

ECONOMIC RESEARCH NOTE

Note No. 1 | May 2026

From Fiscal Constraint to Infrastructure-Focused Growth:

The Growing Role of Public-Private Partnerships in South Africa

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ABSTRACT

South Africa has been trapped in a high-debt, low-growth equilibrium since the 2008 Global Financial Crisis. The economy has not returned to its pre-crisis growth trajectory, fixed investment has fallen materially below the National Development Plan target, and rising debt-service costs are crowding out productive expenditure. The microeconomic root cause lies in deteriorating network industries — electricity, rail, and ports — which have eroded the country's productive capacity. This Note argues that the state faces twin constraints: a fiscal constraint that limits public investment, and an operational constraint that limits its capacity to deliver large-scale infrastructure. Public-Private Partnerships (PPPs) are increasingly emerging not as a privatisation device, but as a structural mechanism to restore investment capacity and reignite productivity-led growth while preserving debt sustainability.

Keywords: South Africa, Public-Private Partnerships, debt sustainability, fiscal space, infrastructure, network industries, productivity.

1. INTRODUCTION

South Africa's economy has not yet recovered from the structural break triggered by the 2008 Global Financial Crisis (GFC). What began as an external shock has evolved into a persistent low-growth equilibrium characterised by weak fixed investment, eroding fiscal space, deteriorating network industries, and an unsustainable debt trajectory. The interaction between these forces — rather than any single factor — defines the country's central macroeconomic challenge.

The diagnosis is straightforward. The country is borrowing at faster pace than it is growing, while the borrowing itself is funding consumption rather than capital formation. The result is rising debt with diminishing returns. At the same time, the deterioration in the operational performance of state-owned enterprises (SOEs) — particularly Eskom and Transnet — has reduced the productivity of South Africa's mining-and-manufacturing complex, compounding the fiscal problem by suppressing tax revenues.

Government cannot resolve this on its own. The fiscal constraint is binding, and state implementation capacity has been weakened by years of underinvestment in

technical skills, governance lapses, and operational decline. The challenge is not merely to raise capital; it is to deliver infrastructure efficiently.

This paper argues that **PPP-led infrastructure investment is increasingly becoming a structural necessity for restoring growth while maintaining fiscal sustainability**. The remainder of this Note examines the structural slowdown, the collapse in fixed investment, the fiscal-crowding-out dynamic, the productivity drag from network industries, and the debt-sustainability arithmetic that ultimately drives the case for PPPs.

2. THE STRUCTURAL GROWTH SLOWDOWN

Prior to 2008, South Africa was operating in a higher-growth regime. Real GDP growth averaged approximately 3.7% per annum between 1998 and 2008, supported by buoyant commodity prices, a healthy investment cycle, and improving external balances. Following the GFC, growth declined sharply and stabilised at a structurally lower level — averaging only c.1.1% per annum between 2009 and 2024.

This is not a cyclical phenomenon. Despite intermittent recoveries, the economy has remained persistently below its pre-GFC long-run average. The COVID-19

contraction in 2020 added a second negative shock from which the country has yet to fully escape, but the structural break itself predates the pandemic by more than a decade. The persistence of the gap signals the presence of underlying constraints affecting productivity, investment, and overall economic capacity rather than a temporary cyclical slowdown.

Key insight. *The growth path itself has shifted downward. Recovering to the pre-2008 trend is no longer a question of waiting out the cycle; it requires identifying and removing the structural constraints holding the economy below its potential.*



Source: Authors' calculations based on Stats SA / SARB / World Bank data.

