South Africa's future will be decided in our cities

Economic Research Southern Africa

CDE

South Africa's future will be decided in our cities is a new report from CDE. It is based on CDE work on cities over many years and five specially commissioned papers from leading local and international economists to generate new insights and inspire further research on the economics of cities in South Africa. The project was done in collaboration with Economic Research South Africa (ERSA) whose involvement and support were critical to the project's success. We were fortunate to enlist the participation of Professor Ed Glaeser, one of the world's leading urban economists and currently chairman of the economics department at Harvard University.

About CDE

CDE is an independent policy research and advocacy organisation. It is South Africa's leading development think tank, focusing on critical development issues and their relationship to economic growth and democratic consolidation. Through examining South African realities and international experience, coupled with high-level forums, workshops and roundtables, CDE formulates practical policy proposals outlining ways in which South Africa can tackle major social and economic challenges.

About Economic Reasearch South Africa

ERSA is a platform that supports the development of economic policy by connecting economic research to national policy debate and identifying areas of future research. Our network draws a broad and representative range of economic researchers and policy makers from a variety of academic, financial and government institutions. In this way, ERSA encourages the creation, dissemination and discussion of independent and expert economic policy-oriented research.

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Introduction

South Africa faces a broad set of deep challenges, many increasingly intractable. Poverty and inequality, public sector corruption, the deepening failures of the justice system, a school system that does little more than warehouse most of the children entrusted to it, a system of public administration whose default setting is "system offline": the list of sources of dysfunction is long and depressing. And, because each crisis is linked with all the others, the intractability of each deepens that of all the others.

One response to this is despair. If making progress in one domain is dependent on making progress elsewhere, and if each is dependent on progress being made in a third and fourth and fifth domain, and if one doubts whether there is sufficient capacity and political will to address any of the challenges, much less all of them simultaneously, then it's easy to understand a deepening pessimism. This, in turn, becomes self-fulfilling as energy levels flag, as interest groups become increasingly focused on the maximisation of short-term benefits, and as those who can, seek greener pastures.

One way to cut through the challenges may be to identify spaces in which challenges are more contained and in which progress can be made because it is less dependent on what happens (or fails to happen) everywhere else. The utility of such an approach would be reinforced if the space identified in which progress might be made had characteristics that made it more likely that attempts to make progress would yield positive results. If, in addition, progress in such a space would turn out to be materially significant to making progress in other areas, the argument for trying to maximise the rate of progress there would be overwhelming.

There are other reasons to think that cities have more favourable developmental prospects than elsewhere, too. Problems, for example, tend to be more apparent and visible, which could, in principle, increase accountability, while also making it somewhat more probable that different agencies might be induced to work together to solve them. Most importantly, it is easy to envisage how, in a relatively small and contained political space, positive progress could lead to more rapid feedback (economic and political) that could power further positive interventions: a virtuous policy and developmental cycle that is the motor of progress.

This is the case that should be made for focusing policy attention and developmental investment in South Africa's largest cities. It is the case, also, that emerges from the work done by urban economists around the world, and, increasingly, by those who work on the economies of South Africa's cities. To this body of work has recently been added five papers commissioned in the course of a partnership between Economic Research South Africa (ERSA) and the Centre for Development and Enterprise (CDE), the goal of which is to provoke and enrich deeper engagement by policymakers and academics on both the challenges and potential of South Africa's cities. The present report, while not a summary of the five commissioned papers, is a reflection on what we know about South Africa's cities, the challenges they face, and the potential they offer. It identifies some of the areas in which policymakers should act immediately and suggests a range of issues about which more focused work is urgently needed.

Although there is much work that needs to be done to understand South Africa's cities' challenges better, to think through solutions, and then to implement them, there is much that is already known and understood, and that is, in effect, the foundation of this work. It is understood and accepted, for example, that, like cities everywhere, South Africa's might be thought of as machines that are able to convert human energies into economic output more efficiently than is possible in other, less dense forms of human settlement. They are, in effect, mechanisms for generating higher levels of labour productivity. The reasons this is so are explained more fully in the next section, but it is the combination of deeper and broader markets leading to greater levels of specialisation, all the while being supported by higher levels of physical capital per person.

The need for an urban agenda for South Africa

Though South Africa is increasingly urbanised, our cities face many socioeconomic challenges. Unemployment, poverty and inequality are exceptionally high, as are levels of crime. There are numerous deficiencies relating to housing and the housing market (availability, affordability, location in relation to economic opportunity, etc.), while public transport services are often wholly inadequate, inefficient, dangerous and costly. Add to this deficiencies in the provision of urban services – electricity, water, waste removal, urban amenities – and other essential public services (e.g., education and healthcare), and it is evident that South Africa's most profound challenges include making our cities more productive and more liveable, and better able to viable pathways for economic mobility and inclusion for those who are currently excluded from meaningful participation in the main circuits of economic, social and political life. This is a set of interlocking challenges – each of which is itself vast.

Addressing these challenges is made more complex by the fact that cities' trajectories are highly path-dependent in that the course of their future development is shaped in large measure by their past because where existing (long-lasting) infrastructure is laid always shapes the distribution of existing economic activity. This is obvious at both a macro level and at a micro level: the size of Johannesburg, for example, can only be explained by the fact that huge gold deposits were found there at the end of the 19th century, while its basic form continues to be shaped, in part, by the roads and railways initially laid out to service those mines and the growth or economic hubs around those points. More importantly, South Africa's cities are deeply and profoundly shaped by the spatial logic of apartheid, the malign effects of which are visible in their structural form, creating a pattern of settlement that is, in some ways, uniquely unproductive and inefficient, to say nothing of unjust and inequitable. This legacy is critical both for understanding what is shaping cities today and for understanding the policy priorities that South Africa's cities face if only because a city is not a tabula rasa, and what happens in the future is very much shaped and constrained by what has happened in the past.

Path-dependent though their development is, cities change over time, largely in response to macro social and technological changes that result in demographic and economic shifts. These can also be engineered and shaped by policy choices across a wide spectrum of issues that might include migration and industrial policy, labour market regulation, infrastructure planning and land use management, though the impact of these interventions is often controversial and difficult to assess.

Obviously, not all change is always for the better: cities' economies can stagnate and decay, their crime levels can rise, infrastructure might deteriorate. If they are to grow more prosperous and inclusive, cities will do so because the policy environment is appropriate, the city's bureaucracy is working competently to deliver infrastructure and services, and the business environment is conducive to commercial activity and investment.

That said, it is important not to overstate the extent to which the failure of South Africa's cities to become more inclusive can be blamed on poor spatial structure and a failure to address this: even with optimal policies, land and housing markets will not be able to support much more inclusion if other policy domains (especially education and labour market policies) are failing to create opportunities for those who are excluded. When these policy domains are effectively failing, then the effect of even the most inclusive land and housing policies will be constrained.

Another important caveat to the case for cities is that, as a general proposition, cities' impact on prosperity is greatest when urbanisation is driven by a parallel process of industrialisation. Arguably, post-apartheid cities' growth has not been driven by migrants' expectation of finding work (especially industrial work), but rather by their seeking better access to public services (health, education, housing, etc.). Urbanisation that is not accompanied by industrialisation is less effective in increasing productivity and prosperity and creates significant challenges.

There is very little in the preceding paragraphs that is controversial in the debate about South Africa's cities and the role they could play in achieving faster economic growth and more inclusion. What is very controversial is what to do about the state of the cities, what policymakers should prioritise, and what the likely impact would be of different approaches to trying to resolve the challenges the cities face.

