

Public infrastructure delivery and construction sector dynamism in the South African economy

Dr Ron Watermeyer

Dr Sean Phillips

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Objective of the policy paper

- **To inform the NPC's review of progress towards the NDP Vision 2030 with regard to infrastructure delivery and construction sector dynamism:**
 - **Review progress against NDP objectives and targets**
 - **Identify causes of lack of progress and make recommendations**
- Paper is based on desk top studies and interactions with subject matter experts
- While the paper covers all the infrastructure elements of the NDP, it focusses on that which is in the control of government

The importance of planning, delivery, operation and management of infrastructure 3

NDP:

Public infrastructure enables economy to grow faster and become more competitive and productive, lowers cost of doing business, creates jobs for low-skilled people, promotes spatial inclusivity, contributes to elimination of poverty and reduction of unemployment and inequality, provides opportunities for B-BEEE

BUT:

- Poorly planned, delivered, operated and managed infrastructure can:
 - Be an impediment to, rather than an enabler of, economic growth
 - Undermine B-BBEE
 - Result in an increase in poverty and inequality, e.g. water shortages and/or increase in water-borne diseases in communities

E.g. Time and cost-over-runs on Kusile and Medupi coal power plants have:

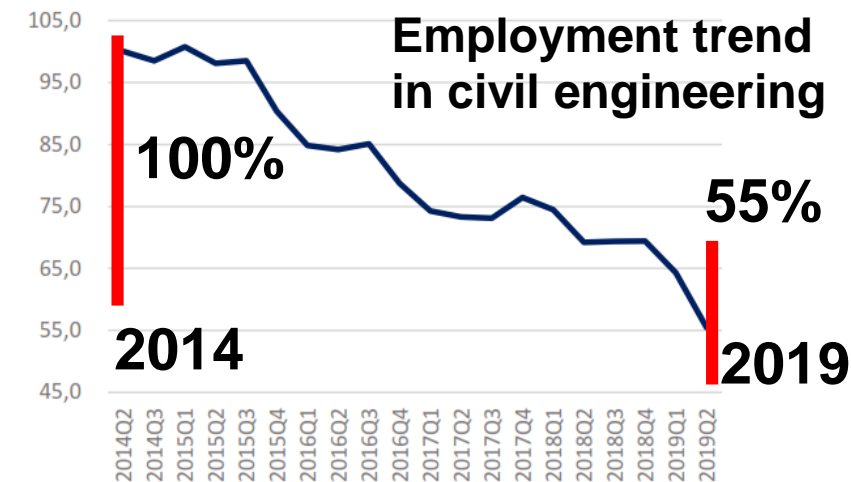
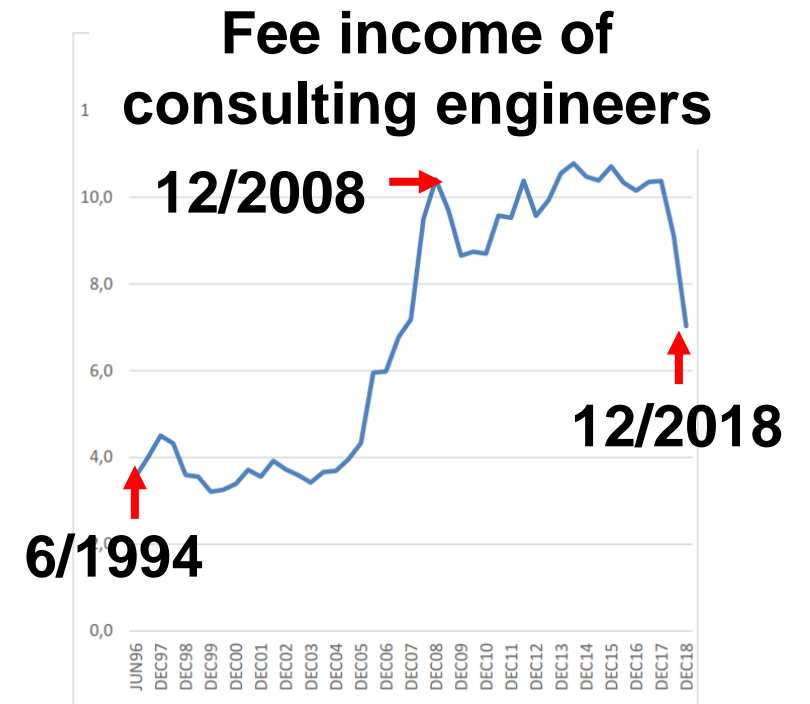
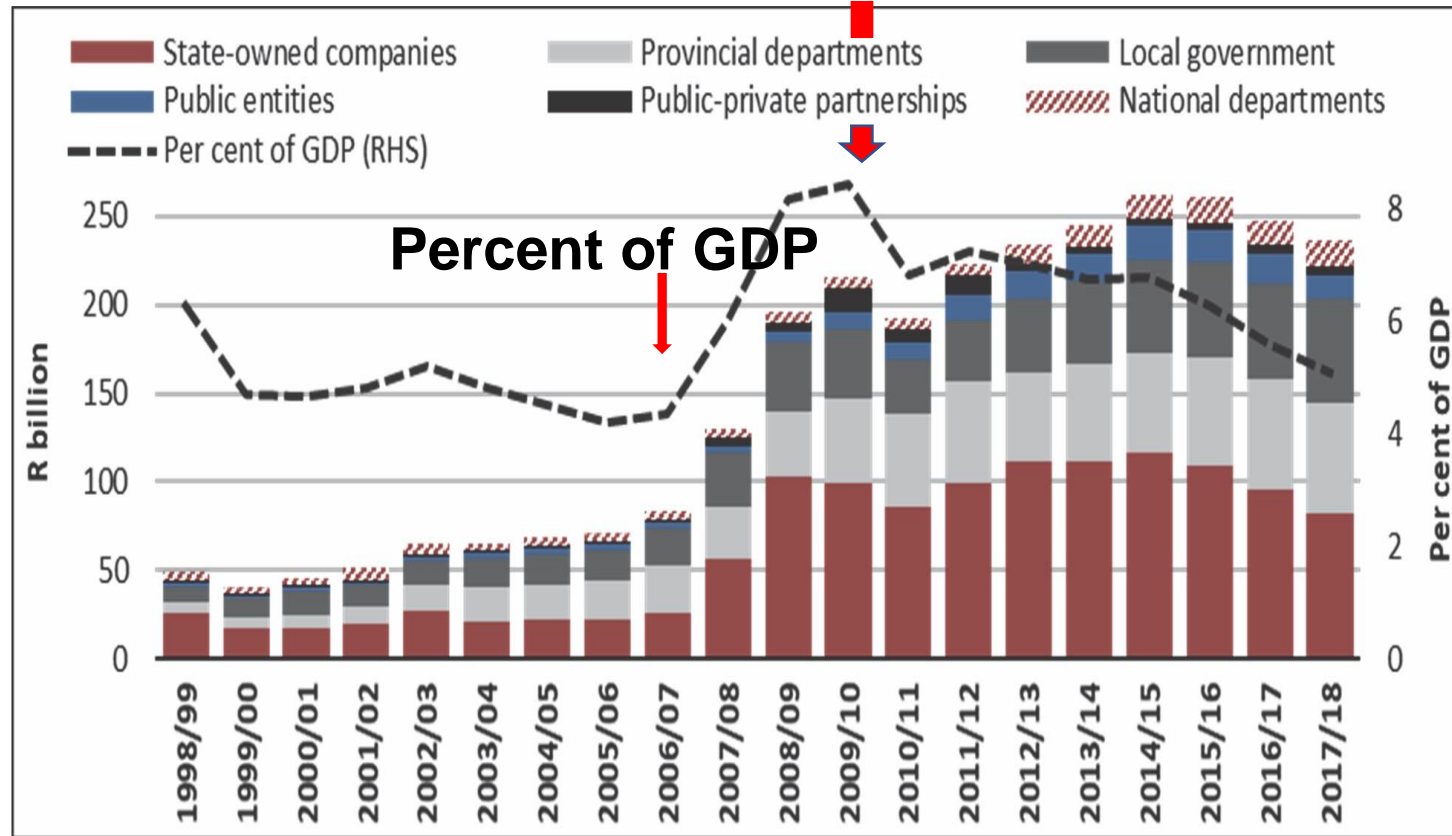
- Failed to resolve energy shortfall
- Put a cap on economic growth and hence employment creation
- Brought ESKOM to the brink of bankruptcy
- Put the sovereign balance sheet at risk

