding of firm behaviour and drivers of uptake. Therefore, working with small firms to enhance their ability to employ youth.

2. *The Department of Employment and Labour, the Department of Higher Education and Training, and the Department of Women, Youth and Persons with Disabilities should coordinate all labour markets and skills programmes. The Department of Women, Youth and Persons with Disabilities has a mandate of enabling the empowerment and socio-economic upliftment of the youth and women. Well-coordinated labour market interventions could bolster the impact of existing labour market programs through more significant integration and leveraging of initiatives.*

The Commission notes that the lack of central coordination of labour market programmes and the absence of a robust private sector voice contribute to significant inefficiencies. There is a need to coordinate efforts and streamline labour market programmes to help with the inclusion of the private sector, which could maximise the impact of labour market interventions. A more integrated and impactful approach to supporting youth employment could reduce youth unemployment.

The Commission also notes that public employment programmes form a critical component of an employment strategy for youth, primarily because they guarantee work, and income and are a vital connection point for young people seeking jobs. The Extended Public Works Programmes can connect young EPWP participants to other 'pipeline' employment and training opportunities. Connecting young work-seekers to further employment opportunities requires greater coordination and cooperation of stakeholders and other line departments.

3. *The National Treasury and National Jobs Fund should consider other alternative funding channels that consider the limitations faced by the youth regarding access to capital to provide challenge funds. The challenge funding principle of the national Jobs Fund disadvantages those small and medium businesses that have no access to capital. A challenge fund is a financing mechanism to allocate (donor) funds for specific purposes using competition among organisations as the lead principle. Proposals are assessed against transparent and pre-determined criteria. Successful applicants must usually match a certain percentage of the grant with own financing.*

The Commission notes that self-employment is one alternative that should be encouraged for young people. Access to capital is a significant constraint confronting young people venturing into self-employment. The Jobs Funds is an important organisation supporting entrepreneurial activity or businesses with the potential to create massive employment. But the match funding principle does not help those young people who do not have access to capital. Developing alternative funding channels that consider the capital constraints faced by young people would maximise the impact of the national jobs fund.

4. *The Commission recommends that the proportion of gross fixed capital expenditure in the composition of the budget should be systematically increased. Consumption expenditure should be reduced, and there is a need to remove structural and institutional rigidities that impact private investment in the reduction of unemployment.*

The Commission shows that spending on gross fixed capital formation contributes to the reduction of unemployment. Therefore, capital payments that capture the government's contribution to capital formation and spending on new infrastructure and upgrades, additions, rehabilitation, and refurbishment of existing infrastructure should progressively be increased.

2.11 References

Bhorat, H., Hill, R., Khan, S., Lilenstein, K., & Stanwix, B. 2020. The Employment Tax Incentive Scheme in South Africa: An Impact Assessment.

Baxter, M., & King, R. G. 1993. Fiscal policy in general equilibrium. The American Economic Review, 315-334.

Buscher, H., Dreger, C., Ramos Lobo, R., & Suriñach Caralt, J. 2009. The impact of institutions on the employment performance in European labour markets. Economic Issues, 2009, vol. 14, num. 1, p. 17-33.

Chakravarty, S., Das, S., & Vaillant, J. 2017. Gender and youth employment in Sub-Saharan Africa: A review of constraints and effective interventions. World Bank Policy Research Working Paper, (8245).

Chigunta, F. 2017. Entrepreneurship as a possible solution to youth unemployment in Africa. Labouring and learning, 10, 433-451.

Department of Higher Education and Training 2019. Annual Report 2019. Pretoria. South Africa

Drummond, M. P., Thakoor, V., & Yu, S. 2014. Africa Rising: Harnessing the Demographic Dividend. International Monetary Fund.

Field, E., Jayachandran, S., Pande, R., & Rigol, N. 2015. Friendship at work: Can peer effects catalyse female entrepreneurship? National Bureau of Economic Research. (No. w21093)

Fatás, A., & Mihov, I. 2001. The effects of fiscal policy on consumption and employment: theory and evidence. Available at SSRN 267281.

Gory, A. (2013) "Minimum wages and youth unemployment" European Economic Review 64, 57-75.

Gwija, S. A., Chuks, E. E., & Iwu, C. G. 2014. Challenges and prospects of youth entrepreneurship development in a designated community in the Western Cape, South Africa.

Human Sciences Research Council 2019. TIMSS 2019: Highlights of South African Grade 5 Results in Mathematics and Science. Pretoria

Hall, R. E., & Jones, C. I. 1999. Why do some countries produce so much more output per worker than others?. The quarterly journal of economics, 114(1), 83-116.

Kingdon, C. G., & Knight, J. 2003. *Unemployment in South Africa: The Nature of the Beast.* American Economic Association.

Leila Patel, Zoheb Khan & Thomas Englert. 2020. How might a national minimum wage affect the employment of youth in South Africa? Development Southern Africa, 37:1,147-161, DOI: 10.1080/0376835X.2018.1552556

Mncayi P, Dunga S.H.2016. Career choice and unemployment length: A study of graduates from a South African university. Industry and Higher Education. 2016;30(6):413-423. doi:10.1177/0950422216670500

Murwirapachena, G. 2011. Fiscal Policy and Unemployment in South Africa. Mediterranean Journal of Social Sciences, 4(6), 579 – 589.

Nattrass, N., & Walker, R. 2005. Unemployment and reservation wage in working-class Cape Town. *South African Journal of Economics*.

Onodugo, V. A., Obi, K. O., Anowor, O. F., Nwonye, N. G., & Ofoegbu, G. N. 2017. Does public spending affect unemployment in an emerging market. Risk governance & control: Financial markets & institutions, 7(1), 32-40.

Ranchhod, V. and Finn, A. 2014. Estimating the Short-run Effects of South Africa's Employment Tax Incentive on Youth Employment Probabilities Using a Difference-in- differences approach. Southern Africa Labour and Development Research Unit

Rankin, N. A., & Roberts, G. A. 2011. Youth Unemployment, firm size and reservation wage in South Africa . *South African Journal of Economics* .

Rankin, N.A., & Chaterjee, A. 2016. *Estimating the Impact of the Employment Tax Incentive.* Presented at the Growth and Development Policy: New Data, New Approaches, and New Evidence, Pretoria.

Reddy, V., Bhorat, H., Powell, M., Visser, M. and Arends, A., 2016. Skills Supply and Demand in South Africa, LMIP Publication, Human Sciences Research Council, Pretoria.

Sachs, A., & Smolny, W. 2016. Youth unemployment in the OECD: The role of institutions. *De Gruyter Oldenbourg.*, 403-417.

Sachs, A., & Smolny, W. 2016. Youth unemployment in the OECD: The role of institutions (pp. 403-417). De Gruyter Oldenbourg.

Statistics South Africa 2019. Mid-year Population Estimates. Pretoria. South Africa

Statistics South Africa. 2021. Mid-year Population Estimates. Pretoria. South Africa

Statistics South Africa. 2021. Quarter Labour Force Survey (QLFS). Pretoria. South Africa

United Nations. Department of Economic and Social Affairs. 2018. World youth report: Youth and the 2030 agenda for sustainable development. United Nations Publications.

World Bank. 2021. South Africa Economic Update, Edition 13: Building Back Better from COVID-19 with a Special Focus on Jobs. Statistics South Africa (2019). Mid-year Population Estimates. Pretoria. South Africa

Statistics South Africa 2021. Mid-year Population Estimates. Pretoria. South Africa

Statistics South Africa 2021. Quarter Labour Force Survey (QLFS). Pretoria. South Africa

United Nations. Department of Economic and Social Affairs. 2018. World youth report: Youth and the 2030 agenda for sustainable development. United Nations Publications.

World Bank. 2021. South Africa Economic Update, Edition 13: Building Back Better from COVID-19 with a Special Focus on Jobs.

CHAPTER 3

Assessing debt sustainability in South Africa

Chapter 3:
Assessing debt sustainability in South Africa

Chen W. Tseng and Hannah MacGinty

3.1 Introduction

South Africa faces high uncertainty with respect to its public debt levels, cost of debt, and future debt path. Economic growth, while already in a slow-growing period, deteriorated in 2020 as a result of the devastation of the Covid-19 pandemic, which contributed to higher debt and government spending to mitigate the effects of the associated lockdowns. According to the Budget Review 2022, economic growth rebounded to 4.8 per cent in 2021, but projections for the medium term are weak, averaging 1.8 per cent per annum over the following three years (National Treasury, 2022). In addition, debt levels are estimated to continue climbing to over 75 per cent of gross domestic product (GDP) in 2024/25 before stabilising, with debt service costs increasing by an average 10 per cent annual growth rate over the next few years, crowding out spending on critical services and projects.

In terms of the fiscal stance, pro-growth consolidation was proposed in February 2021 to rein in debt and debt service costs. Following these plans, over the course of 2021, South Africa experienced a third and fourth wave of the virus as well as social unrest in July, resulting in an increased need for government expenditure. Improved revenue collection, detailed in the 2022 budget, is assisting the government with its consolidatory goals, including its aim for a primary surplus in 2023/24. However, further unprecedented events, such as international conflicts or new Covid-19 variants, may threaten fiscal plans and economic recovery. Overall, fiscal assumptions are frequently subject to change, impacting debt levels. As a result, the path of debt remains uncertain given fiscal vulnerabilities and the rapidly changing economic climate. These factors provide motivation for an investigation into debt sustainability in South Africa.

Debt sustainability seeks to investigate the level of indebtedness and associated risks of unstable debt to decide whether the public sector is in debt distress or not. The aim of this paper is to provide a rounded assessment of public debt sustainability in South Africa. A variety of quantitative tools are employed to examine the context of debt, key indicators of sustainability, and forecasting of the debt path. The analysis examines the role of rising debt levels, cost of debt, and fiscal reaction amid deteriorating debt sustainability. Regression analysis indicates that high debt is associated with weakening economic growth, possibly as a result of debt overhangs or unproductive spending. By adapting the International Monetary Fund's (IMF's) Debt Sustainability Analysis (DSA) template to the case of South Africa, projections of the future debt path are generated. Moreover, the analysis displays how shocks to growth, the primary balance, and interest rate pose risks to the debt level and gross financing needs.

Section 2 revises the relevant literature and concepts associated with debt sustainability, followed by a description of the problem statement and research questions as well as an outline of the research aims and objectives in Sections 3 and 4, respectively. Section 5 includes the methodology and data sources. Results for descriptive analysis, indicators of sustainability, the impact of debt and growth, and forecasts for the debt path are presented in Section 6. The paper is concluded before recommendations are discussed in Section 8.

3.2 Literature review

3.2.1 Defining debt sustainability

There are many definitions surrounding debt sustainability. One such definition is that debt sustainability seeks to measure the point at which debt becomes so large that it cannot be serviced (Wyplosz, 2005). Sustainability is associated with solvency, namely, a country's ability to service debt in the long run (Naraidoo and Raputsoane, 2015). Public sector solvency is also linked to the equilibrium relationship between the future primary balance and total debt stock (Mustapha and Prizzon, 2015). Liquidity, defined as the government's ability to roll over its debt obligations, is another factor to be accounted for in assessing sustainability. Additionally, social and political limitations to adjustments in revenue and expenditure may affect a country's willingness to pay (Mustapha and Prizzon, 2015).

In terms of the budget constraint, if the primary balance cannot sustain the higher interest payments needed to service debt, debt levels risk becoming explosive. At this point, governments will either undertake extraordinary fiscal adjustments or default (Debrun, Ostry, Willems and Wyplosz, 2019). This definition implies that there is a level of debt beyond which debt dynamics are uncontrollable and may result in debt distress (Wyplosz, 2005). Sustainability can also be determined via a variety of economic indicators. For example, the interest-growth differential, being the difference of the interest rate on debt and the economic growth rate, examined in conjunction with the primary balance, is a commonly used indicator to determine the state of debt dynamics. Additionally, examining the conditional relationship between the primary balance and debt is another measure associated with public debt sustainability (Debrun et al., 2019).

As debt sustainability is inherently complex, different countries tend to face differing debt levels and criteria for sustainability. Certain studies have estimated a debt level for sustainability, where debt presents adverse economic effects. For example, Naraidoo and Raputsoane (2015) estimate a debt threshold of 56 per cent of GDP for South Africa, while Tran (2018) indicates that there is fiscal sustainability in emerging economies when debt is below 40-55 per cent of GDP. Other studies estimate sustainability via other quantitative methods, such as through forecasting techniques, examinations of the response of the primary balance to changes in debt, and assessments of key economic indicators of sustainability.

In past literature, South Africa's fiscal position and debt levels followed a sustainable path (Burger, et al., 2011). Despite this, debt levels have since dramatically changed and surpassed 70 per cent[13] of GDP in 2020/21.

3.2.2 Debt dynamics in South Africa and other low- and middle-income countries

In Sub-Saharan African countries, debt levels accumulated more rapidly after the global financial crisis (Battaile, Hernandez and Norambuena, 2015). Primary deficits and real interest rates contributed to worsening debt dynamics, while debt relief and economic growth contributed to debt reduction (Battaile, Hernandez and Norambuena, 2015). Higher economic growth results in favourable debt dynamics, especially as higher GDP balances lower the debt-to-GDP ratio. Thus, growth tends to have a negative impact on debt as higher economic activity lessens the debt burden. Additionally, inflation may worsen debt dynamics by leading to higher interest rates but may improve these dynamics through higher nominal growth rates (Caselli, Giovannini and Lane, 1998). Alternatively, other studies have indicated that inflation reduces the value of debt, thus bringing the debt-to-GDP ratio down (Aizenman and Marion, 2011; Hall and Sargent, 2011). The real effective exchange rate and outstanding debt are other debt determinants (Bayale, 2020). Political instability, institutional weakness and history of meeting debt obligations are factors that further affect debt sustainability (Reinhart, Rogoff and Savastano, 2003).

Among the BRICS countries, debt sustainability is considered relatively weak, particularly in Brazil, Russia and South Africa (Joy and Panda, 2020). Although the debt-to-GDP ratio for these countries has been overall lower than the world average, debt service costs as a ratio of GDP are relatively higher. Empirical analysis suggested that BRICS may be suffering debt overhang effects, indicating a need to reduce debt service payments due to the adverse impacts on investment (Joy and Panda, 2019). Moreover, during the Covid-19 pandemic, the BRICS countries became increasingly vulnerable as exports fell amid declining demand and disrupted economic sectors (Dash, Sethi and Dash, 2021).

In South Africa, over the last decades, trends in public debt have been influenced by changes in domestic and foreign interest rates, inflation and exchange rates, as it has relied on domestic and foreign capital to finance budgets (Saungweme and Odhiambo, 2018). From 1960 to 2008, domestic public debt remained on a relatively steady growth path. In the 1970s, South Africa displayed increasing government debt which was reversed at the end of the decade (Ghatak and Sánchez-Fung, 2007). However, from the 1980s until mid-1990s, debt grew again considerably. South Africa embarked on an agenda to secure its fiscal position by reducing the budget deficit of 9 per cent in 1993 to 2 per cent of GDP in the early 2000s, partly owing to

[13] With the rebasing of GDP, debt-to-GDP as of March 2021 has been revised down to 70.7 per cent, being around 80 per cent pre-rebasing (Statistics South Africa 2021).

improved tax collection. In addition, the adoption of the inflation-targeting approach to monetary policy in the late 1990s showed commitment to macroeconomic stability. From 2009, coinciding with a deterioration in the fiscal balance, an increased reliance on domestic and foreign capital for financing purposes led to rapidly accumulating debt (Saungweme and Odhiambo, 2018).

Moreover, debt rose sharply during the Covid-19 pandemic, from 57 per cent of GDP in 2019 to over 70 per cent of GDP in 2020, resulting in proposals for budgetary reforms such as pro-growth fiscal consolidation (National Treasury, 2021). This accumulation puts further pressure on debt service costs, consuming almost 20 per cent of budget revenue, and threatening sustainability. In terms of its monetary policy, South Africa has sound financial institutions, with a central bank committed to maintaining price stability. As a result, South Africa has a sophisticated debt profile that lessens certain financial risks, such as exchange rate and refinancing risks. In 2020, pre-existing monetary policy credibility assisted in maintaining effective monetary policy under poor economic conditions (Loewald, 2021). The weaknesses in state-owned enterprises (SOEs), however, represent a fiscal vulnerability in South Africa. The materialisation of contingent liabilities poses a threat to debt sustainability and requires greater fiscal effort to prevent the deterioration of debt levels (Bachmair and Bogoev, 2018). It is, therefore, essential to ensure that these risks are mitigated, and that protective buffers are in place.

3.2.3 Debt-growth nexus

While economic growth is an important component of debt dynamics, the direction of the relationship can also be reversed such that the level of debt impacts growth. Debt may have growth-enhancing effects until a certain debt level, affecting sustainability (Reinhart and Rogoff, 2010). For example, Reinhart and Rogoff (2010) estimated that GDP growth begins to fall in both advanced and emerging economies above a 90 per cent debt-to-GDP ratio. However, the level of public debt beyond which economic growth slows down tends to differ amongst countries (Karadam, 2018). Checherita-Westphal and Rother (2012) find a non-linear impact of debt on growth with a turning point around 90-100 per cent of GDP in the Euro area. Moreover, the channels through which debt affects growth are private saving, public investment and total factor productivity.

In South Africa, the link between public debt and growth depends on the level of indebtedness, with one study finding that public debt becomes an impediment to growth above 31 per cent of GDP (Baaziz Guesmi, Heller and Lahiani, 2015). Similarly, another South African study indicated a negative debt-growth relationship (Mhlaba and Phiri, 2019). It should be noted that theory on the relationship between public debt and economic growth is vast, with empirical studies over different time periods and countries finding negative, positive, or nonlinear relationships (Saungweme and Odhiambo, 2018). Nevertheless, among the literature, accounting for nonlinearities between debt and growth is generally necessary to avoid biased coefficients (Siddiqui and Malik, 2001).

The relationship between debt and growth often relates to the theory of a debt overhang, where high public debt may reduce growth through crowding out investment (Baaziz, et al., 2015). A debt overhang results from high tax burdens expected to finance high debt, which disincentives current investment and consumption and, thus, drags economic activity (Elbadawi, Ndulu, and Ndung'u, 1997; International Monetary Fund, 2018). If investment is reduced due to a large debt overhang, capital and output to repay future debt will also be diminished (Roubini, 2001). Debt overhangs can, therefore, lead to low growth and revenues, insufficient funds for primary expenditure, and an increased chance of default. A vicious cycle is created, where worries about sustainability result in sovereign financing concerns, leading to concerns about growth (International Monetary Fund, 2018). Concerns about growth and higher deficits lead to a rising risk premium, resulting in more sustainability concerns. Overall, the impact of debt on growth is essential for sustainability, as detrimental growth may bring solvency, liquidity and servicing concerns (Kaur and Mukherjee, 2012).

The relationships between debt, investment and growth are also explained in the DIG (debt, investment, growth) and DIGNAR (debt, investment, growth, and natural resources) models (Buffie et al., 2012; Melina, Yang, and Zanna, 2014). These models explain the relationships between government policy, private demand and private supply, which captures the mechanisms and policy issues related to growth and debt dynamics. When the government uses domestic debt to finance excess expenditure, private consumption and investment may be crowded out as resources are moved from the private to the public sector, which may have adverse consequences for economic growth (Buffie et al., 2012). At the same time, however, debt to finance public investment may bolster growth. These processes are also affected by public investment efficiency, where the increase in public investment expenditure leads to an increase in public capital, and the rate of return on public capital, being the marginal productivity of public capital net of its depreciation. Both concepts may lead to higher output in the economy.

Although the debt-growth nexus has been investigated in South Africa in prior literature, the rapidly changing economic environment, combined with shocks to growth, debt and other pertinent economic factors, necessitate revisiting this relationship with more recent data. An updated analysis, in the context of the Covid-19 pandemic and relatively weak growth, may serve to fill this gap in the literature. Furthermore, it aligns with the Economic Reconstruction and Recovery Plan (ERRP), announced in 2020 by the South African government, which aims to boost growth and lower the debt-to-GDP ratio while addressing structural issues to the economy through various policy interventions. Moreover, as explained above, the interactive relationship between debt and growth can indicate possible sustainability concerns.

3.2.4 Key concepts for debt sustainability

The interest-growth differential is a key concept often studied in assessing debt sustainability. For debt-to-GDP ratios, the change in debt is determined by the primary balance and the difference between the interest rate and the growth rate (Checherita-Westphal, 2019). Higher interest rates imply higher interest payments to service government debt, thereby adversely

affecting debt dynamics (Turner and Spinelli, 2013). On the other hand, higher growth will tend to lower the debt-to-GDP ratio by increasing the denominator. If the interest-growth differential is strictly positive, where the interest rate is greater than the growth rate, a primary fiscal surplus is needed to reduce the ratio or stabilise debt (Checherita-Westphal, 2019). A negative differential indicates that debt ratios could be reduced even in the presence of budget deficits. A factor that may increase the differential is higher sovereign risk premia associated with higher government indebtedness (Turner and Spinelli, 2013). Generally, weaker fiscal positions are associated with a higher interest-growth differential.

Regarding debt service costs, the cost of servicing debt depends on factors that determine debt dynamics, namely the primary fiscal balance, outstanding debt, inflation, and economic growth (Caselli, Giovannini and Lane, 1998). It has been found that an improvement in the fiscal balance significantly reduces debt service costs. This does not imply, however, that reducing debt is always the right policy option, as some countries are able to sustain much higher debt levels than others, with much lower associated debt costs. Additionally, consolidation may have unintended consequences, such as a "doom loop", where low growth arises and results in a higher debt-to-GDP ratio or a higher deficit instead of the intended reduced deficit (International Monetary Fund, 2018; Fatas, 2019).

Fiscal credibility is another important factor for sustainability, given that it impacts servicing ability through debt service costs. Weakened credibility may result in increases in sovereign risk premia, which adversely affects debt dynamics by raising the cost of borrowing (International Monetary Fund, 2018). When there are expectations of default, funds available for borrowers recede, and borrowing costs explode to offset the risk taken by the lender (Debrun, et al., 2019). Additionally, high debt can result in higher-risk premia, resulting in higher debt, creating a vicious cycle (Alcidi and Gros, 2019). By this token, the interest rate costs on debt tend to rise with increasing debt.

3.3 Problem statement and research questions

3.3.1 Problem statement

As debt has been rising rapidly in South Africa, its sustainability, as well as its impact on growth, is in question.

3.3.2 Key research questions

1. What constitutes a sustainable debt path?
2. Is South African debt following a sustainable path?
3. Is there a level of debt beyond which economic growth is adversely affected?
4. What are the future projections for the debt-to-GDP ratio in South Africa?

3.4 Research aims and objectives

3.4.1 Research aims

The aim of this paper is to understand debt and its sustainability in South Africa, particularly amid volatile economic conditions over the last few years. A more rounded assessment of sustainability can be conducted by looking at key indicators surrounding the cost of debt, economic growth rates, adjustments in the primary balance and debt accumulation. This assessment also includes investigating the composition of debt and its context in South Africa. Additionally, the impact of debt on economic growth shall be assessed, as it is associated with servicing ability and aligns with the ERRP to boost growth and ease the debt burden. Given unprecedented changes to debt and the broader economic climate, it is necessary to revisit and examine key indicators of sustainability.

3.4.2 Objectives

- Assess what constitutes sustainable debt in the South African context.
- Determine whether debt in South Africa is currently sustainable and whether there is a need for future concern.
- Assess the relationship between debt and growth, and whether debt is detrimental to growth beyond a certain level of debt.
- Make forecasts of debt, from its determinants, in order to assess its future path.

The fiscal and debt conditions have drastically changed over recent years. By the end of 2020, South Africa faced its highest deficit in history. According to the 2022 Budget Statement, should its fiscal path remain on track, the government aims to stabilise gross debt at 75 per cent of GDP in 2024/25 (National Treasury, 2022). Debt service costs, however, consume an increasing share of GDP and revenue over the medium term. Moreover, economic growth has remained weak in South Africa and dramatically fell to -6.4 per cent during 2020 (Statistics South Africa, 2021). Although growth rebounded to 4.8 per cent for 2021, it is expected to fall again to average less than 2 per cent over the next few years (National Treasury, 2022). Despite the proposed fiscal stance of consolidation, the debt path remains unclear given the uncertainties of the Covid-19 pandemic, fiscal vulnerabilities, and rapidly changing economic climate. As the consequences of debt will continue to plague South Africa for the foreseeable future, increasing attention must be allocated to understanding debt dynamics and their context, particularly given economic turbulence resulting from the four waves of the Covid-19 pandemic experienced in the country. Given the sharp and recent increase in debt, empirical estimates regarding debt sustainability are limited.

3.5 Research methodology and data

3.5.1 Data

Secondary annual data from the World Bank, South African Reserve Bank (SARB), Statistics South Africa as well as the National Treasury is used for this research. This includes data on macroeconomic variables such as GDP growth, inflation, exchange rates, interest rates, primary deficits, debt service costs, and debt-to-GDP ratios.

Firstly, a descriptive analysis is incorporated into the research to assess the context of debt and levels of debt service costs to assess the ability to service debt. For example, this analysis includes international comparisons of debt and debt service costs, given that high debt does not necessarily correlate with high debt service costs. In addition, by examining the composition, holdings and cost of debt in South Africa, one can better understand the quality and context of borrowing.

3.5.2 Methodology

Following the descriptive analysis, sustainability and public sector solvency will be assessed through various indicators, such as comparisons of the real interest rate on debt to the economic growth rate as well as examinations of the growth rate of debt, and Bohn's[14] model-based sustainability method of assessing the relationship between the primary balance and debt. This method estimates whether the primary surplus relative to GDP is a positive function of debt (i.e., whether β>0). Following Kaur and Mukherjee (2012) and Debrun et al. (2019), the regression equation can be described in equation (1).

$$PB_t = \alpha_0 + \beta D_{t-1} + \alpha_1 GDPGAP_t + \alpha_2 EXPGAP_t + \varepsilon_t \ldots (1)$$

where PB_t is the primary balance, D_{t-1} is debt in the previous period, and $GDPGAP_t$ and $EXPGAP_t$ represent the output and expenditure gap, respectively.

Following this, the nonlinear relationship between debt and growth will be investigated. One can investigate a level of government debt which adversely affects economic growth. This is also linked to the ability to service debt. Following Kaur and Mukherjee (2012), the regression equation is defined in equation (2).

$$GDP\ growth_t = \beta_0 + \beta_1 Debt_t + \beta_2 Debt^2{}_t + \beta_3 INV_t + \beta_4 INFL_t + \beta_5 RIR + \beta_6 TRADE_t + \beta_7 DEF_t + \varepsilon_t \ldots (2)$$

[14] Bohn has studied public debt as well as fiscal sustainability and is popular amongst the literature. See (Bohn 2005), for example.

Where GDP growth is the GDP growth rate, Debt is the public debt-to-GDP ratio, INV is real gross fixed capital investment, INFL is the inflation rate, RIR is the real interest rate, TRADE is international trade as a per cent of GDP and DEF is the budget deficit-to-GDP.

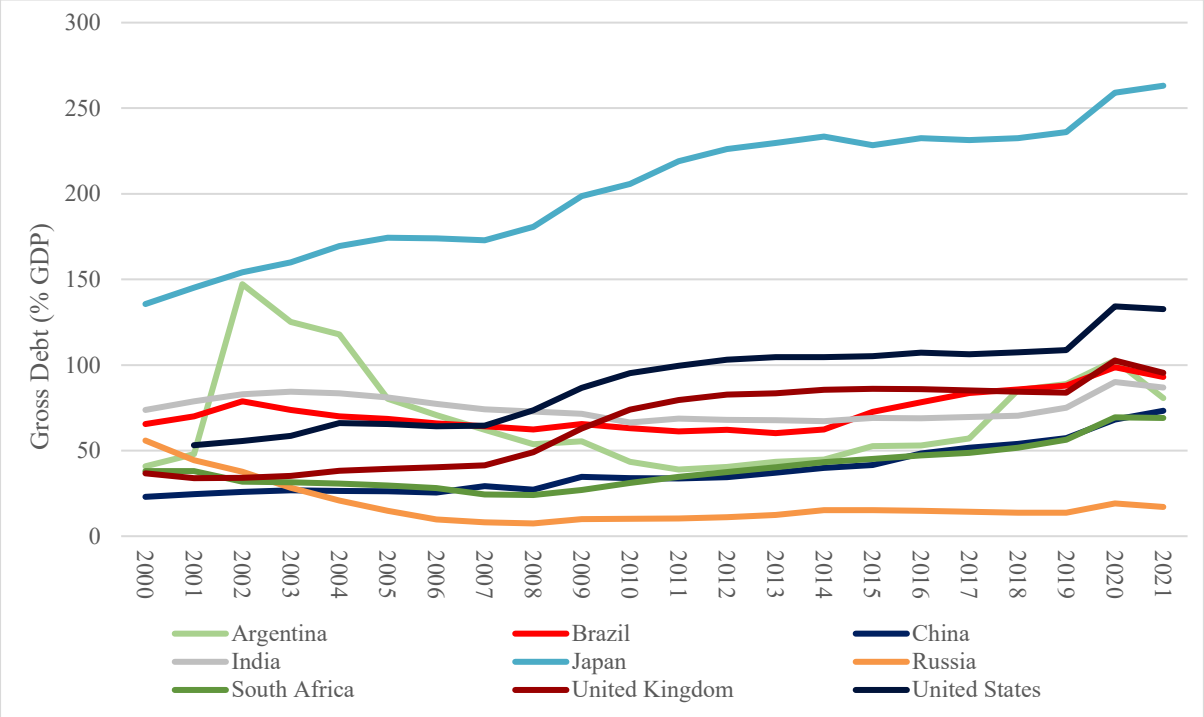
Following these assessments of sustainability, debt levels in South Africa will be projected using forecasting techniques. The IMF's DSA template will be assessed as a forecasting method and applied to the case of South Africa. This method accounts for GDP, inflation, exchange rates, current account balances, public sector revenues and expenditures over the past twelve years, and assumptions for these variables over a five-year horizon. Moreover, the breakdown of the debt portfolio, including maturity and currency composition, is described in the analysis. These factors allow for projections based on detailed assumptions. Furthermore, the methodology caters for alternative scenarios and stress tests.

3.6 Results

3.6.1 Descriptive analysis

From Figure 3.1, in comparison to international debt levels, South Africa's debt levels do not appear abnormal. Looking at the advanced economies, debt levels in Japan, the Unites States, and the United Kingdom are substantially higher, illustrating that "high debt" is a relative term.

Figure 3.1: International comparison of debt levels

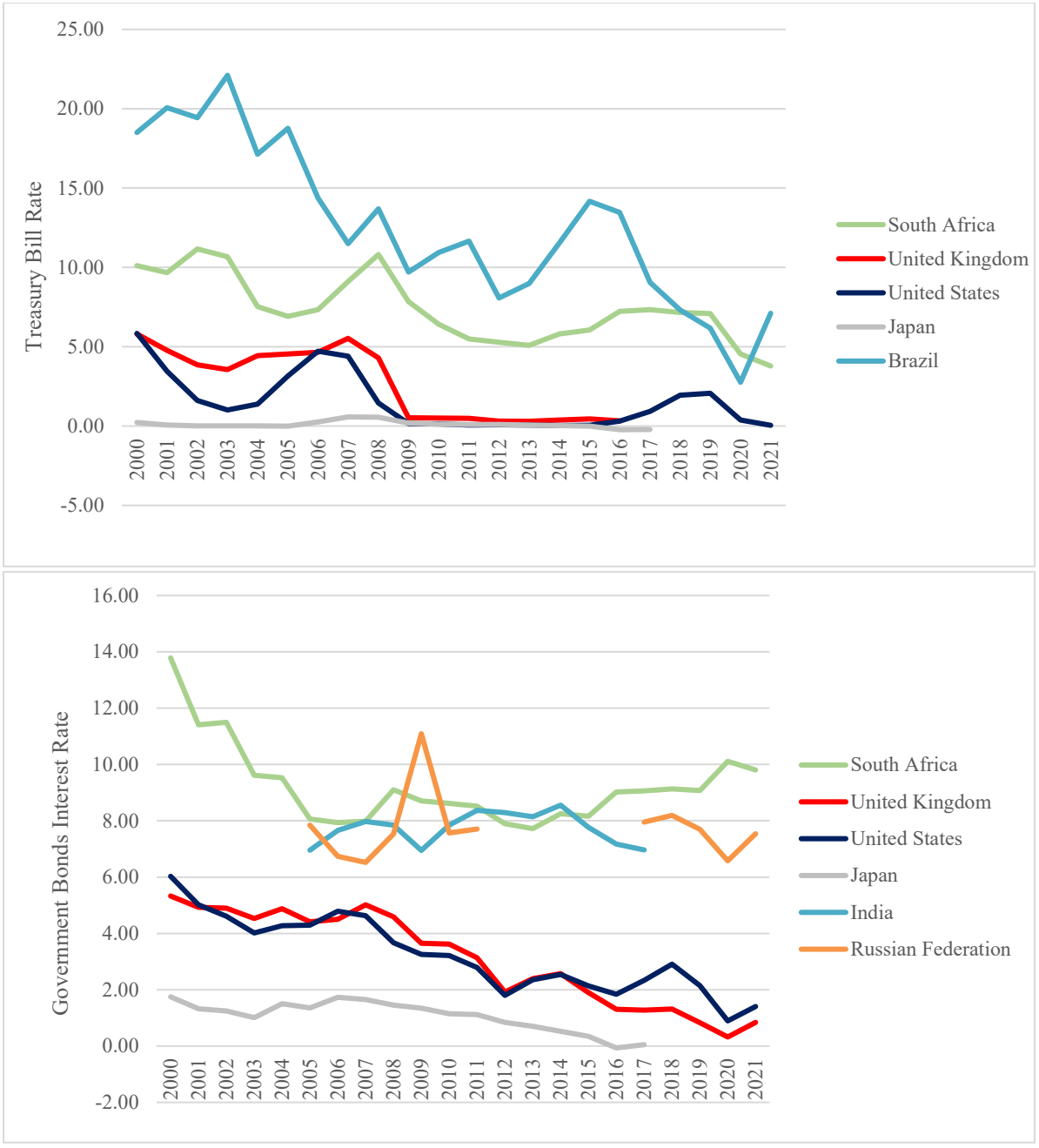


Source: IMF World Economic Outlook (2022)

However, when examining interest rates, seen in Figure 3.2 below, both the treasury bill and government bond rates for these advanced economies are lower than that of South Africa. The interest rates were recorded at just below 4 per cent and 10 per cent for treasury bills and

government bonds, respectively, in South Africa in 2021, compared to Japan's low interest rates, which are close to zero. Other emerging economies, such as India and Russia, face similar interest rates to South Africa on government bonds, while Brazil faces higher rates for treasury bills. The cost of public debt is, therefore, very high in South Africa. Despite a gross loan debt of around 69 per cent of GDP, the cost of servicing debt would be substantially higher than Japan's debt-to-GDP of over 263 per cent. In other words, the cost of debt is relatively more expensive in South Africa.

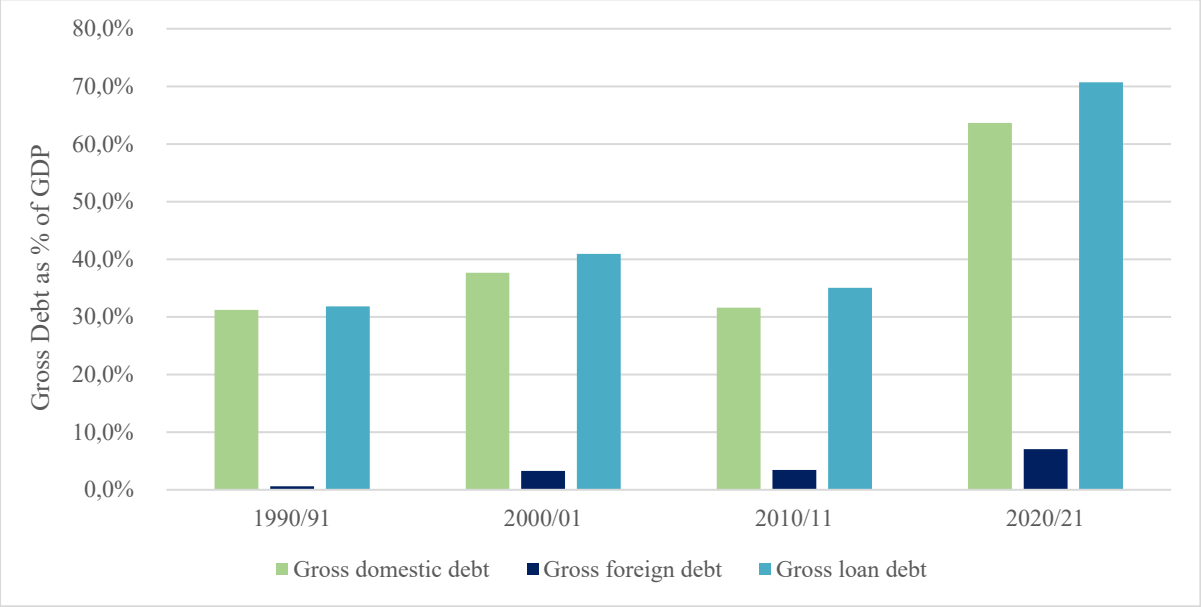
Figure 3.2: International comparisons of interest rates



Data sourced from IMF International Financial Statistics (IFS) (2022). South Africa's interest rates on treasury bills and government bonds, respectively, are compared to other nations, advanced and emerging, where comparison allows.

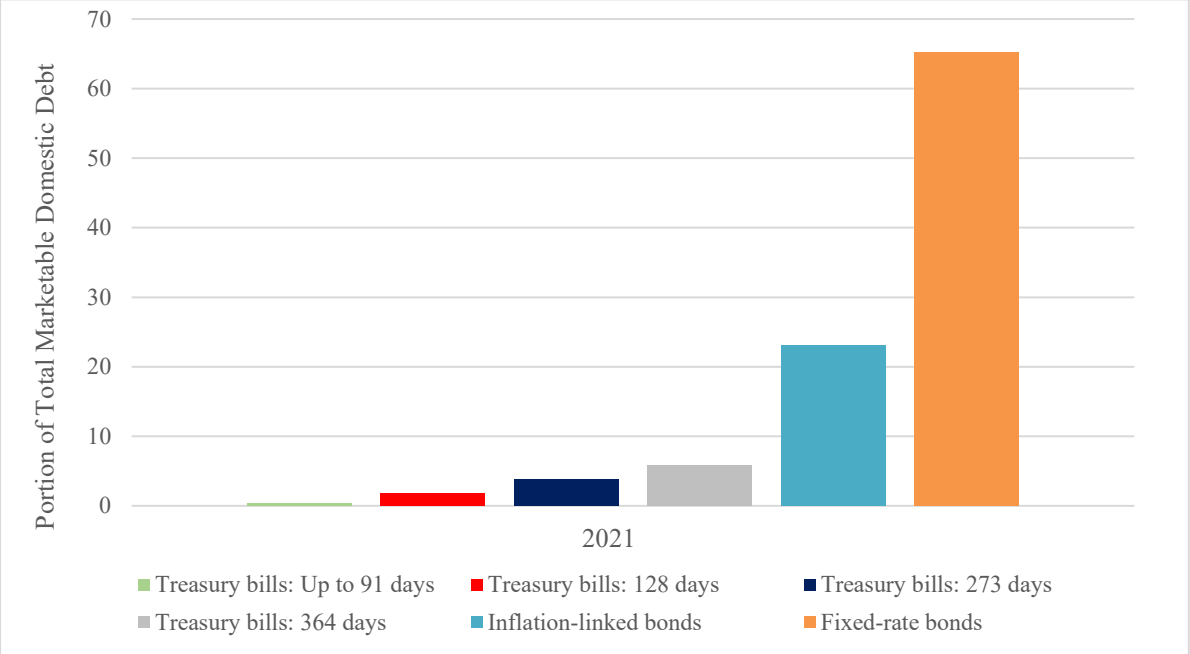
Over the last ten years, gross debt-to-GDP has doubled, increasing from 35.1 per cent in 2010/11 to 70.7 per cent in 2021/21. According to the 2022 Budget Review, in 2021/22, debt-to-GDP has fallen slightly to 69.5 per cent. It should be noted that the stock of debt has not fallen and has instead increased from R3.9 trillion to R4.3 trillion, but GDP has grown since the previous year and thus skews the ratio downwards. As shown in Figure 3.3, the majority of South Africa's debt is denominated in Rands, although the proportion of foreign debt has grown. As of 31 March 2021, domestic debt accounted for 90 per cent of total debt (South African Reserve Bank, 2021). The advantage of higher domestic debt, as opposed to high foreign debt, is that the exchange rate risk is mitigated as most of the debt is held in domestic currency. This reduces the overall risk of the portfolio. Additionally, a developed domestic market serves to broaden the investor base.

Figure 3.3: Composition of South Africa's debt



Data source: National Treasury (2022). GDP is rebased to 2015 prices.

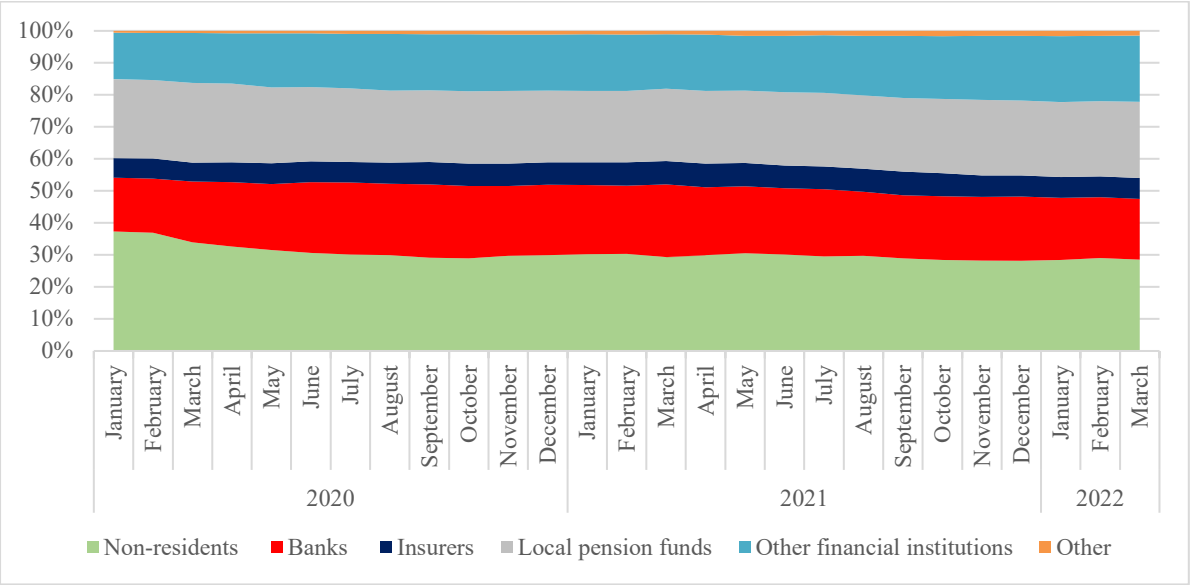
Figure 3.4: Breakdown of total marketable domestic debt



Data Source: South African Reserve Bank (2022).

According to Figure 3.4, domestic marketable debt, which makes up the majority (99.5 per cent) of total domestic debt, consists primarily of government bonds, namely fixed-rate and inflation-linked bonds. Treasury bills, combined, form almost 12 per cent of marketable domestic debt.

Figure 3.5: Holdings of domestic debt



Data sourced from National Treasury (2022b)

Figure 3.5 above shows the holdings of South Africa's domestic debt. South African domestic marketable government bonds are mostly supported by foreign investors, pension funds and

monetary institutions (National Treasury, 2020). On 31 March 2020, foreign investors held the largest share of fixed-rate bonds (41 per cent) while pension funds held the majority share (51 per cent) of inflation-linked bonds, using them to match long-term liabilities as well as to hedge against inflation. After almost two years of the pandemic, by the end of January 2022, foreign investors had decreased their holdings of fixed rate bonds to 33 per cent while monetary institutions and other financial institutions held approximately 20 per cent each. For inflation-linked bonds, 46 per cent is held by pension funds, followed by monetary institutions, private self-administered funds and other financial institutions holding 14 per cent each.

The reduction in bonds held by foreign investors may be due to several reasons, exacerbated by the pandemic, such as the increase in risk in South African bonds, changes to the exchange rate, or the fact that investors may need to withdraw to access the funds for themselves. Regardless, this lowers the range of resources available for South Africa. On one hand, an increase in the local holdings of bonds may reduce the risk of the debt portfolio and reduce the likelihood of default. On the other hand, local institutions are most likely charging a relatively high premium, resulting in further spending on the cost of borrowing. Additionally, higher domestic borrowing can place pressure on institutional investors and banks to absorb more government debt which may dampen financial stability (Panizza, 2008).

Regarding the debt maturity profile, South Africa's debt is mostly longer-term[15]. The average maturity for marketable domestic government bonds was approximately 13.5 years (or 162 months) and 12.9 years (155 months) for marketable foreign debt (SARB, 2022). Long term debt is generally favourable as it is associated with less risks, particularly with regards to liquidity.

Economic growth deteriorated in 2020 to -6.4 per cent due to the onset of the virus and the lockdown restrictions, having already been low and stagnant in prior years (Statistics South Africa, 2021). Weak growth will worsen debt dynamics, as GDP can be considered as a form of repayment capacity. It will also tend to increase the debt-to-GDP ratio due to a lower denominator. Additionally, weaker growth may be associated with lower cyclical revenues and more primary expenditure, deteriorating the primary balance. Although growth recovered to 4.8 per cent in 2021, growth estimates for the medium term are weak (National Treasury, 2022). Growth is forecasted to be 2.1 per cent in 2022 before falling to 1.6 per cent in 2023.

Inflation in 2021 and 2022 is currently higher than in 2020. In 2021, CPI inflation was measured at 4.5 per cent, in comparison to 3.3 per cent in 2020 (National Treasury, 2022). It is projected to rise further to 4.8 per cent in 2022 and to hover around 4.5 per cent over the medium term. Higher inflation generally improves debt dynamics as it is associated with higher

15 Note that long-term debt is defined as having a maturity greater than one year and short term as having a maturity of less than one year.

growth or stimulated demand. However, high inflation may lead to higher interest rates to control inflation, thereby worsening the dynamics. As a result, there can also be a policy trade-off between fighting inflation and debt sustainability.

Regarding fiscal constraints, consolidatory reforms, though reprioritising spending and budget cuts, intend to rein in on debt and rising debt costs. However, debt service costs are expected to rise over the Medium Term Expenditure Framework (MTEF) period and crowd out spending on public services. The protracted third wave of the pandemic as well as the social unrest in July 2021 necessitated increased expenditure which is cushioned by a temporary windfall in tax revenue as described in the Medium Term Budget Policy Statement (MTBPS) (National, Treasury 2021b). In the 2022 budget, the government maintained its stance of stabilising debt and committed a portion of the higher-than-anticipated revenue towards reducing the deficit and lowering the borrowing requirement.

South Africa was struck with a fourth wave of the virus in November and December 2021 after the country's advanced genomic surveillance system detected a new variant, Omicron, aiding in the global fight towards the pandemic (International Monetary Fund, 2021). However, the international attention resulted in international travel bans, lasting a few weeks, causing temporary economic turmoil, especially in the tourism sector. Despite this, national lockdown restrictions remained relatively relaxed, particularly as the variant appeared to be less severe. Continued unprecedented events, such as further waves of the pandemic or sustained international conflicts, may affect consolidatory reforms to reduce debt service costs. Such future uncertainty will likely negatively impact debt dynamics. Furthermore, South Africa's substantial contingent liabilities adds stress to an already pressured fiscal position.

3.6.2 Indicators of sustainability in South Africa

As seen in Table 3.1, debt has risen dramatically over the last five years. Debt-to-revenue indicates that the debt stock is more than three times government revenue (317 per cent) in 2020/21. Not only has debt-to-GDP risen, but debt service costs-to-GDP, where debt service costs consist of interest payments, as defined by the National Treasury. High debt service costs relative to repayment capacity, GDP and government revenue in this case, indicate that South Africa may be heading for liquidity concerns alongside the potential solvency issues revealed in the rising debt stock relative to repayment capacity. Gross financing needs (GFN) comprise the main budget balance (i.e., total revenue minus total expenditure including interest), which is currently in deficit, and debt redemptions. In other words, it is the amount of financing necessary to cover the deficit and amortisation of debt. GFN to GDP and revenue have changed for the worse over the last five years, indicating strained financing conditions.

Table 3.1: Trends in debt and debt service costs in South Africa

Year	Debt-to-GDP	Debt-to-Revenue	Debt Service Costs to GDP	Debt Service Costs to Revenue	GFN to GDP	GFN to Revenue
2005/06	31.4%	126.2%	3.2%	12.2%	1.9%	7.5%
2010/11	35.1%	147.2%	2.3%	9.8%	5.3%	22.2%
2015/16	48.9%	187.6%	2.9%	12%	4.5%	18.6%
2020/21	70.7%	317.8%	4.2%	18.8%	11.1%	49.9%

Source: Commission's own calculations using National Treasury's Budget (2022) data. GDP is rebased to 2015 prices.

Projections over the medium term, according to the 2022 budget, estimate debt-to-GDP to rise from 69.5 per cent in 2021/22 to 75 per cent in 2023/24 before stabilising. Additionally, high revenue collections mean that debt-to-revenue fell to around 280 per cent in 2021/22, but is projected to rise back to over 300 per cent in the medium term. The government expects to attain a primary surplus in 2023/24, which is earlier than expected and mostly as a result of the higher-than-anticipated revenue. However, the fiscal framework is subject to many risks, and thus shocks to growth, the interest rate and inflation can offset this path. Similarly, should revenue not meet expectations over the medium term, the path towards fiscal sustainability could be hampered.

Debt service costs will also be rising rapidly over the medium-term, from 4.3 per cent in 2021/22 to a projected 5 per cent of GDP in 2024/25. As a proportion of revenue, debt service costs will reach 20 per cent in both 2023/24 and 2024/25. Not only do debt service costs increase with debt, but also as investors lose confidence. As a result of the higher risk and uncertainty, lenders demand higher interest rates. Overall, rising debt service costs negatively impact the welfare of South Africa's population as it crowds out budget allocations to social spending that aim to address rife poverty and inequality.

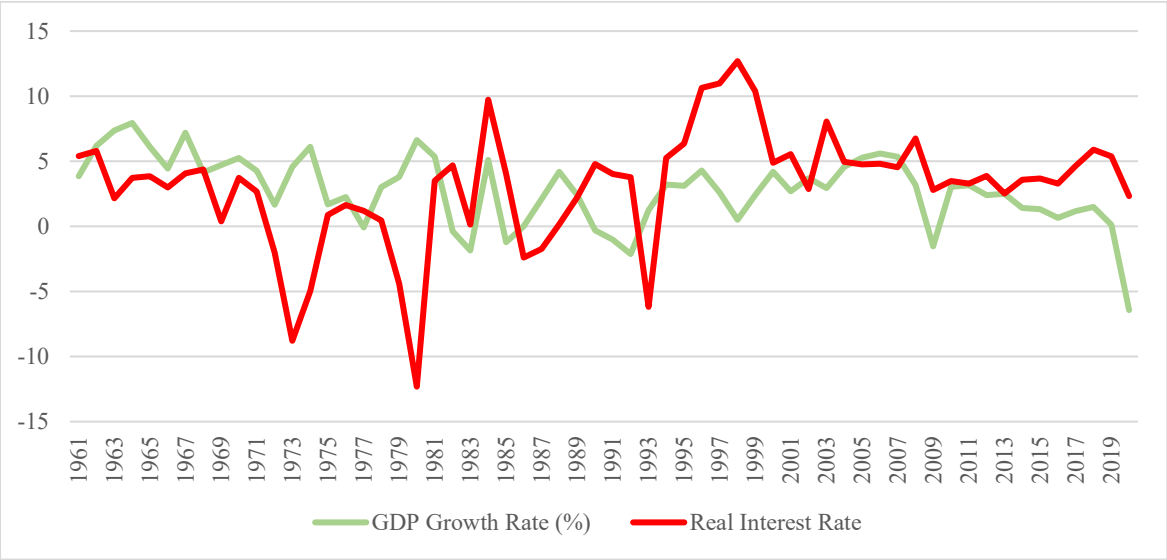
GFN to both GDP and revenue fell in 2021/22 (to 6.6 per cent of GDP and 26.6 per cent of revenue) due to the high revenue collections. As a portion of the revenue was allocated towards reducing the deficit for the current year and for the medium term, the borrowing requirement fell. As part of its agenda to reduce debt service costs and stabilise debt, South Africa secured an R11 billion concessional loan from the World Bank in January 2022. This loan forms part of the financing requirement for 2021/22, consisting of low borrowing costs and a three-year grace period. South Africa has also received concessional funding from the IMF and New Development Bank over the course of the pandemic.

Another descriptive indicator of the debt situation is the comparison of net debt to gross debt. In South Africa, net debt-to-GDP was estimated at 63 per cent (International Monetary Fund, 2022). This is not substantially lower than 69 per cent gross debt-to-GDP. Certain countries exhibit high gross debt-to-GDP but a relatively low net debt-to-GDP, reflecting high financial assets held in debt instruments, which allows gross debt to be sustained at higher levels. For example, while Japan's gross debt-to-GDP is over 263 per cent in 2021, its net debt-to-GDP is

approximately 168 per cent (International Monetary Fund, 2022). However, this is not the case in South Africa.

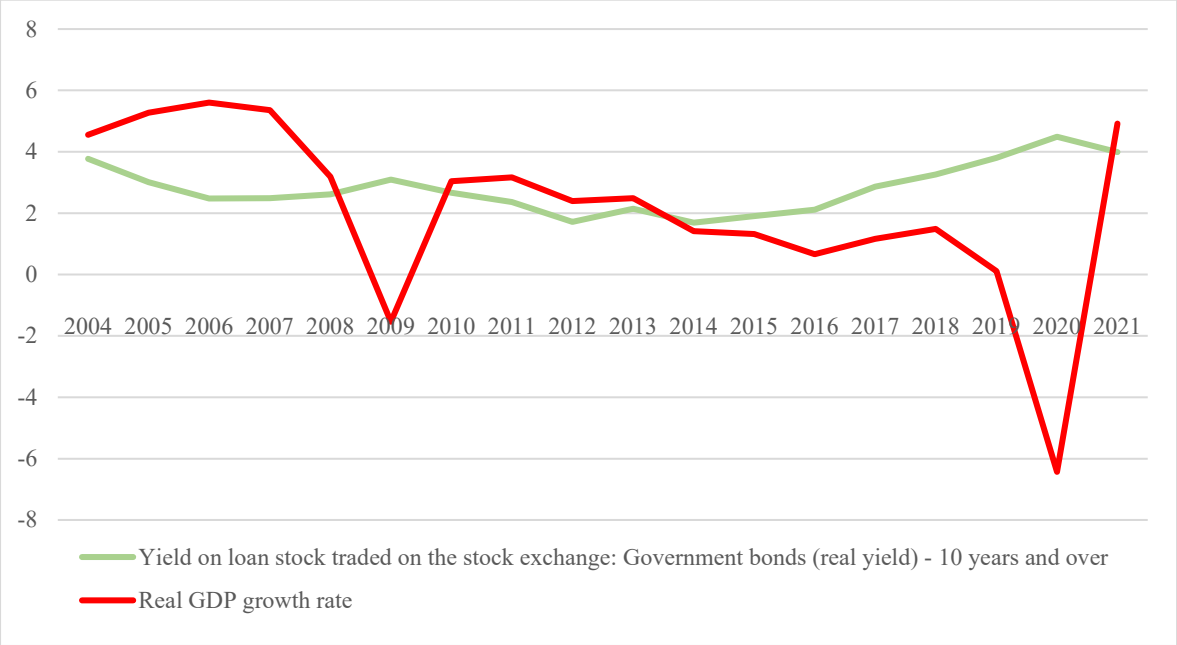
The interest-growth differential is a frequently used indicator in debt sustainability analysis, comparing the growth rate of the economy to the interest rate on debt. Time series of these indicators in South Africa are presented in Figure 3.6 and Figure 3.7 below.

Figure 3.6: Real growth rate vs real interest rate



Data is sourced from the World Bank (2022), ranging from 1961 to 2020. Real interest rates are calculated from lending rates adjusted for inflation. The World Bank's real GDP is calculated at 2015 prices.

Figure 3.7: Real growth rate vs real interest rate

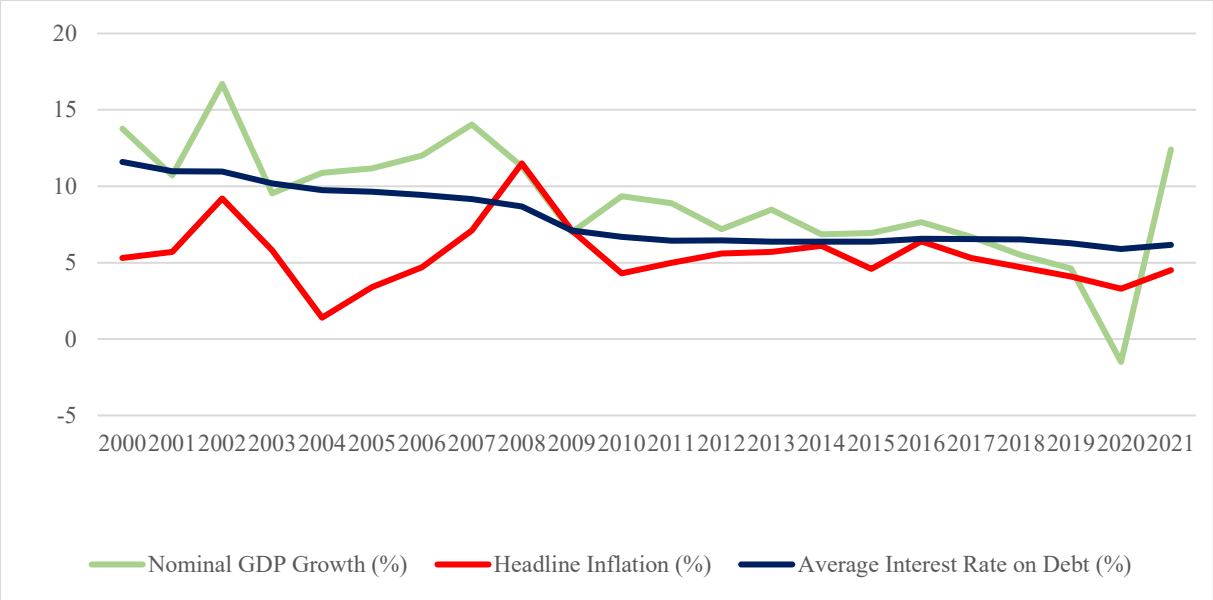


Source: South African Reserve Bank and Statistics South Africa (2022) and Own Calculations. Real GDP calculated at 2015 prices.

From the figures above, comparisons of the real growth rate and real interest rate indicate unfavourable debt conditions. Since 2015, the real interest rate has been persistently higher than the growth rate. Given that interest rates are associated with a higher cost of debt, and lower growth would be associated with a higher debt-to-GDP ratio, the analysis does not favour debt sustainability. The size of this differential is also important as a larger, positive differential - when the interest rate is much higher than the growth rate - indicates that unsustainable debt is more likely as debt tends to grow. Combined with a persistent primary balance deficit since 2010, debt conditions may be unstable and associated with rising debt.

In its recovery from the Covid-19 shock, economic growth rebounded to 4.9 per cent in 2021, seen in Figure 3.7, which may serve to close the interest-growth differential. However, this should be interpreted with caution. Firstly, the growth in GDP simply reflects the change in GDP from 2020, in which the economy sharply contracted as a result of the pandemic and associated restrictions, to 2021, in which GDP recovered but was still weak in comparison to pre-pandemic years. Secondly, it is expected that economic growth over the medium term will be weak which will again increase the differential.

Figure 3.8: Nominal GDP growth vs average interest rate on debt

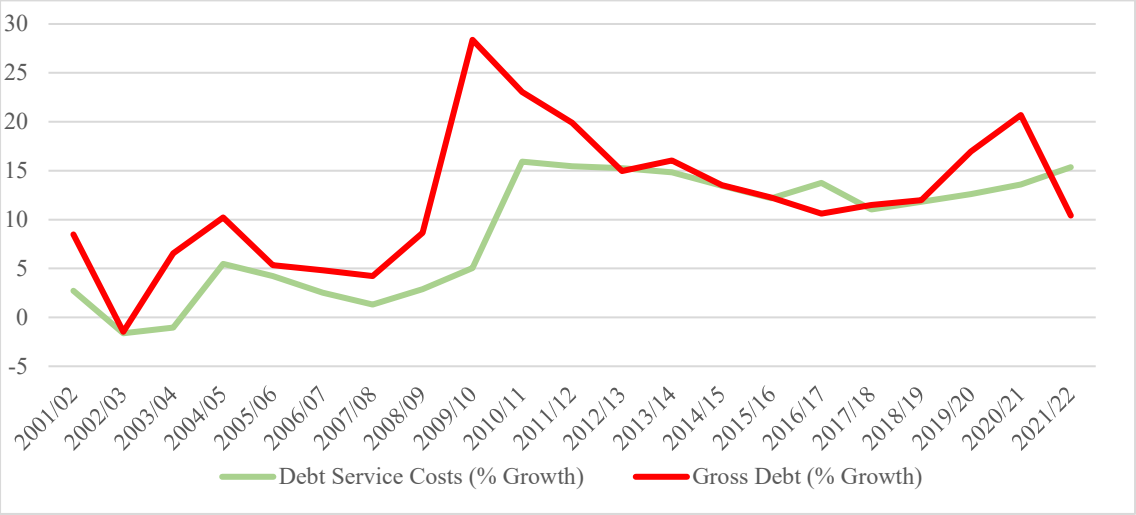


Data is sourced from Statistics South Africa (2022) and National Treasury (2022). Average interest rate on debt is calculated as debt interest costs over the stock of debt.

Figure 3.8 examines the same relationship as the figures above, but with nominal GDP growth in comparison to the average interest rate on debt, calculated from debt service costs over gross loan debt using the National Treasury's data. Although the interest rate appears to be falling, it is rather as a result of a fast-accumulating debt-stock. Therefore, the cost of debt is not becoming cheaper over time, but the stock of debt is increasing at a faster rate. This is examined further in Figure 3.9 below. Nevertheless, from approximately 2017 to 2021, the average rate on debt is greater than the nominal GDP growth rate. As explained above, the recovery in growth post-pandemic is most likely temporary, as growth is expected to weaken over the

medium term. Additionally, since 2009, the interest rate on debt appears to be consistently above the inflation rate.

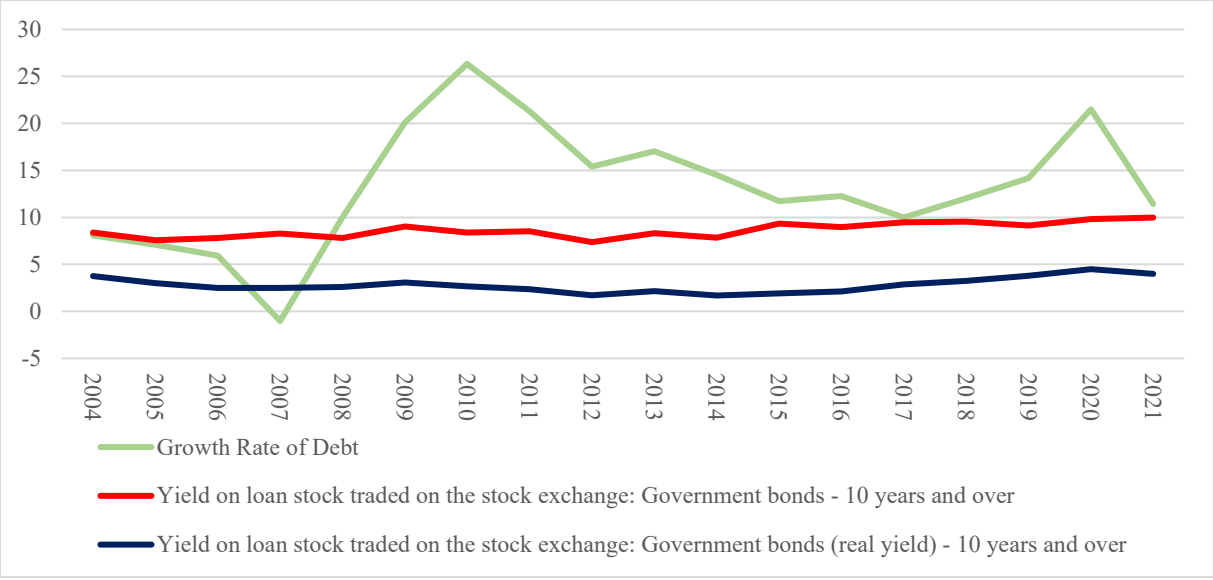
Figure 3.9: Growth of debt stock and debt service costs



Data is sourced from National Treasury (2022).

Figure 3.9 generally follows the growth trends in debt levels. Since 2010/11, after debt spiked in 2009/10, the growth of debt service costs has remained at a rate of between 10 per cent and 15 per cent each year. With the release of the 2022 Budget Review, it appears that the growth rate of debt has fallen in 2021/22 in order to rein in the rising debt. Nevertheless, the stock of debt still increased by approximately R0.4 trillion. Debt service costs continue to grow.

Figure 3.10: Growth rate on debt vs real interest rate on debt



Data is sourced from the SARB (2022).

According to Roubini (2001), the solvency constraint implies that the stock of foreign debt can increase without limit as long as it does not increase faster than the real interest rate on the

debt. From Figure 3.10, the growth rate on debt far exceeds the real interest rate on government bonds as well as the nominal rate since 2008/09. Fast-growing debt will tend to pull the interest rate higher.

Estimating the reaction of the fiscus to levels of public debt as a measure of government solvency is often examined in debt sustainability assessments. In Table 3.3, the results of regression analysis of the primary balance on the previous years' debt level as well as the expenditure and output gap are presented. In theory, if the slope of the coefficient on public debt is positive and very steep, this means that the government responds quickly to an increase in debt by raising the primary balance towards a surplus and indicates a greater concern for government solvency. On the other hand, if the slope is relatively flat, the government is more relaxed about the solvency condition. It should be noted that this equation satisfies the solvency condition but not necessarily the sustainability condition; nonetheless it is a valuable indicator in the analysis. Therefore, this indicator is accounted for alongside the interest-growth differential and other indicators. The methodology follows that of Bohn (2005) as well as other authors who have replicated it (see Kaur and Mukherjee, 2012; Debrun, Ostry, Willems, and Wyplosz, 2019).

Table 3.2: Conditional response of the primary balance to public debt

	(1)	(2)
	Primary Balance	**Primary Balance**
$Debt_{-1}$	-0.042	0.133***
Expenditure gap	-1.547***	-0.361*
Output gap	0.358**	0.337***
Deficit		-4.084***
R-squared	0.659	0.928
Durbin-Watson Stat. (DWS)	0.506	1.623

Notes: Data is sourced from the SARB (2022) with a range from 1998 to 2021. The expenditure and output gap are calculated using the HP filter. Primary balance, debt, expenditure gap and output gap are all expressed as a ratio of GDP, which has been rebased to 2015. A dummy variable for primary balance deficit is included in Column 2. Constant included but not presented.

Table 3.3: Conditional response of the primary balance to public debt

	(1)	(2)
	d Primary Balance	**d Primary Balance**
$d\ Debt_{-1}$	0.089	0.169*
d Expenditure gap	-1.008***	-0.950***
d Output gap	0.341***	0.288***
Deficit		-0.808
R-squared	0.706	0.727
DWS	2.359	2.323

Notes: Due to the presence of unit roots, the first difference of debt, the primary balance, expenditure gap and output gap are taken to correct for autocorrelation. The presence of unit roots is determined at the 10 per cent level.

In column 1 of Table 3.2, the lagged value of debt has no significant impact on the primary balance. However, in column 2, allowing for a control for the years in deficit, the primary balance tends to increase (i.e., move towards a surplus) when debt rises. The coefficient on debt is significant and positive, indicating responsiveness of the primary balance to changes in debt and thereby an attempt to meet public sector solvency constraints. This possibly indicates a level of debt sustainability. A one unit increase in debt-to-GDP leads to a 0.13 unit increase in the primary balance to GDP. This result, however, should be interpreted in the context of the higher interest-growth differential, as shown earlier. Therefore, although the result indicates that the fiscus reacts to rises in debt, the response may, on average, not be strong enough.

Furthermore, there is a positive relationship between the primary balance and the output gap. In other words, the primary balance tends to improve (i.e., move towards a surplus or consolidatory fiscal stance) when output is above trend, potentially indicating a countercyclical behaviour. Inversely, when output is below trend, the primary balance tends to deteriorate due to expansionary fiscal behaviour. Additionally, expenditure above trend is associated with a worsening primary balance, as expected.

Table 3.2 includes the first difference of the variables due to the presence of unit roots. The results are largely similar, in which the primary balance responds positively to changes in debt, after controlling for the years in deficit.

Furthermore, it should be noted the response of the primary balance to changes in debt is an action by only one agent, the state. Thus, the primary balance can change rapidly over time based on numerous factors, such as changes in the fiscal approach or political reasons. Additionally, the regression analysis only accounts for the reaction over the past twenty years but does not determine or inform any future behaviour of the government. Nevertheless, it is necessary to examine and consider the general trend of fiscal behaviour in the past. A limitation to note is that, due to data availability constraints for the primary balance, the data is restricted to a 23-year time series.

Also associated with sustainability are indicators of refinancing risks, comprising average time to maturity and debt maturing in one year as a percentage of the total, as well as market risks, including interest rate risks and exchange rate risks. Two measures of the interest rate risk include the fixed-floating ratio, being the ratio of the value of fixed rate instruments to floating rate instruments in the portfolio, and floating rate debt-to-total debt ratio. Percentage of debt exposed to interest rate refixing is another indicator. Exchange rate risks express the exposure of the debt portfolio to changes in the exchange rate. The share of foreign currency to total debt, currency composition, and short-term foreign debt as a proportion of reserves are indicators of these risks. These indicators are presented in Table 3.4 below.

Table 3.4: Financing and market risks

Refinancing risk (for government bonds)	
Average Time to Maturity	162m (domestic), 155m (foreign)
Debt Maturing in 1 year (percentage of total)	2%
Interest rate risk (for government bonds)	
Fixed rate-to-floating rate	282% (domestic)
Floating rate-to-total	26% (domestic)
Debt Exposed to Refixing	28% (domestic only) or 26% (foreign and domestic)
Exchange rate risk	
Foreign currency debt to total debt	10.3%
Short-term foreign debt (percentage of reserves)	1.7%

Data is sourced from the SARB (Quarterly Bulletin March 2022) and Commission's own calculations. Reserves are gross gold and other foreign reserves. Values for the period ending 31 December 2021 are taken.

For domestic debt, the average time to maturity for government bonds has fallen over the last few years (from 192 months, or 16 years, in 2018), but remains relatively high at over 13 years (SARB, 2022). The proportion of foreign and domestic government bonds maturing in one year is very low, being only 2 per cent. Overall, refinancing risks for government bonds are relatively low.

Debt exposed to interest rate refixing consists of all debt maturing in one year, as it is exposed to the possibility of being rolled over, as well as floating-rate debt, being inflation-linked bonds, in South Africa, where interest rates are subject to changes in inflation in order to protect investors. 26 per cent of all government bonds are exposed to refixing.

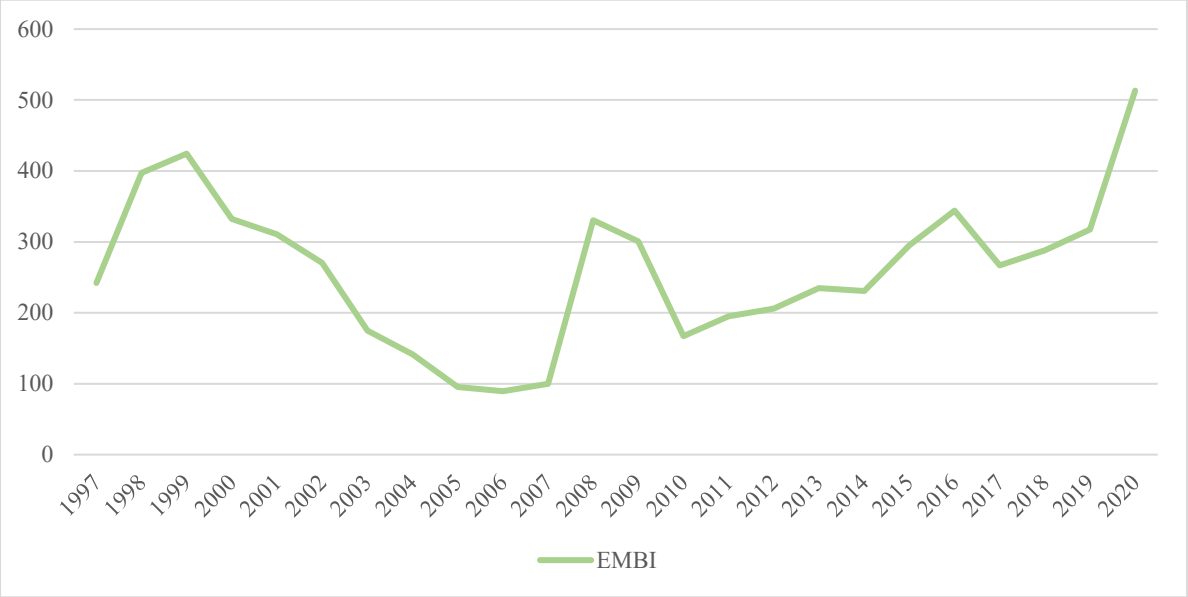
Exchange rate risk is low due to a relatively low proportion of foreign currency debt and relatively little short-term foreign debt, which is buffered by substantial gold and foreign reserves. In addition to the exchange rate risk, it is important to note the currencies of foreign debt. Of foreign marketable debt, 97 per cent is denominated in US Dollars. As a result, fluctuations in the Rand-to-Dollar Exchange Rate may heavily impact South Africa's foreign debt. Of total foreign debt, it comprises 81 per cent (SARB, 2022). Euro, Japanese Yen, IMF Special Drawing Rights, and other currencies make up the excess.

The SARB is committed to maintaining its credibility, which is advantageous to the debt position, and thus, South Africa has a debt portfolio that favours sustainability. As a result, risks to financing, interest rates and exchange rates are relatively low given the presence of longer debt maturities, higher fixed rate to floating rates, and relatively low foreign debt levels. Smoothening the debt profile, broadening the creditor base, accumulating reserve buffers, and improving macro-financial stability are methods to mitigate these financing risks further.

Another indicator of market risk is the Emerging Market Bond Index (EMBI) measured by JPMorgan. According to Figure 3.11, South Africa's EMBI has risen by almost 200 basis points since 2019 to 513 in 2020. This is South Africa's highest yearly EMBI recorded over the last two decades, reflecting market uncertainty. Additionally, South Africa's sovereign credit rating faces a negative outlook and experienced downgrades throughout 2020, with a BB- from both

S&P's and Fitch and Ba2 from Moody's (Trading Economics, 2022). Credit rating downgrades and thus higher risk premia are associated with a higher cost of debt, negatively impacting repayment abilities and sustainability.

Figure 3.11: Emerging market bond index for South Africa

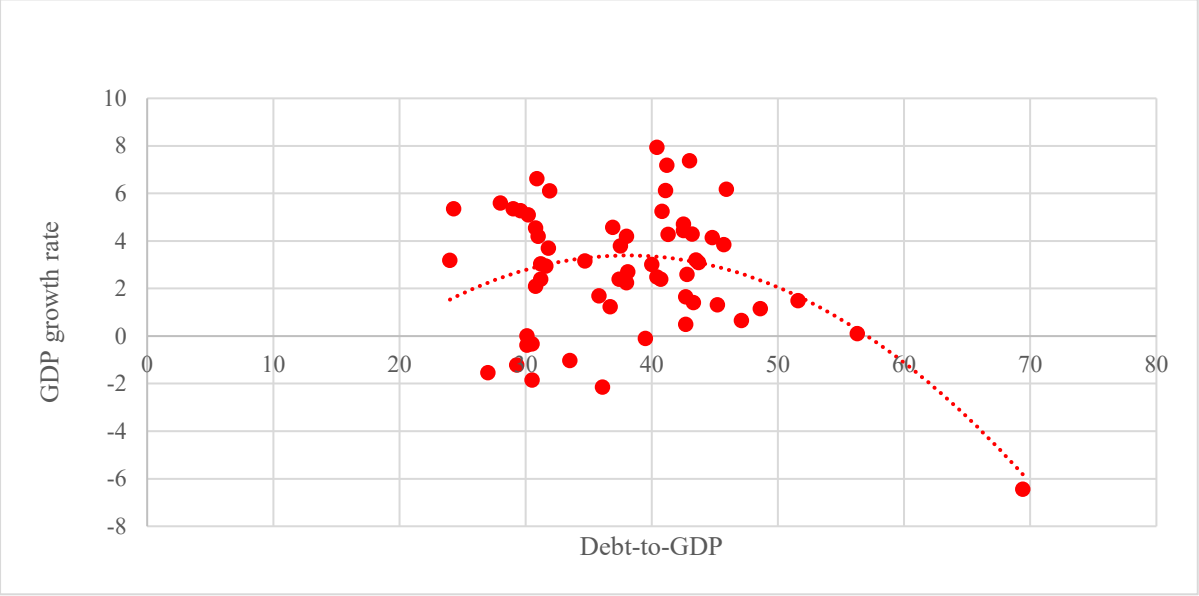


Data sourced from World Bank (2021).

3.6.3 The impact of debt on economic growth

The impact of debt levels on economic growth has been investigated in the literature as an indicator relating to debt and fiscal sustainability. Given the weak growth and high debt levels in South Africa over recent years, combined with the effects of the Covid-19 pandemic, an updated analysis into this relationship is examined. Preliminary analysis into the debt-growth nexus can be found in Figure 3.12, a scatterplot showing the correlation between the GDP growth rate and the debt-to-GDP ratio. The trendline gives indication of a potential non-linear relationship, thus necessitating further investigation.

Figure 3.12: Relationship between debt and growth



Source: SARB and World Bank (2022).

Following this, the impact of debt on economic growth is investigated using regressions analysis, from the variables listed in the table below.

Table 3.5: Macroeconomic variables

Variable	Source
Debt-to-GDP	SARB
Surplus/deficit-to-GDP	SARB
GDP (constant 2010)	World Bank
GDP growth rate	World Bank
Inflation (CPI)	World Bank
Trade (% GDP)	World Bank
Gross fixed capital formation (% growth)	World Bank
Gross fixed capital formation (Constant 2015)	World Bank
Real interest rate	World Bank

Notes: Variables and ratios to GDP use 2015 as the base year.

The regressions presented in Table 3.6 below show a significant nonlinear impact of debt on economic growth. In all three columns, debt is associated with rising GDP. However, the negative sign on debt-squared indicates that its effect on GDP is lessened as debt grows. Column 1 presents a simple regression of the GDP growth rate on debt and its square without the presence of other explanatory variables. Debt has a positive effect on growth until a turning point of approximately 40 per cent after which additional increases in debt are associated with lower growth rates. This is similar to the preliminary result in Figure 3.12, where after around 40 per cent debt-to-GDP, the growth rate begins to fall with a higher debt ratio.

Table 3.6: Impact of debt on growth

	(1)	(2)	(3)
	GDP growth rate	**GDP growth rate**	**GDP growth rate**
Debt (% GDP)	0.713***	0.530**	0.523**
Debt^2 (% GDP)	-0.009***	-0.006***	-0.007***
Inflation (CPI)		-0.109*	-0.136**
Surplus/Deficit (% GDP)		0.314**	0.345*
Trade (% GDP)		0.059*	0.046
Gross Fixed Capital Formation (growth rate)		0.165***	0.159***
Real Interest Rate			-0.077
R-squared	0.22	0.70	0.72
DWS	1.00	1.92	2.07
Observations	60	60	60

Notes: Coefficients rounded to 3 decimal places. Data sourced from World Bank (2022) and SARB (2022). Sample 1961-2020. Constant included but not presented.

Column 2 controls for other variables, namely inflation, the budget surpluses and deficits, trade, and gross fixed capital formation, a proxy for investment. The relationship between debt and growth remains the same – with an approximate turning point of 44 per cent. Additionally, higher growth rates of investment have a positive impact on growth, while higher inflation is associated with lower growth. A possible explanation for this inflation-growth relationship is that high inflation may be followed by measures that reduce demand through higher interest rates, and, consequently, reduce growth. Interestingly, improvements in the budget balance (i.e., movements towards a budget surplus or reductions in the budget deficit) have a positive and significant impact on economic growth. In the context of high deficits and low growth, such a result is worth noting while the government attempts to consolidate. It possibly implies that South Africa may not be able to continue on a path of high deficits or simply spend its way out of economic turmoil. Increases in trade, being the sum of exports and imports of goods and services in the economy, are also associated with higher GDP growth.

Columns 3 includes a control for the real interest rate, a proxy for the cost of debt, to assess whether this alters the relationship between debt and growth. The impact of debt on growth remains relatively unchanged with the added control. It has been theorised that debt service costs may reduce growth due to overhang effects or the crowding out of capital and investment (Elbadawi et al., 1997; Clements et al., 2003). However, in this analysis, the real interest rate tended to have no significant impact on economic growth.

Table 3.7: Impact of debt on economic growth

	(1)	(2)	(3)
	Real GDP (log)	**Real GDP (log)**	**Real GDP (log)**
Real GDP_{-1} (log)		0.970***	0.975***
Debt (% GDP) (log)	-22.835**	0.678***	0.895***
$Debt^2$ (% GDP) (log)	3.099**	-0.093***	-0.127***
Inflation (CPI)		-0.002**	-0.002***
Surplus/Deficit (% GDP)		0.005***	0.004**
Trade (% GDP) (log)		0.046***	0.046*
Real Gross Fixed Capital Formation (log)		0.005	0.004
Real Interest Rate			-0.000
Observations	60	60	60
R-squared	0.18	0.99	0.99
DWS	0.09	1.83	1.74

Notes: Coefficients rounded to 3 decimal places. Data sourced from World Bank (2022) and SARB (2022). Sample 1961-2020. Constant included but not presented.

Table 3.7 contains regressions of the log of real GDP on the log of debt and its square, alongside other explanatory variables and the lag of real GDP to improve the model specification (in particular, to account for the presence of autocorrelation suggested in the Durbin-Watson statistics). Similar to the previous models, debt generally exhibits the same nonlinear relationship with real GDP with the added controls. Additionally, the other variables tend to have a similar relationship with GDP as before. One notable difference is that investment no longer has a significant impact. Column 3 controls for the real interest rate; however, the results again generally do not alter the effect of debt on growth.

In Table 3.A 1 and Table 3 A 2 in the Appendix, various other controls for the cost of debt are examined for robustness. The controls for debt service costs are generally insignificant or do not alter the debt-growth relationship. This particular result is, however, similar to that of Saungweme and Odhiambo (2020), who find no impact of debt service costs on economic growth in South Africa. Such a result may support the Ricardian Equivalence Hypothesis, where public debt expenditure enhances the payment of taxes to service debt (Barro, 1979) (Saungweme and Odhiambo, 2020). At the same time, there are data availability constraints for these proxies for the cost of debt, limiting the sample size and thus possibly impacting the results. Regardless, it is essential to rein in debt service costs, given the fiscal space they consume in the budget.

The analysis was also investigated with data from the World Bank and SARB prior to the rebasing and re-measurement of GDP, where real GDP is based on constant 2010 prices. South Africa's GDP was subject to rebasing and benchmarking exercises in August 2021 in order to maintain relevant data and to account for a dynamic and shifting economy (Statistics South Africa, 2021). As a result, the size of the economy has since been revised upwards and the composition of the demand and supply side have been changed. Consequently, ratios to GDP are altered but generally follow a similar trend as before. The results, found in Table 3.A 3 and Table 3.A 4 in the Appendix, display the same non-linear relationship between debt and growth

and exhibit the same turning point. The relationship between economic growth and the other macro-economic variables follows similar trends as before. Thus, these regressions demonstrate the robustness of this relationship.

It should be noted that high debt does not always have deleterious effects of growth, but that in the case of South Africa, higher debt over the last sixty years has been associated with low growth levels. This may be due to poor quality of public spending and investment associated with this debt. Additionally, the results may be due to the presence of a debt overhang, where current investment and consumption are disincentivised, as a result of a higher expected tax burden, and reducing growth as a consequence. Alternatively, debt may result from financing public expenditure and investment which crowds out private investment and consumption due to shifts in resources from the private to public sector. Moreover, low levels of public investment efficiency and low rates of return on public capital may lower the levels of output produced, which lowers growth. Again, the debt-growth relationship is vital for sustainability as low growth may bring solvency and repayment concerns.

That said, it is impossible to determine causality as the relationship between debt and growth runs in both directions. As noted in the literature, debt and growth can interact in a cyclical fashion, such that concerns about debt sustainability leads to financing concerns. Consequently, concerns of economic growth arise, which create worries of larger fiscal deficits. This can lead to a rise in the risk premium which, ultimately, further raises debt concerns. In this paper, the effect of growth on debt can be seen in the indicator analysis in the previous section, where low growth creates unfavourable debt dynamics, and in the following section, where growth is used as a debt determinant for future forecasts. Additionally, in the FFC's (2021) annual Submission on the Division of Revenue 2022/23, the determinants of debt, including economic growth, were investigated. Growth, however, was not found to be a significant determinant of debt, unlike more powerful explanatory variables such as government expenditure and revenue. Nevertheless, the above regression analysis indicates that policymakers should consider the productivity of public spending and investment as it relates to improving growth.

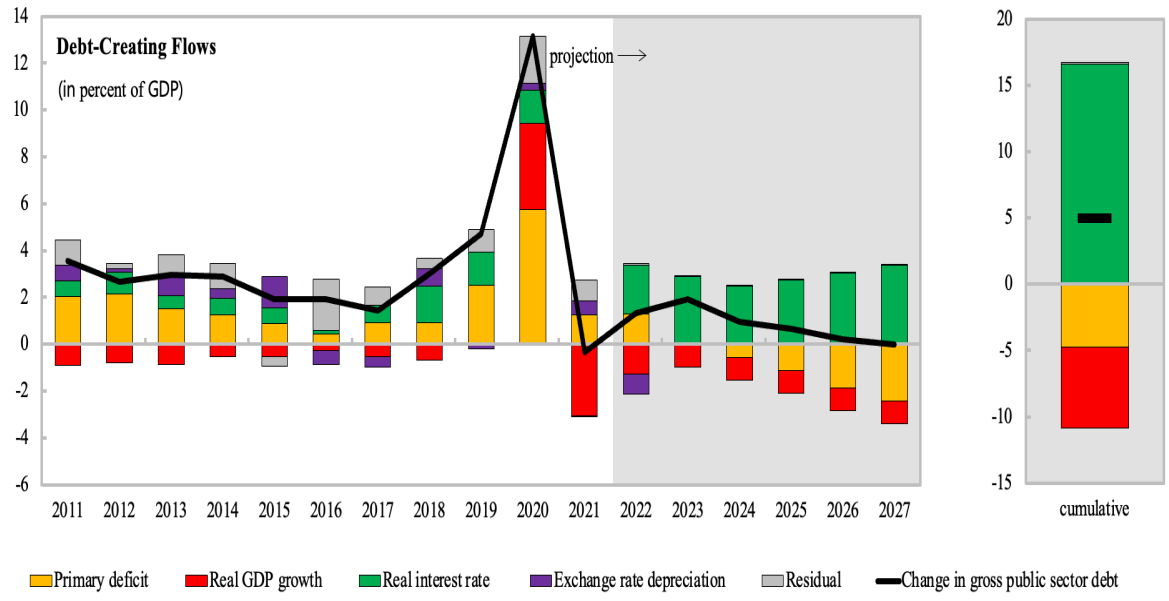
3.6.4 Forecasts of the debt path in South Africa

One measure of predicting debt sustainability is estimating and assessing the debt path over the next few years. High debt may require large primary surpluses to service debt, exacerbate the economy's vulnerability to shocks, exposes the country to higher rollover risks, and be detrimental to economic growth (International Monetary Fund, 2018).

To investigate projections of debt, the IMF's debt sustainability analysis template is used and customised to the case of South Africa and various assumptions. The data is sourced from the IMF's databases, namely the World Economic Outlook and International Financial Statistics, for data pertaining to GDP, inflation and exchange rates. The National Treasury database is used for data related to revenue, expenditure, debt, and other fiscal-related matters. The SARB data is included to supplement and provide deeper information on the debt profile.

From an initial projection presented in Figure 3.13, the change in debt is dependent on movements in the real interest rate, exchange rate, primary balance, and real GDP growth. From 2011, the primary deficit has largely contributed to rising debt while growth reduced the debt burden. Growth has been relatively weak over this period, however, and contributed to increasing debt in 2020 as a result of the large recession. The high growth rate in 2021 resulted in a small decline in the debt-to-GDP ratio. This ratio begins to rise in 2022, increasing at a decreasing rate from 2023 onwards. The projection over the next six years suggests that recoveries in growth as well as reductions in the primary deficit, to an estimated small primary surplus in 2024, will lessen the debt burden. However, rises in the real interest rate, namely the cost of debt, will serve to counteract these effects. The relationship between debt and the exchange rate can be seen in Figure 3.13, where the depreciation of the exchange rate raises the debt ratio. A strengthening of the rand post-pandemic would result in more favourable debt conditions; however, future projections of the exchange rate remain very uncertain. As a result, future assumptions about exchange rate trends remain neutral.

Figure 3.13: Debt-creating flows[16]



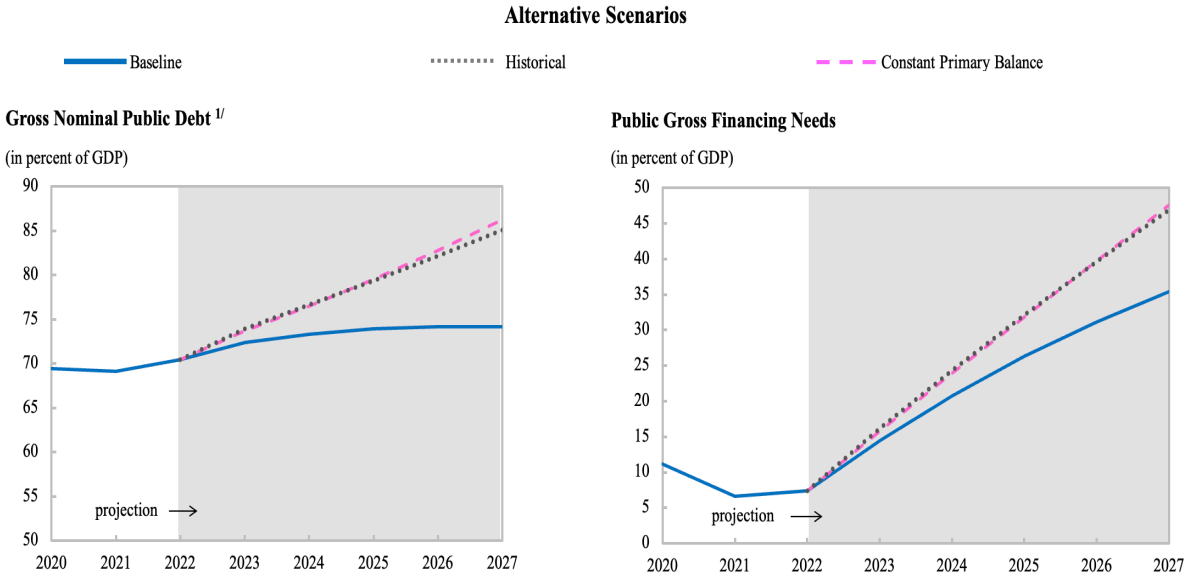
The baseline scenario, as seen in Figure 3.14, predicts that gross nominal debt will rise to 74 per cent of GDP in 2025 before stabilising, similar to National Treasury's (2022) projection for debt stabilisation at 75 per cent of GDP in 2024/25 in the Budget Review 2022. A historical scenario, in which real GDP growth, the real interest rate and the primary balance are set to their historical averages, and a constant primary balance scenario, which sets the primary balance as constant from the first year of the projection, are also presented in Figure 3.14.

[16] Additionally, forecasts were estimated for the period 2021 to 2026 and yielded similar trends to the forecasts estimated over the period 2022 to 2027, displayed in the paper.

Debt is projected to be ultimately higher under both alternative scenarios, reaching approximately 85 per cent of GDP and 86 per cent of GDP under the historical scenario and the constant primary balance scenario, respectively, in 2027. In other words, should the primary balance remain at its 2022 estimate and there be no further consolidation, debt would reach 86 per cent of GDP. The divergence of the two alternative scenarios from the baseline implies that it may be difficult to sustain the planned adjustment.

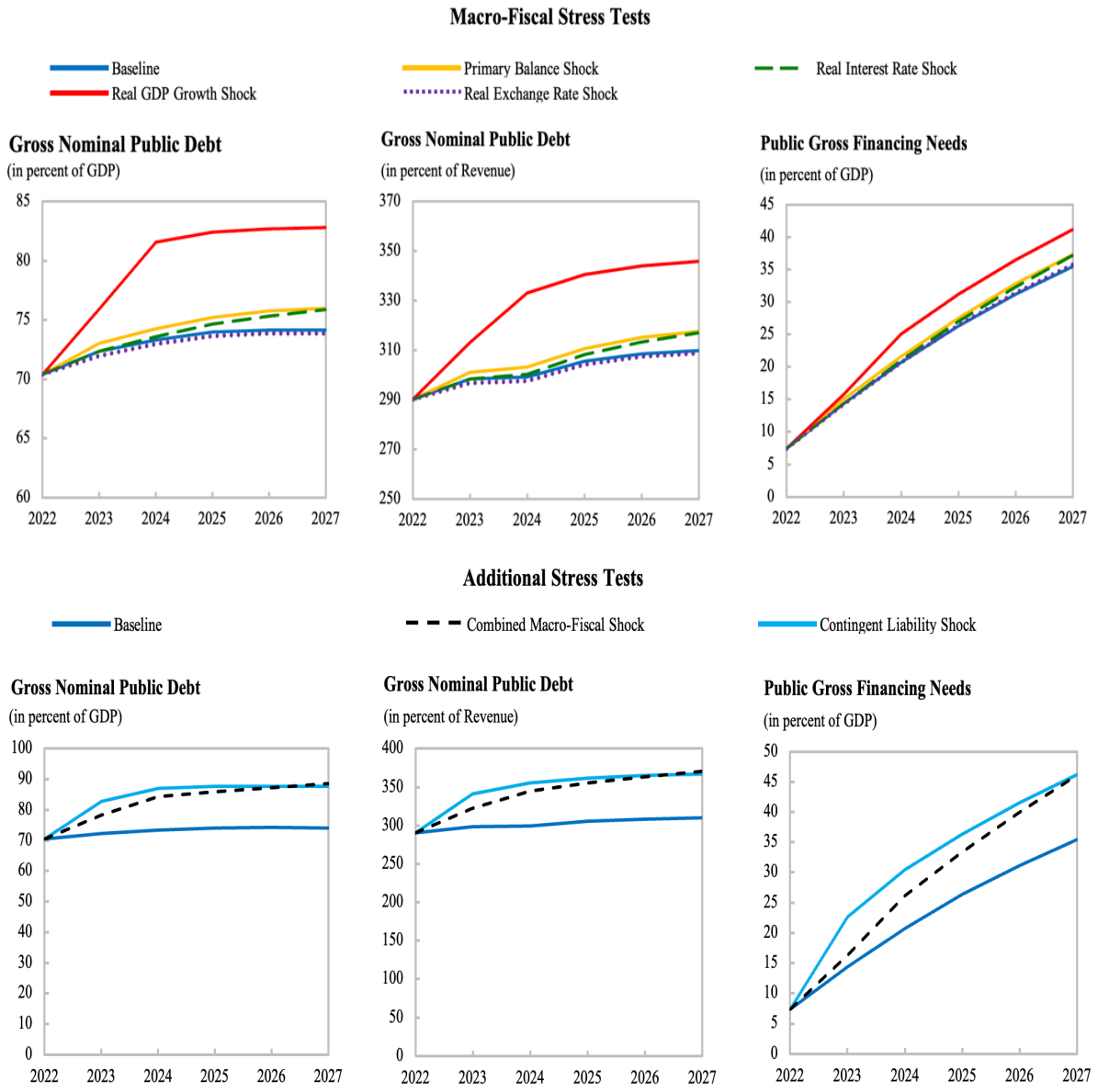
A projection of gross financing needs (GFN), consisting of the primary deficit, interest costs and debt repayments, is presented in Figure 3.14, which suggests steep increases under all scenarios. Despite gross debt stabilising, the gross financing needs appear to be increasing in an unstable fashion. This is mostly due to the assumption in this set of forecasts that all new debt[17] is short-term and domestic, an assumption that can be relaxed in following scenarios to allow for a broader debt profile for new debt. As a result, short-term debt rises from 12 per cent in 2021 to 48 per cent in 2027. Although the pandemic necessitated an increase in short-term debt issued, this assumption may be too extreme.

Figure 3.14: Alternative scenarios



[17] New debt is debt issued from 2021 onwards. Existing debt is debt that was issued in the past but still contributes to the total stock of debt as it has yet to mature or be repaid.

Figure 3.15: Stress tests



The shocks to real GDP, the primary balance, and the real interest rate, shown in Figure 3.15, are associated with higher debt and gross financing needs. The real GDP growth shock, where GDP is reduced by one standard deviation for two consecutive years, has the most adverse impact on debt and GFN. The real exchange rate shock does not appear to substantially differ from the baseline scenario on average. However, this is due to the assumption, set in the IMF template, that there is a "pass-through" of the exchange rate to inflation. Although depreciation of the exchange rate is typically associated with worsening debt dynamics, if inflation rises substantially, the counteracting effect may lead to improvements in the debt burden. It is worth noting that as such a sharp increase in overall inflation in 2022 and the medium-term may not be plausible due to South Africa's inflation-targeting rules, the shock to the exchange rate may not give rise to this offsetting effect.

Moreover, a combined macro-fiscal shock, comprising simultaneous shocks to the interest rate, exchange rate, growth rate and primary balance, result in substantially higher debt, as a proportion of GDP and revenue, and GFN. Similarly, a contingent liability shock, affecting growth, inflation and the interest rate, would have damaging effects on these projections.

Following this, another scenario is examined where new debt issued is assumed to be approximately 50 per cent short-term and 50 per cent long-term debt, being two-, five- and ten-year bonds. This is in addition to the existing debt, being debt that is yet to mature or be repaid, which is all long-term debt and follows South Africa's debt profile over the past ten years. Overall, total debt is projected to be split such that approximately 10 per cent is short term and 90 per cent is long term. Additionally, this scenario accounts for new foreign debt to be issued, alongside new domestic debt, maintaining an approximate 90:10 split between domestic and foreign debt in total. Figure 3.16 presents the debt-creating flows under this scenario, being similar to that in Figure 3.13, with key drivers of debt including the primary balance, growth, interest rate, and exchange rate.

Figure 3.16: Debt-creating flows for an alternative future debt profile

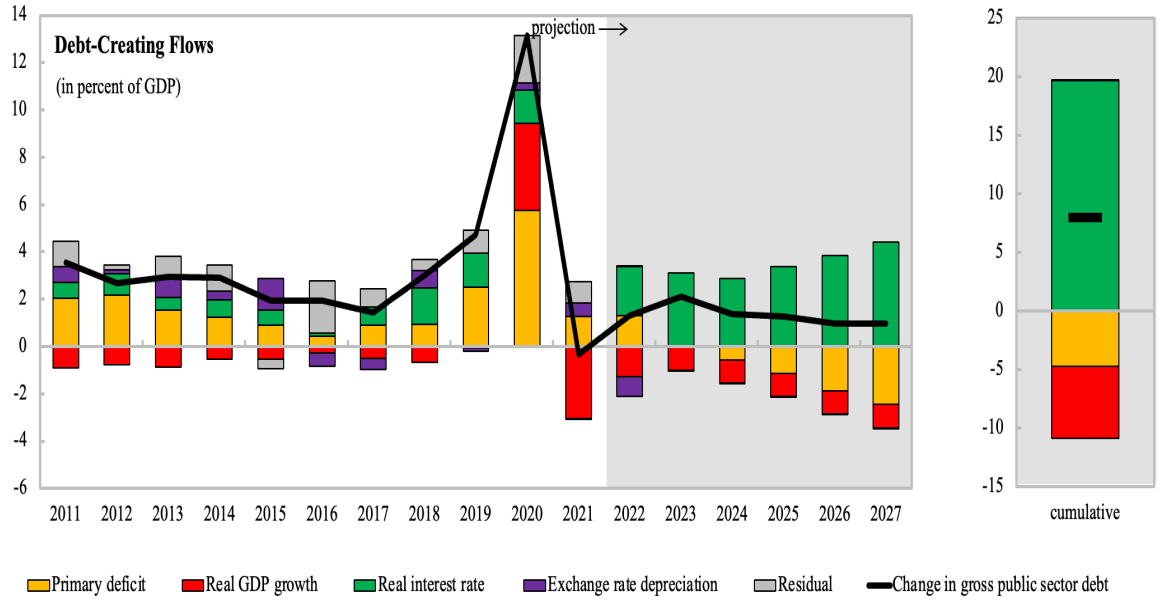
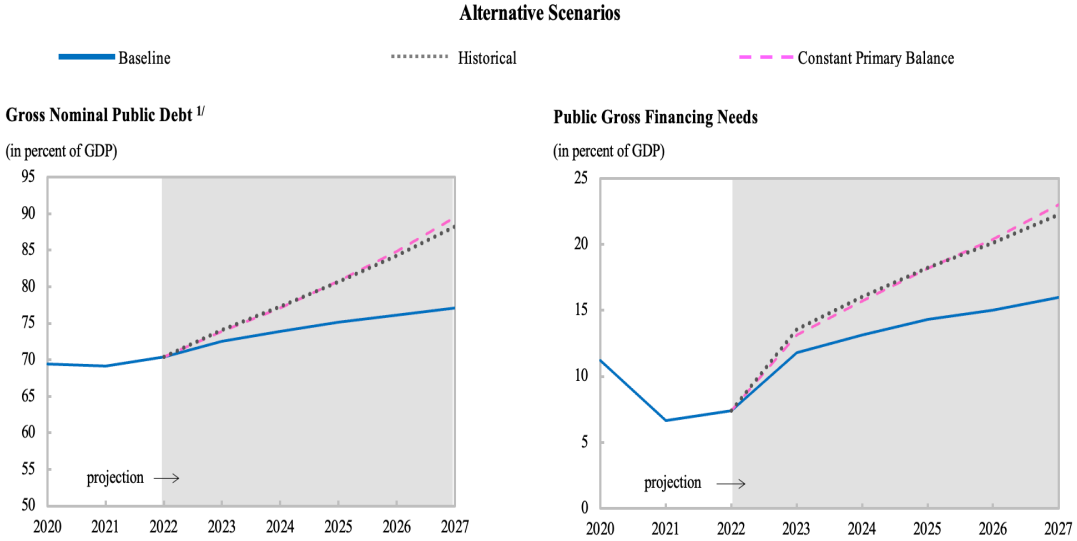


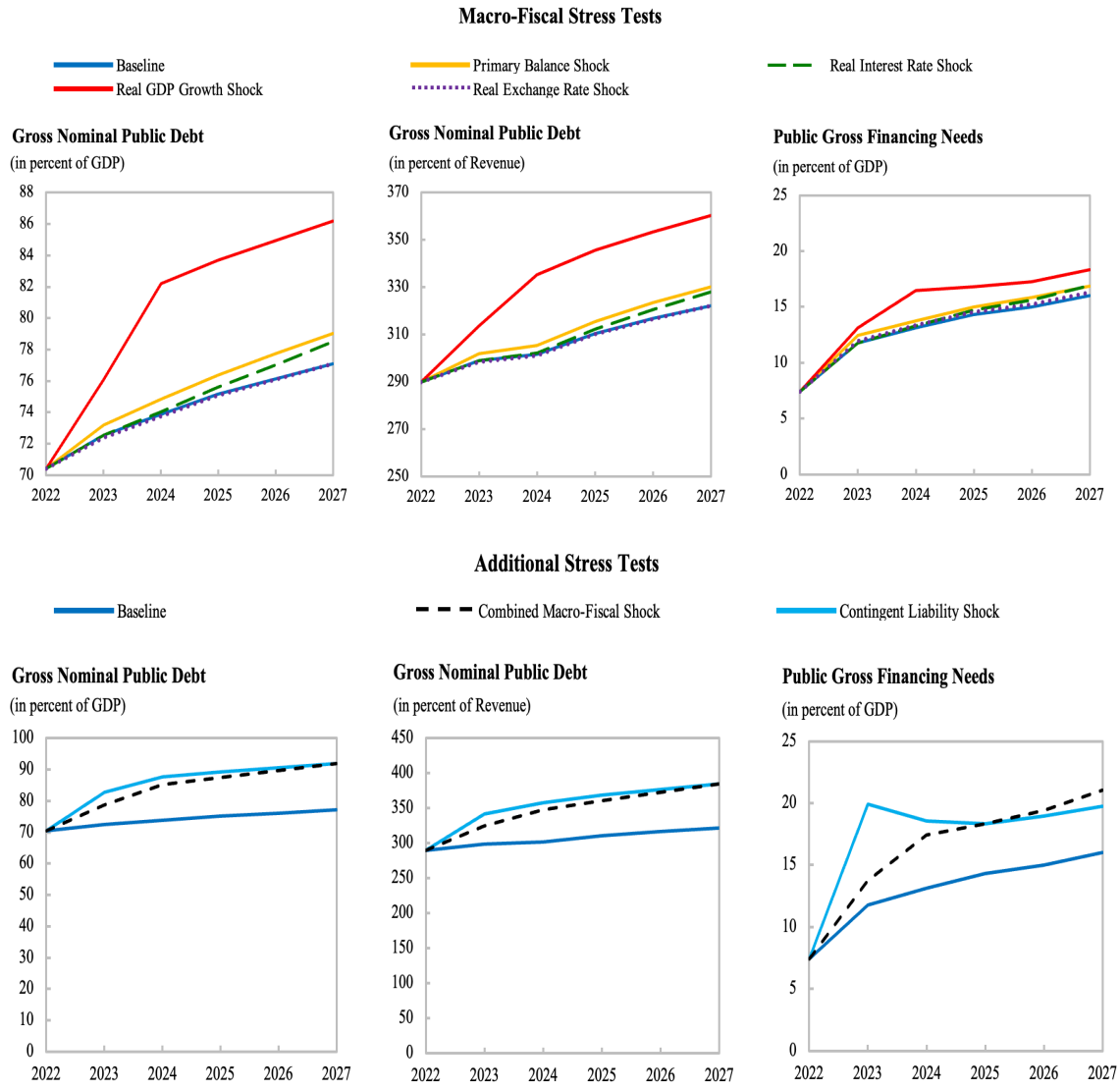
Figure 3.17: Alternative scenarios for an alternative future debt profile



From Figure 3.17, gross public debt remains at relatively similar levels as before, with debt increasing to 77 per cent of GDP in 2027. However, the GFN are adjusted lower as a result of the more diverse debt profile compared to the previous scenario. The GFN, as a proportion of GDP fell from 11 per cent in 2020 to approximately 6.7 per cent 2021, mainly as a result of a smaller budget deficit and a rebound in GDP. National Treasury predicted a similar estimate for the gross financing requirement in the 2021 MTBPS. The GFN are predicted to rise again in this model to over 7 per cent and 11 per cent in 2022 and 2023, respectively, and to continue increasing over the forecasted horizon. These estimates for GFN are consistently higher, and therefore more pessimistic, than that of the National Treasury. Therefore, the results presented should be interpreted with some caution as financing needs are sensitive to changes in revenue, expenditure, debt redemptions and interest rates.

Various stress tests are presented in Figure 3.18 for this alternative debt profile. Again, shocks to GDP, contingent liabilities and combined macro-fiscal shocks would be the most hazardous to debt ratios and to GFN.

Figure 3.18: Stress tests for the alternative debt profile



From all the scenarios displayed above, the DSA indicates that shocks to GDP, exchange rate, interest rate, primary balance and contingent liabilities would cause high risks to the overall debt level as well as to gross financing needs. Additionally, risks associated with market perception are moderately high, particularly due to the rising EMBI for South Africa. There are very low risks associated with public debt held by non-residents and foreign currency debt, given that South Africa's debt profile is mostly domestic debt with substantial holdings by residents.

From the analysis above, there are some limitations to note. As the forecasts above are based on assumptions about the future and other forward-looking estimates of other macroeconomic variables, it should be noted that the forecasts may be subject to error given that they are judgements under uncertainty. Moreover, the past two years have consisted of frequent shocks to the economy which have affected the fiscal path. As a result, further outbreaks of Covid-19 or other unprecedented events may alter the forecasts.

Regarding other limitations, the IMF DSA template uses stress tests. Stress tests focus on individual simulations of unfavourable shocks or a combination of shocks. The limits to stress tests are that each test has a zero probability of occurrence. Undue attention might be paid to seemingly plausible scenarios that are quite unlikely. As a result, risks associated with misjudgements of plausible scenarios are created, leading, for example, to speculative attacks from the market. Similarly, mistakes could lead to policy makers becoming complacent or succumbing to panic. Therefore, the results above must be interpreted with caution so as not to under or overreact.

3.6.5 Discussion on fiscal management

In relation to rising debt levels, the Fiscal Responsibility Bill was proposed in 2020 to provide fiscal rules for the management of debt and government guarantees. Suggestions in this Bill include the imposition of expenditure ceilings, mandated primary surpluses, and cuts to employee compensation when debt exceeds certain thresholds. This forms part of a debate on whether to mandate government actions in response to debt or to allow government discretion in assessing debt. However, there is apprehension over the implementation of top-down fiscal rules. These concerns include that such rules may preclude government from responding to economic crises, such as the Covid-19 pandemic, in a timely and flexible manner (Parliamentary Budget Office, 2021). Additionally, it may be difficult to determine and enforce consequences should the government breach the rules. Furthermore, many key drivers of debt, such as the exchange rate and growth rate, are not entirely subject to government control but also to many exogenous factors. As the sustainability of debt and the fiscus are as a result of several conditions, interventions need to appropriately address the issues associated with changing debt levels. Therefore, stringent top-down fiscal rules, such as the binary rules on the primary balance suggested in the Bill, may not be an appropriate solution.

However, there is a need for some form of fiscal discipline, subject to conditions on the drivers of debt, the debt level and debt service costs. Given the results from the indicator analysis, the impact of debt on the economy's growth, and sensitivity of the debt path to shocks, it is necessary for the government to respond quickly to changes in debt levels. Such a response includes assessing which expenditure and revenue actions are necessary, given the economic climate. Under the current conditions, expenditure does need to be carefully managed in order to rein in debt service costs and prevent further build-up of debt. Fiscal discipline could also take the form of active debt management, through regular reporting on debt trends and thorough expenditure management.

Additionally, the IMF (2022), in its Article IV report on South Africa, suggested that a credible debt anchor, or government goal to keep debt below a certain level over time, may assist in consolidatory efforts and limit debt accumulation. Such an anchor could serve to restore fiscal credibility and boost investor confidence. It is imperative that an anchor is set realistically as, ultimately, it is the government's integrity at stake should it be unable to meet its targets. Although debt is most likely already unsustainable and will climb over the next few years, a debt anchor may help to build public trust by not allowing debt to significantly climb over National Treasury's projections for the medium-term.

With regards to restoring the economy and promoting macro stability, the state will need assistance from other social partners to achieve its goals, particularly for the implementation of the ERRP. Promoting growth and strengthening economic resilience goes hand-in-hand with facilitating fiscal sustainability. In the 2022 State of the Nation Address (SONA), the President highlighted the need to develop a new social compact to tackle poverty, inequality, and joblessness. As a result, the role of the social partners – government, business, labour, and community – is to work together to identify the trade-offs and contributions each will need to make to address these challenges. A few of the key areas the social compact will need to coordinate are rolling out infrastructure, overcoming the pandemic, improving energy generation capacity, and implementing employment stimulus.

The National Economic Development and Labour Council (Nedlac), an institution in which the social partners seek to cooperate on economic, labour, and development issues in the country, has recently released reports relating to the Covid-19 pandemic response, supporting Eskom for inclusive growth, and addressing critical skills aligning with the implementation of the ERRP. Regarding the pandemic, Nedlac facilitated responses from the social partners in a number of areas, including collaboration on social relief, vaccinations and regulations to safely open the economy. There is consensus on continuing to promote vaccinations, via positive and negative incentives, to prevent further economic restrictions and loss of lives (Nedlac, 2021). For Eskom, the social partners agreed to numerous interventions, including managing load-shedding, procuring additional energy, and tackling corruption, among others (Nedlac, 2020). The social partners additionally met throughout 2021 to collaborate on a skills strategy to address occupational shortages and skills gaps so as not to constrain economic development (Nedlac, 2022). Going forward, the social partners may have to collaborate on reducing red tape in the business environment, reviewing labour market regulations to facilitate greater hiring into small business, addressing the way forward with regards to social relief, and assessing the state of SOEs, among others.

Social compacts are important to tackle large challenges, create co-responsibility, and remove sole reliance on the state. Ultimately, addressing efficiency and growth through action from all social partners can assist in strengthening the economy and alleviate the fiscal burden, promoting sustainability.

3.7 Conclusion

From the literature and analysis, a sustainable debt path in South Africa is one where the fiscus is committed to stabilising debt via mitigating debt service costs, adjusting the primary balance and seeking improved growth and productivity in the economy while protecting the needs of its population. From the trends shown in the analysis, debt sustainability has been relatively weak.

According to the results, South Africa faces several debt sustainability indicators that are not in its favour. Some of the indicators that do not favour sustainability include sharp increases in debt stock and debt service costs, particularly as measures of GDP and revenue, weak growth against high interest rates, indications of unproductive debt, and vulnerabilities to

macroeconomic shocks. Regression analysis reveals inconclusive results of the reaction of the primary balance to rising debt, but that there is some indication of a fiscal concern in the past to fulfil the solvency condition and consolidate, or close a fiscal gap, when debt increases. Nevertheless, South Africa finds itself in unfavourable debt conditions with a high interest-growth differential. Among those that indicate a promise for sustainability is the debt profile, mainly consisting of domestic debt and relatively low refinancing and exchange rate risks.

Further analysis into the debt-growth nexus examines the impact of debt on economic growth. High debt levels are associated with deteriorating growth. This result indicates the possibility of a debt overhang or inefficiencies in public spending. At the same time, it is noted that the debt-growth relationship runs in both directions. Additionally, projections of the debt path indicate that debt levels are vulnerable to adverse shocks to the primary balance, growth rate, and interest rate as well as deviations from the proposed fiscal consolidation over the medium term. Such shocks may act to destabilise the debt path and raise financing needs.

There are currently strong debates about the correct fiscal stance for South Africa. Rising expenditure has contributed to the increasing debt levels and has not resulted in substantial growth to the economy. The 2022 Budget reflected, possibly optimistically, that debt will be stabilised in 2023/24 through consolidatory efforts and improved tax collection. However, the fiscal path is very susceptible to many shocks, such as to growth, the interest rate or to inflation, which could materialise over the medium term. As consolidation is the current stance, it is vital to ensure that it is growth-friendly, with clear reasoning for expenditure cuts and a plan to mitigate its effect on the poor. The efficiency of spending needs to be examined, particularly as South Africa has not reached its envisaged results set out in its budgets over recent years. Furthermore, it may be prudent to prepare for further shocks that will require additional spending, given the unprecedented events South Africa has faced over the last two years.