This is not to say that every policymaker or opinion-former agrees that South Africa's future is urban and that that is desirable: South Africa has a long history of anti-urban policy bias. This has manifested in many ways over the decades. One of apartheid's principal goals, after all, was to keep black people out of the "white" cities. More recently, the anti-urban bias can be seen in the failure to delegate all relevant authority to the cities, which lack the constitutional and statutory powers, for example, to properly plan and resource public transport or to provide policing and law enforcement services.

How much does this explain the relative underperformance of South Africa's cities? It is to help to answer this question that ERSA and CDE have commissioned five papers that make a contribution towards answering at least some of the policy questions that arise when one starts to think seriously about the cities and the choices that policymakers face when thinking about their long-term liveability and prosperity.

We commissioned papers by leading South African economists and two global experts to shed light on what is known about the economic performance of our cities, where some of the major knowledge gaps are, and how to think about critical policy options to tackle city-level challenges.

The paper by Ivan Turok (holder of the Research Chair in City-Region Economies at the University of the Free State) and Justin Visagie (senior research specialist in the Inclusive Economic Development research programme at the Human Sciences Research Council) sets out the basic argument for the economic benefits of cities and tests the extent to which South Africa's cities achieve the higher levels of productivity and output that the economics of agglomeration would predict. It concludes that they do, but also that there are many missed opportunities, that cities face numerous challenges that hold their economies back, and that policymakers have considerable work to do to maximise the productivity gains that urbanisation and agglomeration can deliver. We discuss aspects of this paper in more detail below.

Two papers – by economists Dieter von Fintel (University of Stellenbosch) and Takwanisa Machemedze (University of Cape Town) – reflect on the reliability and utility of the data that researchers and policymakers have when thinking about cities: how comprehensive or reliable are the survey data delivered (mostly) by Stats SA but which is supplemented by private statistics providers, notably Quantec, on whom businesses and government agencies across all spheres tend to rely? Can these data be usefully supplemented with administrative data such as those collated by the South African Revenue Service (SARS), the national payments system or businesses? How well do the trends identified in these various sources of data align and how confident can we be that those trends match what is happening in reality? How helpful is the study of luminosity data?

The essence of the conclusions of the papers is that (a) we know a fair amount about cities' economies from survey data, but (b) there are some weaknesses with all the existing metrics and (c) each source of data provides a somewhat different answer to critical questions relating to GDP and employment, but (d) measures of trends over time do seem to track each other, suggesting that the trends identified are real. This might be because (e) compilers of some data are using the results of others to adjust their own measures, however. Importantly, (f) we know a great deal less about the distribution of economic activity *within* cities than we do about the overall size of cities economies and about differences *between* cities.

The other two papers are surveys of international research. One (by Professor of Economics at University of Maryland, Sebastian Galiani) focuses on the economics of crime and crime prevention. The other (by the World Bank's Harris Selod and Claus Rabe) focuses on the use and impact of place-based development strategies in cities across the world. We will describe the conclusions of both papers in more detail below since both present key insights for policymakers. The papers themselves can be accessed here, but brief summaries can be found in text boxes across this report [hyperlink].

Finally, thanks are offered to Professor Ed Glaeser, Fred and Eleanor Glimp Professor of Economics and the Chairman of the Department of Economics at Harvard University, who has provided considerable advice to the steering committee of this project. In addition, Glaeser and his PhD students – Oluchi Mbonu, Coly Elhai, Diego Santa Maria, Leonardo D'Amico, Stephanie Kestelman – provided comments on earlier drafts of the commissioned papers. In addition, we received exceptionally helpful comments from a number of readers of an earlier draft of this paper, including Andrew Donaldson, Chris Loewald, Claus Rabie, Kishan Shah, Ivan Turok, Justin Visagie and Dieter von Fintel. As ever, any errors or omissions in this report are those of the authors, not the readers of the drafts.

Why cities?

Cities are one of humanity's greatest inventions. Trace the history of the most important discoveries and innovations, and you will find that they emerge from the energy and creativity of people crowded into urban settlements around the world. This is true of the sciences, the arts and in relation to the development of social and political ideas. It is true of medicine, machinery and finance; it is true of communication technologies and theoretical physics. And it is not a coincidence: it is the ferment of cities that has made possible development in all these spheres of human knowledge and progress. And it is in cities that most current progress is continuing to occur.

Cities are so important because their defining characteristic is that they shrink the amount of space between people. In cities people live, study and work in close proximity to one another. The result is that anything that involves more than one person can happen much more frequently, much more quickly, and much more cheaply in cities than is possible in less dense settings. Ideas (cultural and commercial) can fizz between people; new technologies can diffuse rapidly; businesses can trade with hundreds or thousands of customers and can source the skills they need from the deep pool of available labour; workers can find employment opportunities or find ways to increase their skills; consumers can find their preferred goods and services. All of this because their sheer number makes it possible for individuals and businesses to specialise in servicing even the most trivial needs and tastes.

One way of expressing this is to say that a city makes possible a much more extensive division of labour. Small communities do not have sufficient demand to justify very extensive specialisation. A town of a few hundred families would not have enough demand to justify a range of specialised restaurants, for example, or the presence of a neurosurgeon; conversely, a city might have many of both. The result of all this spatial concentration of people is that the providers of services can specialise and, in specialising, they can become both better and more efficient providers of those services. This, in turn, results in more innovation and productivity growth. The result is a general increase in output, resulting in higher levels of income per person. Indeed, it is this process that made possible the industrial revolution, the single most important transformation in humanity's history.

If, in addition to the above, one assumes that some kinds of economically valuable talents are randomly distributed across the population, large concentrations of people in cities mean that (a) it is more likely that people with those talents will be born in cities and (b) those talents will be able to express themselves in the commercially favourable conditions provided by urban economies.

Apart from all of this, denser human settlements make the provision of a range of infrastructural services far cheaper to supply because more people share each unit of infrastructure: providing electricity to 10 000 people who live in a single large suburb of a city is far easier and cheaper than providing it to 10 000 people scattered across 500 farms, for example. The same is true of water and fibre optic cables and public transport. This is also true, less obviously, of public schooling and healthcare, which are both much more easily provided to large, dense populations whose homes are reasonably close to the facilities through which services are provided. A side benefit of this is that the lower costs of providing these services means that more resources are available for other activities. As if these economic benefits were not enough, urbanisation, by reducing the quantum of materials used to deliver infrastructure, is counterintuitively good for decarbonisation.

Though the benefits conferred by shrinking the spaces between people are enormous, there are some costs (diseconomies of scale): because there is a much higher degree of anonymity in large, dense communities, some kinds of criminality that are not possible in intimate communities where everyone knows each other can thrive; transmissible diseases can spread rapidly, while the poor quality of air and water, or the challenge of treating waste, can result in cholera and other epidemics. Finally, the sheer crush of bodies and vehicles can clog up roads and transport systems imposing costs where they should be providing efficiencies.

"Crime: A policy-oriented survey" by Sebastian Galiani, available here.
Galliani surveys the international research on crime and its impact on urbanicity. It employs the theoretical framework developed in the 1960s by Gary Becker but which has been expanded in the decades since. This attributes crime to the incentive structure created by the level and distribution of rewards for work and criminality, and how these are shaped by policy choices, including the level of enforcement. Galliani uses high-quality empirical research to assess the impact crime can have on urban property values, business activities, consumer behaviour, and other economic activities that take place in cities. The paper stresses that, while there is no one 'ideal' approach for reducing crime and violence, the common denominator of all the successful approaches is that they employ evidence-based interventions, starting with a clear diagnostic analysis of different types of violence and ending with a careful evaluation of the intervention's impact. The paper concludes by calling for further rigorous evaluations of both the impact of crime and its social/individual costs as a basis for generating scientific evidence and knowledge about what types of interventions for reducing violent crime are most effective.