- Gross fixed capital formation to 30% of GDP by 2030
- Public infrastructure investment to 10% of GDP by 2030
- Private funding to be sourced for some of these investments
- Plan infrastructure to address apartheid spatial patterns
- Grow the construction sector:
 - Provide support for exports of construction goods and services
 - Address government's inability to spend its infrastructure budget and improve infrastructure procurement:
 - differentiate between procurement of infrastructure versus other goods and services
 - adopt strategic approach to procurement
 - build trust and understanding with suppliers
 - develop professional procurement capacity
 - incorporate professional judgment in infrastructure procurement processes
 - change role of procurement divisions to play supporting and enabling role to operational line management

Performance against NDP targets

1. Targets for increasing public infrastructure expenditure as % of GDP not being met

2010 World Cup, Gautrain spike

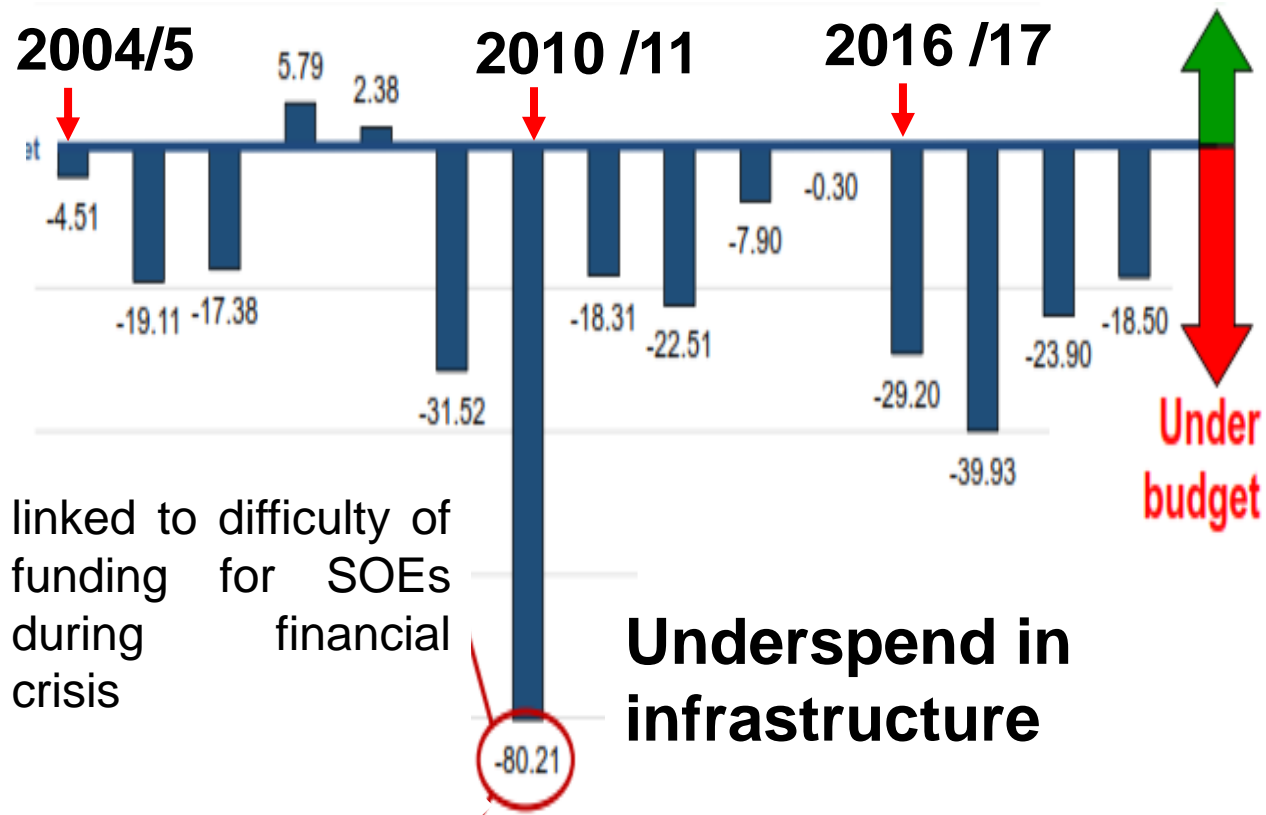


Average 5.9% from 1998/99 to 2017/18. To achieve NDP trajectory, need to increase infrastructure investment by 28% year-on-year until 2022

