

ESSA presidential address: The cost of going nowhere slowly*

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Since we've last seen each other in person at an ESSA conference, a lot has happened. Where to start? From the rather traumatic events of Covid-19 and the lockdown period, the rise and fall of Ramaphoria, death by webinars, more and more loadshedding, infrastructure imploding and exploding, to rampant crime and corruption, the 'Zuma riots' and the State Capture reports, there has certainly been a lot to get despondent about and a lot of material for a rather pessimistic presidential address!

However, a lot of good has happened too that we could and should be focusing on, perhaps. (*Sigh*) Just kidding. Sure, a lot of good things happen every day, but let's not lower our standards of what we should expect as citizens and residents of this beautiful country in the face of so much despair and incompetence. From an economic and social fabric point of view, the last couple of years have been extremely challenging. In a broader context, the slow progress, and at times regress, in achieving a 'better life for all' has been downright demoralising.

All of us attending this conference have been blessed with education and opportunity, and probably a bit of luck. It has likely afforded us the chance to find a little bubble that shields us from some of the harshest realities our unequal society has to offer. However, unless you've been a lawyer milking our political elites' unwritten rule to appeal every legal loss until the cows come home, or import your couches from Phala Phala, even the luckiest among us would have felt our bubbles shrinking.

This address, as the title suggests, aims to highlight and quantify the macroeconomic costs of some of our own goals in recent years. For the sake of context, I will first describe some stylised facts of the economy before quantifying three specific scenarios relevant to South Africa's current situation. Using a dynamic computable general equilibrium (CGE) model,¹ I will investigate the costs associated with (i) recent credit rating downgrades and greylisting, (ii) a general loss of total factor productivity (TFP) and (iii) reduced access to key export markets. Of course, we are all familiar with the first two scenarios and the reasons for those, whilst the third has recently become a much talked-about risk that our somewhat dubious political and ideological allegiances have brought to the table.

So, before we get to the fun CGE part, let's have a look at the stylised facts of the South African macroeconomy, which both individually and compared to our peers and trading partners, bear out the painful state of affairs.

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¹ I use the University of Pretoria General Equilibrium Model (UPGEM) to conduct the simulations. UPGEM is based on the MONASH model developed by the Centre of Policy Studies in Melbourne, Australia. The MONASH model is documented in Chapter 2 of the Handbook of Computable General Equilibrium Modeling published by North-Holland in 2013. See <https://www.sciencedirect.com/handbook/handbook-of-computable-general-equilibrium-modeling>.

As a country, we are desperately trying to get from A to B, but there is a massive hole in our boat. That hole is what macroeconomists typically refer to as the quality of institutions. These institutions directly and indirectly affect how an economy is able to perform and the life its people are able to enjoy.

There are quite a few measures for institutional quality tracked by a number of organisations. The World Bank's Worldwide Governance Indicators identifies six main categories to measure institutional quality.² The now discontinued World Economic Forum's Global Competitiveness Index looked at how the set of institutions, policies and factors that determine productivity compares between countries across 12 pillars.³ The World Justice Project appears to take a more narrow approach to focus on the rule of law but in the construction of its WJP Rule of Law Index actually includes eight factors tracking a similar complete range of institutional frameworks.⁴ Scholars in this field will, of course, be intimately familiar with all of these, as well as the many sub-categories tracked across these frameworks.

In my own undergraduate teaching, my macroeconomics course—apparently now affectionately known as the *Institutions, Institutions, Institutions* course—we emphasise a couple of these for having a disproportionate impact on our ability to grow the economy and live well. The rule of law, private property rights, separation of powers and freedom of the press are just some of the most important institutional arrangements we discuss and track. So how are we doing with these? If you are not familiar with South Africa, I suggest some light reading in the form of the Zondo reports to get a sense of what's been happening.⁵ The nearly 5,500 pages of gory detail on how the former president and his keepers eroded our institutions and captured key elements of the state stand as a monument to what could have been in terms of growth and development.

All the aforementioned rankings and indices tracking institutional quality, place South Africa near the bottom in terms of rule of law,⁶ with sub-components such as organised crime, corruption, homicide rates and reliability of and trust in the police service the worst performers, highlighting the magnitude of the crisis on the ground. Worse yet, we are trending the wrong way, and the spillover effects are mounting! The research evidence linking poorly performing countries to weak or weakening institutions—in particular when the rule of law is the main culprit—are some of the least disputed literature economics has to offer.