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The upshot is that cities create economic possibilities that are not available to people in smaller, less dense settlements. The effects may moderate as the economic role of services (especially digital services) expands, but there are few plausible scenarios in which economic activity is not much more productive and much more diversified in dense settlements than it is in less dense settlements, and many of those scenarios are only really plausible if one expects the costs of density to become much greater than they are (e.g., through the emergence of new and more transmissible strains of infectious diseases, or the 'friction of distance' and production diminish dramatically).

This, then, is the theoretical case for cities. And it is one that is supported by historical experience. Cities have always been the hothouses of economic growth and social development, and they continue to play that role. But there are some important caveats, some of which are directly relevant to the South African experience.

The performance of South African cities in practice

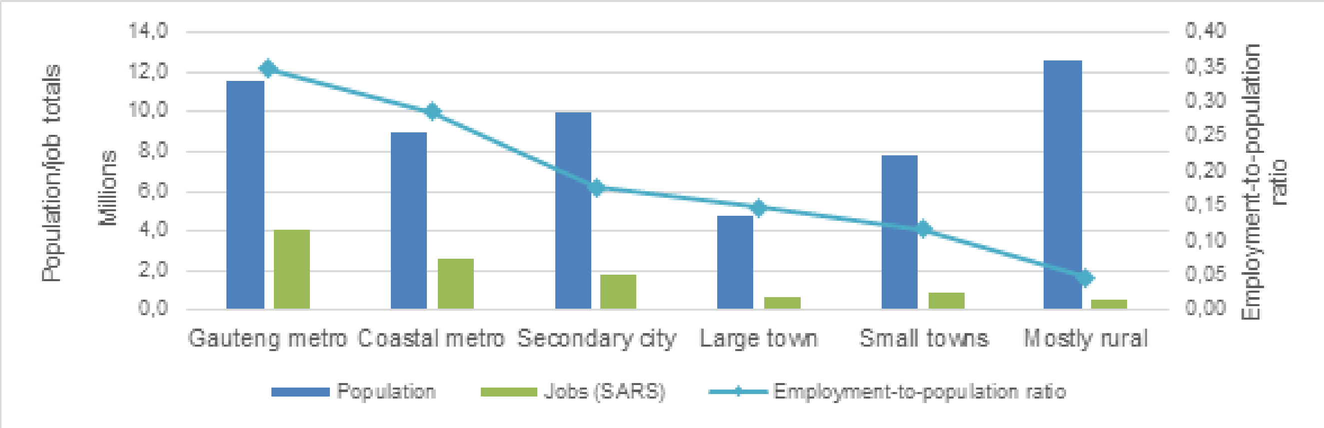
The first such caveat is that cities' governments need to ensure that land use planning actually takes advantage of the potential power of the forces of agglomeration. If land use rules prevent densification, cities' productivity premia are reduced. Worse, if cities are designed in such a way that the majority of people are confined to mono-functional low-rise dormitory suburbs on the economic periphery, as is the case in South Africa, then the inefficiencies created can fatally undermine cities' potential strengths and become weaknesses because of the burden placed on households' disposable incomes as transport costs rise. Add to this the costs of servicing large populations on urban peripheries and the manifest injustice that these effects are felt almost exclusively by poor, black households, and the combustible social and political effects of apartheid's spatial legacy are glaringly evident.

The failure to embrace the benefits of densification are manifest in other ways too. An example of this is that retailing in South Africa's cities is disproportionately located in shopping centres rather than high streets. While this does not necessarily reduce the quantum of retailing in the city, it affects the competitiveness of small, independent businesses. Compared to high streets, shopping centres tend to be far more dominated by retail chains and supermarkets, leaving less space for independent shops and making it that much harder for would-be entrepreneurs to start and grow their businesses. Because independent shops, especially when they are starting out, tend to be more labour-intensive, this also has implications for the number of jobs created per rand of retail spending, and this reduction in employment need not imply lower costs: smaller firms also tend to have lower costs of employment than larger firms. More people are employed per household in providing retail services to consumers in India than in South Africa because much more retailing is done in small, hyper-local shops than in larger shopping centres.

If the effects of apartheid on urban spatial forms set out in the last two paragraphs relate to the failure to embrace the power of agglomeration to improve economic efficiency, there are also ways in which South Africa cities' failure to manage the forces of agglomeration have also impacted negatively on levels of efficiency and productivity. The clearest examples of this is that South African cities have often failed to protect land from occupation by people who, quite naturally, would prefer to be closer to jobs and other services, but who, being unable to find affordable housing, choose instead to erect informal dwellings on open land (public or private) or to occupy existing structures. The implications of this can be profound. Unregulated densification of this kind creates health, safety and congestion challenges. It can also delay and make more expensive the provision of social infrastructure because the required land has not been protected. Finally, the failure to prevent occupations also impacts on property values both directly (in that the value of proximate land declines) and indirectly (in that the failure to protect the rights of property owners impacts on the whole property market). By increasing risk and reducing expected returns on owning land and buildings, this dampens investment, with long run consequences for cities' economic potential.

Despite these adverse dynamics – whether by failing to embrace the benefits of agglomeration or by allowing those forces to result in unregulated densification – South Africa's cities demonstrate the economic benefits conferred by cities. Evidence for this can be seen everywhere one looks in South Africa's socio-economic data, and is amply demonstrated by Turok and Visagie, who show that economic activity in South Africa's cities is more productive and dynamic than in the countryside, and that, the larger the city, the greater the economic advantage. They show, for example, that there is an enormous gap between the percentage of the population employed in the large cities (35 percent in the Gauteng urban complex; 30 percent in the coastal cities) and the rural areas (less than 5 percent), and argue that the sheer scale of the gap "must be exceptional by international standards". Indeed, the rural areas are so unconducive for employment, that half of the jobs that do exist are in the public sector.

Figure 1: Population and employment size, 2019/20



Source: Turok and Visagie 2023
Note: Population size is for all ages

Similarly, using SARS data, they show that average productivity of firms in larger cities is greater than in other kinds of settlement areas, especially when one focuses on firms that only trade from a single location.

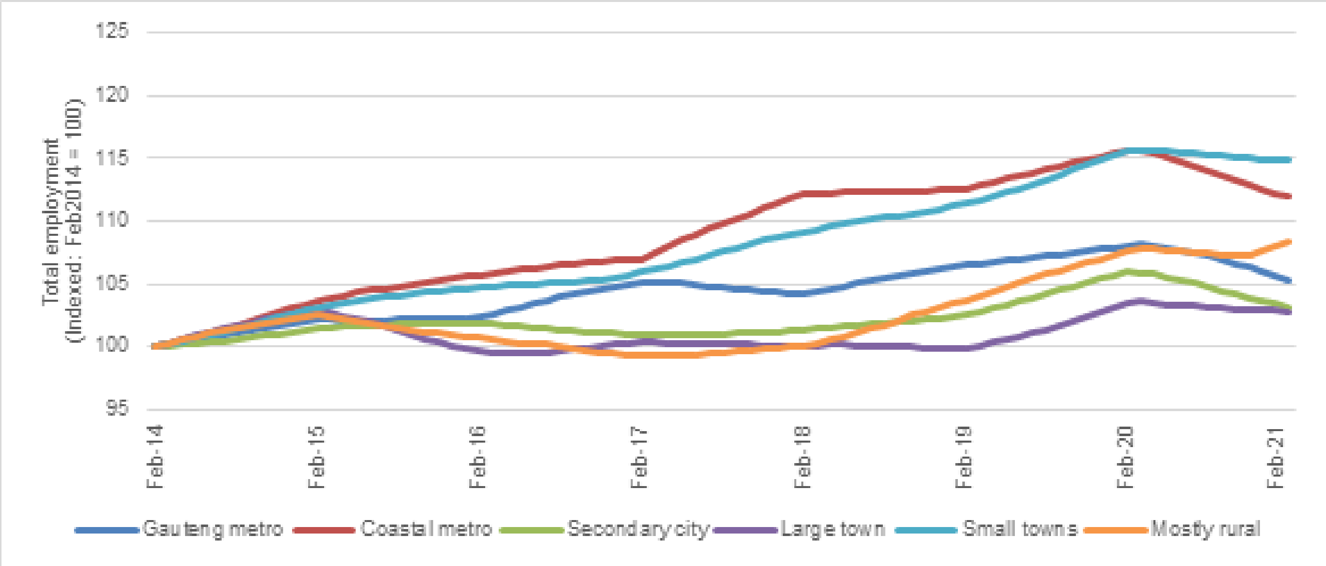
Figure 2: Total factor productivity, average (2013/14 – 2019/20)

