

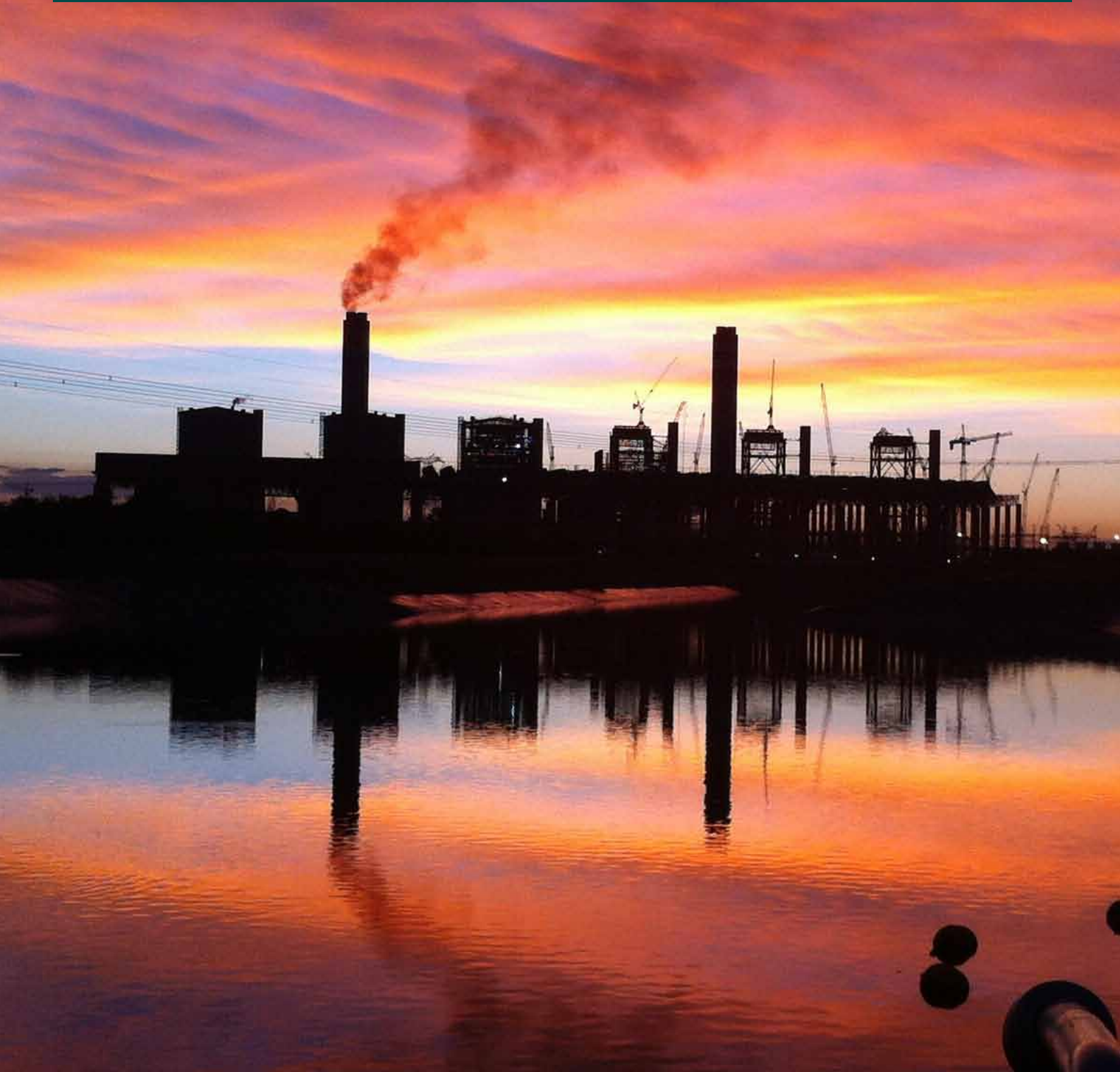
# 2016 / 2017

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## TECHNICAL REPORT SUBMISSION FOR THE DIVISION OF REVENUE



*For an Equitable Sharing of National Revenue*







*For an Equitable Sharing of National Revenue*

# Technical Report: Submission for the Division of Revenue 2016/2017

September 2015

ISBN: 978-0-621-43720-1  
RP174/2015

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# ACRONYMS

|        |  |
|--------|--|
| 2SLS   | Two-Stage Least Squares                                      |
| AsgiSA | Accelerated and Shared Growth Initiative                     |
| BAU    | Business As Usual  |
| BLAs   | Black Local Authorities                                      |
| BNG    | Breaking New Ground  |
| CECD   | Centre for Early Childhood Development                       |
| CFO    | Chief Financial Officer                                      |
| CGE    | Computable General Equilibrium                               |
| CIO    | Chief Information Officer                                    |
| CoGTA  | Department of Cooperative Governance and Traditional Affairs |
| CPW    | Community Works Programme                                    |
| CSIR   | Council for Scientific and Industrial Research               |
| DBE    | Department of Basic Education                                |
| DEA    | Data Envelope Analysis                                       |
| DHIS   | District Health Information System                           |
| DoC    | Department of Communications                                 |
| DoE    | Department of Energy   |
| DoH    | Department of Health   |
| DPSA   | Department of Public Service and Administration              |
| DPW    | Department of Public Works                                   |
| DSD    | Department of Social Development                             |
| DST    | Department of Science and Technology                         |
| DTI    | Department of Trade and Industry                             |
| DTPS   | Department of Telecommunications and Postal Services         |
| ECD    | Early Childhood Development                                  |
| EIG    | Education Infrastructure Grant                               |
| EPWP   | Expanded Public Works Programme                              |
| FBS    | Free Basic Services  |
| FE     | Fixed Effects  |
| FFC    | Financial and Fiscal Commission                              |

|       |  |
|-------|--|
| FIZ   | Free Internet Zones                                  |
| GDP   | Gross Domestic Product                               |
| GEAR  | Growth, Employment and Redistribution                |
| GFCF  | Gross Fixed Capital Formation                        |
| GHS   | General Household Survey                             |
| GVA   | Gross Value Added                                    |
| HFRG  | Health Facilities Revitalisation Grant               |
| ICASA | Independent Communications Authority of South Africa |
| ICT   | Information and Communication Technology             |
| IDP   | Integrated Development Plan                          |
| IGR   | Intergovernmental Relations                          |
| IGFR  | Intergovernmental Fiscal Relations                   |
| INEP  | Integrated National Electrification Programme        |
| IUDF  | Integrated Urban Development Framework               |
| LSM   | Learner Support Material                             |
| MEC   | Member of the Executive Council                      |
| MIG   | Municipal Infrastructure Grant                       |
| MPAC  | Municipal Public Accounts Committees                 |
| MTEF  | Medium Term Expenditure Framework                    |
| NDA   | National Development Agency                          |
| NDP   | National Development Plan                            |