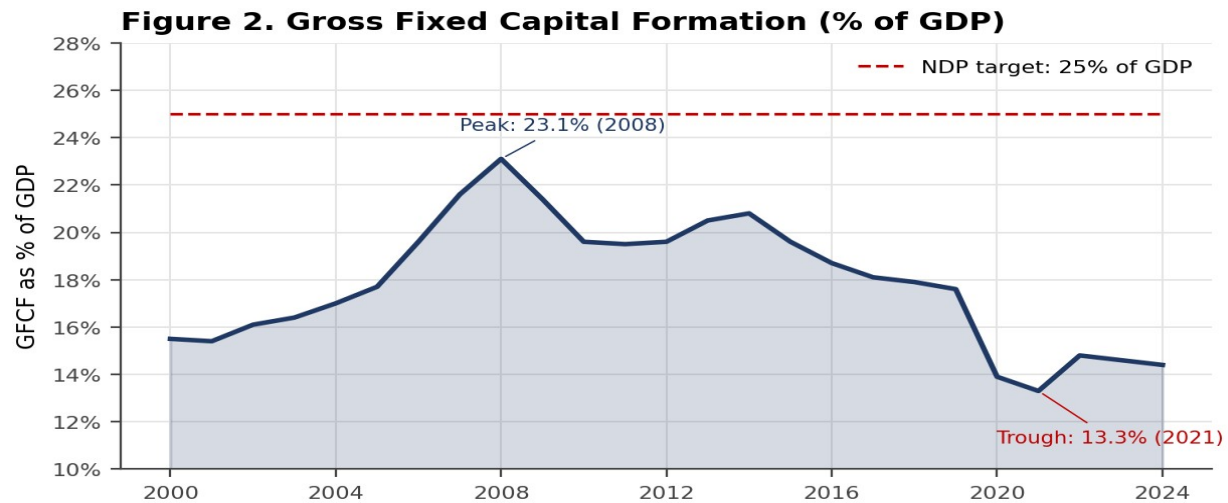
3. THE COLLAPSE IN FIXED INVESTMENT

If growth has structurally slowed, the natural place to look is fixed investment — the engine of productive capacity. Gross fixed capital formation (GFCF) as a share of GDP peaked at c.23% in 2008 and has declined materially since. The National Development Plan target of 25% of GDP has not been met in any year since the GFC, and by 2020 the ratio had fallen to below 14%.

The decline in investment is not merely a number on a national accounts table. Lower investment translates directly into:

- Reduced productive capacity, as factories, ports, and rail networks age without replacement;
- Slower infrastructure expansion, holding back the economy's ability to support new mining, manufacturing, and energy capacity;
- Diminished long-run growth potential, since growth ultimately depends on the accumulation of physical and human capital.

Link. The growth slowdown documented in Figure 1 is mechanically linked to the investment slowdown shown in Figure 2. A country that cumulatively under-invests by several percentage points of GDP each year for over a decade should not expect to grow at its pre-crisis rate.



Source: Stats SA, SARB. Approximate annual averages.

4. PUBLIC VS PRIVATE INVESTMENT DYNAMICS

Decomposing fixed investment into its public and private components reveals the dynamics behind the aggregate decline. Three patterns stand out.

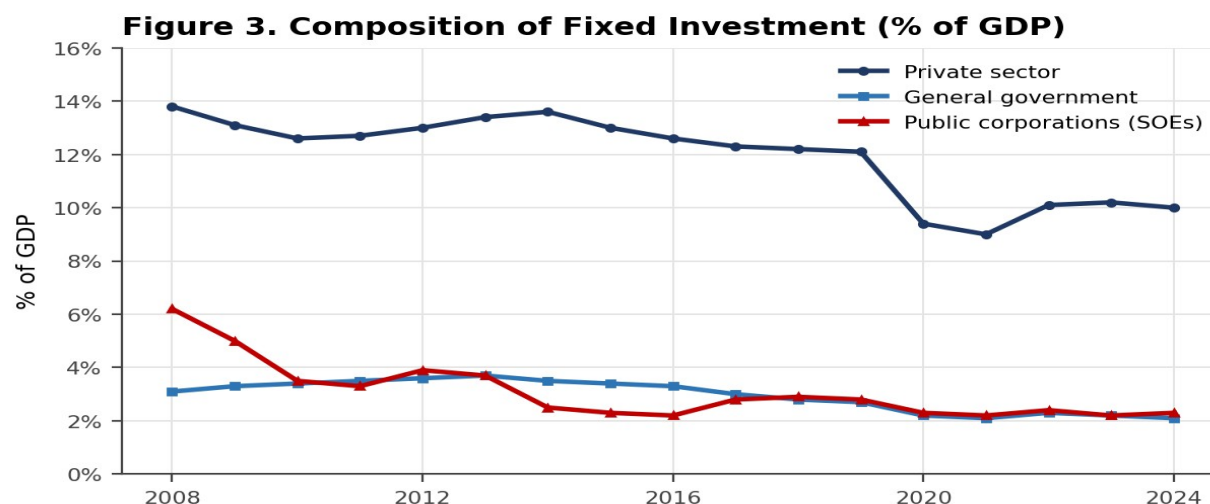
First, the private sector is the dominant source of fixed investment in South Africa, typically contributing roughly two-thirds of total GFCF. Private investment has trended downwards as electricity availability, logistics reliability, and policy certainty have deteriorated.