Source: Turok and Visagie 2023
Note: Productivity estimates available for for-profit firms with tax returns.
TFP is modelled separately at SIC-2 digit level and weighted by branch-level employment.

Given the low level of employment in rural areas, the small number of firms operating there, and the low level of productivity, per capita economic output in South Africa's rural areas is vastly lower than it is in the cities. This means that, however severe the effects of apartheid's spatial legacy on the productivity and efficiency of the cities, their economic potential is nevertheless vastly greater than that of the rural areas. This insight ought to be at the very heart of South Africa's economic strategy. Unfortunately, it is not.

There is considerable evidence to this effect, but the most obvious is that our largest cities have not led employment growth in South Africa. Indeed, using data from SARS (which admittedly records only formal sector employment), Turok and Visagie show that the fastest employment growth in South Africa between 2014 and 2021 was recorded in small towns, followed by coastal metros. Even rural areas had faster employment growth than Gauteng's metros, secondary cities and large towns. While the rate of growth of formal sector employment in the rural areas is driven by the growth of public sector employment, the fact is that the largest metros are not generating jobs at anything like the pace South Africa needs.

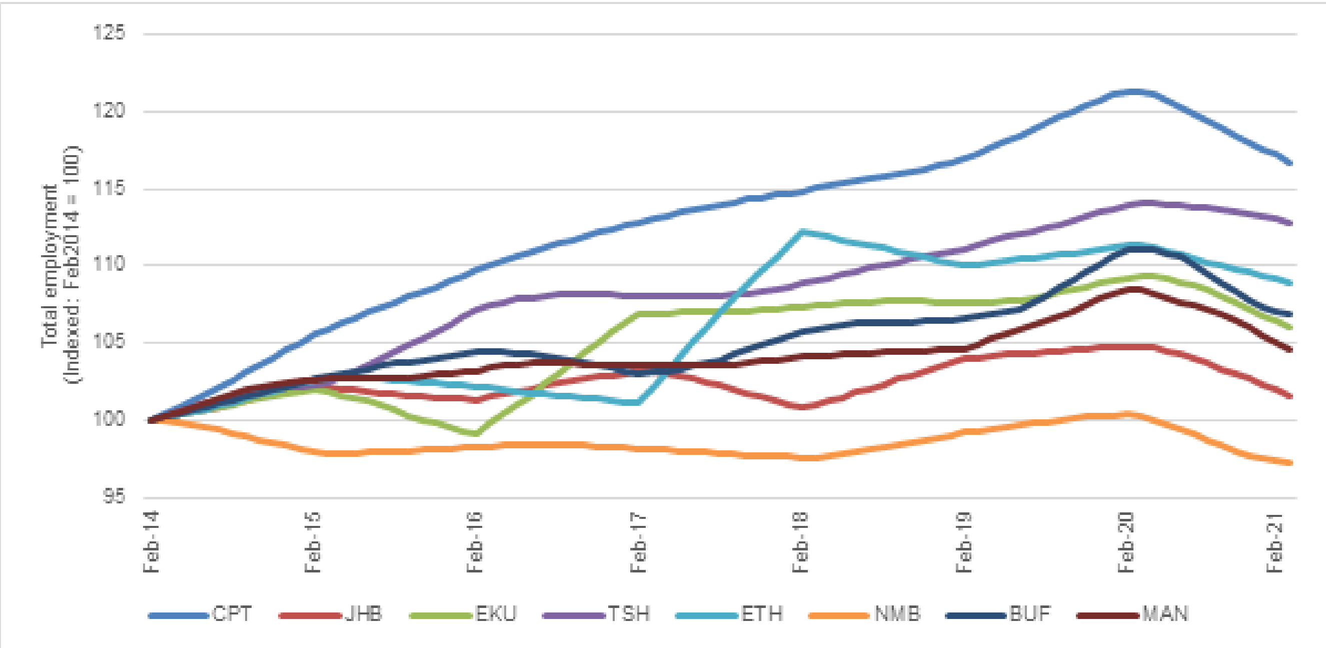
Figure 3: Trends in employment, 2013/14 – 2020/21



Source: Turok and Visagie, 2023
Note: 12-month rolling average

Indeed, if one compares employment growth across cities using the SARS data, it is evident that only Cape Town (where employment has grown at 3.3 percent per year) and Tshwane (2.2 percent per year) saw growth at more than an annual average of 2 percent between 2014 and the onset of the Covid-19 pandemic in 2020. In Johannesburg, average annual employment growth was only 0.8 percent, while Nelson Mandela Bay saw no growth at all.

Figure 4: Trends in employment, 2013/14 – 2020/21



Source: Turok and Visagie, 2023
Note: 12-month rolling average

The reasons for our cities' poor performance

The failure of South Africa's cities' economies to grow more quickly and to create more jobs can be traced to a wide range of factors. Some have been mentioned already: the spatial structure that results in too little density and very high levels of economic inefficiency; the failure to secure property rights in the face of land occupations, and the consequent impact on property prices and, through that, on investment levels. But these factors are not the only ones.

Cities' exposure to national political and economic dynamics

By far the most important reasons for the cities' failures to grow more quickly lie in factors that are not primarily urban in character. South Africa's economy is in a state of decline as a result of bad policy choices across a range of fronts, including:

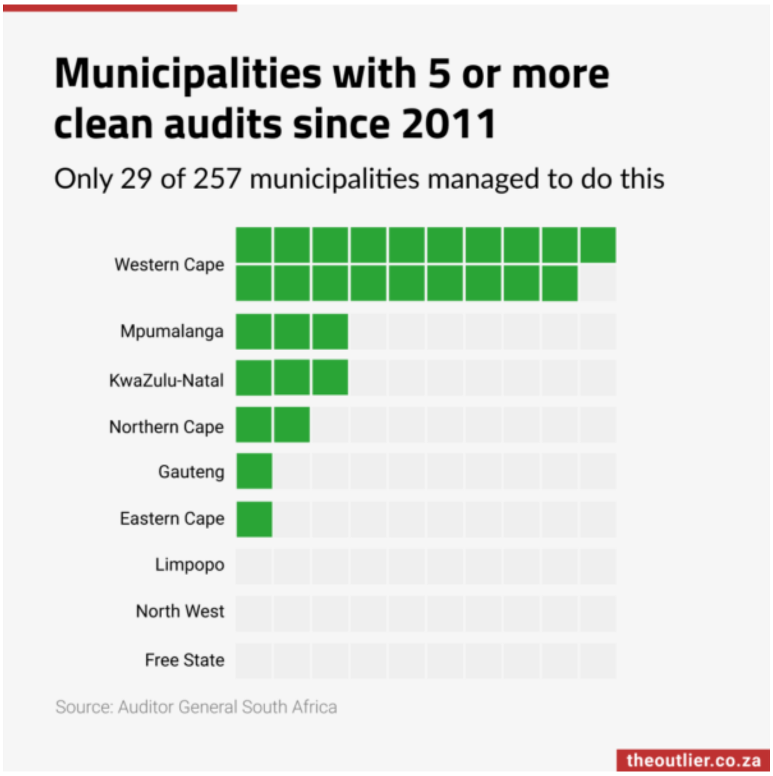
1. The Covid-19 shock, which devastated economies across the world, but whose effects were magnified in South Africa as a result of pre-existing economic and social fragility, as well as the weaknesses across government, including the public health system;
2. Energy generation, manifest in the catastrophic decline of Eskom's capacity to keep the lights on as a result of decades' worth of bad policy and worse governance, much of which has yet to be put right;
3. Fiscal policies that have dramatically increased public sector debt and have, as a result, increased macroeconomic risk that is now reflected in high interest rates that stifle investment;
4. High levels of corruption and misgovernance that have resulted in a rapid decline in the quality of public spending that results in a failure to address social challenges and in a failure to invest in essential public infrastructure;
5. Rapidly rising levels of crime and instability that impose huge costs on individuals and households and undermine confidence in government, sometimes to the point that some areas may become un-investable;
6. Declining public infrastructure, the most significant element of which (apart from electricity generation) is the rapid decline in the quality and capacity of the logistics system; and
7. A wide range of ill-conceived policy choices that raise the costs of doing business, ranging from proposals to expropriate land without compensation and localisation, to broad-based black economic empowerment (B-BBEE) and an unwillingness to contemplate a wider role for markets and competition in South Africa's developmental trajectory.

City-specific challenges

The net effect of all of these is that South Africa's economy is stagnating, and, in a context in which economic activity in the cities accounts for a high proportion of all economic activity, these factors weigh on the growth of the cities' economies. Apart from these wider factors, there are also city-specific challenges that have reduced the rate of urban economic growth.

Collapsing urban governance

South Africa's cities have also been exposed to the decline in the quality of governance that has affected every sphere of government for much of the past two decades. The most obvious evidence of this is the astonishing fact that barely one municipality in ten has managed to obtain five or more clean audits in the past 11 years, and of the 29 who have achieved this, only ten are outside the Western Cape. None of the municipalities in Limpopo, North West or Free State has achieved this.



Perhaps an even more telling statistic is this: mayors and former mayors in at least four of South Africa's eight metros have been charged with fraud (the late Mongameli Bobani from Gqeberha, Zukisa Faku from Buffalo City, Ollie Mlamelli of Mangaung and Zandele Gumede of eThekwini). This figure excludes Murumwa Makrawela, who was briefly mayor of Tshwane before it became apparent that he probably forged a certificate declaring himself to be a *rehabilitated* insolvent. It also excludes mayors of secondary cities like Melvin Naik of George. Add to this list of shame the innumerable officials and councillors and MMCs who have been credibly accused of having had their hands in the cookie jar, and the depth and breadth of the challenge of corruption in the local sphere of government becomes depressingly apparent.

Nor is the issue of collapsing levels of governance 'merely' one of rising levels of corruption. It is apparent also in declining quality of municipal infrastructure – potholed roads, water outages, unreliable electricity distribution, endless queues to renew licences or obtain planning permission – and in worsening financial performance, with rising debt (including nearly R60 billion in unpaid Eskom bills) and declining revenue collection metrics.

"Monitoring South Africa's metropolitan economies: A survey of the data landscape" by Dieter von Fintel, available here.
The paper argues that, given the extent to which economic growth in South Africa has become increasingly concentrated in metropolitan areas, access to good data on urban development is essential for designing workable interventions to both accelerate and manage these trends. Unfortunately, demand for regional and metropolitan data continues to exceed its supply. Von Fintel seeks to compare trends estimated from a range of survey, administrative and private sector sources. These include the census, model-based population estimates, official Stats SA employment statistics, labour market data from the SARS spatialised panel, widely consulted data harmonised by Quantec, and unconventional sources such as night light luminosity and daytime images recorded by satellites.

While the sources provide different answers to how many people are employed in various metropolitan areas, the dynamics are similar. Household surveys suffer from respondent error, post-processing procedures that are undocumented and calibration to outdated sampling frames. In periods of rapid change, sampling frames should be refreshed more regularly. The recent release of spatially explicit administrative tax data from SARS presents new opportunities for monitoring metropolitan economies. Apart from some headquarter bias in employment figures, where employees of a large company are all reflected as working at the corporate head office when, in fact, they work elsewhere, the SARS spatial panel appears to capture formal sector metropolitan employment reliably compared to other sources. Data processed and harmonised by Quantec is useful from the perspective of methodological coherence, but the credibility of the source would improve if the post-processing methodology were transparently documented. The paper concludes that availability of good data is on the uptick, but transparent methodologies should be encouraged, and more research is required to establish data 'gold standards'.

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Urban crime rates
Although high and rising levels of crime and instability affect all parts of the economy, the impact is disproportionately large in South Africa's cities, most of which have per capita rates of violent crime (especially murder, rape and robbery) that are among the highest in the world. While there is considerable debate about the causes of crime in South Africa, and, in particular, about the relative importance of the role of inadequate policing and law enforcement and the role of socioeconomic factors, the fact remains that high levels of crime matter for both the quality of life and the cost of doing business in a city, and, therefore, for its attractiveness for investment and its future prospects. The impact is also particularly severe on emerging entrepreneurs, especially in the informal sector, who are less able to secure their businesses and where the impact of any single act of criminality might put them out of business.

The fact that cities tend to have more crime than rural areas and small towns is a consequence, in large part, of the fact that cities are settlements in which the vast majority of people are strangers to each other. The result is that criminals can commit crime while cloaked in anonymity: neither victims nor witnesses can tell the authorities who committed the crime, so society's typical responses to criminality (social shaming, the imposition of sanctions, etc.) are emasculated.

These effects are greatly magnified if the police service is under-resourced, inefficient and/or corrupt. They are also magnified, however, by all kinds of socioeconomic disorganisation, from unemployment, poverty and marginalisation to high levels of substance abuse, weak family structures and dysfunctional schools. Add to that the impact of a profound sense of the injustice of a high level of wealth inequality and of the rapidly declining legitimacy of the state and the existing social order, and high levels of criminality are next to inevitable. As is their negative impact on the economy.

Expensive, unreliable and unsafe public transport

The effects of low levels of density and the other spatial malformations that characterise South Africa's cities – particularly the fact that the cheapest housing, particularly housing provided by the state, is located on the peripheries of cities where economic opportunities are scarcest – might be at least partly offset if public transport were readily available and affordable. Unfortunately, however, the structure of South Africa's cities makes public transport inefficient precisely because densities are low which results in limited passenger numbers for most of the day, while rush hours are dominated by unidirectional traffic resulting in vehicles' being empty for half their trips. Add to this the fact that the minibus taxi industry operates in a shadow world of organised crime and corruption, along with the mismanagement and collapse of the Passenger Rail Service of South Africa (PRASA), and the extent to which residents of South Africa's cities bear the brunt of spatial dysfunction in the form of more costly, less reliable and much less safe public transport becomes apparent. Inevitably, this shows up in larger numbers of people not looking for work (since disposable income is taxed by the high costs of commuting) and in higher reservation wages for those who do.