| NGO   | Non-government Organisation                          |
| NGP   | New Growth Path                                      |
| NHG   | National Health Grant                                |
| NHI   | National Health Insurance                            |
| NPC   | National Planning Commission                         |
| NPNC  | Non-Personnel, Non-Capital                           |
| NPO   | Non-Profit Organisation                              |
| NSNP  | National School Nutrition Programme                  |

|          |  |
|----------|--|
| OCPO     | Office of the Chief Procurement Officer                |
| OECD     | Organisation for Economic Co-operation and Development |
| PES      | Provincial Equitable Share                             |
| PGDP     | Provincial Growth and Development Plan                 |
| PICC     | Presidential Infrastructure Coordinating Commission    |
| PMG      | Parliamentary Monitoring Group                         |
| PPP      | Public-Private Partnership                             |
| RDP      | Reconstruction and Development Programme               |
| RE       | Random Effects   |
| RHIG     | Rural Household Infrastructure Grant                   |
| SALGA    | South African Local Government Association             |
| SARB     | South African Reserve Bank                             |
| SCM      | Supply Chain Management                                |
| SFA      | Stochastic Frontier Analysis                           |
| SIBG     | School Infrastructure Backlogs Grant                   |
| SIC      | Standard Industrial Classification                     |
| SIPs     | Strategic Integrated Projects                          |
| SITA     | State Information Technology Agency                    |
| SLA      | Service Level Agreement                                |
| SMEs     | Small and Medium Enterprises                           |
| SOEs     | State-Owned Enterprises                                |
| Stats SA | Statistics South Africa                                |
| TIMSS    | Trends in International Maths and Science Survey       |
| USDG     | Urban Settlement Development Grant                     |
| WLA      | White Local Authorities                                |
| WTP      | Willingness to Pay                                     |

**T**he Financial and Fiscal Commission (the Commission) provides independent, impartial advice and recommendations on intergovernmental fiscal relations (IGFR), including the technical design and evaluation of provincial and local fiscal and economic policy. Established in 1994 by the interim Constitution of South Africa, the Commission provides all organs of state with information to help them make informed decisions on matters that affect, or are related to, the management of finances. In this respect, one of the Commission's main objectives is to help inform the following year's budget by making recommendations on the division of revenue among the three spheres of government and to support government's policy-making on IGFR. This is done by annually submitting to Parliament an advisory document summarising the recommendations that the Executive should take into account when crafting the following year's budget. The Submission for the Division of Revenue is made in terms of Sections 214(2) and 229(5) of the Constitution (1996), Section 9 of the Intergovernmental Fiscal Relations Act (No. 97 of 1999) and the Financial and Fiscal Commission Act (No. 99 of 1997), which is the national legislation in terms of which the Commission must function. On 29 May 2015, the Commission tabled at Parliament its Annual Submission for the 2016/17 Division of Revenue. This volume of technical chapters is published as a companion document to the Annual Submission.