Overall, the results provide relevant and updated information pertaining to South Africa's debt sustainability, factoring into account the rapidly changing economic climate. Such results are important to consider in policy analysis as it directly affects fiscal decisions, including choices regarding budget re-prioritisation given the growing debt service costs that detract from core spending. The results are vital in the context of the constrained fiscus, which must balance the stabilisation of debt and fiscal policy without sacrificing the provision of vital services, such as education, health and social security. Over the medium term, fiscal consolidation is likely to be harsh on South Africans, therefore underlining the necessity to carefully consider the budget and its priorities without compromising basic rights of the public.

3.8 Recommendations

The Commission makes the following recommendations:

1. *The fiscus, through the Minister of Finance, must strive to rein in rising debt service costs, which comprise a substantial portion of the budget, detracting from allocations for the provision of essential services.*

The Commission supports the pro-growth fiscal consolidation that aims to stabilise and reduce government debt. The Commission encourages measures which reverse rising debt trends and, therefore, welcomes National Treasury's strategy to reduce the borrowing requirement. Given that debt service costs will continue to consume a growing proportion of GDP and revenue over the medium term, careful attention to budget and debt financing is needed to ensure that interest expenditure does not rise above 20 per cent of revenue and to slow the annual growth rate of debt service costs, currently averaging 10 per cent per annum. If left unaddressed, interest expenditure and redemptions will continue to consume fiscal space and crowd out expenditure on the provision of basic services and socio-economic rights.

2. *The Minister of Finance must exercise and maintain fiscal discipline, via active debt management and regular reporting regarding debt accumulation, costs and sustainability, under the current strained debt conditions. Such discipline should be exercised throughout all spheres of government.*

The proposition of the Fiscal Responsibility Bill in 2020 brought a debate on whether to mandate fiscal action subject to debt thresholds. While stringent top-down rules may not always be appropriate or difficult to implement, the Commission recognises a need to exercise and maintain fiscal discipline.

It is thus recommended that the Minister of Finance report to Parliament more regularly regarding the cost of debt, debt accumulation and fiscal sustainability to keep its members and the public informed, notwithstanding the existing reporting measures, such as the Fiscal Risk Statement. Additionally, an active supervision of debt is encouraged through proper expenditure management and monitoring to help government assess and swiftly implement appropriate fiscal actions subject to the economic context, levels of debt, debt service costs, and other drivers of debt. Moreover, thorough expenditure management assists in preventing fiscal leakages, which contribute to the build-up of debt, and eases the difficult budget decisions under consolidation.

Furthermore, the Commission notes the importance of examining the fiscal framework, given that activities at the subnational level impact the national fiscal status. Placing greater responsibility at the provincial and local level, accompanied by thorough reporting on expenditure management, may help to enforce greater accountability in instances of overspending and wastage, which contributes to the build-up of national debt levels.

3. *Weak productivity in expenditure should be addressed in order to create job-enhancing, income-generating growth (i.e. inclusive growth) through quality expenditure and investment-enticing reforms.*

The Commission stresses that long-term growth prospects require addressing structural constraints. The Commission thus welcomes reforms which entice private sector investment (such as addressing governance and corruption vulnerabilities and ensuring energy restructuring and security), create a competitive economy (for example, reducing regulatory

barriers to support small- and medium-sized businesses and accelerating reforms in mining, tourism and network industries) and ultimately result in greater value and productivity in the public sector. Implementing such reforms should be expedited as progress on development plans has generally been slow.

Although spending is constrained, quality and unambiguous spending on reforms may reverse stagnant growth and high unemployment. Once again, proper expenditure management is needed to prevent leakages and fruitless spending.

The Commission further encourages the formation of a new social compact among the social partners (business, labour, community and government) to approach the necessary reforms, aligning with the Economic Reconstruction and Recovery Plan, to address the country's economic challenges.

4. *Investor confidence must be boosted and promoted through signalling that public debt is sustainable in the long run in order to reduce sovereign risk ratings and thereby the cost of debt as well as to ensure the continuation of economic support.*

The Commission notes the vital role that the risks associated with government bonds plays in the cost of debt. Not only does the cost of debt rise with higher debt levels, but also with rising market uncertainty of the sustainability of the fiscus. Therefore, it is imperative for the Minister of Finance to send a signal to the public that debt is sustainable in the long run to maintain investment and fiscal support. Additionally, a credible debt anchor, such as that recommended by the International Monetary Fund, could assist in raising fiscal support and credibility. This may also entail setting a government goal to ensure that debt does not significantly rise above National Treasury's debt projections for the medium term, particularly while the country remains in a weakened economic state.

3.9 References

Alcidi, C, and D Gros. (2019). "Public Debt and the Risk Premium: A Dangerous Doom Loop." *EconPol Europe Opinion.*

Baaziz, Y, K Guesmi, D Heller, and A Lahiani. (2015). "Does Public Debt Matter For Economic Growth?: Evidence From South Africa." *Journal of Applied Business Research* (The Clute Institute) 31 (6): 2187.

Bachmair, F, and J Bogoev. (2018). "Assessment of Contingent Liabilities and Their Impact on Debt Dynamics in South Africa." *MTI Global Practice Discussion Paper.*

Barro, R.J. 1979. "On the determination of the public debt." *Journal of Political Economy* (University of Chicago Press) 87 (5): 940-971.

Battaile, B, F L. Hernandez, and V Norambuena. (2015). "Debt Sustainability in Sub-Saharan Africa: unravelling country specific risks." *Policy Research Working Paper 7523* (Macroeconomics and Fiscal Management Global Practice Group).

Bayale, N. (2020). "Empirical Investigation into the Determinants of Public Debts in Africa: New Insights Using a Panel Bayesian Model Averaging Approach." (United Nations Economic Commission for Africa).

Bohn, H. (2005). "The sustainability of fiscal policy in the United." *CESifo Working Paper* (Center for Economic Studies and ifo Institute) (1446).

Buffie, E, A Berg, A Pattillo, R Portillo, and L Zanna. (2012). "Public Investment, Growth, and Debt: Putting Together the Pieces." *IMF Working Paper* (International Monetary Fund).

Burger, P, I Stuart, C Jooste, and A Cuevas. (2011). "Fiscal sustainability and the fiscal reaction function for South Africa." *IMF Working Papers* (International Monetary Fund) 1-27.

Caselli, F, A Giovannini, and T Lane. (1998). "Fiscal discipline and the cost of public debt service: Some estimates for OECD countries." *International Monetary Fund Working Paper* (International Monetary Fund).

Checherita-Westphal, C. (2019). "Interest rate-growth differential and government debt dynamics." *ECB Economic Bulletin* (2).

Checherita-Westphal, C, and P Rother. (2012). "The impact of high government debt on economic growth and its channels: An empirical investigation for the euro area." *European Economic Review* (Elsevier) 56 (7): 1392-1405.

Clements, B, R Bhattacharya, and T.Q Nguyen. (2003). "External debt, public investment, and growth in low-income countries." (International Monetary Fund).

Dash, D P, N Sethi, and A K Dash. (2021). "Infectious disease, human capital, and the BRICS economy in the time of COVID-19." *MethodsX* (Elsevier) 8: 101202.

Debrun, X, J D Ostry, T Willems, and C Wyplosz. (2019). "Public debt sustainability." *Sovereign Debt: A Guide for Economists and Practitioners* (International Monetary Fund).

Elbadawi, I, B.J Ndulu, and N Ndung'u. (1997). "Debt overhang and economic growth in Sub-Saharan Africa." *External finance for low-income countries* 49-76.

Fatas, Antonio. (2019). "Fiscal Policy, Potential Output, and the Shifting Goalposts." (Centre for Economic Policy Research).

Financial and Fiscal Commission. (2021). "Submission for the 2022/23 Division of Revenue."

Ghatak, S, and J Sánchez-Fung. (2007). "Is Fiscal Policy Sustainable in Developing Economies?" *Review of Development Economics* (Wiley) 11 (3): 5518-530.

International Monetary Fund. (2018). "Principles of Debt Sustainability [course notes]."

International Monetary Fund. (2022). "International Financial Statistics."

International Monetary Fund. (2021). *South Africa: Staff Concluding Statement of the 2021 Article IV Mission.* 8 December. https://www.imf.org/en/News/Articles/2021/12/07/south-africa-staff-concluding-statement-of-the-2021-article-iv-mission.

International Monetary Fund. (2022). "World Economic Outlook Database." April.

International Monetary Fund. (2022). South Africa: 2021 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for South Africa.

Joy, J, and P Panda. (2020). "An empirical analysis of sustainability of public debt among BRICS nations." *Journal of Public Affairs* (Wiley) 21 (2).

Karadam, D Y. (2018). "An investigation of nonlinear effects of debt on growth." *The Journal of Economic Asymmetries* (Elsevier BV) 18.

Kaur, B, and A Mukherjee. (2012). "Threshold Level of Debt and Public Debt Sustainability: The Indian Experience." *Reserve Bank of India Occasional Papers* 33 (1): 1-37.

Loewald, C. (2021). "Weathering Covid: South Africa's central bank policy in 2020 and 2021." (South African Reserve Bank).

Melina, G, S Yang, and L Zanna. (2014). "Debt Sustainability, Public Investment, and Natural Resources in Developing Countries: the DIGNAR Model." *IMF Working Paper* (International Monetary Fund).

Mhlaba, N, and A Phiri. (2019). "Is public debt harmful towards economic growth? New evidence from South Africa." *Cogent Economics & Finance* (Taylor and Francis) 7 (1).

Mustapha, S, and A Prizzon. (2015). "Debt Sustainability and Debt Management in Developing Countries." *Economic and Private Sector Professional Evidence and Applied Knowledge Service Topic Guide* (Overseas Development Institute).

Naraidoo, R., and L Raputsoane. 2015. " Debt Sustainability and Financial Crises in South Africa. Emerging Markets Finance and Trade." 224-233.

National Treasury. (2020). "2019/20 Debt Management Report."

National Treasury. (2021). "The Budget Review 2021."

National Treasury. (2021b). "Medium Term Budget Policy Statement 2021."

National Treasury. (2022). "The Budget Review 2022."

National Treasury. (2022b). "Historical government bond holdings March 2022." April.

Nedlac. (2020). Framework Agreement for a Social Compact on Supporting Eskom for Inclusive Economic Growth. Nedlac.

Nedlac. (2021). "Nedlac's social partners contribution to fight the Covid-19." 8 December.

Nedlac. (2022). "NEDLAC Report on Skills Strategy to Support the South Africa Economic Recovery and Reconstruction Plan."

Panizza, U. (2008). "Domestic and External Public Debt in Developing Countries." *SSRN Electronic Journal* (Elsevier).

Parliamentary Budget Office. (2021). "Comments on the Proposed Fiscal Responsibility Bill."

Reinhart, C, and K Rogoff. (2010). "Growth in a Time of Debt." *American Economic Review* (Amerian Economic Association) 100 (2): 573-578.

Reinhart, C., K Rogoff, and M Savastano. (2003). "Debt Intolerance." *Brookings Papers on Economic Activity* (1): 1-74.

Roubini, N. (2001). "Debt sustainability: How to assess whether a country is insolvent." *Stern School of Business, New York University.*

Saungweme, T, and N Odhiambo. (2018). "Public Debt Dynamics in Emerging Market Economies: The Experience of South Africa." *AUDA* 10 (1): 39-59.

Saungweme, T, and N Odhiambo. (2018). "The impact of public debt on economic growth: A review of contemporary literature." *The Review of Black Political Economy* (SAGE Journals) 45 (4): 339-357.

Saungweme, T, and N Odhiambo. (2020). "Public Debt Service in South Africa and Its Impact on Economic Growth: An Empirical Test." *The Review of Black Political Economy* (SAGE Journals) 48 (3): 313-327.

Siddiqui, R, and A Malik. (2001). "Debt and Economic Growth in South Asia." *The Pakistan Development Review* (Pakistan Insitute of Development Economics) 40 (4): 677-688.

South African Reserve Bank. (2021). "Public Finance Statistical Tables." *Quarterly Bulletin September 2021.*

South African Reserve Bank. (2022). "Public Finance Statistical Tables." *Quarterly Bulletin March 2022.*

Statistics South Africa. (2021). *A new and imporved GDP is here!* 25 August. http://www.statssa.gov.za/?p=14614.

Statistics South Africa. (2021). "P0441 - Gross Domestic Product, 3rd Quarter 2021."

Statistics South Africa. (2022). "The South African economy records a positive fourth quarter."

Trading Economics. (2022). *South Africa Credit Rating.* https://tradingeconomics.com/south-africa/rating.

Tran, N. (2018). "Debt threshold for fiscal sustainability assessment in emerging economies." *Journal of Policy Modeling* (Elsevier) 40 (2): 375-394.

Turner, D, and F Spinelli. (2013). "Interest-rate-growth differentials and government debt dynamics." *OECD Journal: Economic Studies* 2012 (1): 103-122.

World Bank. (2021). "Global Economic Monitor."

World Bank. (2021). "World Bank Database."

World Bank. (2022). "World Bank Database."

Wyplosz, C. (2005). "Debt Sustainability Assessment: The IMF Approach and Alternatives." *HEI Working Paper 03/2007.*

3.10 Appendix

Table 3.A 1: Control of debt service costs in growth regression

	(1)
	GDP growth rate
Debt (% GDP)	0.320**
Debt^2 (% GDP)	-0.004***
Inflation (CPI)	-0.277
Surplus/Deficit (% GDP)	0.517*
Trade (% GDP)	0.060
Gross Fixed Capital Formation (growth rate)	0.099
Debt Service Costs (% GDP)	-0.133
R-squared	0.93
DWS	2.24
Observations	20

Note: A control for debt service costs as a per cent of GDP, sourced from National Treasury (2021) is added.

Table 3.A 2: Controls for the cost of debt in GDP regressions

	(1)	(2)	(3)
	Real GDP (log)	Real GDP (log)	Real GDP (log)
Real GDP$_{-1}$ (log)	0.771***	0.477**	1.315***
Debt (% GDP) (log)	0.569**	0.854***	1.077**
Debt^2 (% GDP) (log)	-0.079**	-0.141***	-0.163**
Inflation (CPI)	-0.003*	-0.004**	-0.006***
Surplus/Deficit (% GDP)	0.003	-0.000	0.007*
Trade (% GDP) (log)	0.061	0.108**	0.161**
Real Gross Fixed Capital Formation (log)	0.096**	0.107	-0.168
Debt Service Costs (log)		0.150***	
Debt Service Costs (% GDP) (log)			-0.014
Interest Payments (log)	0.008		
Observations	32	21	20
R-squared	0.99	0.99	0.99
DWS	1.63	1.96	2.35

Notes: Data for Debt Service Costs sourced from National Treasury and Interest payments from SARB.

Table 3.A 3: Impact of debt on economic growth (pre-rebasing of GDP)

	(1)	(2)	(3)
	GDP growth rate	GDP growth rate	GDP growth rate
Debt (% GDP)	0.554***	0.269**	0.296**
Debt^2 (% GDP)	-0.007***	-0.003**	-0.004***
Inflation (CPI)		-0.127*	-0.155**
Surplus/Deficit (% GDP)		0.272	0.314*
Trade (% GDP)		0.005	-0.006
Gross Fixed Capital Formation (growth rate)		0.161***	0.151***
Real Interest Rate			-0.104*
R-squared	0.27	0.69	0.71
DWS	1.07	1.77	2.04
Observations	60	60	60

Notes: Coefficients rounded to 3 decimal places.
Data sourced from World Bank Data (2021) and SARB (2021). Sample 1961-2020. Constant included but not presented.

Table 3.A 4: Impact of debt on economic growth (pre-rebasing of GDP)

	(1)	(2)	(3)
	Real GDP (log)	Real GDP (log)	Real GDP (log)
Real GDP_{-1} (log)		0.970***	0.974***
Debt (% GDP) (log)	-0.076**	0.678***	0.682***
$Debt^2$ (% GDP) (log)	0.001**	-0.093***	-0.094***
Inflation (CPI)		-0.002**	-0.002**
Surplus/Deficit (% GDP)		0.005***	0.005***
Trade (% GDP) (log)		0.046***	0.045*
Real Gross Fixed Capital Formation (log)		0.005	0.003
Real Interest Rate			-0.000
Observations	60	60	60
R-squared	0.12	0.99	0.99
DWS	0.07	1.83	1.87

Notes: Coefficients rounded to 3 decimal places. Data sourced from World Bank Data (2021), SARB (2021) and National Treasury (2021). Sample 1961-2020. Constant included but not presented.

CHAPTER 4

Inequality and affluence in South Africa's labour market

Chapter 4: Inequality and affluence in South Africa's labour market

Chen W. Tseng and Gianni Delle Donne

4.1 Introduction

The Covid-19 pandemic has brought many of South Africa's challenges to the forefront of the policy agenda. Not only has poverty and inequality worsened, but it has exposed and exacerbated many of the country's structural and fiscal vulnerabilities, such as high unemployment and rising public debt obligations. The South African government is committed to debt stabilisation through reprioritisation of public spending (National Treasury, 2021). However, the state needs to carefully balance fiscal consolidation with its duty to protect basic socio-economic rights enshrined in the Constitution. The Economic Reconstruction and Recovery Plan (ERRP), implemented in response to the devastating economic consequences of Covid-19, emphasises, among others, the need for inclusive economic development (Ramaphosa, 2020).

Fostering inclusive economic growth in South Africa implies greater participation in economic activity from a greater portion of the population. Currently, millions of South Africa are excluded from contributing their full potential to the economy because they cannot find work that matches their skillset. Unemployment is a key driver of income inequality, both of which have remained stubbornly high in the post-apartheid era with a Gini coefficient estimated well above 0.6 (Stats SA, 2019). This is despite redistributive fiscal policy tools, such as provision of the "social wage", which extends protection to the most vulnerable groups. Well-targeted government grants have played a crucial role in reducing poverty; however, it appears that slow and stagnant economic growth over the past decade – alongside suppressed and unequal growth in wages – has limited the extent to which cash transfers can reduce income inequality. When inequality is high and persistent, large segments of the population continue to be excluded which constrains aggregate performance and undermines the inclusive growth needed to put South Africa on a sustainable development path.

Earnings inequality is a key driver of overall income inequality in South Africa. Thus, evidenced based policies aimed at reducing inequality in South Africa require a deeper understanding of the extent of earnings inequality emanating from South Africa's labour market. Inequality at the top-end of the earnings distribution is particularly important for fiscal policy decisions, as it impacts on the labour force's ability to contribute to the fiscus through direct and indirect means of taxation. If earnings inequality continues to increase it could undermine South Africa's fiscal sustainability and credibility in the long run.

This report investigates inequality across earnings, and degrees of affluence, in South Africa's labour market using household survey data. In doing so, the report aims to, firstly, illustrate the need for more targeted policy action to reduce inequality and, secondly, to highlight the urgency of more accessible, comprehensive and transparent income data, given the significant limitations that arise from the use of available survey data.

4.2 Literature review

4.2.1 Measuring inequality and affluence

In economics, a large body of literature is dedicated to measuring economic welfare, which is essential in analysing inequality using household survey data. To do so, economists use social indicators and traditionally, consumption expenditure and income have been used for this purpose. However, it is now widely accepted that many other aspects of life shape individual welfare, such as access to health care, housing, essential services and assets (Shifa and Ranchhod, 2019). Researchers often agree that consumption makes for a more accurate measure of social welfare because economic theory dictates that individuals smooth their consumption over time. Consumption is thus likely to fluctuate less than income (typically received monthly or weekly). However, this is usually the case for studying the lower end of the distribution – the "poor". On the other hand, a much smaller body of literature on the top-end of the distribution – particularly those concerning affluence – rely on either income or wealth to measure affluence (Medeiros and Ferreira de Souza, 2014).

The concept of affluence in the inequality literature is not uniformly understood or defined. Some authors have used the term affluence synonymously with richness (Concialdi, 2018). Others have defined affluence as a distinct concept, which can be understood as being the lowest level of richness (Saczewska-Piotrowska, 2018). For example, some authors distinguish between the affluent, rich and super rich, and define them in relative terms as three times, five times or ten times the median income, respectively (Franzini, Granaglia, and Raitano, 2016).

Broadly speaking, affluence can be measured in the absolute or relative sense (Medeiros and Ferreira de Souza, 2014). Relative approaches to measuring affluence include "positional" and "multiplier" approaches**.** Affluence lines are positional when defined as a given percentile of the income distribution. For example, defining the top 10 or 1 per cent of the income distribution as rich or affluent has become increasingly popular. Alternatively, using the multiplier approach, relative affluence lines can be constructed by multiplying an existing indicator – such as the poverty line, mean or the median income of the population – by a predetermined number. For example, multipliers ranging from seven to twelve times the poverty line have been used before (Danzinger, Gottschalk, & Smolensky, 1989). The mean or median incomes can also be used as a reference point.

The underlying thread in the above relative approaches is that affluence depends on the underlying distribution of income. This feature makes this approach attractive because, unlike absolute

measures, it considers the changing sizes of the social strata of society. Key drawbacks include the fact that the choice of a percentile introduces arbitrariness into the analysis and that the paradoxical situation may arise where even individuals who are poor in the absolute sense may be defined as being rich relative to the rest of the population (this could occur at a situation where the entire population is poor, for instance).

4.2.2 Relationship between inequality and economic growth

It is necessary to briefly mention the relationship between inequality and growth, which is not uniformly understood in the literature. In economic theory, the "incentives hypothesis" dictates that inequality can be beneficial if it incentivises greater participation in economic activity, thereby boosting growth and efficiency. However, when inequality is as high as it is in South Africa, the result is that a substantial portion of society is poor and does not have the same opportunities as the rich – the so called "opportunities' hypothesis". For instance, not being able to afford high quality education for one's children harms one's future earnings capacity. One's ability to take economic risks and make investments is also tainted by one's affluence, as borrowing becomes increasingly difficult the poorer one is (OECD, 2015) . The latter scenario slows down economic growth potential and disproportionately benefits the rich.

4.2.3 Relationship between fiscal policy and inequality

In South Africa, personal income tax (PIT) is an important source of government revenue, which has been increasing as a proportion of gross domestic product (GDP) (Maboshe and Woolard, 2018). The pressure on a relatively small and affluent proportion of the population to fund the fiscus is becoming greater, which potentially undermines the sustainability and credibility of the fiscus in the long run. Thus, understanding how labour-market income is distributed in South Africa should inform policy decisions. From a fiscal policy perspective, over 90 per cent of the South African state's PIT revenues are paid by the top richest decile of the population, as these individuals are sufficiently affluent to contribute (Inchauste, Lustig, Maboshe, and Woolard, 2017). The Financial and Fiscal Commission (FFC) reported that PIT accounts for approximately 37.8 per cent of total tax revenues (Financial and Fiscal Commission, 2021). This implies that the state's revenues are heavily dependent on – and susceptible to changes in the incomes of – a small and relatively affluent portion of society. The more unequal South Africa becomes, the smaller this affluent portion becomes, potentially creating an even more constrained fiscal environment. Viewed in this light, persistently high levels of income ienquality can undermine the country's fiscal sustainability and credibility in the long run.

4.3 Problem statement and research questions

4.3.1 Problem statement

The Covid-19 pandemic has worsened an already fragile fiscal space, as public debt and debt-interest costs have risen and, simultaneously, lockdowns and resulting job losses have increased

the state's need to extend even more social protection to the poor and vulnerable. Well-targeted government grants have played a crucial role in reducing poverty; however, it appears that slow and stagnant economic growth over the past decade – alongside suppressed and unequal growth in wages— has limited the extent to which cash transfers can reduce income inequality. When inequality is high and persistent, large segments of the population continue to be excluded which constrains aggregate performance and undermines the inclusive growth needed to put South Africa on a sustainable development path. Underlying labour market forces have played a critical role in explaining why income inequality in South Africa remains stubbornly high.

The following research questions summarise the study design:

- How unequally is labour-market income distributed in post-apartheid South Africa?
- What trends in wage growth can be observed across different percentiles of the income distribution, and how does this inform our understanding of inequality in South Africa?
- What are the limitations to investigating inequality and affluence using survey data from South Africa's labour market?
- How can policy aimed at addressing inequality be more focussed and better targeted?

4.4 Problem statement and research questions

4.4.1 Problem statement

The Covid-19 pandemic has worsened an already fragile fiscal space, as public debt and debt-interest costs have risen and, simultaneously, lockdowns and resulting job losses have increased the state's need to extend even more social protection to the poor and vulnerable. Well-targeted government grants have played a crucial role in reducing poverty; however, it appears that slow and stagnant economic growth over the past decade – alongside suppressed and unequal growth in wages— has limited the extent to which cash transfers can reduce income inequality. When inequality is high and persistent, large segments of the population continue to be excluded which constrains aggregate performance and undermines the inclusive growth needed to put South Africa on a sustainable development path. Underlying labour market forces have played a critical role in explaining why income inequality in South Africa remains stubbornly high.

The following research questions summarise the study design:

- How unequally is labour-market income distributed in post-apartheid South Africa?
- What trends in wage growth can be observed across different percentiles of the income distribution, and how does this inform our understanding of inequality in South Africa?
- What are the limitations to investigating inequality and affluence using survey data from South Africa's labour market?
- How can policy aimed at addressing inequality be more focused and better targeted?

4.5 Research methodology, data and limitations

4.5.1 Research methodology

This study follows a quantitative approach in STATA, which makes use of statistical tools to measure inequality and affluence in South Africa using survey data, namely, the Post-Apartheid Labour Market Series (PALMS). The analysis of earnings inequality that follows is based on the real earnings variable in PALMS, which measures real monthly income earned from the labour-market, pre-tax, and in real terms (deflated to 2017 Rands). Income therefore excludes any additional income derived from capital or social grants. The sample is restricted to the working-age population. Given the redistributive nature of social grants, excluding them from income levels might overstate the measure of inequality. On the other hand, survey data tends to underrepresent top incomes in society. Given that income from capital sources is mostly prevalent at the top-end of the income distribution, top incomes in PALMS are likely to be biased downwards, due to the sensitive nature of income and the likely unwillingness to disclose it accurately. As a result, this could result in an underestimation of inequality. It is important to bear these opposing forces in mind when interpreting any empirical measure of inequality.

Affluence is therefore defined narrowly as income affluence, specifically income derived from the labour market. Statistical tools that are used to measure inequality and affluence include percentile shares and ratios, the Gini coefficient, and the Lorenz curve (Shifa and Ranchhod, 2019). The Gini coefficient is a widespread inequality measure which calculates the area between the line of equality and the Lorenz curve (the deviation from equality) divided by the area under the diagonal (the maximum possible departure from equality) (Van Der Berg, 2014). The Gini is not a decomposable measure which means it can obscure more nuanced features of inequality in a given country context (Shifa and Ranchhod, 2019).

The mathematical formula for the Gini coefficient can be stated as follows:

$$G = \sum_{i=1}^{N} \sum_{j=1}^{N} \frac{|y_i - y_j|}{2N^2\mu}$$

Where i and j are the income levels of individual i and j respectively, μ is mean income and N is population size. The Gini coefficient ranges from zero to one, where 0 indicates perfect equality and 1 indicates perfect inequality. Thus, the higher the Gini coefficient of a country, the greater its inequality.

The closely related Lorenz curve is a simple graphical representation of the distribution of income in a given society. When a population is ordered from poorest to richest, the Lorenz curve shows the cumulative proportion of income received for each cumulative portion of the population on the y-axis, where the cumulative portion of the population is reflected on the x-axis (Foster, Seth, Lokshin, and Sajaia, 2013). If everyone in a population received the same income, then the Lorenz

curve would be a straight line at 45 degrees. The further away the Lorenz curve lies from the line of equality, the greater the inequality in society.

Although there are many different ways in which to measure affluence, relying on income shares of the top x per cent of the population has become quite popular (Atkinson and Piketty, 2010). In this study, this positional (relative) approach is used to investigate where earnings is most concentrated across the distribution. Income thresholds at various percentiles of the distribution of earnings – such as the 90th, 95th and 99th percentiles – are used to measure, relatively, difference degrees of affluence in the South African context. These percentiles are are then compared to lower-income groups, such as the 50th percentile as well as those whose incomes at the mean (average monthly earnings). The study also considers, briefly, inequality amongst the most affluent by investigating income shares as a proportion of total income within the top 1 per cent.

The formula underlying this method is as follows:

$$R^{IS}(x,p) = \frac{\sum_{i=1}^{n} x_i \mathrm{I}\,(x_i > q_{1-p})}{\sum_{i=1}^{n} x_i}$$

Where I(·) denotes the indicator function (equal to 1 when the argument is true and 0 otherwise), and q_{1-p} is the $(1-p)$ quantile of the population. The key drawback of this approach is that it assumes that there is always a portion of the population that is affluent because affluence is measured relatively. However, in the context of extreme inequalities in South Africa a relative approach to measuring affluence seems more sensible than an absolute one. Trends in the growth of income percentiles over time, as well as the change in income shares, are used to investigate affluence at the top end of the distribution.

Given that demographic factors play an important role in income inequality in South Africa, the distribution of income is also disaggregated by racial groups, shown using a kernel density function. Gender disaggregated incomes are also conducted in order to show the presence of gender inequality in earnings data, as well as how these intersect across racial groups. Trends in the gender, racial and industry compositions of the bottom 50 per cent, top 10 per cent and top 1 per cent of the income distribution are further presented using descriptive statistics. Finally, intergovernmental affluence is briefly taken into account by highlighting the income disparities that exist across provinces as well as commenting on the shortfalls of using a positional approach to measuring affluence.

4.5.2 Data and limitations

This study uses individual level survey data from the PALMS. This is a harmonised series of labour data based on several household surveys conducted by Statistics South Africa and the Southern African Labour and Development Research Unit (SALDRU). It is a cross-sectional data set, capturing mostly employment and earnings data. It is comprised of 69 household surveys from 1994 to 2019 (Kerr and Wittenberg, 2019). Income is thus defined narrowly in the study as income

derived from the labour market. This necessarily excludes millions of unemployed South Africans from the investigation into inequality and ignores the significant impact that social grants have on improving living standards. Further, it excludes the impact that the household plays as a decision-making unit that can share resources and foster the benefit of economies of scale for its members, and the important role that financial income plays particularly at the top end of the distribution.

Difference data sources have specific advantages and disadvantages. Administrative tax data tends to provide more regular information often missed in surveys and capture income at the top end of the distribution with more accuracy (Medeiros and Ferreira de Souza, 2014). Survey data, on the other hand, is usually more readily available than administrative records but often suffers from small sample sizes of the very top end of the income distribution, due to lower response rates and underreporting of top incomes. This compromises the accuracy of the information on the affluent provided by household surveys.

There are various dimensions of richness or wealth, and the choice of the study area will often depend on the scope of the study and data availability. Similarly, different units of analyses can be chosen when studying the rich – typically ranging from individuals to households and even tax units – and the choice will largely depend on practicality in terms of available data. This paper defines affluence narrowly and in purely economic terms using earnings levels (Concialdi, 2018). Therefore, it is not within the scope of this paper to comment on the feasibility of a wealth tax as a fiscal tool to reduce inequality, despite a recent debate in the public arena since the onset of the Covid-19 pandemic.

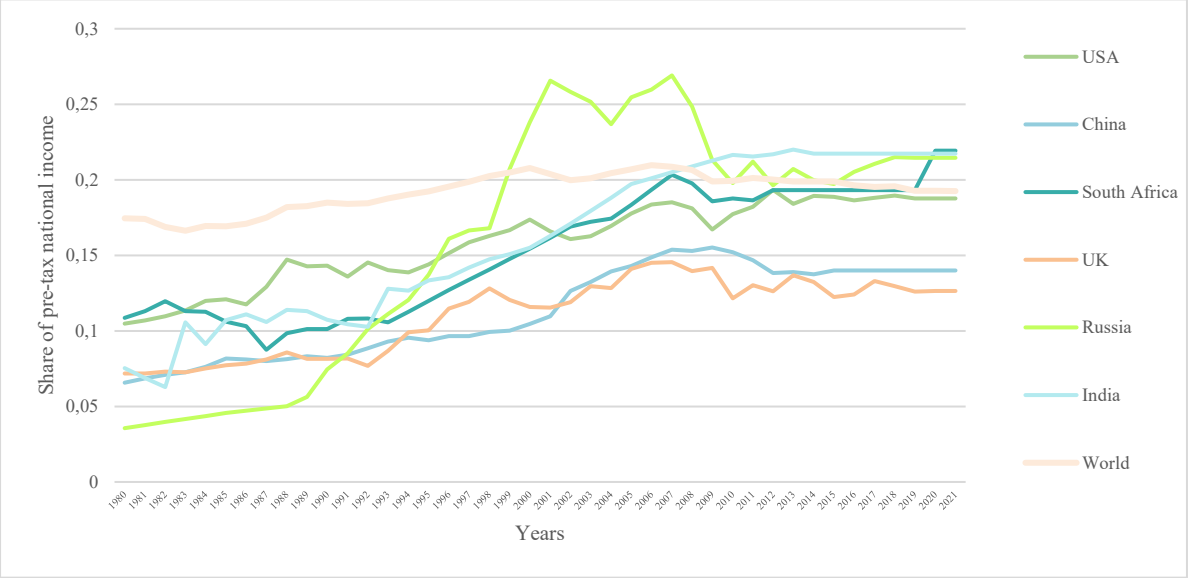
Inequality also manifests in various dimensions in South Africa. It is not possible to capture all dimensions of inequality by merely studying differences in earnings. Labour market earnings are merely being used as a proxy in this study. Thus, the analysis into inequality and affluence should be viewed as a baseline study on which further, more comprehensive concepts of affluence can be studied in future. Finally, it is important to note that, despite the usefulness of poverty thresholds in economic policy, constructing any threshold for affluence using percentiles in the earnings distribution is by its very nature going to invite a degree of arbitrariness into the analysis.

4.6 Results

4.6.1 The rise of income inequality globally

There has been a remarkable rise in top income percentile shares on a global scale, particularly since the 1980s (Atkinson and Piketty, 2010). This rise in top incomes relative to those at the bottom and middle of the income distribution is associated with the rise in globalisation, the removal of trade barriers and "winner take all" pay structures (Atkinson and Piketty, 2010). In the United States, for example, the share of national income accruing to the top 1 per cent increased from 9 per cent in 1976, to 20 per cent in 2011 (Alvaredo, Atkinson, Piketty, and Saez, 2013).

Figure 4.1: The rise in the 99th percentile's share of total income globally, 1980-2021



Source: World Inequality Database

Note: Pre-tax national income is the sum of all pre-tax personal income flows that accrue to the owners of production factors (labour and capital) before taking any taxes and transfers into account, but after taking pensions into account. The base unit is the individual. Shares are provided in percentages.

Figure 4.1 shows the rise in income inequality in selected countries since the 1980s following the introduction of neoliberal-type policy reforms across the globe. Between 1980 and 2021, the world income share of the 99th percentile increased, on average, from 17 per cent to almost 20 per cent. Over the same period, income inequality increased in advanced economies such as the United States and United Kingdom. However, it rose at a much faster rate in the former than in the latter. The share of total pre-tax income that accrued to the top 1 per cent in the United States increased by almost 8.5 percentage points to about 19 per cent. In the United Kingdom, income inequality appears to be far less concentrated at within the 99th percentile of the income distribution, reaching approximately 12.6 per cent in 2021. Figure 4.1 also shows that for most BRICS economies including Russia, India, China and South Africa the top 1 per cent's share of total before tax income increased quite rapidly after the 1980s, although also to varying degrees. According to Figure 4.1, in 2020 the richest 1 per cent of the South African population took home over 20 per cent of total pre-tax income. There is thus evidence that income inequality in South Africa is still amongst the highest in the world.

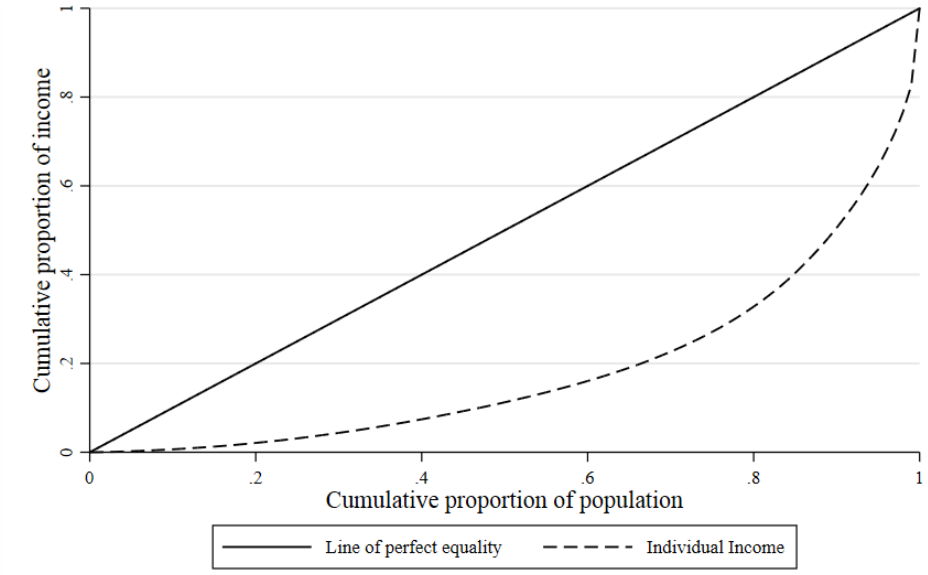
4.6.2 Earnings inequality in South Africa

Earnings inequality in post-apartheid South Africa should be viewed from the perspective of a highly segmented labour market, increasingly characterised by job and wage polarisation. The changing composition of sectors in the economy since South Africa's transition to democracy affected the aggregate demand for labour, which is an important feature of understanding increasing polarisation in the labour market. Structural transformation has occurred in the

movement away from an economy centred around agricultural, mining and manufacturing sectors, to one dominated by services and finance sectors (Bhorat and Khan, 2018).

A preliminary investigation into earnings levels in the domestic labour market suggests that the average person in 2017 (the latest year of available earnings data in PALMS) earned a pre-tax income of R8 896 per month.[18] When the population is ordered from poorest to richest, earnings at the 50th percentile (p50) of the distribution – i.e. the median monthly earnings – stood at R3 582 per month, in real terms. This is considerably lower than the mean, indicating that majority of population actually earns below average and that relatively few high incomes at the top of the disribution drive average earnings higher up the distribution. In other words, having a lower median earnings relative to the mean is indicative of earnings being concentrated in relatively few hands higher up the distribution of earnings.

Figure 4.2: Lorenz curve (real monthly earnings, 2017)



Source: PALMS, author's calculations

Figure 4.2 illustrates the well-known Lorenz curve, which is a simple graphical representation of the distribution of income in a given society. With the population ordered from poorest to richest, the Lorenz curve shows the cumulative proportion of income received (on the y-axis) for each cumulative portion of the population (on the x-axis). If everyone were to receive the same income, then the Lorenz curve would be a straight line at 45 degrees – the 'line of equality'. The further away the Lorenz curve lies from the line of equality, the more unequally income is distributed.

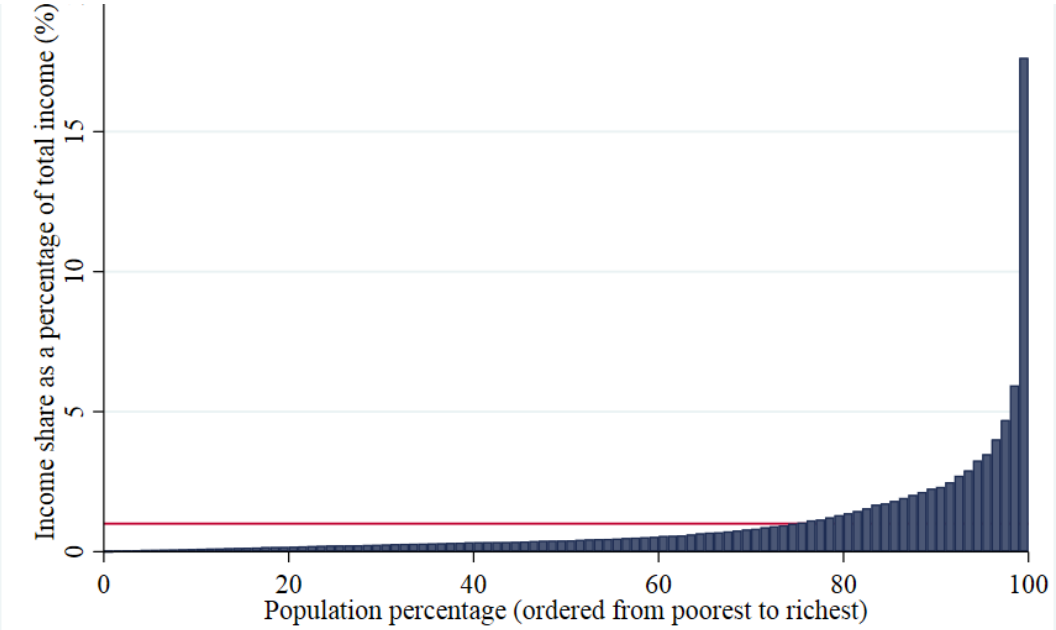
[18] This is when outliers in the data are excluded. This figure is likely to be understated due to the large amount of missing earnings data, particularly at the top end of the earnings distribution. For instance, Assouad, Chancel and Morgan (2018) estimated the average monthly pre-tax income in 2016 to be approximately R16000 (in real terms), although their estimates refer to overall income and not only wage income.

The Gini coefficient is closely related to the Lorenz curve and calculates the area between the line of equality and the Lorenz curve (i.e. the deviation from equality), divided by the area under the diagonal (i.e. the maximum possible departure from equality) (Van Der Berg, 2014). Relying on PALMS data, the Gini coefficient in 2017 is estimated at 0.62, when flagged outliers and missing earnings information are excluded from the sample. Although a Gini of 0.62 is still high, it is understated when compared to findings in other studies for a number of possible reasons. Due to the sensitive nature of income, however, rich or affluent individuals – those generally understood to be within the top decile of the income distribution – have a greater tendency to misreport, understate or refuse survey questions relating to their personal income, resulting in a number of missing earnings observations at the top-end of the distribution. To overcome this hurdle, researchers often need to use imputation methods, or draw on wider sets of data or both. Indeed, in studies that have used tax return data in conjunction with household survey data, the Gini coefficient has been estimated at 0.67 (Orthofer, 2016). This illustrates how drastically inequality statistics change depending on the underlying data and data cleaning procedures applied. Although a greater number of researchers are now incorporating tax data for more robust analyses of inequality, these data are not readily available to the public.

A further possible reason for the lower Gini found in this study is that income is limited to only income from the labour market. Thus, this narrow definition of income (i.e. only earnings) necessarily excludes other important sources of income from outside of the labour market, such as capital income or social grants. Since poor and affluent individuals do not obtain income from the same sources, different sources of income matter more or less depending on an individual's socio-economic status. For example, social grants are a critical source of income for poor households, while financial income derived from investments are more prevalent amongst affluent individuals (at the upper end of the income distribution). Overall, richer or more affluent individuals are able to draw on a greater variety of income sources and are thus not completely reliant on the labour market for their income.

The discussion so far highlights two important preliminary points relevant for policy makers that seek to ensure policies are well tailored enough to reduce inequality. Firstly, numerous complexities that arise when measuring income inequality need to be accounted for and this should be done in a transparent manner, such that underlying research methodologies used to measure inequality can be widely understood. For instance, the fact that earnings imputation methods in Stats SA's Quarterly Labour Force Surveys (which form part of PALMS) are not publicly available to researchers makes it difficult to overcome certain limitations (Kerr and Wittenberg, 2021). Overall, there is a need for greater harmonisation of data and data cleaning processes which cannot be achieved without data transparency. Secondly, policies aimed reducing inequality must be informed by specific drivers of inequality and target them. In this respect, income inequality has largely been targeted through cash transfers to the poor. However, earnings inequality is a major driver of income inequality, thus such policies do not target the drivers of inequality but rather the outcome thereof. It is thus better and more efficient for policies to tackle the underlying causes of inequality. In light of the fiscal strain the economy is currently undergoing, this is undoubtedly a more sustainable solution.

Figure 4.3: Distribution of monthly earnings (2017)



Source: PALMS, author's calculations

Investigating earnings inequality across the population using decile shares shows that, in 2017, the top 10 per cent of earners receive 49 per cent – almost half – of total monthly earnings in real terms. The bottom 50 per cent of the population (i.e. the poorest half of the population) received a share of only 11 per cent. Delineating share further into percentiles shows that the top 1 per cent's income share was about 17 per cent, shown in Figure 4.3.

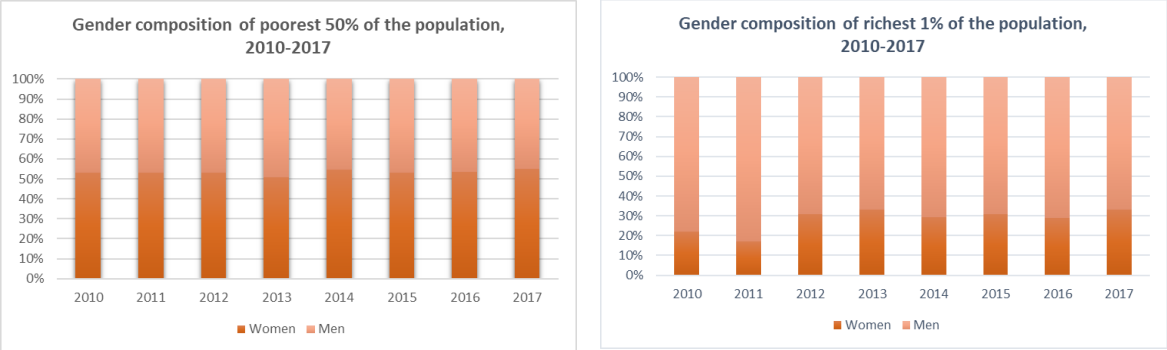
The red line in Figure 4.3 illustrates the line of equality, which is the share of labour market income received if everyone earned the same amount. The Rand amount of monthly income required to enter the top 10% of earners in this scenario is just above R20000, while to enter the top 1%, this amount is approximately R63 000 (in 2017 and before tax). Comparing these figures to those obtained from the World Inequality Database (WID) yields stark contrasts. The WID figures show that to enter the top 10% one needs a monthly income of about R29 000, while to enter the top 1 per cent, one's monthly income should exceed R150 000. This demonstrates the importance of drawing from a wider range of data sources to better capture the extent of earnings inequality, particularly at the top end of the income distribution where income data is often lacking (Hundenborn, Woolard, and Jellema, 2019). These disparities also illustrate the degree of arbitrariness that accompanies the use of thresholds to measure concepts such as affluence and richness.

4.6.3 Racial and gender dimensions of earnings inequality

Before investigating earnings trends in the post-apartheid era, it is necessary to briefly consider certain demographic characterstics of earnings inequality in South Africa. Disaggregating monthly earnings across genders reveals the gender wage gap. On average, in 2017, males

earned R10 164 per month, while females earned R7 274 – approximately 30 per cent less than their male counterparts. A growing body of literature has pointed to the fact that intersecting inequalities matter for a deeper understanding of why inequalities persist.

Figure 4.4: Gender compositions of the bottom 50% and top 1%, 2010-2017

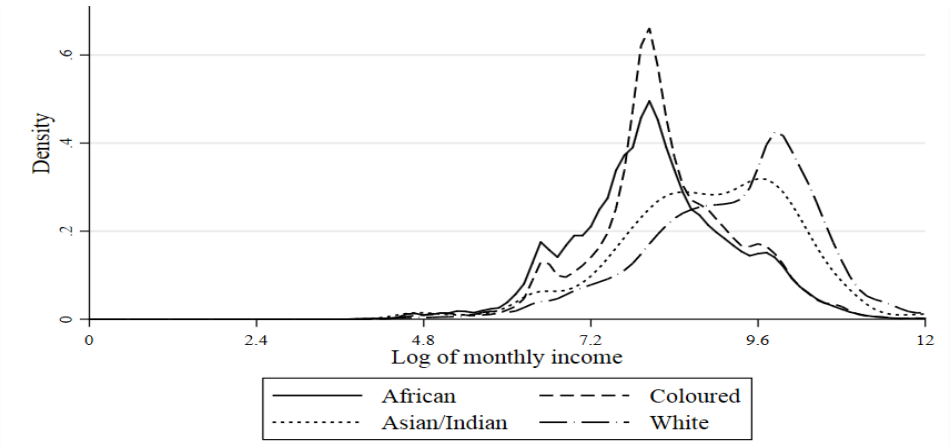


Source: PALMS, author's calculations

Figure 4.4 shows the proportion of men and women that make up the bottom 50 per cent, the top 10 per cent and the top 1 per cent of the income distribution, respectively. More women than men make up the poorest half of the population. Men make up a large portion of the top 10 per cent, and an even greater portion of the top 1 per cent. Between 2010 and 2017, the ratio of women to men has remained relatively stable for both the bottom 50 per cent and top 10 per cent. However, over the same period, more women have gradually started entering the top 1 per cent: women only made up about one fifth of the richest 1 per cent of the population in 2010, and this figure increased to just over 30 per cent in 2017.

Earnings inequality is still high across racial groups as well. Whites, who make up less than 10 per cent of the sample population, earn on average R20 420 per month; Asian/Indians earn on average R16 969 per month, and coloureds earn on average of R7 615 per month. The African population – about 70 per cent of the sample and by far the largest group – still have the lowest monthly earnings at R7 072 on average.

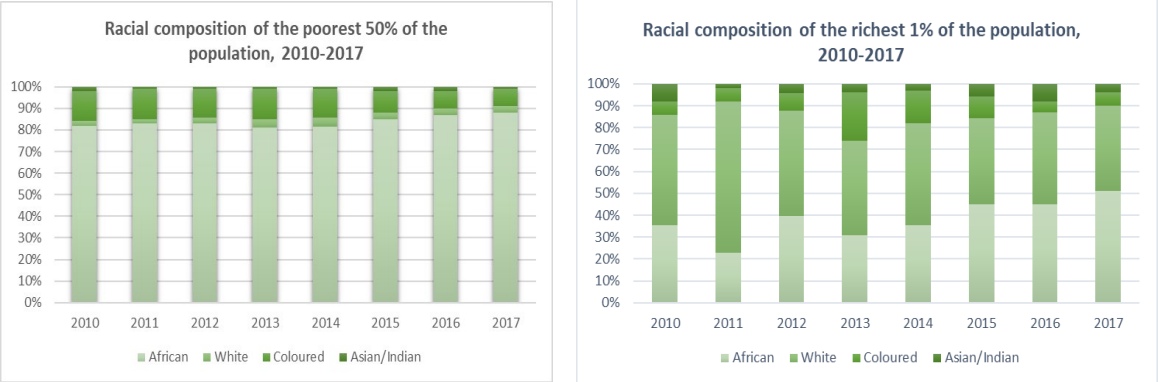
Figure 4.5: Distribution of log earnings disaggregated by race (2017)



Source: PALMS; Commission's calculations

Figure 4.5 illustrates the density curves for log of wage income, however now it is disaggragated by race. Using the log of income reduces the impact of outliers and compresses the distribution without losing original information. The fact that the density curves for whites and Asian/Indians lie to the right of Africans and coloureds means that the former groups earn much more, on average, than the latter groups. Figure 4.5 thus suggests that wage inequality in the South African labour market is still distinctly racialised.

Figure 4.6: Racial compositions of the bottom 50% and top 1%, 2010-2017



Source: PALMS, author's calculations

Figure 4.6 takes the racial composition of the income distribution into account. What is striking is that more than 80 per cent of the poorest half of the population is African, and that this figure has increased to almost 90 per cent between 2010 and 2017. In simple terms, more African workers have entered the bottom 50 per cent of the income distribution. The rise in the African population in the top 1 per cent can be interpreted as the rise in the "black elite" that has occurred since the end of apartheid. Although the fact that fewer white individuals are in the top 10 per cent and 1 per cent in 2017 compared to 2010 is an encouraging development, it must be remembered that whites make up a small portion of South African population - less than 10 per cent - while Africans make up over 70 per cent of individuals in this sample. Altogether these graphs illustrate how, almost three decades since the end of apartheid, both earnings inequality and affluence are still highly segregated along racial lines.

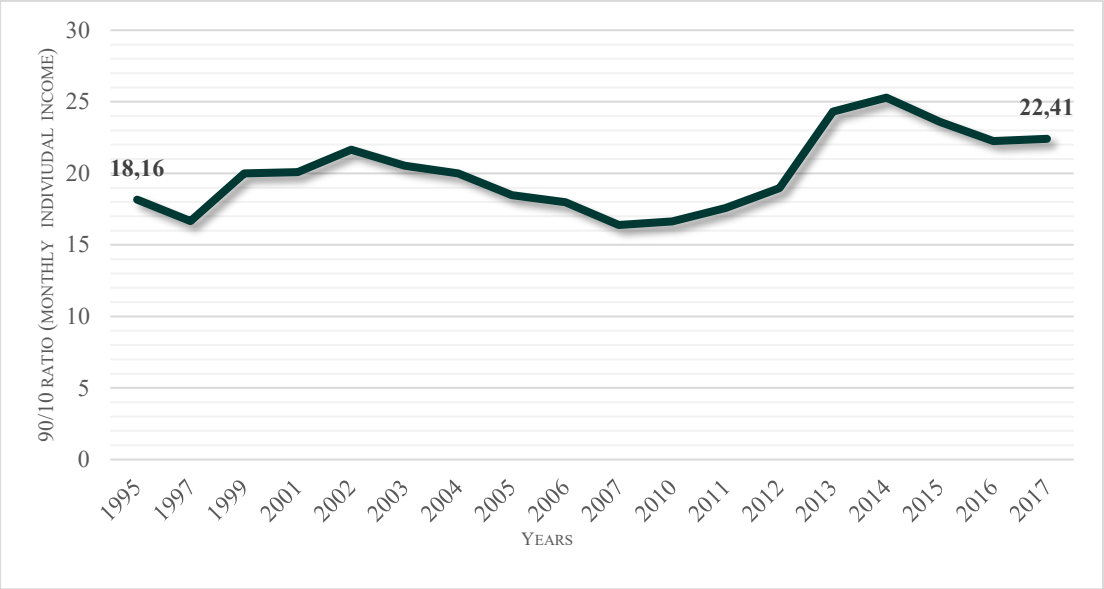
It is worth noting that earnings inequality also intersect across both racial and gender lines. For instance, African women earn the least on average, at R5 859 per month, while White men earn the most, at R22 912 per month. Interestingly, gender inequality is a persisting feature across different groups in the sample: on average, women earn at least 20 per cent less than men across all racial groups. Income differences across genders is most stark in the Asian/Indian group, where women earn approximately 35 per cent less than men, on average.

4.6.4 Post-apartheid trends in the distribution of earnings earnings

Figure 4.7 below displays the p90/p10 earnings ratio between 1995 and 1997. It essentially tells us how much richer the top decile is than the bottom decile over this time period. In 1995, the top decile was approximately 18 times richer than the bottom decile. By 2017, however,

the labour market income of the top decile was about 22 times greater than the income at the bottom decile. Thus, the upward trend shows that the earnings gap between the 10th and 90th percentiles has widened, suggesting that the "rich" have become relatively more affluent in post-apartheid South Africa. Compared to OECD countries, the palma ratio was estimated at 9.6 in 2015, that is, the top decile is approximately 9.6 times richer than the bottom decile in these countries – much less richer than the bottom decile compared to South Africa (OECD, 2015). Persistently high levels of inequality not only affect the social cohesion of society but is also detrimental to long-term economic growth (Stiglitz, 2012).

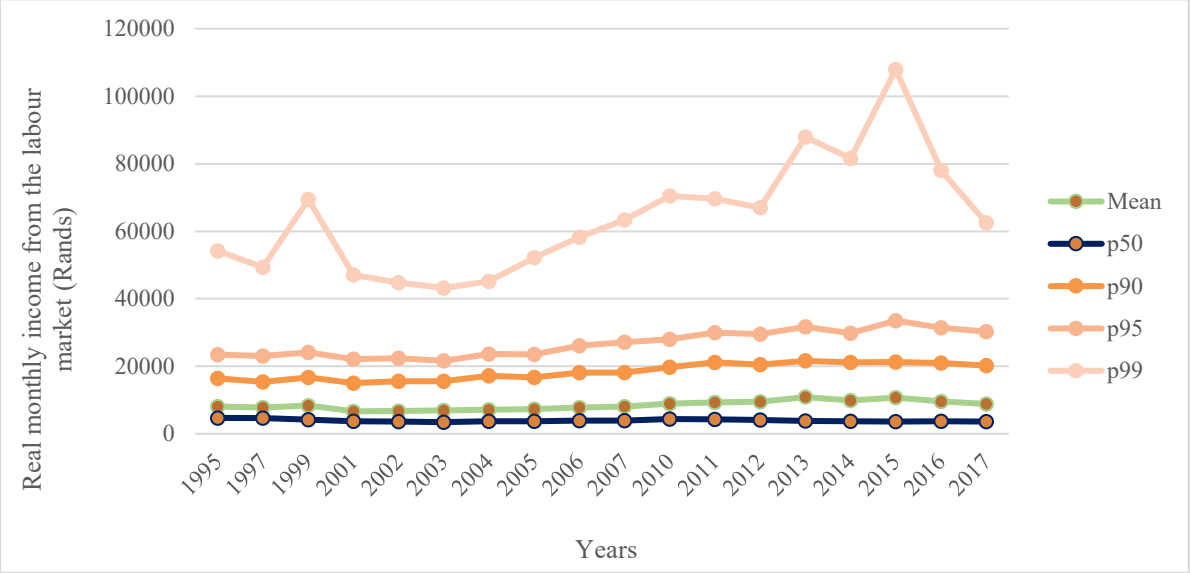
Figure 4.7: Increasing earnings inequality in the post-apartheid era, 1995-2017



Source: PALMS; Commission's calculations

When assessing inequality in a given country context, it has become increasingly popular for a number of reasons to focus on the top of the income distribution. Firstly, increases in the share of incomes at the top relative to the bottom contribute to unequal economic and political power structures; secondly, rapid growth in top incomes alongside low income growth of the poor and middle classes may raise the costs of living for *everyone*, leaving the poor and middle class behind (Concialdi, 2018). Thirdly, as has been witnessed in South Africa, high levels of inequality and income polarisation can contribute to social conflict and unrest. Finally, and importantly, measuring the incomes of the rich or more affluent members of society can provide information on the size of the tax base, thereby complementing the comprehensive analysis of socio-economic reforms, such as tax reforms.

Figure 4.8: Earnings stagnation and growth across income percentiles, 1995-2017



Source: PALMS, author's calculations

Figure 4.8 shows the trend in earnings at various percentiles between 1995 and 2017. Figure 4.8 suggests that the mean and median (p50) income from the labour market has remained relatively constant in the post-apartheid. A slight increase in the 90th percentile is noted, along with a slightly greater increase in income of the 95th percentile. Thus, wage growth appears to be slow and largely stagnant across most of the earnings distribution, apart from the top 1 per cent who saw substantial income gains. The 99th percentile (top 1 per cent) earnings growth clearly stands out, not only in Rand terms but also in its volatility over this period.

Figure 4.9: Year-on-year earnings growth of the top 1 per cent, 1995–2017

Source: PALMS, author's calculations

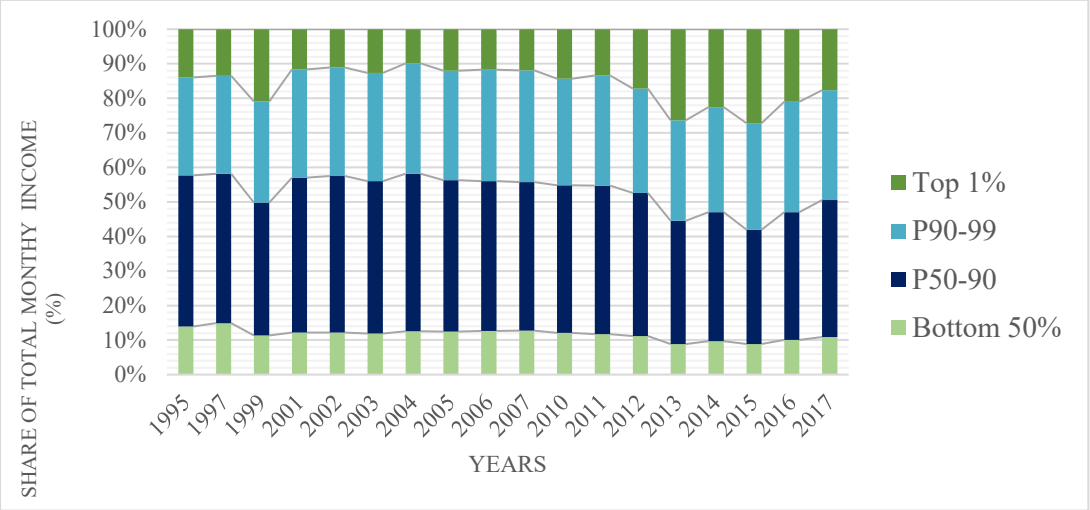
Figure 4.9 shows the volatile growth in labour market earnings of the 99th percentile in more detail The data shows a massive growth in earnings in 1997, followed by a substantial dip in 1999, after which wage growth was positive and relatively stable up until the start of the 2008/09 global financial crisis when growth started to decline. Figure 4.9 shows that after 2010,

wage growth of the top 1 per cent richest earners was extremely volatile, although one should exercise caution when interpreting these figures as they could be driven by changes in the underlying survey and imputation methods resulting from missing data points.

Evidence suggests that fiscal policy instruments alone are insufficient to overcome inequality in South Africa (Inchauste, Lustig, Maboshe, and Woolard, 2017). Studies have shown that even after income redistribution, income inequality remains unacceptably high (Maboshe and Woolard, 2018). While recent evidence shows that redistribution did cancel out some of the income losses of the poor, this was not sufficiently substantial to turn into income gains and did not mitigate the substantial rise in earnings at the top of the distribution.

A combination of low and stagnant wages and rising living costs reduces the purchasing power of low-income workers over time, constraining social upward mobility. Furthermore, evidence shows that even after fiscal redistribution in South Africa, income inequality remains stubbornly high (Maboshe and Woolard, 2018). This suggests that there is scope for further investigation into alternative policy measures to combat unequal wage growth and reduce inequality. Such policies should aim to be both growth enhancing and inequality reducing. One such policy initiative would be to focus on improving the integration of unskilled labour to offset the impact of the rise in low-wage, low-skill, precarious forms of work prevalent at the bottom of the income distribution.

Figure 4.10: Share of total income earned by income group, 1995–2017

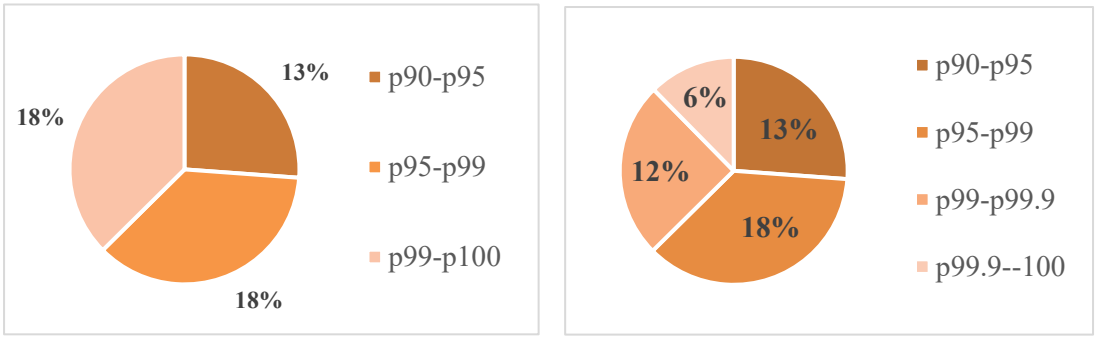


Source: PALMS; Commission's calculations

Figure 4.10 shows the distribution of earnings across income groups, expressed as a proportion of total monthly (real) earnings, between 1995 and 2017. The poorest half (bottom 50 per cent) of the population receives the smallest proportion of income from the labour market relative to other income groups. Figure 4.10 suggests that the poorest half of the population share of total income gradually decreased over the post-apartheid era from approximately 14 per cent in 1995, to 10.8 per cent in 2017.

The top 10 per cent's share of total income (excluding the top 1 per cent) appears to have remained relatively stable in the post-apartheid period but has actually increased from 28.4 per cent to 31.8 per cent. The share of the upper-middle class (p50-p90) has decreased notably from 43 per cent to 39 per cent. Over the same period, the top 1 per cent's share increased from approximately 14 per cent to almost 18 per cent. Even in times of economic downturn, it appears top incomes have growth disproportionately from the rest of the distribution. Understanding the evolution and dynamics of these income shares should inform policies aimed at reducing inequality. Overall, the bottom 90 per cent of population's earnings share (i.e. when the population ordered from poorest to richest) has decreased in the post-apartheid era.

Figure 4.11: How is total income shared within the top decile?



Source: PALMS; Commission's calculations

Taking a closer look at the distribution of income within the top decile, Figure 4.11 shows that the top 1 per cent of the richest South Africans takes homes the same amount of income than those in the p95-99 percentile. Figure 4.11 also shows that within the top 1 per cent, the top 0.1 per cent receives half of what those in the p99-p99.9 percentile take home, as a proportion of total income. This illustrates that income is very unequally distributed within the top decile. From these graphs, earnings tend to grow disproportionately greater the higher the distribution, suggesting varying degrees of affluence and richness.

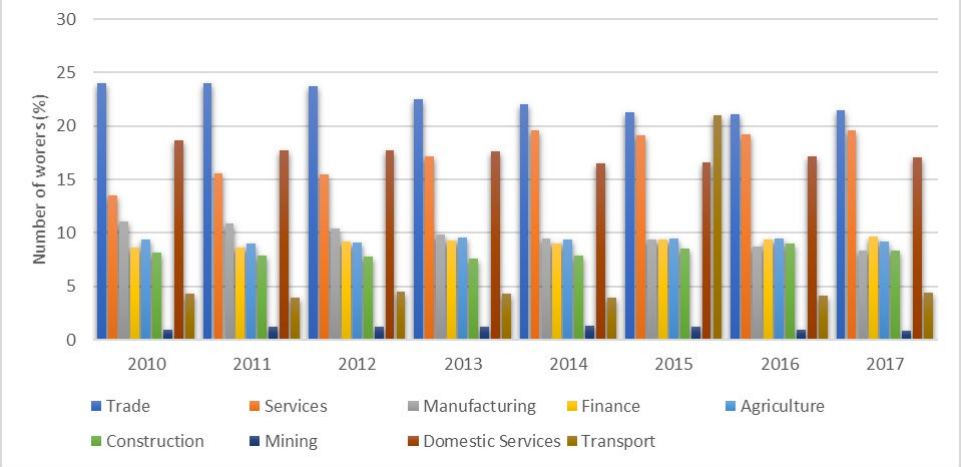
4.6.5 Earnings inequality, affluence and industry composition

Since the end of apartheid, when neoliberal-type economics policies were introduced, growth in the agricultural industry has largely stagnated and manufacturing has seen a decline. Significant employment losses in the agricultural sector can partly be explained by the labour market institutions, such as the imposition of minimum wage laws which increase the costs of labour and reduced the demand thereof (Bhorat, Kanbur, and Stanwix, 2014). The increase in the top 1 percentile shares in post-apartheid South Africa may be attributed to an increase in the supply of unskilled labour and the decline of industries that demand lower skills.

The dual structure of education in South Africa – whereby the majority of the population receive poor quality schooling, and a small affluent portion of society receive high quality schooling and have access to tertiary education – has led to a shortage of skilled labour and an excess of unskilled labour (Van Der Berg, 2014). Labour intensive industries, such as

agriculture and manufacturing, are important for absorbing excess unskilled labour (Bhorat and Khan, 2018). However, due to the changing nature of the structure of the labour market, there is insufficient demand to meet the supply of unskilled labour, resulting in a skills shortage, high levels of unemployment and increased wage and job polarisation in the labour market. This trend in income growth at the top of the distribution also reinforces the historical structures of inequality in South Africa that favoured the interests of a small elite. Even decades later, progress towards greater income equality has been elusive, despite macroeconomic policies promoting inclusive economic growth.

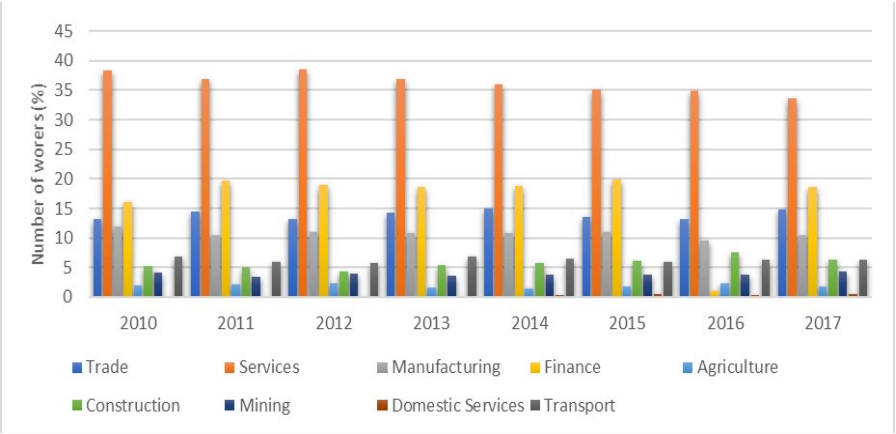
Figure 4.12: Industry composition of the bottom 50% of the income distribution, 2010–2017



Source: PALMS; Commission's calculations

Figure 4.12 shows the proportion of low-income workers across industries in South Africa. Between 2010 and 2017, trade and domestic services have been dominant industries of employment for the poorest half of the population. What is also notable is that more and more low-income workers have taken up employment in the services sector, which has grown substantially when measured in terms of number of employees.

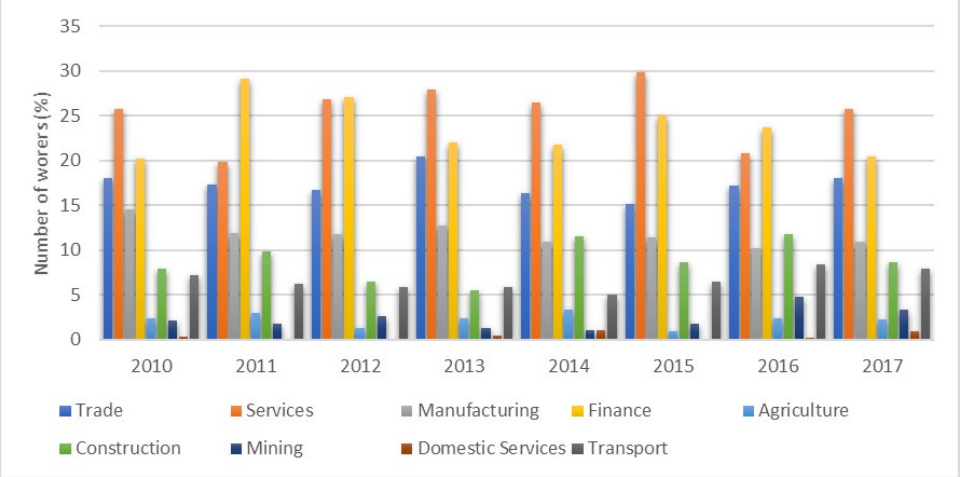
Figure 4.13: Industry compositions of the top 10% of the income distribution, 2010–2017



Source: PALMS; Commission's calculations

Figure 4.13 shows the industries that the more affluent portion of the population tend to work in. The top 10 per cent in particular are more likely to work in services compared to other industries. The figure also illustrates how the finance industry becomes more important the higher the income distribution: those in the top 10 per cent are approximately two times more likely to work in finance than those in the bottom half.

Figure 4.14: Industry compositions of the top 1% of the income distribution, 2010–2017



Source: PALMS; Commission's calculations

Once again, Figure 4.14 shows that in terms of industry composition, the richest 1 per cent of the population have worked mostly in services between 2010 and 2017. However, finance plays an even greater role now, and in 2011, 2012 and 2016 appears to have surpassed services in terms of number of affluent employees working in these industries. Interestingly, noticeably more workers in the top 1 per cent work in trade, compared to the top 10 per cent.

Given the smaller sample size used for the industry analysis, one should exercise caution when attempting to interpret these trends or reach any definitive conclusions. Nonetheless, three general observations can be noted: firstly, domestic services is an important source of employment for the poorest half of the population, and other studies have shown that this form of work is almost entirely undertaken by women; secondly, the services industry remains an important area of work throughout the income distribution, and thirdly, the finance industry tends to be geared to employ only the most affluent individuals in South Africa.

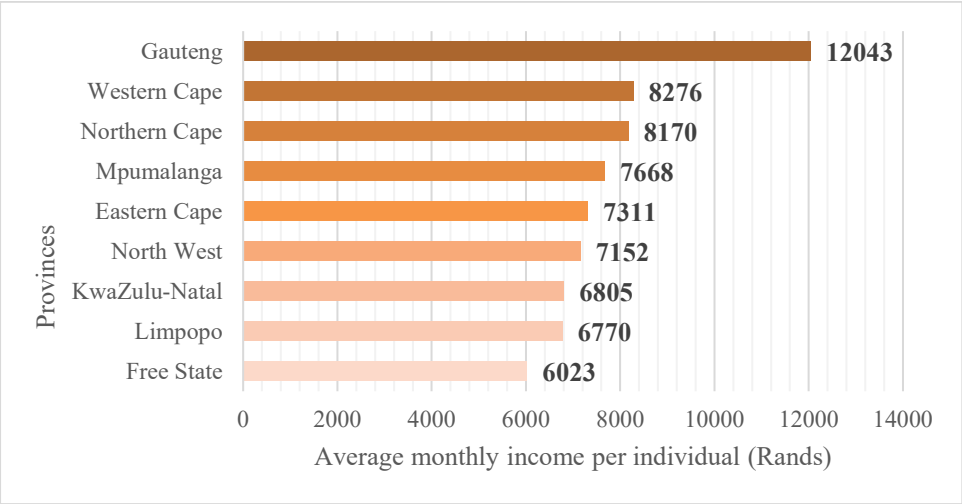
The above graphs should be viewed in light of the fact that in the post-apartheid era, the contribution of services to overall GDP has expanded rapidly compared to other sectors of the economy, from 34.4 per cent in 1994 to approximately 47 per cent in 2016 (Bhorat and Khan, 2018). Evidence shows that since 2001 most employment creation has been rooted in the growth of service jobs (Bhorat and Khan, 2018). The services sector is characterised by many low-wage jobs and relatively few skilled high-wage jobs, giving rise to increasing job polarisation between employees with different skillsets (Davis and van Seventer, 2020). Diverging growth patterns across sectors have predominantly been driven by global forces, such as increased international trade associated with globalisation, and the surge of labour-replacing technologies (i.e.

automation) that have reduced the demand for semi-skilled labour and increased the demand for skilled labour (Davis and van Seventer, 2020). Increased competition from abroad has contributed to the decline in manufacturing output as more and more jobs in the middle of the earnings distribution have disappeared (Bhorat and Rooney, 2017).

4.6.6 Earnings inequality across provinces

In order to view affluence through an intergovernmental lens, Figure 4.15 ranks the most affluent province to the least in terms of average monthly income earned in the labour market in 2017. The figure shows that Gauteng is the most affluent, followed by the Western Cape, Northern Cape, Mpumalanga, Eastern Cape, North West, KwaZulu-Natal, Limpopo, and Free State.

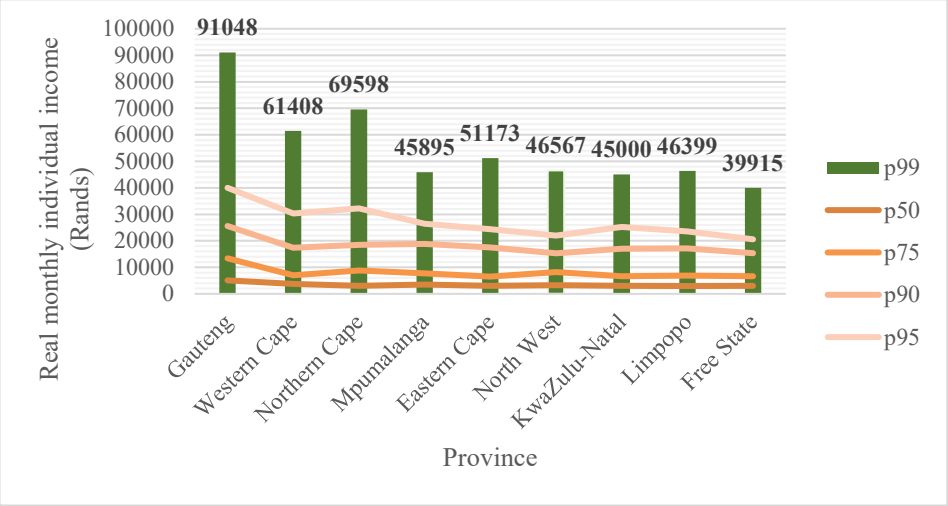
Figure 4.15: Provinces ranked from most to least affluent, 2017



Source: PALMS; Commission's calculations

Figure 4.16 below shows the large income disparities that exist between provinces in South Africa, particularly at the top of the income distribution. The median (p50), the 75th percentile and even the 90th percentile are relatively constant across provinces. The 95th percentile varies across provinces, but to a much lesser extent than the 99th percentile. The fact that what constitutes the top 1 per cent various tremendously depending on geographical location is an important limitation of using this positional approach as an overall measure of affluence. What is useful, however, is that it puts income inequality across provinces into greater perspective.

Figure 4.16: Earnings thresholds at various percentiles across provinces (rands), 2017



Source: PALMS; Commission's calculations

4.7 Conclusion

Globally, income inequality has increased since the 1980s across both developed and developing economies, albeit at different rates and to varying degrees. There is little evidence of this upward trend slowing down which raises concerns for sustained economic growth in the future, since high levels of inequality constrain aggregate economic performance. Inequality thus remains a key development challenge globally. In South Africa, persistently high levels of economic inequality, evident from the labour market, translate into power asymmetries that embed social exclusion and create social unrest, undermining sustainable economic growth and threatening our constitutional democracy. In order for economic growth to be inclusive and sustainable, widespread joblessness and inequality in wage growth must be prioritised in the policy agenda.

Taking into account demographic features of earnings inequality in South Africa, there is a small black elite that has started entering the top 1 per cent in the post-apartheid era – although given the size of the African population this is not reflective of the majority. In fact, there is evidence that in 2017, almost 90 per cent of the poorest half of the population is African. Although more women have started entering the top 1 per cent between 2010 and 2017 – which may imply some degree of social upward mobility at the top-end of the distribution – women still make up the majority of the poorest half of the population and only about one third of the top 1 per cent. Inequality and degrees of affluence are thus still highly segregated along racial and gender dimensions.

In South Africa, earnings inequality was already extremely high and persistent prior to the onset of the Covid-19 pandemic which caused severe disruptions in economic activity and resulted in record levels of unemployment. In 2017, almost half of all income earned in the labour market went to 10 per cent of the population, and this affluent portion's share of total income has increased since the end of apartheid, while the bulk of the population's income shares have decreased proportionately. This is concerning, especially in light of drastic inequalities that occur even within the top decile of earners, particularly wage inequality within the top 1 per cent. Evidence shows that wage growth has been predominantly slow and stagnant acoss most of the earnings distribution, with the

exception of the richest 1 per cent of the South African working age population, who have experienced substantial income gains in the post-apartheid period. This suggests that the labour market in South Africa is geared towards rewarding more affluent individuals with higher paying jobs that demand a more specialised skillset. For instance, the growth in the services sector, associated with globalisation and, in particular, financialisation, has been accompanied with a rise in the finance industry and a decline in manufacturing.

Evidence shows that low-skilled work, such as domestic and other services, is an important source of employment for the poorest half of the population (made up predominantly of women), and that the finance industry tends to be geared to employ only the most affluent individuals in South Africa. Overall, the brief analysis into industries that employ workers across the earnings distribution reveals a clear rise in the importance of service jobs. However, further investigation into industries that drive job creation is needed to uncover where investment is most needed to absorb low-skilled, less affluent workers who are not suited to high-paying service jobs, such as those in the business and finance industries. The rise of service jobs that are low-waged and precarious in nature is problematic for increasing wage growth at the bottom and middle of the earnings distribution and undermines social upward mobility. In this regard, the promotion of decent work, captured in SDG 8, is closely related with the issue of inequality and the need to foster more inclusive growth. It is therefore important that policies aimed at reducing inequality are informed by the interconnected relationship between inequality, employment and job quality.

Amidst a decade of poor growth performance, increasing fiscal pressures and global economic shocks impacting negatively on the domestic economy, it is now more important than ever that policies prioritise reducing wage inequality through fostering employment and greater inclusivity in the labour market. According to much evidence from the literature, inequality in the labour market is a key driver of overall inequality in South Africa. The ability of the state to foster inclusive growth hinges on its ability to effect structural changes in the domestic labour market, which impact positively on both employment outcomes and wage growth. Importantly, if reducing inequality is to be taken seriously, wage growth cannot continue to be unequal across the earnings distribution. This is especially critical in light of rising fuel prices and increasing living costs, which tend to erode the purchasing power of all but a few affluent individuals at the top of the distribution whose income growth can keep up with inflation. If the rest of the less affluent population keeps getting left behind, the historical structures of inequality in South Africa that favour the interests of a small elite will be perpetually reinforced. There is thus a need for carefully tailored, structural policies that are both growth enhancing and inequality reducing. However, in order for policy to be well targeted, further understanding is needed on the factors that drive income growth across the earnings distribution, particularly amongst earners at the very top of the distribution.

4.8 Recommendations

The Commission makes the following recommendations:

1. *Policies aimed at reducing inequality should, as a point of departure, be targeted at reducing inequality in the labour-market. This requires policies that enable large-scale job creation and more equitable wage growth across different sectors of the economy which, in turn, may require greater investment into labour-intensive manufacturing industries that are well-equipped to absorb low-skilled workers into the labour market.*

Earnings inequality is an important driver of overall inequality in South Africa, which has remained unacceptably high in the post-apartheid era. This not only constrains South Africa's growth potential but could also undermine fiscal credibility in the long run. Policies currently aimed at redistributing income are insufficient to reduce income inequality foster inclusive economic growth. Given than inequality in earnings remains to be an important driver of overall income inequality, policy measures to reduce inequality should support activity in the labour-market. Such policies include but are not limited to a) strengthening linkages between the labour-market and social transfer system (creating employment incentives), (b) revising labour regulations that decentivise employment, and (c) reducing barriers to self-employment, in line with President Ramaphosa's State of the Nation Address (SONA) 2022 which mentions regulatory reform to cut red tape and adopt measures that assist small businesses.

Importantly, given the skewed industrial structure of the South African economy – with the growth in service sector jobs only benefiting relatively few top earners in the financial industry – fostering more equitable wage growth requires both supply and demand side considerations. From the supply side, the workforce needs to be upskilled through ongoing training and education. However, upskilling the workforce can only be realised in the long-term. Thus greater focus could be placed on demand side considerations, i.e. how to increase the demand for low-skilled workers. This could be achieved by attracting investment into industries that demand more labour over capital, and which thereby make South Africa's economy less capital intensive. In this context, promoting growth in labour-intensive manufacturing appears to be an appropriate solution. The design of such policies necessitate close collaboration between government departments so that mechanisms to reduce inequality are better integrated into the broader policy agenda. This is particularly important given that policies aimed at reducing inequality need to be sensitive to intersecting vulnerabilities along racial and gender dimensions.

2. *Statistics South Africa should increase its efforts to increase the transparency of data and harmonisation of datasets to allow for more comparable, accessible and reliable income statistics. Transparency should extend to data collection, data cleaning and imputation methods applied.*

Data transparency and accessibility are of utmost importance for evidence-based policy making and are currently lacking when it comes to understanding income inequality in South Africa, especially income derived from the labour-market. Income statistics vary drastically depending on the type of data sources used as well as how income is defined. PALMS provides important labour income data at the individual level, but we cannot with accuracy measure tops incomes due to missing data, or unknown imputations made by Stats SA. This is particularly the case for PALMS and creates a major limitation to gaining a better, more comprehensive understanding of the extent of earnings inequality and its underlying dynamics in the South African labour market. The latter information is necessary to inform fiscal policies, particularly those of a redistributive nature.

4.9 References

Alvaredo, F., Chancel, L., Piketty, T., Saez, E., and Zucman, G. 2018. *World Inequality Report.* World Inequality Lab.

Assouad, L., Chancel, L. and Morgan, M. 2018. Extreme Inequality: Evidence from Brazil, India, the Middle East and South Africa. *American Economic Association*, 108:119-123.

Atkinson, A.B. and Piketty, T. 2010. *Top Incomes: A Global Perspective*. Oxford University Press.

Bhorat, H., and Khan, S. 2018. Structural Change and Patterns of Inequality in the South African Labour Market. Development Policy Research Unit.

Bhorat, H., Lilenstein, K., Oosthuizen, M., and Thornton, A. 2020. Wage polarization in a high-inequality emerging economy: The case of South Africa. UNU-WIDER.

Bhorat, H. and Rooney, C. 2017. State of Manufacturing in South Africa. *Development Policy Research Unit.*

Concialdi, P. 2018. What does it mean to be rich? Some conceptual and empirial issues. *European Journal of Social Security*, 3-20.

Danzinger, S., Gottschalk, P., and Smolensky, E. 1989. How the Rich Have Fared, 1973-87. *American Economic Review*, 310-314.

Davis, R. and van Seventer, D. 2020. Labour-market Polarization in South Africa: A Decomposition Analysis. *UNU-WIDER Working Paper Series.*

Financial and Fiscal Commission. 2021. Annual Submission of the Division of Revenue 2022-2023.

Foster, J., Seth, S., Lokshin, M., and Sajaia, Z. 2013. A Unified Approach to Measuring Poverty and Inequality: Theory and Practice. The World Bank.

Franzini, M., Granaglia, E. and Raitano, M. 2016. Extreme Inequalities in Contemporary Capitalism. *Springer.*

Hundenborn, J., Woolard, I., and Jellema, J. 2019. *The effect of top incomes on inequality in South Africa.* International Tax and Public Finance.

Inchauste, G., Lustig, N., Maboshe, M., and Woolard, I. 2017. *The ditributional impact of fiscal policy in South Africa.* Policy Research Working Paper 7194.

Kerr, A., and Wittenberg, M. 2019. A guide to version 3.3 of the Post-Apartheid Labour Market Series. PALMS.

Maboshe, M., and Woolard, I. 2018. Revisiting the Impact of Direct Taxes and Transfers on Poverty and Inequality in South Africa. WIDER Working Paper 2018/79.

Medeiros, M., and Ferreira de Souza, P. H. 2014. *IRLE Working Paper Series*.

National Treasury. 2021. Medium Term Budget Policy Statement.

Organisation for Economic Cooperation and Development (OECD). 2015. *Income Inequality: The Gap between the Rich and the Poor.*

Orthofer, A. 2016. Wealth inequality in South Africa: Evidence from survey and tax data. *REDI3x3*.

Ramaphosa. 2020. Economic Reconstruction and Recovery Plan.

Saczewska-Piotrowska, A. 2018. Territorial Division and Income Affluence - Analysis using Two-Level Logit Models. *Econometrics.*

Shifa, M., and Ranchhod, V. 2019. *Handbook on Inequality Measurement for Country Studies*. African Centre of Excellence for Inequality Research.

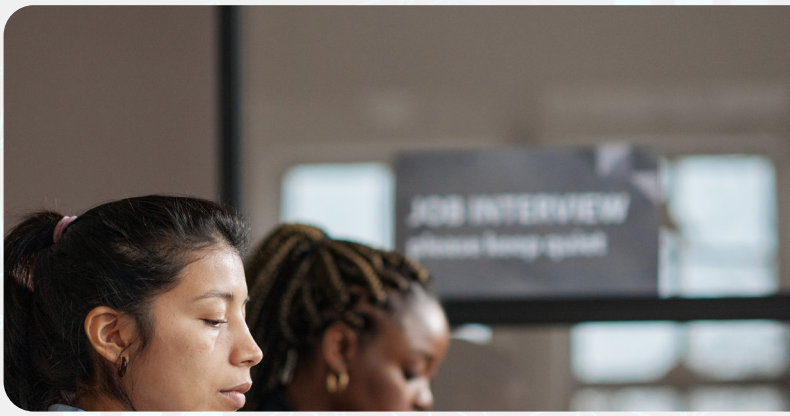
Statistics South Africa. 2019. Inequality Trends in South Africa: A Multidimensional Diagnostic of Inequality.

Statistics South Africa. 2019. Inequality Trends in South Africa: A Multidimensional Diagnostic of Inequality. *Statistics South Africa*.

Stiglitz, J. 2012. *The Price of Inequality.* W.W. Norton and Company.

Van der Berg, S. 2014. Inequality, poverty and prospects for redistribution. *Development Southern Africa*, 197-218.

CHAPTER 5



The effects of social grants on household behaviour and expenditure patterns

Chapter 5: The effects of social grants on household behaviour and expenditure patterns

Chen W. Tseng and Lauren Stevens

5.1 Introduction

The Bill of Rights is the cornerstone of democracy in South Africa. It encapsulates the rights of all citizens and emphasises democratic values of equality, human dignity and freedom. Social grants constitute one channel through which the Bill of Rights can be achieved. South Africa's social grant system has expanded immensely since 1994, yet a large proportion of the country is still impoverished. Moreover, grants are often the primary source of income in low-income households. The effectiveness of grant systems are considered on the grounds of poverty and inequality reduction, but rarely on applied methods such as consumption.

The decisions of individuals and households on how they use their incomes affect their ability to participate in the economy. This research will evaluate whether social grants facilitate the inclusion of disenfranchised individuals into the economy and how it affects the fiscal envelope. Understanding the history and nature of the social grant system is paramount to conceptualising the current state. The literature review establishes the timeline of the South African social security network and documents all commissions that have investigated the network over time. A section on how social grants affect consumption and enhance livelihoods is included in the literature review. This paper discusses the quantum of the social grants budget as well as the current nature and distribution of grants. Furthermore, research is conducted to determine whether social grants bring stability to incomes and consumption as well as whether grant recipients purchase goods conducive to economic prosperity.

The research concludes with recommendations to improve the current social grant programme by considering a more efficient grant allocation amount, integrating social development policies with grants, and encouraging an inquiry into the existing social grant system.

5.2 Literature review

The literature review spans the history of the South African social grant system, inquiries made by the Department of Social Development post-Apartheid to improve the system, and how social grants affect poverty, inequality and consumption.

5.2.1 History of South African social grants

Although only enshrined in the Constitution of 1996, social assistance programmes have been in existence since 1919. The first four social assistance programmes implemented by the Apartheid government were the Military Pensions (1919), Social Pensions (1928), Pensions for War Veterans (1941) and Family Allowances for Large, Poor Families (1947) (Van der Berg et al, 2010). These programmes were widely discriminatory and not universal in any manner.

The first social grant implemented in South Africa was the Military Pensions in 1919. Military pensions were imposed to benefit the soldiers of World War I (Vanderstraeten, 2014). During the 1920s, the "poor white" problem was prominent. Policymakers realised that intervention through social policy would be the primary response to alleviate poverty. Following the recommendations of the 1926 Commission on Old Age Pensions and National Insurance, the government implemented the Social Pensions Grant in 1928, which allowed white and coloured individuals over the age of 65 to receive a state-funded pension. These pensions were subject to a stringent means test. The test evaluated the individual's income from remuneration, the remuneration of their spouse, and the value of their property. The amount of social pension received per applicant depended on their financial level as the aim of the programme was to top up recipients' incomes to reach a poverty line (Devereux, 2007). The rationale of "civilised labour" was used to exclude African individuals from the social pension programme. Policy makers argued that individuals living in relatively urban and modern areas had adjusted their lifestyles and consumption behaviour accordingly. This narrative largely excluded the black population. Policy makers considered African individuals to be rural. Therefore, they did not require additional assistance to maintain their consumption levels and were excluded from the programme (Van der Berg, 1998).

The universality of social assistance among South Africans took a significant leap forward by implementing the Pension for War Veterans in 1941. The pension was delivered to all veterans of World War II. This included African individuals for the first time. Although the benefit received was well less than that received by white and coloured war veterans, the government catered for African veterans and their dependants for the first time (Seekings, 2000). The Children Protection Act of 1913 was a fundamental cog in initiating the State Maintenance Grant (SMG) of 1947. The SMG was intended to provide state-funded financial support to large, low-income families. The programme was still vastly discriminatory as it initially only included white households but was later extended to coloured and Indian families (CASE, 2000). Unfortunately, the SMG programme did not maintain the universal inclusion pace of the Pension for War Veterans programme. Nevertheless, its success in reducing poverty inspired a new universally inclusive child support grant.

5.2.2 Post-apartheid enquiries regarding social welfare

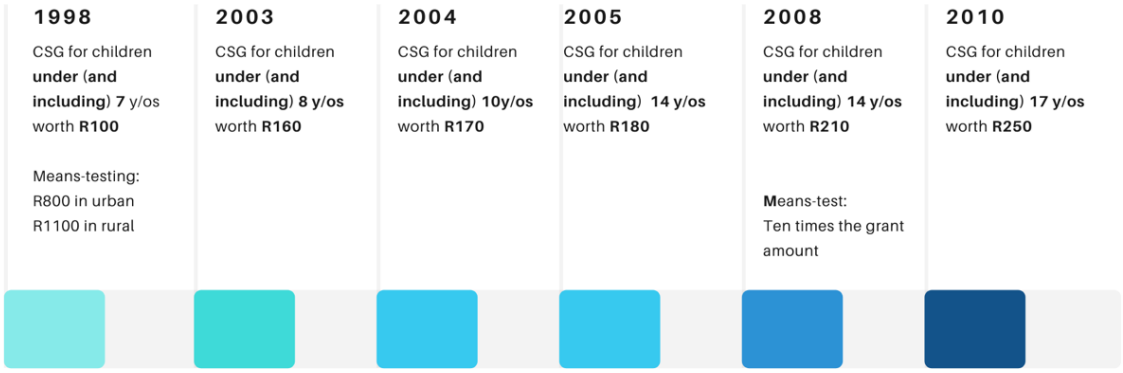
5.2.2.1 The Lund Committee and the Child Support Grant

In 1996, the Lund Committee was established to investigate the current child welfare system under the state maintenance grant (SMG). It was tasked to investigate the possibility of increasing parental support through a maintenance system, explore alternative poverty-alleviating strategies instead of the sole reliance on social security, and identify methods to optimally target children and families in need (Lund, 2008). The main recommendation of the Lund Committee was that the existing SMG be replaced with a child support grant (CSG). This approach reduced the fiscal burden on the state as the CSGs was lower in monetary value than the SMGs, but provided more extensive social welfare benefits and targeted more disadvantaged children, particularly those living in informal settlements and rural areas (CASE, 2000). The CSG was introduced in April 1998 to all children aged seven and below with significant conditions for pay out. These conditions included passing a means test, holding a valid identity document and birth certificate of the child for whom the grant was intended, the child's clinic card proving immunisation, and stipulating to primary caregivers that they should participate in income-generating programmes (CASE, 2000).

The CSG is intended to be a universal grant for all children who require assistance. As stipulated in the Constitution, all persons under the age of 18 are considered children. Limited fiscal scope and a growing grant base resulted in a trade off between the size of the grant and the number of recipients the state could accommodate (Triegaardt, 2005). Thus, the initial age limit of seven and under had to be adjusted to achieve this mandate in steps.

Finally, the objective of including all socio-economically vulnerable children in the CSG programme was achieved in 2010. The initial CSG was R100 per child under seven in 1998. Five years later, children under eight were included in the system, with the grant increasing by R60 over the period. In 2004, a R10 increase in the monthly grant was allowed with additional coverage for children ten years old and younger. By 2005, the most extensive coverage step since implementation occurred as children 14 years old and younger became eligible for the R180 grant. The means test level remained constant for the decade preceding the CSG rollout. Therefore, the Department of Social Development, therefore decided to increase the means-test to ten times the grant amount, irrespective of the type of area in which the applicant resided. In 2010, all children – aged 0 to their last month of being 17 – became eligible for the CSG (Eyal and Burns, 2019).

Figure 5.1: Timeline of the universality of the CSG



Source: Commission's illustration adapted from Eyal and Burns, 2019:216

This added eligibility among recipients, and the higher means test allowed more socio-economically vulnerable children to be included, increasing grant uptake and favourable labour market outcomes. When observing the effect of the CSG on female labour market participation, recipients of the CSG are more likely to participate in the labour force and less likely to be unemployed (Eyal and Woolard, 2011). The recommendations of the Lund Committee have had a long-lasting impact on the social welfare system, especially concerning children. In a vulnerable society such as South Africa, social assistance is required to mitigate the losses experienced in the labour and goods market. Therefore, another committee was established to comprehensively examine the social assistance framework in its entirety.

5.2.2.2 The Taylor Committee and the Basic Income Grant

The government established the Taylor Committee in 2002 to provide recommendations on an integrated and comprehensive social security system in South Africa. The committee differentiated the total social welfare system into three spheres: social assistance, which contains all grants provided to citizens; social insurance, which consists of the Unemployment Insurance Fund (UIF), Workman's Compensation Fund and the Road Accident Fund (RAF); and informal insurance, which categorises all cash-in-kind transfers. The Commission's main finding was that the lack of appropriate policy to address income poverty creates vast limitations to developing socioeconomic programmes in South Africa. The committee therefore, recommended the implementation of a Basic Income Grant (BIG) that is large enough to supplement the incomes of unemployed individuals receiving insufficient or no income. The BIG is intended to empower individuals to the point where they can accept high-risk, high-earning opportunities to break their current cycle of poverty. This is required to propel South Africans out of poverty and stimulate economic growth (Taylor Commission, 2002).

Although the recommendation of the BIG was not initially accepted, there has been an overwhelming demand for the implementation of a BIG given the current state of the economy and gaps in the social assistance system since the COVID-19 pandemic. Due to the demand, the government has tasked departments to investigate the feasibility of the BIG in the current

economic environment. An expert 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 BIG options for South Africa. The panel concluded that income support in a basic income support grant is the most efficient and swiftest method to assist 18- to 59-year-old South Africans living in extreme poverty. The expert panel recommends that a targeted BIG be implemented in phases to reduce pressure on the fiscus, while alleviating poverty. The panel advises that the BIG's financing occurs through the various tax streams available to the government (Department of Social Development, 2021). The National Economic Development and Labour Council (Nedlac) supports the recommendation of a targeted BIG to reduce the costs and funding requirements of the policy in a feasibility report of its own. The Nedlac report also notes that if funding is obtained from the reallocation of public expenditure, there will be trade offs as spending on health, social development, and education accounts for 56% of current government expenditure (Deloitte and Touche South Africa, 2021).

5.2.3 The World Bank social assistance programs and systems review

The World Bank released a South African social assistance programmes and systems review in October 2021. The review notes the vastly unequal nature of the country as the economy is considered upper-middle-income. In contrast, the persistent developmental problems present in the economy are similar to lower-income economies. South Africa's social assistance network serves as an extensive socio-economic intervention in addressing deprivation. The review finds that the social assistance programme serves as a substitute for inclusivity and provides relief against structural issues such as chronic poverty and unemployment. The World Bank recognises that social assistance programmes will always have room for improvement if poverty is present in the country. The review's primary recommendations focus on the financial feasibility of broader reforms and utilising existing programmes as low-hanging fruits to maximise policy outcomes without additional spending.

5.2.4 Changes in consumption, poverty and inequality due to social grant receipt

South Africa's social grant system reduces poverty and inequality among qualifying recipients tremendously, while eradicating destitution among vulnerable households. The additional income provided by social grants improves health and education, and increases savings and investment in productive assets for recipients.

Significant decreases in poverty and inequality are noted to substantiate these efficiency claims, including improved levels of education and nutrition among recipients (Samson, et al., 2004). Social grants correlate with improved nutrition levels and reduced morbidity, stunting, and wasting among recipients. The additional income allows for increased quantity and quality of food consumption compared to that enjoyed by non-recipients (Gertler and Boyce, 2001). These results are consistent for CSG and Older Persons' Grant (OPG) recipients (Delany et al, 2008; Case and Deaton, 1998). Healthier students and individuals are more productive. Therefore, social grants impact on the immediate needs of recipients and households and have a sustained impact on the

socio-economic development of the household. Adequate nutrition is pertinent to young children's cognitive and physical development; thus, the social costs of malnutrition among children are long-lasting and much larger than the fiscal costs to the South African economy (Neves et al, 2009). Decreased productivity attributed to malnutrition also affects the economic output. Studies from low-income countries in Asia estimate that gross domestic product experiences a two to four percent decline due to malnutrition (Horton, 1999; Food and Agricultural Organisation, 2002).

Notably, social grants increase investment in health and education due to improved nutrition. School fees and uniforms are the second-highest expenditure item among CSG recipients, apart from food (Delany et al, 2008). Moreover, this phenomenon substantiates claims that social assistance improves education among recipients, which transcends to long-term human capital investments. Empirical international evidence suggests that social assistance improves physical capital investment as households are more likely to improve their living conditions and invest in better housing – especially among rural recipients. Recipients are also more likely to invest in smallholding farming opportunities (Martinez, 2005). These outcomes are not uniform among all recipients. The pooling of grant income to household income and the gender of the grant recipient are crucial to achieving the positive associated welfare outcomes. The pooling of family income that include grant income is more likely to improve welfare. Increasing the budget capacity of households with social assistance will assist in long-term decision-making that will enhance welfare substantially (Delany et al, 2008; Case, 2001). On the other hand, female grant recipients are associated with higher children's welfare outcomes when compared to male grant recipients (Lund, 2002).

Unfortunately, empirical research does not prove that social assistance programmes always result in economic growth. Critically, there is no evidence that it impedes it either (Bourguignon, 2004). Perotti (1992) suggests no statistically significant correlation between social assistance programmes and economic growth, while research conducted by the Organisation for Economic Co-operation and Development (OECD) in 2001 offers opposing results. The OECD finds positive and statistically significant correlations between social grants and economic growth – but this is limited to specific grants (Arjona et al, 2001). Ultimately, social grants enable recipients to participate in the economy and purchase additional consumables and investment opportunities that they could not afford otherwise afford. The receipt of social grants serves a guaranteed level of income that assists with intertemporal changes in consumption due to economic shocks, such as unexpected job losses or steep price increases in staple foods. The stability of household consumption allows individuals to actively seek employment in the labour market as the fear of not meeting the minimum consumption needs of the household is offset. Therefore, the South African social grant system facilitates the movement of discouraged and previously economically inactive individuals into the labour market (Kingdon and Knight, 2000; Keswell, 2004). If the increased participation in the labour market is successful, individuals will experience less poverty and increased consumption of productive assets and goods.

Using a pseudo panel dataset from the 2001, 2002 and 2003 South African Labour Force Surveys of Statistics South Africa, Neves et al. (2009) observed the effects of social grants on the financial activity of recipients. The research found that social grant recipients experienced increased savings

from 2001. Social grant recipients are more likely to save their money in bank accounts and stokvels than non-recipients. On the contrary, non-recipients are more likely to own higher interest-earning investments such as retirement annuities and unit trusts. The authors also noted that grant recipients are less likely to borrow and secure credit. The paper does not control the income level of recipients and non-recipients; therefore, no casual results are inferred. Nonetheless, the research supports the concept of increased savings due to social assistance among recipients.

5.3 Problem statement and research questions

This research report addresses the following problem statement: Social grants may not effectively protect the consumption of individuals that are the most socioeconomically vulnerable. To reach a substantive conclusion, the problem statement will be examined through three research questions:

- What is the macro-fiscal and financial impact of social grants over time?
- What is the trend of consumption of individuals by socioeconomic status?
- Do social grants bring stability to consumption behaviour?

5.3.1 Research aims and objectives

5.3.1.1 Research aim

This project aims to substantiate, at the individual level, the impact of social grants on the consumption of recipients' efficacy of social grants. The effectiveness of social assistance programmes is often graded on the aggregated effects on overall poverty and inequality but not on how it affects the socioeconomic ability of the individual to participate in the economy. This research project will evaluate if social grants facilitate the inclusion of disenfranchised individuals into the economy.

5.3.1.2 Research objectives

The research project has the following objectives:

- Identify the financial and fiscal impacts of social grants on the national budget
- Measure the trend of consumption of individuals by recipient status over time
- Identify the impact of social grant receipt on the consumption of social grant recipients

5.4 Research methodology and data

As this research paper studies changes in income at the household and individual level over time, the most appropriate panel dataset available is the National Income Dynamic Survey (NIDS). The NIDS dataset was initiated in 2008 with a sample of 28 000 individuals in 7 300 households. It was the first individual, longitudinal and nationally representative household survey in South Africa that collects data biannually. The biannual data is categorised into waves. The first subsample of data is noted as Wave 1, which occured in 2008, and the latest wave, Wave 5, occurred in 2017. The survey questions collected include a range of demographic and socioeconomic variables that are useful to this study. Waves 1 to 5 will be used in econometric estimation. Data from the South African Social Security Agency (SASSA) describes the current nature of social grants and their distribution among recipients.

5.4.1 Research methodology

The methodology used to achieve the aims of this research will encompass descriptive statistics and econometric modelling. The descriptive section investigates the changes in the number of social grant recipients from 2020 to 2021, the latest distribution of social grants within the SASSA network and the macro-fiscal impact of social grants since 2011.

The CSG is the largest in the system and supports more than 60% of all South African children. Therefore, the CSG is the only grant considered during estimation. A difference-in-difference analysis is assessed by observing how the consumption patterns change over the panel for individuals with and without a CSG. The actual effect of the implementation of social grants is calculated as the difference in consumption of the grant recipients (CSG Consumption), before and after the execution, subtracted from the difference in consumption by non-grant recipients (NonCSGConsumption), before and after the implementation. The actual effect is illustrated by Equation 5.1. Time t describes the policy implementation period, while t-1 describes the period before, and t+1 notes the period after implementation.

Equation 5.1:

$$Actual\ effect = (CSGConsumption_{t+1} - CSGConsumption_{t-1}) - (NonCSGConsumption_{t+1} - NonCSGConsumption_{t-1})$$

Total consumption is calculated by totalling all expenditures, including utilities, connectivity, sin products[19], transport expenses, and healthcare and education. Consumption baskets are not weighted, but rather a total of all personal spending is calculated to determine how consumption spending differs by income level.

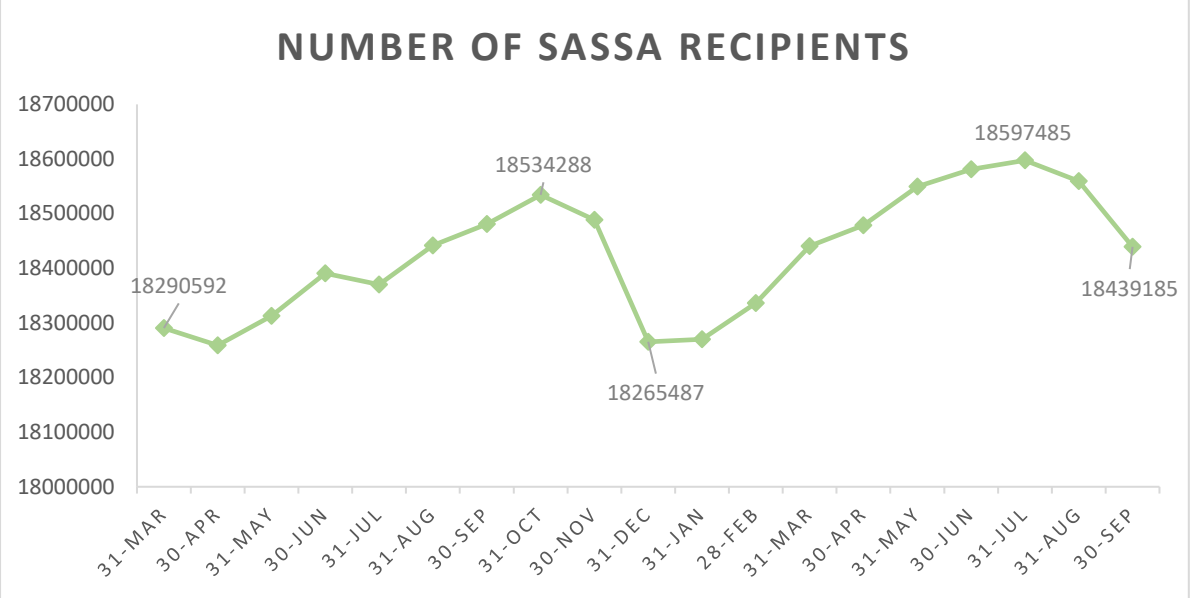
[19] Sin products are goods considered harmful to health, such as alcohol and tobacco.

5.5 Results

5.5.1 Financial and fiscal impacts on the national budget

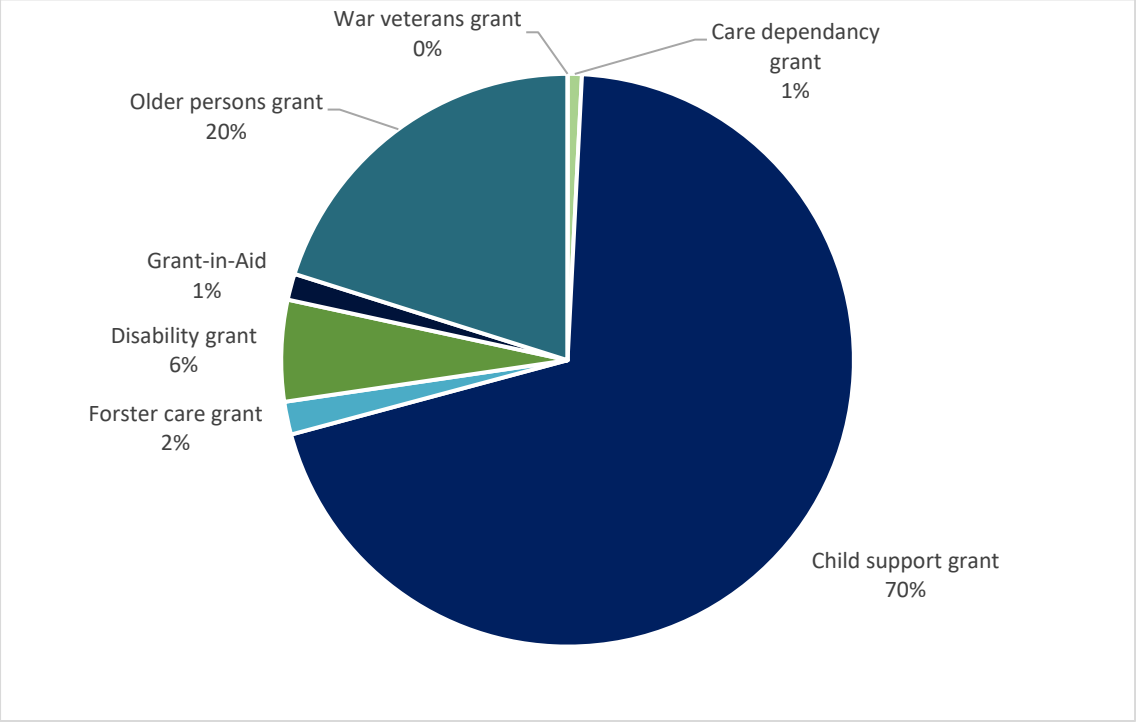
As of March 2021, there are currently 18 440 572 individuals were receiving monthly grants in the SASSA network (SASSA, 2021). The number of SASSA grant recipients has increased significantly since the President declared a national state of disaster in response to the Covid-19 pandemic on 15 March 2020. During the national state of disaster, the state increased the grants payments of existing grant recipients and introduced two grants that would be available to vulnerable individuals who were not previously recipients of social assistance. The Temporary Disability Grant and the Covid-19 Special Relief of Distress (SRD) Grant, implemented until the end of October 2020. Neither of these newly implemented grants was subject to a means-test (Financial and Fiscal Commission, 2021). In Figure 5.2, the highest number amount of grant recipients is observed during October 2020, which corresponds with the final grant increases and availability of temporary grants as announced under the national state of disaster. Following public outcry for continued assistance, SRD Grant payments were extended to April 2021. A sharp decline in grant recipients is noted after October 2020, but recipients have steadily increased since January 2021. Subsequently, the President has announced the reinstatement of the SRD Grant for the period August 2021 to March 2023.

Figure 5.2: The number of SASSA grant recipients between 2020 and 2021



Source: Commission's calculations (based on SASSA, 2021)

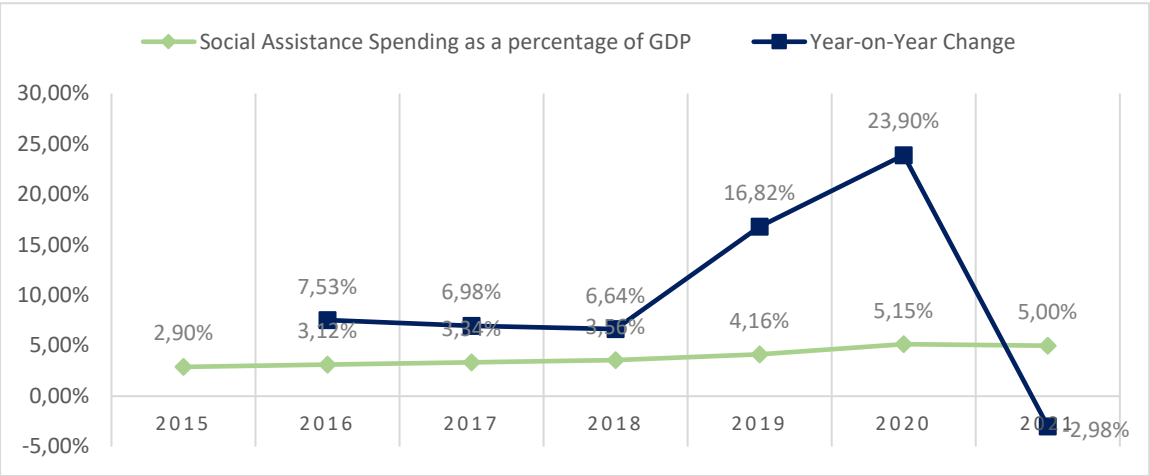
Figure 5.3: The distribution of grants 2021



Source: Commission's calculations (based on SASSA, 2021)

At present, the three largest grants in circulation are the CSG, the OPG and the Disability Grant (DG). The receipt of the CSG is considered widely successful as there are almost 13 million children in the system in South Africa, with approximately 22 million children in total (Statistics South Africa, 2020). This means that nearly 60 per cent of all children in South Africa are recipients of the CSG of R480 per month. The second-largest and highest-paying grant in circulation is the OPG, which provides for over 3.7 million of the elderly population. The current monthly OPG supplied by the state is R1 980 per month for individuals aged 60 to 75, while those older than 75 receive an additional R90. The third-largest grant recipient group is that of the DG, which benefits more than one million people, who receive a monthly amount of R1 985.