Unrealistic rates and taxes

Apart from these challenges, city governments in South Africa have used their revenue-raising powers to raise rates and taxes far more quickly than inflation, and, critically, far more quickly than the rate of growth of nominal GDP (which is probably the more relevant metric). The result is that various administered costs – rates, and electricity and water charges – now account, according to the SA Property Owners Association, for 42 percent of the average commercial property's monthly income.[1] As these costs rise, so do financial pressures on the developers of commercial property, while the incentive to build new commercial property falls. Add to this the persistent problem of property valuations on residential property growing faster than their market value, and the consequence is that cities are both undermining the incentive to build while also raising both the cost of doing business and the cost of living.

Johannesburg is collapsing

Although every one of South Africa's major cities faces demanding challenges, the fate of Johannesburg (and, for that matter, the large urban complex that includes the other metros of Gauteng), is particularly important for the country's future. The Gauteng city region is by far the largest and densest urban agglomeration in the country, but its economic performance has been dire over the past decade. Recall, in this regard that Figures

[1] https://www.dailymaverick.co.za/article/2023-03-05-excessive-hikes-in-municipal-rates-raise-the-ire-of-sas-biggest-property-owners/

3 and 4 showed just how badly the metros in Gauteng (with the partial exception of Tshwane) had performed in relation to the creation of formal-sector employment over the past decade, for example. Add to this the visibly worsening state of the city's infrastructure and the weakening of its finances, and combine that with the political dysfunction that the era of coalition politics has done little to abate, and it's easy to see why the city region seems to be going backwards.

The implication of this for the country's medium- and long-term economic prospects are enormous: Gauteng has always been the beating heart of the South African economy, and it would be impossible to recreate this elsewhere. As importantly, as the vast multi-generation investment in physical infrastructure becomes increasingly economically stranded, South Africa's growth potential declines even more quickly. Saving Johannesburg from the forces reducing it to dysfunction and decay is, therefore, critical for preserving South Africa's long-run potential.

"Cities, productivity and jobs in South Africa: Problems and potential" by Ivan Turok and Justin Visagie, available here.
Turok and Visagie draw on international research and combine it with new empirical evidence to consider the recent performance of South African metropolitan areas in comparison both to one another and to smaller towns and rural areas. By focusing on the recent contribution of the metros to output and employment, the paper seeks to distil some important lessons for realising the economic potential of cities.

The evidence shows that while cities are more productive and that a much larger proportion of the population is employed than is the case outside the cities, there is no simple relationship between the size of cities and the productivity of firms – bigger is not necessarily better. Nevertheless, the contribution of large firms to the economy of secondary cities and towns should not be underestimated. Big companies generally attract a bad press and public resentment, which means that many municipalities fail to appreciate their impact on the local economy and do not do all they can to harness their capabilities. Large firms should be seen as important 'anchors' of the local economy and efforts should be made to cultivate partnerships with them to enhance workforce skills, develop local suppliers and attract talent to an area.

The paper provides insight into industry specialisations that exist in every city but calls for more research and interaction with key players to grasp the drivers and dynamics of different sectors. Specific actions and initiatives may follow from this, including interventions to bolster specialised skills, to gather up-to-date intelligence on technology or market trends, or to promote joint projects on product development. Finally, the paper argues that metros need a more focused and accountable approach to deal with bottlenecks and barriers to economic growth. Fixing the foundations is fundamental to attracting and retaining productive investment and supporting enterprise.

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How can South Africa's cities do better?

South Africa's cities face a broad range of deep challenges. Obviously, these have their roots in apartheid and the spatial legacies bequeathed by it, along with all the manifold structural challenges confronting the economy and that undermine faster economic inclusion. Many of these have been magnified, however, by poor policy choices over the past three decades, particularly the adoption of a housing strategy that, in emphasising the number of units constructed, tended to result in residential developments on the urban periphery or, in some cases, beyond the pre-existing urban edge. This replicated the adverse planning choices of apartheid.

That said, it is also the case, however, that cities' structural characteristics are always slow to change, and that there is a high degree of path dependency on the future evolution of cities' spatial form. This sets some limits on what it is reasonable to expect when thinking about the ways in which our cities might have evolved had different policy choices been made. Still, our cities' economies could have become more efficient and much more inclusive had different choices been made. That is, of course, true now, too, so it is important that the right policy choices be made now. What would those look like?

A large part of the answer to this question is, in a sense, obvious: South Africa's cities' economies, like that of the rest of the country, cannot be expected to grow more quickly unless the quality of governance improves significantly. Local governance needs to improve across a broad range of dimensions, especially with respect to the integrity with which resource-related decisions are made. When corruption is as deeply entrenched as it is in many of South Africa's local authorities, policy choices are themselves shaped by the incentives created by an ecosystem of bribes, kickbacks and political patronage. In these circumstances, good policy choices are unlikely to be made. And, even if they are, their implementation is likely to be distorted by corruption.

Improving governance is not just about reducing corruption; it is also about addressing deficiencies in the quality of personnel in key positions in the administration of the cities. Obviously, the problems of corruption and of the quality of personnel are linked: corrupt administrations are less likely to appoint high-quality staff and managers than clean administrations would; administrations with high-quality staff are less likely to become corrupt. However large the overlap, the issue of the quality of officials is not identical to the issue of corruption, and solving the latter will not solve the former if much more emphasis is not placed on making merit-based appointments in cities' administrations, even when these choices are not shaped by the exigencies of corruption and patronage. A clean administration that appointed unqualified or inexperienced people to lead its engineering divisions, for example, would probably see a steep drop off in the efficiency of service and infrastructure delivery even if it did not see a large increase in corruption. These two issues are linked in another way since it seems obvious that *attracting* quality staff to join an administration would be possible only if corruption was being addressed and was seen to be being addressed.

If reducing corruption and raising the quality of personnel employed in cities' administrations are obvious challenges that must be addressed, there are policy questions and challenges for which the optimal answers and responses are less obvious. What is the right approach to address the many ways in which housing markets in South African cities fail to provide affordable shelter to residents of every income band? What kind of public transport should be provided and how should it be paid for? Given scarce resources, what kind of infrastructure should be developed and which parts of the city should be prioritised for development? Should cities allow informal traders to work on the pavements and sell their wares at street corners? What kinds of taxes should cities impose on their residents? What should the zoning laws say about each area? How prescriptive and demanding should building regulations be?

Each of these questions can be answered in different ways depending on what kinds of policy goals a city wants to pursue. A city that wants to maximise the value of residents' existing homes might have different rules governing the construction of new buildings than a city that wanted to maximise the rate of growth of the housing stock. A city that wanted to maximise the sense of orderliness and to encourage investment by formal sector retailers might have different rules about informal trading than one that sought to maximise the opportunities for would-be entrepreneurs to engage in commercial activity. A city that wanted to ensure existing taxi drivers' incomes were protected might take a different approach to allowing the use of platform services like Uber than one that wanted to ensure maximal levels of competition between service providers in the interest of ensuring lowest possible prices.

The policy choices, in other words, are complex and must balance competing interests and differing preferences. Complicating matters further, there are ways in which these choices impact on each other, so that choices in one domain might affect the way choices in other domains work and the impact they have. The choices, in other words, are complex and cities face real challenges in thinking through not just what is optimal in one domain, but what is optimal across all domains. These may or may not be the same thing.

In light of this, a certain amount of humility is needed in proposing different kinds of policy, and advocates of any particular view should be open to evidence that challenges their prior assumptions. Nevertheless, there are some general principles that can be gleaned from the literature on cities and the experiences of cities around the world.