Second, general government investment — capital expenditure by national, provincial, and local government — has remained low and relatively stable, averaging only c.2-3% of GDP. This level is insufficient to

maintain, let alone expand, the country's economic infrastructure.

Third, and most strikingly, investment by public corporations (the SOEs that own most of the country's hard infrastructure) has collapsed from over 6% of GDP at the peak of the Medupi/Kusile build-out to roughly 2% today. This collapse is at the heart of the network-industry crisis discussed below.

Interpretation. Infrastructure failure discourages private investment, while the public sector lacks both the fiscal space and the operational capacity to fill the gap. The economy is stuck in a low-investment equilibrium in which neither side of the public-private boundary is investing enough. **This is the structural opening for the PPP model.**



Source: Stats SA, SARB Quarterly Bulletin. Authors' estimates.

5. FISCAL STRUCTURE AND CROWDING OUT

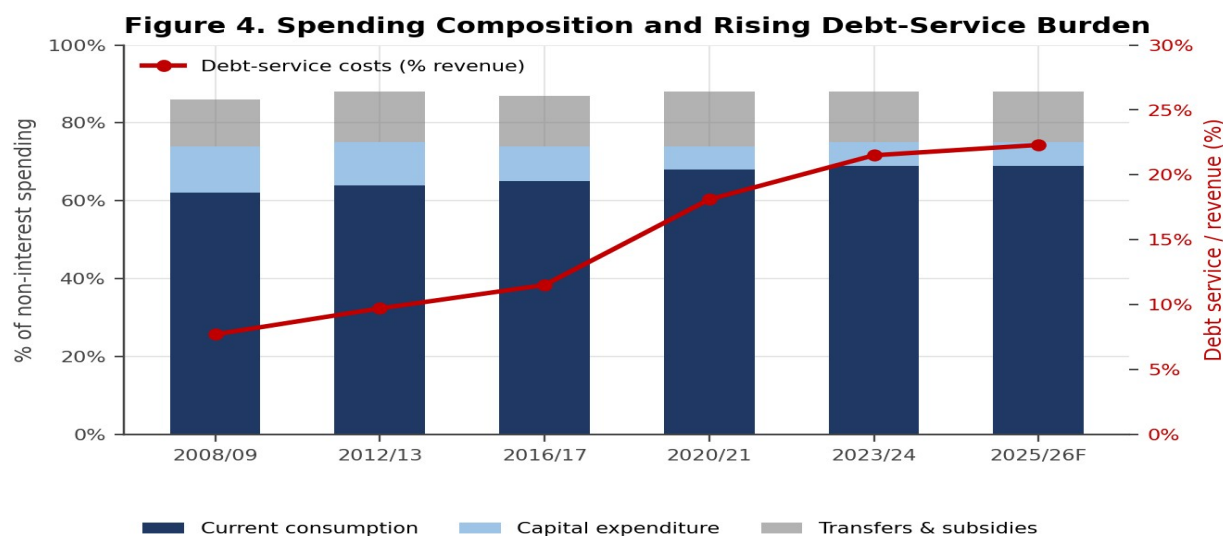
The composition of government spending has steadily skewed toward current consumption — compensation of employees, goods and services, and transfers — and away from capital expenditure. Capital spending now accounts for less than 7% of consolidated non-interest expenditure, down from c.12% in 2008/09.