The theme of this year's Submission is the IGFR challenges associated with public infrastructure. Long-term planning and financing challenges, and the lack of a long-term strategic vision have resulted in inadequate investment in skills, infrastructure and innovation. This has led to longstanding structural weaknesses in the economy which are affecting growth. In line with the National Development Plan (NDP), government seeks to kick-start economic growth through investing in public infrastructure, which is an important strategic responsibility shared across different spheres and sectors of government. This shared responsibility makes managing public infrastructure financing and implementation complex and requires substantial and competent coordination. Subnational governments also need to be able to work collaboratively in designing and implementing investment projects. There is a pressing need to get the administration and delivery of public infrastructure right because of its importance for national development and regional performance.

The idea that governments should invest in public infrastructure, to support production and trade (and thus growth and development), is well established. The argument for public investment rests on the belief that resources allocated to investment translate into an equivalent value of public capital stock, which benefits the private sector and affects overall growth by lowering the cost of production or distribution. During the post-war years (1950s and 1960s), the economic models underlying the five-year plans and industrialisation strategies relied heavily on high levels of public investment. However, South Africa has certain challenges that hinder the effective use of resources for development. South Africa faces shortages in economic and social infrastructure, and the government is expected to be the main player in closing these deficits, through enabling public policy, complemented by private investment and innovation. Investment – in (capital) equipment and in new (technological and managerial) ideas – is a crucial engine of growth. Investing in capital allows firms to incorporate new technologies and to reorganise production processes according to global best practices. Therefore, fostering a supportive environment for investment and innovation is central to having a dynamic and productive economy.

Public infrastructure has the power to boost national development and regional performance but must be better managed. In a time of uncertain future economic prospects and tight fiscal conditions, the aim should be to achieve the highest value for money and the greatest growth impact from spending public money. Given the fiscal constraints that limit the overall level of public investment, efficiency needs to be maximised through better economic growth and management of investment spending. Improving the quality of governance can help, especially through coordinating investments and building capacity within subnational governments. The focus needs to be not only on the macro-level but also on the meso-, sectoral and municipal levels.

The Submission explores ways of addressing the challenges that may prevent South Africa from reaping the rewards of public investment. Structural reform requires public investment and private sector involvement in education to provide a skilled labour force, to match supply and demand in the labour markets, and to raise productivity. This reform also calls for immense infrastructure upgrading to provide reliable and affordable power, roads, telecommunication, transport and logistics – all very relevant for enhancing competitiveness and revitalising the economy. In addition to addressing these gaps and challenges, lessons from successful high-impact policies in the Submission provide examples of how inclusive infrastructure-led growth can be achieved. Examples of high-impact policies include promoting early childhood develop-

ment (ECD) infrastructure and intervening to raise public sector productivity; enhancing governance and accountability at all levels, but in particular for municipalities; capitalising on the emerging knowledge economy and information communication technologies (ICT) sector to overcome productivity challenges in the public sector; and introducing programmes to enhance the performance of indirect conditional grants.

## **The Technical Report contains seven chapters:**

**Chapter 1 outlines and addresses IGFR problems associated with public infrastructure management.** It examines five aspects relating to public infrastructure: the type of infrastructure (economic and/or social infrastructure); ways of funding the infrastructure and the impact on growth and jobs; the spheres responsible for the various types of infrastructure, especially the role of subnational governments; reasons for infrastructure investment not delivering economic growth and jobs, given the present configuration; and the conditions required for success. It highlights the specific (economic, institutional and financing) problems that continue to beset public infrastructure and which are discussed in the rest of the Submission. The final section of the chapter provides recommendations that set the context underlying the more detailed recommendations outlined in the rest of this Submission.

**Chapter 2 discusses the impact of public capital spending on economic growth,** taking into account the strong interdependence of national, provincial and local government, and differences across municipalities. It first examines the impact on labour productivity of private and public capital spending on socio-economic infrastructure (such as roads, electricity, and water and sanitation). The results provide fairly strong evidence that public capital has a significant negative effect, whereas private sector activities have a strongly positive effect on labour productivity. This suggests that infrastructure investments by local government are subject to diminishing marginal returns, indicating inefficiencies in the use and allocation of resources. Under South Africa's current economic policy of increasing public capital expenditure, municipal responsibilities for infrastructure investment are set to rise. Therefore, more attention needs to be paid to innovative ways of enhancing local capacity to properly plan for, allocate finance to and implement key capital projects. The chapter also examines the effects of capital spending on municipal economic growth. The results indicate that where the municipal capital is spent is important for growth. Spending on electricity, water and sanitation, as well as repairs and maintenance, enhances growth, while spending on housing and roads infrastructure has a negative effect on regional output. With municipal responsibilities for infrastructure investment set to rise under South Africa's current economic policy of increasing public capital expenditure, the results suggest that municipal capital spending on water and sanitation, as well as electricity, can spur local economic development. Improving the management of asset registers and maintaining existing infrastructure (to extend the useful life of infrastructure assets) could also benefit long-term economic growth across the country's municipalities.