Density is good

Perhaps the most helpful formulation of how a city's policymakers should conceive of the city itself is the one proposed by Alain Bertaud, who argues that the most fundamental fact about a city is that it is a labour market. Conceived as a labour market, the challenge that confronts a city's policymakers is to ensure that the market is as broad, as deep and as efficient as possible, so that employers have access to as many would-be employees as possible, while work-seekers have access to as many opportunities as possible, and each can identify the employment relationship that maximises their own welfare.

Achieving this outcome is not easy, but a city that does so is one that that is characterised by the presence of large numbers of people with a diverse range of skills and wide range of employers, all of whom are able to find each other efficiently. That means that an economically efficient city is large, but also that it is dense so that there are always many options for both employers and work-seekers.

Density also creates economic opportunity because the concentration of people in a small area also concentrates potential customers into that space. This is hugely important for any business that sells directly to the public, whether it is consumer goods (bread, milk and cigarettes) or services (hair dressers, cellphone repair shops or internet cafes). The result is that dense concentrations of people also tend to have lots of independent retailers (formal and informal). By way of contrast, in less dense settlements, commercially viable retailing at any meaningful scale is commercially difficult, and is sometimes confined to shopping centres, which creates a kind of artificial consumer density, but where the basic economics of retailing favour big brands over independent shops. Since independent shops tend to be more labour-intensive, they generate more employment per unit of sales than do larger, more capital-intensive operations. Small, independent businesses are also more able to skirt some restrictions of the labour market regime, especially if they are family-owned and -run.

Density requires appropriate building standards

While high density is generally better than low density, density that is achieved in defiance of zoning rules and building standards is economically less efficient and less sustainable than density that is achieved because statutory provisions encourage and make it possible. A density achieved through tightly packed informal housing and backyard shacks or by overcrowding buildings in central business districts (CBDs) is less desirable than a density achieved through the provision of sensibly designed, well-located affordable housing and rental stock. But formal housing can be affordable only to the extent that building regulations do not create a set of minimum standards that raise construction costs to unaffordable levels. Where this is the case, three consequences will follow:

8. Densification will still occur, but it will be informal in character and, for that reason, suboptimal both for residents' quality of life and for economic efficiency;
9. Densification will not be supported by financial institutions or insured by insurance companies, which will mean that construction and densification will be less sustainable and less efficient; and
10. It will be far harder (if not impossible) for residents/owners of non-compliant residences to sell their properties, which will mean permanently tying up a household's equity.

There is considerable work that could be done to reduce the over-specification of minimum building standards that would help to reduce the costs of provision of formal housing. This also has the potential to create space for more affordable well-located rental stock. Critically, however, cities also need to be much more proactive in assembling and releasing land for development, and for ensuring that development rights are appropriate so that projects can be executed rapidly, rather than being trapped in endless cycles of negotiation and consultation with affected parties.

To ensure municipalities support densification as much as possible it is critical that they invest in municipal infrastructure in already-developed areas, particularly areas targeted for densification and in-fill development (which is the most efficient way to achieve greater density). They also, crucially, need to strengthen their urban management capacity so that they can respond to requests from developers quickly, approve building plans and conduct inspections efficiently. Another innovation that could increase investments in new housing and the upgrading of buildings would be to subsidise the costs of connecting new residential developments above a certain scale to bulk infrastructure networks through a grant from the National Treasury.

Public transport is a public good

As has already been noted, public transport is rendered commercially viable only where urban densities are sufficiently high to create enough two-way traffic during the day. Where this is not the case, transport assets will be underutilised and can only generate adequate revenues through a combination of higher fares and larger subsidies.

The subsidisation of public transport is common across the world, but the structure of subsidies – how they are calculated, to whom they are paid, on the basis of what kinds of performance metrics – creates a set of incentives that determine how effective the public transport system is. In South Africa, that system is thoroughly broken: vast subsidies to PRASA over the past 15 years, for example, that were intended to finance commuter rail services in the major cities have been accompanied by a collapse in the number of passengers actually transported. Long-distance busing (a holdover of, and response to, apartheid spatial planning) has been in a state of limbo for a generation, making it impossible for operators to manage their fleets and resulting in ever-rising operating costs. Conversely, the minibus taxi industry operates with almost no subsidies, but also with limited accountability to the law.

Creating a safe, efficient and accountable public transport system is impossible without the right kind of enabling environment, including local control over the planning and operations of all components of the system (including commuter rail and minibus taxis), combined with sensibly designed subsidies that create the right set of incentives. This is currently impossible because the existing regime does not allocate responsibilities properly or align incentives correctly. It also subordinates the commuter's interests to those of operators'. Fixing this, given the interests involved and the capacity of some role-players (notably the taxi industry and those who believe PRASA in its current form is a manifestation of the developmental state) to veto changes, will require the expenditure of considerable political capital.

Adopt a pro-development stance

It should be assumed that local governments would like to see more rapid development of their economies and greater investment in new structures and developments. To the extent that this attitude exists, it is constrained by the presence of interest groups that are motivated by an anti-developmental mindset, particularly if that development is to happen in their own neighbourhoods. More generally, people sometimes fail to recognise that the repurposing of buildings and neighbourhoods is what keeps cities alive, and unnecessary delays help ensure that cities stagnate.

NIMBYism (not-in-my-backyard-ism) is a challenge for all local governments in all jurisdictions. South Africa's legislative framework, however, which requires extensive consultation both with the authorities at various levels of government and with affected parties around any development, creates many opportunities for delaying and even preventing projects from being executed. Some of this could potentially be overcome by local governments:

- Being more proactive in releasing their own land for development; and
- Adopting a more aggressively pro-development stance in the advocating for projects and seeking more actively to overcome the resistance of those who might feel that their interests are best served by maintaining the local status quo.

Arguably, part of the problem here is that local governments' incentives are not fully aligned to encouraging more rapid development and faster economic growth. It is true that much of local governments' revenues come from rates levied on property values, and that property values tend to rise when the economy grows. It is also true that the metros earn a significant fraction of their revenues from the premia they charge for electricity and water reticulation. Both create links between economic growth and cities' revenues. But these links are somewhat indirect and are also attenuated by the process of valuing properties for the purpose of levying rates which has itself become disconnected from the underlying dynamics of the economy. Thus, even when the economy stagnates, local governments often continue to inflate property valuations. While it would require something of a revolution in South Africa's taxation regime to change this, giving local governments a more direct stake in the growth of local economies (e.g., through an income tax of some kind or a local value-added tax (VAT)) might better align local governments' incentives to the needs of economic growth.

Adopting a pro-development stance is justified not just because it will generate faster economic growth in the future, but because the alternative, which essentially freezes the city in its existing form, imposes significant costs. If, for example, heritage laws mean that some parts of a city are off-limits to developers, the effect is to ensure that land will be permanently underutilised and that existing owners will be unable either to exploit opportunities that exist or to sell their land to people who can do so. As a general proposition, therefore, regulations that make development harder ought to be critically reviewed and, more often than not, replaced by regulations that create a more open developmental regime.

Two caveats are important here. The first is that a pro-development bias has the risk of increasing urban and suburban sprawl (since green field development on open land is often highly lucrative). To prevent this, the bias towards approving developments must be accompanied by strengthening of policies governing the urban edge and erecting regulatory hurdles for development outside of the existing boundaries. The second, is that serious thinking is needed about the desirability of imposing quotas of affordable housing units in every development. In many cases, this reduces the overall efficiency of housing policy, creates market distortions, and does little more than symbolically increase actual levels of inclusion.

Consult with business

To achieve growth, local governments need to allow the power and efficiency of enterprises operating in competitive markets to drive their economies. There are many challenges to doing this, but one is that too many local authorities actually do not know what business needs to prosper. That deficiency can be partly rectified by talking to organised business. By focusing on the needs of business, a better environment for growth will emerge, workable public-private partnerships can be established and investments in infrastructure are more likely to yield economic returns.