At the same time, the cost of servicing accumulated debt has risen sharply. Debt-service costs are projected to consume more than 22% of consolidated revenue in the 2025/26 fiscal year, having risen from below 8% in the late 2000s. Put differently, the debt the country incurred to address the GFC and its aftermath now imposes a

structural cost that is larger than the individual budgets allocated to police, health, or education in 2022.

Key argument. Debt-service costs are crowding out investment. Each additional rand absorbed by interest payments is a rand unavailable for capital projects, productivity-enhancing spending, or counter-cyclical policy. The fiscal space available to address South Africa's growth problem has been steadily compressed by the debt-service burden itself.

This crowding-out dynamic is a particular feature of high-debt, low-growth equilibria. Rising debt-service costs reduce the funds available for capital expenditure, which lowers infrastructure capacity, which lowers productivity, which lowers growth, which makes debt harder to stabilise — a self-reinforcing cycle.



Source: National Treasury Budget Reviews. Approximate consolidated figures.

6. INFRASTRUCTURE AND PRODUCTIVITY CONSTRAINTS

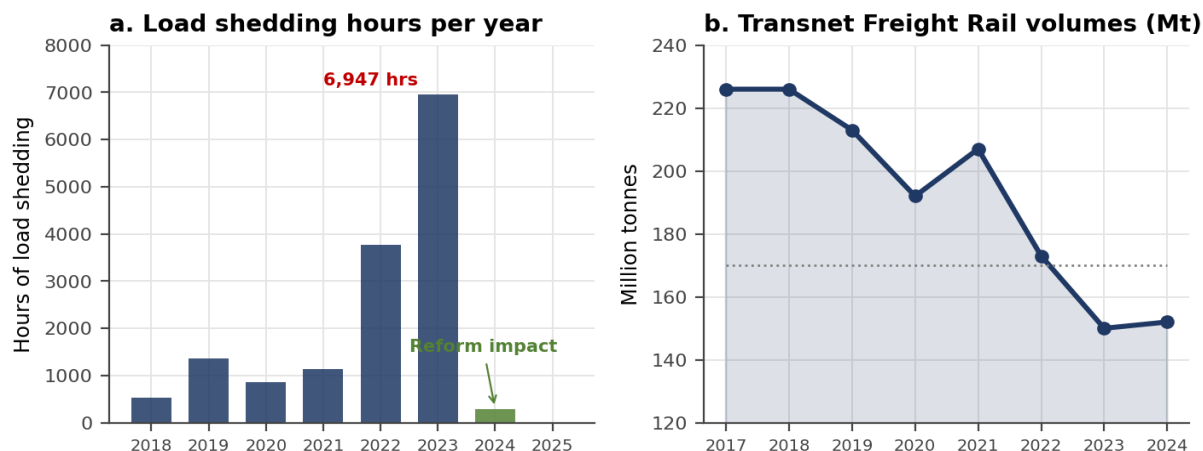
The microeconomic counterpart to the macro-fiscal story lies in the network industries: electricity, rail, ports, and water. Drawing on the framework developed by Hausmann and the Harvard Growth Lab, network industries can be thought of as binding constraints on growth — bottlenecks that, once they fail, propagate productivity losses across every downstream sector.

South Africa is a textbook example. The country has a comparative advantage in mining, an electricity-intensive industry that depends on a reliable rail and ports network for export. As Eskom's energy availability factor (EAF) deteriorated and load shedding intensified — culminating in 6,947 hours of curtailment in 2023 —

every electricity-intensive value chain was forced to contract. Concurrently, Transnet Freight Rail volumes declined from a peak of c.226 million tonnes in 2017/18 to c.150 million tonnes by 2023, forcing exporters onto already-congested road and port networks.