**Chapter 3 reviews direct and indirect conditional grants as well as ways of improving the financing of capital investments.** Indirect grants are increasingly being used to fund key infrastructures, but no guiding principles or criteria are in place for establishing or rescheduling direct and indirect conditional grants. This chapter considers the funding and performance of selected direct and indirect infrastructure grants related to education, health, electrification and sanitation. The study analyses the grant budgets and expenditure, and compares the infrastructure delivery targets with actual delivery. The results found that direct grants outperform indirect grants, and that the sanitation indirect grants' performance is low. The chapter makes recommendations on the appropriate mix of conditional grants and on some guiding principles for the scheduling of conditional grants.

**Chapter 4 looks at accountability in infrastructure delivery at the local government level.** The government has embarked on a massive infrastructure delivery programme, which must be founded on sound accountability arrangements. When accountability fails, many things can go wrong, e.g. public funds are misappropriated or stolen, public officials routinely demand bribes, public contracts are unfairly awarded, and public services are poorly delivered or not delivered at all. This chapter evaluates accountability arrangements against the backdrop of the proliferation of indirect infrastructure grants and the under-spending of these grants, diagnoses accountability problems related to infrastructure delivery and funding, and makes recommendations for strengthening accountability mechanisms within the local government sphere. The study is based on secondary data and the case studies of nine municipalities, (Mangaung, Waterberg, Westonaria, Sol Plaatje, Ramotshere, Mbizana, Newcastle, Stellenbosch and Bush-

buckridge) identified by means of stratified random sampling. The results suggest that the proliferation of indirect grants distorts accountability arrangements. Furthermore, most municipalities may have well-established accountability structures but lack capacity and skilled personnel to execute their accountability role proficiently. The support structures also have insufficient human, financial and research resources. The chapter provides recommendations on these issues.

**Chapter 5 considers fiscal arrangements for financing early childhood development (ECD) infrastructure.** South Africa has been at the forefront of developing programmes and policies to meet its constitutional obligations towards children's rights. Despite the robust legislation and policies, ECD remains highly inaccessible, inequitable, and insufficiently resourced. The lack of adequate infrastructure, in particular, exacerbates accessibility problems among poor children. Public funding for constructing and maintaining ECD infrastructure is limited, unstructured and highly fragmented. The three spheres of government are concurrently responsible for ECD, but none of them has an identifiable, standing budget line item or programme for ECD infrastructure. The fragmentation and lack of funding is attributable, in part, to policy ambiguities and poor coordination among the departments of social development and cooperative governance and traditional affairs, and municipalities. Without a well-coordinated and integrated national ECD infrastructure programme, piecemeal interventions will continue to distort the distribution of funding and reinforce inequities.

**Chapter 6 looks at public sector productivity and how to improve it.** Secondary education is used as a case study to examine public sector productivity. With the economy growing slowly and tax revenues under pressure, public service productivity is in the spotlight, especially sectors such as education that consume a large share of government funds. The chapter evaluates the extent to which productivity in secondary education can be improved. The weak association between public funds spent and secondary education outputs suggests that non-monetary determinants of productivity or education expenditures are being used inefficiently. Environmental factors, such as the income of households, teacher commitment, socio-economic status of households and school size, all affect efficiency scores. More specifically, simply increasing resources to public schools will not necessarily improve school outcomes. What is needed is to focus more broadly on understanding productivity in the public sector, the measurement of productivity, and internal and external factors that influence productivity.

**Chapter 7 is on improving government operations through information and communication technologies.** Shifting to an eGovernment approach has the potential to improve and expand service delivery, as well as to help overcome the spatial divisions that persist in South Africa. The chapter explores the key barriers that prevent departments/municipalities from treating investment in information and communication technologies (ICT) as a strategic enabler for improved service delivery and efficiency. The methodology entailed a review of key policies and literature, as well as interviews with selected stakeholders. The study found that, despite the progress made by government, the ICT goals in the National Development Plan (NDP) are unlikely to be met within the given timeframes, as certain areas first need some attention. These relate to simplifying the policy environment and ensuring that implementation is closely aligned to policy goals and objectives. Such issues need to be addressed before focusing on whether ICT is underfunded or not given sufficient prioritisation, as funding should follow function in an effective intergovernmental system.

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