At a macro-level, the damage of these institutional 'challenges' can be traced across virtually all key indicators. Three important indicators stand out in my opinion: (i) real GDP per capita, (ii) real investment spend and (iii) unemployment. At the end of 2022, both GDP per capita and investment were tracking below their respective values in 2007. Over the same period, the official unemployment rate rose from 22% to over 32%, with the expanded unemployment rate now well over 40%. A staggering two thirds of all youths are unemployed today. In total, the number of unemployed and discouraged work-seekers in South Africa increased from approximately 5.5 m people to more than 11 m people over the last 15 years. That is more people unemployed than in the United States, United Kingdom and Germany combined!

To get a clearer picture of how bad things are, we also need to check how we have been doing relative to some of our peers. Let's start with some useful benchmark countries and go back a little bit further to the year 2000. Using World Bank data for GDP per capita in constant 2015 US\$,⁷ our largest trading partners outside Africa—China, the United States of America and Germany—have all shown us a clean pair of heels. The average Chinese at the end of 2022 (\$11,560) was about two and a half times richer in

²Control of Corruption; Government Effectiveness; Political Stability and Absence of Violence; Regulatory Quality; Rule of Law; Voice and Accountability.

³Institutions; Infrastructure; ICT Adoption; Macroeconomic Stability; Health; Skills; Product Market; Labour Market; Financial System; Market Size; Business Dynamism; Innovation Capability.

⁴Constraints on Government Powers; Absence of Corruption; Open Government; Fundamental Rights; Order and Security; Regulatory Enforcement; Civil Justice; Criminal Justice.

⁵See <https://www.statecapture.org.za/>.

⁶In the last full WEF Global Competitiveness Report for 2019, South Africa ranked 135th out of 141 countries for *security*, one of the sub-categories under institutions. The WJP Rule of Law Index shows that our ranking for *order and security* fell from an already poor 81st in 2015 to 119th in 2022.

⁷See <https://databank.worldbank.org/indicator/NY.GDP.PCAP.CD/1ff4a498/Popular-Indicators>.

real terms than in 2007 (\$4,319) and more than five times richer if we go back to 2000 (\$2,194). Americans, coming of a high base already (10 times that of South Africa in 2000) are now 29% richer than they were in 2000 (\$62,866 vs \$48,746). The average German, like the average South African, is 25% richer today than in 2000 (\$43,032 vs \$34,490) but, unlike South Africa, has not regressed in recent years but shown steady growth throughout and, of course, started from a much higher base too. Just to put the Chinese number (*accounting controversies, aside*) in perspective, in 2000, the average Chinese was only 46% as rich as the average South African (\$2,194 vs \$4,735). Today, that picture is reversed, with the average South African only 52% as rich as the average Chinese (\$6,018 vs \$11,560). A look at the comparative growth rates in manufacturing between our countries helps us understand how this has happened. Whilst South Africa's real gross value added by the manufacturing sector has grown by only 26% since 2000 (R524,771 m vs R415,393 m), much like GDP, all of this growth happened up to 2013. Since 2014, there has been a declining trend, with manufacturing output in real terms a fair bit lower today than it was a decade ago. In contrast, China's manufacturing output (*much of it targeted towards the export market, of course*) has gone from strength to strength, increasing at annual rates only otherwise seen in Eskom tariff increase applications!

Some of our African competitors have made similarly remarkable strides since 2000. Rwanda has nearly tripled its GDP per capita (\$940 vs \$337), Kenya is up 48% (\$1,754 v \$1,187) and our neighbours Namibia (\$4,358 v \$3,082) and Botswana (\$6,657 v \$4,917) are up 41% and 35%, respectively. Now, before we say, but remember those are small countries coming off a low base, and indeed they are, so too was South Africa when compared to the United States, and they have managed to widen the gap over the last two decades!

Underpinning these numbers seem to be mainly productivity and investment performance, and the necessary policy and regulatory environment that influence them. Investment spending, or gross fixed capital formation as it is more formally known, must be emphasised. A decade and change ago when the National Development Plan (NDP) was released to great fanfare, real investment spend (at 2015 prices) stood at roughly R750bn or 18% of GDP. The NDP set a target of upping investment to 30% of GDP by 2030, of which public infrastructure investment alone would contribute 10%. Today, despite those much-hyped Presidential Investment Summits, investment sits at below R670bn in real terms, and only a shade above 14% of GDP.

All right, so those are the facts and trends describing our journey of going nowhere slowly over the past decade. Next, I will try to quantify the cost of some of the missteps that have gotten us into so much strife.