The result, as Hausmann et al. (2022) document, was an unexpected shock to productivity growth that explains a large share of South Africa's post-GFC underperformance. **Network industries did not merely fail to support growth — they actively subtracted from it.**

Core argument. When the productivity of network industries falls, every percentage point of investment elsewhere yields lower returns. Restoring the network industries is therefore a precondition for any sustained recovery in private investment.

Figure 5. Network Industry Performance: Energy and Rail

Sources: CSIR Energy Centre (load shedding); Transnet Annual Reports (rail volumes).

7. THE DEBT DYNAMICS PROBLEM

The interactions described above can be summarised compactly through the standard debt sustainability identity. The change in the debt-to-GDP ratio is approximately:

$$\Delta(\text{Debt} / \text{GDP}) \approx (r - g) \times \text{Debt} - \text{Primary Balance}$$

Where r is the effective interest rate on government debt and g is the nominal growth rate of the economy. The intuition is direct: when growth (g) falls below the cost of borrowing (r), the debt ratio rises mechanically — even if the primary fiscal balance is in surplus.

Key insight. When $g < r$, debt becomes harder to stabilise. Higher growth lowers the required fiscal adjustment; lower growth raises it. South Africa has spent most of the post-GFC period in the unfavourable $g < r$ regime, which is precisely why the debt-to-GDP ratio has risen from c.24% in 2008 to over 70% today.

This delivers the central policy insight of this Note: **debt sustainability is fundamentally a growth equation**. Fiscal consolidation alone — without a corresponding lift in growth — is at best a holding strategy, and at worst self-defeating, since aggressive cuts to capital expenditure further depress growth. The only durable solution is to raise the growth rate g , which means raising productive investment, which means restoring the network industries.

8. WHY THE PPP MODEL EMERGES

The diagnosis above implies that the South African state faces two simultaneous constraints rather than one.

The fiscal constraint

Public debt at over 70% of GDP and debt-service costs above 22% of revenue leave very limited fiscal space for the state to finance the scale of infrastructure investment required. Each marginal rand of additional public capital expenditure now competes directly with health, education, and police budgets.

The operational constraint

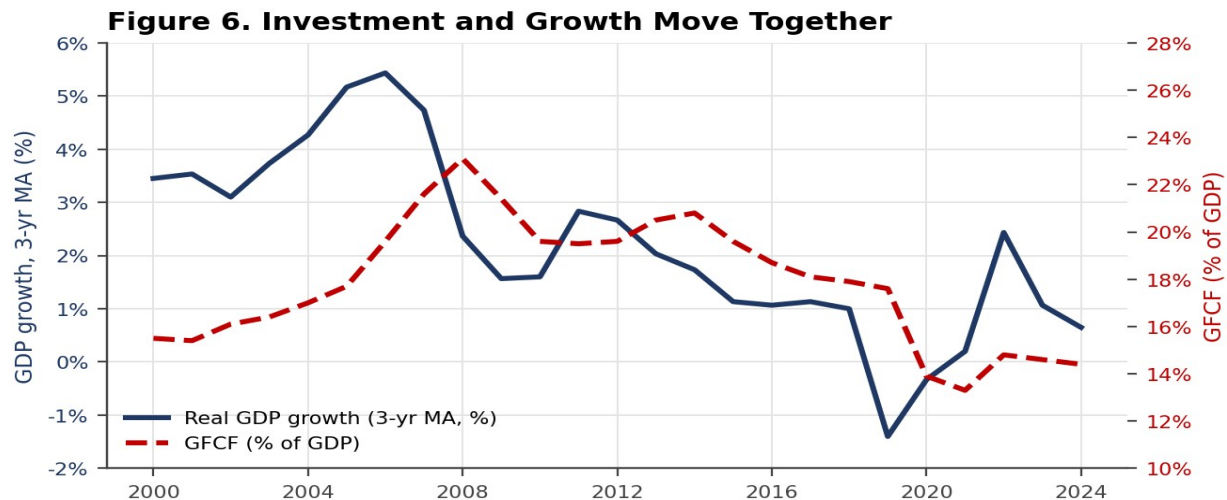
Even where capital has been allocated — Medupi and Kusile being the canonical example — execution has frequently failed. Cost overruns, delays, and persistent operational underperformance reflect a deeper erosion of state implementation capacity. Capital alone cannot solve the problem; expertise and accountable execution are equally binding.