Figure 5.4: Social assistance spending as a percentage of GDP

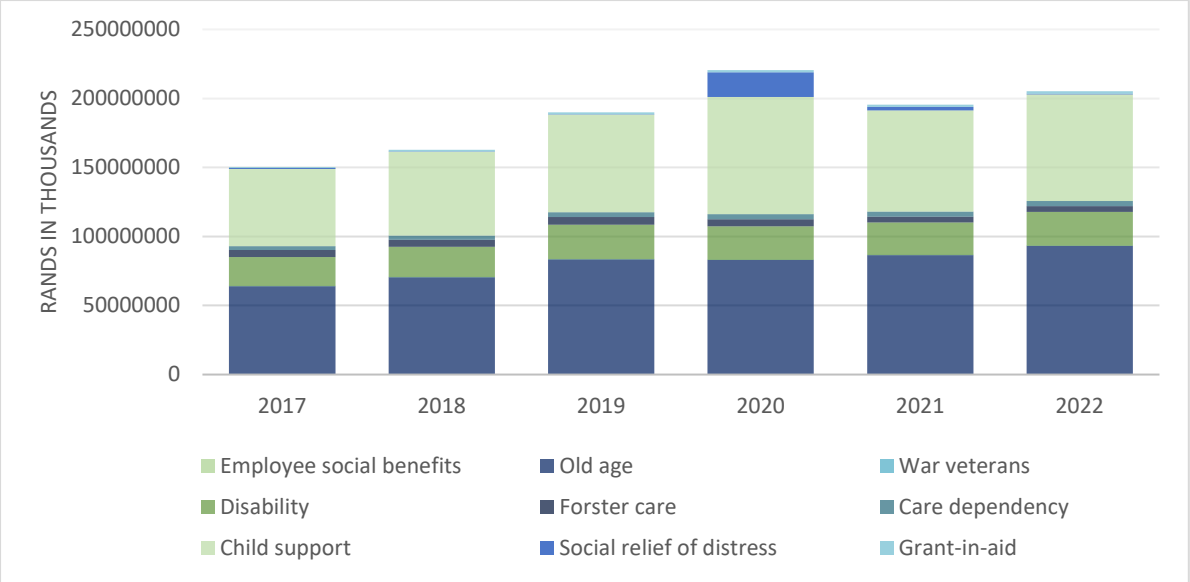


Commission's calculations: Department of Social Development Budget Vote 17/19 of 2022, 2021 and 2018

Social assistance spending in South Africa, viewed as a percentage of gross domestic product (GDP), has increased annually since 2015. Notably, the year-on-year change has superseded the inflation rate range (between 3 and 6 per cent) during the period, suggesting that the state is providing more grants to needy citizens. Social assistance is intended to intervene where the labour market fails to allow all citizens to participate actively in the economy. In the case of South Africa, this intervention is warranted due to the remnants of Apartheid that manifest as structural issues in the economy. The expansion of the social assistance programme during 2019 and 2020 emphasises a struggling economy with an increasing number amount of citizens living below the means test.

The budget allocated to the Department of Social Development for 2022/23 is R205 billion (National Treasury, 2021). The bulk of the social grant payments out of the R205 billion allocated is prioritised to the OPG (R93.1 billion), then the CSG (R77.2 billion), while the DG cost just under R24 billion to implement in 2022/23. The budget for social assistance in 2020/21 was R25 billion larger due to the temporary increases in existing grants and the establishment of two temporary grants to mitigate the effects of the Covid-19 pandemic: the Covid-19 SRD Grant and the Temporary Disability Grant.

Figure 5.5: The South African budget allocation for social assistance



Commission's calculations: Department of Social Development Budget Vote 17/19 of 2021, 2018 and 2015

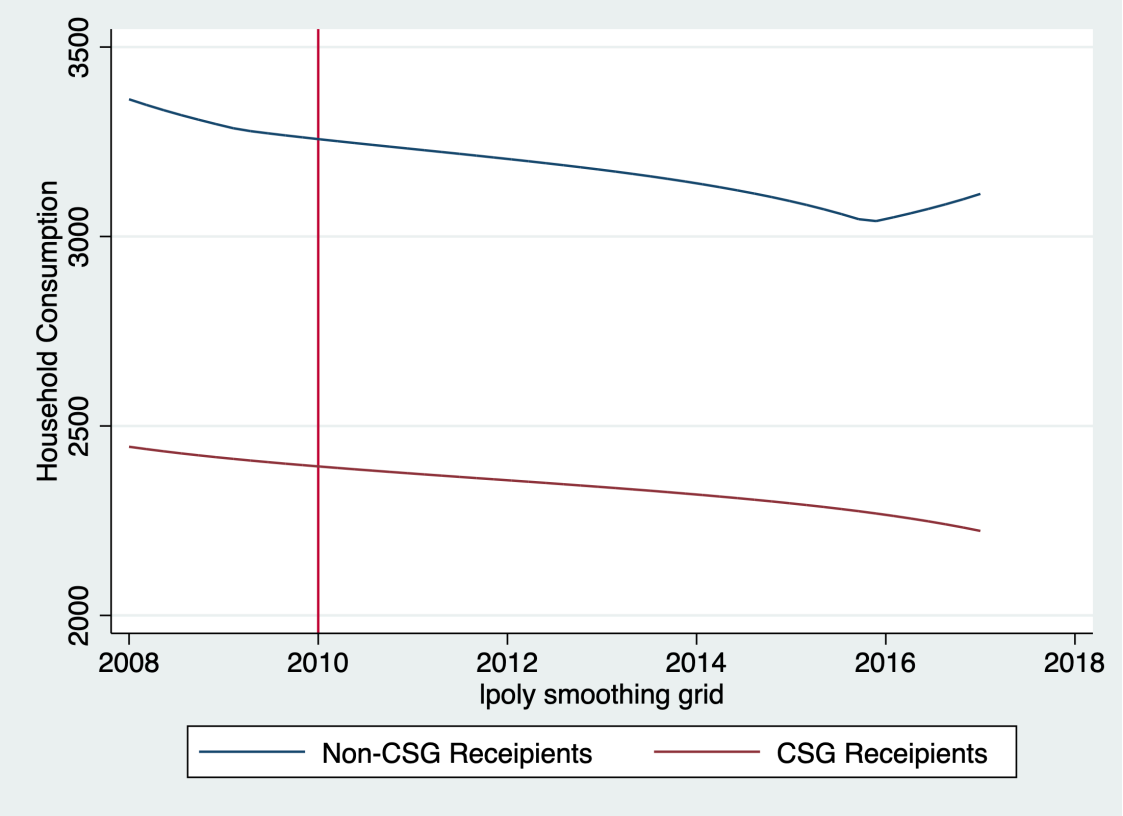
Due to the highly unequal nature of the South African economy, especially in terms of skills distribution and employment, the lower-income deciles were disproportionately affected by the lockdown. Grants are particularly targeted at the poorest of the population; thus, using grant increases to mitigate shocks in consumption due to the pandemic was widely successful. The CSG, in particular, appeared to be vastly pro-poor at the beginning of the lockdown period (Köhler and Bhorat, 2020). One of the most praised government interventions during the first and second waves of the pandemic was implementing the Covid-19 SRD Grant. The grant focused on including poor individuals who were not eligible for other forms of social grants in the national social assistance programme – this would include of over six million Covid-19 SRD Grant recipients. A crucial part

of the Covid-19 SRD Grant was that recipients were not subjected to a means test; the grant was thus universal. State-funded social assistance was the primary form of income for 80 per cent of households with job losers during the lockdown period (Financial and Fiscal Commission, 2021). The effectiveness of the universal Covid-19 SRD Grant in alleviating poverty by bringing financial stability to households in times of crisis adds to the momentum of the universal BIG.

5.5.2 Consumption trends of CSG and non-CSG recipients

In 2010, the CSG was made eligible for all children 17 years and younger whose primary caregivers fall under the means test. Therefore, 2010 is considered the base year of estimation in this research study. To conduct a difference-in-difference analysis, a control and treatment group is required so that the causal effect of grant income on changes in consumption can ve calculated. Individuals receiving the CSG from 2010 onwards are categorised as the treatment group, while non-recipients are classified as the control group.

Figure 5.6: Real consumption[20] trends of South Africans between 2008 and 2017



Source: Commission's calculations using NIDS Waves 1 to 5

[20] Values are inflated to 2017 rand values. Inflating percentages are used in the estimation, from the survey year to 2017: 2015 = 17.8%; 2012 = 37.2%; 2010 = 51.1%; 2008 = 74.5%

Figure 5.6 depicts the actual consumption of non-CSG recipients and CSG recipients from 2008. The increase in eligibility of CSG recipients is duly noted with a respective increase in consumption in 2010. A sustained and steep decrease in household consumption is observed among recipients throughout the sample. During 2016 and 2015, the differences in consumption between the treatment and control groups begin to diverge sharply.

The difference-in-difference (DiD) estimations regarding the consumption of grant recipients are promising. Table 5.1 observes four models of DiD. In Model 1, a positive and statistically significant coefficient of the consumption of grant recipients is estimated. Notably, all four models are statistically significant at the one per cent level. Model 2, which controls for income and Model 3, which controls for income and gender, suggests that grant receipts can consume even more under the additional controls than in Model 1. Under Model 4, which controls for the income, gender and age of the recipient, the coefficient of grant recipient consumption remains positive, although slightly smaller than in Model 3. The positive coefficients associated with income align with the consensus that increased income will increase consumption. Furthermore, the literature supports the negative and statistically significant coefficients of male grant recipients on household consumption, which suggests that female recipients have higher welfare outcomes.

Table 5.1: Difference-in-difference estimates of CSG recipients

	(1)	(2)	(3)	(4)
Treatment	-1587.728***	-1612.743***	-1747.497***	-1838.978***
	(71.644)	(99.130)	(101.107)	(101.298)
Post	-2145.385***	-2807.185***	-2809.951***	-2793.544***
	(30.220)	(34.943)	(34.937)	(34.927)
Treatment x Post	815.273***	932.741***	944.213***	937.636***
	(78.462)	(118.555)	(118.544)	(118.463)
Income		0.171***	0.171***	0.170***
		(0.001)	(0.001)	(0.001)
Male			-255.040***	-244.946***
			(37.837)	(37.819)
Age				12.233***
				(0.972)
Constant	5084.574***	5066.849***	5207.122***	4883.260***
N	330831	113192	113192	113192
R^2	0.022	0.207	0.208	0.209

*Note: Standard errors in parentheses * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$*

Source: Commission's calculations using NIDS Waves 1 to 5

Increased spending on food, accompanied by added investment in healthcare, education, and welfare-improving assets, is imperative in ensuring sustained economic development. Social grants are intended to increase consumption and spending in these facets of socioeconomic development.

Observing nominal food spending between CSG recipients and non-recipients over time suggests that the increased inclusion of children aged 14 years and older as CSG recipients has tremendously increased food consumption among poorer households. CSG recipients observed a significant increase in consumption from 2009, even surpassing the amount of food spending among non-recipients. Table 5.2 summarises the DiD analysis of food consumption among grant recipients. Estimates note that CSG recipients have responded positively to the expansion of the CSG at the one per cent significance level, although the size of the estimates declines with control variables. The positive effect of the CSG on food consumption suggests that the grant is fulfilling its intended policy consequences.

On the other hand, UNICEF notes an increase in child stunting in South Africa although households are CSG recipients. Data from 2016 suggests that over 1.5 million or 27 percent of children are stunted in the country (UNICEF, 2020). Although South Africa is a food secure country, food and nutrition security has declined due to the COVID-19 pandemic. During April 2020, 24 percent of national survey respondents stated that they had no money to buy food. Further, nine million learners reliant on the National School Nutrition Programme were unable to access meals due to school closures (Kruger, Legodi, Tsolekile, Browne, & van Rensberg, 2020). The Commission recommends the anomaly of increased stunting and CSG receipt be further researched.

Table 5.2: Difference-in-difference estimates of CSG recipients' food consumption

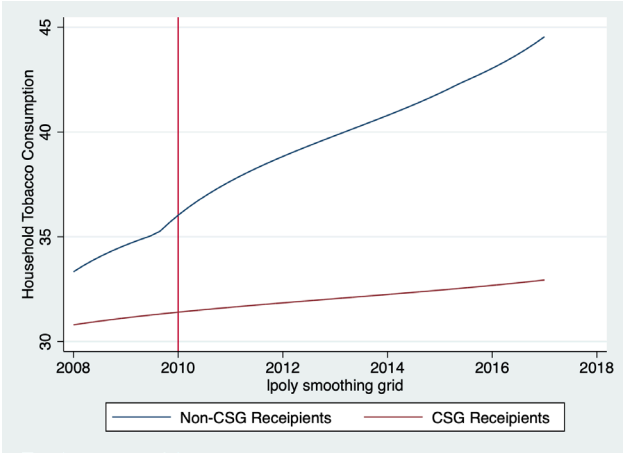
	(1)	(2)	(3)	(4)
Treatment	-227.413***	-205.682***	-244.792***	-249.278***
	(-12.01)	(-8.78)	(-10.24)	(-10.41)
Post	-358.045***	-319.478***	-320.238***	-319.429***
	(-49.46)	(-32.43)	(-32.51)	(-32.42)
Treatment x Post	191.473***	70.321**	73.581***	73.258***
	(9.23)	(2.51)	(2.63)	(2.61)
Income		0.031***	0.031***	0.031***
		(120.83)	(120.77)	(120.49)
Male			-74.164***	-73.672***
			(-8.29)	(-8.23)
Age				0.600***
				(2.61)
Constant	1709.671***	1734.512***	1775.257***	1759.373***
	(258.90)	(208.50)	(183.77)	(154.07)
N	330999	113308	113308	113308
R^2	0.008	0.123	0.124	0.124

*Note: Standard errors in parentheses * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$*

Source: Commission's calculations using NIDS Waves 1 to 5

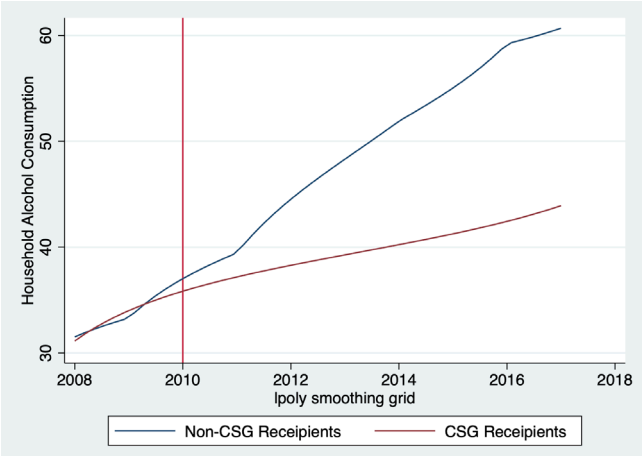
Regarding health care expenditure such as medical aid, medicine and doctors' appointments, the consumption of CSG recipients has increased with the expansion of the grant – this holds to the one per cent significance level (see Appendix 2). However, educational spending has declined with grant expansion, including spedning on early childhood education and books. The CSG's negative effect on educational expenditure is statistically significant to the 10 per cent level (see Appendix). A large part of the country relies on public-funded healthcare and education programmes. Most South Africans do not earn enough to make use of private-sector healthcare and education opportunities for themselves or their children. Therefore, the phenomenon of CSG recipients substituting their increased incomes from grants for food or other household items instead of economically productive assets such as education or initiatives that improve their level of health is rational. Social grants enhance the welfare of recipients by providing financial assistance that is intended to directly improve the living standards of individuals. Any spending that is not conducive to welfare is not the intention of social assistance programmes. Therefore, it is imperative that most recipients' consumption are welfare-improving and not centred around non-conducive goods such as alcohol, tobacco and gambling.

Figure 5.7: Household spending on alcohol between 2008 and 2017



Source: Commission's calculations using NIDS Waves 1 to 5

Figure 5.8: Household tobacco spending between 2008 and 2017



Source: Commission's calculations using NIDS Waves 1 to 5

In nominal terms, expenditure alcohol among CSG recipients has been increasing over time, but at a significantly lower rate than among non-recipients. Interestingly, expenditure on alcohol among recipients was higher among non-recipients between 2008 and 2009. However, this changed after the grant expansion of 2010. Non-recipients consumed vastly more alcohol after 2010 than recipients– this also holds for expenditure on tobacco products. The CSG recipients and non-recipients have increased their expenditure on tobacco products over time, with non-recipients experiencing a steeper curve throughout. With regard to sin products such as alcohol and tobacco, the DiD equations suggest that alcohol and tobacco consumption has increased with the expansion of the CSG. The estimates are only statistically significant at the 10 per cent significance level when no control variables are considered. In models that use control variables, the results are insignificant. This suggests that alcohol and tobacco consumption may increase with grant receipt, but the occurrence is not uniform across all recipients.

5.6 Conclusion

The South African CSG successfully facilitates the inclusion of disenfranchised individuals into the economy. The research findings suggest that CSGs reduce poverty and inequality in South Africa and increase the consumption of the poor. Improving consumption is an immediate and tangible policy intention of social grants. It is encouraging that the current social grant programme provides sustained increases in consumption among grant recipients, simultaneously assisting with stabilising household incomes and consumption. The social grant system is undergoing immense year-on-year expansion, thus increasing the national budget demand. Social grants are fundamental in ensuring that the constitutional rights of citizens are met. Still, the limited fiscal scope of the government limits the ability of policies to attain optimal welfare outcomes. The government should reassess the current fiscal structure and reduce financial leakages to offer more funds to its social assistance programme. Ideally, the social assistance programme should expand to include all South Africans living in poverty, and the grant size should sustain an individual for a month. Through this, the grant will provide for the immediate needs of citizens, further allowing individuals to enjoy a measure of economic freedom and pursue welfare-maximising opportunities.

5.7 Recommendations

The Commission makes the following recommendations:

1. *The recalculation of the amount of the CSG*

Currently, the amount of the CSG is not calculated using a specific metric or policy intended amount. Upon creating the CSG, the total budget allocated for the grant was divided among the number of recipients, and the grant amount was calculated. The DSD has maintained this method, while increasing grants incrementally on an annual basis based on fiscal capacity. The Commission recommends that the method calculation of the CSG be reconsidered to accommodate the basic needs of children. An example of this is to increase the CSG of R480 to the food poverty line of R624. This would meet at least the monthly caloric needs of children.

Alternatively, the DSD could evaluate a basket of goods that accommodate food and partial non-food needs such as shelter and utilities as the basis of the CSG. However, noting the current strain on the budget, the Commission recommends that the CSG increase at the inflation rate until a more optimal grant amount is determined.

2. *Partnering with the private sector to support child support policy intentions*

The government can engage with the private sector regarding the policy outcomes of the CSG and how it benefits the economy and social wellbeing of citizens as their customers. The private sector may improve the consumer behaviour of grant recipients to purchase goods aligned with policy intentions and mitigate inefficiencies associated with unconditional cash transfers. Incentives can include in-kind transfers on fortified food items with higher nutritional value. This can be achieved by increasing awareness at the critical customer interaction points.

3. *Integrating social grants with existing social development programmes*

The World Bank released a South African social assistance program,es and systems review in October 2021. Its recommendations to improve the existing system and maximise benefits are by integrating social grants into existing developmental goals. For example, the CSG can be combined with early childhood development (ECD) opportunities and education. Recipients should made aware of various ECD centres available to them and given additional resources to benefit their child's early development, such as education on child nutrition and healthcare, a safe space for the child to learn and play while the parent seeks work or works, and providing a valuable opportunity for the child to develop critical social skills at a young age. The FFC supports this recommendation as it is a means to improve expenditure efficiency and maximise social outcomes without further spending.

4. *An in-depth investigation into the current social grant network*

The Taylor Committee provided the last extensive investigation into the South African social grant system. This research notes that the CSG offers immense relief to millions of South Africans. Previous research conducted by the FFC suggests that the Covid-19 SRD grant has similar poverty-reducing effects. Grants are often studied individually due to the complexity of their specific policy intentions. An extensive investigation into all grants within the network would inform the current discourse on social development. The DSD currently has only researched a basic income support grant's static effectiveness and fiscal impact. The FFC recommends that the Minister of the Department of Social Development commences an extensive investigation into the current social security network. The inquiry must consider the dynamic effects of all grants on household and business behaviour, how grants interact within the grant network to minimise poverty, and the fiscal and economic implications of the BIG.

5.8 References

Arjona, R., Ladaique, M., and Pearson, M. 2001. *Growth, inequality and social protection.* Paris: OECD.

Bourguignon, F. 2004. *The poverty-growth-inequality triangle.* Unpublished paper. Washington DC: The World Bank.

Case, A. 2001. Health, income and economic development: Paper presented at ABCDE conference. Washington DC: The World Bank.

CASE. 2000. *Phasing in the Child Support Grant: A Social Impact Study.* Braamfontein: Community Agency for Social Enquiry.

Case, A., and Deaton, A. 1998. Large Cash Transfers to the Elderly in South Africa. *The Economic Journal,* Vol. 108, No. 450, 1330-1361.

Delany, A., Ismail, Z., Graham, L., and Ramikissoon, Y. 2008. *Review of the Child Support Grant: Uses, Implementation and Obstacles.* Johannesburg: United Nations Children's Fund.

Deloitte & Touche South Africa. (2021). Financial Feasibility of the Basic Income Grant. Pretoria: NEDLAC.

Department of Social Development. (2021). Expert Panel on Basic Income Support: Final

Report. Pretoria: Department of Social Development.

Devereux, S. 2007. Social Pensions in Southern Africa in the Twentieth Century. *Journal of Southern African Studies* 33(3), 539-560.

Eyal, K., and Burns, J. 2019. The parent trap: Cash transfers and the intergenerational transmission of depressive symptoms in South Africa. *World Development,* 117, 211-229.

Eyal, K., and Woolard, I. 2011. *Throwing the Book at CSG.* Southern Africa Labour and Development Research Unit, Working Paper Series 53.

Financial and Fiscal Commission. 2021. *Submission for the Division of Revenue 2022/23.* Midrand: The Financial and Fiscal Commission.

Food and Agricultural Organisation. 2002. *The state of food insecurity in the World.* Rome: Food and Agricultural Organisation.

Gertler, P., and Boyce, S. 2001. *An Experiment in Incentive-Based Welfare: The Impact of PROGESA on Health in Mexico.* California: Unpublished Research Report. Berkley: University of California.

Grossman, G., and Krueger, A. 1995. Economic growth and the environment. *The Quarterly Journal of Economics,* 110(2), 353-377.

Horton, S. 1999. Opportunities for Investments in Nutrition in Low-income Asia. *Asian Development Review,* vol. 17, 246-273.

Keswell, M. 2004. Non-linear earning dynamics in post-apartheid South Africa. *South African Journal of Economics,* 72(5), 913–939.

Kingdon, G., and Knight, J. (2000). Unemployment in South Africa: The nature of the beast. *World Development,* 32(3), 391–408.

Köhler, T., and Bhorat, H. 2020. COVID-19, Social Protection, and the Labour Market in South Africa: Are social grants being targeted at the most vulnerable? Cape Town: NIDS CRAM.

Kruger, S., Legodi, H., Tsolekile, L., Browne, C., & van Rensberg, C. (2020). Food and nutrition security in schools: Threats and opportunities for intervention. In C. Witten, & L. Lake (Eds.), *South African Child Gauge 2020* (pp. 111-124). Cape Town: Children's Institute, University of Cape Town.

Lund, F. 2002. 'Crowding in' care, security and micro-enterprise formation: Revisiting the role of the state in poverty reduction and development. *Journal of International Development,* vol: 14, 681–694.

Lund, F. 2008. *Changing Social Policy: The Child Support Grant in South Africa.* Human Sciences Research Council Press: Cape Town.

Martinez, S. 2005. *Pensions, Poverty and Household Investments in Bolivia.* California: Berkley: the University of California, Department of Economics.

National Treasury. 2018. Vote 17: Social Development. In *National Budget 2018/19* pp. 327-348. Pretoria: National Treasury.

National Treasury. 2021. Vote 19: Social Development. In *National Budget 2021/22* pp. 327-348. Pretoria: National Treasury.

National Treasury. 2022. Vote 19: Social Development. In *National Budget 2022/23* pp. 327-348. Pretoria: National Treasury.

Neves, D., Samson, M., van Niekerk, I. H., and du Toit, A. 2009. *The use and effectiveness of social grants in South Africa.* Cape Town: Economic Policy Research Institute.

Perotti, R. 1992. *Fiscal policy, income distribution and growth.* Department working paper series 636. Columbia: Columbia University.

SASSA. 2021. Report on Social Assistance - March 2021. Pretoria: SASSA.

Statistics South Africa. 2020. *Mid-year Population Estimates.* Pretoria: Stats SA.

Samson, M., Lee, U., Ndleb, A., Mac Quene, K., van Niekerk, I., Gandhi, V., . . . Abrahams, C. 2004. *The Social and Economic Impact of South Africa's Social Security System.* Pretoria: Economic Policy Research Institute.

Seekings, J. 2000. The origins of social citizenship in pre-Apartheid South Africa. *South African Journal of Philosophy*, 386-404.

Triegaardt, J. 2005. The Child Support Grant in South Africa: A social policy for poverty alleviation? *International Journal of Social Welfare*, 14, 249-255.

Taylor Commission. 2002. Transforming the Present - Protecting the Future: Consolidated Report. Pretoria: Department of Social Development.

UNICEF. (2020). *South African Nutrition Brief.* South Africa: UNICEF.

Vanderstraeten, M. 2014. War and the law: World War I feature. *Without Prejudice,* 14(10).

Van der Berg, S. 1998. Ageing, public finance and social security in South Africa. *South African Journal of Gerontology* 7(1), 3-9.

Van der Berg, S., Siebrits, K., and Lekezwa, B. 2010. Efficiency and equity effects of social grants in South Africa. *Stellenbosch Economic Working Papers:* 15/10.

5.9 Appendices

Appendix 5.1: Difference-in-difference estimates of CSG recipients' education spending

	(1)	(2)	(3)	(4)
Treatment	-33.103	14.069	-11.641	-11.641
	(-1.56)	(0.41)	(-0.33)	(-0.33)
Post	-169.552***	-266.326***	-266.826***	-266.826***
	(-20.85)	(-18.44)	(-18.48)	(-18.48)
Treatment x Post	-65.928***	-82.042**	-79.898*	-79.898*
	(-2.83)	(-2.00)	(-1.94)	(-1.94)
Income		0.019***	0.019***	0.019***
		(49.83)	(49.79)	(49.79)
Male			-48.754***	-48.754***
			(-3.72)	(-3.72)
Constant	365.451***	352.997***	379.782***	379.782***
	(49.26)	(28.95)	(26.82)	(26.82)
N	330999	113308	113308	113308
R^2	0.002	0.025	0.025	0.025

*Note: Standard errors in parentheses * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$*

Source: Commission's calculations using NIDS Waves 1 to 5

Appendix 5.2: Difference-in-difference estimates of CSG recipients' health spending

	(1)	(2)	(3)	(4)
Treatment	-19.749***	-18.498***	-10.241***	-10.241***
	(-6.75)	(-4.83)	(-2.62)	(-2.62)
Post	9.860***	10.063***	10.224***	10.224***
	(8.81)	(6.24)	(6.35)	(6.35)
Treatment x Post	9.862***	7.724*	7.036	7.036
	(3.08)	(1.68)	(1.53)	(1.53)
Income		0.002***	0.002***	0.002***
		(45.47)	(45.61)	(45.61)
Male			15.659***	15.659***
			(10.70)	(10.70)
Constant	47.533***	47.527***	38.924***	38.924***
	(46.56)	(34.92)	(24.63)	(24.63)
N	330999	113308	113308	113308
R^2	0.001	0.019	0.020	0.020

*Note: Standard errors in parentheses * p < 0.1; ** p < 0.05;*** p < 0.01*

Source: Commission's calculations using NIDS Waves 1 to 5

Appendix 5.3: Difference-in-differences estimates of CSG recipients' alcohol spending

	(1)	(2)	(3)	(4)
Treatment	-162.728***	-170.119***	-184.252***	-184.252***
	(-14.08)	(-9.60)	(-10.20)	(-10.20)
Post	-87.608***	-157.804***	-158.079***	-158.079***
	(-19.82)	(-21.19)	(-21.22)	(-21.22)
Treatment x Post	47.790***	86.886***	88.065***	88.065***
	(3.77)	(4.10)	(4.16)	(4.16)
Income		0.016***	0.016***	0.016***
		(83.39)	(83.35)	(83.35)
Male			-26.800***	-26.800***
			(-3.96)	(-3.96)
Constant	247.740***	213.498***	228.221***	228.221***
	(61.45)	(33.95)	(31.24)	(31.24)
N	330999	113308	113308	113308
R^2	0.003	0.063	0.063	0.063

*Note: Standard errors in parentheses * p < 0.1; ** p < 0.05; *** p < 0.01*

Source: Commission's calculations using NIDS Waves 1 to 5

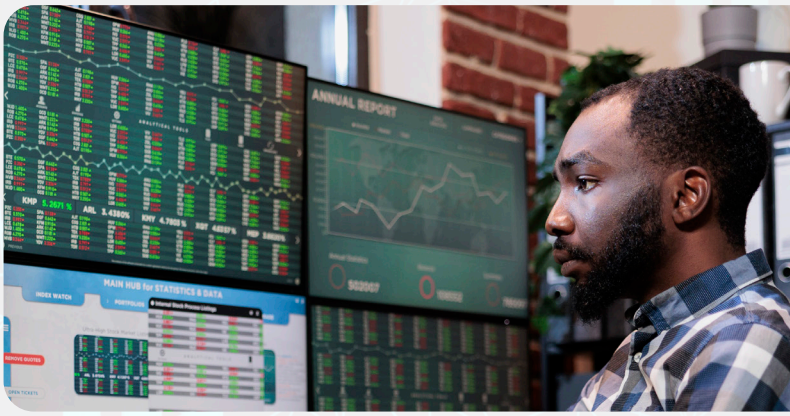
Appendix 5.4: Difference-in-differences estimates of CSG recipients' tobacco spending

	(1)	(2)	(3)	(4)
Treatment	-20.149***	-18.625***	-14.706***	-17.782***
	(-8.40)	(-5.18)	(-4.01)	(-4.84)
Post	-11.296***	-13.615***	-13.539***	-12.984***
	(-12.31)	(-9.01)	(-8.96)	(-8.59)
Treatment x Post	11.608***	6.045	5.718	5.496
	(4.42)	(1.41)	(1.33)	(1.28)
Income		0.002***	0.002***	0.002***
		(48.57)	(48.64)	(48.02)
Male			7.431***	7.768***
			(5.41)	(5.66)
Age				0.411***
				(11.66)
Constant	59.617***	64.205***	60.123***	49.230***
	(71.22)	(50.29)	(40.55)	(28.10)
N	330999	113308	113308	113308
R^2	0.001	0.022	0.022	0.023

*Note: Standard errors in parentheses * p < 0.1; ** p < 0.05; *** p < 0.01*

Source: Commission's calculations using NIDS Waves 1 to 5

CHAPTER 6



Investigating wage trends in South Africa – An assessment of the public sector wage bill

Chapter 6: Investigating wage trends in South Africa: An assessment of the public sector wage bill

Benjamin Stanwix, Tim Kohler, Inger Ruiters and Haroon Bhorat

6.1 Introduction

Wages in South Africa's public sector have grown relatively rapidly over the last two decades. Indeed, since 2004, the public sector wage bill has grown at an average rate of 10.5% per year, which is almost double the inflation rate, and also considerably above the pace of growth in gross domestic product (GDP) per capita (National Treasury, 2020). Public sector employment has also expanded since the early 2000s, and recent estimates show that, by 2020, it accounted for close to 20% of total employment, depending on which sectors of government are included (Bhorat et al., 2021). At the same time, research that compares earnings across the public and private sectors suggests that, relative to the private sector, the average public sector worker receives a wage premium of over 20% (Kerr and Wittenberg, 2017; 2021). These observed increases, in both wages and employment, have generated an aggregate public sector wage bill in South Africa that now commands a substantial share of the budget, accounting for 35% of government's consolidated spending in 2019 (National Treasury, 2020). As such, there are concerns around the impact of the growing wage bill on the country's finances.

A set of stylised facts thus emerges regarding South Africa's public sector wage bill. First, it has grown rapidly since the mid-2000s. In addition, average public sector earnings far exceed those of the private sector. Second, over a similar period, public sector employment has expanded. Third, this has led to the public sector wage bill commanding a relatively large proportion of government spending, potentially crowding out other government expenditure items. Taken together, these factors have generated a discussion around the fact that the growth of the public sector wage bill could create an unsustainable financial situation and needs to be carefully managed (World Bank, 2020). Crucially, this concern was behind the government's recent decision to "freeze" the wage bill and not implement annual increases in 2020/21, despite these increases being agreed to in the three-year wage agreement signed with trade unions in 2018.

Understanding the changing composition of the wage bill is central to managing it. This chapter addresses the issues raised above in more detail. The chapter is structured as follows: Section 6.2 details the problem statement and research questions being addressed by this chapter. Section 6.3 discusses the research methodology and data used to address the objective of the research. Section 6.4 compares South Africa's public sector employment and earnings figures to international aggregates to assess whether South Africa's public sector could be characterised as unusual.

Section 6.5 provides a basic description of the wage bill and how it has changed over time in relation to several key fiscal markers. Section 6.4 studies the composition of the wage bill by examining various characteristics of both public service employment and earnings over time. Section 6.6 uses a basic multivariate analysis to examine the determinants of earnings in the public service, and draws on pre-existing work to compare public and private sector earnings. Section 6.7 concludes this chapter and provides some recommendations.

In terms of the wage trends for the broader labour market, the factors influencing wage outcomes for many South Africans have not changed substantially over the years. For example, low educational attainment by African females results in poor absorption rates into high-paying jobs for these groups. Hence, those key determinants were explored in this study.

To address the key research question, three models are employed by using the Personnel Salary (PERSAL) datasets for national and provincial government, Post-apartheid Labour Market Series (PALMS data) and the government's financial statistics (Stats SA, 2020). Model 1, 2 and 3 examine the relationship of the wage bill to revenue, expenditure and GDP, respectively.

The overall aim of this study is to inform and provide policymakers and legislators with a better understanding of the structure of the wage bill. Finding the underlying drivers of the high wage bill is critical in reforming the currently untenable public finance situation. It is also important for government to consider the persistent socioeconomic deterioration because of poor labour market outcomes for many groups. Considering the influences of such factors on wages will therefore assist in designing appropriate policies to transform wage trends.

6.2 Problem statement and research questions

6.2.1 Problem statement

Wages in South Africa's public sector have grown relatively rapidly over the last two decades. Indeed, since 2004, the public sector wage bill has grown at an average rate of 10.5% per year, which is almost double the inflation rate, and also considerably above the pace of growth in GDP per capita (National Treasury, 2020). Public sector employment has also expanded since the early 2000s, with recent estimates suggesting that, in 2020, it accounted for close to 20% of total employment, depending on which sectors of government are included (Bhorat et al., 2021). At the same time, research that compares earnings across the public and private sectors suggests that, relative to the private sector, the average public sector worker receives a wage premium of over 20% (Kerr and Wittenberg, 2017).

The observed increases in both wages and employment have generated an aggregate public sector wage bill in South Africa that now commands a substantial share of the budget, accounting for 35% of government's consolidated spending in 2019 (National Treasury, 2020). As such, there are concerns about the impact of this growing wage bill on the country's finances. The issues described here highlight the importance of understanding the different drivers of South Africa's growing wage bill. For example, work by National Treasury has already shown that the rapid observed growth in the wage bill has been driven only partially by an increase in employment, and can largely be attributed to rising real wages.

6.2.2 Research questions

- To what extent is the size of the wage bill impacting the overall fiscal framework?
- What is the wage bill's composition (i.e. shape), and how has it shifted over time?
- How does the South African wage trend compare internationally?
- To what extent have the changes in the public sector wage bill corroborated and complemented labour productivity?
- What are the key determinants of wages in the public and private sectors?

6.3 Research aims and objectives

The key aim of this study is to determine the South African wage trends and understand the size and shape of the wage bill. The specific research objectives addressing the research questions are the following:

- What are the components of a sustainable wage bill?
- What wage trend exists in South Africa, and what vital socioeconomic factors changed with it (i.e. gender and race dynamics)?
- How has the wage formation in South Africa changed in comparison to other economies?
- How can one understand the determinants of public wages?

6.4 Research methodology and data

This section describes the empirical model and data used for this study. The empirical model aims to rigorously estimate the public sector wage premium, using a two-stage Heckman employment model, correcting for selection bias from 2008 to 2020. This study uses the Labour Force Survey (LFS), the Quarterly Labour Force Survey (QLFS), PERSAL data and national financial statistics to run numerous econometric models in an empirical analysis.

6.4.1 Data

This analysis makes use of various data sources. Section 6.4.2 examines the South African public sector in relation to various international and cross-country aggregates, where this relies on publicly available data from the Organisation for Economic Cooperation and Development (OECD), the International Monetary Fund (IMF) and the World Bank. Here the analysts rely on a standardised definition of public sector employment for ease of making cross-country comparisons. However, the bulk of the work in this chapter uses individual-level, longitudinal administrative (payroll) data from the South African government's PERSAL system. This dataset only covers the population of civil servants in South Africa working in national and provincial departments, and national entities.[21]

[21] National entities include Statistics South Africa (Stats SA), the South African Police Service (SAPS) and the National Prosecuting Authority (NPA).

As a result, the dataset does not cover the entire public sector – specifically, it excludes workers in state-owned entities (SOEs), local government and extra-budgetary institutions like the Unemployment Insurance Fund (UIF), South African Revenue Service (SARS), and the Road Accident Fund (RAF), whose data is kept in separate databases. The PERSAL employment numbers are therefore slightly lower than would be the case if the full public sector were included. To avoid confusion, the group of public sector employees in the PERSAL database is referred to specifically as the "public service".

This dataset is currently not available in the public domain and was provided by the Department of Public Service Administration (DPSA) and National Treasury for analysis by the Financial and Fiscal Commission specifically for the report on which this chapter is based. As such, some brief notes about the data, and how it is treated, are useful for context. The dataset includes individual-level records for every month of each financial year, but for ease of use and processing, the first calendar month of data in each year (January 2008 to January 2020) is selected. As such, variation in outcomes within a given year is not considered, but only across years, for the period under review. The PERSAL data in its original form is organised into several separate files of varied structure, size and content. The analysis makes use of three files: the headcount file, the national expenditure file and the provincial expenditure file. These datasets include records for filled and vacant posts, and all vacant posts are omitted. For each year, the national and provincial expenditure files are collapsed at the individual level – combining various earnings categories into a single "gross earnings variable". This dataset is then merged with the relevant headcount file.[22] For an extremely small subset of workers, the merging process does not successfully match the same employee across the headcount and expenditure files, in which case that observation is dropped.

The full dataset consists of over 18.5 million observations, spanning 14 years (2007 to 2020), and includes a wide range of information on public service employees. For example, the data includes information on employee earnings (basic salary, pension and provident fund contributions, medical aid and other allowances, overtime payments and other bonuses), age, population group, gender, citizenship status, as well as a range of occupation-specific variables, including government department, salary band, years of service, job title and full-time versus part-time status. Constructing, cleaning and analysing this dataset requires considerable computing power, given the large number of observations. In this regard, the analysts acknowledge the assistance of the University of Cape Town's High-performance Computing (HPC) Centre[23], without which this work would not have been feasible.

[22] In very few instances, for a given year, multiple records per worker were identified in the headcount files. This suggests that some workers work in multiple occupations during the same period. Through the merging and appending process described here, this aspect of the data is accounted for to ensure that the number of workers is not over- or under-counted. To this end, any references to a worker's gross monthly earnings include all earnings from all jobs, regardless of the number of jobs they have.

[23] See: hpc.uct.ac.za for more details.

There are several advantages to using PERSAL data relative to other sample datasets, such as the QLFS, to analyse public sector employment and wage issues. First, it covers the population of workers in the public service as defined above, so the analysis does not need to concern itself with sample-based inference issues such as representivity and estimation precision. Second, it is administrative in nature, which implies an absence of measurement error or item non-response (missing data) in variables of interest, such as earnings, which typically need to be accounted for in analyses of survey data. Third, because workers are uniquely identified by an eight-digit PERSAL number, the dataset has a longitudinal element that allows the analysts to conduct a broader range of statistical analysis (although this element is not used in this chapter). To the analysts' knowledge, this is the first empirical study to make use of the PERSAL dataset at the individual level.

6.4.2 Approach and methods

The focus is on providing a comprehensive account of the public sector wage bill over a 14-year period. As explained above, the work in this paper is quantitative in nature and relies on two main sources of data. The first is cross-country data, which allows one to use comparable estimates of public sector employment and compensation to compare South Africa's public sector to that of countries around the world, and to relevant country groups. Secondly, the primary basis for the analysis presented is PERSAL data, which is examined at the individual level and allows one to conduct relatively detailed quantitative work. To the analysts' knowledge, no other quantitative analysis exists that analyses this data at such a disaggregated level.

The majority of the quantitative work in this paper is descriptive in nature, aiming to clearly establish the broad trends in public service employment and earnings between 2007 and 2020, and to provide insight into what has influenced the observed outcomes. Given that the analysts have access to a large, detailed administrative dataset, they are able to examine various demographic and labour market categories to disaggregate employment and earnings composition, both in a given year and over time. Crucially, they use the individual-level data to do this. The analysts view one of their contributions in this case as having put together a clean, functional dataset that covers the complete population of public service workers. In addition, they are able to look at changes across the full earnings distribution, which is important when dealing with questions about where wage gains in the public sector have accrued over time. This includes, for example, looking at employment composition at different pay grades, as well as measuring the extent to which wage increases versus employment increases have contributed to overall increases in the wage bill.

Beyond this descriptive work, Section 6.5 employs standard econometric techniques to measure the determinants of wages in the public service, contingent on the demographic and labour market information contained in the data. Here use is made of basic Mincerian earnings function regression models to examine the determinants of wages among these workers and how these have changed over the period. This allows the analysts to control for a range of individual-level characteristics and measure how earnings return varies across specific sub-groups, as well as over time.

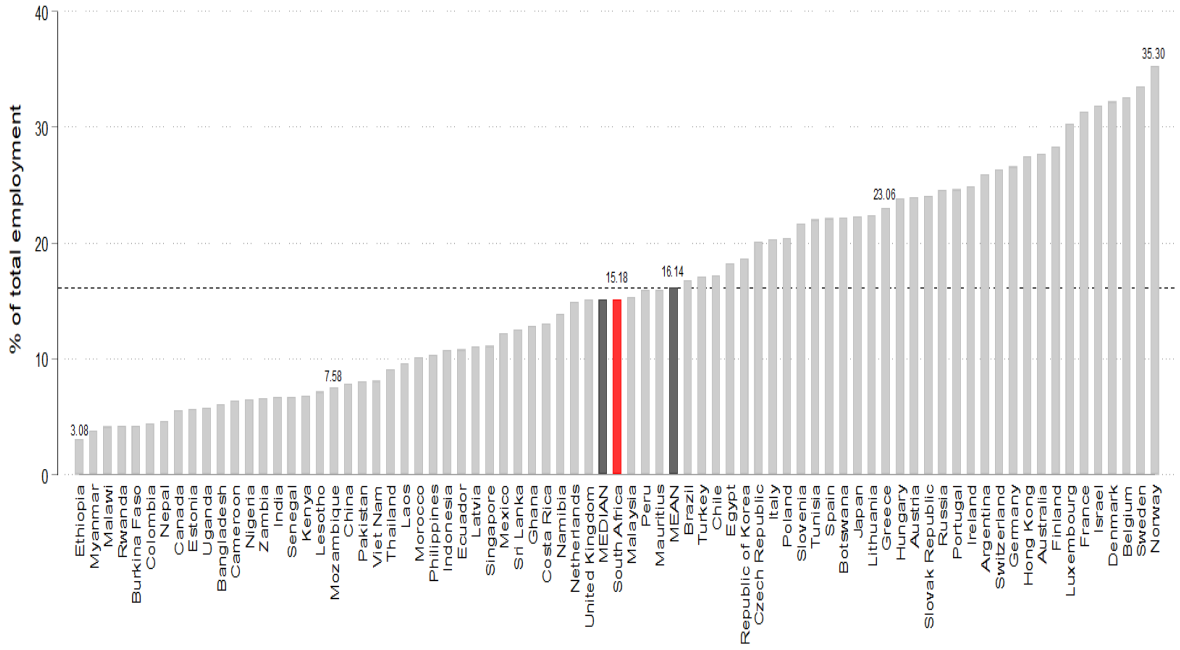
For example, one can assess how the marginal returns to gender change over the period (i.e. the gender wage gap), where one sees that, when controlling for a range of available demographic and labour market variables, the earnings gap between men and women in the public service had narrowed to become almost non-existent by 2020. This work is contrasted with results from similar analyses on public and private sector earnings using sample-based household survey data. Importantly, attempts at directly comparing results from PERSAL and QLFS data are limited by major differences in these datasets and require more detailed work than has been undertaken here.

6.5 South Africa's public sector in context

In order to provide some basic context, this section uses cross-country data to assess South Africa's public sector employment and wage bill relative to international aggregates. Two points are worth noting at the outset regarding the cross-country data presented. Firstly, the data comes from various international institutions and relies on a definition of the "public sector" that corresponds most directly to South Africa's national and provincial departments and public entities, but does not include local government or state-owned companies. Secondly, comparisons of government employment should be interpreted with some caution, given that this is influenced by each country's system of governance and constitutional framework. Nevertheless, the data provides a useful starting point for thinking about the size and remuneration of South Africa's public sector.

In Figure 6.1, data from the OECD (2022) is used, as well as additional data compiled by De Vries et al. (2021) to compare the size of the public sector across 76 countries. The range of public sector employment shares is large, between 3% (Ethiopia) and 35% (Norway), with a mean and median of 15%. South Africa's public sector employment share is measured at 15.1% and is thus in the middle of the distribution of countries sampled here. This suggests that, while the public sector in South Africa may have grown over the last decade or so, it does not appear to be unusually large in international terms. The impression that the country has a bloated public sector purely in terms of employment numbers does not appear to be correct. However, this may be sensitive to the inclusion of local government employment and employment in state-owned companies in the calculations, which could push the share up closer to 20%.

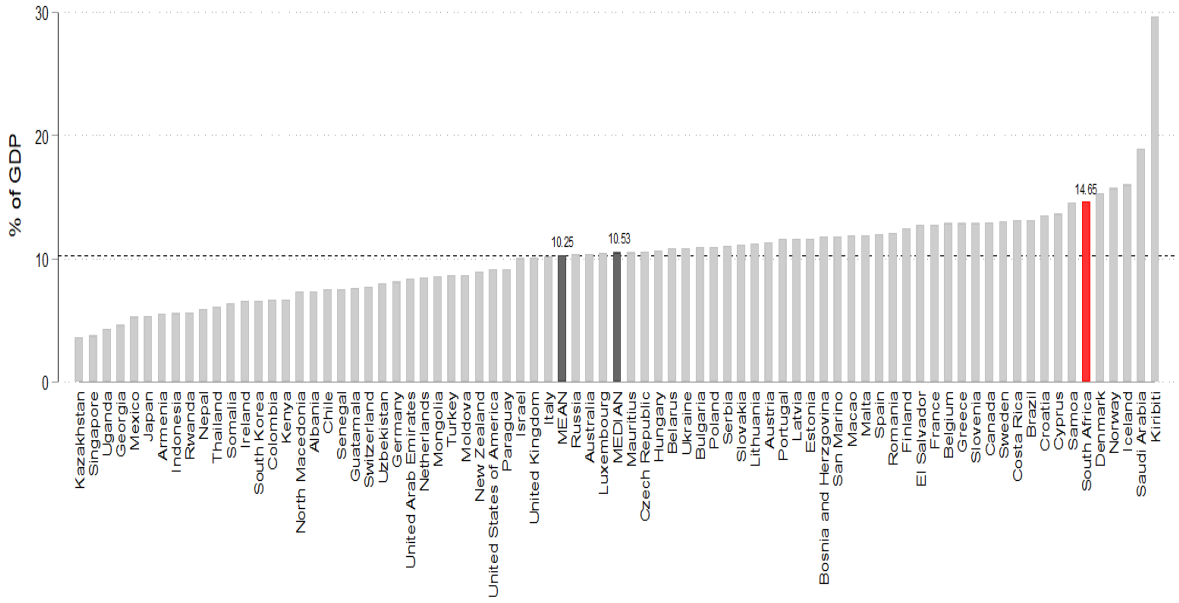
Figure 6.1: Public sector employment as a share of total employment, selected countries: 2018



Source: Commission's calculations based on OECD (2022) and De Vries et al. (2021).
Note: Sample includes 76 countries. The definition of public sector is based on the IMF's categorisation of "general government".

It is already suspected from the points made in the introduction that public sector earnings in South Africa are relatively high, and indeed the cross-country data appears to confirm this. In Figure 6.2, use is made of data from the IMF on public sector compensation, where the public sector wage bill is measured as a percentage of country GDP for 75 countries. In the sample of countries for which data is available, the range of the compensation ratio varies between 3% and 29%, with both mean and median levels of compensation measuring approximately 10% of GDP. South Africa has the sixth-highest level of public sector compensation among the countries in this sample, at 14.6% of GDP, far above both the group mean and the median. In relation to earnings, the general impression that South Africa spends a large proportion of its national income on the compensation of public servants, relative to its international counterparts, appears to be correct.

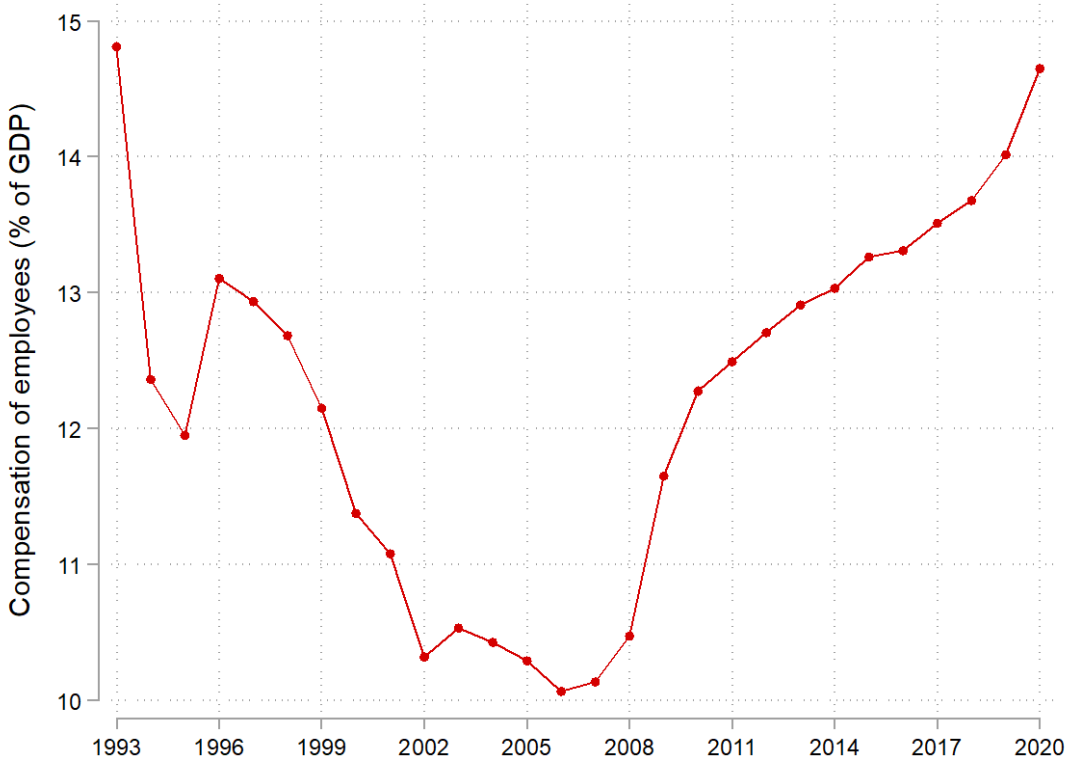
Figure 6.2: Compensation of public employees as a share of GDP, selected countries: 2020



Source: Commission's calculations based on IMF (2021).
Note: Sample includes 75 countries.

Using the same IMF data as above, it is useful to examine how public sector compensation in South Africa has changed over time. The Commission is interested to see whether it has always been as high as in Figure 6.2, or if the recent period is in some way unique. In Figure 6.3, the same variable – public sector compensation as a percentage of GDP – is plotted for South Africa over nearly ten decades (1993 to 2020) to examine longer-term trends. The graph shows that public sector compensation was very high in 1993, but dropped sharply in the mid-1990s to reach a level around 10% of GDP during the early- to mid-2000s. In 2008, the wage bill increased dramatically. This may have been partly a result of the global financial crisis, which impacted negatively on GDP, and would thus increase the measures ratio. However, it is primarily due to an administrative change in pay schedules that resulted in large wage increases for specific public sector employees. Public sector compensation continued to increase, relative to GDP, throughout the 2010s, and by 2020, it had risen to a level only previously seen in 1993, at over 14%.

Figure 6.3: Public sector compensation as a percentage of GDP, South Africa: 1993–2020



Source: Commission's calculations based on IMF (2021).
Note: The definition of public sector is based on the IMF's categorisation of "general government".

To consolidate the key points above, this section is concluded with Table 6.1, which compares public sector employment and compensation data from South Africa against various country-income group averages. The table includes data on government employment as a share of total employment, compensation as a share of GDP, and compensation as a share of total government expenditure. As points of comparison, lower-middle-income, upper-middle-income and high-income countries are identified. As shown above, public sector employment in South Africa is not unusually high by global standards. Measuring 15% of total employment it is at the global median, and the mean of other upper-middle-income countries. Public sector employment in South Africa is also lower than the high-income country average of 23%, but above the lower-middle-income country average of 9%. This data appears to confirm that South Africa is not an outlier relative to global and comparator country averages.

Table 6.1: Government employment and compensation, by country group: 2021

Country income group (sample size)	Employment (percentage of total employment)	Compensation (percentage of GDP)	Compensation (percentage of total expenditure)
Lower middle income (20)	9.21	10.19	35.87
Upper middle income (16)	15.04	8.93	27.44
High income (33)	22.94	11.02	24.14
South Africa	15.18	14.65	33.58
Global Median (75)	15.19	10.53	25.87

Source: IMF (2021); Commission's calculations.[24]

The data on compensation, however, emphasises that South Africa is certainly atypical in this regard, both in relation to other upper-middle-income countries and the global median. Measured as a percentage of GDP, public sector compensation in South Africa (14.65%) is substantially higher than the global median (10.53%), and even exceeds the average level of compensation in high-income countries (11.02%). Indeed, relative to GDP, the data here confirms that public sector pay in South Africa is excessive, not only when compared to economies at a similar stage of economic development, but compared to all countries in the sample. Finally, looking at compensation in relation to total government expenditure, the picture is similar, but slightly less extreme. The public sector wage bill in South Africa remains above the global average, as well as above the mean of high-income and upper-middle-income countries, but is marginally lower than the average for lower-middle-income countries.

6.6 Results

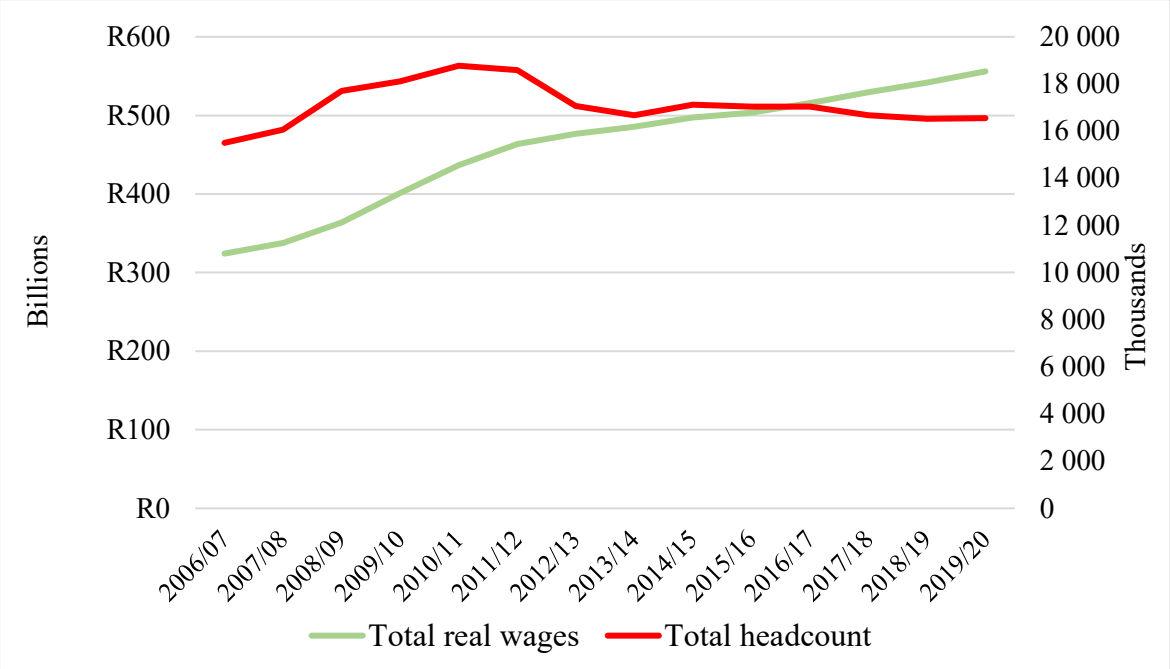
This section focuses on public sector earnings from two different angles. First, the PERSAL data is used to compute a series of multivariate regression models, which enable the analysts to estimate return differentials within the public service, both across various sub-groups and over time. This approach allows one to estimate the correlational relationship between a given worker-level characteristic, such as gender, age or department, and wages, while holding all other observable characteristics constant. Second, it draws on existing work that uses household survey data to compare the determinants of wages in the public sector to those in the private sector. However, some basic descriptive analyses of public sector wages are important to provide background to the main results.

[24] Countries included Argentina, Australia, Austria, Bangladesh, Belgium, Botswana, Brazil, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Costa Rica, Czech Republic, Denmark, Ecuador, Egypt, Estonia, Ethiopia, Finland, France, Germany, Ghana, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Kenya, Laos, Latvia, Lesotho, Lithuania, Luxembourg, Malawi, Malaysia, Mauritius, Mexico, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nigeria, Norway, Pakistan, Peru Philippines, Poland, Portugal, Republic of Korea, Russia, Rwanda, Senegal, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Tunisia, Turkey, Uganda, United Kingdom, Vietnam and Zambia.

6.6.1 Descriptive analysis of national and provincial government

Figure 6.4 depicts the total real wages compared to the number of employed individuals in the public sector. The total real wage curve shows a steady incline in wages since 2006. In contrast, the number of employed individuals has not changed very much. There has only been a slight decline in the number of employees since 2012. It appears that the public sector has always maintained the size of the wage bill. In addition, there seems to have been a steady convergence of the wages of the number of employed individuals since 2006. A divergence, however, starts to occur from 2016. After 2016, a clear trade off takes place between the number of salaries compared to the number of employed public servants. This indicates that employment has stagnated or even declined since 2016, and the salary range per person has increased.

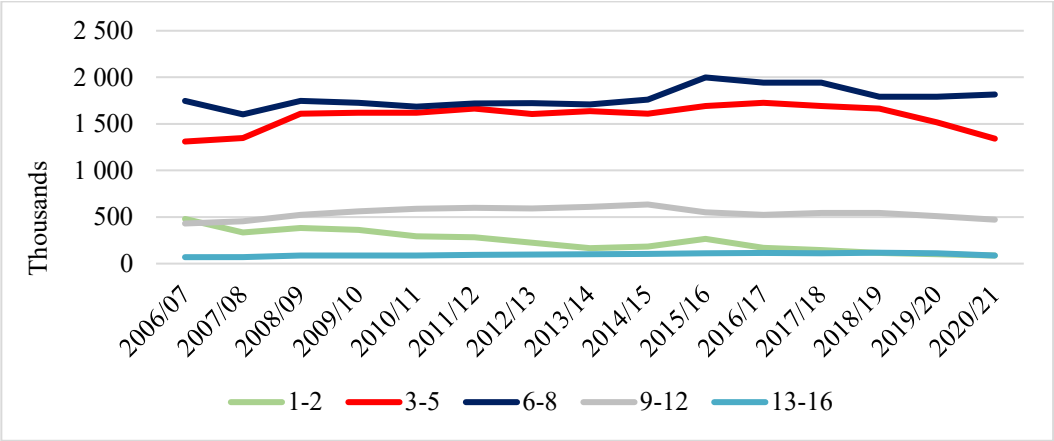
Figure 6.4: Total real wages vs headcount



CPI headline (2016 = 100)
Source: Commission's calculation (based on National Treasury, 2021)

The wage bill reached close to R600 billion in 2020. This is particularly concerning given the decline of the economic climate before COVID-19, and more rapidly due to the pandemic. Furthermore, remuneration is used as a tool to induce and incentivise increased productivity. However, this method can only work if employees are given a fair workload. Once a rapid trade off starts taking place, workers may not be able to manage the given workload or excel at it, because they are overburdened. A factor that needs to be appreciated is that productivity is directly affected by rapid trade off dynamics that are witnessed in the national and provincial spheres of government. On the other hand, departments may be experiencing diminishing returns to excessively high employment. Departments may have too many redundant positions filled, which has put pressure on the wage bill, and has negatively affected productivity, and have therefore reduced the number of positions that were previously filled.

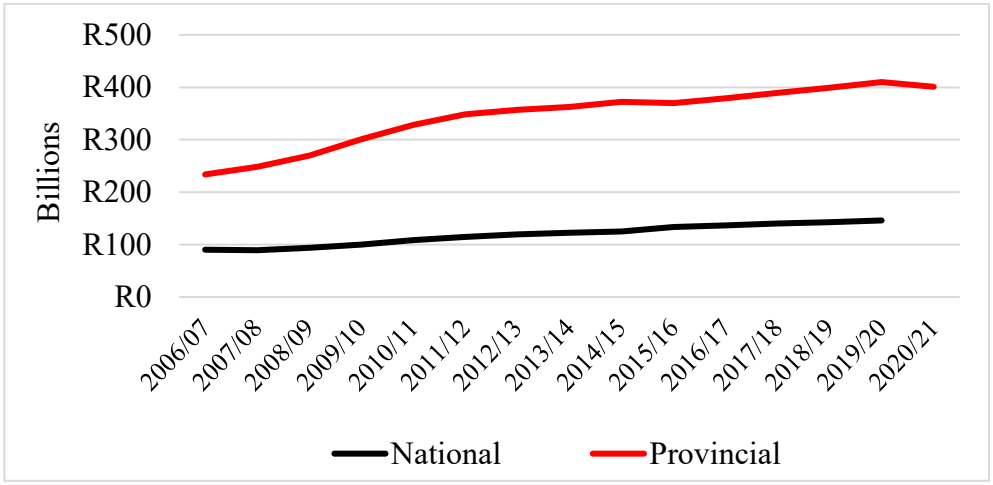
Figure 6.5: Headcount per salary band



CPI headline (2016 = 100
Commission's calculations (based on National Treasury, 2021).

According to Figure 6.5, the number of employed individuals is concentrated in the middle of the wage bill. This could indicate that the public sector prefers relatively skilled individuals. Interestingly, the number of low-skilled workers has declined since 2006, which may indicate that the sector has become increasingly dependent on outsourcing low-skilled services from the private sector, such as domestic services.

Figure 6.6: Provincial and national annual real wage bill



CPI headline (2016 = 100)
Commission's calculation (based on National Treasury, 2021)

When decomposing total wages and analysing the national and provincial spheres of government, Figure 6.6 indicates that the provincial sphere of government has a much larger wage bill. This is as a result of a bigger pay load, since some of the largest departments are paid through the provincial wage bill, i.e. teachers and healthcare workers. Therefore, the speed rather than the size at which the wage bill has increased may be the biggest concern. Judging by the steepness of the red curve in Figure 6.6, the year-on-year increases in the provincial sphere are much larger than in the national sphere. This may lead to trade offs that affect the provincial sphere of government.

6.6.2 Estimates of the determinants of wages in the public service

To analyse the determinants of wages within the South African public service, use is made of the individual-level nature of the PERSAL data and year-specific multivariate regression models are estimated using ordinary least squares (OLS) method to the specification of a canonical Mincerian wage function. The magnitude and statistical significance[25] of each estimate is then compared, both within and between years to examine the association between wages and a given worker-level characteristic, how this relationship compares to that of other characteristics, and how this relationship has varied over time. Specifically, the following specification is estimated with robust standard errors:

$$log(wage)_{it} = \alpha_{it} + \beta \boldsymbol{D}_{it} + \gamma \boldsymbol{L}_{it} + \delta \boldsymbol{X}_{it} + \varepsilon_{it} \qquad (1)$$

where $log(wage)_{it}$ represents the natural logarithm of worker i's gross real monthly wage in year t and $\boldsymbol{D}_{it}$, $\boldsymbol{L}_{it}$, and $\boldsymbol{X}_{it}$ represent three vectors of observable covariates pertaining to worker-level demographics, labour market and department-specific covariates, respectively. These include a wide array of characteristics available in the data, including gender, race, age, national or provincial department, sector, occupational level, number of job records, a full versus part-time indicator, and years of service. Although typical Mincerian wage function models include a measure of education quantity and years of experience as the covariates of interest, these variables are unfortunately not available in the PERSAL data, and are therefore not included in these models. Finally, ε_{it} represents the regression error term. Although this regression is run for every year of data available, the analysts have focused on estimates in three specific years in the period: 2007, 2013 and 2020. However, the year-specific results for every year from 2007 to 2020 are presented in Table 6.A6 in the appendix.

Table 6.2 presents the year-specific model estimates of the conditional correlational relationship between wages in the public service and the vector of demographic covariates, $\boldsymbol{D}_{it}$. First, a significant but small gender wage gap can be observed in 2007; i.e. the average female employee in the public service earned 3.5% less than the average male employee in this year. Importantly, given the multivariate nature of these models, this earning differential is not explained by differences in other characteristics between men and women such as age, occupational level, years of service, sector or department.[26] This conditional gap is more than eight times smaller than that observed in the overall South African labour market, estimated to have been 29% as of February 2020 (Hill and Köhler, 2021), although the model specifications differ. By 2013, this public service gender wage gap had reduced to 1.9%, and by 2020, it had almost disappeared (0.5%).

[25] It is likely that most, if not all, year-specific model estimates will be statistically significant, simply given the very large number of observations per model.
[26] However, this differential may be explained by unobservable covariates that have not been controlled for in the model, such as years of education and total labour market experience.

In terms of race, Asian/Indian workers, on average, exhibited the highest wage premium of approximately 9%, relative to African/black workers, and remained relatively constant over the nearly 15-year period, followed by that observed for white workers (4 to 8%), all else being constant. On the other hand, the average Coloured worker earned a similar wage as African/black workers over the period, all else being constant. In terms of age, similar to studies of the formal private sector labour market, a positive, non-linear wage premium was observed for older workers. However, the magnitude of the premium is small. Specifically, one additional year in age is associated with a 1 to 2% higher wage, which decreases as age increases. Lastly, it should be noted that these models exhibit very large coefficient of determination values (R^2), which suggests that the characteristics contained in these three covariate vectors alone explain between 73 and 79% of the variation in wages among South African public service workers.

Table 6.2: Mincerian earnings function regression estimates of demographic covariates: 2007, 2013 and 2020

	(1) 2007	(2) 2013	(3) 2020
Gender			
Male	0.035***	0.019***	0.005***
	(0.001)	(0.001)	(0.001)
Race			
Asian/Indian	0.092***	0.087***	0.087***
	(0.002)	(0.002)	(0.002)
Coloured	0.017***	-0.005***	-0.006***
	(0.001)	(0.001)	(0.001)
White	0.063***	0.041***	0.076***
	(0.001)	(0.001)	(0.001)
Age (years)			
Age	0.011***	0.010***	0.017***
	(0.000)	(0.000)	(0.000)
Age squared	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)
Constant	8.237***	8.180***	8.825***
	(0.006)	(0.006)	(0.020)
Observations	996 535	1 236 679	1 118 063
R^2	0.776	0.786	0.738

Commission's calculations (based on PERSAL, 2006/07; 2012/13; 2019/20)

*Notes: [1] This figure presents a plot of the estimated regression coefficients from specification (1) estimated using OLS. [2] The outcome variable is the natural logarithm of real gross monthly wages. [3] Data includes the population of workers in all national and provincial government departments, as well as national entities in South Africa. [4] Data for January of each year is used. [5] Capped spikes represent 95% confidence intervals. [6] Reference groups are as follows: female; African/black. [7] Complete results for all years are presented in Table 6.A1 in the appendix. [8] Robust standard errors are presented in paratheses. [9] * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.*

Table 6.3 presents the year-specific model estimates of the conditional correlational relationship between wages in the public service and the vector of labour market covariates, $\boldsymbol{L}_{it}$. First, considering occupational or skill levels, a positive and steep wage gradient is found with respect to skills in every year. In 2007, relative to so-called unskilled workers, on average, semi-skilled workers earned 37.5% more, rising to 100% more for skilled technical workers, 172% more for professionally qualified workers, 230% more for senior management workers, and 262% more for top management workers. The magnitudes of these premiums remained largely constant over the period, with the exception of a premium reduction of earners at the top of the distribution: senior and top management workers. This trend might imply a reduction in earnings inequality with respect to skills. However, a more detailed analysis is required to reach such conclusions. Regarding other labour market characteristics, it was found that, in every year assessed, the average worker earns higher wages if they are employed in more than one job, are employed on a full-time basis (full-time workers earned 50% more in 2007, reducing to 28% in 2020), and have more experience working in the public service. Interestingly, regarding the latter, a positive, relatively linear, but not very steep wage gradient was found with respect to experience in 2007. For instance, one to five years of service is associated with 14% higher wages, compared to less than one year of experience, on average, increasing to 28% for more than 40 years of service. In 2013 and 2020, however, the shape of this gradient became non-linear.

Table 6.3: Mincerian earnings function regression estimates of labour market covariates: 2007, 2013 and 2020

	(1) 2007	(2) 2013	(3) 2020
Occupational/skill level			
Other	-0.051***	0.271***	-0.437***
	(0.019)	(0.013)	(0.018)
Semi-skilled (Level 3–5)	0.375***	0.432***	0.414***
	(0.001)	(0.001)	(0.001)
Skilled technical (Level 6–9)	0.997***	1.008***	0.898***
	(0.001)	(0.001)	(0.001)
Professionally qualified (Level 10–12)	1.717***	1.661***	1.581***
	(0.002)	(0.002)	(0.001)
Senior management (Level 13–14)	2.291***	2.207***	1.945***
	(0.003)	(0.003)	(0.003)
Top management (Level 15–16)	2.618***	2.721***	2.408***
	(0.011)	(0.007)	(0.008)
Number of job records			
Two job records	0.877***	1.220***	1.382***
	(0.051)	(0.041)	(0.058)
Three job records	1.393***	1.857***	2.663***
	(0.109)	(0.073)	(0.073)
Four job records	1.769***	2.255***	2.375***
	(0.059)	(0.181)	(0.286)
Five job records			3.541***
			(0.004)
Full-time versus part-time			
Full-time	0.501***	0.845***	0.277***
	(0.003)	(0.003)	(0.017)
Years of service			
1–5 years	0.144***	0.091***	0.056***
	(0.001)	(0.001)	(0.003)

	(1) 2007	(2) 2013	(3) 2020
6–10 years	0.212***	0.136***	0.170***
	(0.001)	(0.001)	(0.003)
11–15 years	0.219***	0.155***	0.182***
	(0.001)	(0.002)	(0.003)
16–20 years	0.253***	0.162***	0.173***
	(0.001)	(0.002)	(0.003)
21–25 years	0.260***	0.164***	0.207***
	(0.002)	(0.002)	(0.003)
26–30 years	0.270***	0.177***	0.088***
	(0.002)	(0.002)	(0.030)
31–35 years	0.277***	0.162***	0.199***
	(0.002)	(0.002)	(0.003)
36–40 years	0.279***	0.146***	0.181***
	(0.004)	(0.003)	(0.004)
41+ years	0.280***	0.121***	0.149***
1–5 years	(0.012)	(0.009)	(0.007)
Constant	8.237***	8.180***	8.825***
	(0.006)	(0.006)	(0.020)
Observations	996 535	1 236 679	1 118 063
R^2	0.776	0.786	0.738

Commission's calculations (based on PERSAL, 2006/07; 2012/13; 2019/20)

*Notes: [1] This figure presents a plot of the estimated regression coefficients from specification (1) estimated using OLS. [2] The outcome variable is the natural logarithm of real gross monthly wages. [3] Data includes the population of workers in all national and provincial government departments, as well as national entities in South Africa. [4] Data for January of each year is used. [5] Capped spikes represent 95% confidence intervals. [6] Reference groups are as follows: unskilled (Level 1–2); one job record; less than one year of service. [7] Complete results for all years are presented in Table 6.A1 in the appendix. [8] Robust standard errors are presented in paratheses. [9] * p < 0.10; ** p < 0.05; *** p < 0.01.*

Finally, Table 6.4 presents the year-specific model estimates of the conditional correlational relationship between wages in the public service and the vector of department-specific covariates, $\boldsymbol{X}_{it}$. First, in 2020, it is found that the average worker in every provincial government earns lower wages than the average national department worker. However, the magnitude of this differential is relatively small, ranging between 2% in Gauteng and Mpumalanga, to 7% in the Free Stata and Limpopo. This was not the case in preceding years. In both 2007 and 2013, provincial department workers of most (six) provinces earned similar or higher wages, on average, compared to national department workers. In terms of sector, in 2020, a notable wage premium for public service workers was observed in the agriculture sector. For this year, it was found that workers in every other sector earned less than those in the agriculture sector, from 1% less for those in criminal justice, finance and health, to 16% less for those in home affairs. This was not the case in 2007 and 2013, however . The premium for workers in the agriculture sector is still evident for most sectors in these periods.

Table 6.4: Mincerian earnings function regression estimates of department-specific covariates: 2007, 2013 and 2020

	(1) 2007	(2) 2013	(3) 2020
National or provincial department			
Eastern Cape	-0.018***	0.028***	-0.053***
	(0.002)	(0.002)	(0.002)
Free State	-0.013***	-0.002	-0.067***
	(0.002)	(0.002)	(0.002)
Gauteng	0.000	0.034***	-0.016***
	(0.002)	(0.002)	(0.002)
KwaZulu-Natal	0.013***	-0.015***	-0.028***
	(0.002)	(0.002)	(0.002)
Limpopo	-0.032***	0.030***	-0.071***
	(0.002)	(0.002)	(0.002)
Mpumalanga	0.022***	0.048***	-0.018***
	(0.002)	(0.002)	(0.002)
North West	0.027***	0.007***	-0.031***
	(0.005)	(0.002)	(0.002)
Northern Cape	0.025***	-0.005**	-0.034***
	(0.003)	(0.002)	(0.002)
Western Cape	-0.001	0.042***	-0.042***
	(0.002)	(0.002)	(0.002)
Sector			
Arts/sport	-0.047***	0.006	-0.047***
	(0.005)	(0.004)	(0.004)
Criminal justice	-0.014***	0.017***	-0.012***
	(0.002)	(0.002)	(0.002)
Economic/environment	0.022***	0.013***	-0.073***
	(0.003)	(0.003)	(0.003)
Education	-0.090***	0.021***	-0.017***
	(0.002)	(0.002)	(0.002)
Finance	0.022***	-0.025***	-0.007*
	(0.004)	(0.004)	(0.004)
Foreign affairs	0.017**	-0.023***	-0.077***
	(0.007)	(0.006)	(0.006)
General administration	-0.034***	-0.044***	-0.095***
	(0.003)	(0.003)	(0.003)
Health	-0.021***	-0.014***	-0.009***
	(0.002)	(0.002)	(0.002)
Home affairs	0.005	-0.186***	-0.156***
	(0.004)	(0.003)	(0.003)
Infrastructure	-0.016***	-0.039***	-0.075***
	(0.002)	(0.002)	(0.003)
Other	0.315***	0.391***	0.357***
	(0.010)	(0.011)	(0.022)
Welfare	-0.022***	-0.105***	-0.034***
	(0.003)	(0.003)	(0.003)
Constant	8.237***	8.180***	8.825***
	(0.006)	(0.006)	(0.020)
Observations	996 535	1 236 679	1 118 063
R^2	0.776	0.786	0.738

Commission's calculations (based on PERSAL, 2006/07; 2012/13; 2019/20)

*Notes: [1] This figure presents a plot of the estimated regression coefficients from specification (1) estimated using OLS. [2] The outcome variable is the natural logarithm of real gross monthly wages. [3] Data includes the population of workers in all national and provincial government departments, as well as national entities in South Africa. [4] Data for January of each year is used. [5] Capped spikes represent 95% confidence intervals. [6] Reference groups are as follows: national departments; agriculture sector. [7] Complete results for all years are presented in Table 6.A1 in the appendix. [8] Robust standard errors are presented in paratheses. [9] * p < 0.10; ** p < 0.05; *** p < 0.01.*

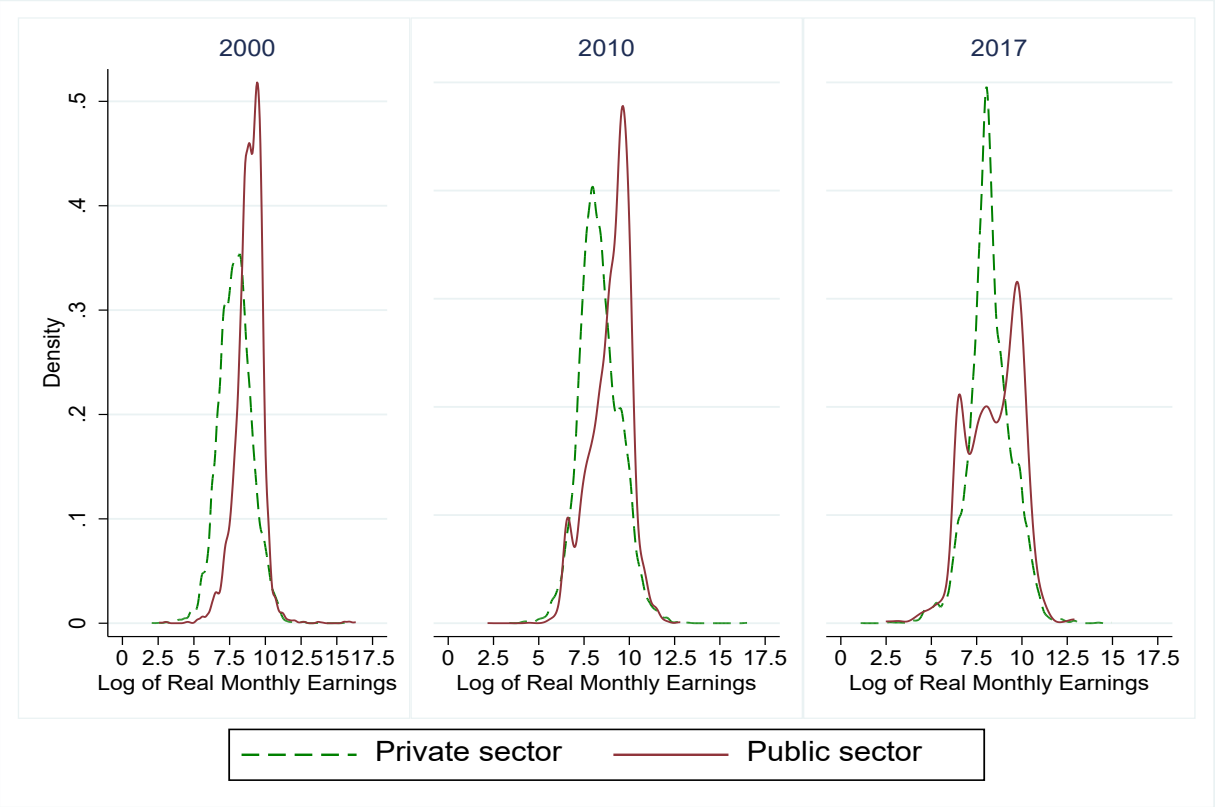
6.6.3 Public and private sector wages: stylised facts from household survey data

This chapter has described the various ways in which public service employment and wages have changed over the last 15 years, and has provided a relatively detailed analysis of the underlying dynamics. Importantly, the various trends observed are linked to broader debates about employment in South Africa. In this regard, several analytical issues emerge. First, while employment growth over the last two decades has come principally from more jobs being added in the private sector, the observed growth in public sector employment means that this part of the labour market has come under increased scrutiny. Second, as documented at various points in this chapter, empirical evidence not only indicates that the wage levels of public service workers has risen, but – as noted in the introduction – the wage premium for public sector workers has been shown to be high and significant (Kerr and Wittenberg, 2017; Bhorat et al., 2015). Third, within the debate around the public sector wage bill, its impact on the fiscus – and indeed the fiscal consolidation path – has become a central feature of the discussion around South Africa's public finance challenges.

It is within this context that some additional observations and points of discussion about public sector wages are provided in relation to the private sector. However, there are two critical points to note about the work presented in this sub-section: First, the results rely on data from the QLFS, produced by Bhorat et al. (forthcoming), thus both the sample of government employees and the nature of the data on wages differs from the PERSAL dataset used above. It is also noted that the QLFS sample for the private sector includes formal and informal sector workers, as well as the self-employed and those working part-time. The wage trends and levels presented below should therefore not be compared directly to those based on PERSAL data. Second, it is noted that the time period covered in the analysis using QLFS data (2000–2017) does not correspond directly to the period covered above (2007–2020).

The discussion then begins with a simple overview of the wage distribution that compares public and private sector wages at three points over an 18-year period: 2000, 2010 and 2017. The kernel density plots in Figure 6.7 suggest that the wage distributions of the public and private sectors are fundamentally different. Specifically, for all selected years, the distribution of public sector wages is to the right of the private sector, confirming that wages are higher in the public sector than in the private sector. In addition, the variance of earnings has increased in the public sector – the shape of the wage distribution has changed from a single spike to a more spread-out double spike. Put differently, the gap between higher and lower earners in the public sector appears to have grown, with wage gains at the top and a slightly larger concentration of lower-paid workers. Kwenda and Ntuli (2018) speculate that this latter observation may be a result of an increase in the use of outsourced workers in government departments, who are still counted as working for the public sector.

Figure 6.7: Private and public sectors wage distribution, 2000 and 2017



Source: Bhorat et al. (forthcoming).
Notes: There is no wage data for 2008 and 2009. The base period for real earnings is December 2017. Outliers have been removed.

To compare the rand amounts of reported wages in both sectors, Table 6.5 reports the mean and median monthly wages for the years examined above: 2000, 2010 and 2017. The public sector mean wage is significantly higher than the private sector mean wage in all the years considered. However, the ratio between the two sectors has narrowed – from 1.96 in 2000 to 1.39 in 2017. This was mainly due to mean wages increasing by 51.70% in the private sector between 2000 and 2010, compared to by only 18.07% in the public sector. In 2000, the median pay for public sector workers was three times greater than for private sector workers. However, by 2017, this ratio had decreased to 1.57. This decrease was caused by an overall increase of 34.49% in median private sector wages, but also a decline in median public sector pay. At first glance, this data would seem to indicate that, despite a fairly significant aggregate wage gap between the public and private sector – with the former paying significantly more – this gap has narrowed since 2000. In particular, the initial evidence would seem to suggest that the real wages decline at the median in the public sector accounts for this trend in the public and private wage differential.

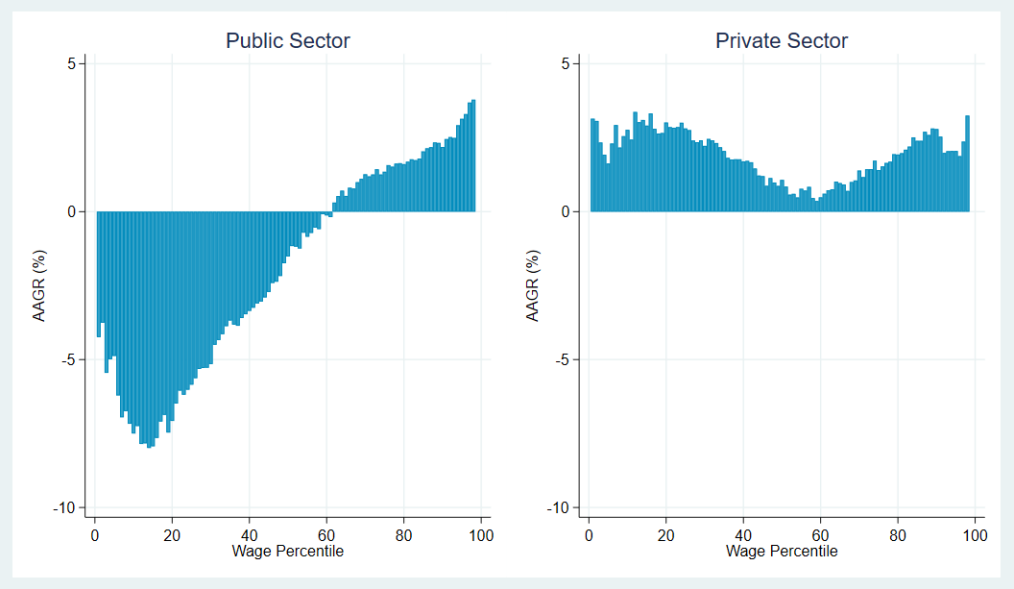
Table 6.5: Public and private sector mean and median real wages, rands per month: 2000-2017

Year	2000	2010	2017	2000-2010	2010-2017	2000-2017
Mean				**Mean (percentage change)**		
Public	10 863	12 826	11 368	18.07	-11.36	4.65
Private	5 556	8 428	8 167	51.70	-3.09	47.00
Ratio	1.96	1.52	1.39			
Median				**Median (percentage change)**		
Public	7 807	9 955	5 500	27.50	-44.75	-29.55
Private	2 602	3 806	3 500	46.25	-8.04	34.49
Ratio	3.00	2.62	1.57			

Source: Bhorat et al. (forthcoming).
Notes: There is no wage data for 2008 and 2009. The base period for real earnings is December 2017. Outliers have been removed

The observed wage shifts at the mean and the median, however, mask changes in real wages across the distribution. To this end, Figure 6.8, provides a more nuanced picture of wage growth in the public and private sectors, showing the average annual wage growth rate between 2000 and 2017 across the percentiles of the wage distribution. The results are quite striking. This would seem to indicate that real wage growth in the public sector has only occurred for workers from the 60th percentile onwards. Indeed, there has been real wage erosion for all public sector employees below the 6th decile of the wage distribution – with declines by as much as 7% over the period. In turn, the private sector wage distribution graph reproduces the evidence from Bhorat et al. (2021) of the presence of wage polarisation in the South African labour market, with growth at the lower and upper end, but not in the middle.

Figure 6.8: Average annual real wage growth, public and private sector, by percentile: 2000-2017

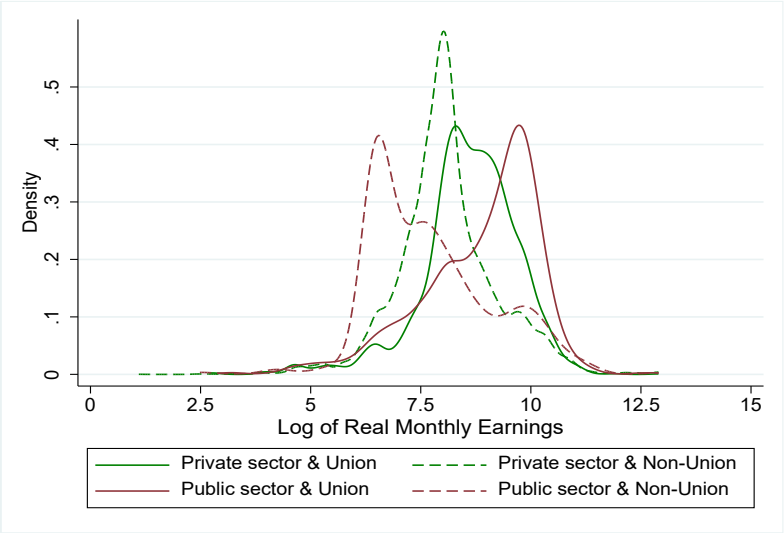


Source: Bhorat et al. (forthcoming).

Three key initial results are clear from this descriptive overview of wages. First, while the public sector pays more than the private sector at the mean and median, this raw real wage gap has declined since 2000. Second, it is clear that the wage distribution of the public sector labour market is located significantly to the right of that of the private sector. Finally, wage growth dynamics indicates the emergence of an elite worker in the public sector, who has been afforded significant wage increases – relative to employees in the bottom half of the wage distribution in government. Similar dynamics are not observed in the private sector.

The final section of this public and private sector comparison briefly compares wages across the two sectors by union status, and gender.[27] Union status appears to matter in the determination of average wages. As a result, public sector unionisation levels have high impacts on the public sector wage premium. Indeed, examining the wage distributions of trade union and non-union members in Figure 6.9, it is clear that union members (regardless of sector) earn more than non-union members, where this is evidenced by the union wage distributions being to the right of the non-union curves. Moreover, as expected, public sector union members earn more than their private sector counterparts. This may be an early indication of the greater bargaining power of public sector unions. The importance of belonging to a union in the public sector is highlighted when one examines the wage distribution of non-union members. Out of the four different groups, non-union members in the public sector earn, on average, the least. In contrast, non-union private sector workers have the highest peak (indicating a high proportion of workers) out of all the groups considered.

Figure 6.9: Earning distribution by sector and union membership, 2017



Source: Bhorat et al. (forthcoming).
Notes: There is no wage data for 2008 and 2009. The base period for real earnings is December 2017. Outliers have been removed.

[27] A more detailed and comprehensive account of public and private sector wage differentials and their determinants can be found in Kerr and Wittenberg (2017).

Lastly, the earnings distribution is considered by gender in both the public and private sectors in Figure 6.10. It can be noted here that both public sector curves are to the right of the private sector curves, indicating that, regardless of gender, public sector workers earn more than their private sector counterparts. Moreover, in both sectors, there is evidence that males earn more than females, although the differences do not appear to be very large, with the male and female curves being close together (the exception is at the lower end of the public sector wage distribution, where there is a big gap between the female and male curves). Taken on its own, gender appears to remain a relevant determinant of wages in South Africa, in both the public and the private sectors. However, as has been shown earlier in this section, when controlling for other variables, the gender wage gap in the public sector becomes very small. This is in contrast to work on the private sector, which suggests that the gender wage gap remains important, even when controlling for the relevant demographic and labour market characteristics (Bhorat and Goga, 2013).

Figure 6.10: Earning distribution by sector and gender, 2017

Source: Bhorat et al. (forthcoming).
Notes: There is no wage data for 2008 and 2009. The base period for real earnings is December 2017. Outliers have been removed.

6.6.4 Public sector wage sustainability

Three OLS models will be used to estimate the wage bill sustainability. A standard earnings function of the following form will be run:

$$\text{Model 1:} \qquad \frac{w}{rev} = \phi + lnrev + lnexp + lngdp + \varepsilon_j$$

$$\text{Model 2:} \quad \frac{w}{exp} = \gamma + lnrev + lnexp + lngdp + lncap + \varepsilon_j$$

$$\text{Model 3:} \quad \frac{w}{gdp} = \omega + lnrev + lnexp + lngdp + \varepsilon_j$$

Where $\frac{w}{rev}, \frac{w}{exp}$ and $\frac{w}{gdp}$ represent the wage bill[28] to revenue ratio, wage bill to expenditure ratio and wage bill to GDP ratio, respectively. $lnrev,\ lnexp,\ lngdp\ and\ lncap$ represent log revenue, log expenditure, log nominal GDP and log capital, respectively.

In Model 1, it is observed that, as national revenue and expenditure increases, the wage bill to revenue ratio increases. This indicates that a large portion of the government's revenue is absorbed by the wage bill. To control the wage bill to revenue ratio, revenue should increase more proportionally than the wage bill. This could be achieved by programme-based budgeting systems, where remuneration packages and employment changes are determined after revenue has been determined, instead of arbitrarily increasing the wage bill based on a budget (Nyakundi et al., 2016; National Pay Commission, 2018).

Table 6.6: Wage bill sustainability regression

	Model 1		Model 2			Model 3
	(1)	(2)	(1)	(2)	(3)	(1)
Dependant variable	Estimate wage to revenue	Estimate wage to revenue	Estimate wage to expenditure	Estimate wage to expenditure	Estimate wage to expenditure	Estimate wage to GDP
(Ln) revenue	1.981*	1.104		1.8698*		
	(0.953)	(0.658)		(0.863)		
(Ln) expenditure	1.714***	0.846	0.656	1.535**	1.25	
	(0.559)	(0.590)	(0.547)	(0.495)	(1.044)	
(Ln) GDP		-3.353**	-4.609***			3.474*
		(0.893)	(0.834)			(1.756)
(Ln) capital					-0.503***	0.165
					(0.103)	(0.214)
Constant	1.127	10.907**	15.576***	1.668	22.746***	-4.293**
	(2.516)	(2.796)	(2.268)	(2.299)	(4.445)	(4.835)
Number of observations	15	14	14	15	15	14
R^2	0.317	0.688	0.8386	0.269	0.649	0.750
Probability > F	0.016	0.001	0.000	0.015	0.000	0.000

Source: Commission's calculations

****Significant at 1%* ** *Significant at 5%* * *Significant at 10%*

Note: The marginal effect in this table represents the change in y for each unit change in x from its mean value (x-bar), holding other variables constant.

[28] The wage bill refers to the national and provincial wage bill spending only.

According to the results in Model 2, as national expenditure increases, so does the wage bill to expenditure ratio. This suggests that the wage bill increases proportionally to national expenditure. Furthermore, the results for Model 2 show that the wage bill to expenditure decreases as GDP and national capital increases, indicating that GDP had a direct effect on national expenditure during the studied period. Lastly, the coefficient for revenue in Model 2 shows that a 1% increase in revenue leads to a 0.87% increase in the wage bill to expenditure ratio.

To control the wage bill to expenditure ratio, a rise in expenditure should cause a rise in the wage bill. Improvements in budgeting techniques used to estimate compensation frameworks are therefore needed. Likewise, emphasis should be put on the contribution wage expenditure has made to the economy. Focus should therefore be given to improving productivity using performance-based revenue budgeting (National Pay Commission, 2018). The results of Model 3 suggest that, as GDP and capital investment rises, the wage bill to GDP ratio increases. This suggests that the wage bill has risen more sustainably than GDP during the observed period. The implication would be that the wage bill has increased at a higher than proportional rate to the increase in GDP. Therefore, wage rises have not matched productivity levels during the observed period. This may lead to inflationary effects (National Pay Commission, 2018).

6.7 Conclusions

This chapter aims to provide a detailed analysis of the public sector wage bill in South Africa. It does do by focusing on four main questions: First, how do South Africa's public sector wage trends compare internationally? Second, to what extent is the size of the wage bill in South Africa impacting the overall fiscal framework? Third, what is the composition of the wage bill, and how has it changed over time? Fourth, what are the key determinants of wages in the public and private sectors? To interrogate these issues, the Commission has used quantitative data over a 14-year period, primarily relying on individual-level, longitudinal, administrative payroll data from the government's Personnel Salary system. This dataset includes 18.5 million observations, covering the population of civil servants in South Africa working in national and provincial departments and national entities. In addition to constructing a clean and manageable individual-level dataset, the findings in relation to these four questions are summarised below.

Using publicly available data, which allows for cross-country comparisons, two key features of South Africa's public sector are highlighted. First, public sector employment (as a share of total employment) in South Africa is in line with comparator country estimates, and close to the global average and median, suggesting that it is not an outlier in this regard. Second, in contrast to this, the data on public sector compensation shows that South Africa's public sector wage bill is significantly higher than that in the economies of comparator countries. Of the 75 countries in the sample, compensation (as a share of GDP) was the sixth-highest, and far above the mean or median value. Similarly, if countries are grouped by income level, South Africa's public sector wages are higher than other upper-middle-income countries across both the measures used.

Using PERSAL data, which covers the majority of South Africa's public sector employees, it can be seen that the total wage bill has grown by 78% in real terms between 2007 and 2020, and as of the latter year, is equivalent to nearly 10% of GDP – the highest level in the post-apartheid period. Its growth has far outstripped that of real GDP in levels or per-capita terms. When compared to other fiscal measures, including government expenditure and revenue, the wage bill has also increased in relative terms. Overall, although both growth in employment and wages affect the growth of the wage bill, the latter has been the driver (mean wages grew by 42% over the period, compared to 25% employment growth). This suggests that there is reason for concern regarding the pressures that the wage bill places on South Africa's fiscus.

There have been a range of important compositional shifts in the public sector over the 2007–2020 period. These are divided up into employment and wage shifts. Broadly, it is noted that both employment and wage increases contributed to the rising wage bill over time, but that, on aggregate, rising real wages have been the most dominant driver, especially over the last five years when employment levels have not grown. Female and black/African employees have increased as a share of the public service, making up 61% and 81% of all employees, respectively, in 2020. Various shifts at the departmental level and by skill type have been observed. Criminal justice, education, and health are by far the largest sectors, together employing 86% of all public service employees in 2020 and accounting for most (90%) of the increase in employment over the period.

Geographically, national departments account for the largest employment share (28%) and, together with the provincial departments in Gauteng and KwaZulu-Natal, account for over 70% of the total increase in employment. On average, real gross monthly wage has grown by 42% over the period, from R23 489 to R33 239, and growth has been highest in the agriculture (81%), health (68%), home affairs (68%) and infrastructure (67%) sectors. Relative to 2007, wages across virtually the entire distribution have grown at a real rate of about 2.8% in the average year. However, real wages below the 20th percentile have decreased. Concerningly, a significant compositional shift was observed towards higher-earning employees. In real terms, the highest earning 20% of employees in 2007 expanded in size to include nearly 50% of all employees by 2020.

Finally, to assess the key determinants of wages in the public sector, a set of standard multivariate regression models was conducted following a Mincerian earnings function specification. The results highlight a number of both similar and distinct determinants of wages in the South African civil service compared to those observed for the overall or private sector labour market. A relatively small gender wage gap was observed, estimated at 3.5% in 2007 and virtually zero in 2020. This was much smaller than estimates observed for the overall labour market. Asian/Indian employees, on average, earn the highest wage premium. This premium has persisted throughout the period. A positive and non-linear, albeit small wage premium was found for older workers. Evidence of a positive and very steep wage gradient with respect to skills was found in every year, with top management employees earning 241% more than so-called unskilled workers in 2020. However, dynamics over time is suggestive of a reduction in these earning differentials.

Expectedly, on average, workers who work more than one job, work on a full-time basis, and have more experience working in the public service earn higher wages. Notably, in 2020, a wage premium was observed for national department workers relative to all provincial departments, and for workers in the agriculture sector relative to all other sectors. However, in both cases, the magnitudes of the premiums are small and have varied over time. Lastly, it is compelling that the observable characteristics in the models alone explain most (73% and 79%) of the variation in wages among South African public service workers. Finally, wage determinants in the private sector are presented in recent work by Bhorat et al. (forthcoming).

There is a large scope for future work, which can exploit the disaggregated level and longitudinal nature of the PERSAL data. For instance, this analysis has only considered gross wages, so future work ought to consider analysing within and between-group trends in the composition of gross wages, including all deductions and benefits. Additionally, the multivariate analysis can be extended to analyse the determinants of wages in the public service across the entire wage distribution, not just at the mean. Several insightful decomposition techniques can also be employed to examine earning differentials between certain worker groups. Lastly, future work ought to exploit the longitudinal nature of the individual-level data, which can be used to conduct a variety of panel econometric analyses, such as constructing transition matrices of outcomes and fixed effects regression, to name a few.

6.8 Recommendations

The Commission makes the following recommendations:

1. *The Department of Public Service and Administration, through the bargaining council, should consider balancing notch progression and cost-of-living adjustments and pressures to the fiscus during wage negotiation. The Commission highlights that the growth of the wage bill has largely been driven by wage increases relative to the increase in the number of employees.*

Both real wage growth and employment have driven the increase in the wage bill over the last 14 years, but wage growth plays a greater role. The vast majority of public sector workers have experienced significant real wage gains during the period reviewed here, specifically those earning at a level that falls between the 20th and 99th percentile. Understanding the nature of these increases in relation to employment composition, and how realistic limits on wage increases can be agreed upon, will be important to keeping the overall wage bill at a manageable level. However, this must be balanced against the provision of critical public services, for example in education, healthcare and criminal justice. Therefore, it requires hard negotiation and acceptance by different stakeholders of real costs between the expansion of services and an unsustainable wage bill.

2. *Wage growth at the top end of the wage distribution in the public service has not been excessive, but after 2010, it appears that wages for those in the bottom 20% of the distribution fell in real terms, potentially widening the wage gap in the sector.*

The Commission recommends that National Treasury commissions further research to determine what is driving the decreases in real terms of wages for those at the bottom distribution of wages.

A large shift in the public sector wage distribution has been observed below the 20th percentile. Indeed, after 2010, it appears that wages for those in the bottom 20% of the distribution fell in real terms, but it is unclear whether this is due to an actual decrease in wages for existing workers (this is extremely unlikely) or due to new, lower-paid workers being hired. More research is required to understand this dynamic.

3. *The demographic composition of the public sector has changed over time, but the proportion of young people has not grown. The Commission recommends that the Department of Public Service and Administration, together with the Department of Women, Youth and Persons with Disabilities, develops frameworks to guide the public sector on the inclusion of youth in public service.*

While the proportion of women in the public service has risen significantly over the period, it is noted that the proportion of younger workers has declined. This should be highlighted as a point of discussion.

6.9 References

Bhorat, H., & Goga, S. 2013. The gender wage gap in post-apartheid South Africa: A re-examination. Journal of African Economies, 22(5), 827-848.

Bhorat, H., Naidoo, K., Oosthuizen, M. and Pillay, K, 2015. Demographic, employment and wage trends in South Africa. WIDER Working Paper 2015/141.

Bhorat, H., Stanwix, B., & Thornton, A. 2021. Changing Dynamics in the South African Labour Market. The Oxford Handbook of the South African Economy.

Bhorat, H., , Monnakgotla, J., Oosthuizen, M., and Rooney,C. forthcoming . The public sector labour market in South Africa: An empirical profile, DPRU Working Paper, Unpublished manuscript (available on request).

De Vries et al. 2021. "The Economic Transformation Database (ETD): Content, Sources, and Methods". WIDER Technical Note 2/2021.' DOI: 10.35188/UNU-WIDER/WTN/2021-2.

Hill, R., & Köhler, T. 2021. Mind the gap: The distributional effects of COVID-19 on gender wage inequality in South Africa.

International Monetary Fund (IMF). 2020. IMF (2022), Available at: https://data.imf.org/regular.aspx?key=60991457

Kerr, A., and Wittenberg, M., 2021. Union wage premia and wage inequality in South Africa. Economic Modelling, 97, 255-271.

Kerr, A., Wittenberg, M. 2017. Public sector wages and employment in South Africa. Cape Town: SALDRU, UCT. (SALDRU Working Paper Number 214).

Kwenda, P., & Ntuli, M. 2018. A detailed decomposition analysis of the public-private sector wage gap in South Africa. Development Southern Africa, 35(6), 815-838.

National Pay Commission. (2018). *Effects of Budgeting and Wage Bill Sustainability* (Issue November).

National Treasury. 2017. Compensation data B. 51-56. Republic of South Africa. Pretoria

National Treasury. 2020 Budget Review, Available at: http://www.treasury.gov.za/documents/national%20budget/2020/review/fullbr.pdf

National Treasury. 2021. Compensation data B. 51-56. Republic of South Africa. Pretoria

Nyakundi, M.H, Masinde, S.J, Galo, M.N. 2016, 'Effect of budgeting on public sector wage bill Management by the Government of Kenya. *Journal of Finance and Accounting.* Volume 4 no. 33 pp (86-101)

OECD. 2022. Labour force statistics. available at: https://stats.oecd.org/Index.aspx?DataSetCode=ALFS_EMP

PERSAL Data. 2006/07, 2012/13, 2019/20. Dataset not publicly available. National Treasury (2021). PERSAL data. Republic of South Africa. Pretoria

South African government 2007. Public services and administration on occupation specific dispensation. Retrieved from: https://www.gov.za/public-services-and-administration-occupation-specific-dispensation

Statistics South Africa. 2020. Quarterly Labour Force Survey 2020: Q1. Version 1. Pretoria: Statistics South Africa [producer]. Cape Town: DataFirst [distributor]. DOI: https://doi.org/10.25828/vkhb-2j69

StatsSA 2020a; mid-year pop estimates

StatsSA 2021a; GDP time series data

StatsSA 2021b; financial statistics of consolidated general government

World Bank. 2020. Managing the Public Sector Wage Bill during COVID-19. Governance COVID-19 Response. World Bank, Washington, DC. World Bank. Available at: https://openknowledge.worldbank.org/handle/10986/34324 License: CC BY 3.0 IGO.

6.10 Appendix

Table 6.A5: The South African public service wage bill relative to GDP and select government budget items, 2007–2020

	Wage bill (R billions)	GDP (R billions)	GDPt per capita (R)	General government expenditure (R billions)	Tax revenue (R billions)	Public debt interest payments (R billions)
2007	316	5 110	104 126	812	1 140	118
2008	339	5 100	102 514	871	1 190	109
2009	407	5 120	101 401	911	1 220	106
2010	434	5 370	104 833	966	1 130	109
2011	449	5 560	106 955	1 010	1 210	123
2012	463	5 650	106 987	1 060	1 260	134
2013	478	5 790	107 949	1 110	1 310	144
2014	486	5 840	107 157	1 130	1 370	157
2015	490	5 970	107 845	1 130	1 430	170
2016	497	6 040	107 588	1 170	1 440	180
2017	517	6 130	107 485	1 180	1 490	193
2018	528	6 170	106 680	1 200	1 520	208
2019	550	6 210	105 694	1 220	1 550	218
2020	563	5 920	99 390	1 220	1 580	237

Commission's calculations. Source: PERSAL (2006/07 to 2019/20), World Bank (2021), StatsSA (2020a; 2021a; 2021b).

Notes: [1] Wage data includes the population of workers in all national and provincial government departments, as well as national entities in South Africa. [2] Wage data for January of each year is used. [3] Wage bill refers to the sum of gross monthly wages paid to workers before taxation and deductions multiplied by 12 to reflect an annual amount. [4] All data is deflated to December 2021 rands using Statistics SA's Consumer Price Index (CPI) headline data.

Table 6.A6: Mincerian earnings function regression estimates, 2007–2020

	(1) 2007	(2) 2008	(3) 2009	(4) 2010	(5) 2011	(6) 2012	(7) 2013	(8) 2014	(9) 2015	(10) 2016	(11) 2017	(12) 2018	(13) 2019	(14) 2020
Gender														
Male	0.035***	0.024***	0.027***	0.016***	0.021***	0.018***	0.019***	-0.001*	0.007***	0.005***	-0.006***	-0.006***	0.006***	0.005***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Race														
Asian/Indian	0.092***	0.073***	0.086***	0.058***	0.076***	0.082***	0.087***	0.075***	0.067***	0.069***	0.060***	0.056***	0.087***	0.087***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Coloured	0.017***	0.028***	0.012***	0.000	0.001	-0.003***	-0.005***	0.002	-0.008***	-0.008***	-0.004***	-0.002*	-0.006***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
White	0.063***	0.050***	0.052***	0.042***	0.046***	0.041***	0.041***	0.046***	0.047***	0.049***	0.050***	0.046***	0.068***	0.076***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age (years)														
Age	0.011***	0.010***	0.014***	0.013***	0.010***	0.009***	0.010***	0.013***	0.016***	0.019***	0.016***	0.013***	0.017***	0.017***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age squared	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
National or provincial department														
Free State	-0.005***	-0.065***	-0.024***	-0.014***	-0.005***	-0.031***	-0.031***	-0.031***	-0.007***	-0.011***	-0.002	-0.014***	-0.013***	-0.015***
	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Gauteng	-0.019***	-0.065***	-0.001	-0.011***	-0.021***	0.001	-0.005***	-0.015***	-0.033***	-0.044***	-0.106***	-0.015***	-0.053***	-0.037***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

	(1) 2007	(2) 2008	(3) 2009	(4) 2010	(5) 2011	(6) 2012	(7) 2013	(8) 2014	(9) 2015	(10) 2016	(11) 2017	(12) 2018	(13) 2019	(14) 2020
KwaZulu-Natal	-0.031***	-0.006***	-0.008***	-0.012***	-0.021***	-0.020***	-0.043***	-0.006***	-0.006***	-0.016***	-0.014***	-0.017***	-0.032***	-0.025***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Limpopo	-0.014***	-0.038***	-0.685***	-0.067***	-0.010***	-0.049***	0.002	0.000	-0.008***	-0.028***	-0.031***	-0.031***	-0.036***	-0.018***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Mpumalanga	-0.040***	-0.008***	-0.002	-0.044***	-0.088***	-0.021***	-0.020***	-0.038***	-0.039***	-0.042***	-0.051***	-0.045***	-0.056***	-0.035***
	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
National departments	-0.018***	-0.024***	-0.016***	-0.010***	-0.010***	-0.018***	-0.028***	-0.004*	0.000	-0.025***	-0.037***	-0.015***	-0.062***	-0.053***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)
North West	-0.045***	-0.006	-0.011***	-0.019***	-0.014***	-0.018***	-0.021***	-0.012***	-0.023***	-0.037***	-0.028***	-0.046***	-0.065***	-0.022***
	(0.005)	(0.006)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Northern Cape	-0.043***	-0.058***	-0.016***	0.001	-0.010***	-0.044***	-0.033***	-0.009***	-0.004*	-0.015***	-0.016***	-0.018***	-0.035***	-0.019***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Western Cape	-0.018***	-0.026***	-0.015***	-0.012***	-0.044***	-0.011***	-0.014***	-0.017***	-0.039***	-0.049***	-0.053***	-0.042***	-0.056***	-0.011***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Sector														
Arts/sport	-0.047***	-0.004	-0.033***	-0.047***	-0.036***	-0.006	0.006	0.013***	-0.002	0.007**	-0.006*	-0.015***	-0.035***	-0.047***
	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)
Criminal justice	-0.014***	0.057***	0.031***	0.057***	0.032***	0.003	0.017***	0.068***	0.035***	0.028***	0.015***	0.015***	0.047***	-0.012***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)

	(1) 2007	(2) 2008	(3) 2009	(4) 2010	(5) 2011	(6) 2012	(7) 2013	(8) 2014	(9) 2015	(10) 2016	(11) 2017	(12) 2018	(13) 2019	(14) 2020
Economic/environment	-0.022***	-0.011***	-0.008***	-0.006**	-0.010***	-0.008***	-0.013***	-0.022***	-0.033***	-0.050***	-0.024***	-0.064***	-0.065***	-0.073***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Education	-0.090***	-0.051***	-0.027***	-0.066***	-0.034***	-0.018***	-0.021***	-0.019***	-0.008***	-0.017***	-0.001	-0.012***	-0.026***	-0.017***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Finance	-0.022***	-0.063***	-0.013***	-0.012***	-0.019***	-0.043***	-0.025***	-0.006*	-0.010***	-0.001	-0.008**	-0.012***	-0.005	-0.007*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)
Foreign affairs	-0.017**	-0.032***	-0.058***	-0.073***	-0.025***	-0.028***	-0.023***	-0.012*	-0.018***	-0.013*	-0.026***	-0.028***	-0.057***	-0.077***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
General administration	-0.034***	-0.026***	-0.074***	-0.059***	-0.022***	-0.006**	-0.044***	-0.046***	-0.036***	-0.038***	-0.030***	-0.050***	-0.048***	-0.095***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Health	-0.021***	-0.044***	0.003**	-0.063***	-0.027***	-0.013***	-0.014***	-0.009***	0.003	-0.013***	-0.039***	-0.004**	-0.040***	-0.009***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Home affairs	0.005	-0.014***	-0.052***	-0.105***	-0.182***	-0.214***	-0.186***	-0.183***	-0.207***	-0.181***	-0.194***	-0.175***	-0.188***	-0.156***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Infrastructure	-0.016***	-0.023***	-0.049***	-0.041***	-0.055***	-0.071***	-0.039***	-0.070***	-0.057***	-0.039***	-0.051***	-0.053***	-0.073***	-0.075***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Other	0.315***	0.398***	0.429***	0.448***	0.421***	0.416***	0.391***	0.289***	0.265***	0.253***	0.209***	0.148***	0.547***	0.357***
	(0.010)	(0.011)	(0.011)	(0.011)	(0.011)	(0.012)	(0.011)	(0.010)	(0.010)	(0.010)	(0.009)	(0.008)	(0.021)	(0.022)

	(1) 2007	(2) 2008	(3) 2009	(4) 2010	(5) 2011	(6) 2012	(7) 2013	(8) 2014	(9) 2015	(10) 2016	(11) 2017	(12) 2018	(13) 2019	(14) 2020
Welfare	-0.022***	-0.008***	-0.009***	-0.003	-0.020***	-0.043***	-0.105***	-0.069***	-0.047***	-0.025***	-0.033***	-0.032***	-0.033***	-0.034***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.003)
Occupational level														
Occupational level Unskilled (Level 1–2)	1.768***	1.556***	1.545***	1.610***	1.229***	1.358***	1.389***	1.544***	1.844***	1.742***	1.994***	2.155***	1.675***	2.018***
	(0.019)	(0.019)	(0.026)	(0.032)	(0.018)	(0.019)	(0.013)	(0.013)	(0.010)	(0.010)	(0.005)	(0.005)	(0.016)	(0.018)
Semi-skilled (Level 3–5)	0.426***	0.212***	0.241***	0.284***	-0.032***	0.113***	0.161***	0.349***	0.620***	0.533***	0.816***	0.990***	0.485***	0.851***
	(0.019)	(0.019)	(0.026)	(0.032)	(0.018)	(0.019)	(0.013)	(0.013)	(0.010)	(0.010)	(0.005)	(0.005)	(0.016)	(0.018)
Skilled technical (Level 6–9)	2.342***	2.126***	2.103***	2.190***	1.817***	1.930***	1.935***	2.093***	2.392***	2.280***	2.515***	2.680***	2.075***	2.382***
	(0.019)	(0.020)	(0.026)	(0.032)	(0.018)	(0.019)	(0.013)	(0.014)	(0.010)	(0.010)	(0.006)	(0.005)	(0.017)	(0.018)
Professionally qualified (Level 10–12)	1.048***	0.857***	0.879***	0.915***	0.573***	0.704***	0.737***	0.884***	1.183***	1.093***	1.342***	1.506***	0.986***	1.336***
	(0.019)	(0.019)	(0.026)	(0.032)	(0.018)	(0.019)	(0.013)	(0.013)	(0.010)	(0.010)	(0.005)	(0.005)	(0.016)	(0.018)
Senior management (Level 13–14)	2.668***	2.468***	2.656***	2.810***	2.319***	2.425***	2.449***	2.607***	2.891***	2.770***	2.969***	3.149***	2.546***	2.845***
	(0.022)	(0.022)	(0.028)	(0.034)	(0.020)	(0.019)	(0.015)	(0.015)	(0.011)	(0.011)	(0.007)	(0.007)	(0.019)	(0.020)
Top management (Level 15–16)	-0.051***	-0.131***	-0.132***	-0.093***	-0.411***	-0.290***	-0.271***	-0.098***	-0.186***	-0.092***	-0.427***	-0.578***	-0.056***	-0.437***
	(0.019)	(0.019)	(0.026)	(0.032)	(0.018)	(0.018)	(0.013)	(0.013)	(0.009)	(0.010)	(0.005)	(0.005)	(0.016)	(0.018)
Number of job records														
Two job records	0.877***	0.924***	1.064***	1.061***	1.065***	1.084***	1.220***	0.990***	0.808***	0.709***	0.839***	0.559***	1.090***	1.382***
	(0.051)	(0.054)	(0.042)	(0.044)	(0.041)	(0.042)	(0.041)	(0.037)	(0.037)	(0.038)	(0.028)	(0.026)	(0.046)	(0.058)
Three job records	1.393***	1.537***	1.639***	1.812***	1.665***	1.775***	1.857***	1.406***	1.355***	1.568***	1.300***	1.232***	2.328***	2.663***
	(0.109)	(0.084)	(0.060)	(0.148)	(0.076)	(0.064)	(0.073)	(0.083)	(0.066)	(0.128)	(0.039)	(0.046)	(0.055)	(0.073)
	1.769***	2.042***	2.083***		2.046***	1.886***	2.255***	1.833***	1.925***	1.503***	1.885***	1.785***		2.375***

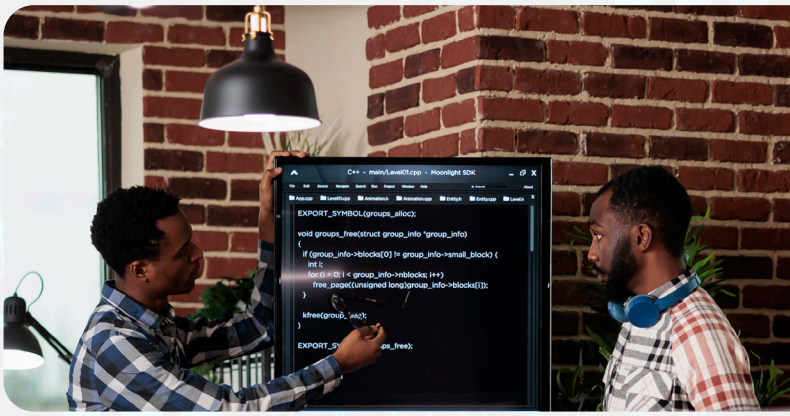
	(1) 2007	(2) 2008	(3) 2009	(4) 2010	(5) 2011	(6) 2012	(7) 2013	(8) 2014	(9) 2015	(10) 2016	(11) 2017	(12) 2018	(13) 2019	(14) 2020
Four job records														
	(0.059)	(0.173)	(0.305)		(0.113)	(0.181)	(0.181)	(0.161)	(0.181)	(0.206)	(0.252)	(0.303)		(0.286)
Ful-time versus part-time														
Full-time	0.501***	0.726***	0.675***	0.672***	0.670***	0.735***	0.845***	0.595***	0.567***	0.553***	0.421***	0.256***	0.300***	0.277***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.005)	(0.004)	(0.016)	(0.017)
Years of service														
11–15 years	0.075***	0.060***	0.033***	0.043***	0.043***	0.066***	0.064***	0.041***	0.037***	0.034***	0.071***	0.076***	0.083***	0.127***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
16–20 years	0.109***	0.083***	0.051***	0.074***	0.049***	0.072***	0.072***	0.051***	0.062***	0.071***	0.130***	0.098***	0.074***	0.117***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
21–25 years	0.116***	0.069***	0.039***	0.093***	0.054***	0.079***	0.074***	0.047***	0.055***	0.050***	0.128***	0.112***	0.100***	0.152***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
26–30 years	0.126***	0.072***	0.042***	0.123***	0.057***	0.082***	0.086***	0.070***	0.088***	0.090***	0.075***	0.065***	-0.007	0.032
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.026)	(0.023)	(0.032)	(0.030)
31–35 years	0.133***	0.070***	0.046***	0.166***	0.055***	0.079***	0.071***	0.058***	0.073***	0.073***	0.136***	0.132***	0.104***	0.143***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)
36–40 years	0.135***	0.062***	0.049***	0.173***	0.042***	0.054***	0.055***	0.056***	0.082***	0.085***	0.141***	0.121***	0.088***	0.125***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
41+ years	0.135***	0.067***	0.020**	0.137***	0.049***	0.058***	0.030***	0.031***	0.050***	0.055***	0.110***	0.091***	0.063***	0.094***
	(0.012)	(0.011)	(0.010)	(0.010)	(0.009)	(0.007)	(0.009)	(0.007)	(0.007)	(0.007)	(0.006)	(0.005)	(0.006)	(0.006)
6–10 years	0.067***	0.067***	0.038***	0.041***	0.038***	0.052***	0.045***	0.041***	0.046***	0.047***	0.087***	0.074***	0.061***	0.114***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Less than < 1 year	-0.144***	-0.152***	-0.116***	-0.138***	-0.184***	-0.100***	-0.091***	-0.099***	-0.101***	-0.089***	-0.107***	-0.093***	-0.114***	-0.056***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.003)	(0.003)

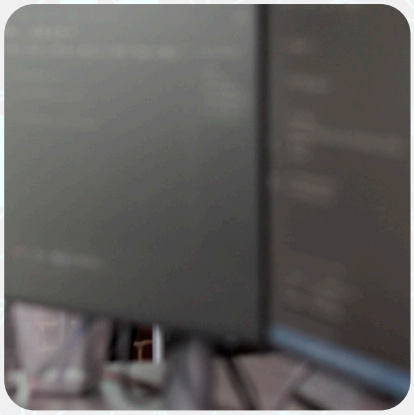
	(1) 2007	(2) 2008	(3) 2009	(4) 2010	(5) 2011	(6) 2012	(7) 2013	(8) 2014	(9) 2015	(10) 2016	(11) 2017	(12) 2018	(13) 2019	(14) 2020
Constant	8.313***	8.343***	8.363***	8.403***	8.855***	8.728***	8.571***	8.578***	8.247***	8.276***	8.217***	8.326***	8.685***	8.390***
	(0.020)	(0.020)	(0.026)	(0.033)	(0.019)	(0.019)	(0.014)	(0.014)	(0.011)	(0.011)	(0.006)	(0.006)	(0.009)	(0.010)
Observations	996 535	1 040 838	1 136 063	1 165 008	1 168 974	1 220 277	1 236 679	1 221 668	1 216 633	1 222 366	1 053 228	1 087 709	1 097 394	1 118 063
R-squared	0.776	0.733	0.787	0.766	0.760	0.781	0.786	0.730	0.770	0.769	0.776	0.774	0.713	0.738

Commission's calculations. Source: PERSAL (2006/07 to 2019/20)

*Notes: [1] Each column presents the regression coefficients from specification (1) estimated using OLS. [2] The outcome variable is the natural logarithm of real gross monthly wages. [3] Data includes the population of workers in all national and provincial government departments, as well as national entities in South Africa. [4] Data for January of each year is used. [5] Number of observations vary over time due to missing covariate data. [6] Robust standard errors are presented in paratheses. [7] * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.*

CHAPTER 7





A review of the provincial equitable share formula – Responsiveness to the changing social structure

Chapter 7: A review of the provincial equitable share formula – Responsiveness of the PES to the changing social structure

Sabelo Mtantato

7.1 Introduction

The Constitution of the Republic of South Africa established three distinct but interdependent spheres of government (national, provincial, and local). It further assigned expenditure responsibilities to each sphere of government; such functions are either exclusive to one sphere of government or concurrent (between spheres of government). Since the Constitution assigns all three spheres of government functions, it is essential that funding is made available to discharge their respective responsibilities. Accordingly, the Constitution further provides that each sphere of government is entitled to a share of nationally raised revenue. All provinces in South Africa are therefore constitutionally entitled to a share of a general-purpose equitable share of nationally raised revenue to fulfill their obligations stipulated in the Bill of Rights and schedule 4 and 5 of the Constitution over and above conditional grants.