The first of three scenarios I look at involves investment, which is of course driven by a number of factors, but ultimately boils down to the risk-adjusted rate of return investors can expect to earn. Looking at it from the other side, it can be thought of as the cost of borrowing. Credit rating agencies did not take kindly to the state capture era, continued policy uncertainty and rapidly rising government debt in a low-growth environment. Persistent worries over the past decade, but in particular following the infamous four-day stint of Mr. Des van Rooyen as Finance Minister in December 2015, culminated in South Africa's sovereign credit rating being downgraded to junk status by all major credit rating agencies. My investment friends over at Matrix Fund Managers estimate that the series of credit rating downgrades contributed to an increase in borrowing costs (*think SA government bonds*) of around 2 percentage points.⁸ Although it might not sound like it, this is a big change, ultimately requiring an increased return per unit of capital of around 20%.⁹ So what was the impact of this shift in the capital supply curve?

Using our CGE model, we implement this shock capturing the shift of the capital supply curve or, alternatively stated, the change in required rates of return from investors. After running a business-as-usual baseline scenario in which said credit rating downgrades did not occur, we then run a perturbed scenario in which the downgrades have increased borrowing costs by 2% over a two-year period and then

⁸See <https://matrixfundmanagers.co.za/the-sa-bond-market-a-new-era-of-higher-risk-and-return/>.

⁹In a modelling sense, this will require a relative reduction in capital stock in order to sufficiently raise the marginal product of capital over time. Consequently, a large drop in investment spending will immediately follow the shock.

look ahead a further five years. It is worth noting that, as confirmed by my friends in the investment world, the pricing in of most of our looming troubles happened pretty quickly after 2015, despite the series of formal credit rating downgrades happening over a longer period. Similarly, our greylisting by the Financial Action Task Force (FATF) was also priced in long before its formal announcement earlier this year.

Our modelling results are unambiguous. The economic impacts are massive. Real GDP falls by over 2% and investment spend, or capital formation, by nearly 10% relative to the baseline. Why such a large difference between these two key variables? The beauty of a detailed economy-wide model is that it allows us to carefully interrogate and trace out these results. As already promised, I will provide more detail in the published version of this address, but as an example, the real devaluation in the currency caused by the shock actually allows exports to benefit in the short run from this artificial gain in competitiveness, thereby buffering the local economy somewhat from the shock. However, given that the shock directly applies to the investment sector, it has no place to hide and takes the full brunt of the loss in confidence in the economy as reflected by the credit rating downgrade. The loss in GDP of 2% is worth roughly R135bn in today's money. The staggering loss of nearly 10% in investment spending has some other repercussions to consider. Of course, investment is not formally called gross fixed capital formation for nothing, and anyone who has ever seen a capital accumulation equation will know and understand that it is what determines our productive capital stock in future years. There are also important direct implications at an industry level. Again, no prizes for guessing that such a dramatic deterioration in a country's investment climate would significantly damage the fortunes of its construction industry. Our model shows that output by the construction industry falls by nearly 11% over the simulation period, in the process dragging down industries closely related to it such as structural metals and cement. As a direct consequence, employment in these industries falls significantly too. Just looking at the share price performance of some of our largest construction and other related companies on the JSE over the last couple of years lends great support and credibility to these findings.

Moving on to my second scenario, I look at how much a loss in TFP at an economy-wide level has cost the country's economy.¹⁰ There are multiple reasons for this type of loss and multiple transmission channels through which it has impacted our real economy. Attributing an exact amount of change in TFP, relative to the baseline, to individual events is hard when there is a lot going on. The literature presents a fairly broad range of impacts too on TFP for events that can collectively be described as actions (*or inactions*) that weaken the quality of a country's institutions.

So, for the sake of simplicity, I will present this scenario using a benchmark 1% once-off decrease in TFP. I will then leave it to each of you to speculate on how many percentage points have been shaved off TFP due to the state of our institutions and the costs they impose on doing business and getting around.