PPPs respond to both constraints simultaneously. Properly structured, a PPP:

- Mobilises private capital, easing the fiscal constraint and freeing public balance sheet space for social spending;
- Transfers operational and construction risk to a private partner with a direct financial incentive to deliver on time and on budget;

- Accelerates infrastructure rollout, since private partners can typically procure and execute faster than constrained public agencies;
- Leverages private-sector expertise in design, technology selection, and ongoing operations and maintenance.

Crucially, PPPs are **not privatisation**. The public sector retains ownership and ultimate accountability; the private partner is contracted to deliver a defined service or asset over a defined period under defined performance metrics. The correct framing is: **PPPs are a mechanism to restore investment capacity under fiscal constraint**.



Source: Stats SA, SARB. Highlights co-movement of investment and growth.

9. RECENT SIGNS OF IMPROVEMENT

Recent policy developments suggest the beginning of a tentative shift away from the equilibrium described above. Early signs of improvement include:

- Treasury reforms simplifying the PPP regulatory framework under Treasury Regulation 16, reducing approval timelines for projects below R2 billion;
- Energy reforms, including the lifting of the licensing threshold for embedded generation, which has unlocked over 10 GW of private renewable investment pipeline;
- Logistics reforms at Transnet, including the unbundling of Transnet Freight Rail and the granting of access to private train operators on parts of the network;
- The launch of the Infrastructure Fund and a credit-guarantee vehicle to crowd-in private capital into priority infrastructure;
- Improved tax collection by SARS, which has supported revenue performance against challenging macro conditions;

- Significant investment pledges secured through the South Africa Investment Conference series;
- Operational recovery at the country's major harbours, with improving turnaround times in 2024–2025;
- A material reduction in load shedding hours in 2024, supported by both improved Eskom plant performance and the rapid scaling of private embedded generation.

Balanced view. These developments are encouraging but should not be overstated. Many of the reforms are still in implementation, the project pipeline must convert into completed assets, and operational gains at SOEs remain fragile. *Early signs of improvement may indicate movement away from the low-growth, high-debt equilibrium, although implementation risk remains substantial.*

10. CONCLUSION

South Africa's macroeconomic challenge is not, at its core, a debt problem or a growth problem in isolation. It is the interaction between them — and between low growth, weak investment, fiscal constraint, and

infrastructure deterioration — that defines the equilibrium the country has been trapped in since 2008.

The arithmetic of debt sustainability tells us that no purely fiscal strategy can resolve this. With the effective interest rate on debt persistently above the growth rate, the only durable path to debt stabilisation runs through higher growth. Higher growth, in turn, requires higher productive investment, which requires functional network industries, which requires both capital and operational capacity that the state alone cannot supply at scale.

The conclusion is therefore structural rather than cyclical: **PPP-led infrastructure investment is becoming a**

structural requirement for restoring productivity growth while preserving debt sustainability. It is not a substitute for sound public finance, nor for credible state institutions; it is a complement to both, designed to relieve constraints that the state can no longer relieve on its own.

The next Notes in this series will examine in more detail the regulatory architecture of South Africa's PPP framework, the design of bankable risk-allocation structures, and the sectoral priority list — energy, rail and ports, water, and digital infrastructure — through which the PPP model is most likely to be deployed over the coming decade.

Disclaimer

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