Two processes are vital in sharing a nationally raised revenue in South Africa: the vertical and horizontal revenue division. The vertical division of revenue is a political process that considers various functions and responsibilities assigned to each sphere of government and national priorities. The vertical division determines the share of the nationally raised revenue allocated to the national, provincial, and local governments. The local government equitable share formula is utilised to allocate resources available for the local government sphere. For provinces, once the vertical division of revenue is completed and determined, the total provincial equitable share pool is allocated horizontally across all nine provinces using the provincial equitable share formula (PES) proposed by the Financial and Fiscal Commission (Commission) in 1996.

The PES formula has six components (health, education, basis, poverty, institutional and economic activity) and a weighting is assigned to each component. Since 1996, the PES formula has been subjected to various reviews aimed at improving resources distribution and equity, among other things.

7.2 Literature review

Intergovernmental fiscal transfers are key for service delivery by various spheres of government and to ensure that these spheres have financial resources to deliver to their assigned expenditure responsibilities and functions. Intergovernmental fiscal transfers are generally transferred to sub-national governments by formula, other rules, or on ad hoc basis and have many objectives, including the following:

- To address intergovernmental fiscal mismatch by subsidising the revenue generation process and equalising the challenge of meeting basic national priorities. Intergovernmental fiscal transfers are key in providing extra resources to sub-national governments to address the vertical fiscal gap. Transfers are also important to address horizontal inequalities by compensating for the differing needs and own revenues of different sub-national areas.
- To ensure that sub-national governments can finance the provision of key and basic services assigned to them, deliver on services imposed by the national government, and achieve national norms and standards. In other words, transfers are key to encourage sub-national governments' spending on national priority areas which may not otherwise be given high enough priority.
- To compensate for spillover effects, to address externality or spillover effects of economic activities across sub-national governments.
- Equalisation
- To provide incentives for improved performance by sub-national governments in revenue-raising/mobilisation and service delivery (Shotton and Gankhuyag, 2019).

Intergovernmental fiscal transfers are classified into two categories, namely unconditional (general purpose) and conditional (specific purpose) fiscal transfers/grants. The other common form of fiscal transfers are performance-based grants given to sub-national governments to encourage good performance in the form of unconditional or conditional transfers. So sub-national governments' discretion on using performance-based grants could be high or low. Specific-purpose transfer/conditional grants or specific-purpose grants, on the other hand, are intergovernmental fiscal instruments that are transferred to a sphere of government to be spent on specific programme/activities to achieve a specific outcome. These transfers may be regular or ad hoc.

7.2.1 General purpose transfers

General purpose transfers or unconditional grants are provided as general budget support with no conditions or strings attached. These transfers, in most cases, are mandated by legislation, and in South Africa, key legislation in this regard is the Constitution of the Republic of South Africa, Section 214(1). One of the critical characteristics of unconditional grants is autonomy, so the allocation of unconditional grants preserve autonomy as much as possible (Barati and Szalai 2000). Table 7.1 summarises the main features and policy objectives of an unconditional grant.

Table 7.1: Main features of unconditional grants

Objectives	Subnational budget support for financing of subnational governments mandate and national priorities
How the pool is determined	Often as a percentage of the national pool
How allocations to subnational governments are made	Based on needs determined and usually is formula-based
Level of discretion	High

Source: Shotton and Gankhuyag, 2019

While unconditional grants appear to be better compared to conditional with respect to the discretion of the receiving sphere on spending, the literature highlights some challenges of unconditional grants. They include:

- Long-term constraints of unconditional grants. The receiving authority/sphere of government has no control over the national government's funding as it can be reduced/discontinued. Analysis of fiscal spending of unconditional grants in Mexican municipalities indicated that dependency on transfers creates over-reliance and dependence. Reliance on transfers provides the financing of public goods in an unsustainable manner as it becomes challenging for the recipient to operate effectively when such support is discontinued. Therefore, in the event where an unconditional transfer is reduced, provinces or municipalities, particularly the ones with weak revenue-raising capacity, are forced to explore other revenue sources, which could include increasing public debt (Sour, 2013).
- Political uncertainty and susceptibility of transfers to political capture. The literature argues that one of the disadvantages of transfers is they are vulnerable to capture by politicians and bureaucrats (Panao, 2020).
- Grants are distributed as lump sums and are unconditional to sub-national governments. These are prone to be diverted to other purposes other than intended (Kjaergaard, 2015).
- A reduced fiscal effort by sub-national governments/grant recipients. In light of the political and administrative costs associated with these, such transfers become a substitute rather than additional financial resources (Shotton and Gankhuyag, 2019).
- Possibility of a 'flypaper effect'. This occurs because sub-national governments receiving transfers could spend more than they would if spending was financed solely by local tax revenues. It is generally familiar that sub-national governments do not internalise costs and tend to overspend when spending is financed through transfers. This is the 'common pool' or 'other people's money' effect (Shotton and Gankhuyag, 2019).
- Fiscal transfers weaken accountability. The more sub-national governments are financed by transfers, the weaker will be the effort to raise their own revenue and the less likely citizens are to demand and press for accountability of their sub-national governments.

The division of revenue and intergovernmental fiscal transfer is premised mainly on fiscal imbalance, which occurs when there is a mismatch between the revenue powers and expenditure responsibilities of a government. Fiscal imbalance can either be vertical or horizontal. Vertical fiscal imbalance is when the fiscal imbalance occurs between the two levels of government, for example, the national and provincial governments.

Horizontal fiscal imbalance, on the other hand, occurs between the governments at the same level, for instance, between provinces. Horizontal fiscal imbalance mainly emerges because sub-national governments (e.g., provinces) have different abilities to raise funds from their tax bases and provide services. In South Africa, it also occurs because of different services delivery pressures.

7.2.2 Vertical fiscal imbalance

Different authors define vertical fiscal imbalance (VFI) differently. According to Broadway and Tremblay (2005), VFI is defined as any deviation, whether positive or negative, from the optimal vertical fiscal gap. (Breton, 1998) defines VFI as the mismatch of own revenues and expenditures of governments located at various levels, jurisdictional tiers and the consequent flow of funds among governments, while according to (Shah, 2007), a VFI occurs when the vertical fiscal gap is not adequately addressed by the reassignment of responsibilities or fiscal transfers and other means. McLure (1994) says that VFI arises when the centre collects taxes more easily and at a lower economic cost than sub-national governments, and the central government preempts revenue sources that sub-national governments might use.

While there is no universally accepted definition of VFI, there are different revenue-raising capacities, mismatches of expenditure responsibilities and revenue, and a need for transfers to close or reduce the gap.

According to literature, decentralisation often occurs because decentralisation on the expenditure side is more than on the revenue side; sub-national governments' expenditures are not financed through their own revenues (Aldasoro, 2014). VFI or the gap can be addressed through fiscal transfer instruments such as an unconditional grant from national to sub-national governments (Bird & Smart, 2002). This can be determined or calculated under a revenue-sharing model or formula considering a number of elements such as sub-national government expenditure and or population size (Bird & Smart, 2002). Boex and Martinez-Vazquez (2004) further added that unconditional transfer amount could also be determined on an ad hoc basis through negotiations as part of the normal national budget process, but this is not supported as it is fundamentally more centralised and could compromise equity and efficiency. The literature indicates that there are several channels through which vertical fiscal imbalances can impact fiscal performance, and these include the fact that vertical fiscal imbalances are an important potential indicator of soft sub-national budget constraints (Rodden et al, 2003, Kornai et al, 2003 and Crivelli et al, 2010). While transfers from the fiscus play a key role in funding the sub-national government and reducing the fiscal gap, another important revenue source is to increase the taxation powers of sub-national governments.

7.2.3 Horizontal fiscal imbalance

The horizontal fiscal imbalance refers to the differences in the ability of individual provinces and territories to raise revenue (Agrawal, 2016). Horizontal fiscal imbalance refers to the differences in abilities of different states to provide a comparable level of services through the imposition of comparable tax burdens because of demographic and economic disparities between them

(Agrawal, 2016). According to Fenge, R and Meier, V, (2001), horizontal fiscal imbalance occurs when there are inherent expenditure and revenue differences between sub-national governments at the same tier of government. When different regions are taken into account, some sub-national governments' expenditure levels in providing public goods and services will vary as the needs and preferences of constituents differ (Bird and Smart, 2002).

The horizontal fiscal imbalance is common in multi-tier government systems since sub-national governments at the same level rarely possess the same fiscal capacity (Agrawal, 2016). The horizontal fiscal imbalance exists because, while sub-national governments provide similar services in most cases, they enjoy different revenue-raising capacities and face different costs of providing services.

7.2.4 Evolution of the provincial equitable share formula in South Africa

7.2.4.1 Summary of provincial equitable share key reviews and recommendations

Efforts to address vertical and horizontal fiscal imbalance within the South African intergovernmental fiscal relations began with the Financial and Fiscal Commission's (Commission) inaugural submission in 1996. In its submission in 1996, the Commission recommended the establishment of two revenue-sharing mechanisms between the national government and province (vertical division) and among provinces (horizontal division). This is how provincial equitable share (PES) was introduced into the system by recognising horizontal imbalance in South African provinces. The Commission recommended that the formula should explicitly incorporate minimum national standards for health and education; however, it acknowledged the unavailability of established norms and standards at the time and proposed an allocation framework that is driven by a combination of demographic, input, and cost-based standard measures (i.e., teacher/pupil ratio and average salaries) with the aim of shifting towards outcomes-based standards in the future.

In 2000, in trying to put the idea of incorporating mandated norms and standards, the Commission proposed a new PES formula for deriving and costing financial resources needed by provinces to provide basic services to the norms and standards. The costed norms approach sought to establish a clear link between the PES and the services it can deliver in each province (2000). The government rejected the costed norms approach recommended by the Commission on several grounds, including:

- Lack of data on output measures
- Policy parameters and cost of inputs
- Risk of undermining provincial autonomy
- Potential for creation of perverse incentives/opportunity for the manipulation of allocations by provinces
- Potential to result in an unaffordable expenditure projection and reduce the role of politicians in the budget process

In 2002 the Commission undertook a PES review and recommended that administration of social security cash transfers be the responsibility of the national government following numerous experiences of provincial default on the payment of social grants (FFC, 2002).

In 2004 and 2005, the Commission recommended that the data used to derive the education component of the formula be revised to end the double weighting of school-age children. The 2005 recommendations put additional emphasis on the need for the health component to consider provincial cost disabilities such as gender and age profile of the population to reflect differential needs for health services.

In 2006 and 2007, the Commission emphasised the need to make provisions for funding welfare services in the PES formula, following the removal of the social security component and subject to the national government putting in place minimum norms and standards for the sector.

Other essential reforms in 2006, albeit with minimal structural effect on the formula, involve the re-demarcation of municipal boundaries. The outcome of the re-demarcation process was that provinces such as Limpopo, North-West, and Eastern Cape lost a significant part of their PES share and allocations due to population distribution or migration changes.

In 2007 the FFC proposed a refined costing model called constitutionally mandated basic service model (CMBS). The essence of the CMBS was to balance the provision of constitutionally mandated basic services with developmental imperatives and macro-economic constraints captured in Section 214(2) (a-j) of the Constitution by estimating the cost function for each public service provided. Cost functions capture the relationship between the input costs required to provide a service or product.

Also in 2007, the Commission and the National Treasury, in consultation with all provinces, undertook a review of the PES. Terms of reference for that review included looking at issues of the poverty component, financing of social welfare services, provincial economic disparities, appropriateness, and indicators for different components of the PES, examining the implications of a demographically driven allocation against the need to uplift economically backward provinces and differences in the cost of delivering services across provinces.

In 2016, the Commission undertook research on rurality and PES; its findings indicated that while the PES is one of the key funding instruments for provinces, it appears less responsive to rural challenges because there is little or no distinction in per capita PES allocations across the nine provinces except for Gauteng. PES allocations are primarily driven by population distribution rather than need indicators that represent rurality. The absence of provincial disparities and peculiar developmental rural needs, at an aggregate level, eliminate the justification for PES transfer system reforms. Incorporating the rural indicators of needs may disadvantage the rural provinces.

Recommendations made by the Commission in this respect included that the provincial offices of the Premier, in consultation with the provincial departments of education, health, agriculture and roads, must identify rural development needs and set annual delivery targets against which PES allocations will be assessed.

The findings of a 2017 Commission review revealed that migration of learners, was inevitable and recommended that the National Treasury should incorporate weighted learner socio-economic profiles into the education component of the PES formula as an additional indicator of education needs.

In 2020, the Commission (2016) revisited the potential of reconsidering the costed norms approach for the PES. Among other things, the findings revealed that all aspects of the original Commission's costed norms formula cannot be implemented due to a lack of data; however, the evolution of the provincial fiscal framework, the improvement in data collection and costing methodologies addresses, to a certain extent, several of the concerns around the costed norms approach initially raised by the government. Hence the Commission recommended that in the short term, the government, through the PES formula, should move towards improving the distribution of the overall formula by acknowledging the higher costs of providing services to vulnerable groups and the greater demand for services from specific demographics. This could be implemented by higher weights for vulnerable groups in determining the education and health components of the PES.

Additional recommendations were:

- In the education component, differentiate the school-age population by gender, income, and location, and apply higher funds for the vulnerable groups. This should also be applied to the data on learner enrolment.
- The output sub-component of the health component should be differentiated between the gender and age of the person using the health service. Higher weights for funding should be applied to the persons over the age of 65, women aged between 15 and 49, and children below 5, relative to males aged between 5 and 65.
- The respective weightings for specific groups should be determined by the government and informed by consultations with the respective provinces.

The Commission further recommended that in the short term, the government should consider updating the poverty component in the current PES formula with the latest income and expenditure data in the 2014/15 Living Conditions Survey undertaken by StatsSA, while in the long term, the government should continue to develop and cost norms and standards, particularly in health and education. The government should also abandon the proportional distribution mechanism of the current PES and adopt a full expenditure needs determination and equalisation mechanism for the PES.

7.2.4.2 Changes implemented in the PES over the years

The government accepted many PES-related recommendations; however, for various reasons mainly the availability of resources and data, delays are noticed regarding the implementation. Since its introduction, the PES formula has been subjected to several changes, mainly in response to the Commission's recommendations, changes and improvements in indicators, and new developments (including data updates).

Changes implemented in the main are concerning components and weighting assigned to these components. The Commission in 1995 recommended formula with four components (FFC, 1995), as follows:

$$G = B+S+T+(m)$$

G represents allocation received by a province, B is the basic services component determined mainly by population figure, S is the minimum national standard grant, and T is tax capacity equalisation. In recognition of the need to fund academic health centres, a proposal was made for m component for those provinces with such institutions.

In 1998, the National Treasury, in consultation with the Commission, reviewed the PES formula as shown in Table 7.2.

Table 7.2: Provincial equitable share formula components and weighting in 1998

Component	Weighting
Education	40%
Health	18%
Social Security	17%
Basic Share	9%
Backlog	3%
Economic Output	8%
Institutional	5%

Source: National Treasury, 1998

A new development to the PES formula introduced in 1998 was a backlog component in response to provinces and national departments recommending an introduction of this component in the formula (National Treasury, 1998). In 1998, the PES comprised seven components in total, as shown in:

- Education component/share factoring the size of the school-age population (ages between the age of 6-17) and the number of learners enrolled in public ordinary schools. School-age was given twice the weight as the number of enrolled as it was the government's priority to reduce under-age and over-age enrolment.
- Health component/share considering the differential use of the public health care system, considering those with and without medical aid. More weight is allocated to those without medical aids; this reflects their dependency and use of public health care facilities more frequently than those with insurance.
- A social security component considered the elderly, disabled, and children using a poverty index from the 1995 income and expenditure survey.
- A basic share considering the province's share of the total population.
- A backlog component factoring the distribution of capital needs as captured in the school register of needs, the audit of hospital facilities, and the share of rural population per province.
- An economic output share factoring the distribution of the total remuneration in the country.
- An institutional component, equally divided among the provinces.

In 2004 the infrastructure backlog component and the social security component were removed from the formula. This was because of the introduction of the provincial infrastructure conditional grant (to address infrastructure backlogs in provinces) and the shifting of social security function from provinces to the national government. With the shifting of the social security function, poorer provinces contended that the formula had lost its redistributive bias, while wealthier provinces argued that their discretion on functions other than social services is eroded by the strong focus of the formula on redistribution. The Budget Council thus agreed that the Commission and the National Treasury undertake another review in 2007.

By 2013, in response to developments since the introduction of the PES formula, the formula had six components. Table 7.3 shows components and weighting.

Table 7.3: Provincial equitable share formula and weighting in 2013

Component	Weight
Education	48%
Health	27%
Basic	16%
Economic Activity	3%
Poverty	1%
Institution	5%

Source: National Treasury, Budget Review, 2013

Table 7.4 summarises the changes in the PES formula over the years. Notable changes include:

- An increase in the weight for the educational component from 39 per cent in 1998 to 51 per cent in 2006.
- The weight for the educational component decreased slightly from 2011 to 48 per cent.
- Health component weight increased from 18 per cent in 1998 to 27 per cent in 2011.
- Social security function shift from provinces to the national resulted in the discontinuation of the social security component from 2006 onwards.
- In 1998 and 1999, a basic component decreased from 15 per cent to 9 per cent.
- Between 2000 and 2005, basic component weight decreased to 7 per cent.
- Share of a basic component increased to 14 per cent between 2006 and 2010 and further to 16 per cent from 2011.
- An introduction of backlogs component between 1999 to 2005, which was discontinued from 2006 going forward.
- A share of an economic activity component decreased from 8 per cent between 1998 and 2001 and reached a low of 1 per cent from 2006 onwards.

A major change in the PES formula was in 2005 with social security and backlog components removal following the Commission's recommendations to shift the safety net cash transfer function to the national government and introduce the provincial infrastructure conditional grant. The introduction of the poverty component was aimed to compensate for these changes. The weighting for the basic services component increased from 7 to 14 per cent. The PES formula has remained the same since 2011.

Table 7.4: Summary of the provincial equitable share formula components and weighing from 1998 to 2021

	1998	1999	2000–2001	2002–2005	2006–2010	2011–2021
Education	39	40	41	41	51	48
Health	18	18	19	19	26	27
Social security	16	17	17	18	-	-
Basic	15	9	7	7	14	16
Backlogs	-	3	3	3	-	-
Economic activity	8	8	8	7	1	1
Poverty	-	-	-	-	3	3
Institutional	4	5	5	5	5	5

Source: National Treasury

The summary of the overall PES formula components is as follows:

- An educational component (48 per cent) based on the size of the school-age population (ages five to 17) and the number of learners (Grades R to 12) enrolled in ordinary public schools. Each of these components is afforded a 50 per cent weight. The school-age population data is sourced from Stats SA's annual mid-year population estimates, while the enrolment information is obtained from the LURITS system data. The allocation for education is proportionally distributed based on each province's share of the above two variables.
- A health component (27 per cent) considers each province's risk profile and health system caseload. The risk profile is measured using a risk-adjusted capitation index to adjust the uninsured (no medical aid) population to determine the demand for public health care services. This component constitutes 75 per cent of the health component of the PES. The health caseload is measured using a combination of an average number of visits to primary health clinics (5 per cent of health component) and each province's share of total patient day equivalents at public hospitals (20 per cent of the health component). Both are averaged over the last two financial years. The risk-adjusted capitation index is calculated using data from the Council for Medical Schemes' Risk Equalisation fund. At the same time, the patient output data is sourced from the District Health Information Services. Population data is from the mid-year population estimates, while the uninsured population is from the General Household Survey, both released by Stats SA.
- A basic component (16 per cent) derived from each province's share of the national population using the mid-year population estimates sourced from StatsSA.
- An institutional component (5 per cent) is divided equally between provinces and funds the cost of running a provincial administration.
- A poverty component (3 per cent) factors income data. This component reinforces the redistributive bias in the formula. The poor population is defined as people who fall into the lowest 40 per cent of household incomes using the 2010/11 Income and Expenditure Survey produced by Stats SA.
- An economic activity component (1 per cent) based on regional gross domestic product, as measured by Stats SA.

7.3 Problem statement and research questions

As previously indicated, there have been many PES reviews since 1996; however, despite these reviews, the relevance, appropriateness, adequacy, application, and performance of both the formula and PES, in particular, continue to dominate the discourse on intergovernmental fiscal reforms. Main functions for provinces include education and health, so when issues of the inadequacy of funding from the PES, they are mainly on these two functional areas. While components of the PES, including assigned weights, are clearly understood, there has not been much analysis undertaken concerning what happens after PES funding is at the disposal of provinces. There is a need to understand whether or not provinces disregard the weightings provided by the PES formula; hence the question of adequacy concerning the education and health functional areas. The other challenge often raised by provinces is the lack of responsiveness of the PES formula and funding to the changing social structure. When learners migrate from one province to another, the PES formula internalises and adjusts resources through the education component to follow learners' movement but fails to consider other necessary intergovernmental fiscal instruments.

7.4 Key research questions

Key questions this project seek to answer are:

- How do provincial expenditure patterns in health and education compare with the weightings of the PES formula?
- What impact do changes in social structure in provinces affect resource requirements in the education sector, particularly the PES?
- What expenditure adjustments do provinces implement when faced with insufficient or inadequate PES allocations?

7.5 Research aims and objectives

This research project reviews how provinces allocate funding from the PES, particularly for the health and education sectors, whether provincial allocations respect formula weighting, and consider the changing social structure. Specific objectives of this research are as follows:

- To review and analyse expenditure patterns for health and education for all provinces
- To evaluate and analyse social structure changes in provinces for education and how the PES and other fiscal instruments respond to such changes.

7.6 Research methodology and data

The research method used include:

- Analysis of PES from 2000 to 2021
- Analysis of all provinces' expenditures on both education and health for from 2012 to 2021. Since education and health components are dominant in the PES formula and in most cases,

provinces are of the view that PES funding is inadequate, undertaking this analysis will be able to indicate by how far these two sectors are underfunded. This analysis will also determine whether provinces follow the PES formula and weigh on their allocation of resources or whether they ignore it and allocate more resources to other sectors or activities. The analysis will also assist in determining the extent to which provinces use their own-raised revenue in the funding of education and health services.

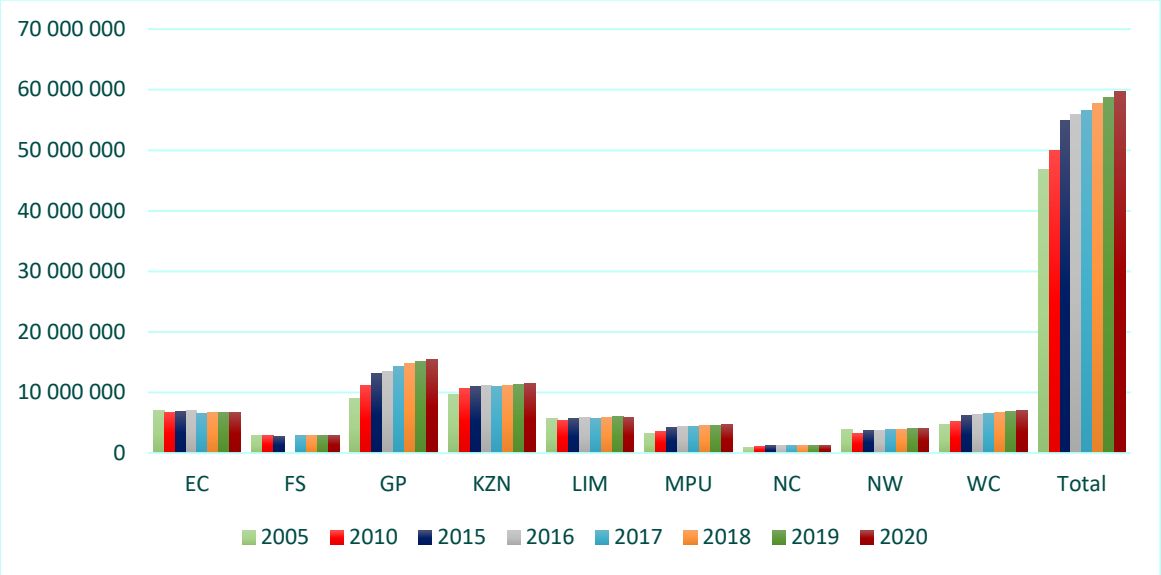
- To evaluate social structure changes and resources requirements and whether the PES recognises the full impact of those changes. The paper analyses changes in learners' enrolment and the number of schools and teachers in a province.
- To fully understand provinces' adjustment strategies when facing inadequate resources, the research proposes to engage with key stakeholders, mainly relevant officials from the provinces.

7.7 Analysis and results

7.7.1 Population and PES

Population (both the numbers and profile/characteristics) is one of the critical indicators in the PES formula in South Africa. Profile/characteristics include ages (for example, school-going age) and uninsured population). It is therefore key to understand how provincial population and demographics change over time and analyse whether resources from the PES respond to those changes. Figure 7.1 illustrates population growth per province from 2005 to 2020. Gauteng has the highest population, followed by KwaZulu-Natal. Between 2005 and 2020, Gauteng had the highest population growth (from 9 018 000 to 15 488 137), followed by the Western Cape (from 4 645 600 to 7 005 741).

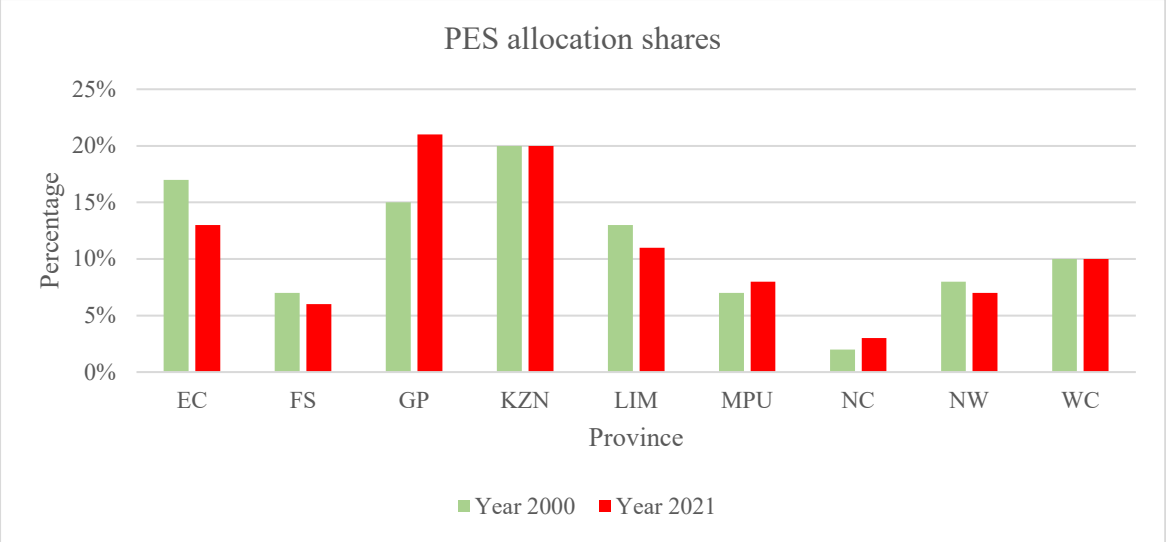
Figure 7.1: Total and provincial population between 2005 and 2020



Data source: Statistics South Africa, 2005-2020

Figure 7.2 illustrates the PES shares of provinces. It is clear that Gauteng and KwaZulu-Natal have the most significant shares, which is in line with population numbers. Gauteng's share is the highest at 21 per cent in 2021 (grew from 15 per cent in 2000), while KwaZulu-Natal's share remains the second-highest even though it has remained constant at 10 per cent in 2000 and 2021. When comparing shares of provinces in 2000 and 2021, it is notable that the shares of the Eastern Cape, Free State, Limpopo, and North-West provinces have decreased, which may be a result of migration patterns.

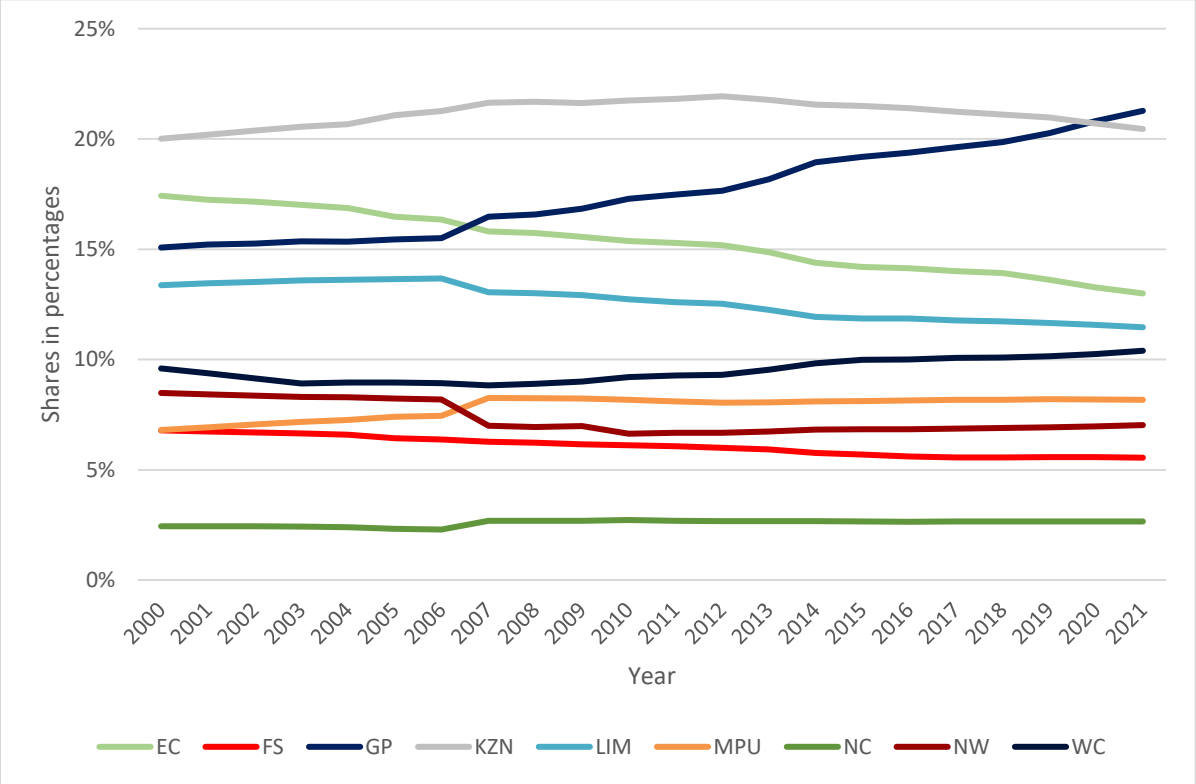
Figure 7.2: PES allocation shares 2000 and 2021



Data source: National Treasury: Estimates of Provincial of revenue and expenditure, 2000-2021

Figure 7.3 shows trends in the PES shares of different provinces from 2000 to 2021. Notable is KwaZulu-Natal with the biggest share since 2000 and its increasing shares until 2007. Beyond 2007, KZN shares remained stable and started to decrease from 2015. Gauteng's share of the PES has been increasing rapidly from 2000 to 2021 (from 15 per cent to 21 per cent). There has been a marginal increase in shares of the Western Cape while all other provinces' shares are declining.

Figure 7.3: Trends in PES from between 2000 and 2021



Data source: National Treasury: Estimates of Provincial of revenue and expenditure, 2000-2021

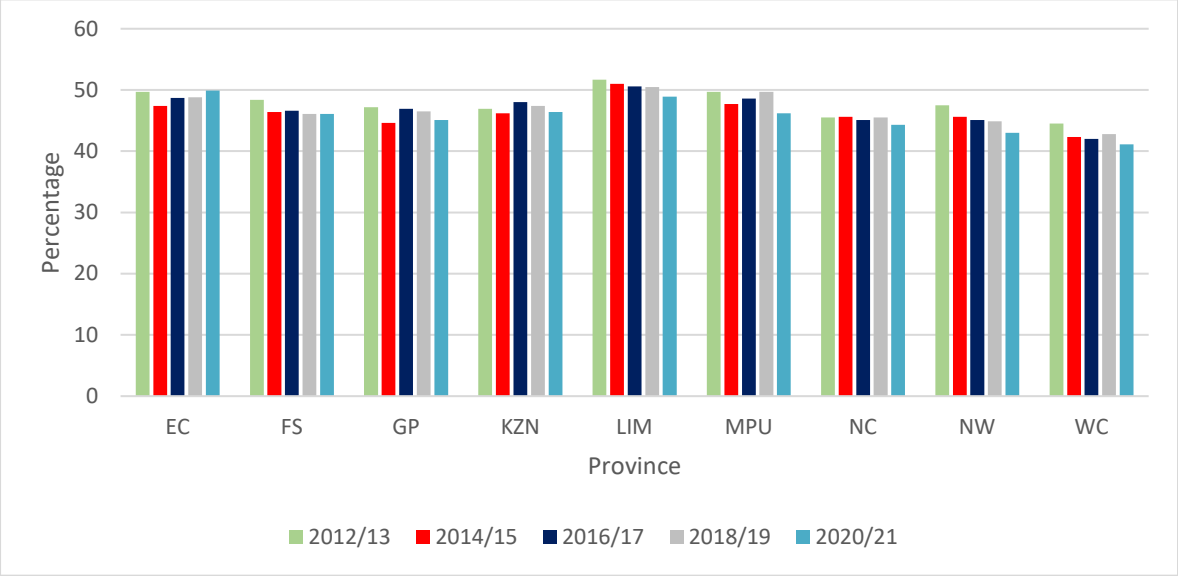
7.7.2 Allocation of resources from the PES to education and health

To determine whether provinces allocate adequate resources in line with, or significantly deviate from the PES formula weighting when allocating resources to education and health, the analysis included calculating and analysing the percentage of funding allocated to education and health by provinces and compared with weights as per the PES formula.

According to the PES formula, the education component has the highest weight of 48 per cent. Provinces have discretion on how much to allocate for education; hence different provinces allocate different funding percentages from the PES to education. Notable from Figure 7.4 is that Limpopo has consistently allocated more than 48 per cent of funding from the PES to education in all years. The Eastern Cape and Mpumalanga have been allocating more than 48 per cent to education for many years (in only two and three years respectively were the Eastern Cape and Mpumalanga provinces' allocations below 48%). The Western Cape and Gauteng provinces have consistently allocated less than 48 per cent of their PES funding to education.

There is inconsistency in the percentage each province allocates to education; for example, the Eastern Cape province assigned 49.7 per cent, 47.4 per cent, and 48.7 per cent to education in 2012/13, 2014/15, and 2016/17 respectively. The Commission is of the view that inconsistancy to a large extent could be as a result of government's failure to impliment Commission's recommendation of the costed norms approach (which can be key on costing of services and guide a smooth allocation of resources).

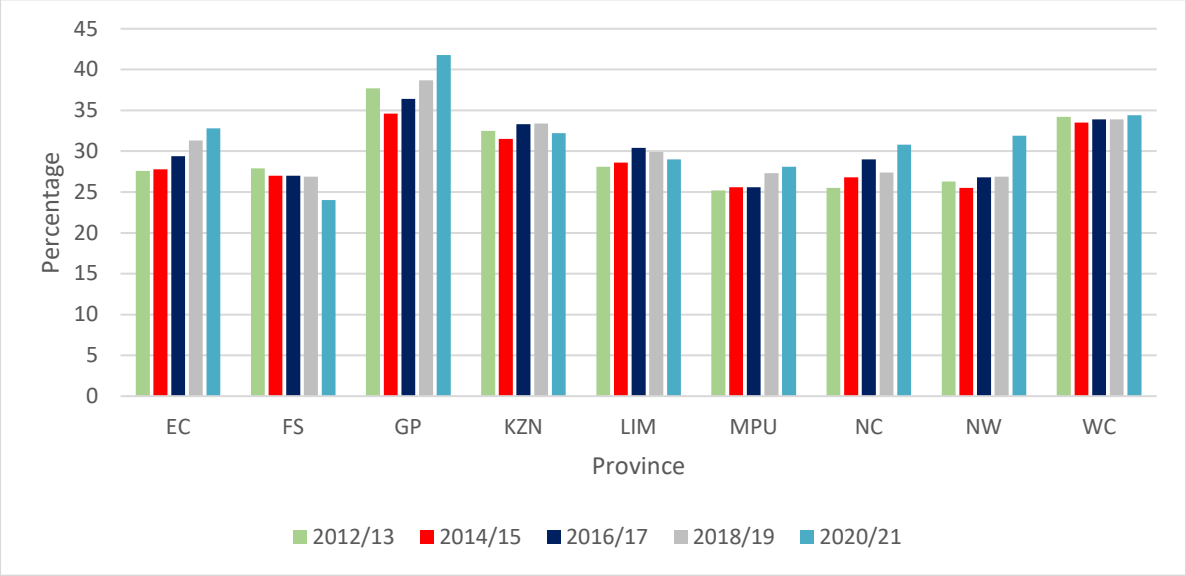
Figure 7.4: Percentage of PES allocated to education



Data source: National Treasury: Estimates of provincial revenue and expenditure, 2012–2021

For health, the PES formula weight is 27 per cent. While provinces have discretion on how to reprioritise funding from the PES once funding is at their disposal, the expectation is that deviations should be insignificant. Figure 7.5 illustrates how provinces allocate funding from the PES to health needs. Many provinces (Gauteng, Western Cape, KwaZulu-Natal, Limpopo, and Eastern Cape) over the period 2012/13 – 2020/21 have been allocating more than 27 per cent of PES funding to health. Gauteng has not allocated less than 33 per cent of PES funding to health since 2012/13. In 2020/21, Gauteng allocated over 41 per cent of PES funding to health, which confirms the Covid-19 induced health needs. Even provinces that have been allocating lesser resources to health were not allocating far less than 27 per cent of the PES. This shows the health expenditure pressures faced by all provinces. It is key to note that provinces that were allocating relatively lesser in education, such as the Western Cape and Gauteng, allocate more on health which shows that they prioritise health over education. KwaZulu-Natal has been allocating relatively lesser resources from the PES to education but a significantly higher percentage of PES to health. While this could improve healthcare delivery and outcomes, it compromises education quality, especially given the increasing number of learners in these provinces. Furthermore, there are inconsistencies in percentages of PES funding allocated to health by provinces; for instance, Gauteng allocated 37.7 per cent in 2012/13, which was decreased to 34.6 per cent in 2014/15, which may be as a result of lack of costing of health services.

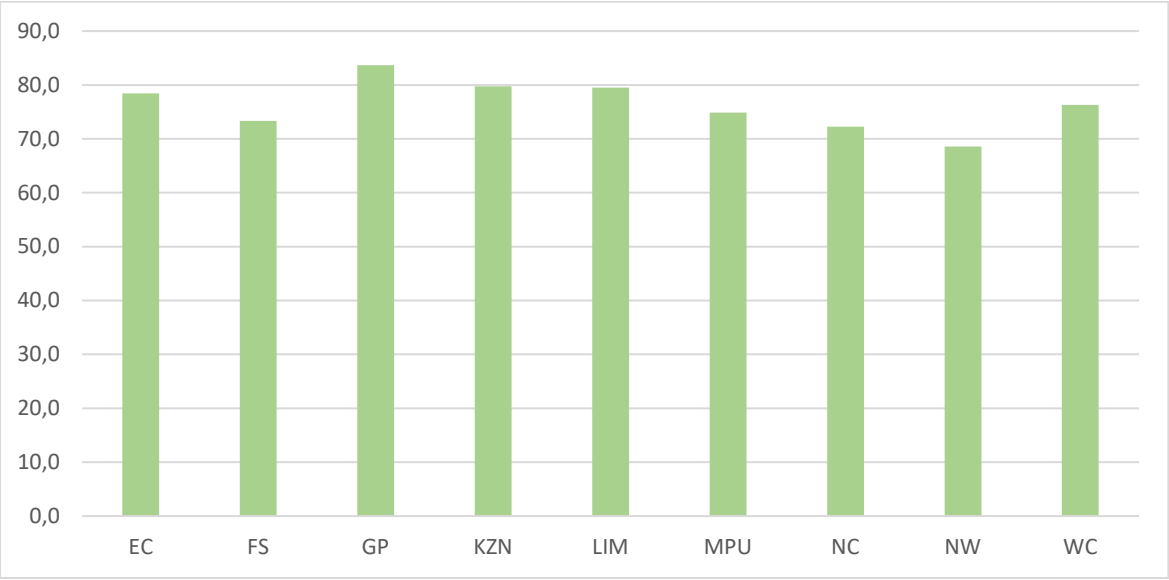
Figure 7.5: Percentage of PES allocated to health



Data source: National Treasury: Estimates of provincial revenue and expenditure, 2012–2021

According to the PES formula, combined weights for education and health are 75 per cent; however, due to expenditure needs pressures in these two sectors, most provinces allocate and spend more resources in these sectors. For example, Gauteng allocates more than 80 per cent of PES funds to education and health, as illustrated in Figure 7.6. Therefore, it is clear that provinces move resources between education and health as per their priorities and use funding provided for other activities (for example, economic and poverty). Moving financial resources from other functional areas to education and health has serious implications for funding other key sectors and activities such as economic development.

Figure 7.6: Average percentage of PES allocated to education and health between 2012/13 and 2021/22



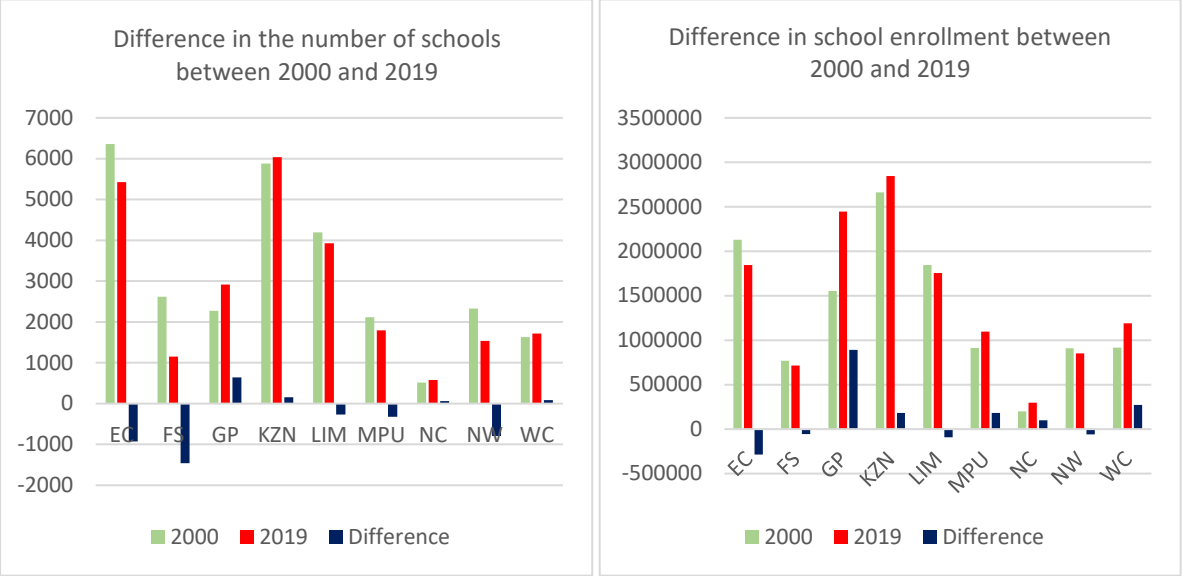
Data source: National Treasury: Estimates of Provincial of revenue and expenditure

7.7.3 Social structure changes and resources requirement and allocation

To determine the extent to which resources and expenditure allocation respond to changes in social structure, the analysis includes a closer look at changes in the number of schools and learners' enrolment per province against the number of teachers remaining in the employment of a province. An expectation is that changes in social structure should inform financial and human resources requirements. For example, a decrease in the number of learners and schools in a province should decrease the number of teachers required. In contrast, an increase in the number of learners and schools should lead to more teachers. The intergovernmental fiscal instruments (PES and conditional grants) need to recognise changes in social structures.

Over recent years, there have been changes in the number of schools in provinces, mainly due to learners' movement between provinces, leading to some provinces losing and others gaining learners. Some schools had to be closed and merged primarily in provinces losing significant learners, while a need for more schools arose in provinces receiving more learners. Figure 7.7 shows the number of schools per province for the period between 2000 and 2019. The total number of schools has decreased by 2 196 nationally (from 27 194 in 2000 to 24 998 in 2019). Provinces with the highest reduction in the number of schools are the Free State, Eastern Cape, and North West, with 1 461, 926, and 794 decreases in numbers respectively. Decreases in the number of schools in the Eastern Cape and North West correspond to the decreasing number of learners over the same period, while in the Free State, there is only a slight decrease in the number of learners. The number of schools in Gauteng increased significantly from 2 270 in 2000 to 2 913 in 2019, which corresponds to a significant increase in enrolment numbers, indicating a need for new schools in the province. In the Western Cape, there is an increase in both enrolment numbers and the number of schools. There is a positive relationship between the number of learners and the number of schools in a province. Since the PES uses school enrolment numbers, it plays a vital role in ensuring that provinces with more learners receive a higher share. However, there is no alignment between the PES and other complimentary intergovernmental fiscal instruments such as the school infrastructure grants to ensure the availability of adequate funding for the development of new school infrastructure. This is key to avoid learner overcrowding and not to compromise the quality of education. The intergovernmental system currently uses a formula that considers enrolment numbers to allocate resources through the PES but fails to link the PES with other necessary and complementary grants.

Figure 7.7: Difference in the number of schools and enrolment between 2000 and 2019

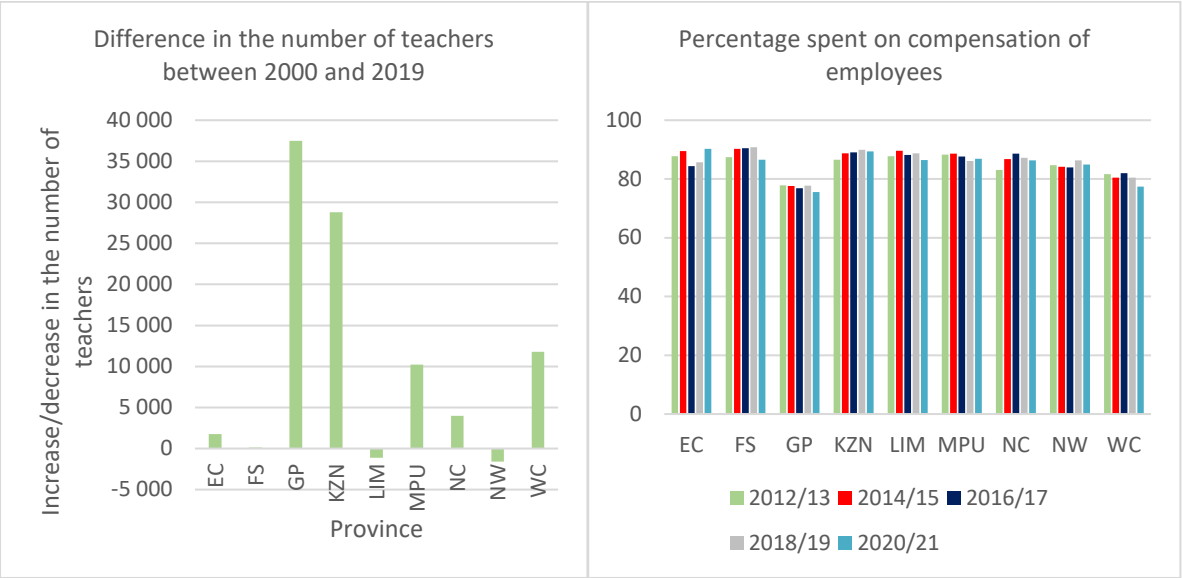


Data source: Department of Education, Statistics at Glance and School Realities from 2000 and 2019

Concerning the number of teachers per province between 2000 and 2019, Gauteng, Western Cape, and KwaZulu-Natal show significant growth in line with increasing enrolments. The number of teachers in Limpopo and North-West is declining because of decreases in schools and learner enrolment numbers.

The number of teachers in the Eastern Cape and Free State increased between 2000 and 2019, even though the number of schools and learners' enrolment declined significantly. An increasing number of teachers given a decreasing learners enrolment implies decreasing resources from the PES while costs on employee compensation increase, putting provinces under pressure. For these two provinces (Eastern Cape and Free State), for example, the percentage spent on the compensation of employees has been increasing in later years, as illustrated in Figure 7.8. This indicates that in some instances, while learners move between provinces, the mobility of teachers is limited. Engagements with key stakeholders from the provincial treasuries revealed that it takes time even to place teachers to other schools within a province following a schools' closure. This analysis shows that as the learners' enrolment numbers inform the PES allocation, provinces with decreasing learners enrolment receive lesser resources while the compensation of employees remains high. This indicates that the government should consider other key factors other than learner enrolment numbers when allocating resources, or at least provide some intergovernmental fiscal instruments to address this resource gap. The PES in its current form relies mainly on learner numbers and profiles and disregards other key issues, including the inability of teachers to follow learners' migration patterns and historical teacher-learner ratios in different provinces.

Figure 7.8: Difference in the number of teachers and percentage spent on compensation of employees



Data sources: National Treasury, Estimates of Provincial Revenue and Expenditure, 2012–2021

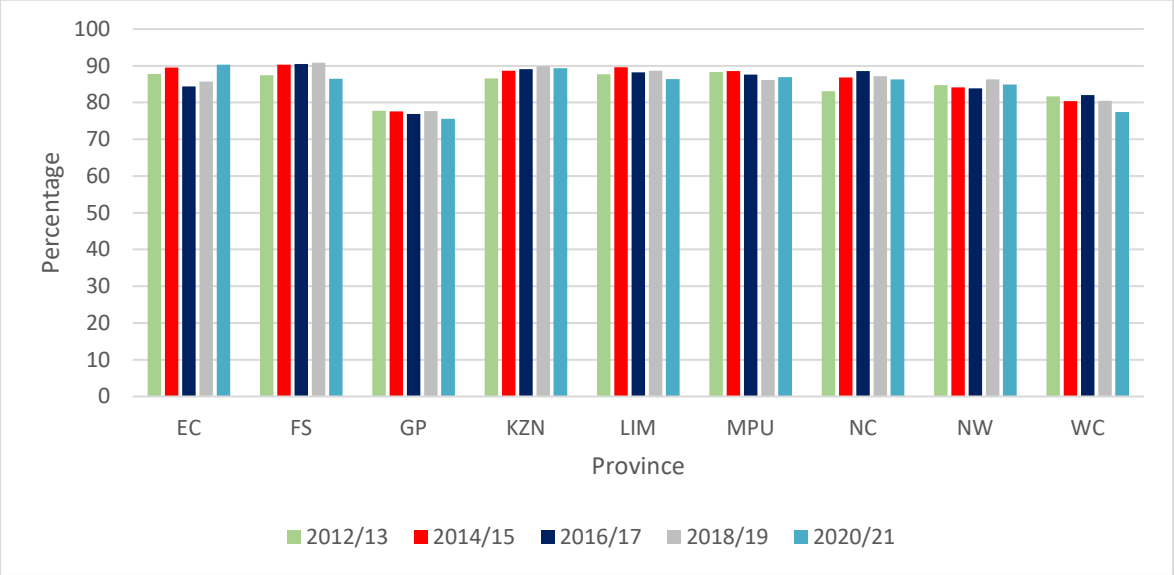
7.7.4 How provinces adjust to inadequate financial resources

Provinces have limited revenue-raising capacity and powers, hence the reliance on intergovernmental fiscal transfers in the form of provincial equitable share and conditional grants. Funding from the PES is mainly for education and health, and provinces commonly face challenges in these two sectors. Provinces prioritise education and health over other key functional areas such as poverty and economic activities as they spend more than 75 per cent of PES funding on education and health.

On these two functional areas, education and health, provinces spend a significant percentage on the compensation of employees, see Figure 7.9. On education, for instance, Free State and KwaZulu-Natal spent about 90 per cent on education allocation from the PES on the compensation of employees in 2018/19, leaving very little for infrastructure. There is a number of key drivers contributing to provinces' high spending on the compensation of employees and these include wage bargaining processes which are not factored to the PES as agreements have significant financial implications on personnel expenditure on both education and health. The other major factor contributing to high personnel costs in provinces identified during stakeholder engagements is teachers skills gap. School curriculum and subject content is consistantly revised and improved to ensure its relevance. However, some teachers particularly those who are older and who were trained to deliver older and outdated curriculum find it very difficult to deliver on new curriculum. This necessitates the employment of new teachers who are able to deliver and teach according to the new curriculum, this increases personnel costs as provinces in this instant have to pay both teachers (one trained in old curriculum and the one trained in new curriculum).

One of the activities or project provinces compromises is the provision and maintenance of school infrastructure (stakeholder engagement with one of the provinces confirmed this), which implies that provinces rely on conditional grants for infrastructure maintenance and delivery.

Figure 7.9: Percentage of PES funding spent on the compensation of employees



Data Sources: National Treasury, Estimates of Provincial Revenue and Expenditure, 2012–2021

Engagements with one of the key stakeholders revealed that provinces also reduce funding on goods and services (which include learner support material) when faced with funding challenges since it is difficult to reduce the compensation of employees. This compromises quality of education as a shortage of learner support material affects education quality. Stakeholder engagement also revealed that in some instances, provinces delay the replacement of teachers (for example, when they retire), which also compromises the quality of education. KwaZulu-Natal, for example, indicated that it is currently unable to afford and replace over 6 000 teachers.

The Eastern Cape also indicated that vacant teachers' posts were just over 54 000 in in 2021 and for 2022 this number is readjusted and reduced due to funding pressure. Freezing teachers' posts as result of funding constraints will have a detrimental effect on quality of education outcomes. Provinces also confirmed that, in an attempt to deal with funding pressure on education and health, own revenue (which is very limited) is used and cut from other departments.

7.8 Conclusion

Most provinces consistently allocate more than 48 per cent (or very close) of their PES funding to education with few, including Gauteng and the Western Cape, consistently allocating less. Findings reveal that many provinces have been allocating more than 27 per cent of their PES funding to health. For example, Gauteng has not allocated less than 33 per cent of PES funding to health since 2012/13. This shows the health expenditure pressures faced by all provinces.

It is key to note that provinces such as the Western Cape and Gauteng that were allocating relatively less in education, allocate more on health which shows that they prioritise health over education. While this could improve healthcare delivery and outcomes, it compromises education quality, especially given the increasing number of learners in these provinces. Furthermore, there are inconsistencies in percentages of PES funding allocated to both education and health by provinces which may be as a result of lack of costing of education and health services. Notable is that some provinces move resources between education and health and other activities. Moving financial resources from other functional areas to education and health has serious implications for funding other key sectors and activities such as economic development. Study findings also revel a lack of coordination of infrastructure delivery plans between the National Department of Basic Education as a custodian of indirect grants (responsible for capital spending as part of the delivery of school infrastructure) and Provincial Deprtments of Basic Education (reciepients of the PES funding and responsible for operational spending of infrastructure delivered by the National Department of Basic Education through indirect grants). Analysis reveals that a large percentage of PES funding both on education and health is spent on personnel (compensation of employees) as a result of a number of reasons including public sector wage agreements which which are not taken into account when determinining PES to provinces. With respect to education, the other contributing factor to higher personnel costs is teachers skills gap as a result of revised and improved school curriculum (some teachers particularly those who are older and who were trained to deliver on older and outdated curriculum find it very difficult to deliver on new curriculum, this necessitates the employment of new teachers who are able to deliver and teach according to the new curriculum, this increases personnel costs as provinces in this instant have to pay both teachers).

7.9 Recommendations

With respect to a review of the PES formula and its responsiveness to the changing social structure, the Commission makes the following recommendations:

1. *In line with the Commission's recommendation on costed norms approach, full costing exercises be undertaken by all provinces, particularly for the provision of education and health. The costing results will be used to determine allocations by provinces to these key functional areas. This will ensure consistency and fully informed resources allocation.*

Currently and from the analysis, allocation of resources by provinces does not appear to be informed by any costing; hence there are inconsistencies with respect to resources allocated to education and health from the Provincial Equitable Shares. Costing the provision of these activities could assist in resources allocation and identifying gaps.

2. *The National Department of Basic Education, as a custodian of conditional grants (particularly indirect grants and responsible for capital spending) and all Provincial Departments of Basic Education, as recipients of the Provincial Equitable Share and responsible for school infrastructure delivery and maintenance should improve coordination of infrastructure delivery plans and programmes to ensure alignment.*

Currently, the National Department of Basic Education implements its own infrastructure delivery plan which is not aligned with the provincial infrastructure delivery plans particularly with respect to the Accelerated Schools Infrastructure Development Initiative (ASIDI, an indirect grant), improving coordination between the national Department of Education and provincial Departments of Education will ensure that infrastructure delivery plans are aligned and provinces can adequately plan for the maintenance of school infrastructure developed through indirect grants.

3. *The National Department of Basic Education should undertake skills audits to identify the skills gap with respect to the old and new curriculum and based on the audit results:*
   a) *Identify the number of teachers who need to be trained and funding requirement*
   b) *Develop and implement a training a programme.*

One of the challenges highlighted is skills gaps as some teachers were trained on an old and outdated curriculum. With new curriculum and developments implemented within the education sector, skills gap necessitates employment of new teachers as some teachers in the system are unable to teach according to the new curriculum which increases personnel costs. Training teachers who are already in employment implies that there will be no need for new teachers, and this will reduce pressure on personnel costs.

7.10 References

Acemoglu, D. 2012. Introduction to economic growth. *Journal of Economic Theory,* 147(2), 545-550.

Agrawal, K. M. 2016. Horizontal fiscal imbalance. EAPRA International Journal of Economic and Business Review, Vol 4.

Aldasoro, I. and Seiferling, M. 2014. Vertical Fiscal Imbalance and Accumulation of Government Debt. [Online]. Available at: https://www.imf.org/external/pubs/ft/wp/2014/wp14209.pdf. Accessed: 10 February 2022.

Barati, Izabella, and Akos Szalai, 2000. "Fiscal Decentralization in Hungary". Centre for Public Affairs Studies, Budapest University of Economic Sciences.

Bird, M and Smart, M. 2002. *International fiscal transfers: International lessons for developing countries. [Online] Available at:* https://www.semanticscholar.org/paper/Intergovernmental-Fiscal-Transfers%3A-International-Bird-Smart/9af1b64f67e77ec607455734e81b071e96ee8b1d. Accessed 10 February 2022.

Breton, A. 1998. Competitive Governments: An Economic Theory of Politics and Public Finance. Cambridge University Press, United Kingdom.

Broadway, R and Tremblay, J. 2005. *A Theory of Vertical Fiscal Imbalance*. [Online]. Available at: https://martin.uky.edu/sites/martin.uky.edu/files/IFIR/Pub/ifir-wp-2006-04.pdf. Accessed 10 February 2022.

Crivelli, E., Leive, A., and Stratmann, T. 2010. *Subnational Health Spending and Soft Budget Constraints in OECD Countries. IMF working paper*. [Online]. Available at https://www.imf.org/external/pubs/ft/wp/2010/wp10147.pdf. Accessed 10 February 2022.

Department of Education. 2005. Education Statistics in South Africa at glance in 2003. Available at: Education Stat at a Glance 2003 FINAL.qxd (dhet.gov.za). Accessed 10 February 2022

Department of Education. 2009. School Realities. [Online]. Available: School Realties 2009:Layout 1.qxd (education.gov.za). Accessed 10 February 2022..

Department of Education. 2010. 2010 School Realities. Available: DoE School Realities (EMIS) 2010 oranjegroen:DoE School Realities 2007 23-10-2007.qxd.qxd (education.gov.za). Accessed 10 February 2022.

Department of Education. 2011. 2011 School Realities. Available: 2011_School_Realities.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2012. 2012 School Realities. Available: 2012_School_Realities_LATEST_FOR WEB.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2013. 2013 School Realities. Available 2013_School_Realities.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2014. 2014 School Realities. Available at School Realities 2014.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2015. *2015 School Realities*. Available at School realities 2015.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2016. *2016 School Realities*. Available at School Realities 2016 Final.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2017. *2017 School Realities*. Available at 2017 School Realities.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2018. *2018 School Realities*. Available at 2018 School Realities.pdf (education.gov.za). Accessed 10 February 2022.

Department of Education. 2020. *2019 School Realities*. Available at School Realities 2019 Final .pdf (education.gov.za). Accessed 10 February 2022.

Fenge, R., & Meier, V. (2001). Why Cities Should Not be Subsidized. [Online]. Available at: https://www.researchgate.net/publication/356330258_Why_Cities_Should_Not_Be_Subsidized. Accessed 06 April 2022.

Financial and Fiscal Commission a. 1995. Financial and Fiscal Commission Recommendations for allocating financial resources to the National and Provincial Governments for the 1996/97 Fiscal Year. Midrand.

Financial and Fiscal Commission a. 2016. *Submission for the Division of Revenue 2017/18.* Midrand.

Financial and Fiscal Commission, 1995. *Submission to 1996/97 Division of Revenue*. Pretoria, South Africa: Financial and Fiscal Commission

Financial and Fiscal Commission, 2000. *Submission to 2001/02 Division of Revenue*. Pretoria, South Africa: Financial and Fiscal Commission

Financial and Fiscal Commission, 2002. *Submission to 2003/04 Division of Revenue*. Pretoria, South Africa: Financial and Fiscal Commission

Financial and Fiscal Commission, 2016. *Submission to 2017/18 Division of Revenue*. Pretoria, South Africa: Financial and Fiscal Commission

Grossman, G., and Krueger, A. 1995. Economic growth and the environment. The Quarterly Journal of Economics, 110(2), 353-377.

Kjaergaard, 2015. The flypaper effect: Do political institutions affect Danish local governments, response to inter-governmental grants? Local Government Studies, Taylor & Francis Journals, Vol 41(4), pages 534-552

Kornai, J., Maskin, E and Roland, G. 2003. Understanding the Soft Budget Constraint. *Journal of Economic Literature. Vol 41, Issue 4, page 1095-1136*

McLure,C,E. 1994. The Tax Assignment Problem: Ends, Means, and Constraints. https://heinonline.org/HOL/LandingPage?handle=hein.journals/austraxrum11&div=11&id=&page=

National Treasury. 1998. *Budget Review*. http://www.treasury.gov.za/documents/national%20budget/1998/review/Default.aspx

National Treasury. 2000. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury.

National Treasury. 2012. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury.

National Treasury. 2013. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury.

National Treasury. 2014. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury.

National Treasury. 2015. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury. Accessed 10 February 2022.

National Treasury. 2016. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury. Accessed 10 February 2022.

National Treasury. 2017. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury. Accessed 10 February 2022.

National Treasury. 2018. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury. Accessed 10 February 2022.

National Treasury. 2019. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury. Accessed 10 February 2022.

National Treasury. 2020. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury

National Treasury. 2021. *Estimates of Provincial Revenue and Expenditure*. Pretoria: National Treasury

Panao, R.A.L, 2020. Beyond Flypaper: *Unconditional transfers and local revenue generation in the Philippines, 1992-2016*. Online available at: https://www.tandfonline.com/doi/full/10.1080/01900692.2020.1759628

Rodden, J. A, Eskelund, G. S. and Litvack, J. 2003. *Fiscal Decentralization and the Challenge of Hard Budget Constraints*. MIT Press. United States, Cambridge

Shah, A. 2007. *A Practitioner's Guide to Intergovernmental Fiscal Transfers.* Online available at: https://documents1.worldbank.org/curated/en/216941468339553694/pdf/wps4039.pdf

Shotton, R and Gankhuyag, U. 2019. Fiscal transfers in Asia – Challenges and opportunities for financing sustainable development at the local level. [Online]. Available at: https://www.bing.com/search?q=Shotton%2C+R+and+Gankhuyag%2C+U.+2019.+Fiscal+transfers+in+Asia+%E2%80%93+Challenges+and+opportunities+for+financing+sustainable+development+at+the+local+level&cvid=1c9ecd99157e431fb9483db633db209b&aqs=edge..69i57.4861j0j1&pglt=41&FORM=ANSPA1&PC=HCTS. Accessed 10 February 2022.

CHAPTER 8

Repurposing and realigning the system of provincial conditional grants

Chapter 8: Repurposing and realigning the system of provincial conditional grants

Eddie Rakabe and Khayakazi Mswephu

8.1 Background

Conditional or special purpose grants in South Africa date back as far as 1994 when the primary school nutrition grant (now called the national school nutrition programme) was introduced under the auspices of the Department of Health to address health deficiencies among school going children and to improve learners' dietary allowance (FFC, 2006). At the time of its introduction, the programme was seen as a temporary school level poverty relief measure that was to be gradually replaced by the fruits of broader reconstruction and development programme.

The grant underwent numerous iterations and evaluations over a 26 year period of existence, but remains an integral part of provincial conditional grants allocation – accounting for 7 per cent share of total grant allocations in 2020/21. Whereas the grant facilitates implementation of a national priority – as one of the fundamental objectives of conditional grants – its permanency and inefficacy violates some of the crucial principles of conditional grants. These weaknesses are not unique to the school nutrition programme or grant but permeate through the entire system of provincial conditional transfers. It is in this context that the study evaluates provincial conditional grants against selected principles and design imperatives of intergovernmental transfers.

The evaluation is imperative for several reasons. First, conditional grants constitute a sizable portion (17 per cent) of total provincial revenue (National Treasury, 2021). Second, there is an ongoing tension as to whether provincial expenditure mandates or concurrent functions should be funded through the discretionary transfers (equitable share) or conditional grants and what the optimal quantum of conditional transfer should be, relative to the equitable share. Third, the system of 'conditional' is haphazard, and is characterised by proliferation, arbitrary introduction of new grants or sub-components thereof, repurposing and termination and overloading of objectives. Fourth, a number of conditional grants suffer from design shortcomings such as overlapping objectives and failure to address vertical and horizontal fiscal spill-overs or externalities as intended (FFC, 2006). For instance, Gauteng province often laments the inadequacy of the national tertiary services grant in addressing inter-provincial patient referrals and heavy cost burden imposed on the health function by inter-provincial health service demands. Last and most importantly, conditional grants must be subjected to regular equity, efficiency, predictability, flexibility and accountability tests to ensure overall integrity of the system and alignment with best practices.

The study fits well within the Commission's research theme of 'strengthening budgetary institutions to improve fiscal and delivery performance post Covid-19' in so far as improving effective expenditure management and overall outcomes is concerned. One of the vexing challenges of effective expenditure management that manifest through conditional grants is cost revelation. Conditional grants are generally introduced with little or no cost estimates while purportedly intended to fund national priorities. They are commenced with limited budget allocations to minimise underspending risks and priority drift. Similarly, conditional grants tend to carry the heaviest burden of fiscal consolidation. When there are budget cuts, conditional grants are first to be cut (FFC, 2020). The total conditional grants cut for the 2021 MTEF amounted to R10 billion, representing 10 per cent of total conditional allocations.

A combination of small initial allocation, slow growth in addition to baseline and budget cuts results in thinly spread distribution of resources across recipient provinces and within spending programmes. The allocated funds are often too little to make an impact and elongate completion of programmes or achievement of outcomes. If the principle of conditional grants is to finance national priorities, it is therefore instructive to evaluate why some have been in existence for more than 20 years and yet remain a national priority. From a budget institution perspective, the assessment will determine whether prioritisation mechanisms or inherent design features are able to trigger the necessary budget adjustments or accountability levers when intended outcomes fail to materialise. This study therefore seeks to conduct a 25 year review of provincial conditional grants with specific focus on (1) the number and quantum of funding, including proportional share of grants to the equitable share (2) the number of conditional grants introduced, terminated, rationalised or reclassified and incorporated into the PES (3) alignment between grant design and policy objectives (4) grant performance and accountability and (5) fairness of the allocation criteria for selected conditional transfers.

8.2 Problem statement

Conditional grants are an important funding instrument for provincial concurrent expenditure mandates which arguably should be funded through discretionary national transfers. However, the nature of intergovernmental fiscal relations in South Africa, particularly revenue and expenditure assignments and the resulting vertical and horizontal imbalances as well as inter-jurisdictional disparities, calls for re-distributional transfers to achieve equity objectives with respect to funding, access and delivery of services. Special purpose grants have emerged as a preferred instrument by national government to finance what are regarded as national priorities (or incentivise provision of specific services) rather than addressing overall equity goals. As a result the system of conditional grants is fragmented, disconnected from unconditional transfers and fails to meet intended delivery outcomes and to correct lingering fiscal and delivery imbalances (Ter-minassian, 1997) despite more than 20 years of implementation.

Government has paid little attention to the design of individual conditional grants and the system as a whole. The efficacy of the system depend on whether grants are matching or non-matching and whether allocation conditionalities are input or output based. Matching requirements can either be open-ended, providing the receiving authority with the discretion to determine the level of

matching resources or close-ended, where the transferring authority sets the prescribed matching limit. Whereas matching grants promote local ownership of the funded programme, they tend to disadvantage and create a fiscal burden for the receiving jurisdiction with limited fiscal capacity and therefore impinge on the overall outcomes (Boadway and Shah, 2007). This is particularly the case with most schedule 4 grants which are allocated without due regard to the province's ability to meet the matching requirements. In many instances the matching requirements are not explicitly stipulated. Further, poor design considerations increases the fungibility effect of the grants, especially where the expenditure needs of the funded programmes exceed the conditional grant allocation. Yet government continues to make incremental allocations to long-existing grants and create miniscule new grants without due regard to design implications for overall delivery outcomes and functionality of the system. Some of the conditional grants are allocated incrementally on the bases of historical baselines devoid of relevant expenditure needs indicators.

Similarly, poor design considerations mean that the various conditional grants are unable to address spill-overs and externalities. Matching grants are unsuited to deal with uneven fiscal and delivery disparities, yet the South African system of conditional grants makes no distinction. The result of this design shortcoming is that the conditional grant system functions sub-optimally, and is characterised by poor spending, incentives and accountability for results, protracted existence with unmet goals, incorrect classification, intermittent changes and deficient (old, dated, opaque and inequitable) allocation criteria. The framework for intergovernmental fiscal transfers makes no provision for regular review of conditional grants to ensure that the system influences the fiscal decisions of provinces as intended and that the objectives of national government and those stipulated in section 214 of the Constitution are achieved.

8.3 Key research questions

- What are the changes in the number, quantum and nature of provincial conditional grants over the past 25 years?
- What is the rationale for constant and abrupt introduction, reclassification and termination of grants, including reluctance to incorporate long-existing grants into the provincial equitable share?
- To what extent is the design of various grants consistent with the general principle of grant design and alignment with the overall policy objectives?
- To what extent do some of the conditional grants comply with fairness of the allocation criteria?

8.4 Hypothesis

The framework for intergovernmental fiscal transfers makes no provision for regular review of conditional grants to ensure that the system influences the fiscal decisions of provinces as intended and that the objectives of national government and those stipulated in section 214 of the Constitution are achieved.

8.5 Literature review

8.5.1 Role of conditional grants

Conditional grants, sometimes referred to as specific purpose or categorical grants, are provided to sub-national governments by national government to achieve a specific objective that may be highly important to national government but less significant to the recipient sub-national government (Ma, 1997). The objective for which conditional grants are introduced, extent of utilisation, allocation criteria, and overall design depends on the nature of intergovernmental fiscal relations arrangements of a given country. For instance, the funds can be allocated to sub-national governments in one of four ways: as a ratio of nationally collected taxes, through a formula based on selected criteria, on an ad hoc basis and through a cost reimbursement mechanism (Brun and EL Khdari, 2016). In the most general sense, the overarching objective of conditional grants is to influence sub-national government fiscal decisions, with the express aim of pursuing national interests, including those stipulated in the Constitution (FFC, 2006).

In Africa and in most economies in transition, sub-national governments do not have sufficient fiscal and institutional capacity to collect local taxes, and therefore rely on grants from the central government for their fiscal support (Shah, 2006). Most countries with a decentralised government use grants as an incentive tool to ensure sub-national governments provide essential services to the public and comply with policy standards and priorities set by the national level (Bischoff and Blaeschke:2010).

Conditional grants support intergovernmental joint effort and coordination among nations and public governments by using financial resources and expertise from various levels of government. The use of conditional grants can alleviate a few challenges by giving public assets and advancing nation proprietorship (Chen, 2014).

According to the FFC 2019/20 submission, conditional grants play a vital role in addressing spatial inequities as required by the Constitution. Grants are used to support and capacitate the recipient sub-national governments to provide basic services and implement national policies to address the regional social and economic inequities. If the role of conditional grants is not expressly clarified and aligned to the overall intergovernmental fiscal relations agenda, this may create distortions in the allocation and spending of fiscal instruments. This is why the rationale should be clearly stated from the onset. The next section discusses the rationale for conditional grants in greater detail.

8.5.2 Rationale for conditional grants

At the most general level, governments use conditional grants as part of a broader package of intergovernmental transfers for two economic reasons: To address vertical fiscal imbalance on the one hand, and horizontal fiscal imbalance on the other. The former arises from imbalances in allocation of revenue raising responsibilities and expenditure mandates between the national government and sub-national governments, in which national government retains major tax handles, leaving sub-national government with limited fiscal capacity (Ma, 2007). The latter

emanates from variation in fiscal capacity and expenditure needs across sub-national governments resulting in a fiscal gap that needs to be addressed through central transfers. Plugging horizontal fiscal gaps is often justified on the basis that national government must maintain minimum levels of services. However, they often impinge on the diversity of sub-national expenditure composition and often lead to allocative inefficiencies and as well as top-down planning. The extent to which ensuring vertical or horizontal fiscal imbalances are addressed by conditional or unconditional transfer is a subject of statute, negotiation and process of evolving intergovernmental fiscal relations. Chapter 7 of this submission provides detailed discussion on vertical and horizontal fiscal imbalances.

For the purpose of this chapter it is important to note that the proportion of conditional fiscal transfers to unconditional or general purpose grants and alignment between the two is crucial for the overall efficacy of the conditional grants system. As Brun and Khdari (2016) note, choosing between unconditional and conditional transfers is a crucial public policy choice that is often neglected despite the fact that the proportional balance between the two transfers has serious implications for fiscal incentives in decentralised system of government. On the expenditure side, conditional transfers may result in what is widely recognised in literature as the 'flypaper effect' – an exponential rise in sub-national government expenditure as a result of national transfers as opposed to increase in own revenue, buck passing[29] and pork barrelling[30] among other things. On the revenue front, transfers may cause tax effort inefficiencies.

Turning to the more specific foundations, the first traditional justification for conditional grants is compensation for benefit spillovers in the sense that sub-national governments are often reluctant to invest in public services that yield benefits to residents of other jurisdictions. Benefit spillovers result in under provision of services because the providing government bears the total cost while receiving only a portion of the benefit (Shah, 2006). Spillovers are more likely to arise in the provision of services such as public transport, education, health and pollution control. In the absence of mechanisms to record benefits accruing to non-residents, conditional grants are used to fill the cost-benefit gap. Apart from conditional grants, subsidies can be used address benefit spillover effects. The challenge with using spillovers as the basis for conditional grants is the difficulty of estimating the size of the compensation.

Another related argument to the spillover rationale is that conditional grants can help achieve national common market i.e. reduce distortions in the movement of labour, capital as well as goods and services across jurisdictional boundaries – especially when sub-national government design expenditure programmes to the exclusion of residents in other jurisdiction or tend to attract investments through 'beggar thy neighbour' type of policies. Conditional grants may therefore be introduced in order to harmonise expenditure programme design (FFC, 2001).

[29] Shifting fiscal responsibility to another sphere of government.
[30] The practise of directing public funds to the local voting district of a political figure.

The horizontal equity argument cited earlier as a general economic rational underpinning the use of fiscal transfers comes across as another controversial but important reason for introducing conditional grants. Most developing countries tend to justify introduction of conditional grants on redistribution and equity grounds. However, there are counter-arguments against the appropriateness of conditional grants as remedy for redistribution. Literature suggests that equity objectives are best addressed through block grants or subsidies (FFC, 2001; Bahl, 2000; Shah, 2006).

Equity imperatives are generally operationalised through national minimum norms and standards to ensure that sub-national governments meet minimum standards on functions that fall within constitutionally obligated areas of responsibility (Alm and Martinez, 2002; FFC, 2006). Minimum norms and standards, sometimes referred to as 'budgetary norms or expenditure norms' are used in determining the amount of grants allocated to sub-national governments as well as in the planning and execution of policy. A common shortcoming with minimum standards is that they are rarely well defined with several approaches defining standards as technical, physical and financial inputs or the production of certain outcomes. The use of conditional grants raises questions as to how the implementation is to be funded and by whom (Alm and Martinez, 2002)? The type of funding instrument, be it a matching or non-matching grant, chosen to implement minimum norms will have a bearing on whether such norms are achieved or not, as will be demonstrated in the next sections.

Conditional grants are also justified on the basis of the need to deal with infrastructure deficiencies in poor jurisdictions, to improve productivity in lagging regions and to strengthen the economic union. Birds and Smart (2002) are of the view that national government may be interested in infrastructure financing for two reasons. First, to address externalities associated with sub-national infrastructure projects as explained earlier. Second, to roll out crucial elements of the national development agenda, particularly in areas such as education, health and rural development among other things. However, Shah (2006) notes that capital grants should, as a general rule, be determined on a project by project basis rather than on a continuous basis. These type of grants are generally accompanied by complex approval processes, making them susceptible to undue lobbying, grantsmanship, political pressure, central government influence as well as project failure due to lack of local ownership and stakeholder involvement. Matching grants are well suited to remedy such limitations as discussed in the subsequent sections below.

Other motivations for specific purpose grants entail the need to achieve economies of scale or encourage multilevel government coordination by incentivising formation of spatial units for co-financing expenditure programmes and mitigating inter-jurisdictional fiscal competition (Spahn, 2012). Capacity building is yet another common rational for conditional grants in developing nations where physical and human capital to produce acceptable levels of public services is often lacking (FFC, 2001). However, it is important to note that grants do not compensate for weak government or implementation capacity. Spahn (2012) suggest that capacity building must be demand driven, rather than supply determined. Some of the reasons for conditional grants may also involve the need to reveal information, mitigate service delivery risk and trigger certain reforms at sub-national government level.

8.5.3 Types of conditional grants

The type of conditional grant has important implications for the design, induced incentives, anticipated outputs, outcomes and impact as well as overall ease of implementation, yet little regard is often paid to the shape conditional grants take. Essentially, there are three types of conditional grants as shown in Table 8.1 below.

Table 8.1: Types of conditional grant

Type	Description
Non-matching	Grants allocated without any requirements for contribution by the sub-national government as long as funds are used for the intended purpose.
Matching (open-ended)	The national government matches a proportion of funding allocated or spent by sub-national government on a specific expenditure programme without any limit placed on the amount of available assistance or expenditure by sub-national government. The cost to national government varies according to the size of sub-national expenditure.
Matching (close-ended)	Similar to above but national government places a limit on the amount of available assistance or the contribution by sub-national government

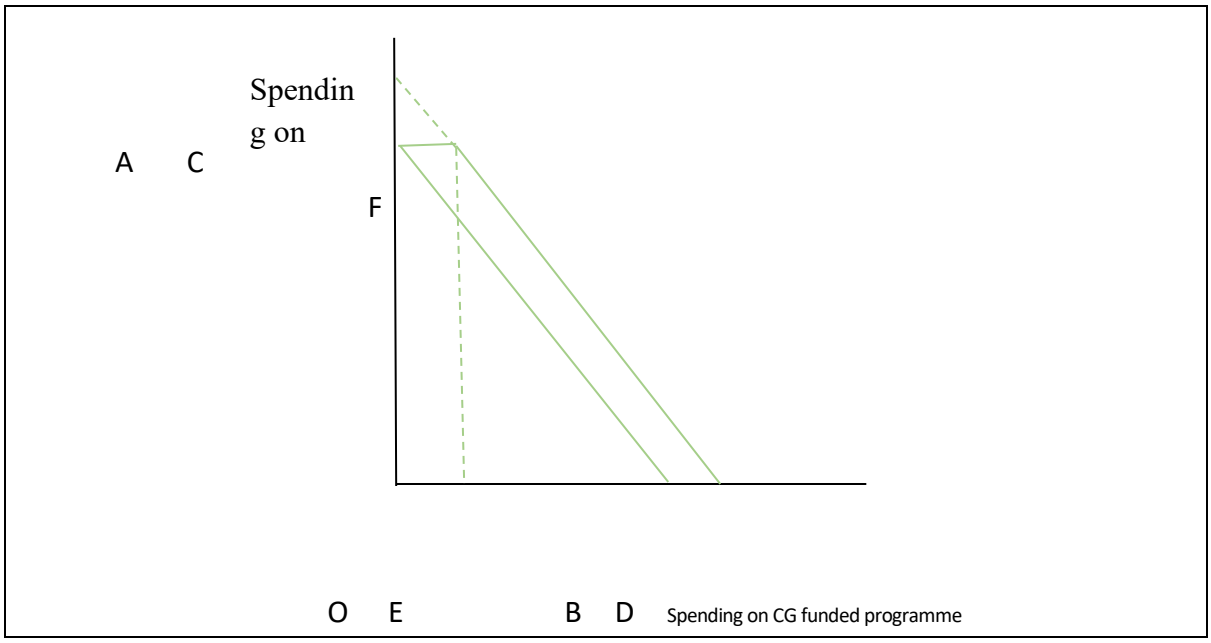
Source: Chen, Mulaki and Williamson, 2015 and Spahn, 2012

With conditional grants there is always a risk that associated conditions do not always match sub-national or local preferences. Matching grants thus becomes a useful fiscal instrument to reveal local preferences and induce sub-national governments to produce the right amount of services. According to Bird and Smart (2002), matching grants make sub-national government susceptible to national control but they also promote local involvement, commitment and accountability. The size of the matching rate or cost paid by national government is dependent on the size of the spillovers, while the matching rate faced by sub-national government is dependent on the degree of central government interest in the funded programme as well as the degree of local enthusiasm, ability to support the programme and the capacity to raise matching revenue (Bird and Smart, 2002). The biggest challenge with matching grants as noted by Bahl (2002) is determining the matching share. If the sub-national matching share is set too high, the buy-in rate will be low; if the national matching share is set too low, opportunity for local resource mobilisation and project ownership will be lost. Further, if the matching rate is not progressive, matching grants are less likely to entrench fiscal disparities and impose significant administrative and compliance cost to jurisdictions with limited fiscal capacity.

The figures below demonstrate the incentive effects of matching and non-matching conditional grants. Figure 8.1 shows that non-matching grant has a positive expenditure effect as can be seen with a shift in the budget line from AB to ACD especially when an expenditure program generates a degree of spillovers to a given level of service provision shown by (OE). Non-matching conditional grants are well suited for funding policy areas considered high priority by the national government. These transfers provide sub-national governments with maximum autonomy but tend to be associated with cumbersome conditionalities.

Figure 8.2 shows the sub-national expenditure effect of a one-third open ended matching conditional grant from national government with a shift of the budget line from AB to AC. Shah (2006) argues than open ended matching grants have both an income and substitution effect in the sense that the recipient community can acquire extra benefits of the subsidised service (income effect) and consume more of other public services as a result of reduced price of the subsidised service (substitution effect). However, these type of grants tends to be associated with high levels of fungibililty[31] especially where the recipient sub-national government's share of matching grant is higher than the national government matching rate.

Figure 8.1: Effect of non-matching conditional grant



[31] Funds being diverted away from original intended purpose.

Figure 8.2: Effect of open-ended matching conditional grant

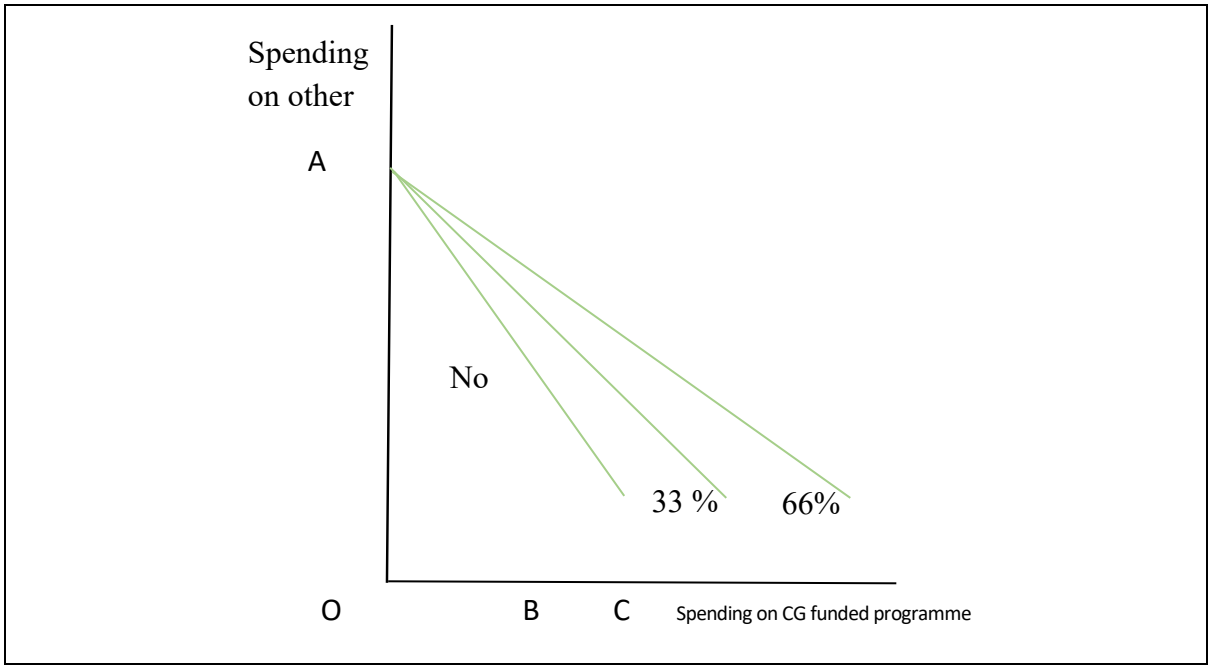
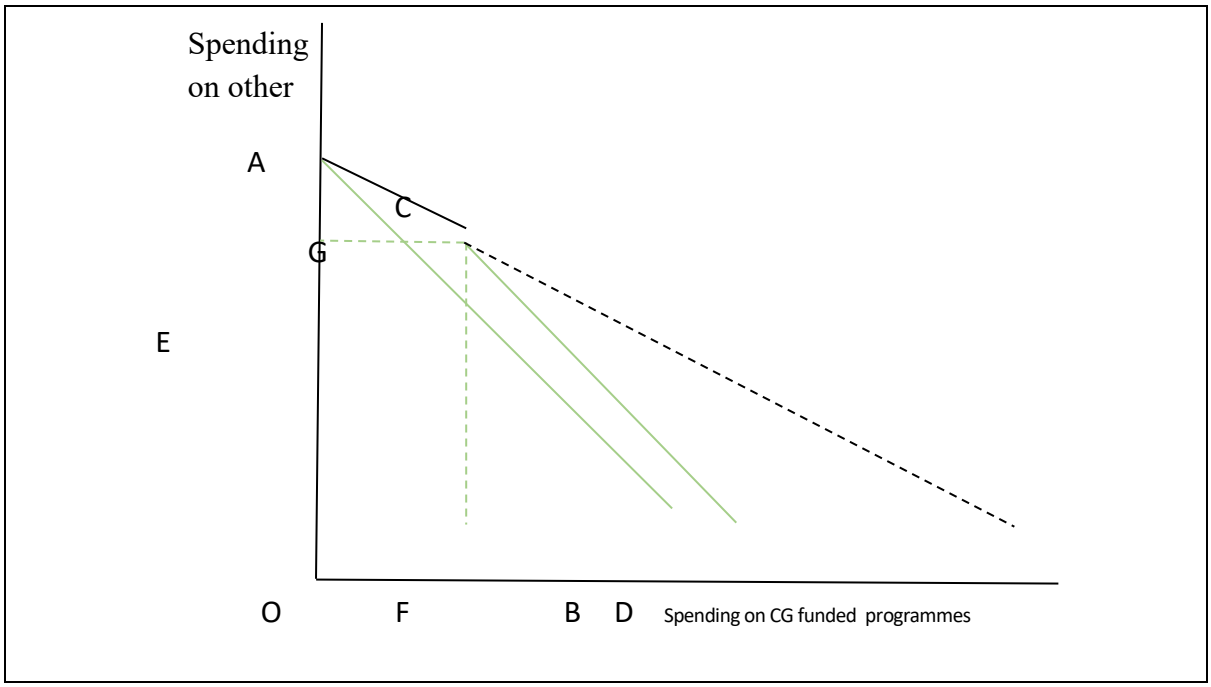


Figure 8.3: Effect of close-ended matching conditional grant



Source: Adapted from Shah (2006)

Figure 8.3 shows the effect of close ended matching grants, which are often preferred by national governments because of the level of control they can retain over the budgets. In this instance, a given level of assistance from national government shifts the budget line from AB to ACD where the new line slope downward to a 1:1 matching ration beyond expenditure OF instead of expected increase in sub-national programme expenditure (AH). Whereas close-ended matching grants tend to increase expenditure on targeted priority areas, they also tend to cause over spending on these

functions while depriving other competing service delivery needs. Overall, Shah (2006), Bahl (2000) and Bird and Smart (2002) contend that conditional non-matching grants are preferable to matching grants because they allow autonomy and flexibility while providing incentives for improving outcomes and enabling accountability for results. These design imperatives are often ignored in the system and execution of conditional grants. The next section discusses design issues in greater detail.

8.5.4 Principles and design issues for conditional grants

One of the key design consideration in the administration of conditional grants noted by Spahn (2012) is the need to clearly specify intended policy objectives for the national government and the receiving sub-national government from the onset and translate such objectives into measurable indicators. This is especially true because of unresolved arguments over whether the purpose of conditional grants is to influence fiscal decisions of the sub-national governments or meet the actual delivery objectives of the funder (FFC, 2000). Further, setting clear goals is necessary for effective exchange of information and risk mitigation which in turn improves coordination and provides guidelines for desirable intervention where implementation is weak (Tompson, 2011). This design imperative must be preceded by an ex-ante allocation assessment to ensure that certain preconditions i.e. administrative and implementation capacity, are met before the grant commences.

In the formulation of performance measures, it is important that expected outputs are as far as possible few, negotiated between the two parties (funder and recipient) and linked to the policy area being supported by the grant. Achieving this linkage is not always possible in a context where the delivery chain is vague and subject to control by multiple authorities or the overarching policy is susceptible to economic and political changes. Similarly, performance measurements go hand in hand with sanctions and rewards. If there are no sanctions, the conditional aspects of the funding becomes irrelevant. Where applicable, sanctions must be applied as measure of last resort (after negation and contracting mechanism has failed) to minimise mistrust. Rewards can further be incorporated into the grants system to incentivise sub-national governments achieving outcomes above the set national average. The reward system however, works better when policy priorities and the expected outcomes are jointly set by national and sub-national governments through a process of intergovernmental negotiation.

Another design imperative related to performance measurements is deciding whether a conditional grant is input or output based. Input based conditional grants specify the expenditure items (i.e. technical standards) eligible for funding whereas output based conditional grants emphasise the link between grant funding and delivery performance. Shah (2006) argues that input based grants are intrusive and impinge on sub-national autonomy in contrast to output based grants which promote local autonomy, budget flexibility and accountability. Input based grants can engender a great deal of perverse incentives, as the recipient sub-national governments are likely to focus on meeting inputs criteria i.e. books and stationery in the case of education, instead of improving the overall education outcomes (literacy, numeracy and throughput). Table 8.2 highlights some of the perverse incentives associated with poor grant design.

Table 8.2: Conditional grant perverse incentives

Incentive	Description
Respect for autonomy	Designing conditional grants is convoluted by the need to respect sub-national budget autonomy while ensuring attainment of programme objectives. These objectives can be achieved through bloc and matching grants.
Moral hazard	These entail excessive use of cumbersome conditionality which aggravates administrative burdens and information costs.
	Conditional grants may also cause a soft budget constraint problem – in cases where sub-national government bet on national government bail-out triggered by political affiliation (in cases of service under-provision) rather than economic rationale.
	Sub-national governments can sometimes get accustomed to conditional grants as an entitlement in cases where political affiliation trumps conditions.
Adverse selection	In this case, the national government is likely to fund priorities with high probability of success or sub-national governments decide to underspend the funds because of stringent conditions.

Source: Spahn, 2012

Differentiation is another important design consideration that is often overlooked. There is a need to adapt grant conditions to the varying sub-national conditions – especially where local preferences differ, instead of using a one size fits all approach. In the case of matching grants, differentiation may be achieved through setting a progressive matching rate to favour poor jurisdictions. Other important design considerations include the need to decide on the allocation criteria, performance assessment measures and monitoring framework, recourse measures when conditions are not met and a system for managing conflict. This is achieved through effective processes of intergovernmental coordination, largely influenced by the overall design of intergovernmental relations (Sengupta, 2018). Joint development of conditional grant objectives, applicable conditions and anticipated outcomes helps to improve harmonious intergovernmental fiscal relations and promote accountable governance.

8.5.5 Pre-requisite for effective conditions

Policies and contracts alone are not sufficient conditions for an effective system of conditional transfers. The system needs an enabling political and institutional environment as well as quality control measures for implementing conditional grant funded programmes at the sub-national government. As to the political and institutional environment, it is crucial that the programme has strong national and local political support, that programmes are designed to complement sub-national structures rather than supplement them; that local preferences are taken into account; that national government creates a conducive environment for successful implementation and provides the requisite administrative and technical support (Spahn, 2012). The procedure for implementing conditional grants must be underpinned by credible conditions, an adequate conditioning scheme and strict compliance enforcement mechanisms.

The conditioning scheme being alluded to should speak directly to the various elements of grants rationale and design discussed in the foregoing sections. That is, the conditions must address the purpose i.e. spillovers, reforms, attain minimum norms and standards/service access equalisation;

whether a grant is matching or non-matching, with a clearly set out matching rate; input or output based; and the intended fiscal responses. Some conditions may entail a combination of basic minimum conditions which the recipient sub-national government must comply with in order to access the grant and qualitative performance eligibility variables to adjust the level of funding (quality of planning, reporting etc.) when the receiver has complied with minimum conditions (Sengupta et al., 2018). In advising the Indian government as part of its constitutional mandate, the Indian Finance Commission proposed key principles for designing conditional grants, including the need to limit the scope of the grant, to use competitive and formula driven allocative criteria, to ensure the capacity of national government to manage and oversee the grants and for the grants to have binding sunset clauses.

8.5.6 The political economy of conditional grants

Intergovernmental fiscal transfers operate within a political environment and are therefore susceptible to capture and abuse by politicians and bureaucrats (Mendes, 2005). Political economy theory identifies four propositions under which political and bureaucratic capture manifests in transfers: fiscal illusion, limited power of the voter, over funding of certain jurisdictions and justifying capture on the basis of poverty. Bird and Smart (2002) argue that some politicians may deem it necessary to allocate funds to jurisdictions that do not really need them in order to make it politically justifiable to transfer needed amounts to their favourite jurisdiction or simply allocate resources to economically unviable jurisdictions for narrow political ends or for the sake of national pride.

8.5.7 Enabling legislative framework for conditional grants

One approach to balance local expenditure autonomy, while ensuring fulfilment of national policies or priorities in the design of conditional grant system is to institute national principal legislation stating the policy objective to be achieved, supported by enabling legislation at the sub-national level. In such a system, sub-national government can adopts its own legislation to individual requirements, while setting specific milestones, outputs to be achieved, reporting regime and timelines for review. In addition to the supporting legislations, another approach to achieve local autonomy and simultaneously ensure the safeguarding of national policy imperatives is bilateral agreement or contract between national and sub-national government detailing joint responsibilities and actions for both spheres of government.

8.6 Importance of the research

The primary role of the Commission as outlined in Section 3 (1) of the Financial and Fiscal Commission Act, 1997 (Act No. 99 of 1997) is to make recommendations and give advice to organs of state in the national, provincial and local spheres of government on financial and fiscal matters. The role derives from section 214 of the Constitution which states that an act of Parliament that provides for equitable division of revenue may be enacted after the Commission has been consulted and its recommendations considered. This framing has been interpreted to mean that the Commission should focus its recommendations on division of revenue matters (i.e., equitable share and conditional grants).

There is a general perception that the Commission is or has strayed away from this core mandate, and therefore no longer provides the necessary advice on the horizontal and vertical division of revenue. This study seeks to re-establish the Commission's focus on the Division of Revenue and transfer instruments to support and maintain the integrity of the intergovernmental fiscal transfers. There is an established understanding that the vertical division of revenue process is a function of political decisions taken over priorities while the horizontal division of revenue must be objective and subject to fair criteria. A number of conditional grants transfer instruments have since been institutionalised but are rarely reviewed to assess alignment with the general principle of transfer design (that is, equity, autonomy, predictability, adequacy, simplicity, incentives and efficiency).

Envisaged recommendations from this study will provide guidance on how to repurpose and realign provincial conditional grants to the basic principle of intergovernmental fiscal transfer design and those outlined in the Constitution.

The results of the report will be disseminated through the Commission's annual submission to the division of revenue, presentation to the relevant Parliamentary portfolio committees and various intergovernmental forums.

8.7 Methodology

The methodology used for this study is combination of budget analysis (with budget data spanning 25 years) and qualitative assessment of conditional grant design as set out in the Division of Revenue Act – conditional grant frameworks against a set of pre-identified principles and best practice design imperatives.

Grant design issues will be probed qualitatively based on the analytical framework from the literature review and as outlined below:

- Overarching objective clearly specified with expected termination date (potential conflict, duplication with existing grant)
- Rationale for the conditional grant
  - Vertical or horizontal equalisation
  - Addressing spillovers (has the size of the spillover been estimated?)
  - Redistribution
  - Infrastructure development
  - Economies of scale
  - Capacity building
  - Information revelation
  - Stimulation of reforms
- Type of conditional grant
  - Non-matching
  - Open-ended matching (matching rate and progressivity)
  - Close ended matching

- Grant design evaluation criteria
  - Pre-grant introduction due diligence
  - Measurable objectives
  - Outputs negotiated and agreed to between the two parties
  - Input or output based conditionalities (number of conditions)
  - Differentiation
  - Autonomy (planning, budgeting and implementation)
  - Moral hazard risks
  - Adverse selection risks

The quantitative element focuses on all provincial conditional grants using a matrix that shows the total number and allocation, the number and type of grants, introduced, reclassified, terminated or incorporated into the PES per year. The reasons for these changes will be analysed through document analysis – in particular annexure W1 (explanatory memorandum to the Division of Revenue Act) the Budget Review.

To ascertain the fairness of the allocation criteria the study uses a combination of per capita grant allocations per province and analysis of variance to determine the significance of variation in provincial allocations for selected grants. This exercise is limited to the three largest grants (by allocation size) in education (education infrastructure grant (EIG)), health (HIV, TB, malaria and community outreach grant) and human settlements (human settlements development grant) sectors. Collectively, these grants account for near 50 per cent of total provincial conditional grant allocations.

8.8 Results and analysis: system of conditional grants in South Africa

8.8.1 Constitutional basis for conditional grants legislation

Section 214 (1) (c) of the Constitution of South Africa provides for conditional transfers to provinces and local government from national government's share of revenue. The Constitution makes no specific directives as to what sub-national functions should be funded by conditional grants nor does it specify the conditions to be adhered to. These details are incorporated in the enabling or subordinate legislation called the Division of Revenue Act (DoRA). DoRA provides for four types of conditional grants, namely:

1) Schedule 4A or matching grants for supplementing programmes partly funded by provincial government through own revenue;
2) Schedule 5A or non-matching specific purpose grants for funding national priorities implemented by provinces;
3) Schedule 6A or in-kind grants through which national government implements projects on behalf of provinces; and
4) Schedule 7A grants which provide for disaster relief.

Although each conditional grant would have a separate objective and conditions, the overarching aims of the South African conditional grant system as per the annexure to the DoRA of 1999 is to provide detailed allocation of provincial conditional grants. This was outlined as follows:

- Enable implementation of national expenditure priorities through the budgets of other spheres.
- Promote implementation of national norms and standards.
- Compensate provinces for cross-border flows and provision of specialised services that benefit other regions such as the training of medical professionals.
- Recognise that other spheres implement concurrent functions, such as the provision of housing (National Treasury, 1999).

From the previous discussion, it appears that conditional grants are expected to play some horizontal equalisation role, but not much vertical equalisation. The mentioning of concurrent function further implies that grants are meant to promote joint implementation, although the general practice with respect to division of responsibilities on concurrent mandates is for national government to formulate policies and provinces to implement programmes. Such mandates are funded through general purpose or block grants rather than conditional grants.

8.8.2 Historical trajectory of provincial conditional grants

Conditional grants were first introduced in South Africa's intergovernmental system in 1998/99 with a consolidated health sector that was intended to address spillover effects associated with skewed distribution of specialised health facilities and training of medical professionals. The grant was further interned to deal with rehabilitation and construction of hospitals and to kick start the primary school nutrition grant as a flagship presidential project. National government also experimented with conditioning of allocations that were typically part of the general purpose grant or the provincial equitable share by designating funds intended for improvements in conditions of service (compensation of employees) and provision of social grants as conditional grants. These packages of provincial conditional grants were introduced with an initial total allocation of R11 billion in 1998 (National Treasury, 1999). By 2000/01, conditional grants amounted to 13 per cent of national government equitable share allocation to provinces or 11 per cent of total transfers to provinces. In same year, funds for improvement in conditions of services was phased out as a conditional grant, and a new dedicated grant for provincial infrastructure was introduced with an initial allocation of R300 million and a housing grant for low income housing was formalised following the ground-breaking Grootboom Constitutional Court judgement in which government was instructed to fulfil the Constitutional right to adequate housing (National Treasury, 2001).

During 2002/03, provincial conditional grant frameworks were introduced as part of the reform to address non-transferring of funds and chronic underspending. Thus, the frameworks sought to, among other things, limit the number of conditional grants to spending areas not funded by the equitable share, eliminate small conditional grants, impose stricter and consultative requirements for national governments prior to introducing grants, subject conditional grants to the budget process, focus on outputs rather than inputs and, more importantly, foster best practices in design,

planning and monitoring of conditional grants. Reform in grant frameworks further set out to draw distinction in the use of block grants, meant to fund recurring provincial concurrent mandates and specific purpose grants purpose grants were to be considered as option of last resort, only if national department could demonstrate that provinces failed to allocate for specific priorities through the provincial equitable share (National Treasury, 2002). In 2002/03, a more transparent allocation of conditional grants disaggregated by sector was published, as shown in Table 8.3. In total, 26 conditional grants, accounting for 9.7 per cent of total national transfers to provinces, were made.

Table 8.3: Disaggregated conditional grants to provinces 2002/03

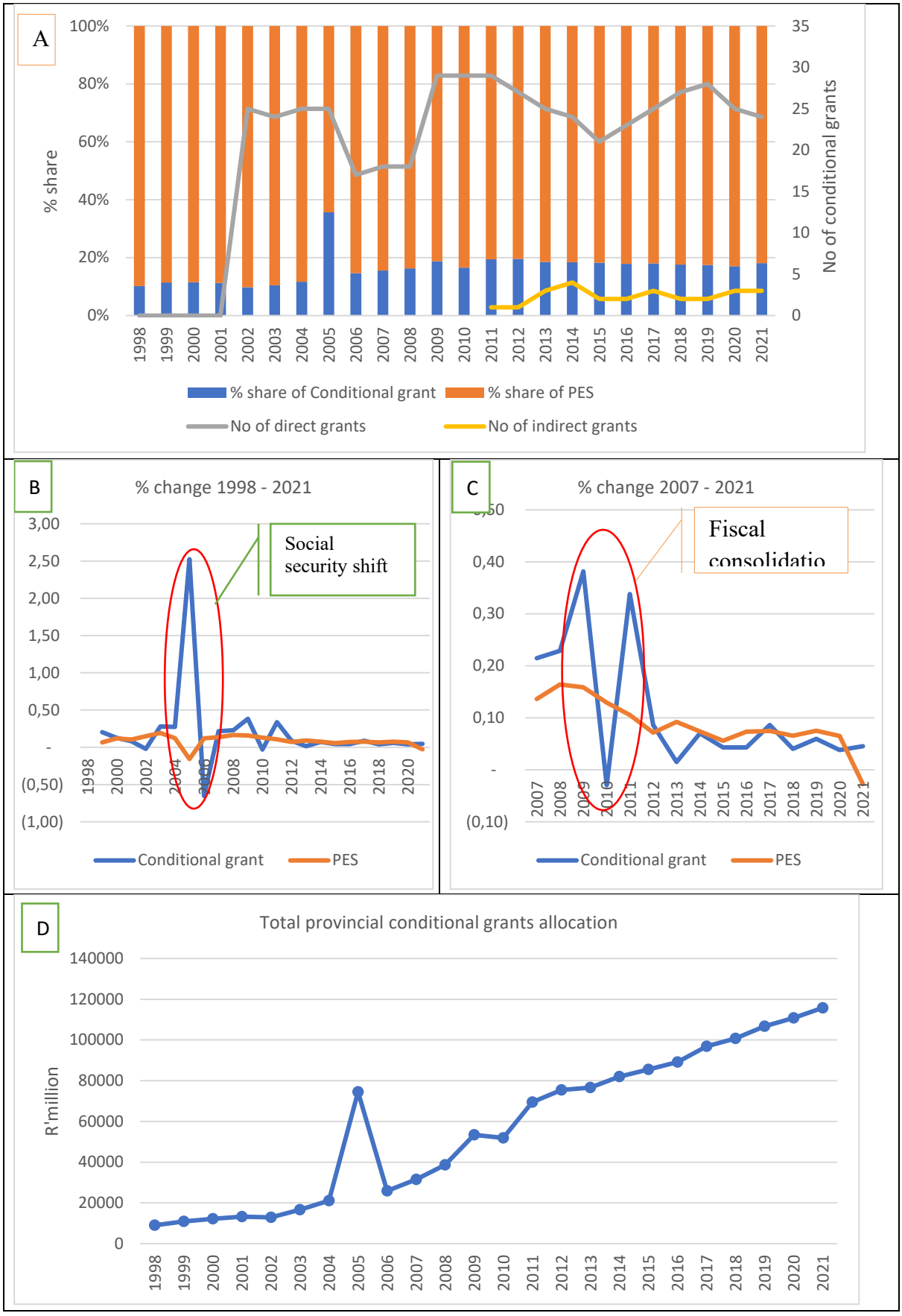
R million	2001/02 Revised	2002/03
Agriculture	28 376	24 000
Land Care Projects	28 376	24 000
Health	5 984 293	6 399 710
National Tertiary Services	3 459 594	3 666 842
Health Professions Training and Development	1 234 090	1 279 248
Hospital Revitalisation	500 000	520 000
Nkosi Luthuli Academic Hospital	103 800	–
Pretoria Academic Hospital	50 000	70 000
HIV/AIDS	54 398	157 209
Integrated Nutrition Programme	582 411	582 411
Hospital Management Improvement	–	124 000
National Treasury	3 947 877	1 950 000
Supplementary Allocation	2 247 877	–
Provincial Infrastructure	800 000	1 550 000
Infrastructure Rehabilitation	600 000	400 000
Section 100(1)(a) Agreement	300 000	–
Education	297 500	418 320
Financial Management and Quality Enhancement	213 000	224 320
HIV/AIDS	63 500	142 000
Early Childhood Development	21 000	52 000
Housing	3 325 958	3 843 674
SA Housing Fund	3 225 958	3 739 674
Human Resettlement Development	100 000	104 000
Social Development	2 024 073	57 300
Financial Management and Social Security System	10 236	10 800
Social Security Backlog	2 000 000	–
HIV/AIDS	12 500	46 500
Woman Flagship	1 337	–
Provincial and Local Government	261 414	274 478
Local Government Support	160 000	170 000
Consolidated Municipal Infrastructure Programme	98 914	104 478
Disaster Relief	2 500	–
Total	15 869 491	12 967 482

Source: National Treasury, 2002

A fundamental change in provincial conditional grant framework took effect in the 2006 Medium Term Expenditure Framework (MTEF) following the shift of social security grant function from provincial government to national government and the establishment of the national Social African Social Security Agency (SASSA) to administer social grants. A number of provincial grants were rationalised, so that the HIV and AIDS grant previously administered by the Department of Social Development was incorporated into the nutrition grant administered by the Department of Health (later moved to the Department of Basic Education); the human settlement and redevelopment grant was integrated into the human settlement development grant under the Department of Housing and the hospital management and quality improvement grant was phased into the hospital revitalisation grant. By 2005/06, there were 24 provincial conditional grants that accounted for 35 per cent of transfers to provinces before declining to 14 per cent the following financial year due to the social security function shift (National Treasury, 2005 and 2006).

Between 2007 and 2011, the number of conditional grants increased from 18 to 29 with total allocations doubling from R31 billion to R75 billion. The rapid rise in allocations coincided with a period of rapid economic growth and the 2008 global financial crisis which triggered subsequent and rolling budget cuts and budget reprioritisation on conditional grants as a result of fiscal consolidation (FFC, 2013). Notwithstanding the budget cuts, conditional grants allocation on the whole have been growing, albeit at a declining rate as seen from Figure 8.5. In 2011/12 the 'so called' indirect conditional grants (Schedule 6) emerged with the introduction of school backlogs infrastructure grant intended to eradicate inappropriate school structures following a package of similar grants in the health, agriculture and housing sector. From this period onwards, the number of conditional grants remained just under 25 and the average nominal growth in total provincial conditional grant allocations plateaued at 5 per cent. Figure 8.4 provides an illustrative overview of provincial conditional grants trajectory. In short, provinces received in excess of R1.3 trillion in conditional grant allocations between 1998 and 2021. As a proportion of total national transfers to provinces, conditional grants constitute at least 20 per cent on average. When compared to the provincial equitable share, conditional grants have experienced inconsistent growth pattern and generally lagged the PES growth (see Figure 8.4C). As noted earlier, alignment between the two transfer instruments is crucial for the overall functioning of the Intergovernmental Fiscal Relations (IGFR) system. Unfettered growth in general purpose grants can cause sub-national fiscal profligacy and prevent revelation of local preferences while reliance on conditional grants creates dependency and impinges on local expenditure autonomy at the same time.