In 2018 private exceeded public sector expenditure in civil construction industry for first time ever

PPP regulatory framework has had disappointing outcomes: only 2% of public infrastructure privately funded

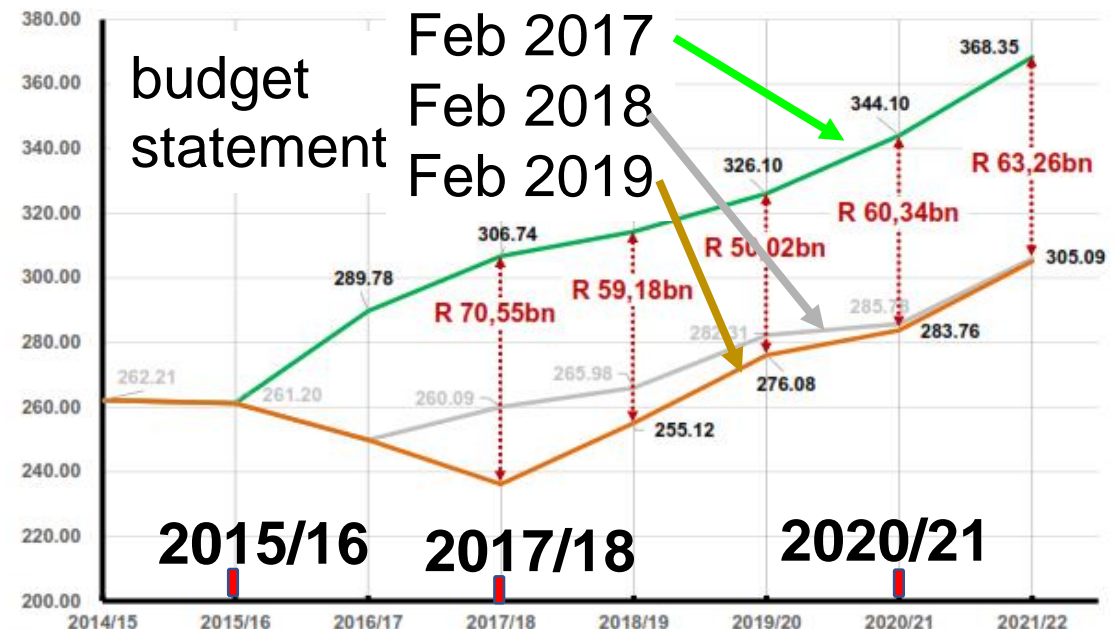
2. Under-expenditure is still rife



For period 2015/16 to 2017/18, SOEs and state-owned enterprises and public entities spent less than 75% and 65% of their budgets, respectively, while state as a whole has spent less than 85% of the available budget

In 2017/18 financial year metropolitan councils spent between 55 to 78% of their budget while 12% of municipalities spent less than 40%, 20% spent between 40 and 60%, 37% between 60 and 80%

Falling infrastructure allocations to compensate for underspending and due to fiscal constraints



3. No improvement in condition of infrastructure

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Infrastructure score card	Overall score
2006	D+
2011	C-
2017	D+

SAICE Infrastructure Report Card, 2006, 2011 and 2017

B (fit for the future): Gautrain, national roads, commercial ports, ACSA airports, Eskom's distribution lines and heavy haul freight railway lines

D (unfit for purpose): sanitation in all areas outside of major urban areas; provincial, metropolitan and municipal gravel roads

E (at risk of failure): bulk water services, water supply other than major urban areas, solid waste collection and disposal other than major urban areas, paved provincial and municipal roads outside of metropolitan areas, branch railway lines, PRASA passenger railway lines, local electricity distribution, health care facilities (hospitals and clinics), TVET colleges

4. Mega projects have been characterised in the main by cost overruns and late delivery.

Gauteng Freeway Improvement Project:

R11.4b → R 17.4b

Guatrain Rapid Rail Link System:

R6.8b → R25.2b

Eskom's Ingula Pumped Storage Scheme: R8.9 → R25,9b

Transnet's New Multi-Product Pipeline: R12.7bn → R30.4bn

Eskom's Medupi: R70bn → R208bn+

Eskom's Kusile: R80bn → R239bn

Exceptions:

- SIPS 14 new universities project (Sol Plaatjes University and University of Mpumalanga)
 - 28 months from time that political decision made to when the facilities were put in use
 - built within budget, slightly below cost norms, less than 2% difference between cost at start of construction and final cost
- REIPP
 - 6 422MW of electricity procured from 112 RE Independent Power Producers (IPPs) in seven bid rounds
 - marked reduction in cost of renewable energy through successive bid rounds
 - R210 billion non-government investment

Key differentiator is quality of procurement and client delivery management.

- client delivery management capacity with decision-making authority
- client governance and organisational ownership
- CEO-level client leadership
- strategic and tactical approach to procurement

Assessment of reasons for disappointing outcomes

- Several reasons for disappointing outcomes including:
 - deteriorating government finances
 - deteriorating state owned enterprise balance sheets
 - decreasing public sector investment in infrastructure, compounded by lack of private sector investment in infrastructure
 - corruption and state capture
 - Lack of improvement of infrastructure procurement, client delivery management, and infrastructure management in public sector
- Paper focuses on last reason

Root cause of poor project outcomes is ongoing weaknesses with infrastructure procurement and client delivery management.

- **National interventions** aimed at basic portfolio, programme and project management practices and technical assistance, not sufficiently addressing procurement and client delivery management
- **Lack of differentiation of infrastructure procurement**, failure to accommodate the manner in which risks inherent to the procurement and delivery of infrastructure are commonly mitigated
- **Administrative SCM paradigm**: focus on “ticking of boxes” where compliance with rules are more important than project outcomes, professional input excluded from procurement processes
- **Differences in understanding / interpretation** of SCM regulation, policy and practice within an excessively rigid, fragmented and complex legislative regime
- **Lack of appropriate capacity, skills and experience** in specifying, procuring and overseeing the delivery of infrastructure, and its ongoing management and operation
- **Lack of appropriate delegations** to empower client delivery managers to manage

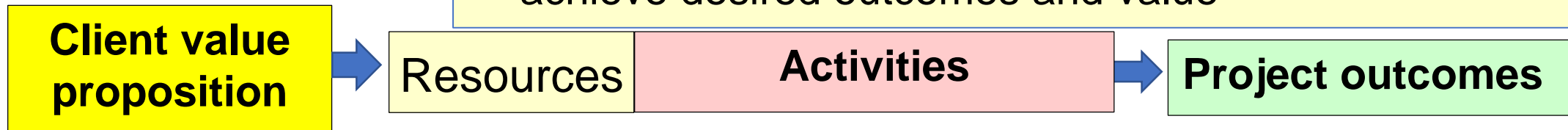
Recommendations

- **Differentiate infrastructure procurement** from procurement of goods and services
- **Professionalise infrastructure procurement** and enable professional input into procurement processes
- **Build public sector planning, client delivery management and infrastructure management capacity** (skills and institutional capacity such as appropriate delegations of authority)
- **Review the PPP regulatory framework**
 - Identify public infrastructure sectors suitable for private sector investment, put in place national programmes for private sector involvement in these sectors, drawing on experience of REIPP

Delivery management - is the critical **leadership role played by a knowledgeable client to specify, procure and deliver infrastructure projects** efficiently and effectively, resulting in value for money.

Prerequisites for successful delivery

- 1) a **client delivery manager** who is an appropriately qualified and experienced built environment practitioner and able to lead the infrastructure projects and programmes;
- 2) an **effective organisational governance structure** which enables the appointed client delivery manager to exercise CEO level leadership;
- 3) **appropriate delegations of authority** which enable **decisions to be made swiftly** to ensure delivery in an accountable manner; and
- 4) enabling SCM policies which **facilitate or do not preclude the application of sound infrastructure procurement practices** to achieve desired outcomes and value



Plan → Specify → Procure → Oversee delivery

Delivery management