Again, the results are about as humorous as Stage 6 loadshedding. Real GDP falls by about 1.4%, relative to the baseline, for every 1% loss in TFP. Not surprisingly, this type of shock drags down capital and labour (*including real wage growth*), and from the expenditure side, investment, consumption and exports fall in line with GDP, as competitiveness is eroded by the decline in TFP. Of course, some estimates suggest cumulative losses in TFP way in excess of 1% over the last decade. Indeed, looking at the declining trend in TFP for South Africa since 2013 puts these losses closer to 10%.¹¹ With 1.4% of GDP worth just shy of R100bn in today's money, estimates previously thrown around by a prominent member of government that crime and corruption during the state capture era have cost South Africa well in excess of R500bn does not look far fetched at all and may in fact turn out to be a conservative estimate.¹²

Finally, my third scenario speculates on how a fallout between Pretoria and Washington DC could impact trade and in particular exporters in South Africa. There has been much talk recently on how the

¹⁰Productivity SA chairman, Prof. Mthunzi Mdwaba, recently noted with concern the impact of low productivity growth on the South African economy and its competitiveness.

¹¹University of Groningen and University of California, Davis, Total Factor Productivity at Constant National Prices for South Africa from Penn World Table 10.01, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/RTFPNAZA632NRUG>

¹²See statement by Pravin Gordhan in October 2018 at the Judicial Commission of Inquiry into State Capture.

trade benefits we enjoy under the African Growth and Opportunity Act (AGOA) could be under threat due to our cosy relationship with a certain czar and his cargo ships. Whilst recent reports indicate that such a scenario is highly unlikely for the minute, it is still worth exploring why it would be a good idea to try and retain our status under AGOA or, alternatively, what the costs of losing this status would be. The United States is our second largest trade partner in terms of exports from South Africa, with nearly \$11bn of goods shipped in 2022. A couple of key industries, such as agriculture, have seen an increasing share of its exports head to the United States in recent years, making the potential loss of access or competitiveness to that market an extremely costly affair to some traders who have put too many of their eggs in the Yankee basket.

Without being too precise about it in terms of calibrating the shocks to the appropriate weighting for each individual commodity and its exposure to the US market, a shock that imposes a 10% general downward shift in the export demand curve for South African goods clearly shows the damage such a change would bring. Naturally, non-traded goods are not particularly affected by such a move, at least not directly, but some exported commodities see significant declines. At an industry level, our Fan Decomposition technique does highlight the potential for damage limitation by shifting a greater share of sales to the local market, albeit at a lower price than they would have received on the lucrative US export market. Although I am hesitant to put a number on this particular scenario just yet, net losses in GDP are likely to range between R25bn and R30bn in today's money based on our preliminary findings, with the loss in exports naturally contributing the largest share to that number.

So there you go, mind boggling numbers. If we pin the losses in TFP attributable to that of our own doing to 'only' R500bn, then, conservatively estimated, at least R660bn or 10% of GDP in today's money have been lost just in these couple of scenarios. What is clear, is that investment expenditure is significantly curtailed, thereby hampering the accumulation of productive capital stock over time. The damage will be lasting and its spillover effects painful. The opportunity costs, especially when you start translating it into lives lost due to inadequate health care and other basic infrastructure that could and should have been provided, are heartbreaking. We have seen it already.

These simulations, which attempt to quantify the damage of our own goals, go a long way in explaining why we are so far behind even the most low-end baseline projections from a decade ago, never mind the brazenly optimistic, and frankly unrealistic, targets in the NDP.

I chose this topic for my address today not because I really wanted to, but because I felt I needed to. We are in trouble, more than I think we realise or want to admit some days. We need to get back on track. We need to demand better from our leaders and hold them accountable. We cannot become desensitised and numb. It does not matter which side of the ideological divide you see yourself, whether you think a basic income grant will be the best thing since sliced bread or not, if universal health coverage is a viable solution or not, if fossil fuels are evil or not, or even if you think South Africa actually has a chance of ever winning a Cricket World Cup or not. Whilst there is a hole in our boat of near trillion Rand proportions—a hole that will drain the life out of any decent policy idea and leave us throwing out the baby with the bath water when it all seemingly fails to deliver results—very little seems to matter. We need to get back on track. We need to rebuild our institutions and give good policies a chance to succeed and get rid of those that are counterproductive to our goals of sustainable growth and development, including the populist rhetoric that goes with it. And finally, whilst still carrying on doing the great research across all field of economics we see at this conference, we need to also use our collective voice as economists and as members of this society (which will be a grand 100 years old come the next conference in 2025) to speak up and demand as much on behalf of those who have no voice and have no idea of what could have been. Much like climate change, it is not too late, but it's damn close. Let's act now.

Thank you.¹³

¹³I want to dedicate this address to all the whistleblowers, investigative journalists, councillors and other public officials, and organisations like the Gift of the Givers, who stand up for what is right, search for the truth, fix what is broken and work tirelessly to see the promise of the New South Africa fulfilled.