Figure 8.4: Share of conditional to total national transfers 1998–2021



Source: Adopted from National Treasury, 1998–2021

Table 8.4 provides a detailed analysis of provincial conditional grant continuity with a view to determine the number of grants introduced, terminated, rationalised or reclassified and incorporated into the PES over the period 2002 to 2021. This analysis is necessary to examine the integrity of the entire conditional grant system in as far as grant being introduced without prior planning, terminated abruptly and not being phased into the de-facto general purpose grant (PES) for provinces. As seen from the table below, a total of 85 provincial conditional grants have been introduced – with an average lifespan of 5.6 years. At least, 27 of these grants existed for one year only while 4 has existed for more than 20 years – almost becoming a permanent financing instruments. It is unclear whether the average life span of 5.6 years is sufficient for any of the conditional grants to achieve intended objectives nor whether the onceoff grants are temporary enough to have resulted in anticipated outcomes. The accompanying conditional grant frameworks seldom stipulate the expected duration of the grant at inception. A significant grant activity is noticeable in the health sector, where a number of grants has seemingly been introduced and terminated abruptly – out the 24 grants introduced over past 20 years, only 5 are currently active. Just under 10 of the grants have been incorporated into the PES in an effort to promote provincial expenditure autonomy over the period of the analysis. Abrupt changes in a number of conditional grants have lasting impact on provincial budgets, especially where conditions make provision for appointment of permanent staff and allocations are inconsistent.

Table 8.4: Grant continuity analysis 2002 – 2021

	No of grants	Years of existence	Median allocation
Total number of grants (excluding indirect grants)	85		
Average years of existence		5.6	
Grants existed for only one year		27	
Grants existed for 2 to 5 years		36	
Grants existed for 6 to 10 years		5	
Grants existed for 11 to 15 years		5	
Grants existed for 16 to 19 years		4	
Grants existed for over 20 years		4	
Grant schedule*			
Schedule 4	16		
Schedule 5	47		
Schedule 6 (indirect grants)	7		
Schedule 7	5		
No schedule			
Number of grants incorporated into the PES	± 10		
Sectoral disaggregation			
Agriculture	4 grants, 3 active		
Education	12, 5 active		
Health	24 grants, 5 active		
Human settlement	9 grants, 4 active		
Higher education	1 grants, 0 active		
Land affairs	1 grants, 0 active		
Public works	3 grants, 2 active		
National treasury	5 grants, 0 active		

	No of grants	Years of existence	Median allocation
Provincial and local government/ cooperative governance	8 grants, 1 active		
Social development	12 grants, 2 active		
Sports, arts and culture	2 grants, 2 active		
Transport	6 grants, 2 active		
Trade and industry	1 grant, 0 active		

**Total may not tally to 85 because of information gaps*

Turning to grant schedule or grant type, the majority (47) of provincial conditional grants are classified as schedule 5 or non-matching whereas 16 are categorised as schedule 4 or matching grants. About seven grants were introduced as schedule 6 or indirect/in-kind grants while five are listed as schedule 7 or disaster relief grants. According to literature, non-matching grants bear resemblance to the traditional 'block grants' which afford sub-national government autonomy to spend within a broader national priority, but accompanied by strict conditionalities. In 2002/03 the South African government set out a principle that would see recurring provincial concurrent mandates being funded through block grants, while specific purpose grants were to be used as options of last resort. None of the 47 schedule 5 grants approximate features of a block grant. Instead, some of the expenditure responsibilities that can be considered recurring provincial concurrent mandates (infrastructure, compensation of employees and training) are funded through schedule 4 or matching grants without an explicit matching rate that varies with the type of expenditure and fiscal capacity of each province. Broadly, there is no discernable practical distinction between schedule 4 and 5 provincial conditional grants, especially in relation to conditions influencing sub-national fiscal decision and inducing performance incentives. As can be deduced from excerpts of two conditional grants in Table 8.5, the strategic objectives of both grants fund health and education infrastructure in line with national policy, yet are classified under different schedules. Similarly, the associated conditions comprise none of the traditional elements of a grant conditioning scheme such as eligibility requirement, input and output conditions as well as sanctions for violating conditions and under-delivery.

Table 8.5: Comparison of schedule 4 and 5 strategic goals and conditions as per DoRA conditional grant frameworks

Grant name	Health facility revitalisation	Education infrastructure
Schedule	5	4
Strategic goal	To enable provinces to plan, manage, and transform health infrastructure in line with national and provincial policy objectives.	To supplement provinces to fund the provision of education infrastructure in line with the regulations relating to minimum uniform norms and standards for public school infrastructure.
Conditions (selected)	Projects should be initiated in terms of the control framework of the FIPDM stage 0 which requires an initiation report. Pre-feasibility and feasibility reports are required for all projects The management and procurement of all projects funded through this grant	Provinces may use a portion of grant funding for the appointment of public servants on a permanent basis to their infrastructure units in line with human resource capacitation circular

Grant name	Health facility revitalisation	Education infrastructure
	must follow the prescripts of the infrastructure delivery management system and the framework for infrastructure delivery and procurement management (FIPDM) Provinces may use a portion of grant funding for the appointment of public servants on a permanent basis to their infrastructure units in line with human resource capacitation circular In instances where the capacity of the provincial departments of public works is deemed insufficient, the provincial department of health will be entitled to engage an alternative implementing agent Provincial departments of health must enter into service delivery agreements with their implementing agents	The flow of each instalment of the grant depends on provinces submitting non-financial performance reports on programmes partially and fully funded by the grant to the Department of Basic Education (DBE) and provincial treasuries Provincial education departments must ensure that a programme and project management system is in place for planning, management and monitoring of infrastructure delivery Provincial education departments must comply with the framework for infrastructure delivery and procurement management (FIDPM) Provincial education departments must adhere to the prescripts of the National Treasury instruction number 2 of 2015/16 on the implementation of the school cost norms Non-compliance with any of the above conditions may result in the withholding and subsequent stopping of transfers

Source: National Treasury, 2021.

Literature makes a distinction between non-matching and matching (close and open-ended) conditional grants, but the South African system of intergovernmental fiscal relation system makes provision for two more additional types of conditional grants, namely, in-kind and disaster relief. The rationale for in-kind conditional transfers deduced from the two main grants (school backlogs infrastructure grant and national health insurance grant) is to ensure speedy implementation of national policies where provinces lack project implementation capacity. Disaster relief grants are aimed at ensuring swift response and immediate release of funds following national disasters. As with two grants discussed above, there is no unique conditions or design features which make in-kind and disaster relief grants any different from other existing matching and non-matching grants. Counter intuitively, the applicable conditions are directed to the very national departments who are supposed to serve as custodian of grants, formulate eligibility, input and output conditions to provinces and oversee implementation. In-kind grants can be regarded as part of the national government vertical share. Not only do they blur the line of accountability, they also violate fundamental principles of fiscal transfer design.

Table 8.6 illustrates allocations to the national health insurance grant since it was introduced in 2013 to fund preparatory activities for rolling out National Health Insurance (NHI). The grant has been characterised by a lack of focus or objective drift, duplication, fragmentation of the allocations and overreach. The health facility revitalisation component of the NHI grant is a duplication of the existing health facility revitalisation grant. Further, several other components of the grant are unrelated to the establishment of the NHI.

Table 8.6: Historical changes to the national health insurance grant – R'million

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
National health grant			1 098	1 575	1.4						
National health grant - National Health Insurance			291	220	298						
National health grant - health facility revitalisation			807	980	913						
National health grant - HPV vaccination				200	200						
National health insurance grant			49	70	72	85				289	269
National health insurance indirect (NHII)						1.3			2.5	2.3	2.1
NHII- Health Facility Revitalisation Component						793	949	891	1.1	1.3	1.2
NHII- Non-Personal Services Component								700	758	740	614
NHII- Personal Services Component								713	639	255	328
NHII- Human Papillomavirus Vaccine						200	200				
NHII- Health Information Systems							166				
NHII- Health Professionals Contracting						258	318				
NHII- Ideal Clinic						10	30				

Source: National Treasury, 2013 - 2021

8.8.3 Grant design review (largest three conditional grants)

Table 8.7 outlines the result of grant design characteristics of the three largest provincial conditional grants as per the assessment criteria set out in the methodology. The results are drawn from the respective grant frameworks outlined in the Division of Revenue Bill. Detailed analysis for each grant is provided below.

Table 8.7: Overall grant design assessment

Assessment criteria	Education infrastructure	HIV/AIDS, Malaria and TB	Human Settlement
Rationale			
Vertical or horizontal equalisation	✓	✓	✓
Addressing spillovers (has the size of the spillover been estimated?)	☒	☒	☒
Redistribution	✓		
Infrastructure development	✓		
Economies of scale	☒	✓	☒
Capacity building	✓	✓	✓
Information revelation	☒	☒	☒
Stimulate reforms	-	-	✓

Assessment criteria	Education infrastructure	HIV/AIDS, Malaria and TB	Human Settlement
Type of grant			
Non-matching	-	✓	✓
Open-ended matching	✓		
Close-ended matching			
Matching rate	☒		
Design characteristics			
Pre-grant introduction due-diligence	☒	☒	☒
Termination date	☒	☒	☒
Measurable objectives	✓	✓	✓
Outputs negotiated and agreed to between the two parties	-	-	-
Differentiation	☒	☒	☒
Autonomy (planning, budgeting and implementation)	✓	✓	✓
Moral hazard risks	✓	✓	✓
Adverse selection risks	✓	✓	✓
Conditionalities			
Input based/focused			
Output based/focused			
Administrative	✓	✓	✓
Number of conditions	20	23	25

Source: Own compilation, Division of Revenue of Bill, 2021.

8.8.3.1 Education infrastructure grant

The education infrastructure grant (EIG) was introduced in 2011 following the disintegration of the infrastructure grant for provinces (formerly known as provincial infrastructure grant) into three sectoral infrastructure grant including (EIG itself) the health infrastructure grant and provincial roads maintenance grant overseen by the National Treasury. The infrastructure grant for provinces came into effect in 2000, purely as a transfer system for the construction and rehabilitation of roads, schools and health facilities. The grant framework and/ documentation underpinning the introduction of the grant is not explicit about the overarching rationale of the grant. However, it can be deduced from the grant evaluation framework set out in this study that overall aim is infrastructure development as well as vertical and horizontal equalisation – notwithstanding that the vertical and horizontal gaps were not estimated. As noted earlier, the capacity building element can also be implied, as a portion of the grant is used for appointment of permanent staff in provincial infrastructure units.

The separation of the grant into three marked a transition of the infrastructure grant for provinces from a block grant (associated with greater provincial spending autonomy and fundability) into a somewhat specific and open-ended matching conditional grant, i.e., one in which provinces are expected to supplement the allocations through their own revenue. There is however no specified matching rate in any of the grant framework as literature suggests there should be. Further review of the estimates of provincial expenditure and revenue indicates no provincial supplementary contribution to the EIG over and above the allocated national transfer.

Whereas EIG establishment thrust is unquestionable, there is no record of due diligence having been carried out prior to the commencement of the grant. Due diligence ordinarily entails estimation of the need and costs, implementation capacity and risk assessments as well as agreement on expected delivery outputs, among other things. The only notable need estimation is in respect of the backlog component used in the computation of EIG provincial shares, computed using the School Survey of Needs and a 1998 report on hospital revitalisation and as well as the rural factor (to emphasise redistribution) with the following weighting split: 18:40:42. (National Treasury, 2001). In the absence of estimates of need and costs, the termination date has not been set, thus increasing the likelihood of grant entitlement, non-termination risks and soft-budget constraint. This is consistent with under-provision of service emboldened by unbridled grant allocations. Non-termination risks are further aggravated by concessions to use part of the grant for personnel costs.

EIGs score well in respect of measurable objectives, in that the grant framework clearly spells out the expected outputs in terms of numbers, but the actual number of outputs is not set out upfront in the conditional grant frameworks. Expected deliverables are outlined during annual planning and budgeting process – informed by the size of the allocation – and reported retrospectively in the grant frameworks as achievements. This design feature implies that provinces have greater planning autonomy and control over spending of the grant, but the absence of clearly set global targets subjects the grant to risks of protracted existence, under-provision (piecemeal interventions) and moral hazards.

The conditions associated with the EIG are administrative in nature and generally devoid of allocation (eligibility) and spending (utilisation) conditions as they are neither input based nor output focused. Put differently, there are no conditions stipulating the criteria for provinces to be eligible for the grant and the inputs to be purchased or outputs to be achieved. Table 8.8 gives extracts on selected conditions for EIG. Much of the conditions are qualitative and process oriented seeking only to manage the flow of funds to provinces rather than influence expenditure decisions and eliminate inherent disincentives associated with the type and nature of the grant.

8.8.3.2 HIV/AIDS, TB, malarial and community outreach grant

The HIV/AIDS, TB, malaria and community outreach grant (HIV/AIDS grant henceforth) evolved from a multi-sectoral approach, focused on integrated support for and care of children and young people affected by the virus, in which the Department of Health was responsible for testing and counselling, the Department of Education took care of life-skills programmes in schools and the Department of Social Development was responsible for home based care. With the 2004 grant reforms, explained earlier, the grant was introduced as part of the national comprehensive response to the HIV/AIDS epidemic, focusing first on prevention of mother to child transmission and later (2010) becoming one of the biggest antiretroviral funding programmes in the world. The grant has since increased in scope to include several other components, some of which are unrelated to the HIV/AIDS pandemic. In 2016, tuberculosis was added, a community outreach services component and malaria elimination were added in 2018, human papillomavirus in 2019, and mental health and oncology services in 2021.

In 2020 the Covid-19 component was included. The rationale for this grant can be summed up as vertical equalisation since the programme supports a national programme which provinces may have not been able to fund from own resources.

As such the HIV/AIDS grant is regarded as a schedule 5 (part A) grant (meaning functional area of exclusive provincial legislative competence) on a non-matching grant which should ideally be transferred to province through a general purpose transfer (provincial equitable share). Schedule 5 (part A) functions constitute competencies over which provinces exercise exclusive legislative mandate and should therefore be funded through the PES. However, it appears that the HIV/AIDS grant may have been wrongly classified since HIV/AIDS treatment falls under the health function – which is a concurrent function under schedule 4 (part A) of the Constitution. The type and classification of the grant matters for achievement of overall grant objectives and efficacy. Exclusive provincial competencies may not be financed through conditional grants – especially in cases where provinces have legislated provision of the conurrent function.

Similar to EIG, the HIV/AIDS grant has no stipulated sunset clause, understandably, because of the high HIV/AIDS prevalence at 20.4 per cent of the population. Regarding the other design characteristics, the HIV/AIDS grant appears to have poorly constructed outcome statements misaligned to the broader national health goals such as eradication or reduction of HIV prevalence or improving life expectancy. The outputs are, however, clearly measurable, whereas the conditions only focus on utilisation parameters and exclude eligibility criteria. In total the HIV/AIDS grant has 23 administrative and output based conditions with which provinces must comply. Some of these conditions are complex and therefore impose a significant burden on the recipients.

Table 8.8: HIV, TB, malaria and community outreach grant: HIV/AIDS component conditions

Component	Conditions
Outcome statement	Improved coordination and collaboration in the implementation of HIV/AIDS grant component between national and provincial government Improved quality of HIV/AIDS response including access to: HIV counselling and testing antiretroviral treatment (ART) adherence monitoring and support prevention of mother-to-child-transmission medical male circumcision
Outputs	Number of new patients started on ART Total number of patients on ART remaining in care Number of male condoms distributed Number of female condoms distributed Number of infants tested through the polymerase chain reaction test at 10 weeks Number of clients tested for HIV (including antenatal) Number of medical male circumcisions performed HIV new positive eligible client initiated on TPT (tuberculosis preventive therapy) Number of ART patients decanted to DMoC (differentiated models of care)

Component	Conditions
Conditions	The following priority areas must be supported through the grant: ART related interventions care and support condom distribution and high transmission area interventions post exposure prophylaxis prevention of mother to child transmission programme management strengthening (PMS) regional training centres HIV counselling and testing medical male circumcision

8.8.3.3 Human settlement development grant

The human settlement development grant (HSDG) dates back to 1994. Formerly known as the housing subsidy, it aimed to provide housing subsidies to low-income earning households, as part of Reconstruction and Development Programme. In 2005 the housing subsidy grant and human settlement redevelopment grant was amalgamated to form the integrated housing and human settlement development grant (IHHSD) which was later changed to the HSDG in 2010. This grant supports the national housing policy goal of eradicating inadequate houses and homelessness – a competency that is shared across the three spheres of government. Its rationale can therefore be implied as vertical equalisation because provinces and municipalities are less likely to prioritise the function through own revenue. The grant is, however, classified as schedule 5 (part A) in what appears to be a recurring grant classification misstep. Proper classification of the grant is complicated by the unwillingness of provinces to devolve the housing function to municipalities, which are devoting a substantial amount of their own revenue to housing related services (i.e. water reticulation, roads and storm water drainage).

Where the 2021 HSDG grant framework states that the programme is a long term intervention with an unspecified termination period, the 2010 budget reported that informal settlements shall have been eradicated by 2014 – spelling the end of the grant. That the grant continues to exist in 2021 is a clear indication of unrealistic target setting, but numerous reviews of this grant by the Commission have pointed to continuous underspending and significant under delivery (FFC, 2016).

8.8.4 Allocation criteria assessment

Equity or fairness in the allocation is one of the fundamental principles of fiscal transfer design and a key constitutional requirement. As mentioned earlier, Section 214 of the Constitution states that an Act of Parliament provides for equitable division of nationally raised revenue among the three spheres of government and any other allocations to sub-national governments from the national government. Equity implies that the allocations to sub-national government must vary proportionally to the expenditure needs and inversely with the fiscal capacity of each jurisdiction (Shah, 2006). Equalisation in respect of conditional grants seeks to ensure that all provinces, both rich and poor, large and small, have a roughly equal capacity to meet their responsibilities so that,

in turn, all South Africans have equal access to basic services. Horizontal equalisation is, however, complex, since it commonly entails factors that are not easily measurable. Eliminating inter-jurisdictional disparities requires a comprehensive fiscal equalisation programme to equalise fiscal capacity to a national average standard and provides reimbursement for differential expenditure needs and costs arising from cost of provision rather policy differences i.e. service level (Shah, 2006). Further, Schroeder and Smoke (2002) note the difficulties associated with measuring need and formulating a common standard for fiscal capacity. A brief analysis of the allocation criteria of the three provincial conditional grants under review, with particular emphasis on expenditure needs considerations and distributional equity, is provided below.

The allocation criteria for the EIG is based on the computed historical shares of the infrastructure grant for provinces (IGP, formerly known as the provincial infrastructure grant (PIG)) that was phased out in 2010. The IGP itself inherited criteria that was used to distribute the PIG, incorporating three main determining factors with equal (1/3 each) weightings. These factors include the equitable share formulae, education and health backlogs based on the 1998 school survey of need and health facility condition report and roads component computed on the basis of provincial share of untarred roads (National Treasury 2004). In the later years, a distance factor was added to the criteria to compensate the Northern Cape's high cost of service provision due to size, but it is not clear how the component is incorporated into the formula. The allocation formula for EIG is given as follows:

$$\text{EIG}i = PESi.33.3+(Bi\ (Ei.\ 0.60+Hi.\ 0.40))33.3+Ri.33.3$$

As can be deduced the EIG allocation formula is bereft of school infrastructure specific need indicators necessary to improve learning outcomes such as buildings, laboratories, equipment, territorial distribution of learners, amenities and travel time, among other things. Table 8.9 shows the historical provincial proportional share of the provincial that pertained when EIG was introduced in 2011. By way of observation, the allocation criteria shows a significant redistributive bias towards the three poorest and rural provinces. KwaZulu- Natal, Eastern Cape and Limpopo accounted for more than 50 per cent of the EIG allocations in 2011. The proportional distribution of the allocations continued to change with the passage of time, with the funding increasingly shifting away from the rural provinces as can be seen in Table 8.9. This is largely attributable to provincial population shifts captured by the PES factor. By way of example, the PES share of Eastern Cape declined from 15. 1 per cent in 2011 to 13.1 per cent in 2020. In the same period the province's EIG share decreased from 17.6 per cent to 14 per cent while that of Gauteng province increased from 8.4 per cent to 13.6 per cent.

The allocation criteria for the HIV/AIDS grant is based on the provincial share of the population, HIV prevalence and the estimated number of AIDS cases. The grant framework is however silent on the weightings assigned to each factor in the criteria. Table 8.10 shows the proportion distribution of the HIV/AIDS grant which suggests high HIV/AIDS prevalence in Gauteng and KwaZulu-Natal. The respective provincial distribution of the grant tends to mimic the PES, seemingly making the grant criteria population biased. As mentioned earlier the HIV/AIDS grant has since been expanded with multiple sub-components, each with different allocation criteria.

The criteria for some of the subcomponents is susceptible to manipulation and lacks objectivity. For instance, the allocation criteria for the mental health service component suggest that allocations are based on approved business plans and a combination of mental health prevalence where provinces with greatest need are prioritised as well as the number of contracted health professionals and defined reduction in mental health backlogs. Basing allocations on reduction of backlogs when the grant objective is to reduce forensic mental health observation is not only counterintuitive, but also creates perverse incentives. Similarly, using personnel contracting as an indicator of need may penalise provinces which are unable to attract the requisite experts.

The HSDG allocation criteria is given as follows:

$$\text{HSDGi} = IHi.\ 0.70 + PHi.0.20 + Pi.0.10\ldots \text{ where}$$

*IH*i is the proportion of inadequate housing in province i, *PH* is the proportion of poor households in province i and *P* is the proportion of total population in province i used as indicators of need. Informal dwellings constitute people living in informal settlements, backyard dwelling and traditional houses. According to the above formulation, Gauteng and KwaZulu-Natal account for just under half of the HSDG allocation in line with high housing in those provinces. As with the HIV/AIDS grant the total proportional shares mirrors the provincial equitable share despite inadequate housing being weighted at 70 per cent in the formula.

Table 8.9: EIG provincial allocation shares

	2011		2014		2015		2016		2019		2020		2021	
Province	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share
Eastern Cape	968 435	17.6%	1 177 914	17.0%	1 703 877	17.9%	1 505 088	15.7%	1 585 532	15.1%	1 544 114	14.0%	1 640 977	14.0%
Free State	418 776	7.6%	554 313	8.0%	762 553	8.0%	695 122	7.2%	833 485	7.9%	840 429	7.6%	892 287	7.6%
Gauteng	461 011	8.4%	623 602	9.0%	935 725	9.8%	1 385 737	14.4%	1 474 715	14.0%	1 497 757	13.6%	1 589 208	13.6%
KwaZulu Natal	1 158 136	21.1%	1 385 781	20.0%	1 978 683	20.8%	1 958 321	20.4%	2 187 162	20.8%	1 996 182	18.1%	2 120 492	18.1%
Limpopo	874 897	15.9%	1 108 625	16.0%	805 128	8.5%	830 532	8.6%	1 050 160	10.0%	1 256 364	11.4%	1 334 570	11.4%
Mpumalanga	472 881	8.6%	623 602	9.0%	857 247	9.0%	788 153	8.2%	731 792	7.0%	1 094 681	9.9%	1 161 475	9.9%
Northern Cape	289 158	5.3%	346 445	5.0%	446 998	4.7%	486 538	5.1%	639 817	6.1%	597 268	5.4%	633 345	5.4%
North West	469 967	8.5%	623 602	9.0%	995 107	10.5%	971 989	10.1%	902 484	8.6%	1 090 010	9.9%	1 158 484	9.9%
Western Cape	385 039	7.0%	485 024	7.0%	1 032 237	10.8%	992 212	10.3%	1 109 331	10.6%	1 091 162	9.9%	1 158 098	9.9%
Total	5 498 300		6 928 908		9 517 555		9 613 692		10 514 478		11 007 967		11 688 936	

Table 8.10: HIV/AIDS provincial allocation shares

	2011		2014		2015		2016		2019		2020		2021	
Province	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share	Allocation	Share
Eastern Cape	864 173	11.5%	1 449 237	11.8%	1 577 065	11.5%	1 755 385	11.5%	2397703	10.9%	2 667 462	10.9%	3 062 784	11.1%
Free State	530 440	7.1%	843 026	6.8%	911 946	6.6%	1 015 061	6.6%	1331235	6.0%	1 472 363	6.0%	1 633 446	5.9%
Gauteng	1 620 673	21.6%	2 632 578	21.4%	2 928 300	21.3%	3 259 407	21.3%	4766734	21.6%	5 256 234	21.5%	5 955 802	21.6%
KwaZulu Natal	1 889 427	25.2%	3 257 992	26.5%	3 813 094	27.8%	4 244 243	27.8%	5840629	26.5%	6 453 923	26.5%	7 160 537	26.0%
Limpopo	624 909	8.3%	978 132	7.9%	1 056 975	7.7%	1 176 489	7.7%	1947302	8.8%	2 179 020	8.9%	2 495 590	9.0%
Mpumalanga	490 366	6.5%	818 836	6.7%	927 214	6.7%	1 032 055	6.7%	1998197	9.1%	2 205 714	9.0%	2 532 773	9.2%
Northern Cape	212 923	2.8%	342 789	2.8%	371 253	2.7%	413 231	2.7%	596276	2.7%	656 487	2.7%	734 088	2.7%
North West	599 437	8.0%	936 938	7.6%	1 012 984	7.4%	1 127 523	7.4%	1475404	6.7%	1 628 527	6.7%	1 862 690	6.8%
Western Cape	660 614	8.8%	1 051 794	8.5%	1 138 481	8.3%	1 267 209	8.3%	1685517	7.6%	1 867 472	7.7%	2 147 742	7.8%
Total	7 492 962		12 311 322		13 737 312		15 290 603		22038995		24 397 202		27 585 452	

Table 8.11: HSDG provincial allocation shares

	2011		2014		2015		2016		2019		2020		2021	
Province	allocation	share	allocation	share	allocation	share	allocation	share	allocation	share	allocation	share	allocation	share
Eastern Cape	2 177 676	14.6%	2 159 218	12.6%	1 962 372	10.8%	1 991 457	10.9%	1 960 278	10.4%	1 803 294	10.8%	1 491 219	11.1%
Free State	913 907	6.1%	1 061 756	6.2%	1 057 284	5.8%	1 098 411	6.0%	1 093 166	5.8%	950 798	5.7%	786 254	5.9%
Gauteng	3 804 611	25.5%	4 417 641	25.9%	4 979 844	27.4%	5 022 669	27.5%	5 164 409	27.5%	4 625 447	27.8%	3 824 974	28.5%
KwaZulu Natal	2 769 871	18.5%	3 273 045	19.2%	3 235 475	17.8%	3 124 702	17.1%	3 485 407	18.6%	3 379 057	20.3%	2 455 021	18.3%
Limpopo	1 398 914	9.4%	1 219 115	7.1%	1 283 877	7.1%	1 208 370	6.6%	1 301 677	6.9%	1 060 622	6.4%	877 072	6.5%
Mpumalanga	916 677	6.1%	1 146 690	6.7%	1 265 162	7.0%	1 314 645	7.2%	1 296 059	6.9%	1 081 044	6.5%	893 960	6.7%
Northern Cape	322 639	2.2%	374 832	2.2%	380 408	2.1%	371 109	2.0%	470 262	2.5%	319 888	1.9%	264 528	2.0%
North West	998 376	6.7%	1 517 136	79.2%	2 063 131	11.3%	2 151 817	11.8%	1 934 947	10.3%	1 493 031	9.0%	1 234 648	9.2%
Western Cape	1 638 845	11.0%	1 914 936	11.2%	1 975 122	10.9%	2 000 811	10.9%	2 073 610	11.0%	1 907 551	11.5%	1 575 285	11.8%
Total	14 941 516		17 084 369		18 202 675		18 283 991		18 779 815		16 620 732		13 402 961	

8.9 Conclusion

The system of conditional grants in South Africa has been beset by poor design considerations from inception. Grants are seemingly introduced to manage provincial government fiscal mismanagement rather than induce certain fiscal incentives to encourage provinces to allocate funds for maintenance of education infrastructure in the case of EIG or improve integrated spatial planning in the case of HSDG, using their general purpose grant.

Conditional grants are beset by a number of design flaws such as poorly formulated output and outcome statements, lack of pre-grant introduction due diligence to arcetain the size of the need and the timeframe required to address the priority, failure to promote local ownership and endanger continuous reliance on the part of provinces and an inordinately high number of administrative conditions devoid of eligibility requirements and utilisation conditions in some instances.

The share of provincial conditional grants to total provincial transfers has remained relatively stable, but masking significant variation in the number and sub-components of conditional grants. Government is introducing numerous subcomponent within selected grants such as the HIV/AIDS grant, not only deviating from the original grant objective, but also eroding the baseline of the main grant and adding administration burden to recipient provinces. For instance, as shown in the study, many of the sub-components of the NHI and HIV/AIDS grants are unrelated to the implementation of the NHI or reduction of HIV prevalence.

The study noted the importance of finding an optimal balance between general purpose and specific purpose conditional grants to obviate excessive use of grant and potential of encroaching into the responsibilities of sub-national government. Conditional grants as proportion of total transfers to provinces constitute 20 per cent in 2021 increasing from 13 per cent in 2000/01. However, such a proportional share is not informed by vertical and horizontal imperatives, partly because vertical and horizontal fiscal gaps are unknown. Expenditure responsibilities of provinces are not fully costed to establish whether a 20 per cent share is detrimental to the fiscal integrity of provinces.

The size and number of conditional grants has increased significantly over a 20-year period, from just under R20 billion in 2000 to over R120 billion in 2021. A total of 85 provincial conditional grants have been introduced, with an average lifespan of 5.6 years each. At least 27 of these grants existed for one year only while four have existed for more than 20 years. A shorter grant life span implies haphazardness in the manner in which grants are introduced but also suggests that grants may be terminated without reaching the intended objectives. It is, however, worth noting that some of the once off grants have been incorporated into the PES or other conditional grants. This begs the question whether such grants have successfully incentivised provincial preference revelation i.e. sustained baseline funding of the policy priority funded by the once-off grant.

Grant conditioning schemes make no specific distinction between different categories of grants thus making grant schedules as per DoRA meaningless and immaterial. Notwithstanding, 16 grants are classified as schedule 4, which in literature are regarded as matching grants, but the grant

frameworks neither outlines the matching requirements nor the matching rate. Similarly, 46 grants are classified as schedule 5, which accordingly resemble non-matching grants in literature, yet associated conditions are no different from those of matching grants. Schedule 6 or the so called indirect grants and Schedule 7 grants are inconsistent with literature and therefore bear no significance to the overall conditional grant system. The Commission (2006) made similar observations in relation to the national tertiary services grant, noting that it bears no direct relationship to the removal of spillovers, nor does it appear to have been properly costed. Scheduling schemes may also be inconsistent with the Constitution as regards schedule 5 grants in the sense that provincial exclusive mandates are funded through conditional grants.

Whereas the allocation criteria seem to direct funding in accordance with the policy intentions, some of the need indicators used in the allocation criteria, especially in relation to the EIG and HIV/AIDS grant are unrelated to the grant objective and seemingly over-dominated by presence of PES element (population in particular).

The practice of employing permanent staff through conditional grant funding may place provincial governments at a disadvantage when grants cease to exist.

8.10 Recommendations

With respect to repurposing and realigning the system of provincial conditional grants the Commission makes the following recommendations:

1. *That the National Treasury in conjunction with national departments responsible for conditional grants discard the system of grant scheduling as it creates no fiscal incentives for provinces to reveal their expenditure preferences or sustain expenditure previously funded by conditional grants. Instead, government must invest the capacity to improve overall grant design, taking account of all good grant design imperatives such as types of grant and implications thereof, pre-grant introduction due diligence, sunset clauses, conditioning scheme and allocation methodologies.*

This recommendation seeks to improve grant design with the general principles of grant classification, to acknowledge that matching grants in the context of provinces are impractical given the limited revenue-raising autonomy, and to minimise the potential risk of violating the Constitution in respect of financing exclusive provincial mandates.

2. *That the National Treasury in conjunction with national departments responsible for conditional grants undertake a comprehensive review of their respective grants to ensure alignment across grant objectives, conditions and grant outcomes. Grant conditions are generally administrative while the outputs are seemingly unconnected to the long-run outcomes.*

The aim of this recommendation is to minimise the long-run objective drift of grants, to minimise overly administrative conditions, improve alignment between output and long-run grant outcomes, and to disincentivise national government departments from itemising funding for concurrent provincial mandates.

3. *That the Department of Basic Education in conjunction with the National Treasury must update the allocation formula for the EIG to ensure alignment of grant need indicators with grant objectives and further streamline expected and reported grant outputs to improve focus and ease of monitoring. The actual formula must be published in the grant framework for transparency purposes.*

The rationale for this recommendation is to improve allocative efficiency by directing resources where the school infrastructure needs are greatest, as determined by relevant needs indicators.

4. *That the Department of health and other custodians of grants with multiple components must halt over compartmentalisation provincial spending responsibilities through multiple grant funding windows unrelated to the main objective of the main grant. Conditional grants must as a matter of principle accommodate not more than two sub-components or take the shape of traditional block grant to allow provinces the flexibility to prioritise within the set sub-functional responsibility. Sub-components which are unrelated to the main grant objective must be incorporated into the provincial equitable share and be monitored through the normal budget and accountability system instead of subdividing or itemising provincial health responsibilities to be funded by grant sub-components. The formulae for the newly restructured HIV/AIDS grant must be published in the grant framework for transparency purposes.*

This recommendation intends to reinforce the original grant objective, particularly that of HIV/Aids prevention, rather than curative interventions, to foster the expenditure autonomy of the province in respect of managing the disease, to reduce the grant's administration burden and to avoid multiple allocation criteria within the same grant.

8.11 References

Alm, J and Martinez, H. 2002. On the use of budgetary norms as tool for fiscal management, Andrew Young School of Policy Studies, Working Paper 02:15

Bahl, R. 2000. Intergovernmental Transfers in Developing and Transition Countries: Principle and Practice, Municipal Finance. World Bank, Washington

Bird, M. R. and Smart, M. 2002. Intergovernmental Fiscal Transfer: International Lessons for Developing Countries. *World Development* Vol. 30, No. 6, pp. 899–912

Bischoff, I. and Blaeschke, F. 2010. Conditional Grants to Independent Regional and Local Governments: The Trade-off Between Incentive and Wasteful Grant Seeking, Phillips-Universität Marburg, Germany

Boadway, R and Shah, A. 2007. Intergovernmental Fiscal Transfers – Principles and Practices. The World Bank, Washington.

Brun, J. F. and El Khdari, M. 2016. The Incentive Effects of Conditional and Unconditional Transfers on Local Own Revenue Generation: Empirical Evidence from Moroccan Municipalities, https://halshs.archives-ouvertes.fr/halshs-01285021

Chen, A., Mulaki, A. and Williamson T. 2015. Incentivising Performance: Conditional Grants in Kenya's Health System, Ministry of Health, Accessed 21 May 2021 - https://www.healthpolicyproject.com/pubs/292_KenyaConditionalGrantsreportFINAL.pdf

Financial and Fiscal Commission. 2001. *Conditional Grants: Consultation Document*. Financial and Fiscal Commission, Midrand.

Financial and Fiscal Commission. 2006. Review of Transfers in the Intergovernmental Relations of South Africa in South Africa – Research reports in support of FFC Submission for the Division of Revenue 2007/08. Financial and Fiscal Commission, Midrand.

Financial and Fiscal Commission, 2013. Submission to the 2013 Division of Revenue, Financial and Fiscal Commission, Midrand.

Financial and Fiscal Commission, 2020. Submission to the 2013 Division of Revenue, Financial and Fiscal Commission, Midrand.

Fumey, A. and Egwaikhide, F. O. 2019. Redistributive Politics: The Case of Fiscal Transfers in Ghana, *International Journal of Social Economics,* Vol. 46 Issue: 2, pp.213-225

Ma, J. 1997. Intergovernmental Fiscal Transfers: A comparison of Nine Countries, (Cases of the United States, Canada, the United Kingdom, Australia, Germany, Japan, Korea, India, and Indonesia). The World Bank, Washington.

Mendes, M. 2005. Capture of Fiscal Transfers: A Study of Brazilian Local Governments, *Eco.Aplic,* Vol, 9. No. 2, pp. 427 – 444.

National Treasury, 2001. *Budget Review*. National Treasury, Pretoria, South Africa.

National Treasury. 2021. *Budget Review*. National Treasury, Pretoria, South Africa

Shah, A. 2006. A Practitioner's Guide to Intergovernmental Relations. *Revista de Economia y Estadistica,* Vol, 44, No.2, pp. 127 – 186.

Shroeder, L and Smoke, P. 2002. Intergovernmental Transfers in Deveoping Countries: Concepts, International Practice and Policy Issues. In Smoke, P. and Kim, Y. H. (Eds.), Intergovernmental Transfers in Asia: Current Practice and Challenges for Future Asian Development Bank

Spahn, B. P. 2012. Conditioning Intergovernmental Transfers and Modes of Interagency Cooperation for Greater Effectiveness of Multi Government in OECD Countries, OECD workshop on Effective Public Investment at Sub-National Level in Times of Fiscal Constraints: Meeting the Co-ordination and Capacity Challenges. OECD.

Sengupta, A., Sharma, A., Gupta, S., Ravidran, S., and Sengupta, S. 2018. *Examining the legal basis for conditional grants to states and issues relating to performance based incentives to states.* Report of the Fifteenth Finance Commission, Indian Finance Commission

Ter-Minnasian, T. 1997. *Fiscal Federalism in Theory and Practice.* International Monetary Fund. Washington.

Tompson, W. 2011. Policy conditionality, Governance and Investment Outcomes. OECD Internal Document, Paris, July 2011.

CHAPTER 9

Budgets, performance, efficiency and the constitutional right to basic education

Chapter 9:
Budget cuts and socio-economic rights: Protecting the essential elements related to the right to basic education

PART 1: ESSENTIAL ELEMENTS

Sasha Peters

9.1 Introduction

Human rights refer to rights to which all people are entitled without discrimination. These rights can be classified as civil and political rights (which include the right to equality, human dignity and freedom of religion, to mention a few) and socio-economic rights (SERs). As noted by Khosa (Khoza, 2007), "SERs are those rights that give people access to certain basic needs (resources, opportunities and services) necessary for human beings to lead a dignified life". SERs include the right to social protection, food, healthcare, adequate housing, water and education.

As outlined in Figure 9.1, the new Constitution introduced in South Africa in 1996 entrenches a set of civil and political and – uniquely – SERs that are justiciable.

Figure 9.1: Two categories of human rights

Civil and political rights	Social and economic rights
Equality	Right to a healthy environment
Human dignity	The right of access to land, tenure security and land restitution
Freedom of security of person	The right of access to adequate housing
Privacy	The right of access to:
Freedom of religion, belief and opinion	Health care services
Freedom of expression, assembly, demonstration, picket and petition	Sufficient food and water
Freedom of association	Social security
Political rights	The right of children to basic nutrition, shelter, basic health care services, social services and protection from maltreatment, neglect, abuse or degradation
Citizenship	Education
Freedom of movement	
Freedom of trade, occupation and profession	
Labour rights	

In particular, Section 29 (1)(a) of the Constitution entitles all the right to a basic education, including adult basic education (RSA, 1996). The right to education is viewed as a facilitative or multiplier right, as it can yield both individual and societal benefits. Education also enables and heightens the enjoyment of various other rights (South Africa Human Rights Commission, 2012). It is this right on which this paper focuses.

9.2 Literature review

9.2.1 Socio-economic rights and obligations of government

The civil and political rights to which citizens are entitled are usually enshrined in the Bill of Rights of a country. South Africa is unique because, along with civil/political rights, the Constitution also includes an extensive set of justiciable SERs. Scott and Macklem (1992) define justiciability as "…the ability to judicially determine whether or not a person's right has been violated or whether the state has failed to meet a constitutionally recognised obligation to respect, protect, or fulfil a person's right". South Africa has well-documented case law about the role of the courts in enforcing and clarifying the role of government concerning SERs.

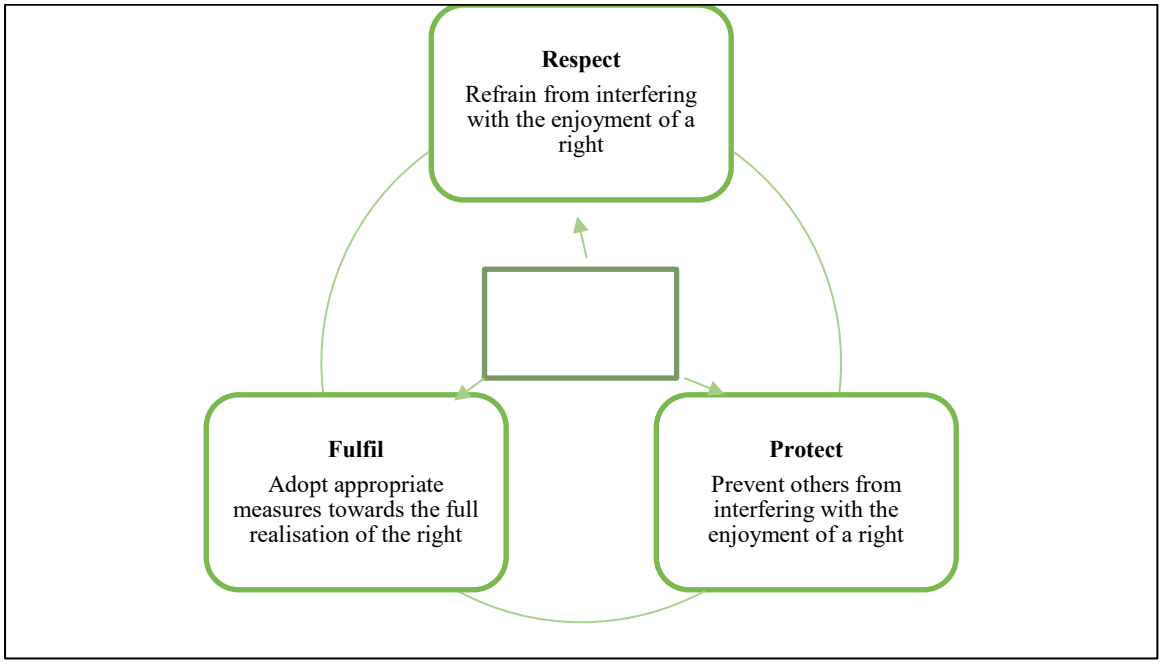
For Mubangazi (2006), who compares the extent to which constitutions protect SERs in Africa, South Africa has the most advanced constitutional provision for SERs. In contrast to other African countries that allude to SERs in their constitutions (for example, Namibia and Uganda), many of these countries craft access to SERs as policy or societal goals[32], which is different to explicitly extending access to a right. Specifically, in the case of Uganda, these goals are listed in the preamble and not in the body of the Constitution, which raises questions regarding their justiciability. Whereas South Africa includes a set of justiciable SERs, some countries emphasise the importance of certain SERs by prescribing specific numerical guidelines in their constitutions as a means of protecting the extent of budget resources allocated to SERs. For example, the Ecuadorian constitution specifies that health and education budgets must increase annually by at least 0.5 per cent of gross domestic product (GDP). In Brazil, the constitution requires that at a national level, at least 18 per cent, and at a municipal level, at least 25 per cent of tax revenues must be allocated to developing and maintaining education (Nolan and Dutschke, 2010).

Apart from a country's constitution or bill of rights and recourse provided by courts in the case of justiciable SERs, international human rights treaties and agreements also hold countries accountable for protecting citizens' rights. The Universal Declaration on Human Rights, the United Nations Declaration on the Rights of the Child and in particular, the International Covenant on Economic, Social and Cultural Rights (ICESCR), are some of the central international agreements that seek to promote accountability of governments concerning the right to basic education. Regionally, the African Charter on the Rights and Welfare of the Child incorporates the right to education. In general these agreements require free and compulsory basic education (with basic education corresponding to primary education, while countries must strive to progressively provide free secondary education).

[32] Chapter 11 of the Namibian constitution illustrates the limited manner in which SERs are incorporated in that it requires the state to actively promote and maintain the welfare of the people by adopting policies. For example the state must adopt policies to ensure that the health and strength of workers are protected. This is different to extending that right to workers in the constitution.

As illustrated in Figure 9.2, the overarching obligation of governments regarding SERs is three-pronged – to respect, protect and fulfil them (Office of the United Nations High Commissioner for Human Rights, 2008).

Figure 9.2: The role of the state concerning SERs



Source: Office of the United Nations High Commissioner for Human Rights, 2008

9.2.2 What does the right to a basic education entail?

Understanding what the right to a basic education involves is critical to monitoring progress. International law and treaties are helpful in this regard. At a high level, the 1990 World Declaration on Education for All defines the right to basic education as one that "…meets the basic learning needs of people" (Unesco, 1990). The declaration defines basic learning needs as comprising (a) essential learning tools (i.e., literacy, oral expression, numeracy and problem solving) and (b) basic learning content (comprising aspects such as knowledge, skills, values and attitudes). Further, these learning tools and basic learning content enable people to "…survive, to develop their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to make informed decisions and to continue learning" (Unesco, 1990). While the declaration provides guidance, it notes that the specifics of the right to a basic education and how countries fulfil them, will differ based on country-specific contexts.

The contents of the ICESCR provide additional detail on the interpretation of the right to basic education. It advises that the right to a basic education incorporates four essential features, namely the 4–As: availability, accessibility, acceptability and adaptability (United Nations Economic and Social Council, 1999). Using these 4–As, Tomasevski (2001) develops the 4–A scheme that provides a useful framework to guide the implementation of the right to education. A description of the 4–A scheme is provided in Figure 9.3.

Figure 9.3: Essential components associated with the right to education as per the 4-A scheme

Availability	Accessibility	Acceptability	Adaptability
Government-funded education system; adequate infrastructure; trained teachers able to provide an education	Education is not discriminatory; education is made accessible to all by addressing economic and physical barriers; positive steps are taken to include the most marginalised communities and children	The content of education is non-discriminatory; the content is culturally appropriate; education is of a sufficiently high quality; the school environment is safe	Flexible and able to respond to the different needs of children; able to respond to the changing needs of society

Source: Tomasevski, 2001

9.2.3 SERs, the budget and periods of fiscal constraint

A few fundamental principles are associated with debates on SERs: progressive realisation, minimum core obligations, and retrogression. The principle of progressive realisation recognises the likelihood that governments, due to resources constraints, can only achieve the full realisation of SERs over time. There are, however, two defining features that must accompany a government's attempts to progressively realise SERs. On the one hand, it is about governments taking all appropriate measures to ensure realisation of SERs. The second is to take all appropriate measures to the maximum extent of its resources (United Nations Economic and Social Council, 2007). Based on these features, it is clear that, while full realisation may not be immediate, governments must do all they can to swiftly move towards realisation. The minimum core refers to the minimum essential level of an SER. Therefore governments must set national benchmarks that clarify what constitutes the minimum core content of each of its SERs. This core content is then what must be prioritised in any given situation, including a crisis. This approach can help ensure that the distribution of resources towards the vulnerable is always prioritised (Bilchitz, 2014). In contrast, retrogression implies a "…deterioration of a right's current level of fulfilment" (United Nations Economic and Social Council, 2007). According to the ICESCR, any retrogression of rights must be "temporary, necessary, proportionate and must protect the minimum core" (United Nations, 1976). Thus, there should be a certain level below which SERs will not be compromised to ensure protection of the vulnerable. Together these concepts highlight the importance of ensuring a strong link between realisation of SERs and budget decisions. As noted by Nolan and Dutschke (2010, p. 3), "…the budget is a useful source of information to evaluate which normative commitments are taken seriously by the state, because it provides a demonstration of the state's preferences, priorities and trade-offs in spending".

Honing in on the effects of economic crises on the education sector and its outcomes, Shafiq (2010) notes that economic theory predicts the possibility of positive and negative effects. These are explained in Figure 9.4.

Figure 9.4: Theoretical predictions of potential negative and positive effects of economic crises on educational outcomes

Potential negative effects	Potential positive effects
Negative effect 1: The reduction in adult income makes it difficult for parents to afford the costs associated with education (fees, books, uniforms etc) – educational outcomes are negatively affected as children are either removed from school or not taken out of school but, as a result of the above, are not adequately prepared	Positive effect 1: A reduction in child wage rates may serve to make child labour less attractive, thus resulting in substituting work for education
Negative effect 2: Reduced adult income can result in parents becoming more reliant on child labour. This can have the effect of children who were previously not working, having to start doing so, or, if the child was previously a child labourer, she/he may have to work longer hours – both of these scenarios mean less hours available for studying which can negatively affect educational outcomes	Positive effect 2: Should parents perceive that less educated workers are at a greater disadvantage relative to educated ones, they may be more inclined to support their children's pursuit of education
Negative effect 3: Reduction in hourly wage rates may result in parents working more hours, thus reducing the time available to assist children with studying, homework etc	
Negative effect 4: Anticipating weaker employment prospects as a result of declining quality of education, parents may remove their children from school or become less supportive	

Source: Shafiq, 2010, pp.5-6.

While empirical studies relating to the net effect of economic crises on education outcomes are limited, those that exist show a largely negative net effect. The effects vary by (a) family characteristics (Shafiq cites evidence from Indonesia where children from poorer households were more affected during a crisis and Costa Rica where enrollment rates dropped less for households with more educated adults), (b) child characteristics (in Cameroon, girls were 83 per cent more likely than boys to drop out) and (c) the level at which the child is being educated (for example in Costa Rica, there was a larger decline in secondary school enrolment relative to lower levels of schooling) (Shafiq, 2010).

The recent onset of the Covid-19 pandemic and the associated lockdown measures aimed at slowing transmission have resulted in multiple economic and social impacts. From a spending perspective, the World Bank forecasts that general growth in education spending will decline by an average of 0.5 per cent in 2021 (World Bank, 2020). Regarding potential earnings, Hanushek and Woessmann (2020) note that learners in primary and secondary education who are experiencing school closures can expect roughly 3 per cent lower income over their lifetimes. This translates to lower long-term growth prospects for countries with an estimated annual average reduction in GDP of 1.5 per cent per annum for the rest of this century. Furthermore, the impacts described above will be more profound for poorer, more disadvantaged learners who live in households that cannot optimally support out-of-school learning; for these learners the loss of lifetime earnings will be even greater (Hanushek and Woessmann, 2020).

9.3 Problem statement and research questions

The question of resources, especially financial resources, is central to any discussion on the fulfilment of SERs as they enable practical implementation and enforcement of rights (Dawson and McLaren, 2015; Waris and Latif, 2015). Proper resourcing is a crucial ingredient to ensure that progressive and sound rights-based laws and policies yield fruits. To this end, budgetary decisions have a definite impact on the wellbeing of different groups, especially vulnerable groups. Ideally, a country's approach to budgeting should challenge it to consider developing standards related to SERs, which can be assessed when developing and scrutinising the budget (Miller, 2019). In addition, budgeting for SERs should focus on access to the right and continually enhancing the availability, accessibility, affordability and quality of those rights.

With the onset of the Covid-19 pandemic and government's response to it, the Commission raised three issues that prompted this research. The first relates to the impact of constant budget reprioritisations in key sectors, especially those responsible for services underpinning the realisation of SERs. The practice of successive/constant reprioritisation pre-dates the pandemic but was particularly pronounced with the tabling of the Supplementary Adjustment Budget in 2020. Secondly, with the tabling of the 2021 Budget, widespread cuts were effected across a range of sectors – the Commission noted that Budget 2021 represented the first time since the adoption of the Constitution that a budget has unambiguously proposed a substantial reduction in the real value of allocations to public services underpinning several of the SERs outlined in the Bill of Rights, such as, for example, a clear reduction to social assistance grants. Finally, the Commission expressed concern that neither the Budget Speech nor the Budget Review referenced the state's constitutional obligations regarding these matters. There was also no indication that government has considered how the rights contained in the Constitution will be protected in the context of declining resource allocations, especially since the reductions are likely to continue for several years.

How then can South Africa protect spending on SERs enshrined in the Bill of Rights, irrespective of the fiscal environment? This analysis proposes using an SER lense to develop the foundation of a budget prioritisation framework that identifies and seeks to protect spending on the essential components associated with the right to a basic education. The following research questions will guide the analysis:

- How has basic education-related revenue and spending evolved?
- What are the essential elements associated with the right to a basic education in South Africa?
- What are the budget and spending items associated with the core components identified above?

9.4 Research aims and objectives

The overarching aim of the analysis is to make recommendations on how budgets and spending on SERs, as enshrined in the Constitution, can be protected irrespective of the fiscal situation facing South Africa. The associated research objectives are as follows:

- To analyse the evolution of basic education-related revenue and spending in South Africa since 2000 to date
- To determine the essential elements associated with the right to a basic education in South Africa
- Based on the above, to make recommendations on an SER-based budget prioritisation framework for the basic education sector.

9.5 Research methodology and data

To answer the research questions posed in this chapter, a combination of budget analysis, literature review and stakeholder engagements will be relied on. Concerning the first research question on education-related budget and spending trends, budget analysis techniques will be applied over a 22-year period (2000/01 to 2022/23) to gain a better understanding of how revenue and spending have evolved in the sector, particularly more recently with the onset of the Covid-19 pandemic.

In determining the essential elements associated with the right to a basic education, international literature, specifically the 4-A scheme, will be used as an analytical framework to guide the focus on the essential elements. To complement and substantiate the elements contained in the 4-A scheme, case law from South Africa will be drawn on. To validate what emanates from the case law, the final aspect of the methodology is to engage with educational experts and practitioners. Regarding practitioners, government officials from the National Treasury, the national Department of Basic Education and provincial education departments will be engaged with. SER experts were also consulted. This aspect of the methodology is critical to ensure that a balance is achieved between what the literature dictates and what is practical and implementable. This is especially important as the overarching aim of this analysis will be to recommend a matrix to be used as the foundation for a framework of essential education spending items that should be protected and considered non-negotiable, irrespective of the prevailing fiscal climate.

Figure 9.5 provides a summary of the approach used in respect of each of the research questions.

Figure 9.5: Overview of approach in relation to research question

Research questions	Approach	Additional comment
How has basic education-related revenue and spending evolved over time?	Analysis of nominal/real revenue and spending trends in the basic education sector	Data will be sourced from the National Treasury and will cover the period 2000/01 up until estimates for 2023/24 as outlined in the 2021 Medium Term Budget Policy Statement:
What are the essential elements associated with the right to a basic education in South Africa?	Review of: International law SA legislation and regulation SA case law Empirical literature on factors affecting educational performance	S39 of the Constitution states that when interpreting Bill of Rights, international law must be considered SA case law helps to flesh out content of rights
What are the budget and spending items associated with the essential elements identified above?	Consult education and general SER experts/government officials	

9.6 Analysis

9.6.1 Constitutional right to a basic education and its operationalisation

As mentioned in the introductory section, the right to education is one of several SERs enshrined in South Africa's Bill of Rights. SERs are justiciable – section 38 of the Constitution makes provision for the involvement of the courts where rights have been infringed or threatened (RSA, 1996). Unlike other SERs, the right to education is unqualified as its fulfilment is not subject to resources constraints or progressive realisation. The fulfilment of SERs such as housing, healthcare, food, water and social security is subject to the state taking "reasonable legislative and other measures within its available resources to achieve progressive realisation".

In terms of South Africa's multi-level system of government, the delivery of basic education is categorised as a concurrent or shared function between the national and nine provincial departments of education (Schedule 4 of the Constitution). Generally, when it comes to concurrent functions, national departments are primarily responsible for policymaking, establishing norms and standards and oversight over the sector while provincial education departments (PEDs) are at the forefront of the delivery of services. Regarding prioritising aspects of education service delivery, the sector is guided by South Africa's long-term planning blueprint, the National Development Plan (NDP). The NDP describes our ideal, future basic education system as centered on quality (particularly in literacy, mathematics and science) and as being flexible and responsive to the needs of the most vulnerable, particularly the poor and those with disabilities (National Planning Commission, 2011). The NDP identifies specific targets to bring about the desired change in the basic education sector, namely:

- 80 per cent of schools and learners must achieve 50 per cent and above in literacy, mathematics and science in grades 3, 6 and 9

- The number of learners eligible for a bachelor's programme must reach 450 000 per annum by 2030
- South Africa must improve its rankings in international educational assessments specifically:
  - Average scores in the Southern and East African Consortium for Monitoring Education Quality (SEACMEQ) result for Grade 6 languages and maths must increase from 495 to 600 by 2022
  - Average Grade 8 scores in the Trends in Mathematics and Science Study (TiMSS) must increase from 264 to 420 by 2023 and 500 by 2030
- 80 per cent of every cohort of learners must successfully complete the full 12 years of schooling.

From the long-term vision and 2030 targets of the NDP, the Medium Term Strategic Framework (MTSF) distils various sectoral goals into five-year implementation plans. The national DBE adopts its own strategic, five-year plan to guide priorities and activities in the sector over the medium term. Provinces then also develop their provincial development strategies and annual performance plans per sector to guide the province's priorities in the medium to short term. However, no legal document defines what the right to a basic education entails across these documents that guide how national and provincial governments will use limited public resources to deliver on the state's constitutional obligations around the right to basic education. Nevertheless, section 39 of the Constitution assists in this regard and states that in interpreting the Bill of Rights, international law must and foreign[33] law can be taken into consideration (RSA, 1996). To this end the 4-A scheme relied on by the ICESCR is an especially useful framework. Before moving to the analysis on what could constitute the core components of the right to basic education, the next section illustrates how budgets and spending on basic education have evolved since 2000 and, in essence, provides the rationale for why agreement on the core components is so important as a basis for prioritising and protecting spending on basic education.

9.6.2 Aggregate budget and spending trends related to basic education

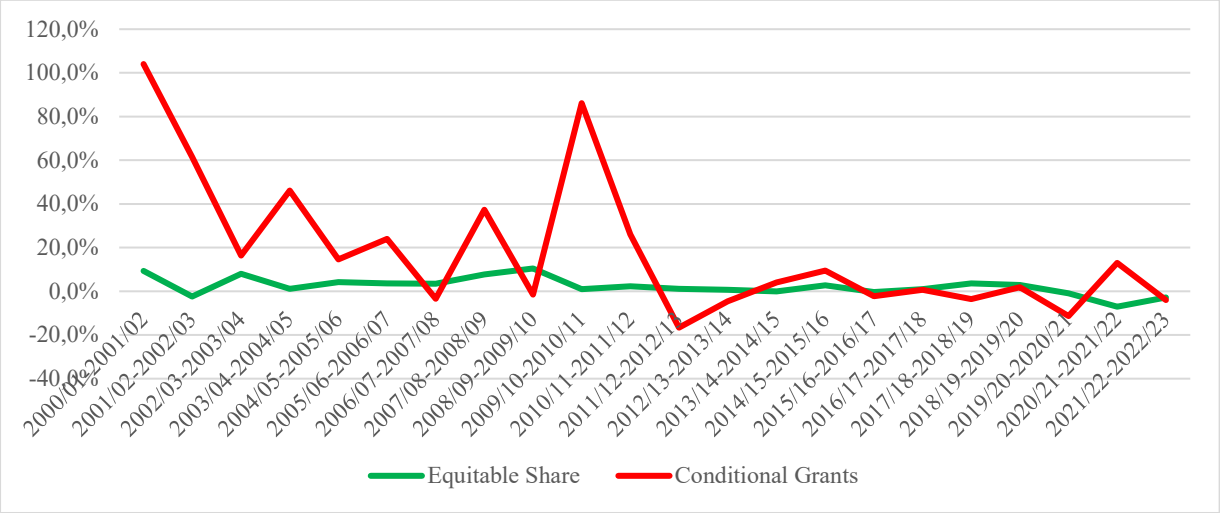
In terms of funding concurrent functions such as basic education, intergovernmental transfers are crucial in enabling provinces to deliver on their core mandates of basic education and health care services. South Africa has two primary intergovernmental transfers, namely the equitable share and conditional grant funding. The equitable share portion of funding is discretionary while conditional grants are allocated along with conditions as to how they should be spent. Apart from intergovernmental transfers, provinces also generate own revenue that contributes to the total revenue available. The equitable share contribution in funding basic education dominates and comprised, on average, 94 per cent of total education revenue between 2000/01 and 2020/21.

[33] International law applies to countries and regulates conduct between sovereign states. On the other hand, foreign law refers to the domestic laws of a foreign country.

Conditional grant funding contributes just over 5 per cent on average, while own revenue makes up under 1 per cent of total revenue over the period reviewed.

Figure 9.6 illustrates the real growth in the two intergovernmental transfers that comprise the largest contribution of total provincial education revenue. From 2016/17 onwards, more muted real growth and even real reductions to the equitable share and conditional grant funding are evident. With the onset of the Covid-19 pandemic towwards the end of 2019/20 and beginning of 2020/21, the reduction in conditional grants is evident and was caused by the need to reprioritise funding towards the government's response to limit the transmission of the virus and provide income support to the poor and vulnerable. In 2021/22 an upswing in conditional grants is observed, driven by government's attempts to induce infrastructure led growth via stronger funding towards conditional grants, but a downward trend follows this in 2022/23.

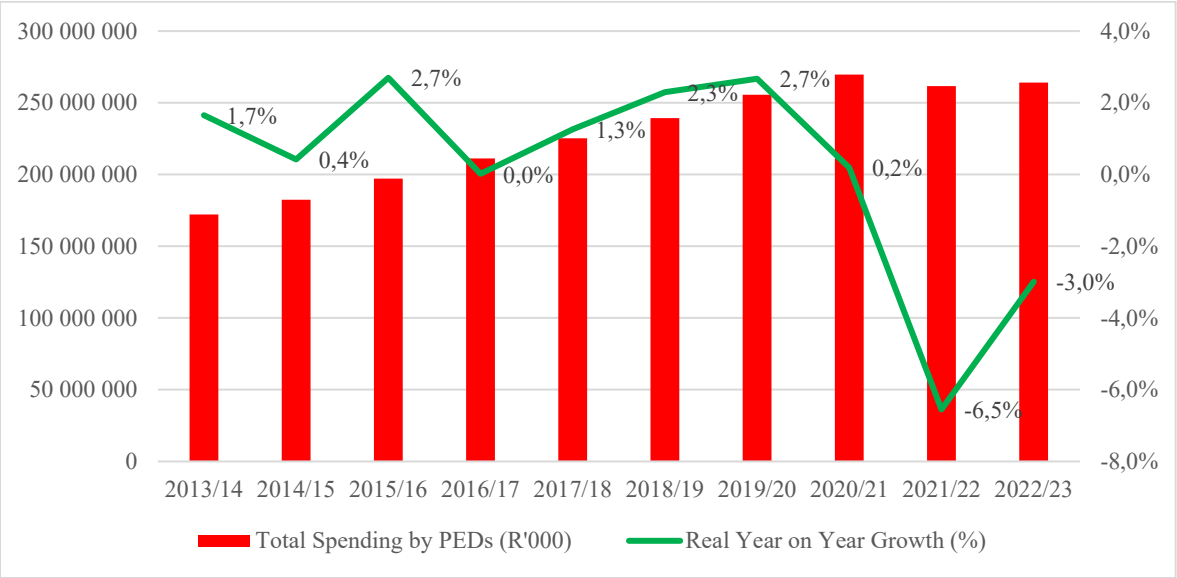
Figure 9.6: Real growth in education equitable share allocation relative to education conditional grants, 2000/01–2022/23



Source: Commission's calculations based on National Treasury data

Figure 9.7 illustrates how the revenue constraints have affected aggregate provincial education spending. Following a strengthening in real growth in spending in both 2018/19 and 2019/20, spending thereafter declines by 6.5 per cent in real terms in 2021/22. A slight recovery is projected for 2022/23, however the implication is a less severe decline in spending – a reduction of 3 per cent as opposed to 6.5 per cent for 2021/22.

Figure 9.7: Nominal aggregate spending relative to real year on year growth – provincial education departments, 2013/14 - 2022/23



Source: Commission's calculations based on National Treasury data.

Table 9.1 provides a programme level breakdown of real growth over the period 2014/15 to 2022/23. Coinciding with the onset of the pandemic, there is a notable real decline in the infrastructure development programme: in government's attempts to reprioritise and repurpose existing spending items, spending on infrastructure was initially sacrificed, with projects being halted as a result of the lockdown measures but also government's decision to stop non-essential infrastructure projects in order to redirect as much funds as possible towards the response to the pandemic. With the tabling of the 2020 Medium Term Budget Policy Statement (MTBPS) and Division of Revenue 2021, the decision to use infrastructure spending as a lever to kick-start growth is evident as we see the infrastructure development programme recovering to show strong real growth of 12 per cent. Despite being the largest programme on the budget, the real and consistent declines in the public ordinary school education programme is concerning. Notwithstanding concerns around adequacy, provinces have done well in protecting spending on early childhood development (ECD) and public special education, which record positive real growth in 2020/21, 2021/22 and 2022/23.

Table 9.1: Nominal aggregate spending relative to real year on year growth – provincial education departments, 2013/14 - 2022/23

Programme	2013/14–2014/15	2014/15–2015/16	2015/16–2016/17	2016/17–2017/18	2017/18–2018/19	2018/19–2019/20	2019/20–2020/21	2020/21–2021/22	2021/22–2022/23
1. Administration	1.9%	0.3%	1.3%	-0.8%	1.6%	1.8%	-5.7%	1.1%	-1.3%
2. Public Ordinary School Education	0.5%	1.6%	0.7%	1.8%	3.1%	2.8%	-1.6%	-6.9%	-3.6%
3. Independent School Subsidies	5.9%	3.3%	1.5%	1.0%	3.5%	4.5%	9.0%	-6.2%	4.1%
4. Public Special School Education	4.5%	3.7%	2.8%	3.4%	7.0%	7.5%	1.9%	6.3%	1.0%
5. Early Childhood Development	3.7%	7.5%	6.7%	-2.1%	6.9%	6.7%	1.4%	6.7%	0.7%
6. Infrastructure Development	-6.4%	21.0%	-9.9%	-3.5%	-11.2%	-2.8%	-10.8%	12.0%	-3.0%
7. Examination and Education Related Services	0.8%	-0.5%	-6.2%	0.8%	-0.8%	2.1%	85.2%	-41.5%	-0.9%
Total	**0.4%**	**2.7%**	**0.0%**	**1.3%**	**2.3%**	**2.7%**	**0.2%**	**-6.5%**	**-3.0%**

Source: Commission's calculations based on National Treasury data

Table 9.2 confirms the ongoing pressure that will confront the basic education sector with reductions and low growth being projected up until 2023/24. In order to avoid a situation of provincial education departments effecting cuts uniformly across the board, what is required is a prioritisation of spending that ensures that the essential elements related to the right to a basic education are protected.

Table 9.2: Plans for basic education - Projections for the learning and culture cluster

R billion	2020/21	2021/22	2022/23	2023/24	2024/25
	Outcome	Revised	Medium-term estimates		
Learning and culture	384.4	417.8	414.3	415.6	434.8
Basic education	268.8	281.8	279.6	279.0	291.7
Post-school education and Training	106.6	124.7	123.4	125.3	131.5
Arts, culture, sport and recreation	9.0	11.2	11.3	11.3	11.7
Nominal growth		**2020/21–2021/22**	**2021/22–2022/23**	**2022/23–2023/24**	**2023/24–2024/25**
Learning and culture		8.7%	-0.8%	0.3%	4.6%
Basic education		4.8%	-0.8%	-0.2%	4.6%
Post-school education and training		17.0%	-1.1%	1.6%	4.9%
Arts, culture, sport and recreation		24.6%	0.6%	0.0%	3.2%

Source: 2021 MTBPS

Evidence from South Africa's public health sector proves that it is possible to protect spending on key items during a period of fiscal constraint. In 2012, the Minister of Health implemented a set of budget non-negotiables to protect national priorities in provincial budgets. Schreiber quotes the then Minister of Health (Aaron Motsoaledi) as defining the non-negotiable items as "…"things that can never be negotiated — if they were not there it could not be said that there is a functioning

health system in the country" (Schreiber, 2018). As is the case with all concurrent functions, while the Minister of Health did not have the authority to direct how provincial health departments use their unconditional equitable share allocation, the approach was to set standards/norms and find ways to persuade provincial health departments to comply (Schreiber, 2018). As confirmed in Chapter 3 of the 2017 South African Health Review, implementing the concept of non-negotiable budget items as part of a broader package to protect health spending during a period of fiscal constraint, worked – analysis shows that the "…non-negotiable items were above overall growth in the provincial health departments, indicating that they have indeed been relatively protected" (Blecher et al, 2017).

9.6.3 Towards determining the essential components associated with the right to a basic education

9.6.3.1 The 4-A scheme

An ideal scenario is for governments to ensure adequate and consistent resourcing of the government departments responsible for delivering on SERs. However, in practice fiscal constraints often necessitate the need for cuts. Using an SER lense for budgeting and ensuring protection of SERs does not imply that cuts should never happen. Appropriate budget responses must be implemented in the event of inefficiencies, duplication or any other valid reason. As stated earlier in this analysis, the ICESCR requires that any retrogression of rights or, put more simply, any cuts in spending that affect the ability of beneficiaries to enjoy a right, must be "temporary, necessary, proportionate and must protect the minimum core" (United Nations, 1976). Thus, cuts may occur but there are certain guidelines about how they should be effected. Importantly, there should be certain essential elements related to SERs that must always be protected. As summed up by Simbo (2018), the challenge is that there is no legislative document in South Africa that details the scope and content of the right to a basic education – this includes prescriptions around the essential elements of the right. However, given the constitutional provision that allows international law to be used when interpreting SERs and as has been done by various authors, this analysis uses the 4-A scheme as an analytical framework for guiding and fleshing out what the essential elements of the right to a basic education should entail (Veriava and Paterson, 2020; Skelton, 2013; Merabe, 2015). Following the guidance provided by the 4-A scheme, the elements of education infrastructure, teachers, LTSM, funding for the poorest and most vulnerable (economic accessibility), learner transport, learner safety, overall quality and inclusive education are the initial elements deemed especially important in the case of the right to basic education.

9.6.3.2 Essential elements identified via the courts and through stakeholder engagements

Following from this, various South African court rulings confirm the importance of a number of the initial essential elements listed above. These are summarised in Table 9.3 and highlight the intrinsic importance of the provision of infrastructure, teachers, LTSM, learner transport and special needs education in protecting the right of learners to a basic education.

Table 9.3: Summary of relevant court cases and rulings

Area	Court ruling
Infrastructure	Concerning infrastructure, the 2019 case of Equal Education and Another versus Minister of Basic Education and Another, the Court held that the provision of safe and decent infrastructure is 'indisputably [an] integral component of the right to basic education'.
Teaching, non-teaching staff and LTSM	In the 2013 outcome of Centre for Child Law vs Minister of Basic Education, the court found that the provision of teaching, non-teaching staff and teaching resources are critical to extending the right to basic education.
LTSM	In 2014, Basic Education for All vs Minister of Basic Education, which arose due to the late delivery of textbooks in Limpopo, found that central to the right to education is that each learner should have a textbook for each subject at the beginning of the school year. Also in 2014, the outcome of Madzodzo vs Minister of Basic Education (which arose as a result of the failure of the Eastern Cape provincial education department to provide age and grade appropriate furniture), the court indicated that the right to education requires a range of educational resources which includes - schools, classrooms, teachers, teaching materials and appropriate facilities for learners.
Learner transport	Tripartite Steering Committee vs Minister of Basic Education, which was heard in 2015, found that transport for learners who live far from a school or who cannot afford the cost of transport, must be provided at the state's expense.
Special Needs Education	In Western Cape Forum for Intellectual Disability vs Government of RSA, there was recognition of the state's failure to adequately fund and provide equal education opportunities for learners with disabilities – this give rise to the establishment of the Learners with Profound Intellectual Disabilities conditional grant in 2017/18.

Given that the aforementioned elements are highlighted in international agreements (via the 4-A scheme) and various legal precedents have been set regarding their importance, the next step was to seek advice from various stakeholders in the education field. Generally, the stakeholders interacted with agreed with the centrality of the items being viewed as essential. Additional points raised included advice on specific elements that require emphasis as well as how some of the essential elements could be practically linked to the budget and spending programmes of provincial education departments. These included for example:

- With respect to infrastructure, water, sanitation and appropriate classrooms should receive relatively higher priority than other aspects of education infrastructure such as sports facilities, This does not imply that sporting, laboratory and library facilities are not important – indeed they have a critical role in promoting the health of leaners and producing learners that can adapt to the changing needs of society. Rather the contention is that if choices are limited, preference should be placed on the most essential infrastructure

- In terms of supporting the aspect of quality of education, emphasis should be placed on providing disproportionately more resources to early leaning and the overall foundation phase of schooling especially in the areas of reading and writing
- To capture the element of economic accessibility and therefore the provision of funding to the poorest, most vulnerable learners, emphasis should be placed on the annually gazetted per learner amounts determined by the national Department of Basic Education.

9.6.3.3 Matrix outlining essential elements and links to education budgets

Table 9.4 outlines the proposed essential elements associated with the right to basic education alongside the relevant education legislation, policy or regulations that exist in South Africa. Also included are the applicable court rulings that serve to further confirm the recognition of these elements as essential to the right to a basic education. Finally, Table 9.4 includes the link to the relevant budget item.

Table 9.4: Linking the proposed essential elements to the budget

ICESCR: 4-A Scheme	RSA Policy, Legislation, Regulation	RSA Case Law	Proposed Essential Component: Expression in Education Budgets
1. Availability			
Infrastructure	Minimum Norms and Standards for School Infrastructure	Madzodzo vs Minister of Basic Education, 2014	Spending on educational infrastructure, specifically water, sanitation, inappropriate structures
Teachers	Employment of Educators Act	Centre for Child Law v Minister of Basic Education, 2013	Spending on personnel
Learner Teacher Support Materials	Draft Policy for Provision and Management of LTSM	Basic Education for All vs Minister of Basic Education, 2014	Spending on LTSM forms part of the annually gazetted per learner amounts
2. Accessibility			
Economic accessibility	SA School Funding Norms and Standards		Spending on most vulnerable (Quintiles 1, 2 and 3) via the per learner funding amounts gazetted annually
Physical, geographical accessibility	National Learner Transport Policy	Tripartite Steering Committee vs Min of Basic Education, 2015	Public and/or scholar transport is listed as an item that may be funded using the annually gazetted per learner amount
3. Acceptability			
Quality	Curriculum Assessment Policy Statements	No court cases to report	Spending disproportionately on ECD and foundation phase – emphasis on reading and writing
Safety	S28 of Constitution on Rights of the Child	No court cases to report	An element of safety (security services) can be financed using the annually gazetted per learner amount (School Funding Norms and Standards)
4. Adaptability			
Inclusive education system	White Paper 6 Building an Inclusive Education and Training System	Western Cape Forum for Intellectual Disability vs Government of RSA	Spending on inclusive education/SNE

9.6.3.4 Issues to bear in mind

Following on from Table 9.4, the per learner amount is particularly important as it not only includes the elements mentioned above, but is also central to government's no fee policy. In accordance with the National Norms and Standards for School Funding, the education sector uses a quintile based approach to funding learners whereby quintile 1 includes the neediest schools and quintile 5 relates to the most affluent schools. If a school is declared a no-fee school, compulsory school fees may not be charged and the school is placed in one of the five national quintiles. According to the norms and standards, learners in Q1, Q2 and Q3 schools should not pay school fees. The school then receives a per learner allocation aligned to the gazetted per learner amounts determined by the Minister of Basic Education on an annual basis. In terms of the annually gazetted per learner amounts, learners in Q1 to Q3 are funded relatively more than those based in Q4 and Q5 schools. The per learner allocations are essentially aimed at providing funding for non-personnel, non-capital items of spending and as outlined above, must be used to pay for LTSM, school utility bills and a host of other items as outlined in Table 9.5.

Table 9.5: Outline of items that per learner amounts can be used to fund

Category of spend	Example
Learner support material	Textbooks, library books, charts, models, computer hardware and software, televisions, video recorders, home economics equipment, science laboratory equipment, musical instruments, learner desks, chairs
Non-learner support material equipment	Furniture (excl learner desks and chairs), paper copier machines, telephone sets, fax machines, intercom systems, equipment for connectivity within the school and to the internet, hardware tools, cleaning equipment, first aid kits, overalls for cleaners and ground staff, sporting equipment, electrical accessories,
Consumable items of an educational nature	Stationery for learners
Consumable items of a non-educational nature	Stationery for office use, paper, cleaning materials, petrol, food
Services relating to repairs and maintenance	Building repair work, equipment repairs and maintenance, light bulbs
Other services	TV licences, internet service providers, school membership of educational associations, postage, telephone calls, electricity, water, rates and taxes, rental of equipment, audit fees, bank charges, legal services, advertising, security services, public or scholar transport, vehicle hire, insurance, copying service

Source: Republic of South Africa, 2006, p. 27

Table 9.6 outlines the per learner amounts over the period 2014 to 2021. Given the effect of the Covid-19 pandemic and the need for government to focus spending on responding to and managing the impacts of the pandemic, the per learner amount was not adjusted in 2021.

Table 9.6: Annual per learner thresholds

Year	Quintiles 1–3	Quintile 4	Quintile 5
2014	R1 059	R530	R183
2015	R1 116	R559	R193
2016	R1 177	R590	R204
2017	R1 243	R623	R215
2018	R1 316	R660	R228
2019	R1 390	R697	R241
2020	R1 466	R735	R254
2021	R1 466	R 735	R254

Source: DBE

While provinces are meant to use these amounts as a minimum threshold that they do not fund below, the following, based on Table 9.7, Table 9.8 and Table 9.9. is noted:

- KwaZulu-Natal has been funding all quintiles below the national threshold since 2014
- The Northern Cape has funded its Q1 to Q3 learners below the national threshold amount since 2015
- Mpumalanga has funded all quintiles below the national threshold amount since 2016
- As at 2021, the Eastern Cape is funding all quintiles below the nationally determined threshold amounts.

Table 9.7*:* Provincial per learner funding relative to nationally set threshold, 2014-2016

Province	2014			2015			2016		
	Quintiles 1–3	Quintile 4	Quintile 5	Quintiles 1–3	Quintile 4	Quintile 5	Quintiles 1–3	Quintile 4	Quintile 5
Eastern Cape	1 059	530	183	1 059	530	183	1 177	590	204
Free State	1 059	530	240	1 116	559	240	1 177	590	240
Gauteng	1 059	530	530	1 116	559	559	1 177	590	590
KwaZulu Natal	932	509	175	955	522	179	955	522	179
Limpopo	788	395	136	646	320	130	1 102	590	204
Mpumalanga	1 059	530	183	1 116	559	193	1 010	503	173
Northern Cape	1 059	631	294	1 070	663	309	1 125	698	326
North West	1 059	605	183	1 116	605	193	1 177	605	204
Western Cape	1 059	567	244	1 116	595	269	1 144	573	198
National Threshold	1 059	530	183	1 116	559	193	1 177	590	204

Source: DBE

Table 9.8: Provincial per learner funding relative to nationally set threshold, 2017–2019

Province	2017			2018			2019		
	Quintiles 1–3	Quintile 4	Quintile 5	Quintiles 1–3	Quintile 4	Quintile 5	Quintiles 1–3	Quintile 4	Quintile 5
Eastern Cape	R1 177	R590	R204	R1 316	R660	R228	R1 390	R697	R241
Free State	R1 243	R623	R240	R1 316	R660	R240	R1 390	R697	R241
Gauteng	R1 243	R623	R623	R1 316	R660	R660	R1 390	R697	R697
KwaZulu Natal	R955	R522	R179	R955	R522	R179	R955	R522	R179
Limpopo	R1 241	R621	R205	R1 316	R660	R228	R1 390	R697	R241
Mpumalanga	R1 059	R530	R183	R1 285	R650	R226	R1 340	R679	R235
Northern Cape	R1 177	R736	R346	R1 243	R778.38	R366.35	R1 134	R734	R345
North West	R1 243	R623	R215	R1 316	R660	R228	R1 390	R697	R241
Western Cape	R1 243	R993	R369	R1 316	R1,055	R390	R1 390	R1,129	R376
National Threshold	R1 243	R623	R215	R1 316	R660	R228	R1 390	R697	R241

Source: DBE

Table 9.9: Provincial per learner funding relative to nationally set threshold, 2020–2021

Province	2020			2021		
	Quintiles 1–3	Quintile 4	Quintile 5	Quintiles 1–3	Quintile 4	Quintile 5
Eastern Cape	R1 466	R735	R254	R870	R436	R 151
Free State	R1 466	R735	R254	R1 536	R770	R266
Gauteng	R1 466	R735	R735	R1 466	R735	R735
KwaZulu Natal	R955	R522	R179	R955	R522	R179
Limpopo	R1 466	R735	R254	R1 536	R770	R266
Mpumalanga	R1 370	R692	R240	R977	R486	R168
Northern Cape	R1 134	R765	R354	R1 247	R845	R393
North West	R1 466	R735	R254	R1 536	R770	R266
Western Cape	R1 466	R1,200	R395	R1 536	R1 267	R417
National Threshold	R1 466	R735	R254	R1 466	R735	R254

Source: DBE

While the per learner amount encompasses a number of the elements that can be considered essential to the right to basic education, it is clear from the above example that this funding instrument is characterised by a number of challenges including personnel payments that negatively impact on the ability of provincial departments to align funding with national threshold amounts. While it is important to protect spending on public services underpinning SERs, from a human rights perspective, this cannot be done without due consideration of the challenges that might

hamper those various spending items and which may serve to undermine the potential benefits of protecting existing or increased levels of funding.

A similar example can be made with respect to the funding instruments and implementation processes surrounding education infrastructure. While education infrastructure has the ability to augment the quality of education and its outcomes, particularly through facilitating better instruction, improving learner outcomes, and reducing dropout rates (Barrett et al., 2019; Teixeira et al., 2017), in South Africa this area is characterised by lack of compliance with government's infrastructure norms and standards. In 2013, the minimum norms and standards for educational infrastructure were endorsed, obligating the government to provide various types of infrastructure within specified timeframes (see Table 9.10).

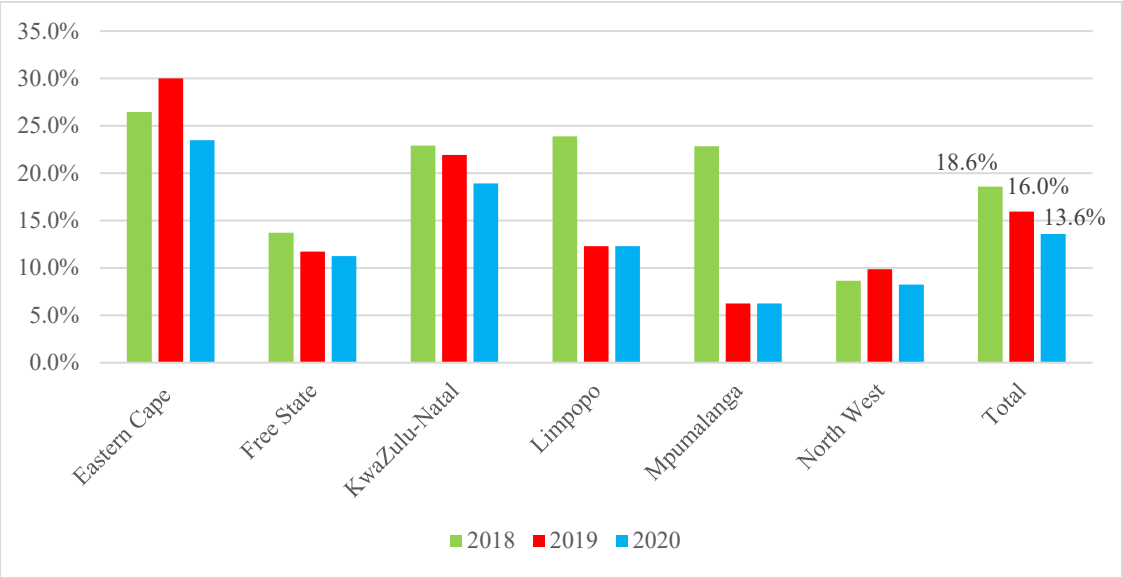
Table 9.10: Education infrastructure targets as contained in the norms and standards on school infrastructure

Dimension of infrastructure	Implementation timeframe	Anticipated date for achievement
All schools built entirely from mud or asbestos or metal or wood	Three years from date of publication (end 2013)	2016
All schools that do not have access to any form of power supply, water supply or sanitation		
Availability of classrooms, electricity, water, sanitation, electronic connectivity, perimeter security	Seven years from date of publications (end 2013)	2020
Libraries and laboratories for science, technology and life sciences	Ten years from date of publication (end 2013)	2023
Compliance with all other norms and standards	Before 31st December 2030 (end 2013)	

Source: Norms and standards of school infrastructure.

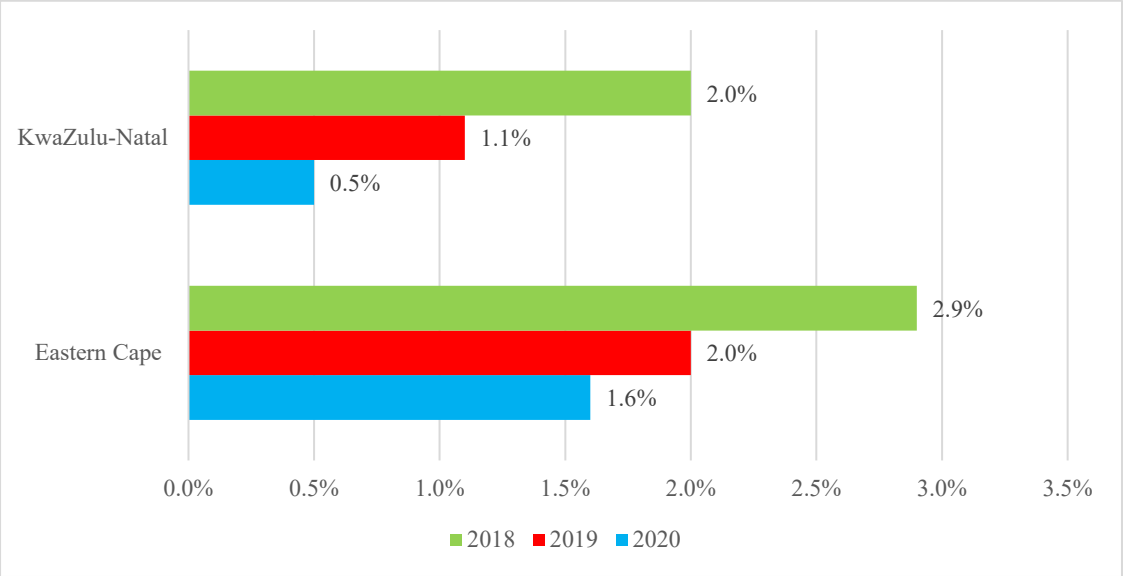
An assessment of school infrastructure delivery data (see Figure 9.8, Figure 9.8, and Table 9.11) highlights the delays in the government's compliance with the infrastructure norms and standards. While progress is noted in respect of declines in those schools that have pit latrines as their only source of sanitation (see Figure 9.8), the very existence of pit latrines runs contrary to the provision of high quality, safe and dignified education and therefore supports the suggestion referred to elsewhere in this paper to provide relatively more priority to spending on water and sanitation. A discussion on public infrastructure is incomplete without reflecting on government's long-standing challenge around efficiently and effectively managing these types of projects, a problem that is not unique to the basic education sector. In rolling out infrastructure projects, government departments often rely on numerous implementing agents and consultants who are not incentivised to keep to time and cost guidelines. Coupled with limited oversight by sector departments, this type of delivery model easily gives rise to irregularities and fiscal misappropriation.

Figure 9.8: Percentage of schools with pit latrines as the only source of sanitation, 2018 to 2020



Source: Commission's calculations based on DBE NIEMS Reports, 2018–2020.

Figure 9.9: Percentage of schools without electricity supply, 2018 to 2020



Source: Commission's calculations based on DBE NIEMS Reports, 2018–2020.

Table 9.11: Percentage of schools without access to sports, laboratories and library facilities, 2018-2020

Province	% of Schools without sports facilities			% of Schools without laboratory facilities			% of Schools without library facilities		
	2018	2019	2020	2018	2019	2020	2018	2019	2020
Eastern Cape	61.62	64.54	64.54	66.78	93.08	93.06	92.99	92.19	92.19
Free State	30.96	29.7	29.7	71.96	69.83	69.74	63.29	50.88	51
Gauteng	22.56	22.53	22.53	66.67	76.84	66.57	36.76	36.15	36.15
KwaZulu-Natal	54.5	54.35	54.28	88.58	88.51	88.51	75.82	73.44	73.44
Limpopo	32.34	32.51	32.51	88.58	94.00	94	93.48	83.81	92.93
Mpumalanga	28.45	29.19	30.13	87.64	87.62	87.47	80.76	56.98	79.21
Northern Cape	30.68	31.07	31.62	80.04	76.84	76.47	68.95	61.78	60.82
North West	25.56	25.53	25.53	80.37	79.85	79.85	76.01	51.08	74.38
Western Cape	25.19	25.12	25.03	66.78	66.32	66.02	44.78	37.54	37.54
Total	34.64	34.95	35.1	81.02	80.29	80.19	70.31	74.18	74.16

Source: Commission's calculations based on DBE NIEMS Reports, 2018–2020.

The point of presenting greater detail around the per leaner amount as well as education infrastructure is to emphasise that a number of the items that fall within the essential elements list are characterised by various challenges – be it spending, implementation or coordination challenges. Thus the point of this chapter is not to recommend that all essential items cannot be cut or need to be indiscriminately protected irrespective of South Africa's current fiscal position. Rather, it is to highlight the spending elements which are critical, from a human rights perspective, to extending access to the right to basic education and to propose that these elements not only be protected but also used to guide prioritisation within the sector.

9.7 Conclusion

Based on global and domestic factors, fiscal constraints will continue to characterise South Africa over the short to medium term. This will affect the basic education sector and the level of funding it will receive. Notwithstanding the difficult situation the government finds itself in, the SERs enshrined in the Constitution need to be protected. While slower and even negative growth in allocations are to be expected, attempts must be made, within this limited resource envelope, to protect the essential elements related to our SERs. This is to ensure that the gains achieved over the past 27 years are not totally eroded. Improved planning and strategic prioritisation is required. To this end, the analysis in this paper tries to propel the discussion on what the essential, non-negotiable spending items should comprise in the basic education sector. As noted in this paper, experience from the South African health sector shows that a targeted approach to protecting spending on essential, non-negotiable items is workable and can result in insulating selected items from severe cuts. This approach must be employed in the basic education sector. Even as this chapter was being drafted a case relating to the lack of provision of textbooks was heard in the Grahamstown High Court on 15 March 2022. The court has found that the failure by the Eastern

Cape Department of Education to deliver textbooks and stationery at the beginning of the school year violates the Constitution and that such equipment be provided to schools urgently. This emphasises the pressing need to take a SER-focussed approach to budget and spending decisions as court orders are a stop gap measure. Thus the basic education sector must agree on a uniform prioritisation framework that protects the essential elements associated with one of the the most important SERs in South Africa's Constitution.

9.8 Recommendations

The below outlines potential areas for recommendation

1. *Minister of Basic Education use essential elements identified in this analysis as the foundation of a framework to consult broadly with stakeholders to agree on a guide for spending prioritisation in the basic education sector that is underpinned by a SER-approach.*

9.9 References

Acemoglu, D. 2012. Introduction to economic growth. *Journal of economic theory*, 147(2), 545-550.

Bilchitz, D. 2014. Socio-economic rights, economic. Retrieved from http://icon.oxfordjournals.org/

Blecher, M., Kolipara, A., Mansvelder, A., Daven, J., Maharaj, Y. and Gaarekwe, O. 2017. Chapter 3: Health spending at a time of low economic growth and fiscal constraint. In A. Padarath and. P. Barron, *South African Health Review,* 2017 (pp. 25-40). Durban: Health Systems Trust.

Dawson, H., and McLaren, D. 2015. A framework for monitoring and evaluating the progressive realisation of socio-economic rights in South Africa. Studies in Poverty and Inequality Institute. Retrieved from http://spii.org.za/wp-content/uploads/2018/02/SPII-A-Framework-for-Monitoring-the-Progressive-Realisation-of-SERs-....pdf.

Grossman, G., and Krueger, A. 1995. Economic growth and the environment. *The quarterly journal of economics,* 110(2), 353-377.

Gustafsson, M. 2016. Teacher Supply and the Quality of Schooling in South Africa: Patterns over Space ad Time. Paper produced for the PSPPD Study, University of Stellenbosch.

Hanushek, E and Woessmann, L. 2020. Economic Impacts of Learning Losses. Retrieved from https://www.oecd.org/education/The-economic-impacts-of-coronavirus-covid-19-learning-losses.pdf

Jackson, C. 2020. Does School Spending Matter? The New Literature on an Old Question. Retrieved from https://works.bepress.com/c_kirabo_jackson/38/

Khoza, S. 2007. Socio-Economic Rights in South Africa. Retrieved from http://repository.uwc.ac.za/xmlui/bitstream/handle/10566/254/KhozaSocioEconomicRights2007.pdf?sequence=1&isAllowed=y

Manion, M., Ralston, R., Matthews, T. and Allen, I. 2017. Budget analysis as a tool to monitor economic and social rights: Where the rubber of international commitment meets the road of government policy. *Journal of Human Rights Practice,* 146-158.

Matthews, T., and McLaren, D. 2016. Budget analysis for advancing socio-economic rights. A guide for state and non-state human rights advocates and researchers. Retrieved from http://spii.org.za/wp-content/uploads/2018/05/2016-SPII-SAHRC-Guide-to-Budget-Analysis-for-Socio-Economic-Rights.pdf

McConnachie, C., Skelton, A. and McConnachie, C. 2017. The constitution and the right to a basic Education. Retrieved from https://section27.org.za/wp-content/uploads/2017/02/Chapter-1.pdf

Merabe, M. 2015. The core content of public school learners' right to a basic education in terms of Section 29 (1)(A) of the Constitution. Retrieved from https://scholar.ufs.ac.za/handle/11660/2380

Miller, A. 2019. Briefing paper 2: The context for human rights budget work in Scotland. Retrieved from https://www.scottishhumanrights.com/media/1907/hrbw-paper-2-vfinal.pdf

Mubangizi, J. 2006. The constitutional protection of socio-economic rights in selected African countries: A comparative evaluation. *African Journal of Legal Studies,* 1-19.

Naape, B., and Matlasedi, N. 2020. Secondary education spending and school attendance in South Africa: An ARDL approach. Cogent Social Sciences. Retrieved from https://doi.org/10.1080/23311886.2020.1825056

National Planning Commission. 2011. National Development Plan: A Vision for 2030. Pretoria: Government Printers.

National Treasury. 2021. Budget Review, 2021. Pretoria: Government Printers.

Nolan, A. and Dutschke, M. 2010. Article 2(1) ICESCR and states parties' obligations: whither the budget? Retrieved from https://nottingham-repository.worktribe.com/preview/1012970/Nolan_Dutschke_EHRLR.pdf

Obi, C., Ekesiobi, S., Dimnwobi, S., and Mgbemena, E. 2016. Government education spending and education outcome. *International Journal of Economics, Finance and Management Sciences* 4(4), 224-234. doi:doi: 10.11648/j.ijefm.20160404.18

Office of the United Nations High Commissioner for Human Rights. 2008. Frequently asked questions on economic, social and cultural rights. Retrieved from https://www.ohchr.org/Documents/Issues/ESCR/FAQ%20on%20ESCR-en.pdf

Republic of South Africa. 1996. South African Schools Act, 1996 (No 84 of 1996). Pretoria: Government Printers.

Republic of South Africa. 2006. South African Schools Act: Amended Norms and Standards for School Funding. Pretoria: Government Printers.

Republic of South Africa. 1996. Constitution of the Republic of South Africa.

South African Human Rights Commission. 2021. The Right to Read and Write. Retrieved from https://www.sahrc.org.za/home/21/files/The%20Right%20To%20Read%20and%20Write%20Report%20(12%20Aug%202021).pdf

South African Human Rights Commission. 2012. South African Human Rights Commission Charter of Children's Basic Education Rights. Retrieved from https://www.sahrc.org.za/home/21/files/SAHRC%20Education%20Rights%20Charter.pdf

Schreiber, L. 2018. Staying Afloat: South Africa Keeps a Focus on Health Priorities during a Financial Storm, 2009-2017. Retrieved from https://successfulsocieties.princeton.edu/sites/successfulsocieties/files/South%20Africa%20Final_1.pdf

Scott, C and Macklem, P. 1992. Constitution Ropes of Sand or Justiciable Guarantees? Social Rights in a New South African Constitution. Retrieved from https://core.ac.uk/download/pdf/192872796.pdf

Shafiq, M.N. 2010. The effect of an economic crisis on educational outcomes: An economic framework and review of the evidence. *Current Issues in Comparative Education,* 5-13.

Sibeko, B., and Isaac, G. 2019. The cost of austerity: Lessons for South Africa. Retrieved from https://iej.org.za/wp-content/uploads/2020/02/The-cost-austerity-lessons-for-South-Africa-IEJ-30-10-2019.pdf

Simbo, C. 2018. A Hexagon Right: The six dimensions of the South African right to a basic education. Obiter, 126-151.

Skelton, A. 2013. The role of courts in ensuring the right to a basic education in a democratic South Africa: A critical evaluation of recent education case law. *De Jure,* 2-22.

Tomasevski, K. 2001. Human rights obligations: Making education available, Accessible, Acceptable and Adaptable. Retrieved from https://www.right-to-education.org/sites/right-to-education.org/files/resource-attachments/Tomasevski_Primer%203.pdf

Unesco. 1990. World Declaration on Education for All. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000127583

United Nations Economic and Social Council. 1999. Implementation of the ICESCR: General Comment No. 13. United Nations.

United Nations Economic and Social Council. 2007. Report of the United Nations High Commissioner for Human Rights. Retrieved from https://www.ohchr.org/_layouts/15/WopiFrame.aspx?sourcedoc=/Documents/Issues/ESCR/E_2007_82_en.pdf&action=default&DefaultItemOpen=1

United Nations. 1976. International covenant on economic, social and cultural rights. Retrieved from https://treaties.un.org/doc/treaties/1976/01/19760103%2009-57%20pm/ch_iv_03.pdf

Van der Berg, S. 2021. Socio-economic rights: From the Constitution to budget implementation. Financial and Fiscal Commission Seminar, 01 September 2021.

Van der Berg, S., Spaull, N., Wills, G., Gustafsson, M. and Kotzé, J. 2016. Identifying Binding Constraints in Education. Retrieved from https://resep.sun.ac.za/wp-content/uploads/2017/10/PSPPD_BICiE-email-01062016.pdf

Venkat, H. and Spaull, N. 2015. What do we know about primary teachers' mathematical content knowledge in South Africa? An Analysis of SACMEQ 2007. *International Journal of Educational Development,* 121-130.

Veriava, F. and Paterson, K. 2020. The Right to Education. In Porter, J.D. Bruce *Research handbook on economic, social and cultural rights as human rights* (pp. 113-136). Cheltenham: Edward Elgar Publishing.

Waris, A., and Latif, L. 2015. Financing the progressive realisation of socio-economic rights in Kenya. *University of Nairobi Law Journal,* 8(1).

Wildeman, R. 2018. Realising the Right to Basic Education in South Africa: An Update of the Policy Effort, Resource Allocation and Enjoyment of the Right to Basic Education in South Africa. Retrieved from http://spii.org.za/wp-content/uploads/2018/11/Working-Paper-20-Basic-Education_Digital.pdf

World Bank. 2019. South Africa: Learning Poverty Brief. Retrieved from https://pubdocs.worldbank.org/en/951411571223542893/SSA-AFCS1-ZAF-LPBRIEF.pdf

World Bank. 2020. The Impact of the Covid-19 Pandemic on Education Financing. Retrieved from https://thedocs.worldbank.org/en/doc/734541589314089887009002 2020/original/CovidandEdFinancefinal.pdf

World Bank. 2021. Urgent, effective action required to quell the impact of COVID-19 on education worldwide. Retrieved from https://www.worldbank.org/en/news/immersive-story/2021/01/22/urgent-effective-action-required-to-quell-the-impact-of-covid-19-on-education-worldwide

PART 2: EFFICIENCY OF BASIC EDUCATION

Sean Muller and Jugal Mahabir

9.10 Background and problem statement

Access to education is widely accepted, internationally, as a fundamental human right. The Constitution of South Africa (Republic of South Africa 1996) stipulates that

> *29. (1) Everyone has the right—*
> *(a) to a basic education, including adult basic education; and*
> *(b) to further education, which the state, through reasonable measures, must make progressively available and accessible.*
> *(2) Everyone has the right to receive education in the official language or languages of their choice in public educational institutions where that education is reasonably practicable….*

In addition, it provides (s29(3)) for the right to "establish and maintain, at their own expense, independent educational institutions that…are registered with the state; and maintain standards that are not inferior to standards at comparable public educational institutions". Such institutions may be subsidised by the state (s29(4)).

An aspect of these provisions that has been heavily emphasised by legal rights scholars (McConnachie, Skelton, and McConnachie 2017) is that the provision in s29(1a) is not conditional on 'progressive realisation' as some other such clauses are in the Constitution. This is interpreted to mean that the right to basic education is one that must be realised immediately and at all times.

The Constitution does not, however, explicitly define basic education or say anything about what would constitute provision of this other than in the form of access. That leaves matters of extent and quality relatively open. From a financing perspective, this is significant because access (quantity) and quality are the two fundamental determinants of cost. The Education White Paper (Department of Education 1995), for instance, interpreted the constitutional requirement as being met by universal access from Grade 1 to Grade 9. As regards financing, it stated that:

> *14…ensuring that the material and human resources made available to schools from state funds are sufficient to allow an acceptable quality of learning to proceed…*
> *15. Education financing policies must direct the distribution of the limited public resources so that the goals of universal provision and equalisation are attained, but in such a way that educational inputs which are known to be strategically necessary for improved quality are both safeguarded and enhanced…*

> *16. Efficiency and sustainability. Educational efficiency is linked to quality of provision. Achieving or improving efficiency in the education system will require us to reduce repetition and drop-out rates and increase the quantity and quality of output from the system.*

Following from this, the South African Schools Act, 1996 (Act No. 84 of 1996) provides that:

> *34. (I) The State must fund public schools from public revenue on an equitable basis in order to ensure the proper exercise of the rights of learners to education and the redress of past inequalities in education provision*

South Africa is also a signatory to the International Covenant on Economic, Social and Cultural Rights (ICESCR) through the United Nations. That covenant includes the following provisions:

> *2.1 Each State Party to the present Covenant undertakes to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures.*
> *13. The States Parties to the present Covenant recognize the right of everyone to education…[which] shall enable all persons to participate effectively in a free society*

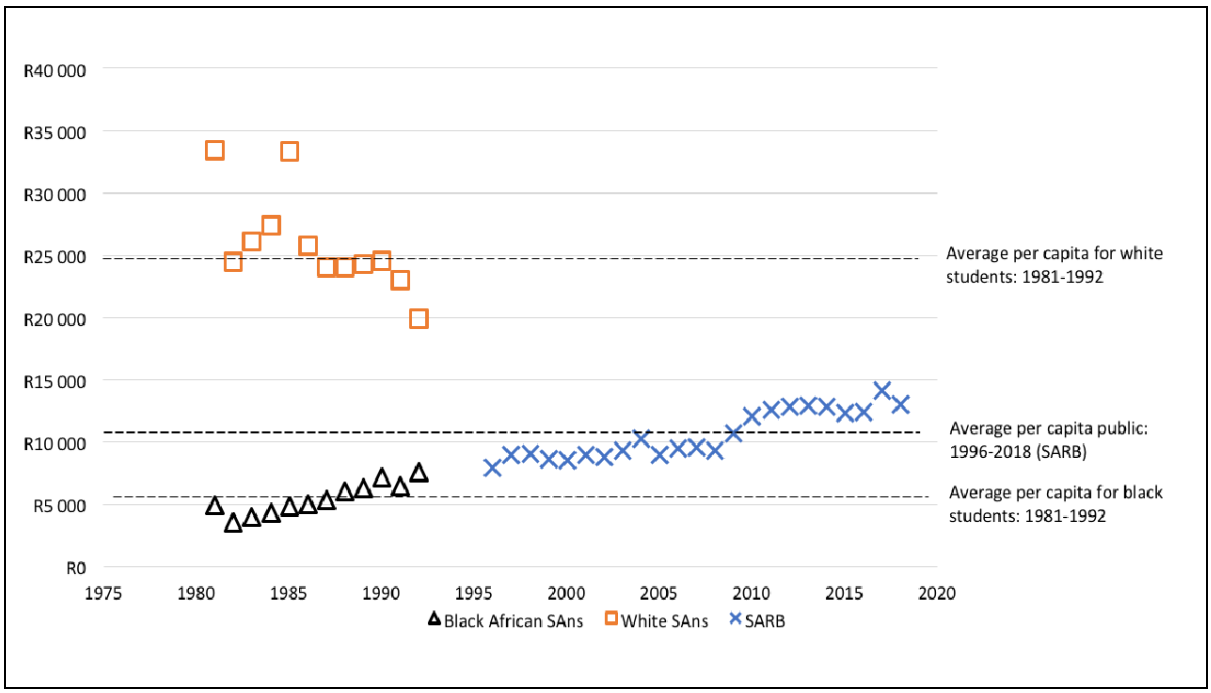
Given these principles and commitments, there are strong grounds for regular assessment of the degree to which fiscal allocations to basic education are sufficient to meet these obligations. That is especially the case where reductions are made, or are intended, to education allocations – whether in nominal, real or real-per-capita terms.

The adequacy of allocations to basic education has always been in question in South Africa. During apartheid, per pupil allocations to schools for black African, Indian and coloured students were substantially lower than the allocations to schools for white students (Fedderke, Kadt, and Luiz 2000; Muller and Mahabir 2021) – and enrolments among the former groups were substantially lower for most of the apartheid era. Post-apartheid education and fiscal policy sought to remedy this to some degree, but, given the conservative fiscal approach taken by the first and second post-apartheid governments, the emphasis was more on ameliorating inequities rather than actively pursuing fully adequate allocations. A key equity-improving initiative has been the 'quintile' system in which public schools are classified into different categories that are intended to reflect the socioeconomic backgrounds of their students. Those with larger proportions of students from poorer backgrounds are classified in lower quintiles. Resources are then allocated according to a formula which assigns the highest amount to the lowest quintile (Quintile 1) schools, decreasing with each quintile such that Quintile 5 schools get the smallest per learner allocation. However, since non-personnel expenditure is a relatively small proportion of recurrent spending the progressiveness or regressiveness of the distribution of total resources can be quite different.

In addition to reaching universal enrolment of black students (broadly defined), two of the major issues that needed to be addressed were inequitable teacher salaries and inequitable learner-

educator ratios resulting from relatively fewer teachers being allocated to 'non-white' groups. While the former was addressed successfully, the objective of the latter was a learner-educator ratio that was between that of whites-only schools during apartheid and schools for other groups, and this is indeed what transpired (Muller and Mahabir 2021). A similar phenomenon occurred in relation to public expenditure allocation per pupil, as shown in
Figure 9.10.

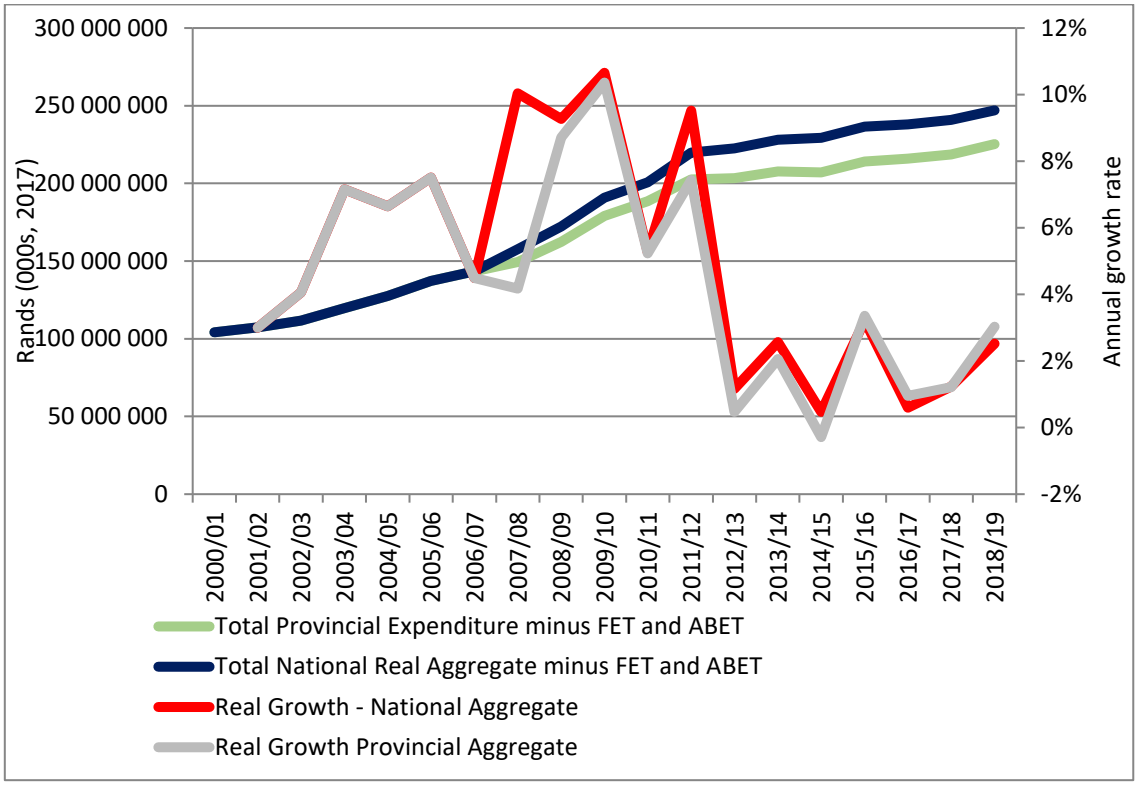
Figure 9.140: Real spending per student on primary and secondary education: 1981–2018



Source: Muller and Mahabir (2021)

The ripple effects of the global financial crisis that began in 2008, along with a decline in public service delivery, infrastructure and governance, has led to low rates of real growth in South Africa's Gross Domestic Product – often below population growth – with corresponding negative effects for public finances through lower tax revenues. Having repeatedly missed its fiscal targets, the National Treasury signalled an intention to engage in 'fiscal consolidation' from 2014, yet the actual debt to GDP ratio continued to exceed targeted values in the national Budget. At the same time, expenditure growth in many areas stagnated, including education, as shown in Figure 9.11. With the Covid-19 pandemic, the fiscal situation has worsened significantly, due to international and local measures that restricted economic activity. The corresponding expectation is that reductions to planned expenditure will now be even greater. As one part of such reductions, the 2021 Medium Term Budget Policy Statement (MTBPS) indicated the intention to cut basic education expenditure in nominal terms, which implies sizeable cuts in real and real-per-pupil terms.

Figure 9.11: Growth in real aggregate education expenditure: 2000/01–2018/19



Source: Mahabir and Muller (2021)

Given the intention to cut public education expenditure, questions arise as to the likely consequences and whether this intention is consistent with the state's obligations under the Constitution, associated legislation, and the ICESCR. In order to address these questions, it makes sense to examine the relationship between public expenditure and educational outcomes in South Africa in recent decades.

9.11 Research questions and objectives

The 2021 MTBPS (Minister of Finance 2021) indicated that the National Treasury is intending to make substantial cuts to public expenditure on basic education. Examining the recent relationship between expenditure and outcomes in recent decades provides one basis for assessing the merits and likely consequences of such cuts. Specifically, we propose in this paper to examine the relationship between public expenditure and educational outcomes in South Africa with reference to the following research objectives:

I. *A descriptive and econometric analysis of the link between resources and outcomes*
II. *Quantifying the efficiency of basic education spending in an attempt to respond to the question as to whether there is "value for money" from historical and current spending relative to educational outputs and outcomes*
III. *An examination of the implications of the preceding analysis in terms of progress or retrogression in terms of the Constitutional right to basic education and proposed expenditure reductions.*

9.11.1 Initial caveats

The societal purpose and role of schooling is the subject of significant disagreement among scholars. One school of thought sees, or treats, education as a functional process to prepare workers for the labour market. In that context, the content is also seen from a functional perspective and tests or examinations serve to provide some certification of competence. Another school of thought sees education as being about personal development of children with the broad aim of preparing them to be citizens of some desirable form of society (which may or may not be the same as the one that presently exists). From this latter point of view, examinations are typically a misguided, and often harmful, way of assessing whether an education system is fulfilling its societal function.

With such differences and concerns in mind, we nevertheless focus here on commonly-used, relatively narrow measures of 'school performance'. In particular, we focus on learner performance, aggregated to the (secondary) school level, in the national senior certificate (NSC) examinations. The rationale is that the present study takes place within the context of seeking to answer specific questions within an established educational system; whether or not that system is desirable is outside of our scope here. Nevertheless, readers should at least bear in mind that thinking of education/schooling through the lens of efficiency, then limiting notions of 'output' to examination results, frames the societal purpose of education very narrowly.

A further caveat is that, in conducting quantitative and econometric analysis of these questions, we do not intend to suggest that such analysis is the only, or even the best, basis for assessing resource adequacy, efficiency, or the likely implications of budget cuts. Instead we seek to make a first attempt (to our knowledge) to examine these questions using 'efficiency analysis' methods in the South African context at the school level. The inherent and practical limitations of this approach are elaborated on in further detail below.

9.12 Literature review

Universal access to primary education was one of the main objectives of the Millennium Development Goals (United Nations 2000). The Sustainable Development Goals now have 'inclusive and equitable quality education' as one of the goals (United Nations 2015). This shift is not only a function of progress in access but also a recognition that quality had not been given sufficient attention in the push to increase enrolment. In the economics literature, for instance, early cross-country analyses of economic growth often relied on measures of education enrolment and completion but subsequent studies have found that education quality measures are at least as important (Hanushek and Kimko 2000; Hanushek and Woessmann 2020).

Intuitively, one would expect that an obvious explanation for growth in enrolment that is not accompanied by proportional growth in the number of well-educated residents – in terms of literacy and numeracy for instance – is the insufficiency of resources. However, economists have typically been reluctant to endorse this conclusion. One reason is that many econometric studies have not found a consistent, or large, relationship between resources and outcomes; the work of Hanushek (1989; 1997) has been particularly influential and that influence has carried over into literature on

resources and outcomes in developing countries (Glewwe et al. 2014). The default position for many mainstream economists has therefore been that resource adequacy is a distraction from the real challenges of improving educational performance – whatever those other challenges may be. It is notable that this position typically contrasts starkly with the views of educators and non-economist education scholars.

As is the case in most areas of economic analysis, South African economists have followed the dominant position in the international literature, albeit sometimes through different kinds of arguments. For instance, the work of van der Berg (2007) has been very influential in its assertion that South African public education expenditure was very high by international standards and therefore that poor outcomes could not be attributed to resource inadequacy. The continued influence of that position is reflected in the more recent submission to the National Planning Commission on education reform, which made no mention of resources as one of the 'binding constraints' discussed (van der Berg et al. 2016).

One problem with the dominant position in the international economics literature, and its local manifestation, is that education systems are complex and cross-sectional analysis of the link between resources and outcomes may not be able to identify causal relationships that play out over time. Indeed, it remains an open question whether any form of quantitative analysis, with the data typically available, can definitively answer this question or providing a more convincing answer than other forms of reasoning and sources of evidence. Some recent quasi-experimental analysis has found, contrary to the dominant strand of the literature, large and statistically significant improvements in educational outcomes as a result of increases in resources (Jackson, Johnson, and Persico 2016). Another, more obvious, problem with the claim that resources do not matter that remains empirically unaddressed in the literature is: if resources do not matter, why do parents and caregivers pay to send students to some schools rather than others? And why – in countries like South Africa – do schools raise money beyond public allocations if there is no educational benefit to be derived from these?

While the debate on the impact of resources and education outcomes remains complex, more studies are continuing to emerge that find increased school spending improves student outcomes; in other words "money matters in education" (Jackson, Wigger, and Xiong 2021, 20–21) and lack of resources is a 'binding constraint' on educational outcomes in some circumstances (CGD 2022).[34] An additional issue of interest, which has been given relatively little attention, is the effect of spending cuts – as opposed to resource increases – on the outputs and outcomes in the education sector. This type of analysis is important in the face of low real growth or real reductions in education expenditure in South Africa.

[34] The slight shift in the literature is partly a function of commitments to the superiority of particular kinds of evidence the results from which contradict earlier positions. We do not necessarily share those methodological commitments and one of us has criticised them in some detail (Muller 2020b; 2020a; 2021). It follows that we also do not necessarily share the associated policy prescriptions.

Jackson et al. (2019) note that it is uncertain whether one can expect a symmetric impact for an increase in expenditure vis-à-vis a decrease in expenditure. Using US school data from 1987 to 2016, the authors assessed the impact of a national 7 per cent decline in school expenditures due to the "*great recession"* of 2008 on education outcomes in the form of standardised test scores and college going rates. They found that a reduction in spending resulted in reduced test scores and college going rates, with such impacts most prominent in poorer schools. In order to test whether an increase and a decrease in school spending has a symmetric impact, the authors re-estimated studies that looked at the causal variation in school spending on standardised test results and college entry rates. For the United States, over the three decades of their study, they find very similar effects on test scores for both and increase and a decrease of school spending, suggesting a degree of symmetry. They also find that schools tend to decrease non-core operational expenses in the face of budget cuts. The authors emphasise that this is likely to have negative long-term social and economic effects.

Whether such conclusions, derived from an econometric study in the United States, apply in South Africa is unknown at this point. Thinking about the question of symmetry from the perspective of an education production function suggests that, in less well-resourced contexts, any negative impact of expenditure cuts is likely to be larger than any positive impact of resource increases – due to the generic principle of higher marginal returns at lower levels of resourcing. The same logic applies within the range of a country's own experiences, so that cutting expenditure from a higher base may have lower negative effects than cutting expenditure from a lower base. However, it is also important to point out that even simpler intuition suggests that reductions in resource allocation for the provision of a public good will lower the quality or quantity of that good. As noted above, we do not endorse the view that econometric evidence is always, inherently better than other forms of evidence – including even intuition derived from knowledge of the social institutions involved.

Instead of the issue of resource adequacy and changes in resource allocation, however, an influential focus in the South African literature has been on the suggestion that poorly performing public schools are using their resources poorly. This leads, for example, to an emphasis on better-performing public schools in lower quintiles (van der Berg 2008); the argument being that if *some* poor schools can perform relatively well, then *most* poor schools should be able to do so. In many respects, however, it assumes that the reason for relatively good performance by some poor schools is something that can be expanded, scaled-up or otherwise attained by other schools. But, ex ante, it is no less likely that relatively good performance could be explained by rare, random or highly localised factors so that better-performing poor schools are 'the exception that prove the rule' when it comes to resources and outcomes, rather than representing counterexamples to the suggestion that resources matter.

The logic behind the general suggestion of inefficiency is therefore questionable. In addition to that, the South African literature that advocates this particular position has not sought to formulate and investigate it quantitatively by, for instance, following international counterparts in employing efficiency estimation methods and productivity analysis. Such methods include parametric stochastic frontier analysis (SFA), non-parametric data envelopment analysis (DEA) and free disposable hull (FDH) methods.

Productivity in schools, and the education sector as a whole, is now also being estimated, in international literature, through the use of approaches such as the Malmquist Productivity Indices. For example, Kirjavainen (2012) examines the efficiency of upper secondary schools in Finland using the SFA method, Agasisti (2013) uses a DEA for Italian secondary schools, and Grosskopf and Moutray (2001) use the Malmquist index to examine productivity of public schools in the United States (Chicago) after decentralisation. Table provides a brief overview of some of the studies that assessed the efficiency of education using the above-mentioned methods, with a specific focus on the use of SFA at the school level.

Table 9.12: Selected studies using SFA to quantify education efficiency

Study	Country	Outputs	Inputs	Environmental Variables	Model Specification
Pereira and Moreira (2007)	Portugal	Average score of national examinations	Teachers/100 students; Teachers/classes; Natural log of teacher age; Natural log of school size; Private school dummy	Living standards; Average year of schooling at municipal level	Cross section and panel SFA – school level
Kirjavainen (2012)	Finland	Average school in compulsory matric exam tests	GPA; Parent education; Percentage of single parents; Teaching expenditures/student; Standard division of GPA; Percentage female students; Percentage Swedish speaking students; Mean length of studies; Mean participation in exam periods; School size; Language specialisation dummy; Maths and science specialisation dummy; Sports specialisation dummy; Private school dummy; Stated owned school dummy	Inputs and environmental variables used interchangeably	Panel SFA – school level
Scippacercola and D'Ambra (2014)	Italy	Students passing secondary school leaving examination with 80/100 score/total students that wrote exams	Number of teachers/100 students; Number of teachers/classroom; Number of student/classroom; Teachers with more than 10 year service; Extra school funds; Total area of classroom; Total area of library	Number of foreign students/total students; Lower grades/higher grades; Dropouts/total number of students; Parents who participated in	Cross section SFA – with second stage TOBIT estimation – school level

Study	Country	Outputs	Inputs	Environmental Variables	Model Specification
				collegiate bodies/total number of eligible parents Note: environmental variables included in a second stage analysis of efficiency scores	

Given the claims of the existing literature, it seems appropriate to investigate the application of such methods to the South African education sector. On the one hand, these approaches could provide a different perspective on the dynamics of school performance and their relationship to public expenditure in South Africa that may or may not support existing narratives. On the other hand, such approaches may not provide empirical findings that are very different to extant literature or are inadequate to capture the complexities of the South African education system given the data available. For that reason the policy discussion and implications we provide at the end of the analysis are based on the full extent of our understanding of the South African education system and the financing thereof.

Efficiency in the use of funds is, of course, important in achieving the purpose for which those funds were provided. This is a challenge in all institutions, including public ones. If the purpose is not being achieved, inadequacy of resources, inefficiency in the use of those resources, or both could be among the reasons. Thus it is appropriate that assessments of the adequacy of funding for any purpose take account of efficiency, and – correspondingly – any assessments of efficiency must also account for adequacy.

Inadequacy of resources and inefficiency in their use were both identified in early policy documents of the democratic era in South Africa (Department of Education 1995) and a number of scholars have expressed concern about the adequacy of public allocations (Fedderke, Kadt, and Luiz 2000; Fiske and Ladd 2004; Jansen and Amsterdam 2006; Motala 2006; Sayed and Motala 2012). A notable aspect of the literature is that relatively few studies of education financing have been conducted at the level of the school, perhaps due to the unavailability of adequate data at this level. One exception is Yamauchi (2005; 2011) who examines inequality in resource allocation at the school level and finds that this is significant and predicted by apartheid-era factors such as race and geographical location – findings that have been broadly corroborated by subsequent work (Ardington et al. 2011; Branson, Hofmeyr, and Lam 2014).

However, those scholars, and many others, have ultimately often paid more attention to inequity than inadequacy: the differences across public schools (especially between ‘no fee’ and fee-charging schools), and between private and public schools. Virtually all scholars writing on education in South Africa – including the subset in Spaull and Jansen (2019) – agree on the

presence of sizeable inequality in both outcomes and resources. Other recurrent observations of significance for policy purposes concern the interaction between personnel expenditure and private funding from fees that leads to substantial inequalities even between 'public schools', as well as provincial variation in school resource allocation across provinces (UNICEF 2018).

There is less agreement on, and explicit treatment of, the issue of adequacy. Notably, to our knowledge there has never been an attempt to construct a bottom-up estimate of education expenditure required to provide adequate basic education to all public school students – a point made earlier by Sayed and Motala (2012). An unfortunate consequence of this is that policymakers and scholars at times emphasise efficiency simply because it is easier to analyse, or because they believe it is not fiscally feasible to allocate more resources to education, rather than because they can demonstrate that existing allocations are in fact adequate.

Substantiating this concern is analysis (Muller 2013; OECD 2013) showing that South African education expenditure has not been, contrary to earlier claims (van der Berg 2007), high by international standards when measured in terms of the per pupil allocation relative to GDP per capita. Furthermore, Muller and Mahabir (2021) show that while there was a substantial increase in resources per pupil in public schools since 1994 (consistent with other studies such as Wildeman (2008)), implying an increase in resources to black students (broadly and narrowly defined), the real value of the per pupil allocation remained substantially below what was allocated per pupil to white schools under apartheid. That in turn raises the question as to why apartheid-resourcing standards for white students are deemed (up to 250 per cent) higher than what is necessary to provide quality education to black students in the post-apartheid era.

9.13 Data

Table summarises some of the main data sources for analysis of public resource allocation to basic education.

Table 9.13: Data for analysis of fiscal allocations

Dataset	Source	Key components/variables
Budget Review and Estimates of National Expenditure	National Treasury	Total basic education expenditure by provinces, economic classification and programmes
PERSAL	National Treasury	Personnel expenditure by school and personnel classifications
UNESCO Education Statistics	UNESCO	National expenditure, learner numbers and teacher numbers
Historical macroeconomic time-series	SARB	National public expenditure on primary and secondary education
Schools Masterlist	Department of Basic Education	Learner and teacher numbers by provinces, quintiles and school types (for calculating per-learner and per-educator allocations)
School Allocations	PEDs	Fiscal allocation by provinces to schools

There are five main sources of information on educational *outcomes* in South Africa that could be of use for this purpose, which are summarised in Table . While matriculation rates are widely used and receive a great deal of public attention, they are to some degree locally endogenous: determined not just by learner performance but also decisions about examination content, pass requirements and so forth. That requires a caveat to their use since trends in matriculation rates could reflect change in the quality of education *or* changes in policy at various levels. Furthermore, a large number of youth leave the schooling system before writing matric, or write matric after being held back for a number of years. Nevertheless, some useful information can be obtained from this data, particularly with respect to overall throughput rates and rates across different types of schools in South Africa (across quintiles, and across private versus public). NSC results are given the greatest emphasis of all measures of educational outcomes in national education policy-making.

Table 9.14: Data for analysis of educational outcomes

Data	Source	Key components/variables
National Senior Certificate ('Matric')	Department of Basic Education	Aggregate matriculation numbers across provinces, school types and quintiles
Annual National Assessments	Department of Basic Education	Standardised assessments of numeracy and literacy (Grade 6 and Grade 9)
SACMEQ	SACMEQ	Standardised reading and mathematics performance for Grade 6 learners
TIMSS	IEA	Standardised measures of mathematics and science performance in Grade 4 and Grade 8
PIRLS	IEA	Standardised measures of literacy performance for Grade 4 learners

A notionally better source of information on educational outcomes (performance) are cross-country surveys that examine learner competence in a standardised manner across countries. The three examples considered here are: TIMMS (Trends in International Mathematics and Science Study), PIRLS (Progress in International Reading Literacy Study) and SACMEQ (The Southern and Eastern Africa Consortium for Monitoring Educational Quality). The main limitation of these data sources is that they are based on a sample of learners and there may be some room for local authorities to influence how the sample is drawn in order to facilitate more favourable conclusions. Furthermore, countries with curricula that are more closely aligned to the questions asked of students in the surveys are likely to perform better. A final significant limitation is that such outcomes typically cannot be matched to detailed school resource or expenditure data.

Another valuable source of information on performance are the Annual National Assessments, which provide standardised assessments of literacy and numeracy at different stages of the basic education process. Unfortunately these were discontinued in 2014, which limits the time period that they can be used to analyse.

Expenditure data at the level of the school is somewhat more challenging because it has two main components that are administered in quite different ways. The first component relates to

expenditure on education personnel. This expenditure is not done through the schools themselves but rather by provincial education departments utilising the PERSAL system. The second component relates to the allocation to schools for non-personnel expenditure and that is transferred to schools (also by provincial education departments). In order to assess the total public resources provided to a given school one requires both these pieces of information. Furthermore, if one wishes to assess the total resources available to all public schools one requires information on fees received by fee-charging schools in the fourth and fifth quintiles. Information on fees charged by schools was historically collected as one of the questions in the Annual Survey of Schools, but it is not longer a compulsory question in the SA-SAMS system that has replaced the Survey – in either case the quality of this data remains to be seen.

9.13.1 Process of compiling dataset for analysis

As indicated by the above discussion, the data required for an analysis of schooling outcomes and public resource allocation is not available from a single institutional source, or a single dataset. Instead, there are a range of datasets from different government departments that provide different pieces of the information needed. At the core of the project proposal was the use of administrative data at the level of schools from two main sources: education system data from the Department of Basic Education and public expenditure data from National Treasury.

The data request to the Department of Basic Education was submitted in mid-December shortly after the conclusion of the FFC tender process. Some components of the data were obtained by late January but the full response to all components was only received by early April. While the FFC had a detailed PERSAL dataset this did not contain the *component* variable which is crucial for matching PERSAL to any other school-level datasets. The researchers therefore requested the PERSAL data from National Treasury. This was also only obtained relatively late, at the end of March. The notable result of these challenges is that there was very limited time for certain aspects of the process discussed further below, such as improving match rates, more extensive data checking and cleaning, and exploration of alternative sources besides direct provision by the Department of Basic Education. Along with our methodological concerns this serves as a significant caveat to the analysis and results.

The datasets obtained on request from government departments (national or provincial) were as follows:

1. NSC results by student (anonymised) for 2008 to 2018
2. Annual National Assessments for 2012 to 2014
3. EMIS data on educators and learners at the school level for 2006 to 2014 from the Annual Survey of Schools
4. EMIS data on educators and learners at the school level for 2016 to 2018 from the SA-SAMS system (that replaced the ASS)
5. PERSAL data at the school level for 2008 to 2020
6. Provincial allocations of non-personnel expenditure to the Western Cape and Gauteng for 2008 to 2018.

Additional non-personnel expenditure allocations for non-responsive provinces were obtained by the researchers from public sources such as provincial gazettes and provincial treasury websites. Masterlists of schools, that are compiled by the Department of Basic Education, were obtained from the Department of Basic Education website (2013-2020) or extracted from the SNAP surveys for earlier years.

The administrative systems for public finance and education collect very useful information but more needs to be done to integrate these data sources in a systematic way. Doing so would enable a range of research and analysis that would contribute to the Commission's implementation of its mandate.

PERSAL data

The steps taken to make use of the PERSAL data were as follows. First, the data had to be further aggregated at school level. The reason is that for a given component personnel funding may be drawn from other 'responsibility' categories other than the school itself. Thus to calculate the effective resource allocation one needs to add these to the main allocation. In other respects, the aggregation across personnel within schools had already been implemented in the spreadsheets we were provided.

In order to obtain personnel expenditure on educators the category decisions for the different variables were:
apptnat: Contract, CS Educator – Relieve, CS Educator Permanent, CS Educator Permanent on Probation, CS Educator Temporary, Part-Time Teacher
salleven: [ALL]
econclass: current
eduind: both
objective: all options with 'public secondary' or 'pub secondary' in any form that does not relate to admin or clearly non-relevant posts (too long to list)
itemdesc: All with 'EMPL CONational TreasuryR:', 'S&W' (including duplicates)

The PERSAL dataset received did not contain rank codes so the 'nature of appointment' (*apptnat*) variable was used to identify educators. All expenditure that fell under different categories of the *apptnat* variable to those listed above were classified as non-educator personnel expenditure.

For a significant number of schools there were naming inconsistencies in the component variable across periods, notably 2008-2010 versus 2011 onwards. In this case one entry would have expenditure for the first period and another for the second. These were combined into one entry. A different variant of that problem is where a school changes name and there is overlapping expenditure data for the periods of the initial name and the subsequent name. In that case the expenditure for the overlapping year was combined, and the entries from the earlier period inserted into the school entry for the most recent period/name.

Earlier contributions suggested that the *component* variable and EMIS number may often be the same but this research found that was not the case. For two provinces – KwaZulu Natal and Western

Cape – EMIS numbers could be extracted from the *component* or *responsibility* variables, respectively. For the other provinces no EMIS number was available.
The approach taken was as follows:

1. Match the PERSAL data to a Masterlist dataset that combined the latest Masterlist that overlapped with our periods of interest (Q4 2020) with earlier Masterlists
2. For those that were not matched in 1., EMIS numbers for KZN and WC schools that were inserted where those numbers had been extracted from the PERSAL *component*.
3. For the remaining (PERSAL) observations where neither 1. nor 2. produced an EMIS number that matched with the Masterlist, name matching was used. An initial attempt was made to do this in an automated fashion but that produced too many false negatives and positives. The option of using a fuzzy matching algorithm, *matchit*, in Stata was explored but a manual examination of the results concluded that they were not reliable enough – with low thresholds/scores sometimes being associated with correct matches ('false negatives') and high thresholds/scores producing a number of matches between different schools ('false positives'). Ultimately, a research assistant manually matched approximately half of the outstanding, unmatched schools using name comparisons.

The subset of the PERSAL data used was a combination of the above three subsets of observations that could be matched to the Masterlist.

NSC data

The next step was to match this with the NSC data. NSC data was provided at student level, by school, province and year. The relevant variables were created at the school level, then datasets were combined within years and then merged across years. Significant attrition was observed when merging across years. For example, the 2018 NSC data has 5 954 observations when the provinces are combined and the 2013 data has 6 476.

A significant obstacle was that the 2008-2010 data did not include an EMIS number but only an exam centre number. For that reason the 2008-2010 outcome years have had to be excluded from the analysis. Subsequent work may be able to include one of these years if a reliable match between exam centre number and EMIS number can be found.

Combining PERSAL and NSC data

Having followed the above steps, the PERSAL-Masterlist dataset was then merged with the NSC dataset. For 2013 and 2018 this left 5 258 observations from a possible 6 476 schools that have results for the 2013 NSC exams.

Non-personnel expenditure

As in other countries, the majority of public resources for education in South Africa go towards the cost of school personnel. This varies between approximately 75 per cent and 85per cent depending

on the province and year. However, the most deliberatively redistributive aspect of the basic education funding system is the provision in the National Norms and Standards for School Funding that non-personnel allocations to schools be based on a system whereby schools are distinguished by socio-economic quintiles. Quintiles 1 to 3 are designated non-fee schools, whereas quintiles 4 and 5 may charge school fees. The lower the quintile the higher the non-personnel allocation per pupil.

Information on non-personnel expenditure by school was requested from provincial education departments (PEDs) initially through the DBE and subsequently through the Commission. Only two of the departments, Western Cape and Gauteng, provided the data requested despite the fact that such allocations are supposed to be gazetted on an annual basis. Additional data on the remaining seven provinces was compiled from public sources such as websites and government gazettes.

In addition to the above resource and outcomes data, the research also requires data on certain basic aspects of the education system, such as learner enrolment and educator numbers. For specificity it is desirable to have these by demographic and grade, and were requested accordingly. An important additional variable relates to school fee rates. However, there was a great deal of inconsistency in the format and content of data provided for different years and provinces that required extensive alignment of datasets. In some instances exclusion of certain levels of detail for one year precludes use of that detail in other years for comparison purposes.

The data in question also comes from two historically different sources: the Annual Survey of Schools (2008-2014) and the subsequent SA-SAMS system (2016-2021). After integrating the different extracts from these EMIS sources, this information was merged with the PERSAL-NSC dataset referred to above. That yielded 4,994 unique matches, a small further reduction from 5,258. Thus the final dataset used for the analysis described below had 4,994 schools at the outset. The analysis at present does not make use of the fee information due to the need for closer scrutiny of missing data in that variable.

The maximum potential sample size of secondary schools for the 2013-2018 dataset is 6 476, which is the number of schools reported as having candidates who wrote the National Senior Certificate exams in 2013. However, we take the population for our purposes to be schools that participated in the NSC exams in 2013 and 2018, and which appear on a Masterlist. There are 6 162 such schools. Table 9.15 compares characteristics of the schools in our final dataset to schools in the population.

Table 9.15: Characteristics of sample versus population

	Final Dataset			NSC-Masterlist		
	No.	%		No.	%	
	4,994			**6,162**		
Province						
EC	679	13.6		819	13.29	
FS	236	4.73		321	5.21	

	Final Dataset			NSC-Masterlist		
	No.	%		No.	%	
GT	484	9.69		714	11.59	
KZN	1 298	25.99		1 531	24.85	
LP	1 262	25.27		1 350	21.91	
MP	390	7.81		525	8.52	
NC	82	1.64		133	2.16	
NW	267	5.35		352	5.71	
WC	296	5.93		416	6.75	
Quintile						
1	1 404	28.11		1 624	26.36	
2	1 434	28.71		1 587	25.75	
3	1 131	22.65		1 293	20.98	
4	454	9.09		579	9.4	
5	570	11.41		685	11.12	
missing	1	0.02		393	6.38	

Matrics		Mean	SD		Mean	SD
2018	4994	99.747	68.995	6162	93.646	68.067
2013	4994	94.119	66.218	6162	88.920	65.810
Bachelor passes (%)						
2018	4994	0.222	0.182	6161	0.246	0.206
2013	4994	0.246	0.183	6162	0.265	0.201
Not achieved (%)						
2018	4994	0.203	0.161	6161	0.193	0.161
2013	4994	0.247	0.187	6162	0.232	0.188

The final sample is 81 per cent of the population as defined above. There are some differences in the distributions across provinces; for example, with more attrition of Gauteng schools and less of Limpopo schools. The final sample has somewhat larger schools on average, a slightly higher proportion of lower quintile schools, and slightly lower performance (lower bachelor pass percentages and higher 'non-achievement' percentages). A large number of the schools that do not appear in the final dataset (394) also do not have quintile information from any source and would therefore have had to be dropped in estimating models even if retained during the matching process. A simple linear probability model was run with the dependent variable being 1 if a school was retained in the final sample and 0 otherwise. In other words, the model 'predicts' presence in the final dataset. Those results (not shown here) confirm that some of the above differences are statistically significant, but the model explains less than 10 per cent of the variation – thereby providing some support for a 'missing at random assumption'.

In addition to reduction in sample size due to observations not matching across datasets, some observations (schools) were also subsequently dropped in modelling for data quality reasons such as outlier values in variables used during the modelling. However, in general we err on the side of retaining observations rather than omitting them, and that is reflected in some of the descriptive analysis that follows in later sections.

9.14 Methodological approach

South Africans have the fundamental right to access basic education. As such, it can be argued that the South African government is constitutionally required to ensure this right is maintained and not compromised at any time. However, in periods where the fiscus is constrained, there is typically a cap placed on allocations to government services, including that of basic education, which can result in zero or declining real growth in allocations. This has manifested in the South African basic education sector, where fiscal consolidation efforts are expected to lead to declines in allocations to basic education. There is now a valid concern that such declines in allocations may compromise the socio-economic right to an acceptable quantity and quality of education as outlined in section 9.10.

As a potential contribution to assessing the impacts of budget cuts on basic education services, this paper uses formal, quantitative methods to examine the relationship between public expenditures and education outcomes. The brief literature review in section 9.12 noted that the link between resources and educational outcomes is a complex issue, partly because there are various factors that determine pupils' ability to obtain a quality education. And while there is a growing recognition in the recent international literature that in fact 'money may matter' in education, in South Africa the role of financial resources in determining education outcomes continues to be downplayed.

This paper contributes to the debate in part by using econometric efficiency analysis to assess the relationship between resource allocations (school spending) and education outcomes. In addition to conducting the analysis we simultaneously seek to ascertain whether an analysis of this kind can meaningfully inform the question of whether, or the extent to which, budget cuts could compromise the provision of quality education, and, ultimately, the socio-economic right to education. In contrast to prior local literature, this paper uses the stochastic frontier method to assess this relationship at the school level. We then combine our assessment of these econometric results with other evidence and analysis to answer the policy question outlined in sections 9.10 and 9.11.

Given this background, the aim of the empirical analysis is to examine three questions, namely:

- What is the relationship between resource allocation and school outcomes?
- Is it possible to ascertain how efficient schools are currently in using their resources to provide education services?
- Are changes in resources having an impact on school productivity and educational outcomes?

9.14.1 Caveats and cautions

Econometric efficiency analysis has its origins in the analysis of the efficiency of firms: examining firm output as a function of inputs such as capital and labour. For simple manufacturing processes, and also agricultural production, the method has had some success. There are many conceptual and theoretical challenges, however, in extending it to complex social phenomena like education. As noted in section 9.11, the notion that education can (or should) be seen as producing discrete outputs in the form of certain kinds of achievements is highly contested. Furthermore, even if one accepts

such framing for policy purposes the question of what an 'educational production function' looks like (in terms of functional form), and what its 'inputs' might be, is far more complex than the case of a firm producing the 'widgets' of economics textbooks.

A particular concern is, as we discuss further below, how these considerations may combine. Econometric efficiency analysis utilises unexplained variation in order to estimate inefficiency/efficiency. Inadequate understanding or representation of, or absence of data on, the determinants of educational outcomes could lead to systematically incorrect inferences about inefficiency. For example, two public schools that have identical resource allocation but draw students from different socioeconomic backgrounds may have very different educational outcomes at the school level. An efficiency analysis that has no measure, or an inadequate measure, of socioeconomic status would conclude that the school drawing children from lower SES communities is relatively 'inefficient'. That would be an incorrect inference, but it could also be harmful as it would suggest that a school which potentially needs more resources – to provide additional support to students from poorer backgrounds – can do with less.

For this reason, and given the concerns with the extant literature discussed in sections 9.10 and 9.12, the analysis that follows was exploratory in nature and does not seek to provide definitive claims or assessments of 'efficiency'. While the efficient use of resources is an empirical question, the usefulness of these econometric methods in assessing that is also an empirical question that remains contested.

9.14.2 Econometric methodology

In determining the relationship between expenditures (resources) and outcomes outlined above, for econometric analysis one can conceive of education in a manner analogous to a production process. Government's provision of basic education services is achieved through the use of labour (e.g. teachers, principals and school administrators), material (e.g. learner materials) and physical capital (e.g. school buildings and school equipment). These would be considered as inputs to the provision (or "production") of education. With the use of these inputs, education outputs (access or quantity of education) and outcomes (a function of the quality of education, which determine the ability to access tertiary education and/or the labour market) can be achieved. In the public education system education inputs, as described above, are purchased or funded in the majority of schools primarily through government expenditures. This essentially occurs through the budget allocations for basic education via the provincial equitable share (PES) to provinces and, ultimately, to schools. As per any production function, the idea is that a given quantity of outputs can be achieved by a given set of inputs. The socio-economic rights associated with basic education are essentially citizens' access (via enrolment) to quality education through education outputs and outcomes. So one step towards measuring the implications of fiscal decisions for achievement of those rights is to select one or more measures of output – such as drop-out rates or matriculation results – and examine the effect of resource allocations on those.

There are various specific econometric methods one could deploy for this purpose. This study utilises the SFA method, which is outlined below.

9.14.3 Stochastic Frontier Analysis

As per the intuition above, the SFA approach to assessing the productivity of schools sees education outputs being dependent on school resources (expenditures). This is specified by the following function:

$$PR_{it} = f(Exp_{it}) + \varepsilon_{it} \quad (1)$$

Where PR_{it} is an education output measured at school i in time t, Exp_{it} is the expenditure of school i in time t and ε_{it} is a random error term capturing various other, usually unobservable and immeasurable, factors that impact on education output. Expenditure, in this case, accounts for the spending on the required inputs (labour inputs, capital and materials) that are required to produce a level of output. In a standard production function, the ε_{it} would constitute unobservable and/or immeasurable factors that impact on a school's education output. In addition to this "noise", the error term would include an inherent level of inefficiency in the use of inputs (i.e. expenditures). The SFA method seeks to distinguish between inherent inefficiencies in expenditures and other random factors. Equation 1 can be modified to represent this as:

$$PR_{it} = f(Exp_{it}) - u_{it} + v_{it} \quad (2)$$

Now, u_{it} represents the inefficiency in the use of school expenditures for the production of education outputs. The term v_{it} measures statistical noise, measurement errors and random variation in the frontier across schools. The u_{it} and v_{it} are assumed to be independent of each other.

SFA is a parametric approach to efficiency analysis, where the form of the production function is estimated. Along with non-parametric methods, such as DEA, these methods tend to be the most commonly used methods to estimate the efficiency of decision-making unit (DMUs) – productive units that can produce outputs with inputs. The theoretical advantage of the SFA method is that it allows one to account for the fact that there might be random variation affecting outputs and inputs in a given year, whereas non-parametric methods define even randomly-caused variation from the frontier as inefficiencyIn the SFA approach, a DMU or, in this case, a school is deemed inefficient if it is operating below the computed production possibility frontier, with the level of the inefficiency given by the distance between the DMU and the production possibility frontier. This is shown in equation 3:

$$-u_{it} = PR_{ht} - PR_{it} \quad (3)$$

In equation 3, PR_{ht} is the school output that is possible at the production possibility frontier i.e. if a hypothetical school was operating at the frontier. The actual output of school i is given by, PR_{it}, with the inefficiency given by u_{it} which is the difference between the output at the frontier, PR_{ht}, and the actual output of the school PR_{it}. Theoretically, one can determine how much a school can potentially achieve, given its current expenditures, if it was operating efficiently. Assuming a logarithmic functional form for the SFA estimation (the natural logarithm of the variables is used), school efficiency is computed as

$$\exp(-u_{it}) \quad (4)$$

The calculated exp ($-u_{it}$) is the efficiency value or score and ranges from 0 to 1, with a measurement of 1 indicating that the school is achieving its maximum 'output' from its current levels of expenditures. In the context of this paper the idea would be that efficiency or inefficiency amongst schools provides an indication of the "value for money" or return to government's (society's) investment in education via the performance of schools.

The statistical nature of the SFA requires that one estimate relationships between school output and the respective inputs, in this case, school expenditure. As such, the impact of school expenditure on school output can in principle be determined within the SFA framework (unlike in the DEA framework). However, the determinants of school output, when measured by school performance or the quality of school education, are widely acknowledged to be more complex in practice: educational outcomes are determined by a range of social, economic and demographic factors, at the level of the individual pupil, the school and the community. In addition, there are a range of factors, particularly school-specific factors, which can impact on school efficiency. This means a higher risk of misspecifying the estimated production function and thereby reaching incorrect findings about efficiency. Therefore, one would need to distinguish between environmental factors that impact on the actual production function (school output) and on school efficiency.

In the analysis that follows we implement the above logic by employing the following actual specification:

$$lnpr_{it} = \alpha + lnpersonexpppp_{it} + lnnonpersonexpppp_{it} + lnpupilpt_{it} + quintile_{it} - u_{it} + v_{it} \qquad (5)$$

Where: $lnpr_{it}$ = educational output per school in time i
$lnpersonexpppp_{it}$ = natural log of personnel expenditure per pupil for school i in time t
$lnnonpersonexpppp_{it-1}$ = natural log of non-personnel expenditure per pupil for school i in time
$lnpupilpt_{it}$ = natural log of number of pupils per teacher for school i in time t
$quintile_{it}$ = quintile category for school i in time t

The outputs proposed in this study for the SFA analysis will be the matric pass rates per school. In order to control for dropout we utilise a measure that is constructed by dividing the number of students with a bachelor pass in matric by the total number of pupils in grade 10 in the same school. This should, somewhat crudely, take into account situations where lower-performing students do not write the NSC exams at all.Given the data and time available, quintiles play the role in the above regression of proxying for environmental factors that also impact on the "production" of school outputs.

Equation 5 represents a formulation of an education production function that can be estimated using the SFA method. There are various important assumptions implicit in this, some of which have already been noted in the description of the generic SFA approach. However, it bears repeating the basic logic. Equation 5 assumes a particular functional form for the educational production function and a small number of inputs that sufficiently capture the key factors so that residual variation (that is not noise, measurement error or due to random occurrences) can be interpreted as efficiency or inefficiency. Furthermore, in order to extract efficiency estimates it will also be necessary to make

distributional assumptions on the error term. In section 9.16 we provide further detail on the approach taken and the associated results, along with caveats and limitations there and in section 9.17.[35] Before the econometric analysis, however, we present some descriptive analysis and discussion of outcomes and expenditure.

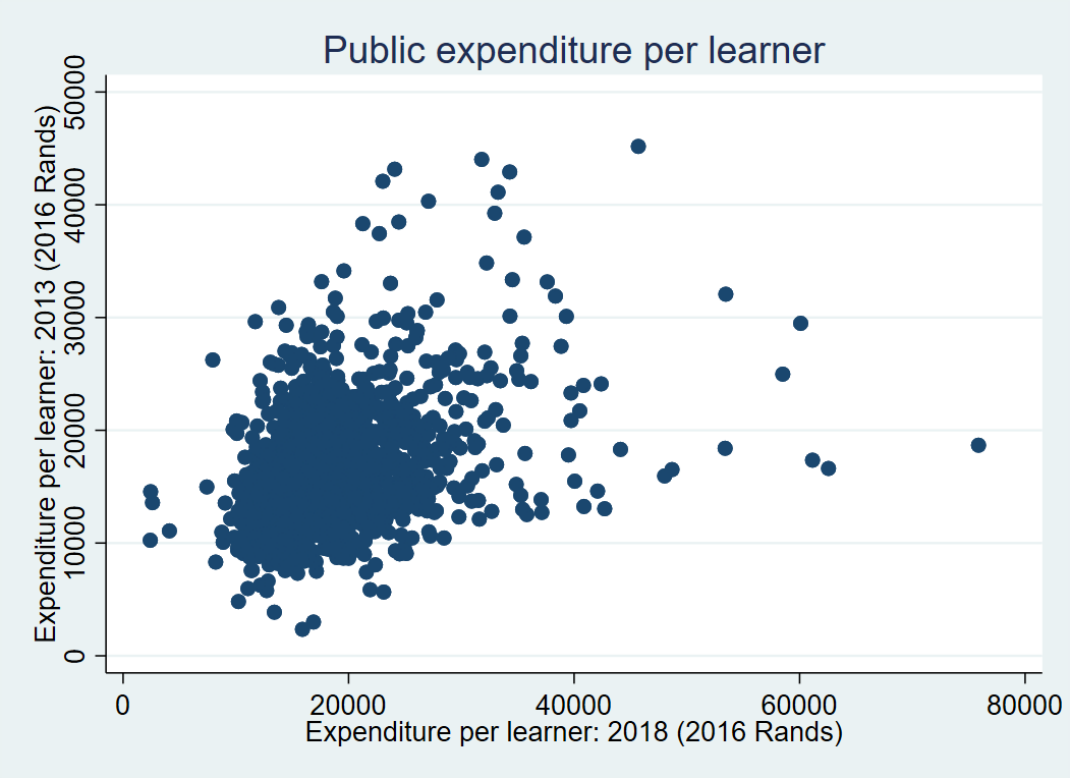
9.15 Descriptive analysis of quantitative data

Given the various limitations of the datasets, the analysis presented here focuses on two years: 2013 and 2018, which did coincide with a period of national fiscal consolidation. Subsequent work may extend this to 2008 subject to resolving data challenges mentioned above. We briefly examine descriptive measures of resource allocation, school performance, and combinations of these.

9.15.1 Resource allocation and availability

As indicated in Figure 9.12, one sees both sizeable variation within years and broad consistency across years in real expenditure per pupil across schools in the sample between 2013 and 2018.

Figure 9.12: Real per learner expenditure by school: 2013 and 2018



[35] The results in that section are based on a panel version of the basic SFA model. The full technical details of the different kinds of cross-sectional and panel SFA models are discussed in Greene (2008) and various other sources.

Given the importance of educators it is also important to look at the pupil-teacher ratio (PTR). As shown in Figure 9.13 one sees there, even within a sample of 'ordinary public schools', large variation across schools that is also relatively stable over time. That is, most schools retain their position in the PTR distribution.

Figure 9.13: Pupil-teacher ratio (2013 and 2018)

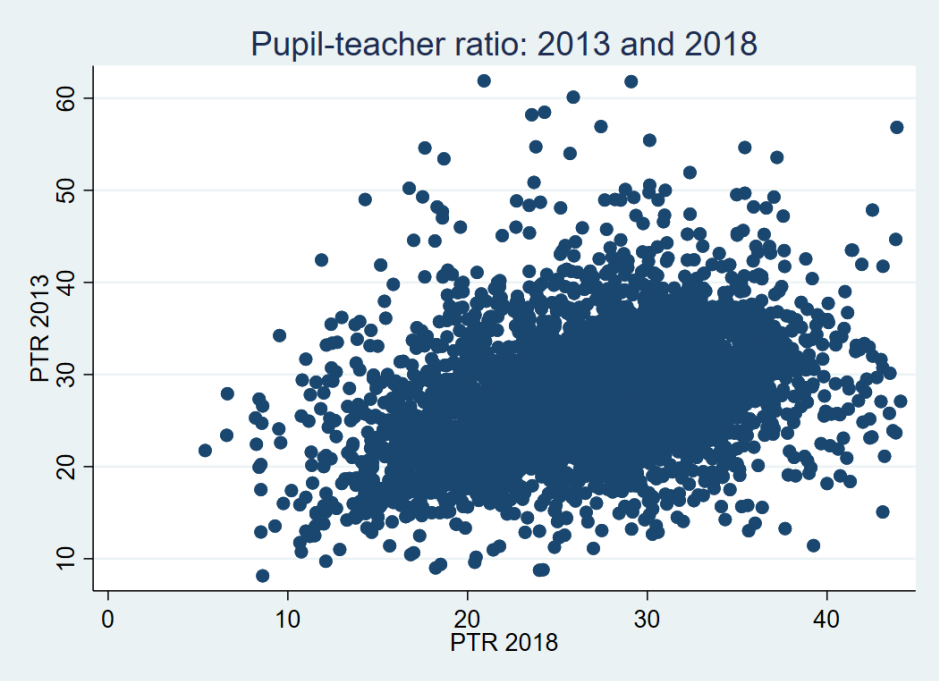


Table 9.16 shows two measures of resources – expenditure per learner and the pupil-teacher ratio – by quintile. While per learner expenditure does indeed increase with lower quintile status, the pupil teacher ratio is notably lower for quintile 5 schools relative to all other quintiles. This draws attention to the nuances of resource availability beyond only direct examination of public expenditure averages.

Table 9.16: Resource measures by quintile (2013 and 2018)[36]

	PTR				Real expenditure per learner			
	2013		2018		2013		2018	
Quintile	**Mean**	**# schools**	**Mean**	**# schools**	**Mean**	**# schools**	**Mean**	**# schools**
1	28.31	1311	26.88	1370	15,306	1291	18,918	1305
2	28.10	1371	27.29	1398	15,468	1350	17,267	1358
3	29.02	1066	28.29	1062	15,504	1057	17,657	1035

[36] The differences in real expenditure per learner in 2013 and 2018 suggest large increases. However, separate analysis shows that over that period there was only, approximately a 5 per cent real increase in national real per learner expenditure. The differences in this table may therefore be the result of sample selection or/and data quality issues in the student numbers obtained from the DBE.

	PTR				Real expenditure per learner			
	2013		2018		2013		2018	
4	28.53	421	27.71	315	15,146	409	18,016	292
5	23.89	546	22.42	433	15,527	538	15,988	423
	27.92	4715	26.97	4578	15,410	4645	17,774	4413

Another measure to consider is non-educator personnel expenditure by quintile.[37] Our expectation was that such expenditure would be regressive across quintiles, because fee-charging schools have less stringent need to prioritise educator salaries. As Table 9.17 shows, that is indeed the case with the average in the top two quintiles being almost double that in the lowest three quintiles.

Table 9.17: Non-educator personnel expenditure (2016 Rands)

	2018				2013		
Quintile	Mean	Std. Dev.	Freq.		Mean	Std. Dev.	Freq.
1	831.66	1 135.96	1 371		520.35	637.13	1 335
2	749.43	980.77	1 408		480.98	572.43	1 387
3	918.33	1 194.29	1 067		605.19	879.14	1 079
4	1 539.90	1 825.91	321		1027.95	1 247.34	427
5	1 480.00	1 354.54	439		1062.71	1 098.72	552
Total	**937.75**	**1 217.27**	**4 606**		**636.05**	**840.38**	**4 780**

Another measure of resource allocation that is significant for policy purposes is the distribution of expenditure across provinces and quintiles. Table 9.18 shows (for 2013) that there is significant variation within some provinces but also across provinces. A pattern that is consistent with past literature is that per pupil personnel expenditure in wealthier provinces (Gauteng and the Western Cape) is substantially higher for higher quintile schools. In other words, it is regressive.

Table 9.18: Per pupil educator expenditure by province and quintile (2013)

Province	Quintile					
	1	2	3	4	5	Average
EC	9461.73	11513.48	12351.10	11716.88	12224.45	11460.20
	3104.31	3899.63	4520.51	2141.32	2239.59	4094.06
	154	157	302	17	34	664
FS	13462.10	12441.28	12790.60	12385.05	12881.68	12928.65
	2984.82	3187.82	3573.45	1697.50	2391.01	3048.25
	75	48	54	14	33	224

[37] Recall that our definition of non-educator personnel expenditure was all PERSAL expenditure that was not included in the personnel categories used in the main query. Unfortunately the dataset did not have rank codes, which could have been used to specify different categories of personnel.

Province	Quintile					
	1	2	3	4	5	Average
GT	8618.01	9966.74	10666.77	10732.47	11574.55	10771.92
	3528.31	1883.31	2063.97	2416.92	1988.09	2402.06
	39	56	86	120	178	479
KZN	9696.30	10159.26	10187.40	10976.60	11464.43	10257.15
	2670.64	2635.00	3182.90	2175.48	1869.20	2727.53
	306	364	278	117	118	1183
LP	12614.07	12562.28	11737.58	11367.64	12212.67	12450.35
	3133.97	3346.80	3057.61	1431.15	2151.09	3209.61
	491	543	176	11	16	1237
MP	11192.49	10814.08	11071.33	12607.35	12385.40	11168.87
	2593.61	2096.16	1562.02	2178.44	1768.61	2361.61
	174	111	24	16	12	337
NC	10335.81	10804.65	10272.01	9974.80	11176.34	10528.96
	1803.21	2920.80	1649.21	1793.29	1148.23	1940.15
	10	15	9	22	19	75
NW	11873.54	11055.63	10949.30	11282.76	11712.27	11234.45
	3986.43	4205.49	3437.36	3984.41	2434.17	3790.25
	46	53	85	30	6	220
WC	8921.87	9482.09	9686.84	10051.35	10421.78	10056.27
	1043.20	1030.18	1149.14	1057.33	1271.19	1235.18
	13	23	53	71	131	291
Average	**11220.53**	**11422.40**	**11282.32**	**10868.59**	**11418.11**	**11284.96**
	3318.59	**3285.62**	**3597.47**	**2308.40**	**1949.21**	**3171.96**
	1308	**1370**	**1067**	**418**	**547**	**4710**

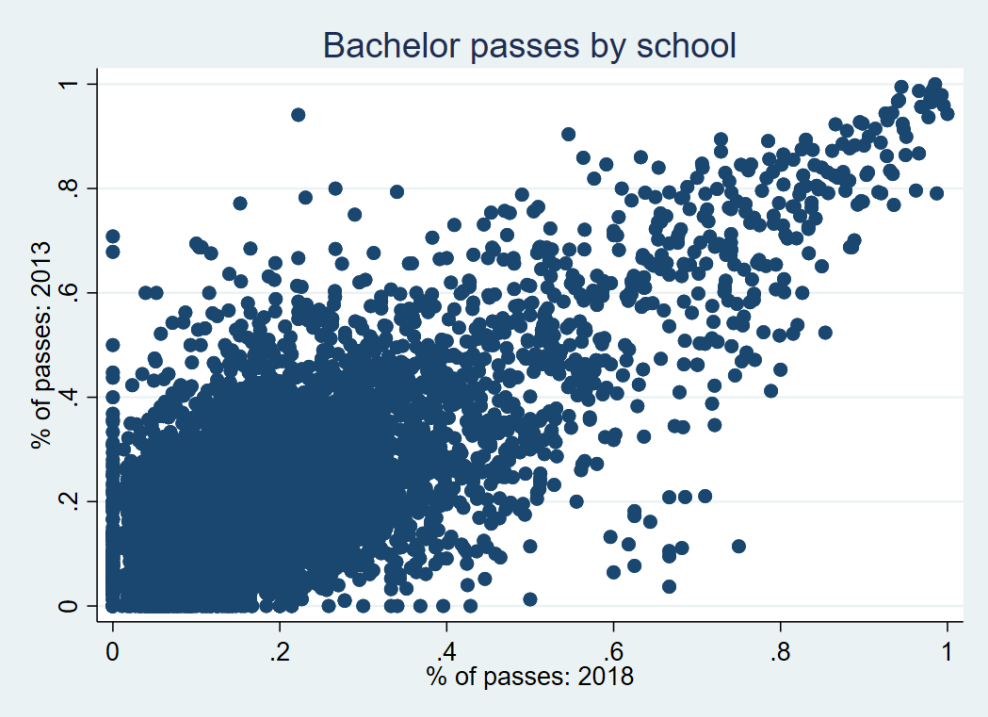
While such variation is concerning from a policy perspective, it may be advantageous from the perspective of econometric efficiency estimation.

9.15.2 School performance

As indicated in section 9.11, we limit the analysis of school performance in this paper to performance on the NSC exams. ANA data was obtained for 2013 but due to the discontinuation of those assessments was not available for 2018.

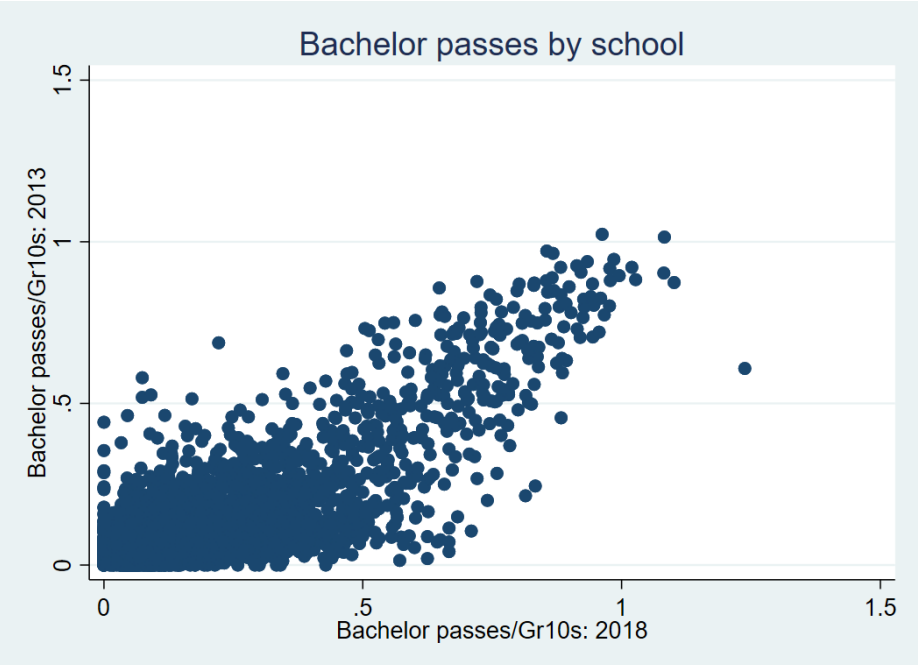
Alongside variation and patterns in resource allocation one sees even greater variation, but also consistent patterns, in measures of educational achievement. For example, Figure 9.14 shows the percentage of learners who write the NSC exams that obtain bachelor passes, by school. It shows that the vast majority of public ordinary schools have bachelor pass rates below 40 per cent in both years and school 'performance' in one year is very strongly associated with/predictive of performance five years later.

Figure 9.14: Bachelor passes (% of Gr12 learners)



Even within the narrow scope of the study one concern in looking at Matric results is that they only measure performance of those students who wrote the exams; that does not take account of either drop-outs or the possibility that weaker students are not registered for exams. In the modelling described in section 9.16 we seek to partially account for that by utilising a measure that expresses NSC bachelor passes as a proportion of Grade 10 students. The scatter plot of that variable in Figure 9.15 shows a similar pattern across years to Figure 9.14.

Figure 9.15: Bachelor passes (% of Grade 10 learners)



However, a comparison of the two distributions for 2013 shows in Figure 9.16 – as expected – that implicitly accounting for dropouts or Grade 12s who do not write the NSC exam shifts the distribution towards lower performance. That effect is also present for 2018 but as shown in Figure 9.17 though appears to be attenuated.

Figure 9.16: Comparison of outcome measures: bachelor passes as % of Gr10 or Gr12 learners

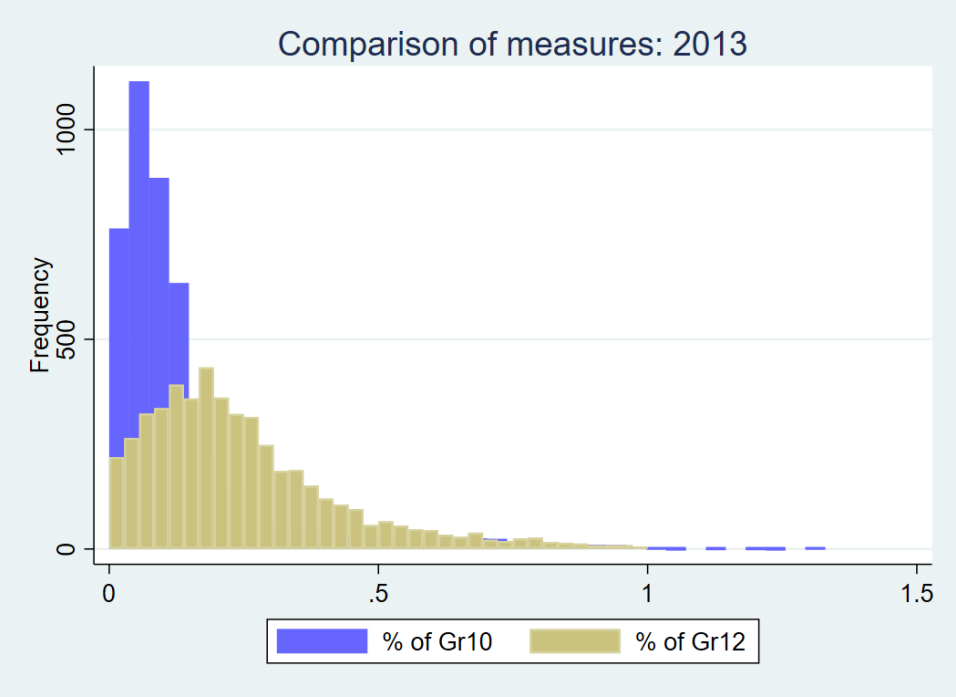
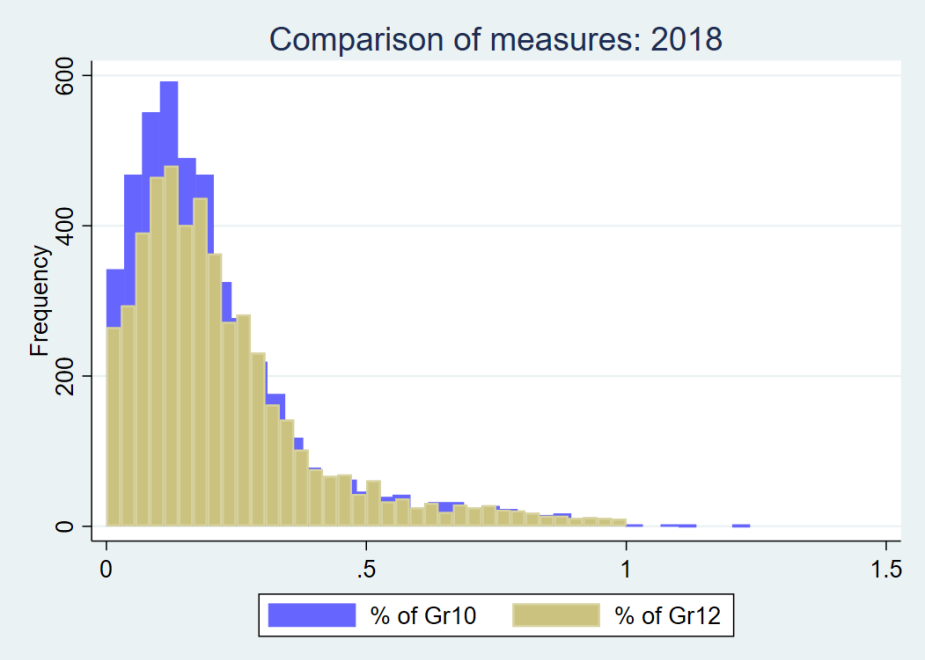


Figure 9.17: Comparison of outcome measures: bachelor passes as % of Gr10 or Gr12 learners



9.15.3 Performance, resource allocation and availability

A strong association between socio-economic status of schools/learners is reflected in educational achievements by quintile, as shown in Table 9.19. That also shows unevenness in changes across a five-year period, with little change in the aggregate percentage of bachelor passes in the 5th quintile from 2013 to 2018, but a decline in the other four quintiles over that period.

Table 9.19: School performance across quintiles

	Bachelor passes (%)			
	2018		2013	
Quintile	**Mean**	**# schools**	**Mean**	**# schools**
1	0.158	1 395	0.187	1 395
2	0.171	1 431	0.205	1 431
3	0.192	1 127	0.208	1 127
4	0.292	453	0.318	453
5	0.514	569	0.516	569
	0.222	4 975	0.247	4 975

These findings are broadly consistent with earlier studies. And an intuitive interpretation of Table 9.19 is that socio-economic status of learners, proxied here by quintiles, plays a sizeable role in determining educational outcomes. That could be through benefits that accrue directly to the learner separately from the school – a simple example would be conducive learning environments at home and assistance from more highly-educated parents with school work – or through the school itself which is better-resourced thanks to fees paid by parents of higher socio-economic status.

These descriptive statistics and visualisations raise are suggestive as to the association between educational outcomes and the resources available at schools. However, any attempt to grapple with that question using quantitative research must take a multi-dimensional (multivariate) approach. The next section discusses the attempt of this paper at estimation of multivariate econometric models of educational outcomes in the South African context.

9.16 Econometric analysis

The objective of the econometric analysis of this study was to link resource allocations to education outcomes in order to analyse the efficiency of basic education spending in South Africa. To do this, we adopted the SFA approach, which was outlined in the methodology section above, with the intention of using a panel dataset at the school level over a 10-year period from 2008 and 2018. Data challenges resulted in a modification of the intended approach, limiting the analysis to a two-period panel for 2013 and 2018. The period in question does cover approximately the first five years of government's fiscal consolidation policy and by virtue of using 2018 data is the most up-to-date analysis of this kind that we are aware of.

9.16.1 A note on modelling school efficiency

Econometric approaches to efficiency all take the same basic approach, which involves using unexplained variation to produce estimates of efficiency. An obvious problem with this is that unavailability of data on key variables can impact on the model specification, which can significantly impact on the results. In contexts like education, a specific concern is that simple 'production function' approaches are likely to omit many factors that affect educational outcomes/performance. The negative subset of those factors are most likely to afflict less-resourced schools, while the positive subset are likely to benefit better-resourced schools. The result would then be that less-resourced schools are incorrectly classified as inefficient while better-resourced schools are classified as efficient (or more efficient).

Better information on resource availability and socioeconomic factors should substantially reduce the biases, and incorrect inferences, referred to above. However, it is reasonable to assume that there will nevertheless be some degree of bias that cannot be eliminated and interpretation should take that into account. As one of the first papers to approach school spending efficiency in South Africa utilising frontier analysis, it is important that we emphasise these limitations which may be compounded by the availability of data on key explanatory variables. In the context of the present study such variables may be absent for four main reasons: they are immeasurable; they are not measured by existing surveys or administrative datasets; they are measured but were not available or could not be linked to our dataset in the time available; they were in the datasets obtained but not provided in a form that was usable, or could be made usable in the time available. Given this, there is also scope for further analysis that expands the set of explanatory and dependent variables.

9.16.2 Choice of outputs and inputs

Estimating a production function requires the choice of an output or outputs that is "produced" by DMUs. The basic production function requires measures for factors of production, usually in the form of a measure of the labour and capital input. Education, being a social service, cannot necessarily be modelled like a typical firm, and this concern applies to many efficiency studies that attempt to estimate the productivity of social services. Productivity analysis of education, must acknowledge the complexity of education production both in the form of the various social and economic factors impacting on the "output" of education but also through recognition that there might be a range of 'outputs'. This links to the earlier discussion in sections 9.11 and 9.14. The 'outputs' of the education system that most quantitative research focuses on relate to performance on standardised examinations, or measures of competence such as tests of numeracy and literacy. To the extent that there are other valuable societal functions of education not captured by such measures, the results of efficiency analysis could be misleading.

In this analysis, we use as our primary measure of education output a variable constructed as a percentage that represents the total number of bachelor passes relative to the number of pupils in grade 10 for a specific year. This approach attempts to account for potential dropouts from grade 10 and thereby provide a better indication of pass rates given the students that "should" have written the final matric exams. Given the status assigned to matriculation and performance in matric exams

in the South African education system, we believe this is an appropriate measure. However, if one were to take the view that leaving the schooling system in earlier grades does not constitute 'failure' – for example because technical and vocational training may be a desirable alternative to matriculation – then the use of this variable could be seen as overstating inefficiency of schools that deliberately prepare a higher proportion of their students for such career paths.

9.16.3 Dealing with outputs and inputs with zero values

SFA models (and frontier models in general) cannot technically handle outputs and inputs with zero and/or negative values. Sarkis (2007) defines this as the "positivity" requirement in DEA analysis and confirms that, while most DEA models are not capable of processing such data, there are versions of DEA that relaxes this assumption. Nonetheless, there are various methods used to accommodate negative values and zeros in inputs and/or outputs in DEA models. This includes (1) adding a large positive constant to the output and input values that are negative or zero, (2) converting non-positive values to random number appropriately smaller than the other values in the dataset (3).

The issue of zeros and negative numbers become an issue in the SFA estimation due to the need to take the natural logs of certain variables in the estimation. This is a general econometric problem, as it is not possible take the log transformations of negative values and zeros for log-linear or log-log models, in terms of the dependent variable. Bellégo, Benatia, and Pape (2022) discuss this problem in general from an econometric perspective.

In terms of the SFA estimations in this paper, the output variables proposed is the total number of learners that achieved bachelor passes relative the total number of students in matric per school in 2013 and 2018 respectively and the total number of learners that achieved bachelor passes relative to the number of grade 10 peoples per school in 2013 and 2018 respectively. By design, these output variables are percentages and will include zeros where there was no pupil achieving a bachelor pass in a given year. In this case, zero values are an important reflection of school performance and such observations (schools) cannot simply be dropped from the analysis, which is what would occur when taking the natural log of the pass rate in SFA or calculating a model. To address this, zero values were converted to small positive values prior to taking the logarithm of the relevant variable, as suggested by Bellégo, Benatia, and Pape (2022) and Sarkis (2007). While this practice is common in applied research it can have some drawbacks (Bellégo, Benatia, and Pape 2022).

9.16.4 Results

Table 32.20 presents the results of the SFA Panel analysis.[38] A total of four models were estimated, to compare the results from different specifications and to illustrate the role of factors that do not feature in the traditional, narrow conception of production functions. The first two models take a traditional production function approach by accounting for three inputs used to "produce" school outputs in the form of total non-personnel expenditure per pupil, total personnel expenditure per pupil and the pupil-teacher ratio (number of pupils per teacher). Two versions of a traditional SFA model were estimated, utilising the panel dimension of the data to incorporate the possibility of time varying efficiency as per Battese and Coelli (1992) (BC1992) and a true random effects model (TRE) as per Greene (2005). Intuitively the ideas behind such models is to allow for the possibility that inefficiency at the school level might change over time, whereas a standard panel model in this context assumed that it was constant.[39] The third and fourth models utilise the same fundamental assumptions/approach but introduce environmental variables in the form of quintile dummies to account for the role of student and school socio-economic status in explaining school output. A year dummy variable is also included in the analysis to capture year-specific variation including changes in 'technology' that can impact on the production process across years.

[38] For a discussion of estimating SFA panel models in Stata see Belotti et al. (2013).
[39] The merits of the assumption of time-varying or time-invariant inefficiency are not merely technical but there is little scope to discuss them here. Suffice to say that the results obtained from estimation of a time-invariant model were not markedly different from the ones shown in Table 32 or subsequently.

Table 9.20: Panel stochastic frontier model results

Dependent Variable - Natural Log of Total Bachelor Passes by Total Grade 10 Pupils				
Input Variables	**General Time Varying Model**	**Time Varying True Random Effects**	**General Time Varying Model**	**Time Varying True Random Effects Effects**
Natural Log of Real Non Personnel Expenditure per Pupil	-0.777***	-0.780***	-0.153***	-0.155***
	(0.022)	(0.022)	(0.032)	(0.032)
Natural Log of Real Personnel Expenditure per Pupil	-0.488***	-0.487***	-0.322***	-0.322***
	(0.046)	(0.046)	(0.044)	(0.044)
Natural Log of Total Pupils per Teacher	-0.521***	-0.528***	-0.285***	-0.290***
	(0.051)	(0.051)	(0.050)	(0.050)
Environmental Variables				
Time Dummy (1 = 2018)	0.570***	0.596***	0.553***	0.567***
	(0.026)	(0.025)	(0.025)	(0.024)
Quintile 1 School			-1.299***	-1.299***
			(0.052)	(0.052)
Quintile 2 School			-1.216***	-1.215***
			(0.051)	(0.051)
Quintile 3 School			-1.130***	-1.130***
			(0.052)	(0.052)
Quintile 4 School			-0.647***	-0.646***
			(0.052)	(0.052)
Constant	9.869***	9.899***	4.286***	4.303***
	(0.553)	(0.553)	(0.564)	(0.564)
Mu/Delata0	-1.429**	-1.573**	-1.716**	-1.782**
	(0.638)	(0.682)	(0.709)	(0.729)
SigmaSQ	0.759***	0.818***	0.794***	0.822***
	(0.180)	(0.183)	(0.189)	(0.189)
Gamma	1.320***	1.394***	1.470***	1.506***
	(0.226)	(0.226)	(0.231)	(0.230)
Observations	9,047	9,047	9,047	9,047
Number of Unique Schools	4,748	4,748	4,748	4,748

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The results in Table 9.20 show broadly consistent estimation results across the four models, as reflected in the signs and magnitudes of the coefficients. The results are particularly consistent across the two panel model specifications, with the magnitudes of the coefficients on the three basic inputs declining substantially in magnitude once the quintile dummies are included.

Across all models, a higher pupil-teacher ratio is associated with worse school outcomes. A 10 per cent increase in the PRT is associated with a reduction in the (adjusted) percentage of bachelor passes of between 2.85 per cent and 5.28 per cent. On the one hand this finding is intuitive and accords with the expectations of the non-economics education literature; on the other hand it is notably different to much of the economics literature which fails to find a significant or negative coefficient of a magnitude that is material for policy purposes. The coefficients on the environmental dummies in the last two models suggest that quintiles 1 to 4 schools are associated with lower school outcomes than quintile 5 schools (the reference group) even controlling for the three core public expenditure and personnel inputs.

The coefficients on the expenditure variables, however, reflect the need for caution and nuance in interpretation. Both the non-personnel expenditure variables and the personnel expenditure have negative and statistically significant coefficients. The signs and significance are consistent across both model specifications. On the face of it, one might then conclude that higher expenditure is associated with substantially worse performance. It is useful to understand why that would be mistaken. Consider for example the models without quintile dummies. As explained in section 9.10, the most progressive components of education expenditure are the allocations based on the quintile system: by virtue of the formula it is *necessarily* the case that higher non-personnel expenditure is associated with lower socio-economic status of learners. Since it is widely accepted that lower SES is associated, on average, with lower educational outcomes it follows that in the South African context we would expect to find the non-personnel expenditure associated with worse outcomes.

An additional challenge in interpretation is that the estimated coefficients represent associations that are conditional on other variables included in the model. Consider the negative coefficient on the public personnel expenditure variable. For that component of expenditure there is no explicitly progressive formula and indeed a number of studies have raised concerns that personnel expenditure unduly favours higher quintile schools. However, if we interpret the coefficient as representing the association conditional on the pupil-teacher ratio the interpretation is more complicated: given a particular PTR, more public personnel expenditure is associated with lower outcomes. In this more nuanced reading, the coefficient could reflect unmeasured socio-economic variables: schools with lower *public* personnel expenditure for a given PTR may be raising the funds from private sources (notably school fees) and therefore have students of higher SES backgrounds. In that interpretation, it makes sense that inclusion of quintile dummies – as a proxy for SES factors – in the third and fourth models substantially reduces the magnitude of the negative coefficient on personnel expenditure. We return to what some of these seemingly counterintuitive results might imply after presenting the efficiency scores derived from the above models.

Table shows the average efficiency scores generated from each of the models above for 2013 and 2018 across the different school quintiles. Overall, average efficiency across both periods and across the models appear to be similar, ranging from 59 per cent to 61 per cent on average. In the first two models that estimate a basic production function of traditional school inputs and output, one can notice a greater variation in the estimated efficiency scores across the different school quintiles. In 2013, the average efficiency score for quintile 1 schools was 0.55 in both basic models, with a progressive increase in efficiency levels with higher quintiles. Quintile 5 schools had the highest efficiency score at 0.68, followed by quintile 4 schools at 0.65. Our view is that this is consistent with the caution discussed in earlier sections: in the absence of models that take into account factors like socio-economic status, efficiency analysis will suggest that better-resourced schools with a higher intake of higher-SES students are more efficient.

The efficiency results of the basic school production function models therefore appear to support the notion that higher quintile schools are more efficient than lower quintile schools but, at least in the simple modes, this is likely to be misleading. The expanded models represented in columns 3 and 4 attempt to better account for the differences in operating circumstances across the different

school quintiles. Even with the significant limitations of using only quintiles as environmental variables to proxy for SES factors, the efficiency scores of lower quintile schools increase, on average, while the efficiency scores of higher quintiles schools decrease on average. As a result, differences in school efficiency and productivity are less pronounced than in the basic models.

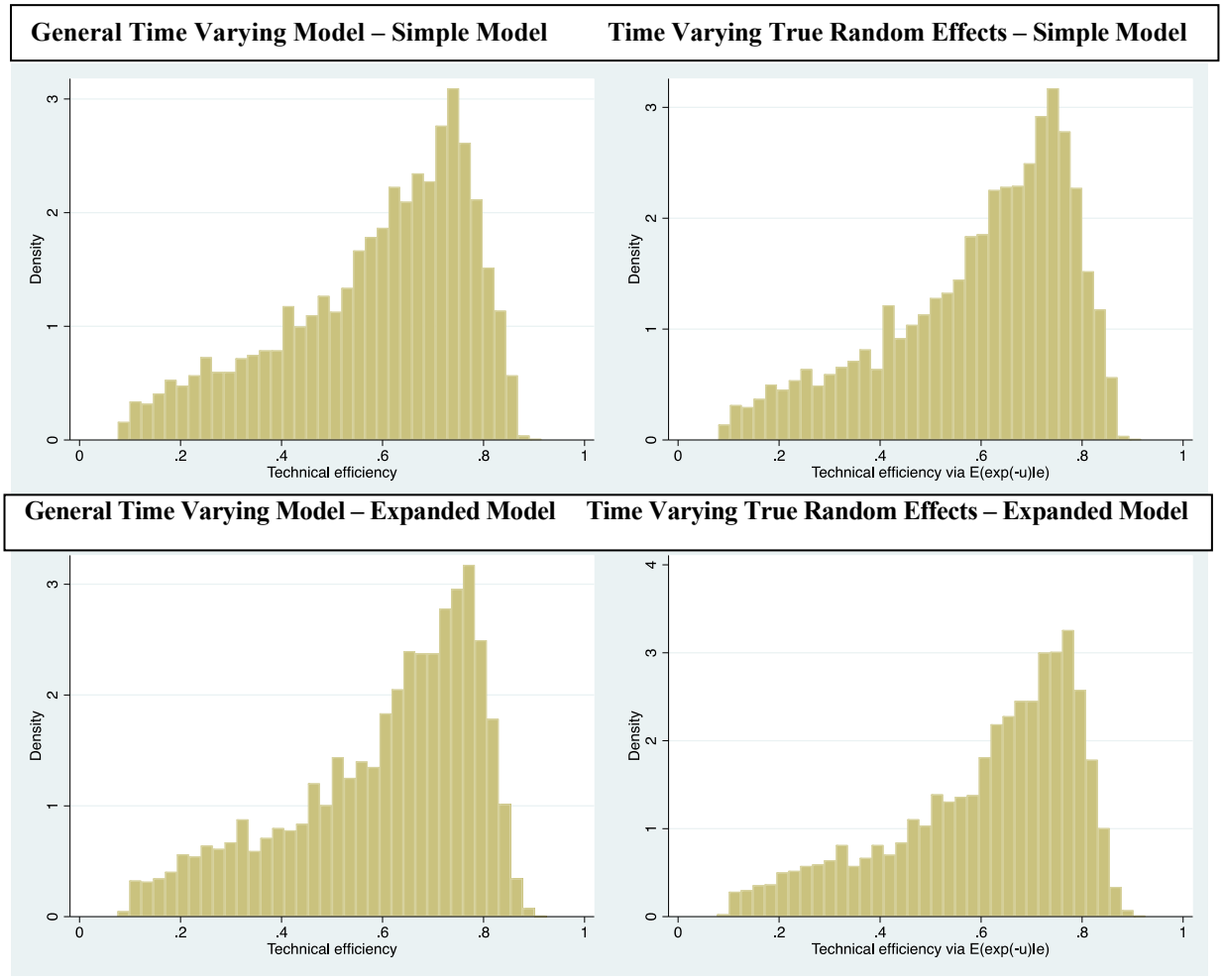
Table 9.21: Average efficiency scores by quintile

School Type	General Time Varying Model - Simple Model	Time Varying True Random Effects - Simple Model	General Time Varying Model - Expanded Model	Time Varying True Random Effects Effects - Expanded Model
		Efficiency Score 2013		
Quintile 1 School	0.55	0.55	0.60	0.60
Quintile 2 School	0.57	0.58	0.60	0.61
Quintile 3 School	0.59	0.60	0.60	0.61
Quintile 4 School	0.64	0.65	0.59	0.60
Quintile 5 School	0.68	0.68	0.60	0.61
Average Score	**0.61**	**0.61**	**0.60**	**0.61**
School Type	**General Time Varying Model - Simple Model**	**Time Varying True Random Effects - Simple Model**	**General Time Varying Model - Expanded Model**	**Time Varying True Random Effects Effects - Expanded Model**
		Efficiency Score 2018		
Quintile 1 School	0.55	0.54	0.59	0.59
Quintile 2 School	0.57	0.57	0.60	0.60
Quintile 3 School	0.59	0.59	0.60	0.59
Quintile 4 School	0.64	0.64	0.58	0.58
Quintile 5 School	0.68	0.68	0.59	0.59
Average Score	**0.61**	**0.60**	**0.59**	**0.59**

Comparison of efficiency scores over the two periods does not suggest any notable change in the magnitude of average efficiency over time. We did not have any prior view on this, though five years may be a relatively short period to envisage aggregate efficiency changes taking place; subject to resolving the data challenges described above we may revisit this question utilising a longer period back to 2008.

Looking at average efficiency scores only presents one part of the picture; looking at distributions of these scores can also be informative. Figure 9.18 and Figure 9.19 show histograms of the scores generated across the four different models for 2013 and 2018 respectively.

Figure 9.18: Histograms – 2013 efficiency scores across models



There is no clearly observable difference between the distributions across models or across years. The broad pattern is a Normal distribution skewed to the left. Given that the averages presented above suggest some change in the distribution we explore that further in Figure 9.20 and Figure 9.21.

Figure 9.19: Histograms – 2018 efficiency scores across models

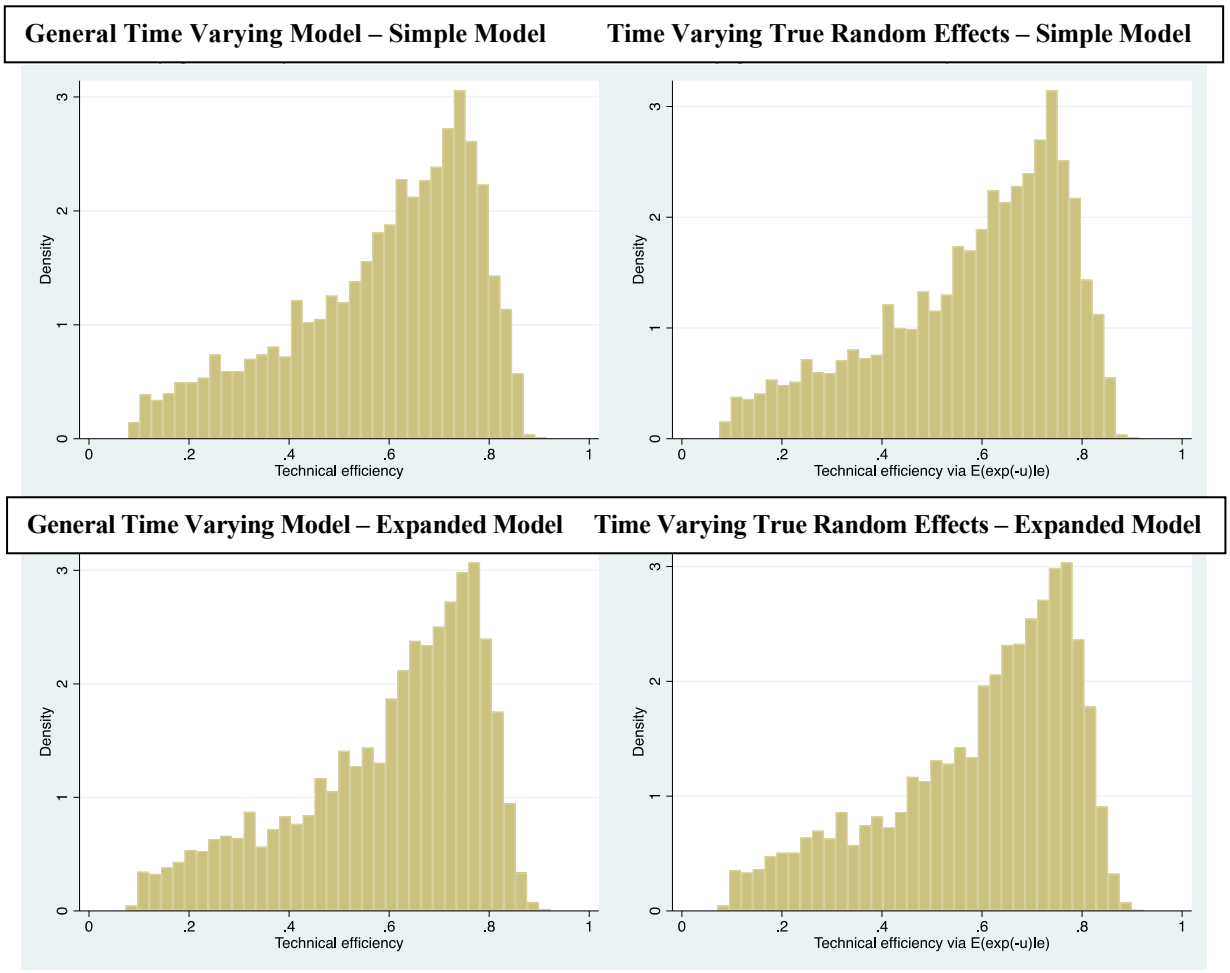


Table 9.20 shows the distribution of efficiency scores across the basic and expanded random effects models in 2013. There appears to be a slight shift of the distribution to the right using the expanded model at higher (but not the highest) school efficiency levels. A similar, but slightly more pronounced, pattern can be seen for the scores from 2018 as shown in Figure 9.21.

Figure 9.20: Histograms – 2013 comparison of simple true random effects and expanded true random effects models

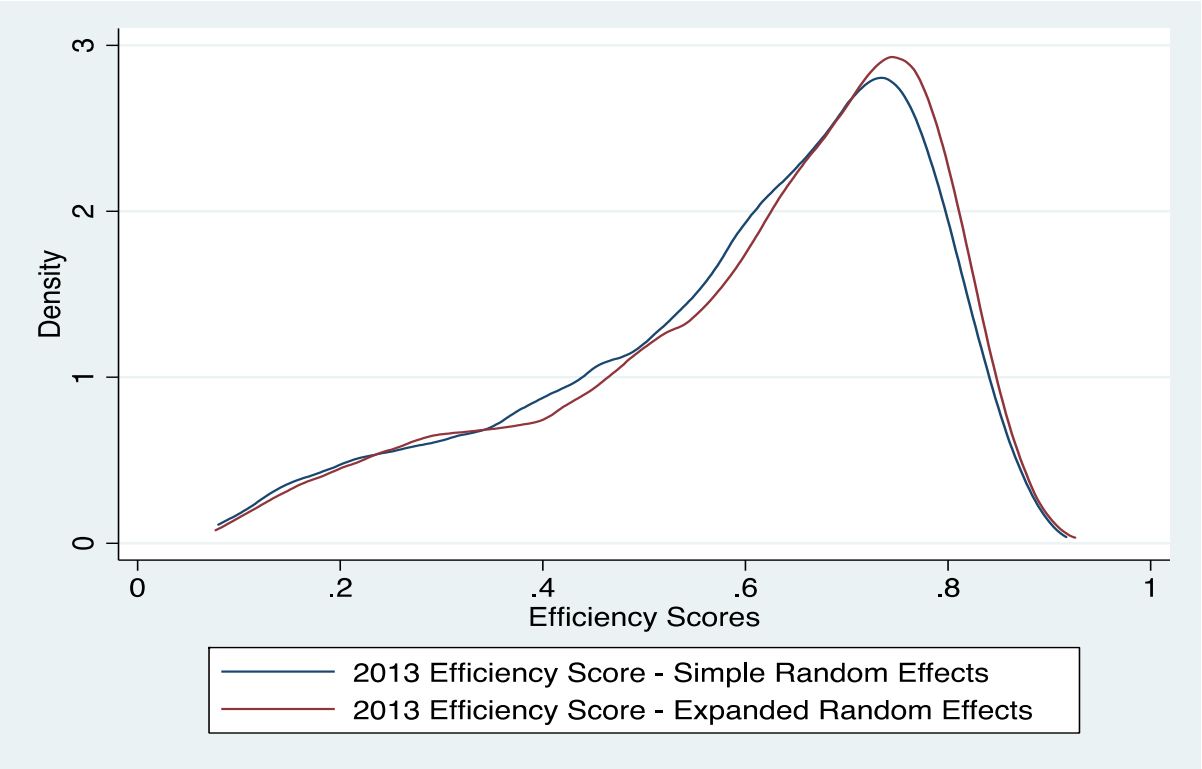


Figure 9.21: Histograms – 2018 comparison of simple true random effects and expanded true random effects models

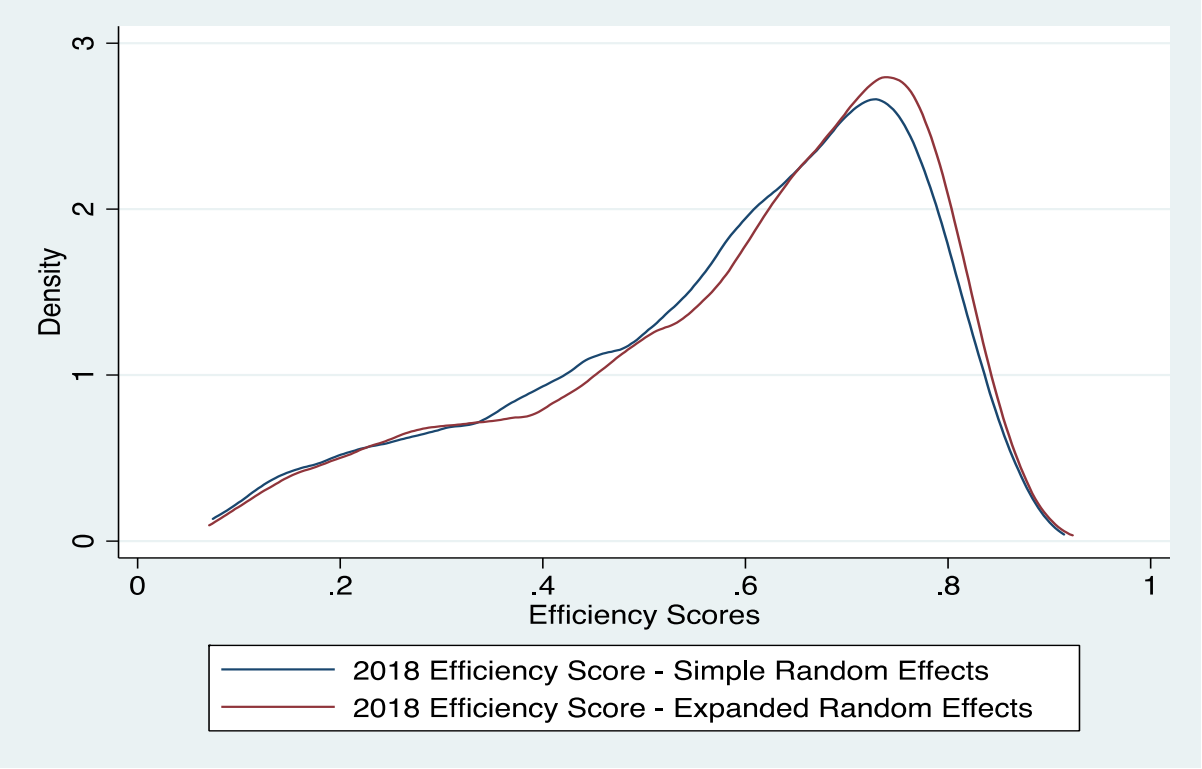


Figure 9.22 compares the distribution of efficiency scores generated from the basic model across years. Here as well, there appears to be little difference in the efficiency scores generated in 2013 to that of 2018, suggesting no substantive changes in estimated productivity across the period.

Figure 9.22: Histograms – comparison of efficiency scores – 2013 and 2018 simple true random effects

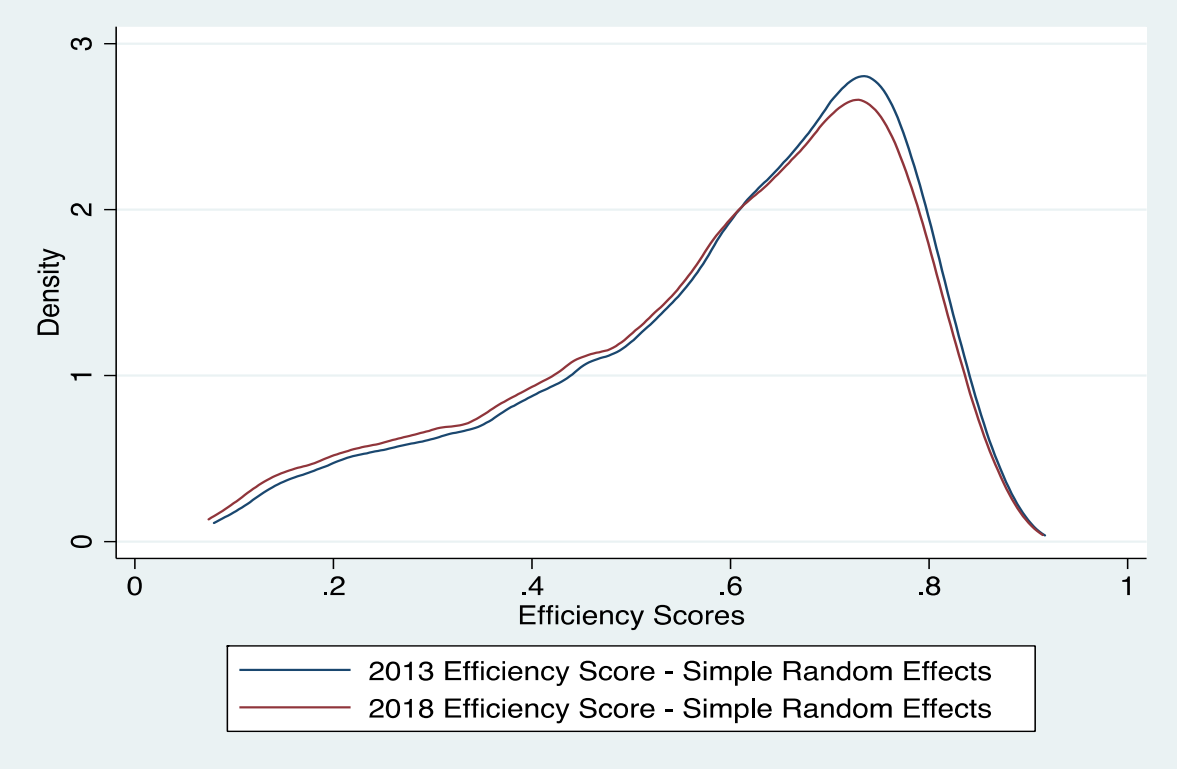


Figure 9.23 offers the comparison of distributions across both years for the efficiency scores generated from the expanded model. Recall our suggestion that this model better captures social, economic and demographic factors in the generation of efficiency scores, and therefore the results in Figure 9.23 should provide a better depiction of efficiency changes from 2013 to 2018 compared to the results from the basic model shown in Figure 9.22. The efficiency scores at the lower end to the middle of the efficiency distribution appear similar, suggesting no changes in efficiency across both periods at these levels. There appears to be a slight reduction in the density at the upper end of the distribution, but the overall picture is very similar.

Figure 9.23: Histograms – comparison of efficiency scores – 2013 and 2018 expanded true random effects

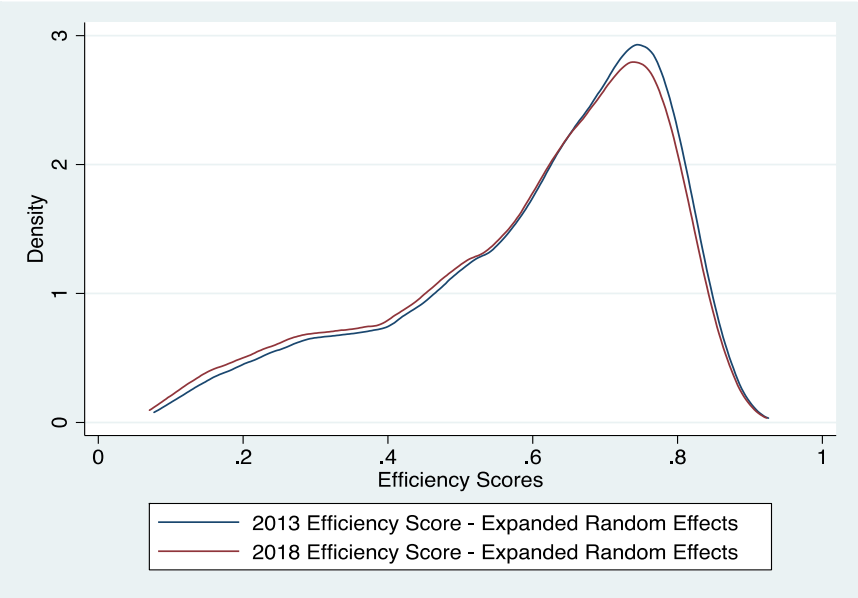
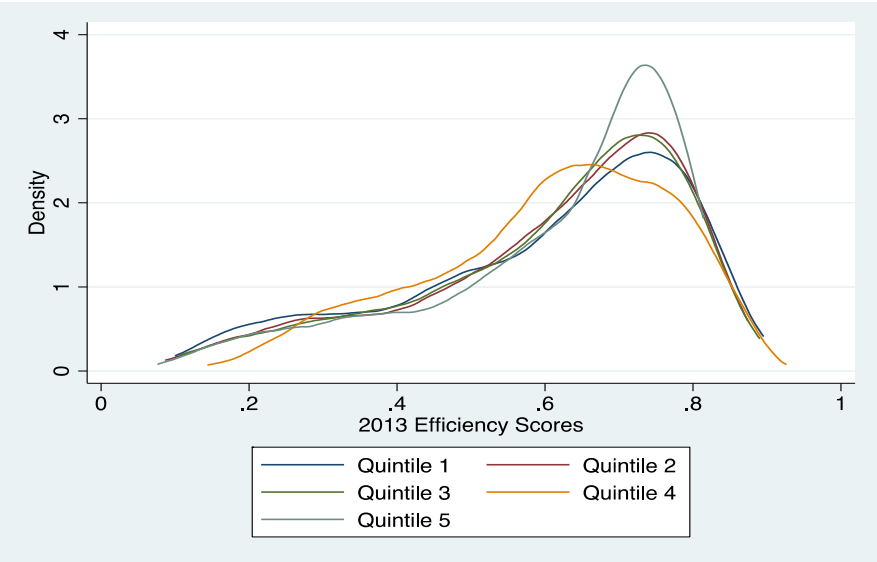


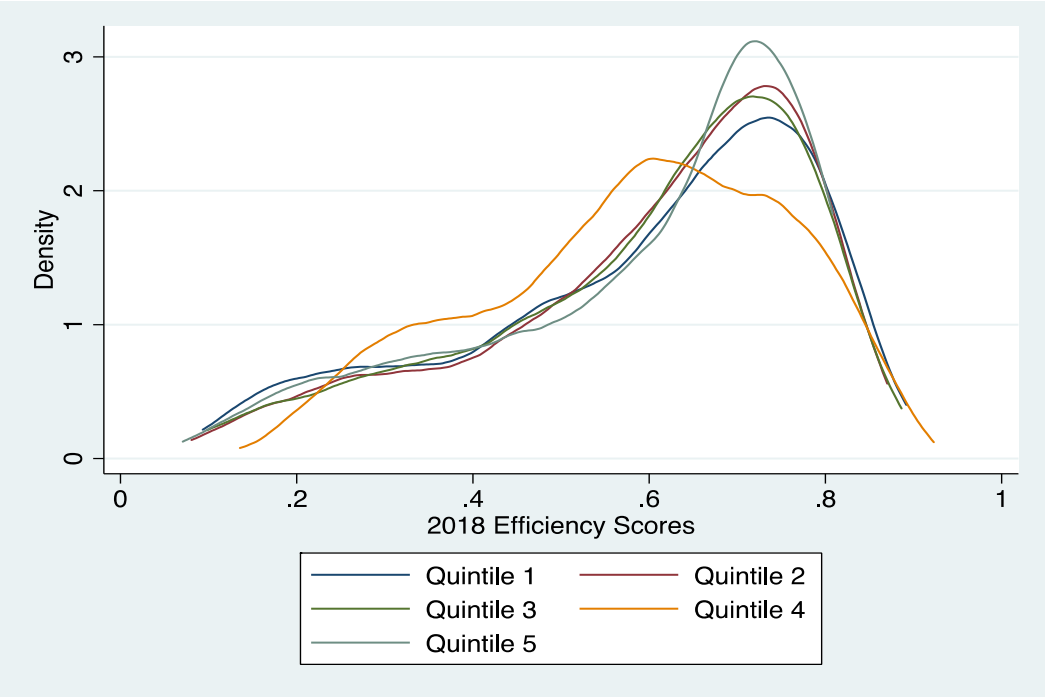
Figure 9.24 illustrates the distribution of efficiency scores generated from the "expanded" model for 2013 for each of the school quintiles. This allows for the comparative analysis of the performance of schools using the efficiency scores generated as an indicator. The distributions of efficiency scores are not dramatically different across quintiles but there are some clear differences in shape. Quintile 4 schools are relatively underrepresented at the lower and higher levels of estimated efficiency compared to those in other quintiles, while Quintile 5 schools are more likely to be at the higher levels of the distribution but also (to a lesser degree) at the lower end.

Figure 9.24: Histograms by quintile – 2013 efficiency scores from expanded true random effects model



A similar pattern can be observed for 2018.

Figure 9.25: Histograms by quintile – 2018 efficiency scores from expanded true random effects model



9.17 Discussion

The preceding analysis presents what was possible in terms of econometric efficiency analysis given the challenges experienced in obtaining data, and establishing what variables were usable, in the limited time available. Recall that the econometric analysis of efficiency was prompted by a policy question: what might be the effect of reducing public educational expenditure as part of an expansion of the government's policy of 'fiscal consolidation'. We noted the existence of the generally established narrative in the South African policy domain that public education expenditure is high by international standards and that resources are not a binding constraint on educational outcomes. The significance of that, in relation to the policy question, can lead one to conclude that it might be possible to cut education expenditure without harming the provision of education – provided somehow more efficient use is made of monetary resources. In that regard, we argued (drawing also on our own past work) that the conventional wisdom has not been convincingly-substantiated and, furthermore, contradicts other knowledge about the South African education system, its history and the educational process, more broadly.

Thinking about the likely impact of reductions in public expenditure from the perspective of an education production function suggests that, in less well-resourced contexts, any negative impact of expenditure cuts is likely to be larger than any positive impact of resource increases – due to the generic principle of higher marginal returns at lower levels of resourcing. The same logic applies within the range of a country's own experiences, so that cutting expenditure from a higher base may have lower negative effects than cutting expenditure from a lower base. However, it is also important to point out that even simpler intuition suggests that reductions in resource allocation for the provision of a public good will lower the quality or quantity of that good.

Nevertheless, strictly speaking, these are empirical questions and the study set out to ascertain whether it would be possible to shed further light on them using econometric efficiency analysis. Throughout, we have been careful to note that, in the context of considering the provision of a public good like education, such analysis, if implemented naively or interpreted simplistically, is likely to be biased towards finding less well-resourced schools to be less efficient. The reason is that educational outcomes are not simply the result of public education expenditure but also other factors such as student socio-economic status, school infrastructure, resources other than personnel, and socio-economic factors affecting the school itself. If those are not measured, or adequately proxied, the production function is not fully specified and that carries over to the residuals used for the efficiency analysis. This is essentially the technical corollary of the flaw in intuitive reasoning that a poorly performing school that appears similar, in terms of resources, to a well-performing school must be inefficient.

The extent to which these conceptual concerns would apply in practice is partly a function of data availability, but also has to be assessed in the process of conducting the econometric analysis. The most evident data limitation in relation to the question at hand is the absence of a wider range of variables that might determine, or contribute to, educational attainment. The absence of a specific socio-economic status variable, at the level of individuals, schools and communities, raises the concern that inefficiency is likely to be substantially overestimated. School quintile provides a proxy for these and the greater equivalence in efficiency scores after it is included in the model is suggestive. However, there are various aspects of the econometric analysis that lead us to believe that quintiles only serve as a very partial proxy and do not capture much of the variation in outcomes due to socioeconomic factors. This may be reflected, for example, in the fact that including quintile dummies reduces the negative coefficient on real per student expenditure measures but does not do so entirely.[40]

That being the case, we unfortunately cannot place much weight on the actual values of the efficiency scores. A conventional reading of an average efficiency score of 0.6 is that schools are only 60 per cent efficient.[41] And of course the distributions of efficiency scores indicate that some schools individually score much lower than this. But since we are not confident that the models adequately account for other factors, these scores could exemplify the complexities of estimating the efficiency of social services. The fact that the distribution of efficiency seems no better, or only marginally better, for higher quintile schools should also give one pause for thought.
Unfortunately, then, we do not seek to draw any strong conclusions from the preceding econometric analysis. To the extent that it has combined the best data available in the time allocated to the project and applied the (theoretically) appropriate econometric methods to examine the question of efficiency, there is a great deal of additional work that could be done with more time,

40 In the South African context we simply do not believe there is any plausible reasoning that would justify a finding that more public education expenditure leads to worse outcomes (as opposed to, say, having a limited effect).
41 In one earlier model on a less-complete dataset with differently-transformed variables we found average scores of 0.8, which may also suggest some variability across samples and specification decisions that deserves further analysis.

including attempting to incorporate additional variables that required more data quality checks, utilising different measures of school performance and examining alternative model specifications (and variation in results across specifications). That is left to future work.

For policy purposes, one issue we have not discussed explicitly concerns how expenditure cuts might be implemented. In principle, with a fully specified production function, one would be able to say how the distribution of expenditure reductions would least affect outcomes. In practice, as our analysis shows, this is unlikely to be possible with the data available and given the complexity of the educational process and educational institutions (notably schools). Thus, instead of attempting to extract insight from a limited econometric analysis, it makes more sense to combine less formal reasoning with knowledge of how the education system functions. Given that personnel expenditure is largest component of education spending, as it should be and is the case in other countries, it seems likely that any large cuts will target this component of expenditure.

One consequence of such cuts would be a reduction in the number of educators. Although the causal relationship between pupil-teacher ratio and education outcomes remains contentious, there is a clear association in South African between lower ratios (in quintile 5 and private schools) and better performance. Furthermore, though we have not examined that here, in the absence of adequate data on class sizes it remains unclear whether class size norms and standards in policy are being met even prior to any such cuts – some evidence suggests they are not despite official assertions (Equal Education, 2021). Reduction in educators could therefore exacerbate already inadequate personnel numbers depending on how such reductions are distributed. An obvious equity-protecting measure would be to target cuts at well-resourced Quintile 5 schools, preferably taking account of the extent to which such schools are able to raise private funding.[42]

An alternative approach would be to reduce educator salaries, while maintaining the number of posts. In the short-run, that could have negative effects on educational outcomes through reduced effort by educators (Akerlof and Yellen 1986) especially where they already have high workloads (Chisolm et al. 2005). In the short- and medium-run it could cause better-qualified teachers to exit public schools and a higher proportion of early retirement decisions. In the medium- to long-run it could reduce the desirability of teaching as a profession by returning it to a recent, prior state where salaries were arguably not competitive for the level of qualification required (Armstrong 2009).

As this discussion indicates, the weight of knowledge, evidence and reason leans against suggestions that resources can be reduced without material consequences for the provision of basic education. We therefore concur with some other studies (UNICEF 2018), which conclude that at the least the state should seek to maintain current real allocations if at all possible. Indeed, the analysis in Muller and Mahabir (2021) suggests that there is some scope – in terms of the adequacy of allocations – to increase expenditure. While broader fiscal objectives may prevail, the potential

[42] In other words, the reductions in personnel should be larger for schools with more private funding per learner.

negative implications of cuts to education expenditure should not be downplayed. It is doubtful whether South Africa is currently providing adequate quality education to all learners; resource reductions are likely to make that even more unlikely.

9.18 Notable observations and policy implications

Given the mandate of the Commission and the pressing policy questions with which we started, we provide here a set of observations and findings, as well as policy implications. Given the limitations of the econometric work conducted, discussed extensively above, these draw not just on the present study but on the full scope of our analysis and discussion including prior literature and our own work on the subject of education funding in South Africa.

9.18.1 Observations and findings

The following key observations emanate from the paper:

- The average real per student allocation in the post-apartheid era has increased substantially but has remained far below the estimated average allocations to white students during apartheid
- Public expenditure on schooling that is not personnel-related, through the quintile formula, is inequality-reducing
- Public expenditure on schooling personnel is not progressive and could be argued to be regressive since it allocates approximately the same resources per learner regardless of socio-economic background or a school's access to private financing (through fees)
- The benefit of being able to access private resources is reflected in substantially lower pupil-teacher ratios in Quintile 5 schools but not in Quintile 4 schools
- There appears to be substantial variation across provinces in per pupil allocations by quintile
- Average educational performance remains unequal with substantially better performance amongst better-resourced Quintile 5 schools (as found in earlier studies)
- Econometric efficiency analysis was not able to shed much light on the question of efficient use of resources in the absence of sufficient data on socio-economic factors
- Econometric efficiency analysis suggests a wide range of inefficiency/efficiency among schools but this may simply reflect the failure to account for socio-economic factors
- Proxying for socio-economic status by using school quintiles reduces the apparent efficiency differences across quintiles and suggests the same average efficiency among well-resourced Quintile 5 schools as their less-resourced counterparts in lower quintiles.

9.18.2 Policy implications

The following policy implications emanate from the study:

- The weight of evidence and knowledge suggests that a reduction in public expenditure will negatively impact on the provision of basic education

- The extent of such an effect is not possible to estimate quantitatively with the data presently available and would also depend on the composition of such reductions (personnel, non-personnel, etc)
- Existing evidence suggests that if expenditure cuts were to be implemented they should be apportioned in such a way that reduces existing inequities in the system – such as relatively high personnel expenditure allocations to Quintile 5 schools – rather than exacerbating them
- Provincial variation in final per learner allocations may also serve as a basis for distributing expenditure cuts – though this may depend on constitutional restrictions relating to the equitable share formula
- Better quality administrative data is needed on class sizes and fee revenue in order to accurately assess resource availability across schools.

9.19 References

Agasisti, Tommaso. 2013. 'The Efficiency of Italian Secondary Schools and the Potential Role of Competition: A Data Envelopment Analysis Using OECD-PISA2006 Data'. *Education Economics* 21 (5): 520–44. https://doi.org/10.1080/09645292.2010.511840.

Akerlof, George A., and Janet L. Yellen, eds. 1986. *Efficiency Wage Models of the Labor Market*. Cambridge [Cambridgeshire] ; New York: Cambridge University Press.

Ardington, Cally, Nicola Branson, David Lam, and Murray Leibbrandt. 2011. 'Explaining the Persistence of Racial Gaps Inschooling in South Africa'. *African Population Studies* 25 (2). https://doi.org/10.11564/25-2-244.

Armstrong, Paula. 2009. 'Teacher Pay in South Africa: How Attractive Is the Teaching Profession?' *RESEP Working Paper* 04/2009.

Battese, G. E., and T. J. Coelli. 1992. 'Frontier Production Functions, Technical Efficiency and Panel Data: With Application to Paddy Farmers in India'. *Journal of Productivity Analysis* 3 (1–2): 153–69. https://doi.org/10.1007/BF00158774.

Bellégo, Christophe, David Benatia, and Louis Pape. 2022. 'Dealing with Logs and Zeros in Regression Models'. https://doi.org/10.48550/ARXIV.2203.11820.

Belotti, Federico, Silvio Daidone, Giuseppe Ilardi, and Vincenzo Atella. 2013. 'Stochastic Frontier Analysis Using Stata'. *The Stata Journal: Promoting Communications on Statistics and Stata* 13 (4): 719–58. https://doi.org/10.1177/1536867X1301300404.

Berg, Servaas van der. 2007. 'Apartheid's Enduring Legacy: Inequalities in Education'. *Journal of African Economies* 16 (5): 849–80.

———. 2008. 'How Effective Are Poor Schools? Poverty and Educational Outcomes in South Africa'. *Studies in Educational Evaluation* 34 (3).

Berg, Servaas van der, Nicholas Spaull, Gabrielle Wills, Martin Gustafsson, and Janeli Kotzé. 2016. 'Identifying Binding Constraints in Education'. Stellenbosch: RESEP. http://resep.sun.ac.za/wp-content/uploads/2016/05/PSPPD_BICiE-email.pdf.

Branson, Nicola, Clare Hofmeyr, and David Lam. 2014. 'Progress through School and the Determinants of School Dropout in South Africa'. *Development Southern Africa* 31 (1): 106–26. https://doi.org/10.1080/0376835X.2013.853610.

CGD. 2022. 'Schooling for All: Feasible Strategies to Achieve Universal Education'. Washington, DC: Center for Global Development. https://www.cgdev.org/sites/default/files/schooling-for-all-feasible-strategies-universal-eduction.pdf.

Chisolm, Linda, Urusla Hoadley, Mbithi wa Kivulu annd Heather Brookes, Cas Prinsloo, Asnath Kgobe, Dan Mosia, Hersheela Narsee, and Stephen Rule. 2005. *Educator Workload in South Africa*. HSRC Press.

Department of Education. 1995. 'White Paper on Education and Training'. Notice 196 of 1995. Cape Town: Department of Education, Republic of South Africa.

Equal Education. 2021. 'No Space For Us'.

Fedderke, Johannes W., Raphael de Kadt, and John M. Luiz. 2000. 'UNEDUCATING SOUTH AFRICA: THE FAILURE TO ADDRESS THE 1910-1993 LEGACY'. *International Review of Education* 46 (3/4): 257–81.

Fiske, E., and H. Ladd. 2004. Elusive Equity: Educational Reform in Post-Apartheid South Africa. Brookings Institute.

Glewwe, Paul, Eric A. Hanushek, Sarah Humpage, and Renato Ravina. 2014. 'School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010'. In *Education Policy in Developing Countries*, edited by Paul Glewwe, 13--64. Chicago: The University of Chicago Press.

Government of South Africa. 1996. 'South African Schools Act'. Act No.84 of 1996.

Greene, Willam. 2005. 'Fixed and Random Effects in Stochastic Frontier Models'. *Journal of Productivity Analysis* 23 (1): 7–32. https://doi.org/10.1007/s11123-004-8545-1.

Greene, William H. 2008. 'The Econometric Approach to Efficiency Analysis'. In *The Measurement of Productive Efficiency and Productivity Change*, edited by Harold O. Fried, C. A. Knox Lovell, and Shelton S. Schmidt, 92–250. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195183528.003.0002.

Grosskopf, Shawna, and Chad Moutray. 2001. 'Evaluating Performance in Chicago Public High Schools in the Wake of Decentralization'. *Economics of Education Review* 20 (1): 1–14. https://doi.org/10.1016/S0272-7757(99)00065-5.

Hanushek, Eric A. 1989. 'The Impact of Differential Expenditures on School Performance'. *Educational Researcher* 18 (4): 45–62. https://doi.org/10.3102/0013189X018004045.

———. 1997. 'Assessing the Effects of School Resources on Student Performance: An Update'. *Educational Evaluation and Policy Analysis* 19 (2): 141–64. https://doi.org/10.3102/01623737019002141.

Hanushek, Eric A, and Dennis D Kimko. 2000. 'Schooling, Labor-Force Quality, and the Growth of Nations'. *American Economic Review* 90 (5): 1184–1208. https://doi.org/10.1257/aer.90.5.1184.

Hanushek, Eric A., and Ludger Woessmann. 2020. 'Education, Knowledge Capital, and Economic Growth'. In *The Economics of Education*, 171–82. Elsevier. https://doi.org/10.1016/B978-0-12-815391-8.00014-8.

Jackson, C. Kirabo, Rucker C. Johnson, and Claudia Persico. 2016. 'The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms'. *The Quarterly Journal of Economics* 131 (1): 157–218. https://doi.org/10.1093/qje/qjv036.

Jackson, C. Kirabo, Cora Wigger, and Heyu Xiong. 2021. 'Do School Spending Cuts Matter? Evidence from the Great Recession'. *American Economic Journal: Economic Policy* 13 (2): 304–35. https://doi.org/10.1257/pol.20180674.

Jansen, Jonathan, and Christina Amsterdam. 2006. 'Editorial Introduction: The Status of Education Finance Research in South Africa'. *Perspectives in Education* 24 (2): vii–xvi.

Kirjavainen, Tanja. 2012. 'Efficiency of Finnish General Upper Secondary Schools: An Application of Stochastic Frontier Analysis with Panel Data'. *Education Economics* 20 (4): 343–64. https://doi.org/10.1080/09645292.2010.510862.

Mahabir, Jugal, and Seán M Muller. 2021. 'May Report on Public Provision in South Africa: Basic Education'. research report for the Southern Centre for Inequality Studies.

McConnachie, Chris, Ann Skelton, and Cameron McConnachie. 2017. 'The Constitution and the Right to a Basic Education'. In *Basic Education Rights Handbook: Education Rights in South Africa*, edited by Faranaaz Veriava, Anso Thom, and Tim Fish Hodgson. Section27. https://section27.org.za/basic-education-handbook/.

Minister of Finance. 2021. *Medium Term Budget Policy Statement 2021*. Government Printers, Pretoria: National Treasury.

Motala, Shireen. 2006. 'Education Resourcing in Post-Apartheid South Africa: The Impact of Finance Equity Reforms in Public Schooling' 24 (2): 79--93.

Muller, Seán M. 2013. 'Public Education Spending in South Africa: A Critical Assessment'. Budget Justice 2013. AIDC and Oxfam.

Muller, Seán M. 2020a. 'Randomised Trials as a Dead-End for African Development'. *CODESRIA Bulletin* 1 (Special Issue: Randomised Control Trials and Development Research in Africa): 14--20.

———. 2020b. 'The Implications of a Fundamental Contradiction in Advocating Randomized Trials for Policy'. *World Development* 127: 104831. https://doi.org/10.1016/j.worlddev.2019.104831.

———. 2021. 'Randomised Trials in Economics'. In *The Modern Guide to Philosophy of Economics*, edited by Harold Kincaid and Don Ross, 90–126. Edward Elgar Publishing.

Muller, Seán M., and Jugal Mahabir. 2021. 'Public Spending on Schooling from Apartheid to the Present'. Putting People in Parliament Project.

OECD. 2013. OECD Economic Surveys: South Africa 2013.

Pereira, Manuel Coutinho, and Sara Patrícia Moreira. 2007. 'A Stochastic Frontier Analysis of Secondary Education Output in Portugal'. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1398692.

Republic of South Africa. 1996. *Constitution of the Republic of South Africa*. Government Printer.

Sarkis, Joe. 2007. 'Preparing Your Data for DEA'. In *Modeling Data Irregularities and Structural Complexities in Data Envelopment Analysis*, edited by Joe Zhu and Wade D. Cook, 305–20. Boston, MA: Springer US. https://doi.org/10.1007/978-0-387-71607-7_17.

Sayed and Motala. 2012. 'Equity and `No Fee' Schools in South Africa: Challenges and Prospects'. *Social Policy and Administration* 46 (6): 672–87.

Scippacercola, Sergio, and Luigi D'Ambra. 2014. 'Estimating the Relative Efficiency of Secondary Schools by Stochastic Frontier Analysis'. *Procedia Economics and Finance* 17: 79–88. https://doi.org/10.1016/S2212-5671(14)00881-8.

Spaull, Nic, and Jonathan D. Jansen, eds. 2019. *South African Schooling: The Enigma of Inequality: A Study of the Present Situation and Future Possibilities*. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-18811-5.

UNICEF. 2018. 'Sub-National Budget Brief on School Funding: South Africa'. https://www.unicef.org/esa/sites/unicef.org.esa/files/2018-12/UNICEF-South-Africa-2018-Sub-National-School-Funding-Budget-Brief.pdf.

United Nations. 2000. 'United Nations Millennium Declaration'. A/RES/55/2. New York: United Nations General Assembly.

———. 2015. 'Transforming Our World: The 2030 Agenda for Sustainable Development'. A/RES/70/1. New York: United Nations General Assembly.

Wildeman, Russell Andrew. 2008. 'Reviewing Eight Years of the Implementation of the School Funding Norms, 2000 to 2008'. IDASA.

Yamauchi, Futoshi. 2005. 'Race, Equity, and Public Schools in Post-Apartheid South Africa: Equal Opportunity for All Kids'. *Economics of Education Review* 24 (2): 213–33. https://doi.org/10.1016/j.econedurev.2004.03.012.

———. 2011. 'School Quality, Clustering and Government Subsidy in Post-Apartheid South Africa'. *Economics of Education Review* 30: 146–56.

CHAPTER 10

Independent fiscal institutions and their effectiveness: Cross-country evidence, common features and policy lessons for South Africa

Chapter 10: Independent fiscal institutions and their effectiveness: Cross-country evidence, common features and policy lessons for South Africa

Thando Ngozo and Sanele Simayile

10.1 Introduction

The aptitude of policymakers to constantly adjust policy levers to fulfil well-defined objectives is a two-edged sword. On the one hand, it enables auspicious reactions to unpredicted events. On the other, it rescinds optimum but time-inconsistent obligations and allows distorted incentives to be translated into damaging policy biases. The manifestation of excessive government deficits and escalating public debts backdating to as early as the 1970s is a testimony that unrestrained fiscal discretion can translate into detrimental economic consequences. An emerging body of literature shows the prospective benefits of restricting control over and above standard democratic constraints and how it could be accomplished (Beetsma and Debrun, 2018). There are essentially three approaches to limiting discretion. Firstly, by enforcing quantitative guidelines on macroaggregates, such as legislative limits on public debt, deficit, or expenditure growth. Secondly, by establishing independent institutions aimed at enhancing democratic accountability procedures that influence fiscal policy management. Thirdly, by delegating some policy obligations to independent but accountable institutions with a clear mandate.

The failure of rules-based monetary policy resulting from the financial innovations of the 1980s necessitated the delegation of monetary policy to non-elected experts that established independent central banks. The official restrictions on fiscal discretion through fiscal rules followed after that. Initially, only a few countries subjected fiscal policy to some form of quantitative restriction. However, the phenomenon quickly gained momentum and resulted in an unprecedented proliferation of fiscal rules. Presently, the IMF has data on approximately 80 countries that conduct fiscal policy within an official framework consisting of some fiscal rules (IMF, 2017).

Given this context, the natural progression is that the institutions embraced for monetary policy could and should be adopted for fiscal policy as well. Independent fiscal institutions (IFIs) can play a similar role as independent monetary institutions. In any case, the frustration with the planning and function of rules-based fiscal frameworks is translating into an increasing number of countries establishing IFIs. IFIs are self-governing public institutions with a remit to objectively evaluate and offer non-partisan advice on fiscal policy and performance. These institutions are responsible for enhancing sound fiscal policy and sustainable public finances in conjunction with fiscal rules.

Against this background, fiscal governance has firmly surfaced as a prospective resolution to weak fiscal performances. Trends in fiscal balance, government debt, and real GDP growth reveal that fiscal performances spanning the past ten years reflect the inability of various governments to manage their budgets deficits and consolidate fiscal properly, and the effects of this (Ball, et al., 2013). The importance of fiscal governance instruments for stabilising fiscal policy emanates from the application of strict fiscal rules, IFIs, strong legitimacy of fiscal transparency, and medium-term budgetary frameworks to impact fiscal outputs. The role of IFIs in improving fiscal performance is particularly gaining traction. Institutional reforms are fundamental in modifying the decision calculus of policymakers to improve the prospects of fiscal policy in supporting macroeconomic stability. IFIs and fiscal rules have become the backbone of public financial management.

Robust fiscal governance implementation thus offers critical intervention and implications for the improvement of fiscal performance. This paper examines the historical context and progression of IFIs and their key features using international case studies. It also reviews existing evidence relating to the relationship between their characteristics and effectiveness in strengthening fiscal outcomes, and distils the critical lessons for South Africa. It has four board sections. The first section introduces the subject matter of the paper. The second section presents an overview of IFIs, including their definition, institutional models, global context, growth, the transition from fiscal rules to IFIs, and the principles for IFIS. The third section presents the summary of the findings and policy lessons from the paper. The last section concludes and offers recommendations. An in-depth case study analysis of seven IFIs, examining how they are structured, their primary mandates and functions, and how they impact fiscal performance is presented in Appendix 1. A detailed case study on the two IFIs in South Africa is also included in Appendix 1.

10.2 Literature review

The literature review has three main themes:

- A conceptualisation of fiscal governance and performance
- Theories of fiscal governance
- Relationship between fiscal governance and fiscal performance

10.2.1 A conceptualisation of fiscal governance and performance

The European Commission (2008) defines fiscal governance as fiscal rules, fiscal councils, regulations, and procedures that affect how budgetary policy is designed, endorsed, conducted, and monitored. Therefore, fiscal governance aims to encourage frankness, accountability, and impartiality in fiscal systems to benefit citizens. It prioritises uncovering and minimising illegal and unethical behaviour in fiscal policymaking (European Commission , 2008). Fiscal governance is a tool for promoting improved coordination among the various government fiscal actors, mostly in highly decentralised countries. The literature asserts that good fiscal governance

implemented through IFIs is the mainstay of efficient fiscal performance, promotes fiscal responsibility, and safeguard fiscal sustainability (Debrun and Kinda, 2017; Morgan and Trinh, 2017). On the other hand, fiscal performance is how the government manages its revenue, expenditure, assets, and liabilities to deliver various economic and social outcomes.

10.2.2 Theories of fiscal governance

The theory on fiscal governance is rooted in the principal-agent relationship between voters (the principals) and politicians (the agents). In this context, politicians, in managing the economy, could prioritise their interests at the expense of maximising voters' welfare through fiscal policies (Lane, 2013). Since resources are finite, governments are incentivised to increase deficits and public debt levels if they are insulated from being held accountable for the fiscal outcomes. In economic theory, the common pool explanation for deficit bias results from interest groups that profit from certain types of public spending that translates into the financing of expenditures based on their preferences (Alesina and Passalacqua, 2016; Krogstrup and Wyplosz, 2010; Velasco, 1999; Velasco, 2000).

Volkerink and De Haan (2001) assert that the common pool problem is more severe in fragmented and heterogeneous government partnerships. Elgie and McMenamin (2008) also found that legislative fragmentation raises the budget deficit as democracy is institutionalised. Velasco (2000) identifies two macro-economic implications emanating from the common pool situation. Firstly, fiscal deficits and debt accumulation transpire even in the absence of inter-temporal smoothing. Secondly, deficits can be reduced through fiscal reform, subject to a delay in building up government debt. Beetsma and Debrun (2007) added that supranational deficit rules enhance the welfare and avert the short-term approach usually correlated to political cycles while easing the common pool problem. Krogstrup and Wyplosz (2010) investigated if a budget deficit bias results from the common pool challenge or an international externality. Their investigation was premised on the proposition that the stability and growth pact (SGP) and similar measures suggest that the supranational deficit ceiling improves welfare compared to other arrangements. They found that those deficit ceilings are aimed at correcting a deficit bias.

A large body of literature shows that deficits are avoided by applying fiscal policy and institutional rules (Halleberg and Von Hagen, 1999; Hallerberg, et al., 2007; Von Hagen and Harden, 1995). These studies employ political economy models of deficit bias to demonstrate how fiscal rules and budget procedures can decrease fiscal deficit bias and improve fiscal discipline in advanced countries. Primo (2006) also employs a distributive politics model to empirically demonstrate that budget ceilings curtail spending and result in more minor short-term reactions to variations in the US economy. The theory and empirical studies show that the basis of fiscal indiscipline lies with the common pool problem. This postulation reflects the inability of public spending to capture the costs attributable to taxpayers fully. Therefore, most democratic governments either postpone tax collection or institute expenditure cuts in alignment with the fiscal rules programme but ignore the resultant spillover effects (Dell'Erba and Sola, 2016; Faini, 2006; Saunders, 2014). This fiscal indiscipline challenge necessitates the incorporation of fiscal externalities and adequate fiscal governance structures.

10.2.3 Relationship between fiscal governance and fiscal performance

The literature shows that the fiscal policies of most countries offer strong fiscal governance as an essential ingredient for fiscal performance, given its ability to restrain and enhance the deficit bias of fiscal policymaking. Pirdal (2016) contends that fiscal governance is an instrument that can increase fiscal performance.

The literature records that the relationship between fiscal governance and performance has various dimensions. Coletta, et al., (2015) establish a direct connection between fiscal governance and performance that results in an explicit fiscal and economic variable that enhances better management and fiscal policy. Giosi, et al., (2014) find a positive correlation between the quality of fiscal governance and budgetary performance. Vlad, et al., (2016) establish a strong correlation between the tax revenues and total gross debt. Hallerberg and Yläoutinen (2010) find a relationship between fiscal governance and fiscal outcomes. They note that the more countries diverge from a particular kind of fiscal governance, the more significant the rise in the debt burden. Hallerberg, et al., (2007) established that the impact of fiscal governance on budgeting procedures contains public debt. Most studies find that countries with more robust fiscal governance are likely to have fewer fiscal challenges and improved fiscal performance (Eyraud and Wu, 2015; Zacky, 2016).

The debate between scholars regarding several countries that have enacted fiscal rules to reduce substantial government deficits and research on fiscal governance and fiscal performance has gained much attention. Fiscal governance regulations from effective fiscal consolidation and debt reduction are linked to improved fiscal performance (Schaechter, et al., 2012; IMF, 2009; Guichard, et al., 2007; Poterba, 1994; Kennedy & Robbins, 2003). The lessons from Sub-Saharan Africa reveal that fiscal policy rules and institutions have a statistically significant effect on fiscal performance (Nabieu, et al., 2020). Several other empirical investigations show that fiscal control measures improve fiscal performance (Badinger and Reuter, 2017; Sacchi and Salotti, 2015).

Moreover, Asatryan, et al. (2016) explored that balanced budget regulations can help reduce debt crises; however, their effectiveness may depend on the quality of institutions. According to lessons learned from the European Union (EU), coverage, design, the strength of fiscal rules, and quality of budgeting procedures encourage fiscal consolidation (Larch and Turrini, 2011; European Commission, 2006). Further outcomes revealed that large coalition states have more stringent fiscal laws. In contrast, centralisation of budgetary operations is the most common type of fiscal governance in other countries outside the EU. While more strict fiscal administration appears to help fiscal restraint in all EU nations, centralisation of procedures does not necessarily limit public debt in countries prone to rules-based approaches (Hallerberg, et al., 2007). Furthermore, the results indicate that regulations enshrined in legislation or a constitution have more significant budgetary consequences. Tapsoba (2012) postulate the implementation of fiscal laws as a means of combating fiscal irresponsibility.

10.3 Problem statement and research questions

10.3.1 Problem statement

If policymakers had complete information, driven by social welfare maximisation, their ability to respond optimally to changing conditions will be greatly enhanced. In reality, though, information asymmetries are prevalent and time-inconsistency materialises, thereby ushering in other exogeneous factors that drive policy behaviour. This means that even for the finest democratic systems, institutional restrictions on policy discretion to supplement democratic controls are indispensable prerequisites in averting detrimental fiscal policy outcomes. While restricted discretion largely governs most public policy options, the inherently political environment of the allocation of public finances could easily undermine the efficacy of official limitations, including fiscal rules. However, there is ample evidence of countries subjecting fiscal choices to official policy regulations, weak compliance, and prevalent efforts to contravene these rules which call into question their efficacy.

Halleberg and Von Hagen (1999) outline two approaches to deficit bias inherent in fragmented budgetary decision-making: the contract and delegation approach. The delegation approach mainly rests on the delegation of power to the minister of finance to overcome the coordination problem inherent in budgetary decision making. On the other hand, the contract approach hinges on pre-established budgetary targets and rules. Besides the research conducted by von Hagen and co-authors, there is little research on the choice of fiscal governance, particularly on institutional choice effects on fiscal performance. Therefore, there is a need to establish the main pattern of institutional choice and then explore these institutions' policy effects on the fiscal framework's main objectives.

The rise of IFIs spans the globe, with prominent institutions operating in Europe, Asia, Africa, and the western hemisphere. However, these institutions are relatively new and differ considerably in their mandate, resources, and responsibilities, and therefore the treatment effect of embracing them is complicated to grasp. This means that evidence about their effectiveness is in high demand. South Africa has a good history of fiscal sustainability and transparency that has been achieved without hard numerical rules. Instead, South Africa has soft fiscal rules in the form of expenditure ceilings for the central budget. However, safeguarding the credibility of fiscal policy is an ongoing process, and hence institutional fiscal reforms to enhance fiscal policy remain critical.

10.3.2 Key research questions

There are two main research questions that this paper will seek to address:

- Are there specific features in the design and structural setup of IFIs that can enhance their effectiveness?
- What form of fiscal governance is more suitable to the South African context?

10.3.3 Research aims and objectives

This paper aims to investigate IFIs and their effectiveness in order to better understand the effects of fiscal governance on fiscal performance in South Africa.

The objectives of the paper are twofold:

- To examine how IFIs execute their essential mandate and functions and if and how they impact fiscal performance.
- To distil lessons for South Africa based on the review of the design and operational features of IFIs around the world.

10.4 Research methodology and data

10.4.1 Methodological approach

This study employs a descriptive research methodology applying quantitative and qualitative methods to assess if and how IFIs influence fiscal outcomes. The literature postulates that the mere existence of an IFI is not sufficient to improve fiscal performance if its structure, resources, and design are inadequate[43]. Cross country evidence in the form of seven international case studies is used to ascertain the following: a review of available evidence on the relationship between the characteristics and effectiveness of IFIs and fiscal outcomes; critical features of IFIs focusing on best practices; mapping out options and observations regarding existing IFIs relating to their mandates and functions, coverage, operational characteristics, degree of independence, composition, and institutional models; as well as compliance and impact.

The case studies consist of the following IFIs: Belgium (High Council of Finance), Canada (Parliamentary Budget Officer—PBO), Korea (National Assembly Budget Office), Slovakia (Council for Budget Responsibility), the United States (Congressional Budget Office), United Kingdom (Office for Budget Responsibility) and Uganda (Parliamentary Budget Office). The selection criteria for these IFIs are premised on the number of years of operation, tasks carried out, and diverse regional and contextual environments. The Financial and Fiscal Commission (Commission) and the South African Budget Parliamentary Office (SAPBO) case study compares South Africa with the international IFIs assessed. The case studies are supplemeted with interviews with subject experts.

The efficacy of an IFI is not quantifiable, and any statistical analysis of the prospective effect of institutions on policies suffers from reverse causation. Therefore, case studies are a helpful

[43] See Mooney, Henry and Wright, Allan and Grenade, Kari. (2018). Fiscal Councils: Evidence, Common Features, and Lessons for the Caribbean.

complement that reveal the excellent variety portraying IFIs and a more nuanced description rather than simple correlations. The context-specific approach of case studies enables a tighter examination of each segment of the production chain. It therefore offers a more appropriate description of how particular building blocks of the IFIs could affect fiscal policy quality. The case studies will reflect contrasting experiences between new and older as well as thriving and unsuccessful institutions; reasonable length of operation; functions performed; diverse regional and contextual environments; and various political systems.

10.4.2 Data

Data on IFIs will be obtained from the 2017 vintage of the IMF fiscal council dataset.

10.5 Overview of IFIs

10.5.1 IFIs conceptualisation and institutional models

10.5.1.1 Definition

A comprehensive definition of IFIs is essential to incorporate all the types of institutions covered by the literature. The IFIs covered in the literature differ substantially in relation to the extent of their mandate, the description of their responsibilities, level of legal independence, scale, and connections with other public institutions. However, the consensus in the literature is that IFIs inform public debate on fiscal policy.

This paper adopts the following definition for IFIs: A permanent entity with a constitutional remit to evaluate publicly and autonomously from the biased effect of government's fiscal policies, plans, and performance against macroeconomic objectives associated with the long-term sustainability of public finances, short-medium-term macroeconomic stability, and other official goals such as assisting with the usage of unbiased macroeconomic and budgetary forecasts in budget preparation; determining practical fiscal policy options, and articulating recommendations; enabling the application of fiscal policy rules, and costing new policy initiatives[44].

10.5.1.2 Institutional models

IFIs are heterogeneous, and there is no one size fits all model. They vary considerably in their governance requirements, degree of independence, the scope of their mandate and functions, leadership and staff compliments arrangements, and budget. In terms of the institutional models, the literature categorises the majority of the institutions as under the constitutional or legislative

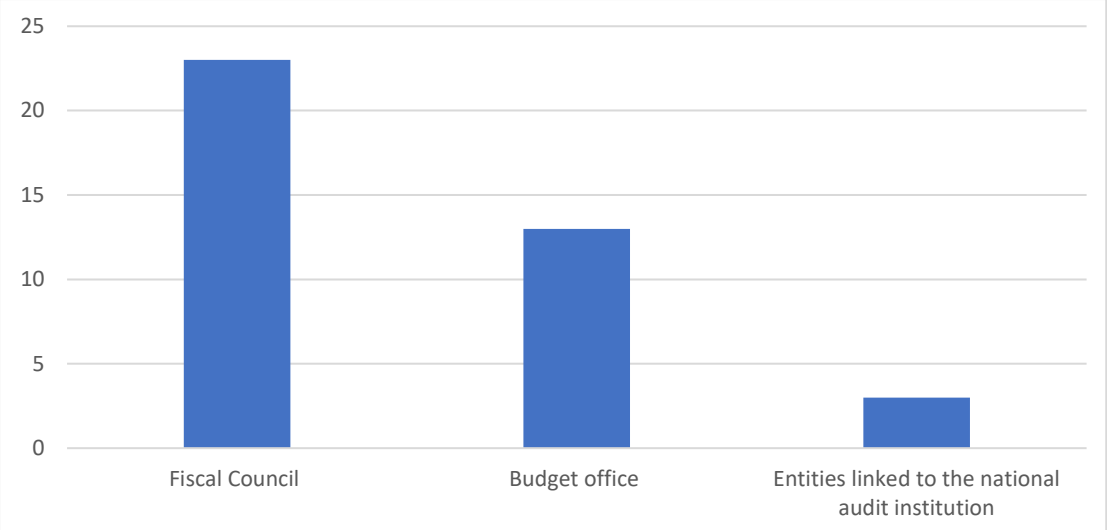
[44] This definition is adapted from The Functions and Impact of Fiscal Councils, *Policy Papers*, *2013*(063), A001.

authority of the executive or standalone, with variations incorporating dual lines of accountability to the executive and the Parliament (Von Trapp, et al., 2016). This category of IFIs is known as the fiscal council model. It is worth noting that within this model, there are subcategories; for instance, in Sweeden and Ireland, there are small, largely academic IFIs, whereas, in Austria, Belgium, Denmark, France, there are larger IFIs consisting of members recommended by various stakeholders.

The second category identified by the literature is the parliamentary budget office model. This model is followed by countries such as Australia, Canada, Italy, Korea, Mexico, and the United States. The model has a stronger focus on supporting parliamentary oversight of the budget and strengthening the work of the central budget committee. This model also emphasises the costing role of IFIs.

The final model consists of IFIs that are established as autonomous entities linked to the national audit institution. Finland and France follow this model. A variation of this model incorporates the linking of IFIs to the Central Bank. In Austria, for instance, the Oesterreichische National bank makes available staff for Austria's Fiscal Advisory Council. In Slovakia, funding for the Council for Budget Responsibility comes from the National Bank of Slovakia. The institutional models of the IFIs based on the IMF data set are presented in Figure 10.1 below.

Figure 10.1: Institutional models of IFIs



Source: IMF Fiscal Council Dataset (2017)

10.5.2 Mapping of IFIs

10.5.2.1 The global context of IFIs

The rapid growth in the establishment of IFIs has made it necessary to evaluate their effectiveness and establish good international practices. These measures require coherent and comparable cross-country data. In 2014, the IMF took the first initiative to achieve this task by publishing a dataset for IFIs globally (Debrun and Kinda, 2014).

This dataset was updated in 2016 to reflect recent developments, broaden the country coverage, and enhance the quality of the data based on publicly available information in December 2016. The current dataset mirrors the considerable diversity of frameworks and practices observed among IFIs. It includes a wide range of institutional characteristics, focusing on capturing the impact of these features on the budgetary process and identifying best international practices. The data set covers 39 IFIs in 37 countries and captures all active IFIs as of December 2016. The list of the countries and their corresponding IFIs is presented in Table 10.1 below.

Table 10.1: List of IFIs across the IMF membership

Number	Country	Independent Fiscal Institution
1	Australia	Parliamentary Budget Office
2	Austria	Fiscal Advisory Council
3	Belgium	High Council of Finance
4	Belgium	Federal Planning Bureau
5	Canada	Parliamentary Budget Office
6	Chile	Advisory Fiscal Council
7	Colombia	Comite Consultivo para la Regla Fiscal
8	Cyprus	Fiscal Council
9	Denmark	Danish Economic Council
10	Estonia	Fiscal Council
11	Finland	National Audit Office of Finland
12	France	High Council of Public Finance
13	Georgia	Parliamentary Budget Office
14	Germany	Independent Advisory Board to the German Stability Council
15	Greece	Parliamentary Budget Office
16	Hungary	Fiscal Council
17	Iran	Public sector Directorate of Parliament Research Centre
18	Ireland	Irish Fiscal Advisory Council
19	Italy	Parliamentary Budget Office
20	Kenya	Parliamentary Budget Office
21	Latvia	Fiscal Discipline Council
22	Lithuania	National Audit Office
23	Luxembourg	National Council of Public Finance
24	Malta	Malta Fiscal Advisory Council
25	Mexico	Centre for Public Finance Studies
26	Netherlands	Netherlands Bureau for Economic Policy Analysis
27	Netherlands	Raad van State
28	Peru	Consejo Fiscal
29	Portugal	Portuguese Public Finance Council
30	Romania	Fiscal Council
31	Serbia	Fiscal Council
32	Slovak Republic	Council for Budget Responsibility
33	South Africa	Parliamentary Budget Office
34	South Korea	National Assembly Budget Office
35	Spain	Independent Authority of Fiscal Responsibility
36	Sweden	Swedish Fiscal Policy Council
37	Uganda	Parliamentary Budget Office
38	United Kingdom	Office for Budget Responsibility
39	United States	Congressional Budget Office

Source: IMF Fiscal Council Dataset (2017)

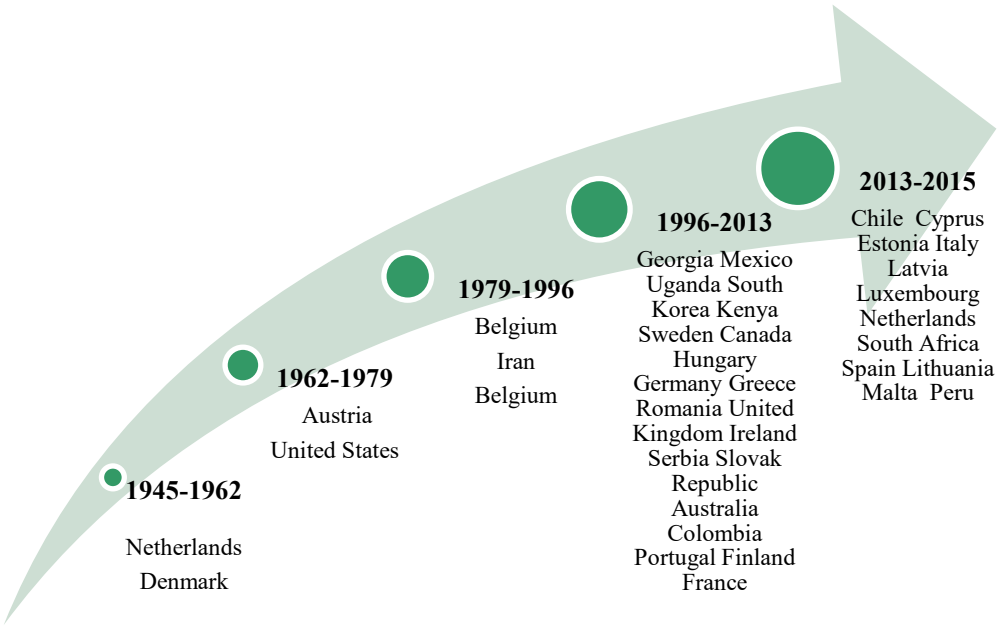
The IMF data set for IFIs forms the basis of analysing the critical characteristics of existing IFIs and is a helpful starting point in terms of highlighting strong practices across the world. The analyses and observations of this study will be based on some data and other information drawn from the IMF's database and countries with their respective agencies.

10.5.2.2 The growth and geographical spread of IFIs

The growth of IFIs has gained momentum since 2005. In 1960, only The Netherlands had an active IFI. Denmark, Germany, the United States, and Belgium are the only countries that had embraced IFIs by 1990. The number of IFIs then exploded to 29 after 2005. Most of the well-established IFIs are in advanced economies, particularly in Europe. However, there is growing interest in emerging markets and developing economies. The uptake by these counties was premised on the experience of the old IFIs; in the mid-1990s, a large body of the literature advocated for the idea of adapting some of the good experiences of independent central banking to the fiscal sphere (Calmfors and Wren-Lewis, 2011). However, the real driver of the growth of IFIs was the surge of government deficits and debts during 2008-09. The commitments to sustainable public finances were being questioned, and policymakers were therefore seeking innovative approaches to preserve fiscal discipline.

The most significant growth of new IFIs is evident in the EU after the various reforms to their fiscal framework. Following the Treaty on Stability, Coordination, and Governance, Euro area member states are obliged to establish an independent entity to oversee compliance with national fiscal rules and construct macroeconomic projections. Outside the EU, the establishment of new IFIs has been driven by the increase in fiscal transparency and the need to improve the legislature's oversight role in the budget process. Moreover, influential international organisations, including the IMF, World Bank, and the OECD, have promoted the establishment of IFIs. The growth of IFIs and the corresponding timelines are presented in Figure 10.2 below.

Figure 10.2: The growth timelines of IFIs



Source: IMF Fiscal Council Dataset (2017)

10.5.3 IFIs and fiscal rules

According to the literature, countries usually employ IFIs with fiscal policy rules instead of substituting them. Whereas influential literature advocates for substituting fiscal policy rules by IFIs (Wyplosz, 2005; Fatàs, et al., 2003), these institutions usually co-exist jointly with fiscal rules, conceivably because the soft power of IFIs cannot be expected to replace the restricting objective of fiscal rules completely. IFIs and fiscal rules reinforce each other. Moreover, most countries that have established IFIs also have enacted quantitative fiscal rules; and mandated the IFIs to monitor compliance with the rules.

The growth of countries that have adopted fiscal rules increased in the 2000s, whereas the establishment of IFIs only gained momentum after 2005. This means that in most countries, IFIs were established after the introduction of fiscal rules. These trends reflect the complications of implementing fiscal rules and the simultaneous tendency to adopt more sophisticated fiscal policy rules in the absence of IFIs.

IFIs play critical roles that can justify the inclination for combining fiscal rules and IFIs: IFIs, through their forecasting and costing roles, can close technical loopholes frequently used by uncommitted governments to evade a fiscal rule, including the tendency to overestimate expected revenues and underestimate planned expenditure; IFIs can also deliver impartial inputs required to implement more complex quantitative fiscal rules, such as structural balance rules. Moreover, a fiscal rule also enables the functioning of an IFI by offering an impartial yardstick for it through assessments.

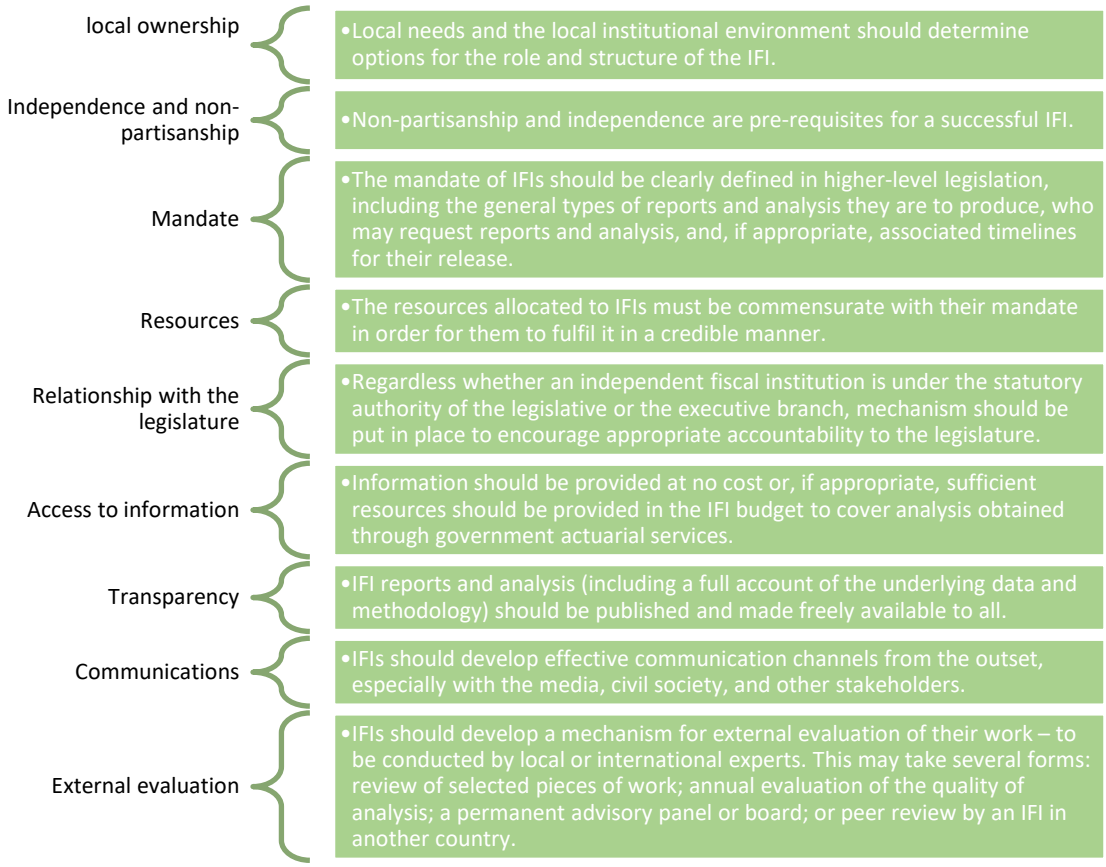
In substantiating the implementation complexity of fiscal rules, the repercussion of the global crisis demonstrates a classic illustration since some of the G20 countries were persuaded to increase their indebtedness, which has frequently resulted in sudden reversals. This indicates that exercising discretion using escape clauses is quite complex. Therefore, Beetsma and Debrun (2017) argue that IFIs are required under these circumstances. Alongside their presence, some objections have been put forward concerning their role. Contrary to these objections, Beetsma and Debrun (2018) argue that these institutions should prioritise budget balance, not the choice and amounts of spending and taxation.

The premise of the preceding debate is that rules are not complete, and they must be revised at some point. Another key repercussion is that IFIs must always be held accountable to act according to their mandates, even though they are unelected organisations. Therefore, fiscal rules and IFIs complement each other quite well, and the essence of integrating rules and institutions is likely to translate into long-term benefits. Their complementarity extends even further because effective IFIs can adequately understand the rules and make recommendations for change. Thus, their duty to sustain ineffective policies will be less complex and less contentious if rules are well-designed.

10.5.4 Principles for IFIs

The enormous proliferation of IFIs has necessitated the development of international norms and principles aimed at distilling, from a diversity of experiences, the essential elements that enjoy a broad consensus in establishing viable IFIs. A vital contribution in this regard was the adoption of 22 principles for IFIs by the Organization for Economic Cooperation and Development (OECD, 2014). The OECD principles for IFIs are categorised into nine themes: (1) local ownership; (2) independence and non-partisanship; (3) mandate; (4) resources; (5) relationship with the legislature; (6) access to information; (7) transparency; (8) communication; and (9) external evaluation as depicted in Figure 10.3 below.

Figure 10.3: Summary of the OECD principles for IFIs



Source: OECD Principles for independent fiscal institutions, 2016

The OECD principles complement a vast body of public finance literature that has been instrumental in entrenching a set of norms and standards for good budgeting, such as the principles of unity, universality, and annuality (Sundelson, 1935). These principles eventually reinforced another as a set of international principles on budgeting encompassing the Code of Good Practices on Fiscal Transparency by the IMF, the OECD's Best Practices for Budget Transparency, and the High-Level Principles on Fiscal Transparency developed by the Global Initiative for Fiscal Transparency (GIFT).

It is worth noting that, according to the literature, adherence to the OECD principles is not synonymous with the independence and effectiveness of IFIs. Therefore, if a government is determined to bypass an IFI, it will devise some means to achieve that (Beetsma and Debrun, 2018). However, the OECD principles increase the price of such manoeuvring, thus offering some ammunition for fending off government interference. Moreover, the OECD principles are a crucial component of a spreading trend to bolster accountability. Initially, much attention was paid to solidifying the executive budget process. However, recent trends demonstrate an increasing awareness of the undesirability of unrestrained executive dominance and discretion. The OECD principles, therefore, enhance valuable checks and balances at various stages in the budget cycle.

10.6 Summary of findings and policy lessons from case studies[45]

10.6.1 Mandate and functions

10.6.1.1 Summary of findings and analysis

The mandates and functions of the IFIs assessed in this study vary considerably. The determination of mandates and functions is premised on country-specific factors such as deficiencies in public finances warranting rectification and the capability of the IFI to accomplish its mandate and tasks. Table 10.2 below shows the results of IFIs assessed in terms of seven functions: normative analysis, forecasting preparation, forecast assessment, recommendations, monitoring fiscal rules, issuance of public reports, and costing of policy and legislation.

Table 10.2: Assessment of IFIs: mandates and functions

Country	Name of IFI	Normative analysis	Forecast preparation	Forecast assessment	Recommen-dations	Monitoring fiscal rules	Public reports	Costing of policy and legislation
Belgium	High Council of Finance	Yes	No	No	Yes	Yes	Yes	No
Canada	Parliamentary Budget Officer	No	Yes	Yes	Yes	No	Yes	Yes
Korea	National Assembly Budget Office	No	Yes	Yes	Yes	No	Yes	No
Slovakia	Council for Budget Responsibility	No	No	No	No	Yes	Yes	Yes
United Kingdom	Congressional Budget Office	No	Yes	Yes	No	Yes	Yes	Yes
United States	Office for Budget Responsibility	No	Yes	Yes	No	No	Yes	Yes
Uganda	Parliamentary Budget Office	No	No	Yes	Yes	No	Yes	No

The results presented in Table 10.2 above show that almost three-quarters (5 of 7) of the IFIs are mandated to assess budgetary forecasts, whereas just over half (4 of 7) are mandated to undertake independent forecasts of budgetary variables. Less than half (3 of 7) are responsible for monitoring compliance with fiscal rules. More than half (4 of 7) prepare and provide

[45] The detailed international cases studies are presented in Appendix 1 as a supplement to this paper.

recommendations to fiscal authorities on budgets and related assumptions. All IFIs assessed are obligated to publish public reports on their findings. More than half (4 of 7) conduct costing of policy and legislation.

The seven functions used to assess the IFI assessed are premised on the literature on the mandate and tasks of IFIs. The OECD principles do not prescribe specific tasks that constitute the mandate of an IFI. According to the OECD, what is essential is that the mandate must be clearly defined in the legislation, and there must be independence in producing outputs and defining a working plan that is aligned with the mandate. However, the OECD outlines characteristic IFI duties such as economic and fiscal forecasts, baseline forecasts, assessing compliance with fiscal rules, and costing of policy proposals, without prescribing any particular functions or a mixture of functions. The OECD evaluation of 18 IFIs belonging to its member countries found that the conventional functions are the analysis of long-term fiscal sustainability, monitoring compliance with fiscal rules, policy costings, and forecasting (Von Trapp, Lienert, & Wehner, 2016).

The 2017 vintage of the IMF fiscal council dataset, which consists of 39 IFIs from a broader set of countries, identified the most common functions of IFIs as the assessment of government budgetary and fiscal performance in relation to fiscal objectives and strategic priorities, forecast assessment, monitoring of fiscal rules, performing normative analysis, or providing recommendations, and assessing long-term sustainability, costing of policy measures and forecast preparation.

The literature, therefore, does not offer any standard set of functions for IFIs because their activities are primarily driven by the need to address country-specific inadequacies in domestic fiscal policies.

10.6.1.2 Assessment of SAPBO

Table 10.3 below presents the results of the assessment of the independence of the SAPBO using six functions: normative analysis, forecasting preparation, forecast assessment, recommendations, monitoring fiscal rules, and issuance of public reports.

Table 10.3: Assessment of the mandate and functions of the SAPBO

Country	Name of IFI	Normative analysis	Forecast preparation	Forecast assessment	Recommendations	Monitoring fiscal rules	Public reports
South Africa	Parliamentary Budget Office	Yes	No	No	Yes	No	Yes

The results in Table 10.3 above show that the SAPBO conducts normative analysis, offers recommendations, and issues public reports. It is not mandated to assess budgetary forecasts and undertake independent forecasts of budgetary variables like most IFIs assessed. It also does not monitor fiscal rules, nor does it conduct costing of legislation and policy.

10.6.2 Medium-term budgetary frameworks and planning and the production or endorsement of macroeconomic forecasts

In conjunction with fiscal rules and medium-term budgetary framework, IFIs are a crucial element of national fiscal frameworks. IFIs play an important part in generating trustworthy budgetary forecasts, a vital ingredient for efficient medium-term planning. The latest literature shows that forecast errors for budgetary variables and the optimistic bias of budgetary forecasts are smaller where an IFI exists, even though the causality is not completely clear-cut. There is also provisional empirical evidence of the impact of IFIs on conformity with fiscal rules and, by extension, on budgetary restraint (Beetsma, et al., 2019). These results highlight the complementarity of IFIs and fiscal rules. Furthermore, IFIs have a definite effect on the quality of formal macroeconomic forecasts, which they have to either produce or endorse.

The contribution of IFIs to enhancing medium-term planning is twofold: firstly, IFIs assist in improving the precision of budgetary forecasts, and secondly, they encourage fiscal discipline and compliance with fiscal rules. The valuation of medium-term budgetary forecasts consists of two steps: the fundamental macroeconomic forecasts and the budgetary predictions. Generating or endorsing macroeconomic forecasts is the foundation of the assessment of budgetary plans because macroeconomic variables are a crucial element of fiscal forecasts. If the macroeconomic scenario is prejudiced, it impacts the budgetary plans.

A large body of literature has measured the effect of IFIs on the precision of budgetary forecasts. Beetsma, et al. (2019) show that the presence of IFIs is associated with more accurate budgetary forecasts. According to this author, establishing an IFI lessens the size of the primary balance forecast error, on average, by a full percentage point of GDP. The findings of this study also demonstrates that the existence of an IFI is correlated with a lower optimistic bias for budgetary forecasts. The results of the study further show that the more fiscal rules are likely to bind, the more optimistic the forecast of the budget balance, and the existence of an IFI mitigates this optimistic bias. Nerlich and Reuter (2013) find that the positive impact of quantitative fiscal rules on the primary balance can be further reinforced by the existence of an IFI and an effective medium-term budgetary framework (MTBF).

Beetsma, et al. (2019) also find tentative econometric evidence that the existence of an IFI is correlated with a large and statistically significant impact on compliance with fiscal rules. The European Commission (2019) finds a substantially positive and statistically significant influence of MTBFs on the cyclically-adjusted primary balance.

Dependable macroeconomic forecasts are a foundation of credible budgetary planning and consequently of solid and sustainable public finances. Jankovics and Sherwood (2017) find a positive impact of the role of IFIs on the prudence of official forecasts. Their results show that before independent forecasters within the EU, between 2000 and 2007, there was a small optimistic bias which turned towards a conservative stance between 2014 and 2016 after IFIs were set up in many EU countries. Beetsma, et al. (2019) also show that real GDP growth forecast mistakes reveal over-optimism in the presence of fiscal rules and that this over-optimism is

slightly reduced in the presence of an IFI. The results of these studies were further collaborated by the personal interviews conducted with the experts in this field.

The empirical evidence and the personal interviews with experts underscore the need for South African IFIs to be actively involved in the medium-term budgetary frameworks and planning and the production or endorsement of macroeconomic forecasts.

10.6.2.1 Policy lessons

10.6.2.1.1 Country-specific mandates and functions

The assessment of the seven IFI international case studies has shown that in defining determining mandates and functions, it is crucial to consider both country-specific factors and the capacity of the council itself to fulfil its mandate. For instance, the establishment of the CBO in the US was premised on a set of reforms triggered by tense legislative-executive relations during the Nixon administration and aimed at reclaiming budgetary powers from the government to the legislature (Joyce, 2011). In the South African context, this policy lesson highlights the need to review the mandates and functions of the Commission and the SAPBO to improve the fiscal governance in order to improve fiscal outcomes.

10.6.2.1.2 Broad, clear, and implementable mandates and functions

The assessment also revealed that the mandate of an IFI should be broad, clearly defined, and implementable. In this regard, specific duties allocated to an IFI should be completely consistent with the mandate. A broad mandate is vital in capturing several conceivably changing sources and expressions of the deficit bias. The analysis also revealed that normative analysis and recommendations could give rise to conflicts between an IFI and the government, thus compromising the independence of the IFI. However, there could be political circumstances and policy areas where independent recommendations could form the basis for consensus. In instances where there is a need for a broad-based agreement on contentious distributive issues, recommendations could reduce negotiation costs.

In the context of rules-based frameworks, it is essential to stipulate the mandate and functions of an IFI to improve compliance with the rules. A rules-based fiscal framework in the context of an IFI is self-reinforcing. Whereas a rules-based framework enables monitoring and communication with the public, IFIs promote compliance by offering impartial forecasts, validating the terms of an escape clause, and assessing targets conveyed in structural provisions. This policy lesson highlights the need to establish fiscal rules and empowering the Commission and SAPBO to monitor government compliance with them.

10.6.2.1.3 Coordination of fiscal policy

In a decentralised government like South Africa, the role of an IFI should primarily pertain to the general government while monitoring sub-national governments and enhancing the coordination of fiscal policy within the entire government. Given that decentralisation increases coordination and common-pool issues, the role of an IFI should be to assuage these challenges. Whereas the scope of an IFI could be limited by the nature of intergovernmental arrangements, impartial analyses of intergovernmental transfers and recommendations on the distribution of fiscal effort to attain central government target can enhance collaboration between central and sub-national governments which is vital in improving compliance with fiscal policy rules. This policy lesson underscores the need to strictly align the mandate and functions of the Commission to this role.

10.6.2.1.4 Equitable distribution of non-renewable resources

In resource-rich countries, such as South Africa and IFI should assist in crafting a financially viable and inter-generationally equitable expenditure path through restricting political manoeuvrings of commodity price cycles and projected reserves of non-renewable resources. An IFI in this context should assuage instant spending pressures driven by cyclical peaks in commodity prices. This policy lesson highlights the need to review the mandate and functions of the SAPBO and the Commission and empower these institutions with legislative powers in determining the role of non-renewable resources.

10.6.3 Independence

10.6.3.1 Summary of findings and analysis

IFIs must be designed to operate with a high degree of independence because they are meant to operate as institutional pillars that support the rules-based fiscal framework as fiscal watchdogs. Table 10.4 below shows the independence assessment results of the IFIs using six indicators: legal independence, operational independence, safeguards on budgets, right to select own staff, adequate staffing, and access to information.

Table 10.4: Assessment of IFIs: independence

Country	Name of IFI	Legal	Operational	Safeguards on Budgets	Right to select staff	Adequate staffing	Access to information
Belgium	High Council of Finance	No	Yes	No	No	Yes	Yes
Canada	Parliamentary Budget Officer	Yes	Yes	No	Yes	Yes	Yes
Korea	National Assembly Budget Office	Yes	Yes	Yes	Yes	Yes	Yes

Country	Name of IFI	Legal	Operational	Safeguards on Budgets	Right to select staff	Adequate staffing	Access to information
Slovakia	Council for Budget Responsibility	Yes	Yes	Yes	Yes	Yes	Yes
United Kingdom	Congressional Budget Office	Yes	Yes	Yes	Yes	Yes	Yes
United States	Office for Budget Responsibility	Yes	Yes	Yes	Yes	Yes	Yes
Uganda	Parliamentary Budget Office	No	No	Yes	Yes	Yes	No

The results presented in Table 10.4 above show that almost three-quarters (5 of 7) of the IFIs assessed enjoy legal independence while almost all (6 of 7) enjoy operational independence. Almost three-quarters (5 of 7) of the IFIs can safeguard their budgets, almost all (6 of 7) can hire their staff, and all (7 of 7) have adequate staff to fulfil their mandate and perform their duties. The majority of the IFIs assessed have access to information required to accomplish their objectives.

10.6.3.2 Assessment of SAPBO

Table 10.5 below presents the results of the assessment of the independence of the South African PBO using six indicators: legal independence, operational independence, safeguards on budgets, right to select own staff, adequate staffing, and access to information.

Table 10.5: Assessment of the independence of the SAPBO

Country	Name of IFI	Legal	Operational	Safeguards on budgets	Right to select staff	Adequate staffing	Access to information
South Africa	Parliamentary Budget Office	Yes	No	Yes	Yes	Yes	Yes

The results in Table 10.5 above show that the SAPBO enjoys a high degree of independence. Its independence is guaranteed in legislation, and it can safeguard its budget, hire its staff, and have adequate staff to perform its duties and access to information required to achieve its goals. However, the SAPBO does not have complete operational independence because it operates under the legislature.

10.6.3.3 Minimum standards for IFIs

There are no minimum standards for regular monitoring of the effective functioning of IFIs in South Africa. The protection offered by legislation for an IFI is limited, beyond which political

and societal factors are required. IFIs are delicate institutions by their very nature. They do not have decision-making powers and can only affect fiscal policy and inform fiscal decisions through good analysis that may not be aligned with the wishes of the government. Governments may, therefore, be incentivised to establish ineffective IFIs, or find other means of preventing them from unleashing their full potential. Therefore, it is crucial that effective IFIs are established with real capacity to impact the fiscal policy debate and not just as institutions to simply comply with vaguely defined legal requirements. An effective protection system is also necessary to ensure that IFIs are and can remain effective and independent in practice.

In the main, South African IFIs are aligned with existing legislation in terms of mandates and legal requirements. However, there is still room for improvement in equipping them to provide clear and consistent signals about fiscal policy. Financial and human resources, better access to information, effective comply and explain principles are essential in enhancing their fiscal scrutiny capacity. Their operation in practice shows that there is a significant scope for improvement in terms of their operation in practice.

10.6.3.4 Access to information

To be effective and enduring, IFIs must have access to all relevant information held by public authorities. IFIs use three main channels to secure their access to information:

- Legal basis: this entails the Constitution, organic laws, statutes of IFIs, and simple annotations to law articles.
- Memorandum of Understanding (MoU) or cooperation protocols on information-this entails the sharing of information between the IFI and government entities.
- Informal contacts for sharing relevant information.

The South African IFIs enjoy a relatively good flow of information from the national government. However, the data on budgetary procedures at the non-central government level, such as state-owned entities, is still scarce. The same goes for the methodological details on how the government performs the costing of its policy measures. The deliberations with IFI experts as well as the review of literature underscores the need to improve the access of information for the Commission and SAPBO.

Policy lessons

10.6.4.1 Legislative provisions against political interference

Guarantees against political interference are crucial in safeguarding the independence of IFIs. This is particularly important for IFIs that are mandated to make recommendations on sensitive fiscal matters. These guarantees should include:

- Legislative provisions forbidding public authorities from giving instructions to IFIs.
- Legislative provisions for senior members of the IFI to be chosen through merit-based selection criteria.

- Legislative provisions for long and non-renewable terms of office for senior management.
- Legislative provisions for dismissal procedures.
- Legislative provisions for access to information.

10.6.4.2 Predictable funding proportional to the mandate of the IFI

The financing of the IFI should not be at the discretion of the executive. This could be achieved by either making appropriation for the IFI a separate line item in the budget or safeguarding multi-year financing for the IFI.

10.6.4.3 Legislative provisions for the IFI channels of influence

Specific legislative provisions for the IFI freedom to communicate its work is vital. There should be specific legislative provisions for unrestricted access to the media for the IFI. The IFI should also be legally obligated to publish, in advance, the calendar of its publications and press conferences to eliminate misunderstandings related to the timing of communications as being purposely either sympathetic or unfavourable to the executive.

10.6.4.4 IFI inputs to the budget process

The IFI inputs into the budget should be prescribed in the legislation. This should be through legislative provisions that limit the requests for costing of policy and legislation and ad hoc analyses to the capacity of the IFI to enable the IFI to develop its own work programme independently. The IFI should be given legislative power to decline some requests.

In the South African context, these policy lessons highlight the need to strengthen the independence of the SAPBO and the FFC through legislation and predictable funding.

10.7 Composition and institutional models

10.7.1 Summary of findings and analysis

The composition of an IFI is vital for its effectiveness and independence. The institutional models are also crucial in affirming the independence of IFIs. The results in Table 10.6 show the composition and institutional model assessment using five indicators for composition: academics, policy experts, politicians, civil servants, and other. Three indicators are used for institutional models: parliamentary budget office, under the executive, and stand-alone institution.

Table 10.6: Assessment of IFIs: composition and institutional models

Country	Name of IFI	Academics	Policy experts	Politicians	Civil servants	Other	Parliamentary Budget Office	Under the executive	Stand-alone institution
Belgium	High Council of Finance	No	Yes	No	No	Yes		Yes	
Canada	Parliamentary Budget Officer	Yes	Yes	No	Yes	Yes	Yes		
Korea	National Assembly Budget Office	Yes	Yes	Yes	Yes	Yes	Yes		
Slovakia	Council for Budget Responsibility	Yes	Yes	Yes	Yes	Yes			Yes
United Kingdom	Congressional Budget Office	Yes	Yes	Yes	Yes	Yes		Yes	
United States	Office for Budget Responsibility	Yes	Yes	Yes	Yes	Yes	Yes		
Uganda	Parliamentary Budget Office	No	No	Yes	Yes	Yes	Yes		

The results in Table 10.6 above show that almost three-quarters (5 of 7) of the IFIs assessed have academics as senior members, 6 of 7 as policy experts, 5 of 7 as politicians, and 6 of 7 as civil servants. All of the IFIs assessed have other senior members who do not fall squarely into the abovementioned categories. In terms of institutional models, the majority of the IFIs assessed (4 of 7) are parliamentary budget offices, 2 of 7 are under the executive, and only 1 of 7 is a stand-alone institution.

10.7.2 Assessment of SAPBO

Table 10.7 below presents the results of the assessment of the composition and institutional model of the South African PBO using five indicators for composition: academics, policy experts, politicians, civil servants, and other. Three indicators are used for institutional models: parliamentary budget office, under the executive, and stand-alone institution.

Table 10.7: Assessment of the composition and institutional models of the SAPBO

Country	Name of IFI	Academics	Policy experts	Politicians	Civil servants	Other	Parliamentary Budget Office	Under the executive	Stand-alone institution
South Africa	Parliamentary Budget Office	Yes	Yes	No	Yes	No	Yes	No	No

The results in Table 10.7 above show that most senior members of the SAPBO are academics, policy experts, and civil servants. The SAPBO falls under the parliamentary budget office institutional model. The analysis shows that the SAPBO follows the best international practice in the constitution of its senior management teams.

10.7.3 Policy lessons

10.7.3.1 Composition

For the IFI to have the ability to enhance fiscal outcomes over time and safeguard its independence, it should be composed of senior members who are experts in the management of public finances, supported by staff who are capable of collecting relevant data, offering vital inputs, mandated analyses, and administrative functions. The senior members of the IFI and the technical staff should have proficiency in economic forecasting and public finance management. The international best practice expressed in this policy lesson is well followed by the SAPBO.

10.7.3.2 Institutional models

The stand-alone institution model should be preferred to alternative models because it offers the best guarantees of legal and functional independence. Moreover, it is more likely than other models to entail a strong legal foundation and independent personnel policy, including conceivably employment and remuneration beyond the limitations of the civil service. The SAPBO and the Commission are under the legislature and the executive respectively. This underscore the need to create standalone IFIs in South Africa to better improve fiscal governance.

10.7.4 Compliance and impact

10.7.4.1 Summary of findings and analysis

The impact and the response of fiscal authorities to opinions and recommendations offered by the IFI are vital aspects of its effectiveness. The influence of the IFI on policy formulation and execution is essentially a function of both the uptake and adoption of its recommendations. Table 10.8 Table 10.8 below shows compliance and impact assessment results of the IFIs using five indicators: forecasts used in the budget, binding forecasts, comply or explain, formal consultations or hearings, and stalling of the budget process.

Table 10.8: Assessment of IFIs: compliance and impact

Country	Name of IFI	Forecast used in budget	Binding forecasts	Comply or explain	Formal consolations or hearings	Stalling the budget
Belgium	High Council of Finance	No	No	Yes	No	No
Canada	Parliamentary Budget Officer	No	No	No	No	No
Korea	National Assembly Budget Office	Yes	No	No	No	No
Slovakia	Council for Budget Responsibility	No	No	No	No	No

Country	Name of IFI	Forecast used in budget	Binding forecasts	Comply or explain	Formal consolations or hearings	Stalling the budget
United Kingdom	Congressional Budget Office	Yes	No	Yes	Yes	No
United States	Office for Budget Responsibility	No	No	No	No	No
Uganda	Parliamentary Budget Office	No	No	No	No	No

The results in Table 10.8 above show that less than a third (2 of 7) of the IFIs assessed produce macroeconomic and fiscal forecasts that are used in the budget, 2 of 7 require fiscal authorities to either comply or explain any deviations from the forecasts and recommendations of IFIs, only one 1 of 7 is mandated to have formal consultation or hearing as part of the budget formulation to interact directly with the stakeholders responsible for budget preparation. None of the IFIs assessed were mandated to produce forecasts that are binding for fiscal policy. Similarly, none of the IFIs assessed were permitted to halt the budgetary process if it has serious reservations about it.

10.7.4.2 Assessment of SAPBO

Table 10.9 below presents the compliance and impact assessment results of the SAPBO using five indicators: forecasts used in the budget, binding forecasts, comply or explain, formal consultations or hearings, and stalling of the budget process.

Table 10.9: Compliance and impact assessment of the SAPBO

Country	Name of IFI	Forecast used in budget	Binding forecasts	Comply or explain	Formal consultations or hearings	Stalling the budget
South Africa	Parliamentary Budget Office	No	No	No	No	No

The results in Talbe 10.9 above show that the South African PBO does not produce macroeconomic and fiscal forecasts that are used in the budget, is not mandated to make formal recommendations that require fiscal authorities to either comply or explain any deviations from them, is not mandated to have formal consultation or hearing as part of the budget formulation to interact directly with the stakeholders responsible for budget preparation, is not mandated to produce forecasts that are binding for fiscal policy, and is not empowered to halt the budgetary process if it has serious reservation about it.

10.7.5 Forecasting and monitoring of fiscal rules

It is complicated to quantitatively evaluate the impact of IFIs on fiscal outcomes; however, the evidence presented in the international cases studies reported in this paper suggests that these

institutions do play valuable roles in budgetary processes. Their impact on fiscal outcomes is mainly through their leading functions, producing, endorsing, or assessing macroeconomic forecasts to underpin budgetary planning and the monitoring of compliance with fiscal rules. According to the evidence presented in the case studies, the accuracy of macroeconomic forecasting appears to have improved in tandem with the IFIs' role of producing and endorsing macroeconomic and budgetary forecasts. In South Africa, in the past ten years, the policy planning process has been characterised by consistent overestimation of GDP growth, and in recent times, inflation has also been overpredicted. The national governments budgets have consistently been optimistic regarding GDP growth since 2008/09 and budject projections have overestimated inflation since 2016. These consistsent errors in projections could have influenced policy decisions, such as planned expenditures and public and private wage negotiations[46]. This underscores the need for the SAPBO and the Commission to validate macroeconomic and fiscal forecasts and to monitor fiscal rules as already articulated above.

10.7.6 Comply or explain principle

IFIs are advisory entities, and their evaluations and recommendations are directed at fiscal authorities who are expected to consider them in their budget formulation deliberations. The means through which to balance the advisory role of IFIs on the one hand, while preserving governments' prerogative to manage fiscal policy on the other is through the comply-or-explain principle, which is essentially an obligation on government to publicly explain the justifications for deviating from recommendations offered by an IFI.

The comply-or-explain principle is vital in impacting fiscal outcomes through the public debate it triggers. It ensures that fiscal authorities act transparently and responsibly in fiscal matters. This eventually improves the operationalisation of transparency and accountability associated with the scrutiny from IFIs. The comply-or-explain principle plays a pre-emptive role because fiscal authorities adopt the potential confrontation with the IFIs in their proposals. However, the practical implementation of the comply-or-explain principle suffers from some significant challenges that hamper its ability for improving the visibility and quality of fiscal policy debates and underscores the need for its strengthening.

In South Africa, the comply-or-explain principle is only applicable to the Commission and not the SAPBO. This highlights the need to extend it to cover the SAPBO. There is also a need to strengthen the current comply-or-explain principle with regards to specific timelines, scope, degree of coverage and extent as well as legal ramification for contravention.

[46] See Hausmann, Ricardo, Federico Sturzenegger, Patricio Goldstein, Frank Muci, and Douglas Barrios. "Macroeconomic risks after a decade of microeconomic turbulence." CID Working Paper Series 2022.404, Harvard University, Cambridge, MA, January 2022.

10.7.7 Policy lessons

10.7.7.1 Compliance and impact

For an IFI to have an impact on fiscal outcomes, it should monitor compliance with national fiscal rules and produce or at least validate macroeconomic and budgetary forecasts used for budget preparation. The IFI should also have a right to comment and issue recommendations on any fiscal policy issue to which fiscal authorities should, by law, comply with or explain any deviations. This policy lesson highlights the need for the mandates and functions of the SAPBO and the Commission to be reviewed to cater for the functions which are crucial for compliance and impact.

10.7.7.2 Transparency and impact

An IFI should enhance fiscal transparency by increasing the level of understanding of the government's underlying financial position and the risks around it. This policy lesson underscores the need to improve the accessibility of information for the SAPBO and the Commission.

10.8 Conclusions and recommendation

10.8.1 Conclusions

IFIs are swiftly evolving into robust fiscal institutions and budgetary frameworks with a significant impact on fiscal outcomes. These institutions have become more prominent and relevant in the aftermath of the global financial crisis and Covid-19 pandemic. Whereas they were initially associated primarily with advanced economies, their prevalence has permeated into middle- and low-income economies.

Emerging markets economies such as South Africa are confronted by distinctive macroeconomic and fiscal management challenges, including vulnerability to external shocks and natural disasters. These challenges require prudent budgeting and forecasting, coupled with fiscal buffers to be resolved. IFIs can enhance the implementation of these prerequisites through conservative fiscal projections that encompass the effects of exogenous economic shocks. They can also assist in anchoring budget formulation and implementation of fiscal rules or other sustainable objectives, thus ensuring that public funds are closely aligned to sustainable and long-term benefits.

The international case studies of the IFIs conducted by this study show that institutional models, mandates and functions, and the governance structures of these institutions differ substantially. Most of the IFIs assessed have leveraged a mixture of experts from private, academic, and civil service sectors to constitute their governance structures.

The legal and operational independence of these institutions also differs significantly. Some IFIs are only mandated to offer positive analyses of policies, with restricted remit to bind fiscal authorities to their recommendations. At the same time, some are empowered to produce alternate fiscal forecasts and recommendations and compel compliance with their suggestions.

The assessment of the IFIs shows that they have been able to influence fiscal outcomes to a relative degree, which is subject to their design, resourcing, and mandates. Those IFIs that are highly protected from government interference, with the more flexibility to hire their staff and control their budgets, anchor recommendations in fiscal rules, or any quantitative objectives can achieve stronger fiscal outcomes.

The analysis of this study shows that there are helpful policy lessons for South Africa. The key policy message is that in reforming its IFIs, South Africa must ensure that it effectively contributes to formulating and executing more sustainable and stabilising fiscal policies.

10.8.2 Recommendations

The Commission makes the following recommendations:

1. *Government macroeconomic and fiscal forecasts should be endorsed by the SAPBO and the Commission. The forecasts should also be supported by extensive engagements as well as information-sharing between the National Treasury, SAPBO, and the Commission. The endorsement process must be formalised through a memorandum of understanding (MoU). The MoU should establish documents for which endorsement is carried out; general criteria for endorsement including baseline and planned scenario; timeline and requirements for information exchange; and modalities for issuing an endorsement.*

2. *The SAPBO and the Commission should cost all government policy or legislation that has an impact on fiscal policy. The costing of government policy and legislation must entail: firstly, establishing the baseline and determining how the activity affected by the policy measure would be expected to develop in the absence of the measure. Secondly, estimating the static effect or fiscal impact of the new policy or legislation before allowing for any behavioural or economic responses. Thirdly, estimating behavioural or first-round effect by capturing the behavioural responses of specific groups that are directly affected by the policy or legislation change.*

3. *Government should establish fiscal rules or objectives. The SAPBO and the Commission should monitor compliance with the fiscal rules or objectives. The monitoring of fiscal rules should be supported by legislation that provides for the SAPBO and the Commission to publish timely assessments, both forward-looking as well as backward-looking, of fiscal rules, , and covering all fiscal rules in force.*

With respect to improving the independence of IFIs in South Africa, the Commission makes the following recommendations:

1. *Government should establish a process of periodically reviewing the operational independence of the SAPBO and the Commission. This process should entail an effective mechanism consisting of a set of minimum standards to detect any changes*

impeding the operational independence of these institutions. An infringement procedure as a legal instrument to enforce the minimum standards should also be established to ensure effective implementation. Moreover, the government should enhance the independence of the SAPBO and the Commission by ensuring legal safeguards in providing continuous and predictable funding set out for a multiannual period and equipping these institutions with the flexibility to use their budgets.

2. *The Commission and SAPBO should be provided with timely and comprehensive access to relevant information, including the methodologies, assumptions, and data used by the National Treasury in budgetary planning. The National Treasury should provide a standard set of data and additional data on request by the Commission and the SAPBO. The Commission and the SAPBO should participate in committees at the national level dealing with accounting and statistical issues related to government fiscal data. The access to information should also be codified in legal provisions and reinforced through specific mechanisms with all levels of government and all government entities. Any restrictions on access to information should be clearly legislated. The access to information should be formalised in an MoU between the National Treasury, the Commission, and the SAPBO.*

With respect to improving the compliance and impact of IFIs in South Africa, the Commission makes the following recommendations:

1. *The legal basis for the compliance and explanation of deviance from the recommendation principle for the Commission must be strengthened and also extended to cover the SAPBO. The government must be obliged to respond to the assessment of the Commission and the SAPBO within deadlines defined by legislation. The comply-or-explain principle should cover all reports issued by the SAPBO and the Commission. The role of the Commission and the SAPBO should be reinforced through the right to initiate an effective legal remedy if governments deliberately flout fiscal rules. The National Treasury's response to the Commission and the SAPBO should contain all the relevant information, including the proper degree of detail, to ensure its full effectiveness.*

2. *The Commission and the SAPBO should be formally consulted on budget formulation and execution. The National Treasury should prepare the projection of the economy and of the budget under unchanged policies and present them to the Commission and the SAPBO for evaluation. The resultant interaction between the National Treasury, the Commission, and the SAPBO should produce a medium-term budgetary plan. This consultation process should be formalised in an MoU between the National Treasury, the Commission, and the SAPBO.*

10.9 References

Acemoglu, D. 2012. Introduction to economic growth. *Journal of Economic Theory, 147(2),* pp. 545-550.

Alesina, A. and Passalacqua, A. 2016. The political economy of government debt. *Handbook of Macroeconomics ,* Volume 2, pp. 2599-2651.

Anderson, B. 2006. *The Value of a Nonpartisan, Independent, Objective Analytic Unit to the Legislative Role in Budget Preparation* Paper presented at the World Bank Institute Workshop on Parliamentary Budget Offices, May 15-17, BangKok: National Democratic Institute for International Affaires.

Asatryan, Z., Castellon, C. and Stratmann, T. 2016. Balanced budget rules and fiscal outcomes: Evidence from historical constitutions. *Journal of Public Economics,* Volume 167, pp. 105-119.

Badinger, H. and Reuter, W. H. 2017. The case for fiscal rules. *Economic Modelling,* Volume 60, pp. 334-343.

Ball, L., Furceri, D., Leigh, M. and Loungani, M. 2013. The distribution effects of fiscal consolidation. *IMF,* pp. 13-155.

Beetsma, R. and Debrun, X. 2007. The new stability and growth past: A first assessment. *European Economic Review,* Volume 51(2), pp. 453-477.

Beetsma, R. and Debrun, X. 2017. *Fiscal Councils: Rationale and Effectiveness,* Chapter 5 in Ódor, L. (ed.) Rethinking Fiscal Policy After the Crisis. Cambridge: Cambridge University Press.

Beetsma, R., Debrun, X., Fang, X., Kim, Y., Liedo, V., Mbaye, S. and Zhang, X. 2019. Independent fiscal councils: Recent trends and performance. *European Journal of Political Economy,* Volume 57, pp. 53-69.

Beetsma, R. M. W. J and Debrun, X. 2018. *Independent fiscal councils: Watchdogs or lapdogs?.* London, UK: Centre for Economic Policy Research (CEPR) Press.

Bisase, M. 2017. The Role of Parliamentary Budget Office (PBO) in the Budget Cycle and Fiscal Oversight Function of Parliament (Ugandan Experience). *Paper Presented at the 2nd African Network of Parliamentary Budget Offices, AN-PBO Conference, 15–18 August 2017, Cape Town*. [Online] Available at: https://www.parliament.gov.za/storage/app/media/PBO/conf2017/presentation/Role_of_PBO_in_the_Budget_Cycle_Uganda_ANPBO_Aug2017.PDF [Accessed 24 March 2022].

Bogaert, H., Dobbelaere, L., Hertveldt, B. and Lebrun, I., 2006. Fiscal Councils, Independent Forecasts and the Budgetary Process: Lessons from the Belgian Case. *Working Paper 4-06, Federal Planning Bureau.*

Calmfors, L. and Wren-Lewis, S. 2011. What Should Fiscal Councils Do?. *Economic policy,* Volume 26, pp. 649-695.

Coene, L. 2010. Lessons from Belgium, Paper presented at the conference "Independent Fiscal Institution". Budapest, Fiscal Council of Hungary.

Coene, L. and Langenus, G. 2011. Promoting fiscal discipline in a federal country: the mixed track record of Belgium's High Council of Finance. *Wirtschaftspolitische Blätter,* Volume 58(1), pp. 11-35.

Coletta, G., Graziano, C. and Infantino, G. 2015. Do fiscal councils impact fiscal performance?. *Ministry of Economy and Finance.*

Debrun, X., Gerald, M. and Harris, J. 2012. *Fiscal policies in crisis mode: Has the time for fiscal council come at last?* Paper presented at: Fourth Annual Meeting of OECD Parliamentary Budget Officials and Independent Fiscal Institutions.

Debrun, X., Hauner, D. and Kumar, M. 2009. Independent Fiscal Agencies. *Journal of Economic Surveys,* 23(1), pp. 44-81.

Debrun, X. and Kinda, T. 2014. Strengthening Post-Crisis Fiscal Credibility: Fiscal councils on the rise-a new dataset, IMF Working Paper WP/14/58.

Debrun, X. and Kinda, T., 2017. Strengthening post-crisis fiscal credibility: fiscal councils on the rise-a new dataset. *Fiscal Studies,* Volume 38(4), pp. 667-700.

Debrun, X. and Kumar, M., 2007. "Fiscal rules, fiscal councils and all that: commitment devices, signaling tools or smokescreens?" in: Banca d'Italia (eds.) Fiscal Policy: Current Issues and Challenges, Papers presented at the Banca d'Italia workshop held in Perugia, 29–31 March 2007. pp. 479-512.

Debrun, X., Nicol, S., McHale, J. and Hers, J. 2020. OECD Review of the Slovak Council for Budget Responsibility (CBR). *OECD Independent Fiscal Institutions Review.*

Dell'Erba, S. and Sola, S. 2016. Does fiscal policy affect interest rates? Evidence from a factor-augmented panel. *The BE Journal of Macroeconomics,* Volume 16(2), pp. 395-437.

Elgie, R. and McMenamin, I. 2008. Political fragmentation, fiscal deficits and political institutionalisation. *Public Choice,* Volume 136(3), pp. 255-267.

European Commission , 2006. National numerical rules and institutions for sound public finances. *In public finances in EMU,* Volume 3.

European Commission. 2008. Public Finance in EMU—2008, Brussels, Belgium: European.

European Commission. 2019. *Debt Sustainability Monitor 2019,* Brussels: European Economy.

Eyraud, L. and Wu, M. T. 2015. Playing by the rules: Reforming fiscal governance in Europe. *IMF Working Paper WP/15/6,* pp. 15-67.

Faini, R. 2006. Fiscal policy and interest rates in Europe. *Economic policy,* Volume 21(47), pp. 444-489.

Fatàs, A. et al. 2003. Stability and growth in Europe: Towards a better pact, Monitoring European Integration 13. London: Centre for Economic Policy Research.

Giosi, A., Testarmata, S., Brunelli, S. and Staglianò, B. 2014. The dimensions of fiscal governance as the cornerstone of public finance sustainability: A general framework.

Journal of Public Budgeting, Accounting and Financial Management, Volume 26(1), pp. 94-139.

Grossman, G. M. and Krueger, A. B. 1995. Economic growth and the environment. *The Quarterly Journal of Economics, 110(2),* pp. 353-377.

Guichard, S., Kennedy, M., Wurzel, E. and Andre, C. 2007. What promotes fiscal consolidation: OECD country experiences. *OECD Economics working paper,* Volume 553.

Hagemann, R. 2010. Improving Fiscal Performance through Fiscal Councils. Issue working paper, No 829.

Halleberg, M. and Von Hagen, J. 1999. Electoral institutions, cabinet negotiations, and budget deficits in the European Union. *In Fiscal Institutions and Fiscal Performance,* pp. 209-232.

Hallerberg, M., Strauch, R. and Von Hagen, J. 2007. The design of fiscal rules and forms of governance in European Union countries. *European Journal of Political Economy,* Volume 23(2), pp. 338-359.

Hallerberg, M. and Yläoutinen, S. 2010. Political power, fiscal institutions and budgetary outcomes in central and Eastern Europe. *Journal of Public Policy,* Volume 30(1), pp. 45-62.

Hemming, R. and Philip, J. 2013. The Role of Fiscal councils in Promoting Fiscal councils in promoting fiscal responsibility, in Marco Cangiano, Teresa Curristine and Michael Lazare (eds.), Public Financial Management and its Emerging Architecture. Washington: IMF.

High Council of Finance, n.d.. Institutionele Geschiedenis van de Hoge Raad van Financiën: Opdracht. *High Council of Finance, Brussels.*

Horváth, M. and Ódor, L. 2009. Making Fiscal Commitments Credible: Institutions for a Responsible and Transparent Fiscal Policy in Slovakia. *Working and Discussion Papers DP 2/2009, Research Department of the National Bank of Slovakia.*

IMF. 2009. Fiscal rules-Anchoring Expectations for sustainable public finances.

IMF. 2013. Case Studies of Fiscal Councils - Functions and Impact. *IMF Policy Papers.*

IMF. 2017. Fiscal Rule Dataset 1985-2015, Washington: IMF.

Jahed, M. 2016. African Network of Parliamentary Budget Offices Conference. Paper delivered at 1st African PBO Conference, Cape Town: Parliamentary Budget Office.

Jahed, M. 2020. The role of Parliamentary Budget Offices in Participatory Budgeting: Considerations for the South African Parliamentary Budget Office. *Administration Publication,* 28(2), pp. 1-75.

Jankovics, L. and Sherwood, M. 2017. Independent Fiscal Institutions in the EU Member States: The Early Years, Brussels: European Economy.

Joyce, P. 2011. The Congressional Budget Office: Honest Number, Power, and Policymaking. Washington DC: Georgetown University Press.

Kennedy, S. and Robbins, J. 2003. The role of fiscal rules in determining fiscal performance. *Partially updated version of department of finance working paper 2001-16.*

Khumalo, B. 2016. Fiscal Oversight by Legislatures and the Role of Parliamentary Budget Offices. Paper delivered at 1st African PBO Conference. Cape Town, Financial and Fiscal Commission.

Klomp, J. and de Haan, J. 2016. Election cycles in natural resources rents: Empirical evidence. *Journal of Development Economics,* Volume 121, pp. 79-93.

Kopits, G. 2011. Independent Fiscal Institutions: Developing Good Practices. *OECD Journal on Budgeting,* 11(3).

Krogstrup, S. and Wyplosz, C. 2006. A Common Pool Theory of Deficit Bias correction. *European Economy,* Volume 275, pp. 1-29.

Krogstrup, S. and Wyplosz, C. 2010. A common pool theory of supranational deficit ceilings. *European Economic Review,* Volume 54(2), pp. 269-278.

Lane,J.E. 2013. The principal-agent approach to politics: Policy implementation and public policy-making. *Open Journal of Political Science,* Volume 3(02), pp. 85-89.

Larch, M. and Turrini, A. 2011. Received Wisdom and beyond: Lessons from Fiscal consolidation in the EU. *National Institute Economic Review,* Volume 217(1).

Lennan, A. 2018. The power of the Purse: Fiscal oversight and the South African Parliamentary Budget Office. *Africa Journal of Public Sector Development and Governance,* 1(1), pp. 1-105.

Moon, S. 2012. Country Learning Notes; Uganda: the parliamentary budget office. *Budget Strengthening Initiative.*

Morgan, P. and Trinh, L. Q. 2017. Frameworks for central-local government relations and fiscal sustainability. *In Central and local government relations in Asia.*

Muller, S. 2016. *why-South-Africas-public-finance-watchdog-failed-its-mandate-on-nuclear.* [Online] Available at: https://theconversation.com/why-south-africas-public-finance-watchdog-failed-its-mandate-on-nuclear-65128

Muller, S. 2019. *South-Africa-needs-a-functioning-parliamentary-budget-office-nows-the-time-to-fix-it-117555.* [Online] Available at: https://theconversation.com/south-africa-needs-a-functioning-parliamentary-budget-office-nows-the-time-to-fix-it-117555

Mushemeza, E. 2015. The legislature and Budget oversight: A comparative study of selected countries in the East Africa community. *Acode Policy Research paper,* Volume 71.

Nabieu, A., Bokpin, G., Osei, A. and Asumin, P. 2020. The effects of fiscal governance on fiscal performance in Sub-Saharan Africa. *International Journal of Finance and Economics.*

Nerlich, C. and Reuter, W. 2013. The design of national fiscal frameworks and their budgetary impact. *ECB Working Paper Series 1588,* pp. 1-30.

OECD. 2012. Draft Principles for Fiscal Institutions, Annex: Draft Country Notes, Paris: s.n.

OECD. 2014. Recommendation of the Council on Principles for Independent Fiscal Institutions.

OECD. 2015. OECD Economic Surveys: Belgium 2015, Paris: s.n.

Page, K. and Yalkin, T. R. 2013. *Canada: Oversight with Qualified Independence*, in G. Kopits (ed.), Restoring Public Debt Sustainability: The Role of Independent Fiscal Institutions. Oxford University Press, pp. 166-188.

Parliamentary Budget Office, 2016. Parliament of Uganda: Revised Budget Handbook.

Pirdal, B. 2016. The link between taxation and fiscal governance. Paper presented at ICPESS (International Congress on politic, economic, and social studies).

Porubský, J. 2011. Dlh pripravuje o suverenitu. *Business Consulting and Media Ltd,* pp. 18-19.

Poterba, J. M. and Von Hagen, J. 1999. *Introduction to fiscal institutions and fiscal performance.* In Fiscal institutions and fiscal performance. Chicago: University of Chicago Press.

Poterba, M. 1994. State responses to fiscal crisis: the effects of budgetary institutions and politics. *Journal of Political Economy,* Volume 102(4), pp. 799-821.

Primo, D. 2006. Stop us before we spend again: Institutional constraints on government spending. *Economics and Politics,* Volume 18(3), pp. 269-312.

Sacchi, A. and Salotti, S. 2015. The impact of national fiscal rules on the stabilisation function of fiscal policy. *European Journal of Political Economy,* Volume 37, pp. 1-20.

Saunders, F. 2014. The promise of common-pool resource theory and the reality of commons projects. *International Journal of the Commons,* Volume 8(2), pp. 636-656.

Schaechter, A., Kinda, T., Budina, N. and Weber, A. 2012. Fiscal rules in response to the crisis: Towards the 'Next-Generation' rules A new dataset, IMF working paper 12/187.

Sundelson, J. W. 1935. Budgetary Principles. *Political Science Quarterly,* Volume 50(2), pp. 236-263.

Tapsoba, R. 2012. Do national numerical fiscal rules really shape fiscal behaviours in developing countries? A treatment effect evaluation. *Economic Modelling,* Volume 29(4), pp. 135-136.

Usman, W. 2016. *who-watches-the-watchmen-lessons-from-Ugandas-budget-office-61093.* [Online]
Available at: https://theconversation.com/who-watches-the-watchmen-lessons-from-ugandas-budget-office-61093 [Accessed 11 October 2021].

Velasco, A. 1999. A model of endogenous fiscal deficits and delayed fiscal reforms. *In Fiscal institutions and fiscal performance,* pp. 37-58.

Velasco, A. 2000. Debts and deficits with fragmented fiscal policymaking. *Journal of Public Economics,* Volume 76(1), pp. 105-125.

Vlad, C., Ibadula, B. and Brezeanu, P. 2016. The role of fiscal policies in the relation between public governance and economic performance at the EU level. *Theoretical and Applied Economics,* Volume 23(1), pp. 244-250.

Volkerink, B. and De Haan, J. 2001. Fragmented government effects on fiscal policy: New evidence. *Public Choice,* Volume 109(3), pp. 221-242.

Von Hagen, J. and Harden, I. J. 1995. Budget processes and commitment to fiscal discipline. *European Economic Review,* Volume 39(3), pp. 771-779.

Von Trapp, L., Lienert, I. and Wehner, J. 2016. Principles for independent fiscal institutions and case studies. *OECD Journal on Budgeting,* Volume 2015/2, pp. 9-24.

Wright, A. and Grenade, K. 2018. The Bahamas Fiscal Responsibility Bill 2018: Some Observations and Practical Guidance for Implementation Effectiveness. *Inter-American Development Bank Policy Brief.*

Wyplosz, C. 2005. Fiscal Policy: Institutions versus Rules. *National Institute Economic Review*, Volume 191, pp. 64-78.

Zacky, M. 2016. Fiscal Governance in Egypt: Strengthening Budgetary Institutions to counteract political fragmentation. Paper presented at: Economic Research forum working papers.

10.10 Appendix 1: International case studies

The analysis of the international case studies is largely premised on the key features of the IFIs. These features include the following:

Mandate and functions

The mandate and functions of the IFIs are assessed in line with the literature prescripts, which include whether they offer impartial examination (positive or normative) of current fiscal developments; evaluate medium and long-term fiscal sustainability; generate independent macroeconomic forecasts; evaluate the suitability of the fiscal policy stance and make associated recommendations; monitor compliance with fiscal rules; and produce public reports on findings (Wright and Grenade, 2018).

Composition and independence

The independence of the IFIs is assessed in alignment with the literature guidance through an evaluation of whether their independence is guaranteed in legislation, independent management of their day-to-day operations; adequate safeguards on their budgetary resources; the right to select their own staff; and what the appointing and dismissal authority for IFIs members is (Kopits, 2011).

The composition of the IFIs is assessed through whether the IFIs principals are experts in public finance and fiscal policy management and are supported by staff with expertise in economic forecasting and public finance. Essentially the evaluation determines whether the composition of the IFIs principals and staff consist of academics, policy experts, politicians, and civil servants.

Compliance and impact

The literature outlines five channels through which IFIs can impact the budget process and, subsequently, fiscal policy outcomes. These channels include the existence of a veto right; the use of IFI macroeconomic and fiscal forecasts in budget preparation; a legislative requirement for the government to comply with the IFI recommendations or to publicly explain why it disagrees; formal consultations with veto players; and a strong media presence shaping public opinion (IMF, 2013). It is worth noting that these channels are not exhaustive of the most appropriate channels through which IFI activities can affect fiscal policy outcomes. Moreover, these channels have varying applications to specific countries. The compliance and impact of IFIs on fiscal policy outputs is assessed using some of these channels.

The compliance and impact of the IFIs is also assessed through the requirement for compliance or responses from fiscal authorities to their recommendations. The main requirements in this regard include whether IFI forecasts are used as inputs into the budget and are binding for the budgetary and fiscal policy formulation; whether governments are expected to either comply or

explain their rationale for not including IFI forecasts in budgets; whether formal consultations are legally mandated to discuss the views and recommendations of IFIs; and whether an IFI can stop the budget process if it considers this to be required.

Belgium (High Council of Finance)

Context

Belgium has two IFIs that participate in the budget process. The High Council of Finance (HCF) is entrusted with the production of prescriptive recommendations and assessments of fiscal policy, and the Federal Planning Bureau (FPB) generates macro-economic forecasts for the budget. The HCF is the oldest IFI, having been established by a 1936 royal decree in order to merge five previously existing advisory bodies (High Council of Finance, n.d.)

The HCF has undergone a number of reforms, and as a consequence, its influence on fiscal policy has fluctuated. The structure and mandate of the HCF were fundamentally changed in 1989 in alignment with the constitutional reform progression to a federal government. The HCF transformation was premised on the need to harmonise macroeconomic and budgetary stability with increased subnational fiscal autonomy. The reform resulted in the creation of the public sector borrowing requirements (PSBR) and specific competencies for intergovernmental fiscal coordination. The HCF structure and mandate was further updated in 2006 to incorporate the taxation and social security contributions in order to align it with the tax revenues collected by the federal government on behalf of local governments.

In alignment with the EU's stability and growth pact (SGT) prescripts of 3 per cent domestic fiscal deficit and 60 per cent national debt limits, Belgium established an annual stability programme that has operated since 1998 for medium-term budget targets that guide annual budgets.

Legal basis for establishment

The HCF was established by the Royal Decree of 1936, Establishing a High Council of Finance[47]. The reforms in 1967 and 1981 established the PSBR as part of the HCF through article 49, section 6 of the Special Law of 1989 on the Financing of Communities and Regions[48]. The Royal Decree

[47] See Royal Decree Establishing a High Council of Finance (Koninklijk besluit houdende instelling van een hoogenraad van financiën/Arrêté royal instituant un Conseil supérieur des Finances), 31 January 1936.
[48] See Special Law of 16 January 1989 on the Financing of Communities and Regions (Bijzondere wet betreffende de financiering van de Gemeenschappen en Gewesten/Loi spéciale relative au financement des Communautés et des Régions), 16 January 1989.

of 2006 on the HCF established its current structure[49]. Additional functions of PSBR were enacted through the co-operation agreement of 2013[50].

Mandate and functions

The overarching mandate of the HCF is to advise the Minister of Finance and the Minister of Budget on the development of fiscal, financial, and budgetary policy in accordance with Article 2 of the 2006 decree. The mandate of the PSBR, according to the 1989 Special Law, is to prepare an annual opinion on the financing needs of governments.

The functions of the HCF, according to the OECD Economic Survey of Belgium (OECD, 2015), are as follows:

- To deliver an opinion with recommended multi-annual budget targets to promote fiscal sustainability in the medium and long term. These targets are set in nominal and structural terms for each level of government, considering a fair burden-sharing of the fiscal consolidation efforts.
- To monitor budget outcomes and, in the event of any significant deviation from targets, issue a correction mechanism including guidance on the implementation of additional consolidation measures in a limited timeframe to attain the target. The HFC also monitors the implementation of these corrective measures.
- To give advice, either at the request of the federal Minister of Finance or on its own initiative, on issues related to taxation and social security contributions as well as annual opinion on the tax revenues collected by the federal government on behalf of local governments.
- To publish an annual report on the budgetary and social consequences of ageing through the study group on ageing.
- To monitor the fiscal policy of the regional governments.
- To monitor compliance with the stability programme.
- To evaluate the medium- to long-term budget outlook and recommend the budget targets for the general government and its subsectors and individual federal entities.

The HCF mandate excludes macroeconomic and fiscal forecasting but entails conducting normative analysis and providing recommendations on fiscal policy. It also involves monitoring compliance with fiscal rules and publishing public reports on its findings.

[49] See Royal Decree on the High Council of Finance (Koninklijk besluit betreffende de Hoge Raad van Financiën/Arrêté royal relatif au Conseil supérieur des Finances), 3 April 2006.
[50] Co-operation Agreement between the federal government, the communities, the regions, and the community commissions concerning the execution of article 3 §1 of the Treaty on Stability, Co-ordination and Governance in the Economic and Monetary Union, 13 December 2013.

Structure and composition; appointing and dismissal authority; and independence

The HCF is headed by the Minister of Finance, who also appoints two deputy chairs. The HCF is supported by a secretariat of 12 full-time staff. The secretariat consists of civil servants in the research unit of the department of Federal Public Service Finance. The HCF is funded by the department of Federal Public Service Finance.

The HCF team is made up of 24 members who are appointed for five-year renewable terms. The HCF membership is largely informed by economic and tax expertise as well as regional and linguistic diversity. Twelve of the HCF team members are recommended by gederal ministries and the other 12 by sub-national governments. The HCF is subdivided into the PSBR and the taxation and social security contributions. The PSBR section is made up of 12 members. Six of these members must be experts in budgeting and economics. Three of these members are recommended by the National Bank of Belgium, one by the Minister of Finance, one by the Minister of Budget, and one jointly by the Ministers of Finance and Budget. The Ministers of Finance and Budget also nominate another six members who must be experts in finance and economics.

The taxation and social security consists of twelve members. They must be taxation experts. One member is recommended by the government of the Walloon region if desired, one by the government of the French community if desired, two by the Flemish government if desired, and two by the government of the Brussels-capital region if desired. The other six members are nominated mainly by the government, two by the Minister of Finance, two by the Minister of Budget, one by the Minister of Social Affairs, and one by the federal planning. These recommendations are also a reflection of a balance of party-political affiliations (OECD, 2012).

The members serve in the HCF on a part-time basis. The HCF enabling legislation does not cater for the dismissal of a council member. In practice, the replacement of a member might become necessary if, for instance, he or she takes up a new position that is incompatible with work on the council. The study group on ageing is an additional structure. The HCF work programme is not overseen by an external structure. There is no oversight board or panel of advisors, nor is there a peer review mechanism in place. However, the HCF work is well received by and has been well acknowledged in the academic literature and by international financial institutions.

As earlier stated, Belgium has a second IFI, the FPB, which generates macroeconomic forecasts for the budget. The independence of the FPB is guaranteed by legislation, whereas the HCF is not. However, both institutions enjoy operational independence. The chairing of the HCF by the Minister of Finance reflects limited independence, particularly because the secretariat is also under the authority of the federal government. The inability of the HCF to adequately safeguard its budgetary resources and the absence of the right to select its own staff also signal limited independence. The HCF has adequate staff to carry out its mandate, which is important for its independence.

The chairing of the HCF by the Minister of Finance, who is also responsible for appointing the staff of the secretariat from the finance department, ensures timely access to information the council for its work. Therefore, the HCF has not been threatened with limits on access to information. Having sufficient access to information required to accomplish its objectives is also supportive of the HCF's independence.

Analysis and impact

The HCF had a larger impact in the period prior to the country being adopted into the Euro; however, its impact have since dwindled. In the pre-euro adoption period, there was a good alignment between the objectives of the HCF and those of the policymakers, and the recommendations of the HCF were mostly implemented. Consequently, over this period, the structural primary surplus increased by 5 per cent of GDP, public debt decreased, and the budget moved towards balance (Coene, 2010). In contrast, the period after Euro adoption was characterised by a divergence in criteria on fiscal policy and discipline as the HCF recommendations were ignored (Hagemann, 2010). This translated into the deterioration of the primary balance as more savings on debt interest payments were channelled to tax cuts and expenditure growth (Coene and Langenus, 2011).

An analysis of the impact of the HCF in the period after the adoption of the Euro reveal three key developments:

- In 1999, the fiscal policy outcomes were broadly in line with the HCF's recommendations, the budget forecast and budget outturn for the budget balance were largely aligned.
- In 2004, increasing divergences with the HCF's recommendations led to critical assessments of government policies. Consequently, the budget forecast and budget outturn for the budget balance began to diverge.
- In 2010, the divergence between the budget forecast and budget outturn for the budget balance substantially increased as the HCF recommendations were largely ignored.

The HCF influence is indirect. It is reliant on having a strong media presence to inform the public about its analysis and recommendations and therefore forcing the politicians to implement their recommendations. The HCF does not produce macroeconomic and fiscal forecasts. However, the macroeconomic and fiscal forecasts produced by FPB must be included in the budget and are binding for the purpose of fiscal policy formulation. The government of Belgium is legally required to explain any deviations from HCF recommendations. However, there are no required formal consultations or hearings between the government and the HCF as part of the budget formulation process. The HCF is not empowered to stall the budgetary process even if it has serious concerns.

Media coverage

The presence of the HCF in the media is important in disseminating its work to the public. The HCF media footprint coincides with its influence on fiscal policy. In the early period ahead of and during the Euro adoption, there was intense and continuous media coverage of the HCF's recommendations. The media coverage started to decline in the early 2000s, and the HCF gradually lost its influence. In 2004, the HCF began publicly criticising the government's policies, which resulted in increased media coverage. In the period when the HCF had no formal chair of the PSBR group and consequently discontinued the production of its annual report, its media coverage waned considerably. The fluctuation of the HCF influence on fiscal outcomes with its media coverage testifies to its indirect influence through its media presence, as articulated above in section 0.

Conclusion

The HCF remains an important forum for intergovernmental fiscal coordination in Belgium. It conducts normative analysis through recommendations on fiscal policy and monitors compliance with fiscal rules. The entrenchment of the HCF in the monitoring of fiscal rules means that it is more likely to be most effective in improving fiscal outcomes in Belgium because fiscal rules entail quantitative targets for budgetary outcomes, thus making HCF recommendations about such targets clearly defined and measurable.

To some extent, its independence is limited by the sharing of its fiscal monitoring role with the FPB. As a result, it does not have legal independence. While it has operational independence, this is limited because it is chaired by the Minister of Finance and its secretariat is also under the authority of the government. Its independence is further compromised by the lack of control of its financial resources. This limited independence is somewhat offset by the availability of adequate staff to carry out its mandate as well as the timely and sufficient access to information required for its work. As an IFI entrusted with the responsibility of conducting an impartial evaluation of fiscal assumptions and performance, HCF independence is vital and limited independence has serious implications for its effectiveness and impairs its ability to support improvements in fiscal outcomes.

Its influence was most evident in the initial decade after its establishment. Its recommendations were largely implemented subject to alignment with political priorities in the period leading to the adoption of the Euro. Its recommendations have been largely ignored since the adoption of the Euro. This means that the HCF's influence on fiscal policy has varied.

Canada (Parliamentary Budget Officer)

Context

The Parliamentary Budget Officer (PBO) was established in 2006 as part of a broad reform agenda by the Canadian Conservative party through the 2006 Federal Accountability Act (FAA). The

impetus for its establishment was twofold: first to offer parliamentarians technical and impartial knowledge aimed at enhancing their capacity to hold the executive to account, and second to provide an unbiased appraisal of the Department of Finance's fiscal and economic forecasts. The PBO establishment was triggered by the unreliability of the government's forecasts which had constantly undervalued budget surpluses. As a result, the period leading up to the establishment of the PBO was marred by significant cost overruns in several government programmes and the absence of budget openness. It was also evident that Parliament had no financial expertise and resources to appropriately analyse the government's complicated budgets and estimates and their effect on government programmes and legislation. This meant that Parliament was unable to completely carry out its constitutionally mandated oversight function (Page and Yalkin, 2013). The creation of the PBO was therefore supported by all parties in Parliament. The first PBO, Kevin Page, a senior civil servant with 30 years of experience, was appointed in 2008.

Legal basis for establishment

The 2006 Federal Accountability Act (FedAA) established the PBO by amending the 1985 Parliament of Canada Act[51].

Mandate and functions

The PBO has a broad mandate. It covers a wide range, including an objective analysis of the government's budget proposals and trends in the economy, reviewing the government's fiscal and economic forecasts, preparing alternative forecasts, and costing the government and legislative policy proposals (Hemming and Philip, 2013).

The Parliament of Canada Act gives the PBO a broad mandate in legislation to:

- Offer impartial analysis to both housed of parliament on public finance, the estimates of the government, and trends in the national economy.
- Undertake research on national finances and economy when requested to do so by any of the parliament committees.
- Review the estimates of the government, undertake research into those estimates, when requested to do so by parliament.
- Conduct the costing of any proposal that relates to a matter over which the Parliament has jurisdiction when requested by parliament.

[51] See Federal Accountability Act 2006 and Parliament of Canada Act 1985.

The functions of the PBO can be summarised as follows:

- It provides Parliament with a comprehensive analysis of the government's budget proposals.
- It produces fiscal forecasts based on its own model.
- It undertakes costings of policy and legislations.

The PBO does not conduct normative analysis on fiscal policy. It also does not monitor compliance with fiscal rules.

Structure and composition; appointing and dismissal authority; and independence

The PBO is an officer of the Senate and the House of Commons, who reports to the Speakers of both chambers. The Governor in Council appoints the PBO to hold office for a renewable term of not more than five years. The PBO is made up of two divisions: the economic and fiscal analysis division and the budgetary analysis and costing division. Each division is headed by an assistant PBO. The economic and fiscal analysis division offers economic and fiscal analysis, outlook, and risk assessments. The budgetary analysis and costing division examine programme costs and estimates, evaluates budgetary systems, and offers cost estimates on parliamentary proposals (Von Trapp, et al., 2016).

The PBO's analysis is presented to committees and parliamentarians and is available to the public through its website. The recommendations of the PBO are impartial, unbiased, and non-partisan. The PBO endeavours to strike a delicate balance between an independent research plan and its responses to requests from parliamentarians and committees. It has established an information protocol through the legislated provisions of the Parliament of Canada Act which provides it with free and timely access to information from departments and agencies while simultaneously providing them with clarity, predictability, and transparency for all its information requests (Hagemann, 2010).

The oversight of the PBO is through the Speakers of both houses of parliament who are supported by the Joint Standing Committee on the Library of Parliament. The Parliament of Canada Act directs the Speakers, and by the Joint Committee, to manage all the daily operations of the library and its budget.The PBO often works in partnership with other institutions such as universities, think tanks, the Canadian Association for Business Economics, the United States Congressional Budget Office, and the IMF. It also aggressively subjects its work for peer-review and external validation to ensure the rigour of the methodology and results (OECD, 2012).

The enabling legislation of the PBO guarantees its full independence in the execution of its mandate. Moreover, its independence is further fortified by the procedures for appointment and termination. The Presiding Officers can only appoint a PBO subject to the approval of the Joint Committee of Public Accounts and Audit. The PBO can only be dismissed by a majority vote by both the House of Representatives and the Senate, or in the case of insolvency. The right to select its own staff and the adequate staff to carry out its mandate further solidifies the independence of

the PBO. Its independence is only limited by its inability to adequately safeguard its budgetary resources.

Analysis and impact

The PBO has raised the alarm on a number of occasions in Parliament and the public when the government's fiscal policy was diverging from meeting its stated objectives. In 2010, for instance, the PBO told a parliamentary committee that the budget deficit was not just cyclical but also structural and consequently warned that government would face an Can$18.9 billion[52] structural deficit by 2013/14 if it failed to act[53]. In 2012, the PBO produced an alternative economic forecast and warned that economic growth would slow down to 1.9 per cent compared to the official projected growth rate of 2.2 per cent in 2012[54]. Moreover, the PBO, through its fiscal sustainability report, warned about the impact of the ageing population on the workforce and potential GDP growth.

One of the main reasons for the creation of the PBO was to improve the precision of the government's forecasts. What is evident is that since the advent of the PBO, the government estimates in revenues, expenditure, and balance have become more accurate and less pessimistic since the creation of the PBO. A comparison of the government's forecasting errors from before and after the creation of the PBO in 2008 for revenue, expenditure, and balance testifies to the improvements in accuracy. It shows that, on the main, the difference between the fiscal forecasts of the government and the PBO is now marginal. Whereas these results could not be conclusive, given the brief existence of the PBO, the contention is sustained that since the PBO started generating forecasts, it has provided competition for the government's fiscal forecasts and therefore prompted incentives to assess methodological approaches.

The methodological approaches and results of PBO work, including reports on the structural budget balance, long-term fiscal sustainability, and fiscal and economic forecasts, are constantly compared to those of the government. This translates into additional consideration and deliberations about the various methodological approaches and the nature of projections generated. In 2010, for instance, the PBO produced the maiden Canadian long-term sustainability report, which possibly prompted the government to produce its own fiscal sustainability report in 2012[55].

The PBO has produced several costings for policy and legislation. Some of the high-profile costing exercises include the long-term cost of the Canadian mission in Afghanistan, which the

[52] In this paper, Can$ is the abbreviation used for the Canadian dollar.
[53] See Office of the Parliamentary Budget Officer, Estimating Potential GDP and the Government's Structural Budget Balance Ottawa, Canada, January 13, 2010
[54] See PBO Economic and Fiscal Outlook Ottawa, Canada April 24, 2012
[55] See 2012 Fall Report of the Auditor General of Canada

government estimated at Can$8 billion. This figure was disputed by the PBO, which estimated it at Can$18 billion. The PBO also estimated the cost of the life cycle for the F-35 jets at Can$128 million, in stark contrast with the government estimate of Can$75 million (IMF, 2013). These massive discrepancies in the cost estimates of major government projects resulted in the costing reports of the PBO being covered extensively by the media, thus triggering political and public debate on government programmes and their feasibility. The media also tend to underscore cases when the PBO's numbers have proven to be accurate, and this provides a major boost to the reputation and credibility of the PBO[56].

The impact of the PBO on fiscal outcomes is negatively affected by the absence of a veto right in the budget, the non-usage of its forecasts in the budget preparation process, no obligation for the government to comply with its recommendations or to publicly explain why it disagrees, and the absence of formal consultations with key stakeholders in the budget preparation process. The BPO relies solely on strong media coverage for its impact on fiscal policy outcomes.

Media coverage

The work of the PBO is extensively covered by the media. The substantial media coverage results from the considerable effort by the PBO to make its work relevant and accessible to the media. This entails training the media on how to fully comprehend and interpret PBO reports. The PBO articulates and explains the PBO findings and recommendations, on behalf of the office, during press conferences and in interviews. The media coverage trends show that media coverage for the PBO was initially low and has since increased in alignment with the PBO's credibility and reputational gains (IMF, 2013).

Conclusion

The PBO has, over a short period, rapidly developed a good reputation domestically and internationally as an extremely reliable and impartial institution that has enhanced budget transparency and enriched the parliamentary and public debate on the public finances. However, because the PBO neither conducts normative analysis on fiscal policy nor monitors compliance with fiscal rules, its effectiveness in improving fiscal outcomes is constrained because, in the absence of quantitative measures, its impact on fiscal targets is not directly and easily measurable.

The PBO operates differently in relation to other IFIs. Most IFIs tend to focus primarily on technical or implementation problems related to the administration of government, involving specific activities and programmes, such that government is not usually directly implicated. Moreover, their reports analyse government activities after the fact. The PBO, however, offers alternative and forward-looking fiscal forecasts and policy costs. The impact of the BPO is unique

[56] Ibid

because it results in direct and serious political consequences. Instead of locating problems after the fact, the PBO's reports provide information that often contradicts the government before legislation is passed or budgets adopted.

There is no legislative requirement for the macroeconomic and fiscal forecasts produced by PBO to be included in the budget, nor is there any legal requirement for the government to explain any deviations from PBO recommendations. There are also no required formal consultations or hearings between the government and the PBO as part of the budget formulation process. The PBO is also not empowered to stall the budgetary process even if it has serious concerns. This means that the PBO relies heavily on a strong media presence in shaping fiscal policy outcomes.

Administratively, accommodating the PBO in the Library of Parliament instead of providing it with its own office, resources, and legislative mandate presents some challenges for its independence. The potential managerial conflict between the PBO and the parliamentary librarian could derail the work of the PBO. The enabling legislation of the PBO guarantees full independence in performing its functions. Whereas the BPO enjoys legislative independence, its inability to adequately safeguard its budgetary resources compromises its independence. Having a PBO, as opposed to a fully-fledged IFI with several members, is good for having a clear head and a single public face. However, the emphasis on the individual risks the possibility of rendering the PBO a one-man show.

Korea (National Assembly Budget Office)

Context

The National Assembly Budget Office (NABO) was established in 2003. Its creation is associated more with political developments than a requirement for an impartial institution to guide fiscal policy. The intensification of the democratisation process in Korea that commenced in 1987 and continued into the 1990s, resulted in the election of the first civilian President in 1992. This was swiftly followed by the establishment of institutions aimed at strengthening democracy, including Parliament. In 1994, the capacity of Parliament was empowered through the establishment of the National Assembly Legislative Budget Office. This office was reconstituted into a Legislative Counselling Office and a Budget Policy Office in 2000. In 2003, the NABO was officially established through legislation as an IFI (Von Trapp, Lienert, & Wehner, Principles for independent fiscal institutions and case studies, 2016).

The creation of the NABO has its roots in the political developments that were triggered by the Democratic Party presidency in 2002. Whereas the Democratic Party occupied the presidency, the Grand National Party still held the majority of seats in the National Assembly. This meant that there was a divided government. The Grand Party was therefore highly motivated to closely examine the new President's draft budgets and thus initiated the creation of an independent budget office. However, the political interests were not the only motivation for NABO, and Parliament was also concerned with the lack of transparency in the government's budgetary data. While the

general and special accounts were made available to the National Assembly, public funds were outside the jurisdiction of parliament[57].

The NABO model is premised on the United States Congressional Budget Office (CBO), and as a result, there are striking similarities between the two institutions in relation to functions and internal structures. However, NABO does have distinctive features such as its evaluation role. The NABO was primarily created to equip Parliament with impartial knowledge and expertise on fiscal and budgetary issues.

Legal basis for establishment

Two pieces of legislation were involved in the founding of the NABO. First, the National Assembly Act 1948 was amended in July 2003 to authorise the autonomy of NABO in the National Assembly[58]. Second, the National Assembly Budget Office Act was adopted in 2003 to clarify the mandate, functions, and organisational structure for NABO[59].

Mandate and functions

The NABO's broad mandate is to conduct budget analysis and evaluation. According to the amended National Assembly Act 1948 Article 22-2(1), the mandate of NABO is to research, analyse and appraise public finances.

The 2003 NABO Act outlines four main functions for the NABO: budget analysis, costing, forecasting, evaluation, and research. The Act states how the NABO should carry these functions:

- Research and analysis on public finances.
- Conducting costing of legislation.
- Macroeconomic and fiscal projections.
- Project appraisal of major public programmes

The NABO does not conduct normative analysis on fiscal policy. It also does not monitor compliance with fiscal rules.

Structure and composition; appointing and dismissal authority; and independence

The NABO is entirely a National Assembly institution. Its director is appointed by the Speaker of the National Assembly based on recommendations of the recommendation committee comprising

[57] Ibid
[58] See National Assembly Act 1948 amended by Act No. 6930, 18 July 2003.
[59] See National Assembly Budget Office Act No. 6931, 18 July 2003.

people who are well versed with the NABO's duties and politically impartial (NABO Act). The term for the Director is not fixed but relies on the discretion of the Speaker. A new Speaker is appointed every two years, which means that every two years, the NABO Director resigns, and a new Speaker could reappoint the "resigning" NABO director for a further two-year period. This arrangement is contrary to the OECD Principles for IFIs, which advocate for term lengths and the number of terms for leadership to be clearly specified in legislation (principle 2.3). The director's contract can be terminated by the Speaker subject to the approval of the House Steering Committee (OECD, 2012).

The term for panel members is two year and is renewable. The main responsibility of the panel is to advise the director of NABO on his or her duties or other topics of concern as opposed to NABO as an institution. Most of NABO staff are part of the parliamentary service. The NABO Act states that the appointment and dismissal of division heads is the responsibility of the Speaker of the National Assembly. With 138 full-time equivalent (FTE) staff in 2021, the NABO is the second-largest parliamentary budget office in the world in terms of staff. Administratively, the NABO is made up of four main departments: the budget analysis department, the economic analysis department, the estimates and tax department, and the planning and management department.

The independence of the NABO is guaranteed by its enabling legislation. The ability of the NABO to adequately safeguard its budgetary resources, the right to select its own staff, adequate staff to carry out its mandate, and timely access to information for its work further strengthens the independence of the NABO.

The NABO budget comes from the National Assembly. The National Assembly steering committee provides oversight on the NABO and may inspect the NABO during its annual investigation of National Assembly activities.

Analysis and impact

The creation of the NABO was preceded by a period in which the public finances for Korea were sound. In 2004, for instance, public debt was 26.2 per cent of GDP, there was a small surplus, and expenditure accounted for 24 per cent of GDP. This relatively impressive fiscal performance persisted such that, in 2008, an increase in government expenditures to 25.8 per cent of GDP by 2008 was in tandem with a comparable increase in revenues, thus translating into a balanced budget for a substantial period (IMF, 2013).

The impact of the 2008/09 financial crisis resulted in a budget deficit in 2009. The NABO presented two forecasting scenarios for government expenditures over the MTEF period. The first scenario assumed that government expenditure would increase at the same average rate as during the previous five years before the crisis. The second scenario assumed that government expenditure would increase in tandem with the rate of GDP growth. These NABO forecasts were conservative when compared with the government forecasts. The forecasting scenarios by the government were considerably more optimistic because they underestimated expenditures. The

comparison between government and NABO forecasting estimates shows that even the more conservative NABO scenario that aligned government expenditure growth with GDP growth reflected higher estimates than the baseline MTEF scenario. The revision of the MTEF estimates over time showed that the NABO's scenarios were more realistic, as the government's MTEF revised estimates converged toward the NABO estimates[60]. This validates the impact of the NABO as far as fiscal forecasting is concerned.

In South Korea, the macroeconomic and fiscal forecasts produced by the NABO are included in the budget. However, there is no legal requirement to explain any deviations from the NABO's recommendations. There are also no required formal consultations or hearings between the government and the NABO as part of the budget formulation process. The NABO is also not empowered to stall the budgetary process even if it has serious concerns. This means that the NABO is able to impact fiscal policy outcomes through its macroeconomic and fiscal forecasts and media coverage of its work.

Media coverage

The media coverage for the NABO was initially low, but it has gradually improved over the years. This is in line with other IFIs who experience low media coverage in the first years of their establishment before it steadily increases as their reputations are solidified. In 2006, the fourth year of its existence, the NABO attracted a lot of media attention when it warned the government on the increase in expenditure, which resulted in upward revisions to the MTEF. Similarly, in 2019, when the NABO warned the government on high levels of expenditure and future growth, there was a lot of media attention on NABO. The media also recognised and reported widely the first time NABO criticised the budget plan in 2010. A substantial increase in media coverage for NABO was in 2012 when the media paid particular attention to discrepancies in the forecasting of GDP and other indicators by the government and NABO[61].

Conclusion

The NABO has cemented its position as an esteemed and impartial IFI in Korea and internationally. It is well known for offering unbiased and quality analysis. Its analysis of the draft budget, policy and legislation costings, programme evaluations, and other analysis is well used by the National Assembly. The NABO offers valuable reports and analyses, which increases the transparency of the budget process. The analysis by the NABO influences the assumptions on which the fiscal projections are premised. The NABO has been able to raise public awareness on detrimental fiscal policy action that may be out of sync with sound policy settings. The transparency of the NABO in conducting its analyses is reflected in its availability to the public

60 Ibid
61 Ibid

through news releases, conferences on the public finances, which are open to the public. However, the NABO does not conduct normative analysis on fiscal policy, nor does it monitor compliance with fiscal rules. This has a negative impact on its ability to enhance fiscal outcomes because its impact on fiscal targets cannot be directly measurable in the absence of quantitative measures. Legislation fully guarantees the independence of the NABO, the safeguarding of its budget, the right to select its own staff, adequate staff, and timely access to information.

The challenge faced by the NABO relates to the appointment of the NABO director, which does not have a fixed term limit. The result of this arrangement is that the NABO directors have to resign voluntarily every two years when the House Speaker is changed. The risk emanating from this arrangement is that the leadership of the NABO is exposed to political pressure from the Speaker and so is not fully independent (OECD, 2012).

Slovakia (Council for Budget Responsibility)

Context

The basis for the establishment of the Council for Budget Responsibility (CBR) in Slovakia can be traced to a discussion paper by Michal Horváth at the Ministry of Finance and Ľudovít Ódor at the National Bank of Slovakia (Horváth and Ódor, 2009). According to this paper, Slovakia had historically posted a fiscal deficit that was consistently higher than its long-term sustainable value. The paper recommended significant reforms, encompassing the creation of an IFI, to make public finances sustainable.

The establishment of the CBR resulted from a consensus by all political parties in Parliament for its legal framework. Its creation was also aimed at providing a signal to financial markets about the commitment of the government to meet its fiscal commitments. It was established in 2012 through Constitutional Act 493/2011 on Budgetary Responsibility.

The key comparative reference for the creation of the CBR was the Hungary Fiscal Council (Porubský, 2011). In modelling the CBR along with the Hungary Fiscal Council, it was initially conceived as a fiscal watchdog under Parliament to safeguard its independence. However, when the Hungarian government replaced its original Fiscal Council, which was under the authority of the Hungarian Parliament, with a much weaker body in 2011, the Slovakian government changed its conception of the CBR, placing it and its financing in the Central Bank. This particular institutional setup mirrors the Austria Fiscal Advisory Council (FISK) and Portuguese Public Finance Council (CFP) models. The CBR is located within the premises of the National Bank (Debrun, et al., 2020).

The creation of the CBR is part of a broader set of measures, including a constitutional debt limit, expenditure ceilings, strengthened fiscal rules for municipalities, and enhanced fiscal transparency. The CBR is therefore envisioned as a watchdog for the enforcement of this fiscal framework. The debt limit is set at 60 per cent of GDP in line with the SGP. The debt parameters

depend on four quantitatively specified escape clauses: major recessions, banking system bailouts, natural disasters, and international guarantee schemes[62].

Legal basis for establishment

The CBR is legally established by the Constitutional Law on Budgetary Responsibility, s approved by Parliament in 2011[63].

Mandate and functions

The mandate of the CBR provides a comparatively tight focus on fiscal sustainability analysis and the evaluation of adherence to fiscal and transparency rules, evaluating the long-term sustainability of public finances and monitoring public finances as well as undertaking legislative costings. This mandate excludes producing or endorsing macroeconomic and fiscal forecasts.

The Constitutional Law on Budgetary Responsibility outlines four specific functions for the CBR:

- Develop a report on sustainability.
- Evaluate the implementation of the fiscal rules and fiscal transparency.
- Provide advice on government budget and long-term sustainability.
- Monitor and evaluate fiscal development.
- The CBR essentially monitors fiscal rules, but its mandate excludes macroeconomic and/or fiscal forecasting, conducting normative analysis, and providing recommendations on fiscal policy.

Structure and composition; appointing and dismissal authority; and independence

The Slovakia CBR governance constitutes of a three-person board, a chair, and two deputies. The powers to appoint and dismiss the chair of the board are vested in the National Council with the support of at least a three-fifths majority vote of members, recommended by the government. Similarly, the National Council is legally empowered to appoint and dismiss the other two board members, subject to an absolute majority of members present, and recommended by the President of the Slovak Republic and the Governor of the National Bank of Slovakia (Debrun, et al., 2020).

The Constitutional Act on Fiscal Responsibility stipulates one non-renewable term for all board members, with a duration of seven years. Article 10 of the Act provides for different initial term durations underlying each position to avoid all terms expiring at the same time. The CBR's internal rules of procedure prescribes that decisions must be taken by consensus. This is

[62] Ibid
[63] See Constitutional Law on Budgetary Responsibility, 8 December 2011.

implemented through the majority vote, whereby each board member has one vote. The Constitutional Act on Fiscal Responsibility provides for a secretariat to support the board. The legislation stipulates that the hiring of the CBR staff is exclusively its responsibility. CBR's staff are organised into three functional teams: monitoring of public finance sustainability and tax revenue forecasting; costing of policies; and macroeconomic modelling and forecasting. However, analysts also work across these teams on different tasks[64].

There is no provision for an oversight board or advisory panel in Constitutional Act on Fiscal Responsibility. However, board members initiated the creation of an advisory panel consisting of five well-respected external experts on fiscal councils and rules. This decision was premised on the OECD's principles for IFIs on external evaluation. The membership of the advisory panel consists of the former head of the Hungarian Fiscal Council, the first Canadian Parliamentary Budget Officer, a Senior Deputy Governor of the Italian central bank, and two academics. The main responsibilities of the advisory panel are to offer advice on methodological issues, evaluate the quality of the work produced by the CBR, and examine strategic issues and the upcoming work programme. The members of the advisory council work on a pro bono basis. They are expected to attend full-day meetings annually and be available for consultation virtually[65].

The CBR is fully independent. Its independence is guaranteed by its enabling legislation. It is also able to adequately safeguard its budgetary resources, select its own staff, it has an adequate staff to carry out its mandate, and has timely access to information the council for its work. These features demonstrate the high degree of its independence.

Analysis and impact

The CBR depends mainly on formal consultations with all the main stakeholders in the budget process and the strong media presence shaping public opinion to foster fiscal responsibility as per its constitutional mandate. It has no veto right in the budget process. Moreover, its forecasting role in the budget process is minimal because the responsibility to develop macroeconomic and budgetary forecasts was assigned to forecasting committees that were established before the creation of the CBR. The enforcement of the recommendations of the CBR has been mixed, and on one occasion, the government did not comply with the recommendations, and no explanation was initially provided[66].

Media coverage

The media coverage for the CBR has been increasing since it came into existence in 2012, signalling a broad-based upsurge in its influence on the public debate on fiscal policy matters. The

[64] Ibid
[65] Ibid
[66] Ibid

media coverage trends reflect an initially slow start in the first three years of the CBR's establishment. However, monthly visits to the CBR's website have increased more than tenfold to exceed 16 000 per month. Moreover, activity on the CBR's Facebook page has also surged. The general coverage of the CBR's work by the professional media (printed press, radio, TV, and online) has increased sixfold since 2012. This impressive media coverage, when put into perspective, is outstanding because, over the same period, media coverage of government budget issues declined by 50 per cent[67].

It is also worth noting that the media coverage for the CBR compares well to that of other EU IFIs, reflecting 3.5 to 4 references per news outlet per year. This means that the CBR is in the same category as other comparably sized IFIs such as the Portuguese Public Finance Council (CFP) and the Italian PBO. However, , the Spain Independent Authority of Fiscal Responsibility and the United Kingdom Office for Budget Responsibility, are respectively 5 and 1.5 times higher than the CBR[68]. The stable increase in the media coverage indicator in the mainstream media is remarkable and implies a high impact of the CBR work on professional journalists.

Conclusion

The CBR has, over a relatively short period, become a reliable source of fiscal policy analysis premised on solid, independent, non-partisanship, and technical knowledge. The statistics on media coverage exhibit a strong increasing trajectory that compares very well with other IFIs. The CBR has successfully increased the reputational costs of policies that are not consistent with the constitutional mandate of attaining the long-term sustainability of public finances. The CBR does not have veto rights in the budget process, and its role in forecasting is limited. Therefore, its influence on fiscal outcomes depends largely on its ability to shape public debate.

United States of America (Congressional Budget Office)

Context

The Congressional Budget Office (CBO) was established in 1974. Its creation was triggered by the Congress' effort to reaffirm its budgetary authority. This effectively ended the executive domination in providing budget information, forecasts, and analysis to the Congress (Wehner, 2010). Before 1974, Presidents limited budgets for various public projects to below the allocations approved by parliament . However, in 1973 tensions between the legislature and the executive over the authority to control government spending resulted in the reforms in the budgetary role of the Congress. Subsequently, a Joint Study Committee on Budget Control was created in the

[67] Ibid
[68] Ibid

Congress to propose procedures for improving congressional control over budgetary outlays and receipt totals.

The committee recommended the establishment of a budget committee in each house to consider a congressional budget resolution that provides ceilings on total discretionary spending. While the House of Representatives proposed a narrow scope of the legislature's budget staff to serve only the proposed new budget committees, the Senate recommended the creation of an independent Congressional Office of the Budget to guide it in fiscal policy and budgetary considerations. Consequently, the Senate version of the bill prevailed when the compromise new legislation that created the CBO was signed in 1974. In its initial stages, the CBO faced credibility and non-partisan challenges because it was perceived by the Republican Party as a birthchild of the Democratic Party.

The CBO's establishing legislation offered substantial discretion for the CBO to create its own agenda on matters not spelled out in the law. As a result, the CBO decided not to offer policy recommendations even though its founding legislation did not prevent this. It also initiated its own studies and projects that it deemed very pertinent for the congress, as opposed to inactively relying on budget-related studies from congressional committees. The CBO decided not to be an arbitrator of disputes between the Budget Committees and the Appropriations Committees.

Legal basis for establishment

The CBO was established through the Congressional Budget and Impoundment Act 1974.

Mandate and functions

The initial mandate of the CBO is to provide the Congress with objective, non-partisan, and timely analyses and information to aid in economic and budgetary decisions on the wide array of programmes covered by the federal budget. The CBO mandate was subsequently amended to incorporate the costs assessment of federal mandates and to prepare mandate statements for any draft legislation prepared by congressional committees, new reporting requirements related to the Troubled Assets Relief Program and assessments of the employment impact of the American Recovery and Reinvestment Act 2009, prepare one annual report on a discussion of national budget priorities and alternative ways of allocating budget spending among major programmes or functional categories.

The CBO functions are:

Projections and budget policy analysis

- Conducting economic forecasts and baseline budget projections encompassing the ten-year period applied in the congressional budget process. These forecasts entail the variances between the present projections and previous ones; contrasts between CBO economic forecast

and other forecasters; and demonstrate the budgetary impact of some alternative policy assumptions.

- Producing long-term budget projections that characteristically cover 25 years but may also expand to 75 years into the future. These projections incorporate long-term demographic trends and the long-term impact of rising healthcare costs, as well as the economic impact of alternative long-term budget policies.
- Analysing the potential direct impacts of the President's budgetary proposals on outlays and revenues, their economic consequences, and any consequences that those economic changes will have on the budget.
- Supporting the budget committees in developing the congressional budget resolution by offering alternate spending and revenue scenarios and approximating the impacts of different policy options.
- Assisting Congress to make budgetary options by regularly offering budget alternatives for lowering budget deficits, but not policy recommendations, in the short and longer-term.
- Generating reports concentrating explicitly on policy options for social security.
- Producing a report outlining all programmes and activities financed for the current fiscal year for which approvals of appropriations have expired or will expire during the current fiscal year.
- Producing monthly budget reviews that analyse federal spending and revenue totals for the previous month, the current month, and the fiscal year to date.

Cost estimates

- Offering estimations of the cost of all appropriation bills at each stage of the legislative process, including estimates for numerous amendments considered during that process.
- Offering official written estimates of the cost of essentially all bills reported by congressional committees.
- Analysing the federal mandates, projected costs of proposed legislation for state and local governments or for the private sector.
- Designing statistical, behavioural, and computational models to project short-term and long-term costs and revenues of government programmes.
- Appearing before congressional committees and offering information to the committee staff
- Appearing to congressional committees on budget and economic issues, as well as on specific issues such as health care, climate change, national security, and financing infrastructure.
- Presenting CBO's budget proposals for the upcoming fiscal year.
- Providing detailed explanations of components of cost estimates and the estimating methodology.

Other research and reports

- Producing additional reports other than the ones requested by congressional authorities. These reports cover topics such as health care, income security, education, tax policy, energy, the environment, national security, financial issues, infrastructure, and others. In addition, CBO's

working papers provide technical descriptions of CBO analyses or present original, independent work by CBO analysts.
- Producing a quarterly report on the Troubled Asset Relief Program (TARP).
- Scorekeeping
- Tracking the cost of legislation against a budget constraint that is founded in law or in budget resolutions adopted by the budget committees.
- Informing the budget committees of how the cumulative cost of legislation compares with the budget constraint.

Monitoring fiscal rules

- Offering PAYGO cost estimates to the chairs of the budget committees.
- Analysing fiscal rules if they are part of new legislation. Such analysis is reviewed by the Joint Select Committee on Deficit Reduction set up under this Act.
- Warning the Congress to make spending cuts to achieve the quantitative targets for discretionary spending.

Structure and composition; appointing and dismissal authority; and independence

The CBO is an entity of the legislature. It is independent from the President and does not report directly to any congressional committee (Joyce, 2011). The CBO is headed by the director with the assistance of the deputy director. The CBO director is appointed by the Speaker of the House of Representatives and the President of the Senate based on the recommendations from the House and the Senate budget committees. The director may be dismissed by either House of the Congress through a resolution. The term of office for the director is a fixed term of four years which is renewable, without limit.

The CBO has a panel of economic advisors. The panel is composed of CBO's past directors and prominent economists chosen by the CBO director after consultation with the chairman, ranking members, and senior staff of the budget committees and, at times, other relevant congressional committees. The term of office for the advisors is two years, renewed without limit. The CBO schedules regular consultative meetings with the advisors, and their advice in between meetings is solicited through e-mail exchanges and telephone calls. The key function of the panel is to evaluate the CBO's preliminary forecasts of the economy.

The founding legislation of the CBO provides for access to information from the executive. The CBO director is empowered by legislation to secure information, data, estimates, and statistics directly from the various departments, agencies, and establishments of the executive branch, regulatory agencies, and commissions of the government. These entities are required by law to provide the director with all information that he or she requires.

The CBO enjoys legal independence, which is guaranteed by its enabling legislation. It also enjoys operational independence with regards to its daily activities. The independence of the CBO is

further reinforced by its ability to adequately safeguard its budgetary resources, the right to select its own staff, adequate staff to carry out its mandate, and timely access to information.

Analysis and impact

The effectiveness and impact of the CBO is assessed across its three main functions: forecasting accuracy, fiscal activity, and costing of legislation and policy. With regards to forecasting accuracy, IFIs are expected to have a positive influence in enhancing governmental forecasts and preventing biases in their estimates. The government's forecasting track record has remained fairly good since the advent of the CBO. Whereas the average forecast error increased marginally, implying an optimistic bias, this is comparatively low in relation to other advanced economies. Likewise, there has been no change in the accuracy of the year-ahead forecasts. However, since the establishment of the CBO, there has been a rise in revenue volatility, implying that retaining the same level of forecast accuracy can be deemed as an improvement.

In the main, the establishment of the CBO appears not to have had any perceptible effect on the bias of the government's revenue forecasts. However, in the absence of any bias, this was to be expected. It is worth noting though that CBO's alternative forecasts precluded the constant usage of intentionally over-optimistic revenue forecasts by the government. In this context, the CBO has functioned mainly as a preventative entity, as opposed to one that causes biases in forecasting, and in this regard, the CBO has impacted fiscal outcome albeit indirectly.

Fiscal activity is another avenue through which the impact of the CBO can be assessed by specifically examining whether it has been particularly active and raised alarms publicly during periods where the fiscal situation has deteriorated. There are indeed episodes of fiscally expensive policy decisions that were taken by the government, including the 2001 tax cuts and the increase in Medicare entitlements in 2004, which had a significant impact on the public finances. The CBO published reports on these issues at the time. However, its media coverage did not surge around this time, notwithstanding the full public disclosure of the cost of these policy decisions. This could be explained, in part, by the absence of an agreed fiscal rule against which the public could measure the fiscal costs. The decision by the CBO not to make strong normative statements and its reluctance to strongly criticise the government could also be another reason for the low coverage of these policy decisions (Hemming and Philip, 2013).

The costing of proposals appears to be one avenue through which the CBO has been predominantly successful in shaping the fiscal policy outcomes both indirectly and directly. The scoring of congressional legislative proposals by the CBO has translated into greater attention being paid to the costs of legislation and adjustments to proposed legislation to reduce costs (Joyce, 2011). There are also some politically contentious legislation proposals that have been costed by the CBO, such as President Carter's energy legislation, President Clinton's proposed health care reform, and President Obama's health care reform (Hemming and Philip, 2013). In costing these legislative proposals, the CBO managed to produce independent quality analysis, which affected the policy debate while retaining its own impartial reputation.

The macroeconomic and fiscal forecasts produced by CBO are not included in the budget. There is also no legislation that requires the government to explain any deviations from CBO recommendations. There are also no required formal consultations or hearings between the government and the CBO as part of the budget formulation process. The CBO is also not empowered to stop the budgetary process even if it has serious concerns. This means that the CBO is largely able to impact fiscal policy outcomes through its costing of legislation and policy function.

Media coverage

The CBO enjoys extensive media coverage. This is a result of the importance and quality of its impartial policy evaluation. In particular, the global financial crisis which led to a major deterioration in the fiscal outlook, and the resultant fiscal stimulus received large media coverage. The interventions by the CBO are strategically timed to have an impact when much media focus is on its budget and economic outlook updates which are released in February and December. The CBO is able to maintain an active media presence throughout the year through its director who gives TV and radio interviews which focus on the CBO's forecasts and costing of key policy proposals.

Conclusion

The CBO has managed to successfully balance the requirement to provide objective input into the fiscal policy formulation process, while retaining its independence (Hemming and Philip, 2013). It has a well-established record of reliable and independent fiscal analysis. It has ensured that there is no bias in government revenue forecasts through its independent alternative forecasting. It has also established a reliable track record in costing legislation and policy, thus supporting members of Congress in creating more awareness regarding the costs of legislative and policy proposals. It has also influenced the debate on key Presidential policy proposals. However, the CBO has been less successful in persuading policymakers and the public to restrain the increases in public deficit and debt. Nevertheless, the CBO has established itself as a reliable autonomous entity that offers the Congress and its committees, objective macro-budget analysis and costing of policies proposed in new legislation.

The successes of the CBO could be linked to distinctive features of the U.S. government, such as the robust contribution of the U.S. legislature in the budget process. Whereas the CBO voluntarily decided not to make specific fiscal policy recommendations to Congress, its work receives wide media coverage, and its analysis impacts congressional decision-making and the public debate on budget policy issues. The CBO also offers Congress sufficient documentation for the adoption of fiscal policies that would improve the medium-term and long-term sustainability of federal finances. The success of the CBO reflects its strong leadership driven by a clear vision, supported by devoted public servants.

United Kingdom (Office for Budget Responsibility)

Context

The Office for Budget Responsibility (OBR) was initially conceived in 2008 by the Conservative Party in its economic policy document. It was provisionally launched by the Conservative-Liberal Democrat coalition government in early 2010. It was tasked with producing forecasts and offering advice on the structural setup for the permanent OBR. An investigation on how a permanent OBR could be established was instituted by the House of Commons Treasury Select Committee (TSC) in mid-2010. The investigation was specifically tasked with evaluating the arrangements recommended by the interim OBR, considering alternative arrangements and international comparisons, defining the mandate of the permanent OBR, developing measures to safeguard both independence and accountability of the OBR, and estimating the required resources for the OBR.

The report by the TSC came up with a number of recommendations, including the creation of the OBR as an organisation with its own legal personality, in charge of hiring its own staff;
obligated to act transparently, objectively, and independently; a well-defined mandate and functions.

The recommendations of the TSC were all incorporated into the legislation and related documents that established the OBR. In 2011, the founding legislation for the OBR, the Budget Responsibility and National Audit Act, was passed by Parliament, and the OBR was officially established. Its establishment was supported by all parties.

Legal basis for establishment

The founding legislation for the OBR is the Budget Responsibility and National Audit Act 2011, which provides for the creation of the office, its functions, and governance structure.

Mandate and functions

The mandate of the OBR is to examine and report on the sustainability of the public finances. The main functions of the OBR are:

- To produce the official five-year economic and fiscal forecasts in its Economic and Fiscal Outlook (EFO) publication and the annual Forecast Evaluation Report to examine what lessons can be learned from its recent forecasting performance to improve the techniques used.
- To assess the government's progress in achieving its fiscal targets alongside its forecasts, including an assessment of whether the government has a greater than 50 per cent probability of hitting these targets under the current policy when it prepares the EFO.
- To assess the accuracy of its previous forecasts.

- To analyse the long-term sustainability of the public finances through its annual Fiscal Sustainability Report, which incorporates long-term projections for different categories of spending and revenue on a bi-annual basis, and analyses of the public sector's balance sheet.

The legislation also empowers the OBR to consider the effect of government policy and scrutinise the government's costings of new policy measures. The OBR can also conduct analysis applicable to its mandate on a discretionary basis.

Structure and composition; appointing and dismissal authority; and independence

The OBR leadership structure consists of the budget responsibility committee (BRC), which is constituted by a chair and two other members. The chair is a full-time member of the BRC, and the other two members serve as part-time members. The BRC members are appointed by the Chancellor of the Exchequer, subject to the consent of the House of Commons Treasury Select Committee. The BRC chair must be consulted on the appointments of the other two members. The term of office for BRC members is five years, renewable only once.

There are also two part-time, unpaid non-executive BRC members that are also appointed by the Chancellor. Their term of office is three years, renewable once only. The members of the BRC can be dismissed by the Chancellor with the consent of the treasury committee with immediate effect.

The oversight of the OBR is provided by a nine-person panel of leading economic and fiscal experts. Panel members are professionals with strong academic backgrounds in various disciplines and are typically from the central bank, the private sector, think tanks, and international organisations. Their membership are on a pro bono basis, with an office term of three years that is renewable by mutual consent.

The founding legislation for the OBR provides for the right to access all government information that is required by the entity to fulfil its mandate. The access to information is further reinforced by a memorandum of understanding between the OBR, HM Treasury, Department for Work and Pensions, and HM Revenue and Customs, which stipulates the timing of sharing information for key OBR reports. The OBR has full access to government forecasting and analytical models and jointly maintains and develops the main macroeconomic model with the Treasury while retaining the independence to develop its own models.

The OBR's independence is guaranteed by its founding legislation. It also enjoys operational independence with regards to its daily activities. The independence of the OBR is further underpinned by its ability to adequately safeguard its budgetary resources, the right to select its own staff, adequate staff to carry out its mandate, and timely access to information.

Analysis and impact

The impact of the OBR is analysed through three key channels: communication, influence in the public debate through traditional media, website, social media as well as parliamentary debate, and fiscal transparency gains.

A vital conduit of impact for the ORB is its communication with extremal stakeholders, particularly through media. This enables the stakeholders to exert appropriate pressure on the government to act in a transparent and responsible manner. Whereas expert stakeholders are able to interact with OBR reports directly, the broader public can only access the OBR's work through the media. Media interest also attracts the attention of stakeholders such as parliamentarians. In realising the potential benefits of an effective communication strategy, the OBR has continuously invested in communication with external stakeholders (OBR, 2018[32]).

The OBR holds press conferences for the release of its main reports where its chair presents the main findings, and the BRC takes questions. The chair also gives interviews in all major media outlets. These interviews are effectively communicating the OBR messages to a wider audience. The OBR also allows, on request, periodical, on-and off-the-record interviews to the print media. This is made possible through the accessibility of OBR staff to journalists and the permission granted to them to consistently speak to the press on issues pertaining to core publications. This has translated into a strong print media presence for the OBR. The Factiva search of mentions of the OBR in European media by the think tank Bruegel shows that it had the highest average number of mentions when compared to other European IFIs (Claeys, 2019[33]). The OBR is also frequently cited in newspapers with the highest circulation numbers in the UK.

The main access to OBR's work for stakeholders is its website, on which it publishes all its reports and papers, briefing materials, databases, press releases, and presentations. Underlining its commitment to good governance and transparency, the OBR also publishes details of its governance terms of reference, minutes of board meetings, and annual corporate and business plans. The OBR has sought feedback on its website through an anonymous survey, the results of which were relatively positive, with some suggestions for improving the navigation of the website. Data on unique page views demonstrates that the number of hits has been increasing, with noticeable spikes in traffic occurring around the release of key reports.

Social media, Twitter, in particular, is another main channel of impact for the OBR. It brings together a wider circle of knowledgeable readers that directly quote, clip, link, and share OBR work. The OBR employs this platform in publicising its publications and data, events, appointments, and vacancies. With each publication, the OBR tweets infographics and simple visuals with key messages. Twitter engagement usually peaks during report release dates. The OBR's number of followers has continued to grow; in the first half of July 2020, the OBR had 10 900 followers, reflecting an increase of 1 600 new followers when compared with April 2020. The OBR compares well in relation to peer IFIs in terms of the number of Twitter followers.

The founding legislation of the OBR requires the tabling of its legislated forecasts and reports in Parliament. The BRC members are also required to give evidence to the TSC after each forecast is published. The chair of the OBR is also required to appear, at least once a year, before the Scottish Parliament Finance Committee and the Welsh Parliament Finance Committee.

Parliamentarians are relatively well informed about the OBR, and the OBR is frequently cited in plenary debates; however, the total annual number of citations has been dwindling. Whereas the spikes in citations coincide with the publication of OBR reports, these citations pertain only to the EFO, with the other reports receiving very few mentions. This means that there is still a gap with regards to the OBR engagement with Parliament beyond the TSC and on other reports other than the EFO.

The OBR has improved fiscal transparency, judging by the publication of data that was not previously available when the Treasury produced the forecasts. The OBR's clear and transparent presentation of information also enables stakeholders to identify the most important issues to focus on in the public debate, which assists them by spending more time analysing policy trade-offs. The fiscal transparency gains were confirmed by international reviewers. The IMF's 2016 Fiscal Transparency Evaluation of the UK found that the OBR's forecasting record indicates a lower degree of bias than under the Treasury forecasting regime (IMF, 2016[37]). The new data that the OBR publishes, which was not previously published, includes supplementary tables to the EFO, such as expenditure tables, economy tables, and receipts, and other tables. With regards to the fiscal policy, the OBR provides a breakdown of policy decisions on the Treasury's scorecard, whereas, in the past, the Treasury only availed the total exchequer cost or saving for each policy. The OBR also offers a list of policies that are not on the Treasury's list of measures but impact the total amount of borrowing and debt. In respect of public sector net debt, the OBR has increased available data by providing a full discussion with charts and tables as compared to the small paragraph that was previously published in the Treasury's Budget document. The OBR also provides various public finance databases, including the public finances databank, the historical forecast database, and the policy measures database. These undertakings show that the OBR has made substantial efforts with regards to fiscal transparency.

Media coverage

The Factiva data shows that between September 2015 and September 2019, the OBR enjoyed high media penetration with around 13 600 mentions. Moreover, when the OBR is compared with other IFIs, the Factiva data shows that the OBR has a comparable number of mentions to much older IFIs. The OBR is perceived as one of the most prominent voices in the economic debate and is well recognised for its media coverage.

The Factiva data also shows that there are noticeable peaks in media coverage when the EFOs are released, compared to other OBR reports, which have little media prominence. The high media coverage of the OBR raises public interest during some crucial stages of the budget formulation process. This is evidenced through data from Google trends. Debrun demonstrates through weekly

Google searches for the OBR that it peaks around the Budget and Spring Statements when the EFOs are published (Debrun, 2019).

Conclusion

The OBR is a well-established IFI with a good domestic and international reputation. Its key function is to produce independent forecasts for the economy and public finances. The forecasts produced by the OBR are the government's official forecast used for policy formulation and the assessment of fiscal mandate. The OBR has successfully reduced bias in the forecasts and improved accuracy. It has also improved fiscal transparency. The impact of the OBR, primarily driven by a focused communications strategy, is visible in various aspects of the public debate, including traditional media, website and social media, and the parliamentary debate. The OBR enjoys great media coverage in comparison with peer IFIs. It has significantly eased the availability of its work through online and social media channels. However, most of the public engagement with the OBR work has focused almost exclusively on the EFOs, with its other reports only attracting the interest of specialist stakeholders. Whereas the OBR actively engages in the political debate within parliament, the focus of TSC deliberations have been on its macroeconomic and fiscal forecasts and operational issues.

Uganda (Parliamentary Budget Office)

Context

Yoweri Museveni, the Ugandan president, established a no-party-political system in 1986, which prevented political parties from nominating specific individuals for office in an effort to curb Uganda's overheated and aggressive politics. Prior to 2001, Uganda's Parliament lacked an independent oversight of the government's finances, which led to the creation of the Parliamentary Budget Office (PBO) to assist the Parliament in its fiscal monitoring operations (Anderson, 2006). As a result, in 2001, Uganda's parliamentary budget office was established by the Budget Act, 2001. During the 2005 period, any forms of practices related to political interferences in the office were abolished by a constitutional referendum. However, before introducing the Budget Act, it is worth noting that Uganda's Parliament did not have any prominent participation in the budget planning process. They would, however, adopt the budget under articles 155 and 156 of Uganda's Constitution. On that note, the Parliament members later realised that the information supplied to them on budget-related matters was insufficient, and they were kept in the dark about specific issues of local resource revenue, foreign inflows, national expenditure, and macroeconomic indicators; hence the Parliament was referred as a "rubber stamp" for the government (Bisase, 2017).

Therefore, the Ugandan no-party political system aided the establishment of the PBO with the primary goal of building technical competence inside the Parliament to evaluate national budget or economic data and provide timely and impartial analysis to the Parliament and its committees to make financial and budgetary legislative choices. To substantiate even further, the primary author of the bill establishing the Ugandan PBO believes that the proposed system has assisted

the National Sssembly in establishing its office since there was neither majority nor minority in their Parliament and no government or opposition. On that note, the Parliament members were inclined to support a pro-Parliament stance against the executive if it benefited or enhanced the institution of Parliament (Anderson, 2006).

Legal basis for the establishment

An act of Parliament, the Budget Act of 2001, established the Ugandan PBO in 2001.

Mandate and functions

According to the PBO (2016), the extensive mandate of the Ugandan PBO is derived primarily from sections 20 and 21 of the Budget Act 2001. Based on this regard, Section 20 establishes a budget and economics specialist office, and Section 21, on the other hand, defines the office's functions as follows:

- Provide all the parliament committees with budget-related information in connection to their jurisdiction.
- Submit reports on economic forecasts, fiscal projections, and budget deficit reduction strategies.
- Review and make recommendations on bills that enhance or reduce Uganda's revenue or the budget.
- Conduct analytical research on various topics, including the financial hazards posed by public firms and economic policy.
- Provide advice to the Parliament and its committees on matters that concern Uganda's fiscus and national economy.

Structure and composition; appointing and dismissal authority; and independence

As a department under the parliamentary affairs directorate of the parliamentary service, the office is led by a director and permanently staffed by full-time economists. However, due to significant demand for the office's services, the office staff has been extended. The office's initial structure consists of two main divisions: fiscal and economic analysis divisions, each headed by an assistant director. The office consists of six sections, and a principal economist runs each. The Ugandan PBO is made up of economists with analytical backgrounds in macroeconomics, fiscal policy, taxation, and financial analysis (PBO, 2016).

The PBO carries out several critical responsibilities and prepares regular and ad hoc analytical reports on budgetary and macroeconomic issues. It also publishes assessments on new legislation's financial ramifications. However, the PBO staff examines government policies, actions, statistical records, analyses legislative frameworks, and seeks literature throughout this process to give comprehensive economic and fiscal reports to the Ugandan Parliament. The PBO is proactive throughout the budget cycle, especially during the first and fourth quarters when it

offers systematic evaluation input on the annual budget and the Medium-Term Expenditure Framework (MTEF) for the coming year to each of the Parliament's sessional committees and the budget committee (Moon, 2012).

Furthermore, the PBO assigns an official to each standing and sectoral committee of Parliament to evaluate the National Budget Framework Paper (NBFP) in April and the budget estimates and Ministerial Policy Statements (MPSs) in July. The PBO official is a member of the committee secretariat, but with the additional responsibility of advising the committee on budget and economic concerns as well as preparing a more formal "issues paper". The PBO officials attend the committee meetings regularly and assist the committees when they visit the government projects for fiscal monitoring (Moon, 2012).

Moreover, the PBO also publishes quarterly reports on macroeconomic trends; these include more in-depth analyses of current concerns such as budget performance, economic shocks, and budget finance. To substantiate even further, the PBO conducts topical research on specific topics on request from the Ugandan Parliament. The members of Parliament have an allowance to submit a budget or economic study request to the PBO. In 2011, for example, a report examined the additional expenditures for the 2011 elections and the acquisition of military jets in detail (Moon, 2012).

Analysis and impact

The development of a no-political party system in Uganda has led to a progression from an almost failed state due to several dictatorial regimes to a nation with consistently reasonable economic growth rates, significant poverty reductions, and persistent increases in health and education quality. The PBO's functionality has improved the Ugandan Parliament's oversight function. On that note, while the PBO functions under severe resources limitations, its assistance to the budget committee has unquestionably enhanced the efficiency of Parliamentary participation in the budget process. As a result, the Ugandan Parliament plays an essential part in the budget planning, and the executive shares budget proposals with the Parliament ahead of time. On the other hand, the PBO activities have improved the budgetary process by giving Parliament a significant and constructive involvement in national expenditure decision-making and executive monitoring. Furthermore, Parliament has been authorised to approve any external borrowing (Mushemeza, 2015).

However, despite the PBO's existence and significant contribution towards enhanced Parliament participation level and oversight role in the budgetary process in the last 15 years, some corruption scandals have ruined its reputation. In 2015, Samuel Wanyaka, the Ugandan PBO's head, was convicted on three counts of embezzlement, false accounting, and abuse of the office. Uganda's Anti-Corruption Court revealed that the PBO head had embezzled 822 million shillings meant for duties of the office, and almost 80 per cent of this amount was looted. The remainder was unaccounted for (Usman, 2016).

Furthermore, the PBO's reputation has been severely harmed as a result of the director's conviction. On the other hand, the MPs found it impossible to confide in the office because the corruption scandal had damaged the PBO's credibility. However, given the corruption controversy involving the office's director, it appears that the experiment had design flaws, particularly in terms of internal financial supervision. Moreover, the corruption scandal demonstrates that determining the appropriate responsibilities, functions, internal controls, and capacities is more critical than ever, particularly in developing countries where budgeting can play a substantial and significant role in improving economic growth.

Media coverage

The media provides significant coverage of the Ugandan PBO's work. The PBO regards media as a critical instrument in ensuring that the public is aware of and understands the fundamental topics in budgetary debates. To perform this function, journalists need to have complete access to the legislature and its committees and pertinent documentation. The extensive media coverage that resulted from the PBO corruption scandals led to more specific measures to increase transparency. These included encouraging strong public participation in the budget process by distributing quarterly budget updates in local newspapers. Since 2010, the PBO has held quarterly media briefings in which the permanent secretary and civil society participants participate when funds are released, and a budget website was developed (Bisase, 2017). Following the corruption controversy, the Budget Strengthening Initiative (BSI) of the Overseas Development Institute's (ODI) launched the Budget Transparency Initiative (BTI) with hopes of making government budget information accessible for public scrutiny (Bisase, 2017). The Ugandan parliamentary media coverage has gradually increased since 2013. The budget website went live, and disaggregated data from central and local government budgets were published, including fund releases from central to local governments and public service facilities.

Conclusion

It is worth noting that even though the PBO has proven valuable in demystifying the budgetary process, there are persisting operational and institutional gaps which need to be resolved to strengthen its role and enhance its quality of scrutiny of the budget. In essence, the PBO has played a significant role in ensuring that improved capacity together with requisite skills are accessible to the members of Parliament so that they can scrutinise the budgets for enhanced oversight, enhanced mechanisms for fiscal risks assessment, and improved service delivery to the citizens. Since the PBO started being operational after the enactment of the Budget Act in 2001, the PBO has operated effectively and has assisted in fostering accountability through the facilitation of the effective execution role of Parliament's oversight of the Ugandan budgetary process. The PBO has also played a vital role in discovering alternative policy ideas in Uganda and presenting them to relevant parliamentary committees, particularly on taxation. The PBO's non-partisan and professional orientation has satisfied both the Parliament and the executive in its assessments. However, the executive now acknowledges and values the ability of Parliament to deal with financial concerns on an equal basis with them.

However, it is worth emphasising that the parliamentary shortcomings in budgetary oversight have an influence on accountability and effective governance, which, in turn, has an impact on initiatives aimed at socio-economic development. Therefore, there is a need to strengthen the oversight role. PBOs must exchange their experiences to create capacity in their respective Parliaments to become more effective in guaranteeing improved public policies and prudent management of public resources. This requires the PBOs to be provided with enough resources to run their operations, qualified staff with the necessary expertise, adequate office equipment, and chances for capacity development.

South Africa (Parliament Budget Office and the Financial and Fiscal Commission)

Context

South Africa is one of the few countries that have two IFIs: the SABPO and the Financial and Fiscal Commission (Commission). The mandate of the SABPO is to offer independent, objective, and professional advice and analysis on budget matters and other money bills content to the finance and the appropriations committees. The mandate of the Commission is to contribute towards the establishment and preservation of an effective, equitable, and sustainable system of intergovernmental fiscal relations, providing advice to legislatures and organs of state regarding any financial and fiscal matter which has a bearing on intergovernmental fiscal relations. The mandate of the SAPBO is therefore much broader than that of the Commission and covers the whole array of the macroeconomic, fiscal, financial, public economics, and public finance domain. However, the mandate of the Commission is primarily confined to intergovernmental fiscal relations.

These institutions are similar in some respects because they are both responsible for independent fiscal and financial analysis to support the budget. However, it is worth noting that the SABPO serves the national Parliament and the national government budget process, whereas the Commission serves the nine provincial legislatures as well as the executive, including the National Treasury, Provincial Treasuries, Department of Cooperative Governance (CoGTA), intergovernmental forums, and organised local government (SALGA).

The FFC

The mandate of the Commission is to make recommendations regarding intergovernmental financial matters to Parliament, provincial legislatures and any other authorities determined by national legislation. National legislation, concerning the division of national revenue among spheres of government, equitable shares, national grants to provincial or local government and any conditions thereof, may not be passed before Parliament has consulted the Commission has considered its recommendations.

According to Section 221 of the Constitution, members of the Commission are appointed by the President and must have the necessary expertise. They may only be removed by the President on the ground of misconduct, incapacity or incompetence. The Constitution

provides for a chair, deputy chair, three provincial representatives, and two local government representatives. and two additional members.

The Commission interacts with intergovernmental fiscal relations through its annual submission and through ad hoc projects. The Commission presents its recommendations on the equitable division of revenue among the three spheres of government through a technical report. The Minister of Finance is legally obliged to consult the Commission 14 days before the tabling of the Division of Revenue Bill in Parliament and explain in a memorandum accompanying the Bill how the Commission's recommendations were addressed.

The Constitution the independence of the Commission. Commissioners can be removed by the President but only on the ground of misconduct, incapacity or incompetence. With regard to the requirement of impartiality, commissioners are not legally prohibited from occupying any political office but there has never been a commissioner who combined his or her tenure with political office.

With regards to impact, since 1996, the Commission has produced more than twenty submissions on the DoR, focusing on various themes and making a large number of recommendations, most of them linked directly to the DoR. It is worth noting that, in most occasions where the National Treasury responded, it was mostly in agreement with the Commission. Consequently, over 60 percent of the Commission's recommendations have been accepted by government fully or in principle. Moreover, the Commission has augmented its academic production, which is evidence of the excellent academic calibre of its commissioners and staff. The Commission has also contributed immensely to the academic debates on the intergovernmental fiscal policy literature about.

The Commission has also been influential in the design of the first equitable share formula for provinces. It recommended a mixture of a basic grant to create and preserve institutions, a national standard grant to allow provinces to offer primary and secondary education and primary health care and a tax capacity equalisation grant. The Commission further recommended illustrative calculations and specific recommendations regarding the parameters, such as demography, to be incorporated in the grant formula.

In 2001, the Commission recommended the costed norms approach to determine both the horizontal division between provinces and the vertical division between the national and provincial spheres. This approach recognized particular policy norms or goals for each sector and established an expenditure model for estimating the cost of achieving these policy objectives. interviewees saw the Commission's imprint in the 'medium term expenditure.

The Commission, through its engagement with government, argued that the idea for a multi-year planning cycle. This recommendation gave birth to the medium-term expenditure framework (MTEF), the government's three-year rolling budget cycle that has grown into an enduring element of government's fiscal system.

The SAPBO

The primary focus of the SAPBO includes the coordination of fiscal and monetary policy, coordination of fiscal, exchange rate, trade and industrial policy, coordination of fiscal policy, and labour market regulation. These functions are not part of the mandate of the Commission. Moreover, the SAPBO is also mandated to analyse the broad economy and sector-wide outlook fiscal framework; assumptions, aggregate revenues and expenditures; debt management and deficit financing; and revenue management. The Commission is mandated to conduct these analyses only as far as they affect the intergovernmental fiscal relations and the division of revenue. The definition of an IFI as adopted by this study is more applicable to the SAPBO than the Commission. The rest of this case study, therefore, focuses on the SAPBO.

The SAPBO was established in 2013, primarily as a result of the Money Bills Amendment Procedure and Related Matters Act, 2009 (Act No. 9 of 2009). The Act empowers Parliament to effect changes to the overall budget, including budgets of individual national government departments and entities. Before this Act, the role of Parliament was limited to the approval or rejection of the budget rather than making amendments to it. Therefore, the Act places more responsibility on Parliament with regards to budgetary matters.

In 2016, Parliament realised that there were several technical challenges that impeded the complete fulfilment of the initial objectives of the Act. This prompted Parliament to instruct the standing committee on finance to reconsider the Act. The Act was subsequently amended to include, among others, timeframes within which the budget and related legislation must be passed.

Legal basis for the establishment

The SAPBO is established by the Money Bills Amendment Procedure and Related Matters, 2009 (Act No.9 of 2009).

Mandate and functions

The mandate of the SAPBO is to provide members of Parliament (MPs) with independent advice and analysis on the national budget and other money bills.

The functions of the SAPBO are:

- Provide reviews and analysis of the budget documentation that the executive tables in Parliament.
- Providing advice and analysis on proposed amendments to the Fiscal Framework, and other relevant legislations and on policy proposals with budgetary implications.
- Monitor and analyse all budgetary matters.
- Follow policy debates and developments with regards to the budget.
- Monitor and report on potential unfunded mandates.
- Undertake any other work considered important by the director to support the implementation of the act.

Structure and composition; appointing and dismissal authority; and independence

The SAPBO is headed by a director assisted by the executive assistant. The director, in consultation with the advisory board constituted by two House chairs and four chairs of finance and appropriations committee determine the structure and conditions of service of the SAPBO. The SAPBO is made up of three divisions: economics, finance, and policy. Each division is headed by a deputy director. The director is appointed by a resolution of both Houses of Parliament on the recommendation of the standing and select committees on finance and appropriations of both houses of parliament. The office term for the director is fixed at five years. The director may be removed from office only on the following conditions: the ground of misconduct, incapacity, or incompetence; a finding to that effect by a joint sitting of the committees on finance and appropriations of each House; and the adoption by both houses of a resolution calling for the director's removal.

The independence of the SAPBO is guaranteed by legislation. It is also able to adequately safeguard its budgetary resources, select its own staff, it has an adequate staff to carry out its mandate, and has timely access to information the council for its work.

Analysis and impact

The SAPBO has offered objective, independent and specialised research, advice, and analysis to the standing and select committees on finance and appropriations as well as other committees of Parliament on specific issues.

The work of the SAPBO has entailed research and analysis on the Budget and Medium-Term Budget Policy Statement (MTBPS) provided to Parliament through briefings; reports on key macroeconomic factors; appraisals of revenue and expenditure patterns, contingent liabilities, and potential fiscal risks; analysis and alignment of performance plans, budgets, and outcome with the implementation of the National Development Plan (NDP). Regarding specific issues that impact the budget, the SAPBO has produced a report on the sustainability of the current social grant system that delineated various scenarios and established main areas for monitoring risk. It also analysed the financial position for Eskom and determined finances and energy choices for the new generation. The SAPBO also analysed university funding and fees.

The research and analysis provided by the SAPBO have substantially contributed to public participation and parliamentary oversight over budget processes. It has also enhanced social ownership of the budget, efficient distribution of financial resources, and decreased the wastage of public funds.

The establishment of the SAPBO was premised on the need to redress the fiscal oversight imbalance. However, Jahed (2020) asserts that since its establishment, the SAPBO has been dealing with criticism from political parties. It has been accused of solely supporting the ruling party, neglecting the interests of the opposition parties, and advocating for specific economic philosophies. As a result, these critiques cast doubts on the SAPBO's technical effort and its

personnel competence. Moreover, these critiques obstruct the formation of a budget consensus among all political parties and hinder the use of participatory budgeting. However, Jahed (2016) argued that the SAPBO requires political backing to carry out its mission, but it must also deliver non-partisan assistance to all political parties.

On the other hand, Muller (2019) emphasised that the office did fail to comply with the fundamental principles of institutional and political independence, technical credibility, and transparency throughout the first ten years of its existence and the first five years of its functionality. Muller (2016) pointed out that, in 2016, the SAPBO's credibility and independence were tested when the office was requested to construct a credible analysis on the country's proposed procurement of nuclear energy. According to Muller (2016), the SAPBO failed the test because its analysis had gaps, and it could not provide a reliable estimation of the overall cost of the proposed nuclear programme or its fiscal impact.

Despite these primary shortcomings, the SAPBO has considerably improved Parliament's capacity to interact with others and investigate budgets and budgetary outcomes. As a result, the fiscal oversight imbalances have shifted since the SAPBO came into existence, and now parliamentarians engage with confidence using independent and reliable data and analysis. In addition, the SAPBO has made significant progress toward enhancing the performance and emphasis of fiscal discussions and MP's ability to analyse money bills. SAPBO has taken a considerable step forward in terms of oversight and has continuously generated results that the Parliament values and that appear in the budget amendments before they are approved (Lennan, 2018).

The significance of the SAPBO was also noted by former Speaker of the National Assembly, Baleka Mbete, in the July 2014 and 2015 budget votes. She emphasised the importance of the role and the impact that SAPBO has made on Parliament oversight in ensuring that the legislatures incorporate public concerns into policymaking. In 2015, the SAPBO team did extensive work, and the office fulfilled its formal duties in terms of research and reports on an annual, semi-annual, and quarterly basis. Over the period of 2014 and 2015, the office extended its support to four Parliament finance committees, and the office took part in 50 committees and continued in the following years to provide valuable outputs. It is worth noting that Khumalo (2016) observed that the Parliament oversight has improved since the establishment of the SAPBO, and from 2014 to 2016, the number of recommendations made by the finance committees has gradually increased, as well as the committees' and executive's levels of interaction has improved.

Media coverage

Media extensively covers the SAPBO work. The SAPBO, as an institution of the South African Parliament, is responsible for sharing information and engaging with civil society. Currently, all of the SAPBO's documentation and information are available on the parliamentary website. During the budget enactment phase, the parliamentary committees interact with the civil society by seeking opinions at each budget-tabling session. Civil society is allowed to prepare written submissions and present them at committee hearings. It is worth noting that a more inclusive

public participatory budget process enhances transparency and the allocation of resources. Therefore, the SAPBO could use diverse approaches to gradually increase its media coverage to engage with the broader civil society, such as meetings, social media platforms, consultations, web-based outreach, focus groups, and seminars. The essence of these diverse approaches will enable the civil society and community-based organisations adequate access to information and allow the Parliament to access public feedback and criticisms (Jahed, 2020).

Conclusion

The SAPBO is an important institution that supports Parliament with independent, objective, and professional advice and analysis on budget matters and other money bills content. However, because the SAPBO does not conduct normative analysis on fiscal policy, nor does it monitor compliance with fiscal rules, its effectiveness in improving fiscal outcomes is constrained. There is no legislative requirement for the macroeconomic and fiscal forecasts produced by the SAPBO to be included in the budget, nor is there any legal requirement for the government to explain any deviations from PBO recommendations. There are also no required formal consultations or hearings between the government and the PBO as part of the budget formulation process. The SPBO is also not empowered to stall the budgetary process even if it has serious concerns. This means that the SAPBO heavily relies on a strong media presence in shaping fiscal policy outcomes.

Its independence is limited to some extent by the fact that it operates under the auspices of Parliament. As a result, it does not have full operational independence. Its independence is further compromised by the lack of control for its financial resources. This limited independence is somewhat offset by the availability of adequate staff to carry out its mandate as well as the timely and sufficient access to information required for work. Its limited independence impairs its support for improvements in fiscal outcomes.

Its influence has been most evident in Parliament oversight through ensuring that the legislatures incorporate public concerns into policymaking.

CHAPTER 11

District municipalities: Powers, functions and funding framework

Chapter 11: District municipalities: Powers, functions and funding model

Ronewa Sadiki, Khutso Makua and Neo Malungane

11.1 Introduction and problem statement

The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) provides for the establishment of three interrelated but also distinct and independent spheres (national, provincial and local) of government. The Municipal Structures Act, 1998 (Act No. 117 of 1998) (MSA) makes provision for a single-tier (i.e., metropolitan) and a two-tier (district and local) system of local government. District municipalities (DMS) share executive and legislative authority with local municipalities within their jurisdictions. The Constitution (i.e., sections 229, 155 and 156) and other pieces of legislation allocate a range of powers and functions to municipalities, including district municipalities (DMs). The Constitution mandates municipalities to provide services to communities in a sustainable manner; promote social and economic development and a safe and healthy environment; and promote the involvement of communities and community organisations in matters of local governance. Although this mandate sounds achievable, in reality, many municipalities are unable to fulfil their constitutional mandate. District municipalities, in particular, are in a dire situation and their fiscal health remains precarious. In 2018 almost 20 per cent of DMs were dysfunctional. In 2021 (August) CoGTA reported that eight DMs were dysfunctional and five of these were under administration (BusinessTechSA, 2021). Dysfunctional DMs are characterised by several challenges, including lack of capacity (both individual and institutional), poor financial management, (e.g., misspending, poor budgeting, and supply management), poor governance (i.e., poor accountability, corruption, fraud, political interference), and poor record of service delivery (e.g., due to financial constraints, and poor infrastructure, poor maintenance). Many DMs are also categorised as financially distressed. According to the National Treasury (2019), a total of 163 municipalities in 2018/19 were identified as financially distressed; 27 of these were district municipalities. In other words, over 60 per cent of district municipalities were in financial distress.

The funding model for DMs has been criticised for not being responsive to the mandate of DMs. DMs are primarily funded through the RSC replacement grant. When this grant was introduced in 2006/7, it was meant to be a temporary measure. The idea was to replace this grant with a permanent funding model for DMs. However, reality shows that the RSC replacement grant is now a permanent feature of the DM funding framework. Questions abound on the effectiveness of the RSC replacement grant to the needs of DMs. It also begs the question: Is the current district funding framework appropriate for the mandate of this tier of local government?

In addition, as DMs share executive and legislative authority with local municipalities in their jurisdictions, and MECs responsible for local government have adjusted and readjusted the functions of DMs over many years, two additional questions can be posed: Is the current funding model for DMs aligned to their powers and functions? If not, what then is the optimal funding framework for DMs that takes into account their powers and functions? The purpose of this study is to examine these questions with a view to recommending a funding model for DMs that takes into account their powers and functions and their role in local economic development. Establishing an appropriate and responsive funding model for DMs is more critical now than at any time before. First, the performance of DMs leaves much to be desired. Many are unable to perform their constitutional mandate efficiently and effectively, while a significant number of districts are barely viable, dysfunctional and distressed. Service delivery failures in DMs are widespread. Their role in supporting LMs is limited, resulting in many MECs shifting their functions to LMs. This has given rise to a gradual hollowing of the district tier of local government. Consequently many have even questioned the need for this municipal structure. Secondly, and since DMs are envisaged to play a critical role in the roll-out of the District Development Model (DDM), a viable district structure is essential for the success of the DDM. In fact, in the DDM, districts are seen as the 'landing strip' for all the role players (CoGTA, 2020). The DDM seeks to reverse service delivery failures at the local level through improved coordination, budgeting and planning. In the DDM, DMs are envisaged to play a leading role in coordinating, planning, and budgeting for district-wide projects. The functions such as coordination of district-wide projects, undertaking district-wide planning, and spearheading local economic development are all mandates of districts which the DDM is envisaged to reinforce and provide much need impetus.

11.2 Research objectives

The objectives of this chapter are to:

- Evaluate the appropriateness and efficiency of the district funding model
- Examine whether the current funding model for DMs is aligned to their powers and functions
- Recommend a sustainable funding framework for DMs and a suite of measures to enhance the role of DMs in the District Development Model and overall local economic development (LED).

11.3 Literature review

This section reviews the literature on district municipalities. The focus of this review is on the powers and functions of district municipalities, as well as the evolution of their funding framework.

11.3.1 Powers and functions of DMs

In South Africa, several studies have highlighted the ambiguity surrounding the powers and functions of DMs (e.g. Steytler and Fessha 2007; Magagula et al. 2019). Steytler and Fessha (2007) note that the lack of clarity on the powers and functions of municipalities increases the

probability of municipalities defaulting on their constitutional mandate. It also results in inefficiencies, duplication of services or blurred accountability lines between DMs and LMs in delivering services. Steytler and Fessha (2007) and Magagula et al. (2019) argue that uncertainties around the separation of powers and functions of the district and local municipalities perpetuate service delivery failures in the local sphere. Magagula et al. (2019) note that if powers and functions are poorly defined, it can lead to tenuous relationships between LMs and DMs. They cite the example of Ehlanzeni district municipality and its constituent local municipalities. Magagula et al. (2019) note that local municipalities have executive authority, limiting the Ehlanzeni district municipality to hold them to account for failing to deliver on their constitutional mandate.

Palmer (2011) assessed the performance of DMs in South Africa. The results of the study reveal that many district municipalities in South Africa are underperforming and dysfunctional. This study questions the relevance of DMs in the country. In the words of Palmer, "the ability of district municipalities to render services has been a subject of discussion since the dawn of democracy in South Africa." The question raised by Palmer is whether district municipalities are capacitated to efficiently provide their local municipalities with the necessary support required to undertake their functions optimally.

Atkinson, Van der Watt and Fourie (2003) note that most district municipalities lack the capacity to assist local municipalities to deliver services. According to Sebola (2015), the failures of DMs can be attributed to limited skills within districts, which makes it difficult to strengthen collaborations with local municipalities.

11.3.2 District funding framework

The DMs have no significant own revenue sources and are largely dependent on grants. They rely mainly on two transfer windows: the RSC replacement grant and the local equitable share grant. Oosthuizen and Thornhill (2017) investigated the grant system of financing the local government sphere in South Africa. This study revealed that district municipalities depend disproportionately on transfers compared to other local government segments. According to Stats SA(2020), DMs raise 18 per cent of own revenue, compared to metros and local municipalities that raise on average 83 per cent and 64 per cent of own income respectively.

Many studies on district municipalities have traced the evolution of the RSC replacement grant (Muller 2008, Riordan 2005, Chitiga-Mabugu and Monkam 2013). These studies point to the weakness of the RSC levy replacement grant that is widely believed to perpetuate disparities among municipalities. It is based on pre-2006 allocations. If a municipality was collecting less revenue in the pre-2006 period, it continued receiving fewer transfers in the post-2006 period relative to those municipalities that were collecting substantial revenues in the pre-2006 period.

11.3.3 Summary

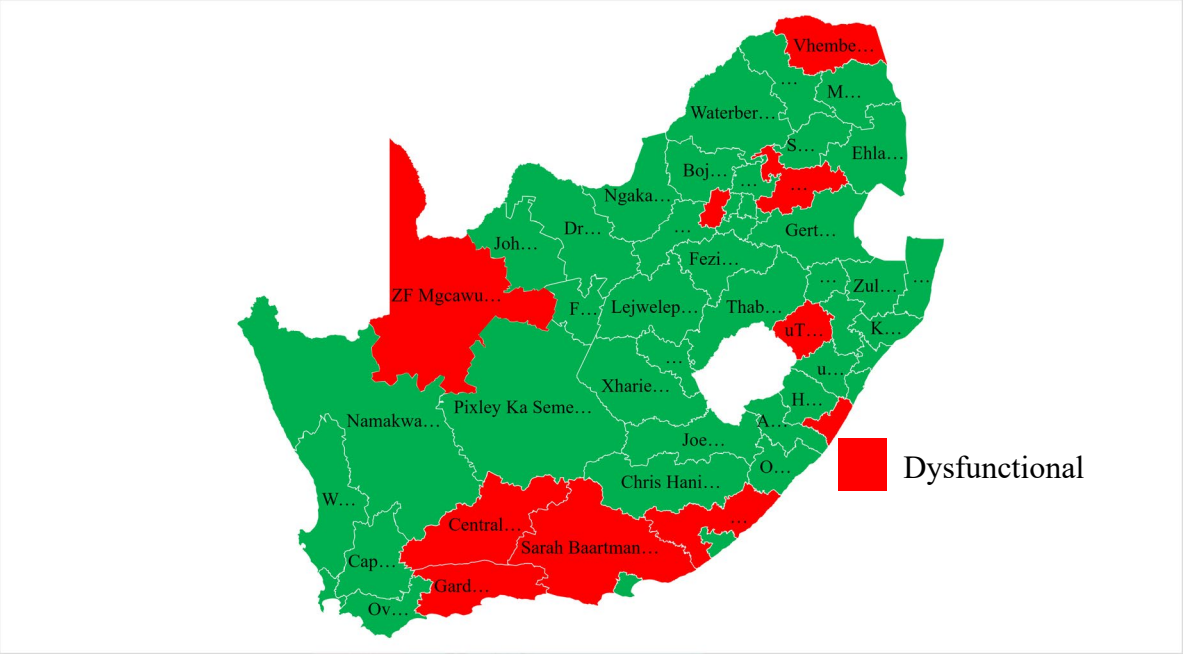
This section reviewed literature related to the funding model and powers and functions of DMs. It is clear from this brief literature that DMs in South Africa are confronted with problems of unclear powers and functions and inefficient funding frameworks. The viability of DMs depends on correcting these challenges.

11.4 Background

11.4.1 Fiscal health of DMs

Municipalities across the country are facing many challenges. A significant proportion are struggling to optimally fulfil their constitutionally assigned mandate. Many are dysfunctional, distressed or barely viable. The situation regarding the dysfunctionality of municipalities seems to be worsening. In 2014, a diagnostic analysis by CoGTA suggested that a total of 80 municipalities were considered non-viable and dysfunctional. The analysis noted that a third of the municipalities were functioning well and a further two-thirds were either at risk of being dysfunctional or were dysfunctional. Four years (2018) later, the functionality levels of the majority of municipalities have not improved but worsened. In his 2018 budget statement, the Minister of CoGTA painted a very grim picture of the current state of local government: only 7 per cent of the municipalities are functioning well; 31 per cent are reasonably functional and 62 per cent are either almost dysfunctional or outright dysfunctional. DMs in particular were in precarious situations. Of the 55 municipalities regarded as dysfunctional, half of them (27) were district municipalities, i.e. over 60 per cent of the 44 DMs were in the dysfunctional category on National Treasury report and the CoGTA report. Figure 11.1 shows dysfunctional district municipalities in 2018 declared by both national treasuary and CoGTA.

Figure 11.1: Dysfunctional DMs (2018)

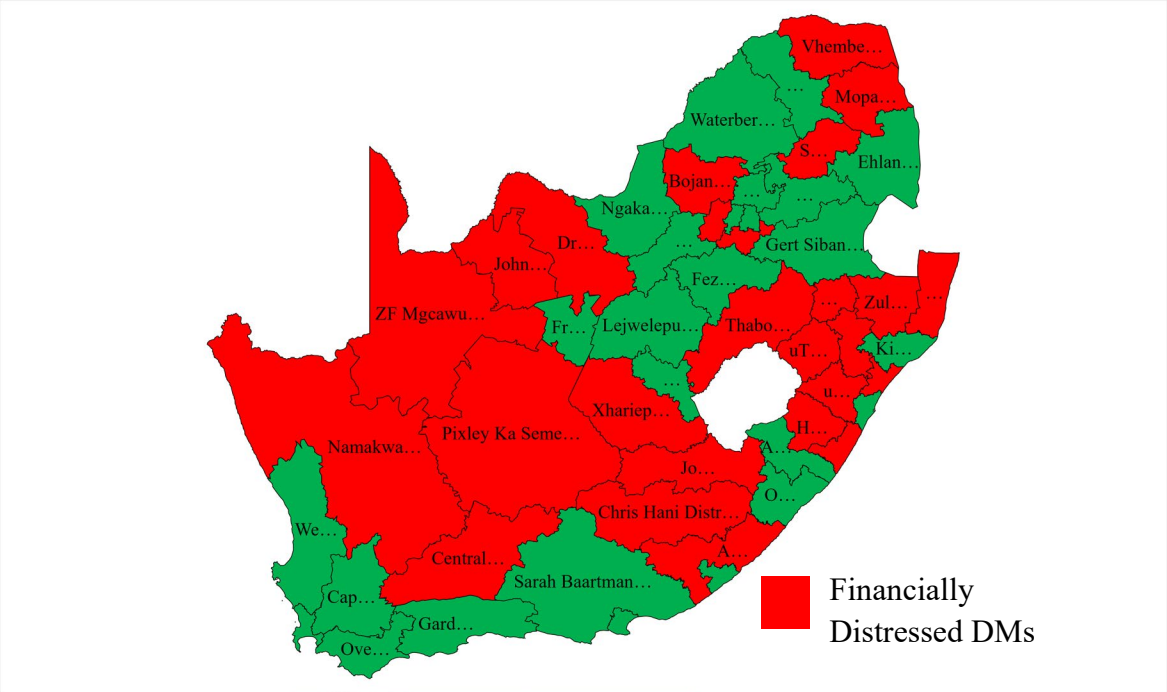


Source: Commission's representation based on CoGTA 2018 data

The sources of dysfunctionality or non-viability are many and include both internal and external factors. Endogenous challenges include infrastructure that is in serious need of expansion, upgrading and repair; poor skills in key delivery areas; poor financial and revenue management; poor budgeting and unfunded budgets; poor internal controls and cash flow management inefficiencies; tariff structures that are not cost-reflective, poor billing and poor debt management processes, leakages in the system (funds not used for municipal business), corruption and inefficient procurement process. External drivers include the poor performance of the economy; limited revenues available for sharing (and thus local government fiscal gap); and local government politics.

Many municipalities are in financial distress, meaning that they are characterised by poor cash flow management, poor infrastructure maintenance and increasing outstanding debtors and creditors. In 2018/19 over 60 per cent (or 163) municipalities were in financial distress compared to 125 in 2017/18. In 2018/19, 27 of the distressed municipalities were district municipalities. A year before only 18 districts were identified as distressed. Figure 11.2 provides a picture of the distressed district municipalities.

Figure 11.2: Financial distressed DMs



Source: Commission's representation based on CoGTA 2018 data

The deteriorating situation of municipalities (including DMs) has been worsened by the Covid-19 pandemic. The Covid-19 pandemic has exposed and exacerbated the challenges faced by municipalities. Revenue sources have been disrupted, while expenditures have been under tremendous pressure. Although relatively speaking many DMs were not as exposed as other municipal categories (especially on the revenue side) because they are largely grant dependent, many of them have struggled as a result of perennial underfunding (Vacu and Ncube, 2017).

11.5 Research methodology

The study follows a case study approach. First, the study will rely on secondary data to analyse the changes in the funding framework for DMs. Similarly, the examination of whether the funding framework is aligned to the functions and powers of DMs, budget analysis and correlation coefficients are used.

The above analysis is supplemented with primary data collected from a sample of 6 of the 44 districts. IDP managers of the sampled districts will be interviewed to solicit their views on the efficacy of the funding model of DMs and the alignment of the funding model and powers and functions. In addition, their views on what they think is an appropriate funding model will be solicited. The selected DMs are:

- West-Coast DM (WC)
- Alfred Nzo DM (EC)
- John Taolo Gaetsewe DM(NC)
- Dr Kenneth Kaunda DM (NW)

- Gert Sibande DM(MP)
- Waterberg DM (LP)

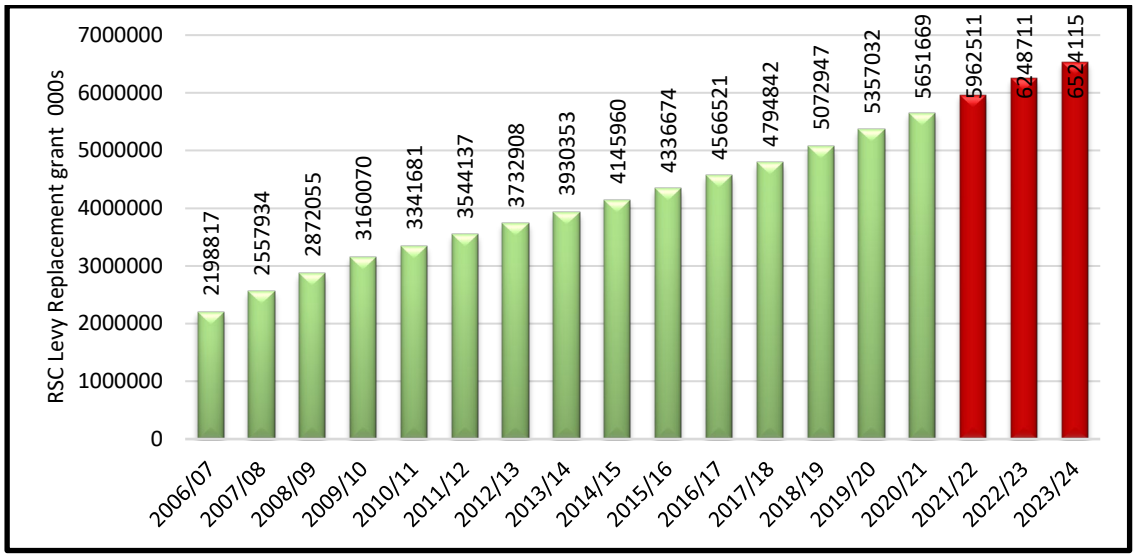
11.6 Findings

11.6.1 Funding framework for DMs: Is it efficient and appropriate?

The district municipality tier of local government consists of two types of DMs: districts that do not provide bulk water supply services (C1s) and DMs that supply bulk water services (C2s). As in other municipal categories, the funding framework for DMs comprises four funding sources: government transfers, investment, borrowings, and other own revenues. On average own revenues account for almost 20 per cent of their income and transfers constitute about 75 per cent. Investment income and borrowing account for insignificant proportions of DMs' financial resources. Government transfers to DMs consist of the RSC replacement grant and the local government equitable share (LGES). Some districts do not receive the basic services component of the LGES, particularly those that are not water and sanitation authorities, and as such, they rely mainly on the RSC replacement grant to fund their operations. The LGES is allocated through a formula that considers the size of DMs (proxied by the number of councillors) and community services provided. The challenge regarding the funding of DMs is largely on the RSC replacement component.

The RSC replacement grant was introduced in 2006 to replace the Regional Services Council (RSC) and Joint Services Board levies that were abolished in June 2006. Although the grant was established as a temporary measure while a suitable replacement was being sought, it has lasted for longer than many subsequent conditional grants. To date, a permanent replacement has not been found. Currently, the RSC levy replacement grant is funding almost 25 per cent of DMs' budgets. Since its inception, 15 years ago DMs have received close to R59 billion through the RSC levy replacement grant.

Figure 11.3: Evolution of the RSC levy replacement grant

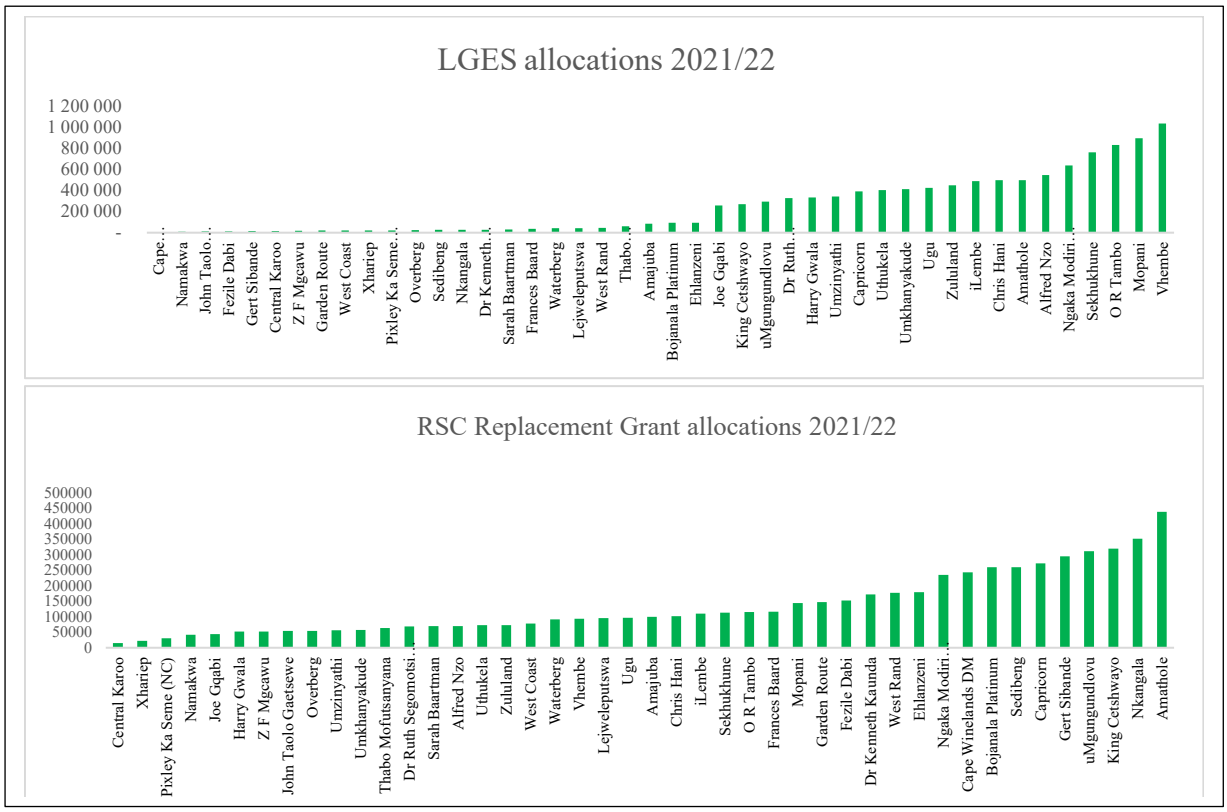


Source: Commission's representation

The RSC replacement grant has received a lot of criticism from several fronts, including the following:

- The RSC levy is blamed for being regressive because it is based on the historical revenue-raising capacity of DMs. Allocations for this grant are based on previous collections, thus perpetuating historical inequalities as areas previously classified as "homelands" that generated smaller revenues continue to receive smaller amounts. Thus, the RSC levy replacement grant has replicated the historical distributional patterns.
- The RSC exhibits glaring biases in its distribution across district municipalities (Figure 11.4). There is a huge variation in the size of the allocations across the 44 DMs. For instance, during 2021/22, the highest allocation recorded was R438.2 million for Amathole District, and the lowest allocation was R14.9 million for Central Karoo. It is important to underscore the fact that this variation is not directly linked to population size, number of indigents or any of the objective factors. It is only based on historical collection patterns. Figure 11.4 compares allocations through the RSC levy replacement grant and the LGES formula. The rankings of DMs in both transfer windows are distinctly different. The more objective LGES ranking exhibits a different pattern from the RSC levy replacement grant.

Figure 11.4: RSC replacement grant and LGES allocations 2021/22

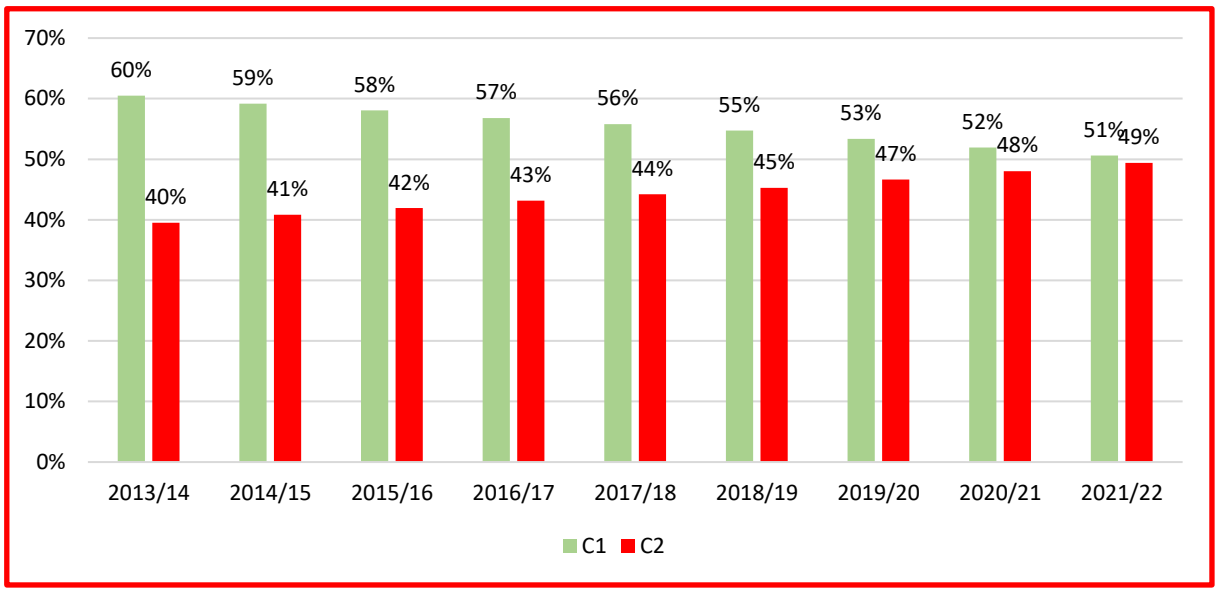


Source: Commission's calculations

- The growth trajectory of the RSC levy replacement grant shows significant disparities between C1 and C2 DMs. The differentiated annual growth rate has resulted in the share of allocations going to C2s increasing from 40 per cent in 2013/14 to 49 per cent in 2021/22,

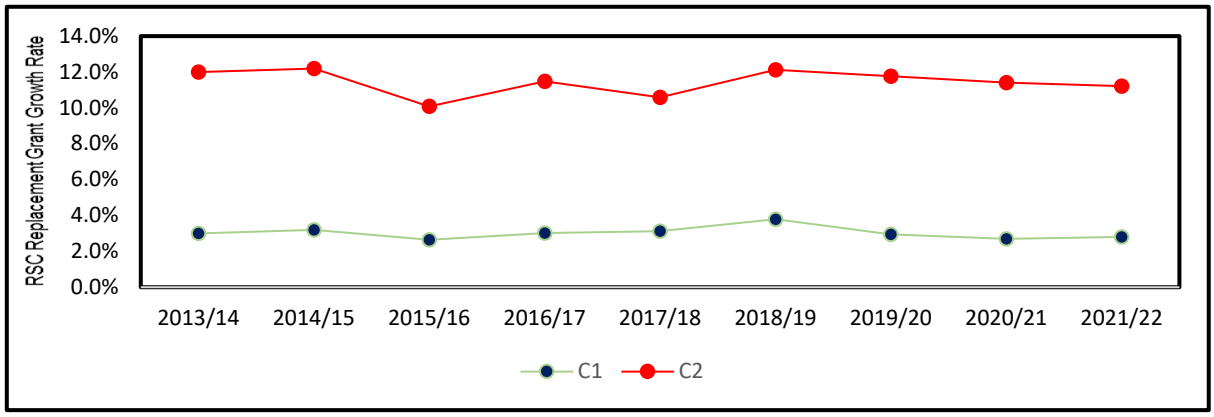
while the share of C1s declined from 60 per cent to 51 per cent during the same period (Figure 11.5). The approach to the growth of the RSC replacement grant has been differentiated as well. The RSC levy continues to grow at the ratio of 1:3, i.e. for C2 to C1. This differentiated growth pattern has meant that the allocations to C1s have been growing below the inflation rate, while C2 allocations have consistently grown above the inflation rate (Figure 11.6). The low growth of the replacement grant for C1 has made it difficult for these DMs to provide adequate services.

Figure 11.5: Share of RSC replacement grant



Source: Commission's calculations

Figure 11.6: Growth trajectory of the C1 and C2 DMs



Source: Commission's calculations

To sum up, the foregoing analysis of the DM funding framework points to several gaps, especially on the RSC replacement levy component. The replacement grant is neither non-objective nor an inefficient way of distributing funds. This allocation is not driven by any objective or modern criteria. The misalignment of the funding framework of DMs, which remained unresolved, will not only affect the viability of DMs but their ability to fulfil their constitutional obligations as well. There is therefore a need for a long-term sustainable funding model for DMs, which should

be based on the functions of DMs. Developing a sustainable funding model for DMs will require a clear specification of the powers and functions of DMs, a proper appreciation of the situational context and interrelationship with local municipalities, and a clear link between funding and functions. The next section examines the link between DM funding and functions.

11.6.2 Powers and functions

The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) provides for the establishment of three distinct and independent, but also interrelated spheres (national, provincial and local) of government. The Municipal Structures Act, 1998 (Act No. 117 of 1998) (MSA) makes provision for a single-tier (i.e., metropolitan) and a two-tier (district and locals) local government system. DMs share municipal executive and legislative authority with local municipalities within their jurisdiction. Many have questioned the idea of sharing of executive authority, i.e. how can executive authority be effectively and efficiently shared? (Steytler, 2003).

The Constitution (i.e. sections 229, 155 and 156 and other pieces of legislation allocates a range of powers and functions to municipalities, including district municipalities. Chapter 5 of the MSA, in particular, details the functions and powers of municipalities, and the division of those powers and functions between district and local municipalities. It also deals with the adjustment of those functions and powers. Section 84 of the MSA (as amended) divides the powers and functions of DMs and local municipalities. According to the MSA, district municipalities share the provision of all four basic services (water, electricity, refuse removal, and sanitation) with local municipalities. Section 84 of the MSA assigns the following 12 responsibilities to districts:

- District IDP
- Basic services
  - Bulk water supply
  - Bulk electricity supply
  - Bulk sewerage
  - Solid waste disposal
- Municipal roads
- Passenger transport regulation
- Municipal airports
- Municipal health
- Fire fighting
- Fresh produce and abattoirs
- Cemeteries and crematoria
- Tourism promotion
- Municipal public works
- Receipt and allocation of grants

Section 84 (3) of the MSA allows the Minister of CoGTA, and after consultation with the Cabinet member responsible for a particular functional area and the provincial MEC for local government,

to authorise a transfer of power and authority (albeit subject to national legislation) from a district to a local municipality to perform the following functions: water, sanitation, electricity, and municipal health services. On the other hand, Section 85(1) provides for the MEC responsible for CoGTA in a province to adjust all other functions of DMs and LMs except for the four national functions of water, sanitation, electricity, and municipal health services. The MEC can transfer these other functions from a district to a local or vice versa. Of major concern is that there are no criteria applied in such adjustments. The MEC responsible for local government has unfettered discretion in the transfer of functions (Moseki, 2021).

11.6.3 Implications of the powers and functions set-up and authorisations

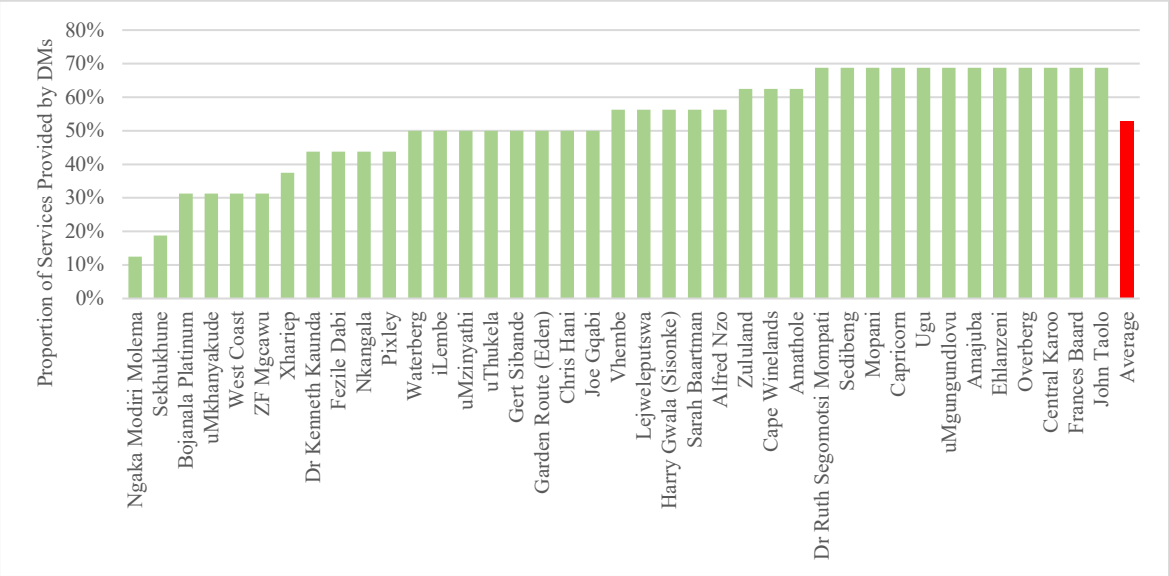
The current legislation on the division of powers and functions as well as their authorisations gives rise to many challenges, including:

- **Lack of a clear and consistent approach to the allocation of functions and powers**: This approach makes it complex to fund the system in a fair, objective and sustainable manner complex.
- **Inefficient overlaps and duplications**: The sharing of functions between LMs and DMs has given rise to inefficient overlaps and duplications. The sharing has resulted in inadequate provision of certain services as either a DM or LM will each assume the other will provide.
- **Lack of accountability**: The sharing of functions has also resulted in an accountability gap in neither takes full accountability for their activities.
- **Uncertainty**: The adjustment of functions by the Minister and MECs have resulted in some service delivery challenges. When municipalities anticipate adjustments in the division of powers and functions in compliance with section 84 of the MSA, they tend not to prepare a proper IDP or budget for the long term. Long term investment decisions are often deferred, thus compromising service delivery. Among staff, the adjustment of functions may result in job insecurity, which in turn leads to unnecessary resignations and low work morale.
- **Lack of monitoring**: The adjustment processes are not monitored. The Minister of CoGTA has no power to monitor "how adjustments are taking place, between who, and upon what motivation" (Moseki, 2021). The local government parent ministry has no monitoring and oversight role in the process of transferring functions. In addition, Moseki (2021) notes: "It is not clear what have been the triggers for adjustment requests by MECs, and whether due processes are uniformly followed in a transfer of a function."
- **Finances following function**: In many cases, the division of powers and functions between DMs and LMs result in funding not following function. A case in point is firefighting which is funded through the LGES. In many instances when DMs perform this function, LMs do not transfer LGES allocations meant for this function.

Perhaps one crucial question to ask at this point is whether there is a link between the division of powers and functions and the funding framework of DMs. Before horning on this question, we first examine the current powers and functions of DMs. Figure 11.7 and Figure 11.8 present the percentage of services provided by each DM (Figure 11.7) and DMs with each province

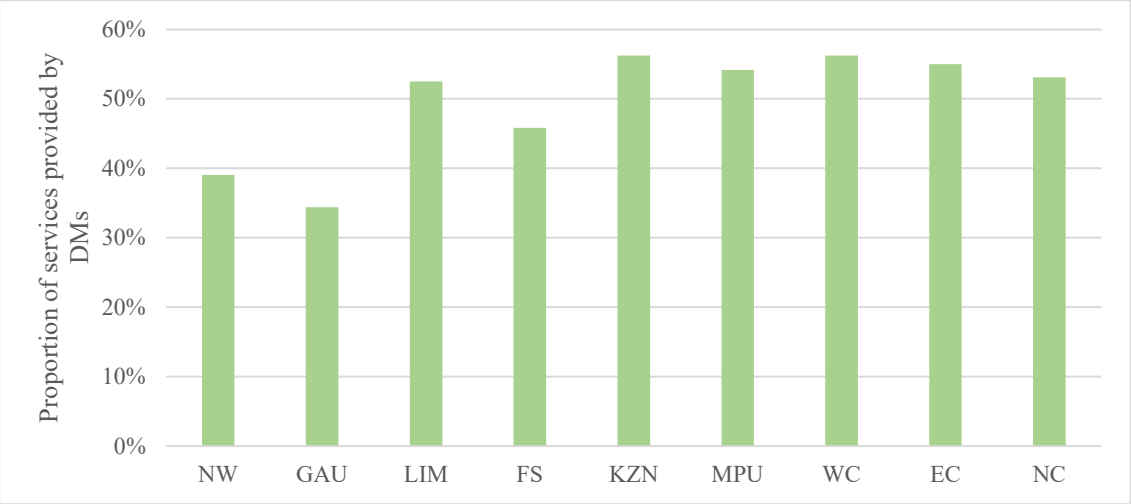
(Figure 11.8). The two figures show wide variation in the actual functions of DMs. On average DMs provide 53 per cent of the services they are assigned. At one extreme is Ngaka Modiri Molema DM which only provides 13 per cent, and on the other extreme is John Taolo providing 69 per cent of the services that DMs could provide. The provincial distribution also shows some wide disparities. DMs in Gauteng, North West and Free State perform the lowest proportion of functions. In other words, this means that over time the MECs for local government in these provinces have transferred most of the functions to local municipalities. However, in KwaZulu-Natal, Eastern Cape and Western Cape, it would seem the shift has been in the opposite direction as these provinces perform a significantly higher proportion of functions.

Figure 11.7: Proportion of services provided by DMs



Source: Commission's calculations

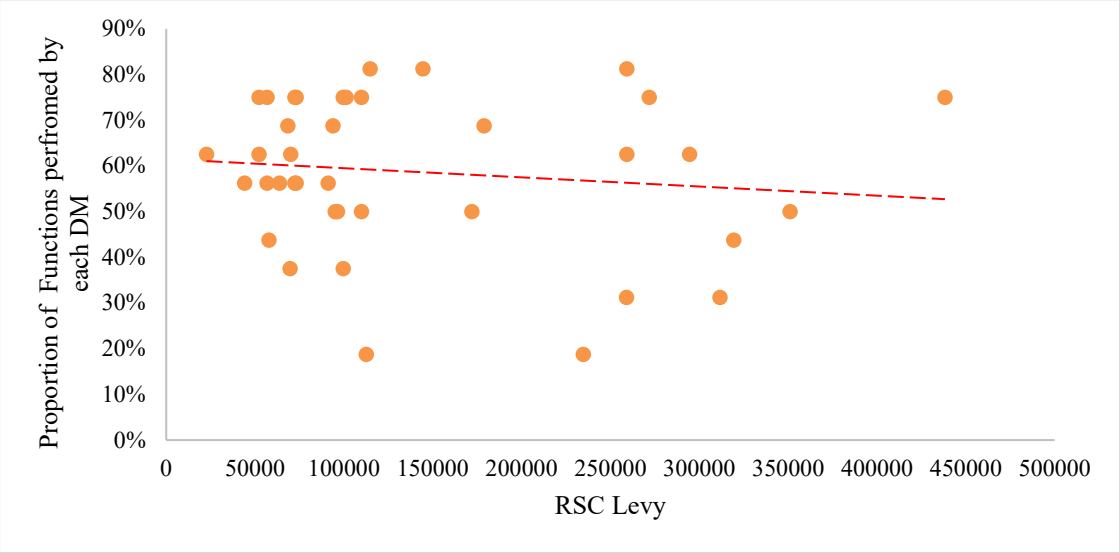
Figure 11.8: Proportion of services provided by DMs



Source: Commission's calculations

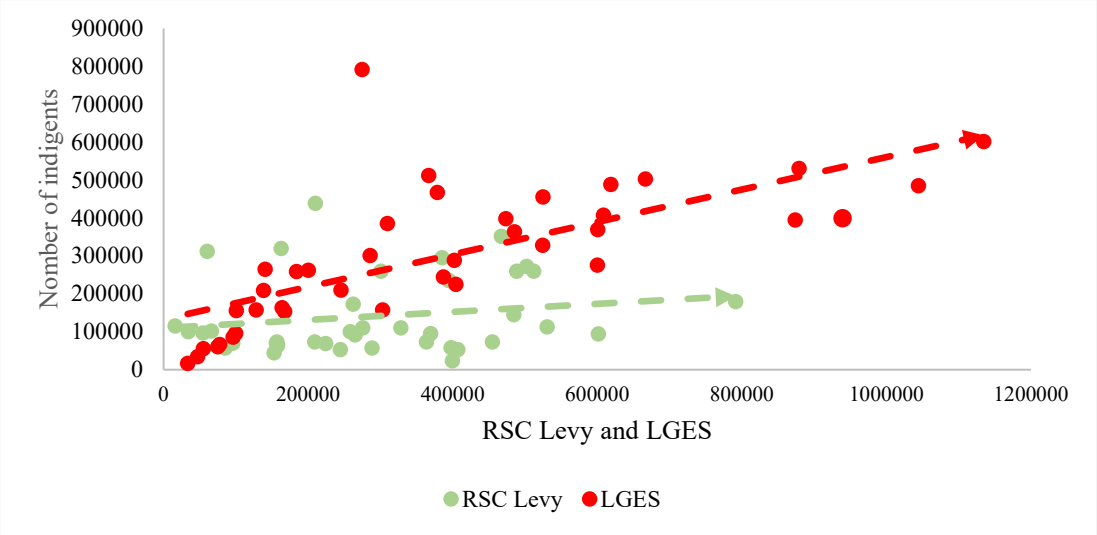
The link between the functions and the requisite funding instruments is an important one for any government structure that is a recipient of transfers. The principle of funding following function is a pillar of an efficient transfer system. Figure 11.9 and Figure 11.10 test this principle regarding the RSC levy replacement grant. Figure 11.9 shows the correlation between the proportion of functions provided by DMs and the RSC levy replacement grant. Figure 11.9 simply shows that the link between the two variables is weak and even slightly negative. This means to a certain extent, DMs with fewer functions are allocated disproportionately larger RSC levy replacement grants compared to DMs with more functions. Figure 11.10 also shows a weak link between the RSC levy replacement grant with the number of indigents. The expectation is that the RSC levy would serve the poor. This is the case regarding the LGES as shown by its positive correlation with the number of indigents.

Figure 11.9: The link between funding instruments for DMs and functions



Source: Commission's calculations

Figure 11.10: The link between funding instruments for DMs and number of indigents



Source: Commission's calculations

While Figure 11.7 and Figure 11.8 show that the powers vested in the MEC responsible for local government as contained in section 84 of the MSA has created a de facto asymmetrical system of allocation of functions across districts, Figure 11.9 and Figure 11.10 confirm the absence of objective criteria in the allocation of the RSC levy replacement grant and the absence of a clear link between the RSC levy replacement grant and functions performed by DMs. This analysis points to two conclusions. Firstly, the analysis above suggests that the adjustments and re-adjustments of functions between DMs and LMs in many provinces have rendered the funding framework for DMs unfair, inefficient, and ineffective. Secondly, the foregoing analysis suggests a need for a long-term sustainable funding model for DMs, which should be based on the functions of DM functions.

11.7 Towards a funding framework for DMs

The preceding sections of this paper highlight the challenges associated with the division of powers and functions between DMs and local municipalities. The sometimes-blurred division of functions between LMs and DMs has resulted in overlaps and duplications. This has not only caused inefficiencies in the delivery of services, but it has also created accountability deficits in the system. There is, therefore, a need for a review of the MSA and in particular section 84, to streamline the division of powers and functions between DMs and LMs.

The foregoing discussion has also emphasised the inefficiencies associated with the funding model for DMs. The RSC levy replacement grant which accounts for over 20 per cent of the budgets of DMs, is both unfair, inefficient, and unsustainable. It renders many DMs unviable and unable to fulfil their constitutional obligations. This funding window is not based on any objective criteria save for the pre-2006 collection rates. As has been underscored above, there is a need for a sustainable funding model for DMs.

The Constitution (and other enabling pieces of legislation) is clear on the role of DMs. Besides the provision of bulk services, DMs have an important role to play in local economic development, planning and coordinating development in the local sphere. As noted above, DMs are envisaged to play a crucial role in the roll out of the district development model (DDM) According to CoGTA, "the role of local government being closest sphere to the people remains most critical in the DDM…". Although there will be many role players (all three spheres of government, sector departments, state entities, etc) in the roll-out of the DDM, its success will depend on, among other factors, strong, viable and sustainably resourced DMs. The funding model of DMs should ideally respond to these new imperatives.

First, the Commission proposes a review of Section 84 of the MSA to streamline the powers and functions of DMs relative to the powers and functions of LMs. Second, the powers invested in MECs responsible for local government to adjust functions of DMs and LMs (Section 84 of the MSA) should be repealed so that there is some standardisation of the powers and functions of DMS. A standardisation of the powers and functions of DMs will ensure an efficient funding model for DMs.

The Commission proposes a new funding model for DMs that is anchored on the following principles:

- Equity
- Efficiency
- Objectivity
- Predictability
- Accountability
- Political acceptability
- Simplicity and transparency
- Funding follows function

The funding model should amalgamate the LGES portion for DMs and the RSC replacement grant into one funding window. The horizontal distribution of resources through this window should be based on a formula. The Commission proposes the following four components of the DM funding model:

- Bulk services component: This component will be used to defray costs associated with the purchase of bulk services such as water, electricity, refuse removal and sanitation for poor households. Ideally, this funding component should be based on a DM's population of indigents and its size
- Institutional and community services: Presently all DMs are receiving this allocation
- Local economic development component: DMs should ideally play a crucial role in local economic development (e.g. promoting tourism)
- District-wide planning, coordination, reporting

11.8 District municipalities, LED and the DDM

11.8.1 The DDM and role of district municipalities

South Africa has been struggling with effective policy implementation since the democratic dispensation. At the local government level, the ineffective implementation of policy has been worse than it is in the national and provincial spheres of government. The inability to implement policy effectively is reflected in the sector's failure to deliver services to the people. This observation is largely prevalent in rural municipalities and small towns, although metropolitans and secondary cities are not exempt from the results of ineffective implementation of policy.

In a bid to ensure that policy is implemented effectively across the three spheres of government, President Cyril Ramaphosa initiated the District Development Model (DDM) in his 2019 state of the nation address and the model was subsequently discussed and adopted by cabinet and the Presidential Coordinating Council (PCC).

The DDM was initiated when the President identified the pattern of operating in silos as a challenge that led to lack of coherence in planning and implementation of government programmes. As a consequence, the country continues to suffer a non-optimal delivery of services and diminished impact on the triple challenges of poverty, inequality, and unemployment.

The DDM is anchored on the "one plan" which is an intergovernmental plan setting out a long-term strategic framework to guide investment and service delivery in relation to the 44 districts and eight metropolitan spaces, with DMs seen as the "landing strip." This model seeks to reverse service delivery failures at the local level through improved coordination, budgeting and planning. In the DDM, DMs are envisaged to play a leading role in coordinating, planning, and budgeting for district-wide projects. The functions such as coordination of district-wide projects, undertaking district-wide planning, and spearheading local economic development are all mandates of districts which the DDM is envisaged to reinforce and provide much needed impetus.

11.8.2 Are district municipalities well-positioned to play the role envisaged by the DDM?

The DDM is a very good blueprint that can be used to solve the problem of ineffective policy implementation in the three spheres of government. However, the model is established against a backdrop of district municipalities that are still unable to fulfil their constitutional mandates owing to several factors. This begs the question: Are DMs well-positioned to play the leading role as envisaged by the DDM?

Firstly, in 2018, almost 20 per cent of DMs were dysfunctional and in 2021, CoGTA reported that eight DMs were dysfunctional, five of which were under administration (BusinessTechSA, 2021). Dysfunctional DMs are characterised by several challenges, including lack of capacity (both individual and institutional), poor financial management, (e.g., misspending, poor budgeting, and supply management), poor governance (i.e., poor accountability, corruption, fraud, political interference), and poor record of service delivery (e.g., due to financial constraints, and poor infrastructure, poor maintenance). Many DMs are also categorised as financially distressed. According to the Auditor-General South Africa report (2019/20) the local governement financial state continues to be under preassure and drastic changes are needed to ensure that the dwindling funds available to deliver services to citizens are used in a prudent and effective manner and that there is credible and transparent reporting of such use to enable accountability.

Secondly, the funding model for DMs has been criticised for not being responsive to the mandate of DMs. DMs are primarily funded through the RSC replacement grant and LGES. When this grant was introduced in 2006/7, it was meant to be a temporary measure. The idea was to replace this grant with a permanent funding model for DMs. However, reality shows that the RSC replacement grant is now a permanent feature of the DM funding framework. Questions abound on the effectiveness of the RSC eplacement grant to the needs of DMs.

Owing to the two listed challenges that DMs face, it is difficult to imagine how DMs can be able to be the core facilitators of the DDM. In the section that follows, we summarize results from

interviews with municipal officials from seven municipalities to gain an insight of challenges faced by the DMs and how these challenges relate to the DDM.

11.9 Case studies

11.9.1 Alfred Nzo District Municipality

11.9.1.1 Background

The Alfred Nzo DM is located in the Eastern Cape. Alfred Nzo is the smallest district in the province, covering only 6 per cent of the province's geographical area. The municipality is comprised of Matatiele, Ntabankulu, Mbizana and Umzimvubu LMs. The DM accounts for 12.1 per cent of the total population of the Eastern Cape. In 2021, the unemployment rate in Alfred Nzo DM was 39.73 per cent and its GDP valued at R15.3 billion - ranked seventh relative to other districts in the province. The sector that contributes most to the GVA of the Alfred Nzo DM is the trade sector at 32.5 per cent, followed by the finance sector with 13.2 per cent. The sector that contributes the least to the economy of the district is the mining sector with a contribution of 0.28 per cent to GVA.

11.9.1.2 Powers and functions

Alfred Nzo DM is performing nine functions; including integrated planning, bulk services supply, municipal health services, fire, rescue services and disaster management, implementation of EPWP, environmental management, financial management and revenue collection, promotion of local tourism and local economic development (LED). There are two functions - municipal abattoirs and public transport - that they do not yet provide yet. According to the IDP manager, there is no sharing of powers and functions between them and the local municipalities, but in some programmes such as promoting LED, they all play parts as it is both the district and the LM role to promote LED. However, he recommends that for DMs and LMs that share the powers and functions, the issue is that there is not adequate capacity for the districts to provide the functions; therefore, there is a need for capacitation of municipalities that are best suited to provide the service to the people.

11.9.1.3 Funding framework

According to the IDP manager, the funding allocated to the DM is inadequate to address the current service delivery backlogs. The withholding of funds after mid-year budget spending makes it difficult for municipalities to spend effectively on their allocations. The funding model is insufficient for the current realities of the Alfred Nzo DM in that the municipality is the poorest in the Eastern Cape, with high levels of service delivery backlogs. As such, there should be a more concerted effort for more resources towards infrastructure development, job creation and assistance towards LED initiatives. Alfred Nzo would like the government to consider all water and sanitation conditional grants to the DM to be under Schedule 5 B of the Division of Revenue Act, which is direct transfers, especially the regional bulk infrastructure grant (RBIG). They also recommend that the funding model be an incentive scheme that will encourage collaborative efforts by all sectors in the implementation and achieving objectives of the DDM.

11.9.1.4 Local economic development (LED)

The role of Alfred Nzo DM in LED is to ensure implementation of LED programmes and initiatives in Alfred Nzo District Municipality (ANDM), as informed by relevant legislation, strategies and sector plans, to facilitate strategic partnerships with key stakeholders to enhance the district's investment potential, to oversee the overall implementation of agricultural, tourism, manufacturing, SMME and all LED related programmes in ANDM, facilitate investment promotion initiatives for SMMEs, cooperatives and the district as a whole, conduct training to develop understanding and improve capabilities of the local community to participate in economic development initiatives and engage SMMEs and cooperatives with respect to funding opportunities available, package funding applications for the LED department, SMMEs and cooperatives. The strategies implemented are effective but not to the full capacity. There are challenges that prevent the district from achieving LED objectives, such as social issues, limited funding, limited access to technology and infrastructure investment that enables LED to flourish. To enhance DMs' role in LED, the IDP manager recommends that communities be consulted on a more regular basis in order to take ownership of LED programmes. Intensive monitoring and evaluating programmes need to be implemented as well as coordination from all stakeholders.

11.9.1.5 Views on DDM

The Alfred Nzo DM understands the DDM as an ideal model for the implementation of LED, which cannot be implemented in silos. According to the IDP manager, the role of the district in the DDM is to coordinate all stakeholders, identifying opportunities for collaboration with stakeholders involved. The manager asserts that if the DDM is effectively implemented, it might be able to solve problems related to powers and functions, funding, and service delivery. Alfred NZO has the human capital to coordinate the DDM. What may be a constraint is the culture of non-participation or inadequate participation by other role players in giving meaning to the objectives of the DDM.

11.9.2 Waterberg District Municipality

11.9.2.1 Background

The Waterberg DM is located in the western part of Limpopo. The municipality is the biggest district in the province. It was formed in 2000 and is one of five DM in Limpopo, with about 768 659 people living in it. It comprises five LMs: Bela Bela, Lephalale, Modimolle-Mookgophong, Mogalakwena, and Thabazimbi. The economy of the Waterberg DM is dominated mainly by three sectors: mining, tourism, and agriculture. The district offers an outstandingtourism experience that combines South Africa's best features. The mountains, big five game viewing, and exploring a fascinating pre-historic past are just some of its attractions. The district is one of the major mining regions in South Africa, with platinum, iron ore, coal, and diamonds as the primary resources. It also contributes about 34.51 per cent of the total production in agriculture.

11.9.2.2 Powers and functions

Waterberg DM performs ten powers and functions. It integrates development planning, refuse dumps and solid waste, cemeteries, municipal health service, firefighting services, and air quality. Among those mentioned in section 84 of the MSA, it does not provide the bulk supply of water and electricity. Waterberg DM shares powers and functions with the LMs in their region. Some of the shared functions are cemeteries, refuse dumps and waste management. Waterberg DM is experiencing an issue of funding being allocated to the local municipalities and revenue collected by the local government as a result of shared functions. The district manager recommends that if the MECs continue to have the power to adjust the powers and functions, they should adopt the funding to correlate with the powers and functions. The funding formula should be adjusted to suit the district municipalities.

11.9.2.3 Funding framework

The grant used to allocate funds is insufficient to cover the operations of the district mandate. According to the CFO, the RSC levy was not a proper funding model, but it was assisting. The district is experiencing many of the unfunded mandates due to insufficient funding. Waterberg is involved in programmes such as air quality and agricultural activities, but due to insufficient funds, it cannot perform these functions optimally. The DM is also concerned about the LGES as it has been promised a new funding model that promotes equitability for six years, but such has not been achieved. According to the CFO, the funding compared to the functions being performed is insufficient. Waterberg District Manager is recommending that the government should consider introducing a new grant that will cover unfunded mandates of the district and that the current funding model should be reviewed to consider district powers and functions.

11.9.2.4 Local economic development (LED)

The Waterberg district's role in LED is to create a conducive environment for sustainable and inclusive economic development, facilitate linkages between government and the private sector within the district, coordinate investment, enterprise development, and overall socio-economic development. Waterberg DM LED strategies have been effective, but they need to be reviewed and aligned to the objectives of the DDM. Budget constraints, lack of relevant instruments to measure actual district economic growth, and uncoordinated approach of investors attraction are some of the factors preventing the district from achieving its LED objectives. Waterberg district manager recommends integrating cross-cutting deliverables between the DMS and the LMS to enhance the DM’s role in LED.

11.9.2.5 Views on the DDM

Waterberg DM has been a pilot in the nationwide presidential DDM initiative. Waterberg District believes that the DDM will solve the powers and functions, funding, and service delivery issues. The model allows them to maximise impact and align resources to their disposal. Waterberg district has enough capacity to play a role in the DDM.

11.9.3 Dr Kenneth Kaunda DM

Dr Kenneth Kaunda DM is a district located in the North West. The Dr. Kenneth Kaunda DM consists of three local municipalities, i.e., City of Matlosana Municipality, JB Marks Local Municipality, and Maquassi Hills Local Municipality**.** According to Stats SA (Census 2011), the Dr Kenneth Kaunda District's population (based on 2015 boundaries) is 695 933, increased from 599 670 in 2001. Dr Kenneth Kaunda DM contributed 22.79 per cent to the North West GDP of R264 billion in 2016. Dr Kenneth Kaunda DM's most significant economic contributors are mining and agriculture. In 2016, the unemployment rate in Dr Kenneth Kaunda DM (based on the official definition of unemployment) was 31.5 per cent, increasing 8.01 percentage points from 2006.

11.9.3.1 Powers and functions

Dr Kenneth Kaunda DM is performing about ten powers and functions: fire fighting, regional tourism, municipal airports, municipal planning, municipal health services, municipal health services, municipal public transport, cemeteries, funeral parlours and crematoria, markets, municipal abattoirs, and disaster management. Among those, some are shared with the local municipality. Dr Kenneth Kaunda DM assists the local municipality in delivering service without being allocated the funds to assist; this results in an unfunded mandate and inability to fully execute the roll out of basic services due to limited funds. Some of the functions have been revoked from the district and are now entirely performed by local municipalities. According to the IDP manager, it is preferable for the MECs to have power than when changes are made at national levels. Moving forward, Dr Kenneth Kaunda DM is planning to implement service level agreements to resolve the sharing of functions between them and their LMs. Kenneth Kaunda recommends that they should be clear cut legislation and consequences in not abiding by the legislation.

11.9.3.2 Funding framework

The RSC levy has been taken away from the districts, and they do not recognise any replacement grants, and now they are dependent on the LGES, which is not enough, even if they try to invest the funds to raise their capital. Therefore, Dr Kenneth Kaunda DM operates on a limited budget, resulting in backlogs. The IDP manager recommends that the RSC levy be brought back and a proper funding model considered. According to the IDP manager, the funding model is not aligned to the powers and functions. He recommends that there should be a new funding model that focuses on the new infrastructure as a specialized grant for the district municipalities. The funding should also follow functions.

11.9.3.3 Local economic development (LED)

Dr Kenneth Kaunda DM role in LED is to build capacity in the defined area to improve the economic future and the quality of life for their community. Dr Kenneth Kaunda DM intends to stimulate employment, create new job opportunities, attract tourism and investors, and support

SMMEs. According to the IDP manager, their strategies are not fully effective because of the funding challenges and lack of follow-through on master plans. To enhance the role of the DMs, the district is planning to strengthen its intergovernmental relations, to fully implement the LED strategies and the powers and functions to be given back to the districts, such as the abattoirs and markets.

11.9.3.4 Views on DDM

The IDP manager believes that the DDM is a good initiative that will assist intergovernmental relations. Since the DDM was introduced, all stakeholders have made an apparent effort to participate. There has been successfully planning and implementation since the introduction of the DDM in the North West. Dr Kenneth Kaunda District has been coordinating the DDM. The IDP manager believes it will solve the powers and functions, funding, and service delivery issues. This is because the DDM will allow them to meet with all stakeholders from national, provincial, and local government, which will give a space in which all the issues will be communicated. Budgeting and planning will be done effectively with all intergovernmental stakeholders involved. The district has enough capacity to play a significant and leading role in the DDM.

11.9.4 Gert Sibande District Municipality

11.9.4.1 Background

The Gert Sibande DM is the largest of three DMs in the Mpumalanga province. The DM is bordered by seven local municipalities, namely Govan Mbeki, Chief Albert Luthuli, Msukaligwa, Dipaleseng, Mkhondo, Lekwa and Dr Pixley ka Isaka Seme and had an estimated population of 1 122 590 in 2019. Govan Mbeki is the largest contributor to the economy of the GSDM at 49 per cent of the total GDP followed by Msukaligwa and Lekwa at 15.5 per cent and 10.5 per cent respectively (COGTA, 2020). The main economic sectors of the district include manufacturing, agriculture, transport, trade, community services, construction, electricity, finance, and mining.

11.9.4.2 Powers and functions

The Gert Sibande DM performs all functions in terms of section 84 of the MSA apart from housing in terms of providing land and bulk services, provision of local amenities/sports facilities, and billboards in terms of Schedule 5 and part (b) of the Constitution. The district and local municipalities have concurrent functions regarding fire fighting, local tourism, municipal airports, municipal planning, and public transport. According to the IDP manager, the sharing of powers and functions between the district and local municipalities has some negative implications as more often than not, there is inadequate cooperation between the district and local municipalities which hampers the delivery of services. The IDP manager further reports that the sharing of functions with local municipalities puts a strain on the financial resources of the district since the removal of the regional services council levy and calls for the authorities to consider bringing back the levy back to district municipalities. Lastly, the manager calls for section 85 of the MSA, which grants

powers to MECs of local government to adjust powers and functions of DMs and LMs to be reviewed as some of the adjustments are not objective and driven by political pressures.

11.9.4.3 Funding framework

According to the IDP manager, the funding allocated to the municipality is not adequate to address the current service delivery backlogs. The IDP manager maintains that there are problems of ageing infrastructure because there are not enough funds to maintain infrastructure. This was further exacerbated by the removal of the regional services council levy as this levy was assisting districts with its own funds that were used to maintain infrastructure among other things. The IDP manager further alludes that the DM is funded mainly through the LGES and that they do not receive a share of the RSC replacement grant which would go a long way in helping ease the financial pressures of the municipality. According to the manager, the LGES is not an equitable funding model as the municipality is disadvantaged by this allocation. In the IDP manager's words: "How can poor municipalities be allocated less resources than those that are doing well?" The manager asserts that this funding mechanism does not make sense and that there is a need for an equitable funding model which will address service delivery needs and be aligned to the functions performed by district municipalities.

11.9.4.4 Local economic development (LED)

The Gert Sibande DM plays a crucial in LED by supporting SMMEs with stipends, engaging mines to monitor social labour plans, providing production inputs to upcoming agricultural cooperatives, promoting tourism and supporting local municipalities in creating an enabling environment for local economic development. According to the manager responsible for LED, the LED strategies implemented have been effective to a large extent but are sometimes obstructed by community protests that vandalise infrastructure and the lack of stuff complements at the local level as there is not enough LED practitioners in local municipalities. To enhance DMs' role in LED, the IDP manager recommends that communities be more regularly consulted to take ownership of LED programmes, and that stuff complements should be improved in local municipalities.

11.9.4.5 Views on DDM

The IDP views the DDM as a very good plan that can be used to solve the problem of ineffective policy implementation in the three spheres of government. The manager asserts that if the plan is implemented as proposed, there will be improvement in service delivery and infrastructure development. The role of the GSDM is to inform and educate stakeholders about the DDM, including LMs, ensuring that they are well conversant with objectives of the plan and clarifying the roles to be played by different offices, and developing DDM document. The manager, however, stated that the DM does not have enough capacity to be implemented as there is no senior manager for the DDM and no district coordinating council. Alongside the lack of capacity, the manager noted non-attendance of policy meetings by sector departments, a lack of capacity,

both in terms of human resources and financial resources, as factors that may serve as a hindrance to the successful roll out and implementation of the DDM.

11.9.5 West Coast District Municipality

11.9.5.1 Background

The West Coast DM is one of five DMs in the Western Cape. The district is bordered by five local municipalities: Matzikama, Cederberg, Bergrivier, Saldanha Bay, and Swartland and is the least populated district in the Western Cape with an estimated population of 455 881in 2019. The DM has a Gini coefficient of 0.595 and a human development index of 0.70. The three largest sectors in the district are manufacturing (21.4 per cent), agriculture, forestry, and fishing (20.9 per cent), and wholesale and retail trade, catering and accommodation (15.2% per cent).

11.9.5.2 Powers and functions

The West Coast DM performs 14 functions: bulk water services, hybrid fire fighting service, environmental health, disaster management, gravel road maintenance, social development coordination, tourism marketing development and coordination, district town and integrated planning, air quality monitoring pertaining to listed activities, all statutory support services such as financial management, human resources, internal audit, corporate services etc, regional landfill site planning obo of Cederberg and Matzikama municipalities, air quality monitoring pertaining to listed activities – assignment function, coastal management including the development of management programmes and enforcement and compliance aspects in terms of the Integrated Coastal Management Act, management of estuaries that is the responsibility in terms of the estuary management protocol. The DM shares the fire fighting function with other local municipalities. According to the delegate from the WCDM, uncertainty of longer-term planning and the costs duplication for each tier affects the DM negatively. The delegate further notes that although provision is made for the MEC on the adjustment of powers and functions, it is not seen as an option given the process and related actions/steps to be undertaken as this potentially prohibits the effective assigning of powers to ensure citizen value. To solve the powers and functions sharing problems, the delegate recommends that DMs should be provided the opportunity and funding from the national pool of funds to execute the mandated function as assigned to in terms of Sections 83 and 84 of the MSA.

11.9.5.3 Funding framework

According to the delegate from the WCDM, the funding allocation for the assigned functions is not sufficient and results in a prioritised model where some functions are neglected. Although they note the RSC replacement grant to be based on a discriminatory composition, the delegate asserts that the grant may assist tremendously together with the possibility of an allocation from the petrol levy. Furthermore, the delegate asserts that the current funding framework is not an efficient model as it does not speak to the realities of many DMs. The delegate notes that functions do not have necessary funding in order to execute all of the areas and hence the prioritised model.

Lastly, when formulating a new funding model for DMs, the delegate recommends that the government consider the assigned powers of DMs and the ability to provide bulk services for the district as a whole and the ability to apply for infrastructure funds. The delegate also implores the government to allow them to raise revenue through the fuel levy as an addition to the RSC replacement grant and to address unfunded mandates.

11.8.5.4 Local economic development (LED)

The WCDM plays a role in LED through the coordination and facilitation of platforms and closer collaboration with mining, manufacturing and agricultural/fishing sectors. The municipality has also established and funds the West Coast Business Development Forum which is chaired by private sector partners. In addition, frequent conversations are held to have an investment agency supporting the linkage between private and public sector for ease of expansion and/or new developments. According to the delegate, the inability of not been authorised to provide bulk water, electricity, sewerage and landfill site services together with the inability to charge capital contributions/developmental costs are some of the factors that hinder the municipality's ability to achieve LED objectives. As a result, it is recommended that provisions should be made to allow for the bulk services provision by DMs with the ability to apply for infrastructure funds.

11.9.5.5 Views on DDM

According to the delegate, the DDM is whole-heartedly supported by the WCDM and it will allow not only for the paper exercise, but force the three spheres of government to co-plan, co-budget and co-implement in a specific geographical area which can only ensure cost effective services. The role of the WCDM is to coordinate and facilitate the DDM intention across spheres of government and assign tasks to smaller groupings for effective delivery. The delegate is of the view that the DDM cannot solve problems related to powers and functions and funding framework of DMs as the DDM only sets out the principles of working together, whereas the legislative provision for powers and functions together with funding must be dealt with in terms of the legislative mandates. The delegate notes that the DM has the capacity to play a role in the DDM but not, however, from an operational and task execution point of view. This is because direct service delivery must happen at LM level and bulk services capacity must be added to the DM and the coordination and facilitation of infrastructure development across spheres of government and entities.

11.9.6 John Taolo Gaetsewe District Municipality

11.9.6.1 Background

The JTGDM is one of five district municipalities in the Northern Cape. The district is bordered by the Joe Morolong Local Municipality, Ga-Segonyana Local Municipality, and Gamara Local Municipality and has an estimated population of 176 899. The JTGDM is the largest contributor to the GDP of the Northern Cape, contributing 16.9 per cent in 2019 (*Northern Cape Socio-*

economic Review and Outlook, 2019). With agriculture, mining, and retail as the main economic sectors in the district, the district has the third highest unemployment rate in the Northern Cape.

11.9.6.2 Powers and functions

The JTGDM performs all functions in terms of section 84 of the MSA apart from cleansing, billboards in terms of Schedule 5 and part (b) of the Constitution, control of public nuisances, control of undertakings that sell liquor to the public, fencing and fences, licensing of dogs, noise pollution, pounds, public places and shares no functions with LMs. The delegate from the district suggests that the DM does not benefit at all from revenue generated by LMs. Where there are funding agreements with LMs it is an ongoing battle to get LMs to honour their commitments. Furthermore, the delegate is of the view that the adjustment of powers and functions by MECs of local government in terms of section 85 of the MSA does not work very well and is not reviewed often enough. More often than not funding does not follow functions. Some provincial departments persist in not gazetting funding allocations in terms of DoRA. Lastly, to solve the problems related to powers and functions, the delegate proposes that the DMs need to be provided with powers that can impose sanctions on LMs and sector departments operating in the DM area.

11.9.6.3 Funding framework

According to the IDP manager and the municipal manager, the funding allocated to the district is inadequate. The DM is not in a position to raise revenue, leaving it largely dependent on grant funding. The RSC replacement grant, as part of the equitable share, and other grants usually come with conditions. Functions such as municipal health services and disaster management are funded from the equitable share but this is inadequate to fully perform these functions. Often, grants are only on paper and are never transferred to the DM. Furthermore the delegate asserts that the RSC replacement grant is not enough. Allocations are formula based, in terms of demographics. This is a major disadvantage for lessor populated areas, where infrastructure and services must be provided and maintained under difficult circumstances. It also does not relate to the fact that billions of Rands are generated in exports in the district for the country, but the district does not benefit in relation to these exports. The delegate also asserts that the funding allocated to the district is not aligned to the functions performed by the district. When formulating a new funding model, the delegate from the JTGDM advises that the government should consider provide DMs with powers that will allow them to enforce actions and if necessary, to impose sanctions. The rural nature and vastness of DM areas need to be considered, as well as the fact that rural areas provide the resources for the cities. DMs need to receive a greater portion of the national revenue fund. The Inter-governmental Fiscal Relations Act need to be amended in order to allow municipalities to take the necessary action to collect outstanding debts earlier.

Lastly, the delegate proposes that the following factors should be considered for any funding model for DMs: growth value added by the DM, pro-poor allocations that are aligned to the levels of poverty and access to services, a DM MIG and other funding streams in line with DM functions, returning bulk services to DMs, taxing of heavy haulage.

11.9.6.4 Local economic development (LED)

The JTGDM plays a crucial role in LED through creating an enabling environment through, e.g., spatial development planning, integrated development planning, district growth and development model, SMME strategy, LED strategy and sector plans such as human settlement, transport, integrated infrastructure, etc, SMME and emerging farmer support, involvement in and coordination of CSI and SLPs, tourism promotion, LED support to LMs, LED forum, mining forum. The delegate asserts that when measured against the levels of poverty, skills, access to basic services and grant dependence in the district, the impact of the LED strategy is limited. The delegate notes inadequate funding sources, remoteness and access to economic opportunities are major factors, combined with literacy and poverty levels, power plays and individual agendas within the district as challenges to LED. To solve the challenges that impede the district in achieving LED objectives, the delegate proposes that DMs be provided with the necessary powers and resources. DMs in mining areas should also be allowed to have a greater say on the contents of the mining charter. CSI and SLP funding for the district should be channelled through the district.

11.9.6.5 Views on DDM

According to the delegate, the DDM has the potential to make a difference, provided that it is legislated, and current legislated planning instruments are repealed. DMs need to be provided with the necessary powers, functions and resources to ensure the successful implementation of the plan. According to the delegate, the district is playing a role by co-chairing the technical committee with CoGHSTA through the municipal manager. The DM authored the consolidation of inputs from various stakeholders and essentially compiled the DDM document. According to the delegate, the DDM will solve the problems related to powers and functions, funding and service delivery provided that the necessary legislative arrangements are in place, it forms the basis for funding allocations by National Treasury, and DM powers, functions and resources are increased. Lastly, the delegate asserts that the JTGDM has the capacity to play a role in the DDM but notes that additional powers, functions and resources will be needed.

11.9.7 Summary

The foregoing analysis reveals that DMs face many challenges that may hinder them from playing the crucial role as envisaged by the DDM. These challenges include financial constraints, uncertainty regarding powers and functions and the adjustment of powers and functions by MECs of local government. It has been shown from the analysis that across the board, the municipal officials are calling for CoGTA to define and standardise powers and functions of DMs and LMs. Furthermore, the officials are calling for a new, sustainable, equitable, and objective funding framework for DMs. The analysis shows that the interviewed officials all hold the DDM in high regard but lament the current funding framework of DMs that is often not aligned to functions and sections 84 and 85 of the MSA. This results in confusion and duplication around the functions performed by the two-tier local government players that render the local government sector dysfunctional and may threaten the successful rollout of the DDM plan.

11.10 Conclusion

The main objective of this paper was to evaluate the appropriateness of the current DDM, examining whether the model is aligned with powers and functions by district municipalities so as to allow us to recommend an alternative funding framework and a suite of measures that would enhance the role of DMs in the DDM.

Findings of our analysis show that the current funding model for DMs is neither equitable, efficient, nor objective, and is not aligned to the powers and functions performed by DMs. The analysis shows that most DMs in South Africa suffer from having to share functions with LMs and the adjustment of powers and functions by MECs of local government as set out in section 85 of the MSA. The sharing of powers and functions has, more often than not, resulted in duplication of functions and confusion over which level should be providing certain services in the local government sphere. This confusion then leads to delays in the delivery of basic services and sometimes in the local government sphere completely failing to deliver such services to the end users.

The adjustment of powers and functions by MECs of local government on the other hand, often results to the necessary funds not following the adjusted functions to the receiving municipality. This then leads to a financial burden on the side of the receiver as they are now compelled to adjust their already thin budgets to accommodate for the newly allocated functions.

On the issue of funding framework of district municipalities, the paper finds that the current framework, i.e., the LGES and RSC levy replacement grant, do not speak to the realities of DMs, i.e., the funding is not sufficient to meet the needs of the DMS; hence the inability of the sector to fully render its constitutional mandates. The paper finds that more times than not, the current framework is not aligned to powers and functions of DMs, and DMs are therefore often compelled to take on unfunded mandates, which continues to harm them financially.

Lastly, on the issue of whether DMs are well capacitated to play the leading role as envisaged by the DDM, the paper finds that while the DDM is a policy worth pursuing, several factors may hamper the rollout and the successful implementation of this plan. These include:

Many DMs in South Africa are still dysfunctional. However, one would expect the model to be led by a strong and well-functioning institution. It is important therefore, for government to change the status quo of DMs to enable them to play the role as envisaged by the DDM.

The lack of clarity of powers and functions in the local government sector still causes wasteful duplication, uncertainty, and sometimes competition between DMs and LMs. These conflicts do not allow for an environment of good communication, cooperation, and coordination in the local government sphere, factors that are not conducive for the DDM to thrive.

The adjustment of powers and functions by MECs of local government renders DMs less functional, causing confusion and uncertainties among key players in local government.

Lastly, the lack of or limited financial, human and institutional capacity in DMs leaves much to be desired. This is found to be the main reason why a majority of DMs in the country are dysfunctional. Weak institutions, however, may not do justice to the roll-out of the DDM.

Having noted these weaknesses and factors that may hinder DMs from playing the role envisaged by the DDM, it is important to underscore and summarise some of the policy options that this paper has advanced and which government can pursue to optimise the role of DMs in the DDM.

First, the institutional weakness that render many DMs dysfunctional should be uprooted. This should include reviewing the current funding framework to align the funding of DMs with powers and functions performed.

Secondly, the capacity of DMs should be strengthened as this will prepare them to play the leading role in the DDM that is required. DMs should be capacitated so that they can effectively coordinate development planning, while also helping weaker municipalities in providing services, as well as making them well conversant with what the DDM entails.

Lastly, as a matter of urgency, clarity on the functions and powers of DMs is required. In line with the White Paper on Local Government, the powers and functions of DMs should encompass district wide planning, coordination of strategic development and intergovernmental relations policy issues, provision of technical assistance to LMs, development of district wide planning frameworks, provision of district wide services, provision of bulk water, sanitation, refuse removal, and services to district management areas.

In conclusion, our analysis supports the need for a new funding model for DMs and a review of sections 84 and 85 of the MSA. In our view, these are the main issues that may affect the roll-out and the successful implementation of the DDM. If issues around the funding framework are resolved and powers and functions of DMs are well defined and standardised, the DDM may prove to be the change South African has been longing for.

11.11 Recommendations

The Commission makes the following recommendations:

1. *That Cogta to speedily review and repeal Section 84 of the Municipal Structures Act to streamline the powers and functions of District Municipalities vis a vis those of Local Municipalities*

Our empirical analysis points to uncertainty and lack of clarity of municipal powers and functions within the two-tier local government system as one of the main reasons municipalities are unable to fulfil their constitutional mandates. As such, repealing section 84 of the Municipal Structures

Act will help to stabilise and better manage the environment for adjusting powers and functions and better inform the local government funding model.

There is a need for a long-term sustainable funding model for District Municipalities, which should be based on the outcomes of the review of District Municipalities functions being undertaken by CoGTA. Developing a sustainable funding model for District Municipalities will require a clear specification of the powers and functions of District Municipalities, a proper appreciation of the situational context and interrelationship with local municipalities, and a clear link between funding and functions. The Commission recommends that clarity on the functions and powers of District Municipalities is needed as the first key step. Thus, the Commission encourages CoGTA to speed up the process of reviewing the functions of District Municipalities.

2. *CoGTA should review and amend section 85 of the municipal structures act to allow adjustment of powers and functions by MECs of local government to be followed by the adjustment of funding*

The Member of Executive Council for local government in a province may, subject to the other provisions of this section, adjust the division of functions and powers between a district and a local municipality as set out in section 85 (1) or (2), allocating any of the remaining functions and powers vested in the district municipality to the local municipality and vice versa. The exercise of these powers by the Member of Executive Council has the potential effect of creating a de facto asymmetrical system of allocation across districts.

During the Commission's analysis and interviews with the district municipalities, the Commission discovered a lack of formal service level agreements where municipalities perform functions on behalf of provinces and national departments, translating into unfunded (or underfunded) mandates. Unfunded mandates result in the diversion of financial resources from municipal core functions. The division of powers envisaged in section 84 of the Municipal Structures Act has been adjusted and re-adjusted in many provinces, making it difficult to find a fair funding model for District Municipalities.

It is also advisable that some legally binding agreement between parties involved is entered into prior to accepting and implementing assigned and delegated additional functions or powers.

3. *That the National Treasury immediately abolish the Regional Services Council levy replacement grant and bring together the Local government equitable share for District Municipalities and Regional Services Council levy replacement grants under one funding instrument.*

This funding window should be distributed among municipalities using a formula anchored on the principles suggested by the Commission and the components proposed by the Commission. The principles and critical parameters should be consulted widely before adoption. The current funding model is not pro-poor. The research analysis showed a negative correlation between the

number of indigents and the Regional Services Council levy replacement grant, meaning that the district with a high poverty level is allocated fewer funds. To a certain extent, District Municipalities with fewer functions are given disproportionately larger Regional Services Council levy replacement grants compared to District Municipalities with more functions.

11.12 References

Acemoglu, D. 2012. Introduction to economic growth. *Journal of Economic Theory,* 147(2), pp. 545-550.

Atkinson, D., Van der Watt, T. and Fourie, W., 2003. Hologram project: role of district municipalities.

Benz, U. and Fetzer, S. 2006. Indicators for measuring fiscal sustainability: a comparison of the OECD method and generational accounting. *FinanzArchiv/Public Finance Analysis,* pp.367-391.

BusinessTechSA (2021). This map shows the best and worst run municipalities in South Africa. [online] Businesstech.co.za. Available at: https://businesstech.co.za/news/government/515940/this-map-shows-the-best-and-worst-run-municipalities-in-south-africa/ [Accessed 15 Nov. 2021].

Grossman, G. M. and Krueger, A. B. 1995. Economic growth and the environment. *The Quarterly Journal of Economics,* 110(2), pp. 353-377.

Kahn, S.B., Madue, S.M. and Kalema, R. 2016. *Intergovernmental Relations in South Africa.* (Van Schaik).

Mantena, Z.I., Mofokeng, W.N. and Mzini, L.B., 2017. Funding criteria and project performance of the food security projects in the Sedibeng District Municipality. International Conference on Public Administration and Development Alternatives (IPADA).

Maroganye, R. D. 2016. Local government funding and infrastructure backlog: A case study of Emfuleni district municipality. Doctoral dissertation (North West University).

Magagula, D.N., Mukonza, R.M., Manyaka, R.K. and Moeti, K.B., 2019. Towards strengthening collaboration between district and local municipalities in South Africa: Insights from Ehlanzeni District Municipality.

Steytler, N. and Fessha, Y.T. 2007. Defining local government powers and functions. *South African Law Journal,* 124(2), pp.320-338.

FINANCIAL AND FISCAL COMMISSION

2nd Floor, Montrose Place, Bekker Street,
Waterfall Park, Vorna Valley, Midrand, South Africa
Private Bag X69, Halfway House, 1685

Midrand Office: Tel: +27 11 207 2300
Cape Town Office: Tel: +27 21 487 3780

www.ffc.co.za

RP42/2021
ISBN: 978-0-621-49141