The quality and impact of these consultations depend, in part, on the willingness, integrity and organisational coherence of local business communities. The scale of what can be achieved if such dialogues are set up properly has been demonstrated by World Bank research. In a project identifying the practices that underpinned the success of fast-growing cities in the developing world, it identified four critical elements:

- Business leaders were consulted about their needs and the constraints they encountered in their operations;
- Infrastructure investments were made in collaboration with the firms and industries they aimed to serve;
- Skills initiatives were designed in partnership with firms, ensuring that curricula addressed their practical needs; and
- Industries were supported where they had a real commercial potential, through collective initiatives with the private sector rather than through the public sector alone.[2]

Obviously, these dialogues are only one source of input that local authorities should consider, and their Constitutional and political imperative must be to ensure that public policy serves the interests of the whole population. To do this, the municipality needs to display leadership, but all the decisions about where to invest, how to provide services, what to demand from provincial and national governments, which by-laws to enforce and which to scrap, should also be informed by an understanding of the needs of business. Corruption, of course, must be avoided, so dirty deals between the municipality and individual companies should be avoided, and public private partnerships should only be negotiated where tender processes are clear and transparent, and when the municipality has the will and the capacity to enforce the rules of the partnership.

Public safety really matters

As noted above, one of the characteristics of cities is that they make possible kinds of criminality that are not possible in settlements in which people are more likely to know each other. By conferring a cloak of anonymity over would-be criminals, while also immersing them in a sea of potential opportunities to acquire goods through theft and robbery, cities generate a great deal of crime. There is, however, a vast difference in the amount of crime committed in different cities around the world, so it must be the case that urbanicity is just

[2] A. Kilroy, M. Mukim, S. Negri, Competitive cities for jobs and growth: what, who, and how (Washington, D.C., World Bank Group, 2015), retrieved from: http://documents.worldbank.org.

one factor among many that that determine the nature and level of crime. It is also that case that responses to crime – by society and by government agencies – vary across societies, and that the impact of different approaches may also vary.

These issues are canvassed by Galiani, who surveys the empirical literature on crime, seeking studies in which the research strategy is able to focus very precisely on the impact of crime on society and the economy, as well as the impact that different responses by the authorities might have on the level of crime, asking, *inter alia*, how a change in the likelihood of identification and arrest by the authorities affects the level crime committed by would-be criminals. These effects are real and go in the direction that intuition would indicate, but a much harder question to answer is the scale of the effect, especially in comparison to the many other factors that drive crime levels.

As noted earlier, South Africa's cities have very high levels of crime, and this is widely regarded as having a significant effect on both the size and structure of the economy, as well as on its future prospects. South Africa's Constitutional order, however, provides its cities with authority over very few of the tools with which societies generally respond to crime. While cities can establish metropolitan police agencies, their role is confined to crime prevention (generally effected through foot and vehicle patrols), enforcing by-laws and enforcing traffic legislation. Cities also have very limited powers and resources for many other kinds of intervention favoured by the literature, whether it be the provision of drug rehabilitation services, family welfare services or any of the many other forms of 'social crime prevention' services.

Given the lack of powers and resources, cities need to focus any crime-related energies as efficiently as possible. This would include:

- More effective lobbying for more appropriate responses by those agencies that are empowered to prevent and, in particular, to investigate crime, while also exploring the possibility of seeking a Constitutional amendment that would permit cities' policing agencies to investigate crimes;
- Investments in technologies that can assist law enforcement agencies identify and arrest perpetrators (e.g., CCTV cameras, particularly smart systems that can recognise faces and cars from 'wanted' lists);
- Minimising social discontent by maximising delivery of key city services, especially water, waste removal and electricity; and
- Using their powers to foster faster employment-intensive economic growth.

The last, of course, is easier to say than to do.

Place-based interventions will not succeed unless...

Most economic activity in a city does not directly involve a government agency as a party to the transaction. Government agencies – national, provincial and local – set the parameters within which those activities happen, and their policies define the set of incentives that motivate participants in those transactions. But agencies account for only a fraction of the commercial and economic activities of which a city's economy is composed. The impact of government agencies on a city-wide economy is, therefore, mostly indirect and comes in the form of regulatory actions that shape the economic activity of others. These policies may be more or less market-friendly and more or less pro-development in orientation. They can also be more or less agnostic about the spatial location, and cities need to think very carefully about whether and how to use place-based policies and interventions.

Obviously, when cities (and other levels of government) allocate resources to activities and projects (especially infrastructure projects), they cannot be blind to the spatial implications of these decisions since every project has to happen somewhere. Confronted with multiple, divergent infrastructural needs, a city must decide which projects to prioritise and execute, and which to defer. The substance of these decisions obviously have different implications for people who obtain benefits from the projects that are implemented rather than the projects that are deferred.

One can imagine how these kinds of decisions may or may not be linked to, and shaped by, a broader place-based strategy: a city may decide that some or other opportunity may exist, but it can only be exploited if a particular area is developed in a particular way, and that this development might have broader implications for the city's economy as a whole. This kind of place-based strategy is central to all kinds of city-level development strategies, and, while there are always risks that such a strategy might be implemented poorly or that might fail even if it were flawlessly implemented, it is absolutely legitimate for cities to use place-based prioritisation frameworks when designing and implementing strategies for growth and development. Indeed, it is hard to see how cities could avoid doing this.

There is, however, another set of place-based policies that cities have sometimes sought to implement that operate at a level above the process of prioritising development projects on the basis of a plan for exploiting medium- and long-term economic opportunities that the city has identified. These policies – often dubbed place-based policies (PBPs) – seek to shape private sector activities in specific locations in cities through the provision of incentives such as reduced rates and/or development charges, or by somehow lowering the costs of doing business in these zones relative to the costs of doing business in other parts of the city.

Rabe and Selod review the evidence of success of these kinds of policies across the world and note that their proponents' claims for their success generally do not survive very close scrutiny. This is particularly the case when PBPs are developed in order to achieve goals that are not aligned with the underlying dynamics, potential and opportunities of the urban economy, but are intended to address challenges such as uneven development of the local economy and/or inequalities in income and opportunities across the city. PBPs intended to achieve inter-regional developmental convergence and/or to reduce spatial inequality tend to have more modest (and more mixed) impacts than policies that work with the grain of the distribution of comparative advantages across a city. Ultimately, they conclude, PBPs are successful only to the extent that they are implemented in locations that have some pre-existing economic potential. Where this does not exist, such policies can have unintended distributional outcomes and/or can subsidise unproductive activities (or activities that would have taken place even in the absence of the subsidy).

"Place-based economic policies: International lessons for South Africa" by Claus Rabe & Harris Selod, available here.
Rabe and Selod review international experiences in the context of South Africa-specific considerations to assess what PBPs can and cannot achieve, and shed light on their unintended consequences. The paper focuses on policies that are applied within a bounded geographic area and principally designed to stimulate or re-direct private sector-led economic activity. It finds that where the design and spatial targeting of PBPs are captured by political considerations – a common danger – they can do more harm than good. Further, by subsiding unproductive economic activity, PBPs may draw political capital and scarce public resources away from much-needed structural reforms and other public goods, such as education, health and investments in non-rival and non-excludable goods that help everyone.

While the recent emergence of township economic strategies in South African cities is posited as a robust place-based response to entrenched spatial and social disadvantages, this policy approach remains unconsolidated and unproven. Current township strategies fail to clearly define what a township is, and they do not sufficiently differentiate between different types of urban contexts lumped together under the 'township' umbrella. What works or might work in townships like well-located Alexandra or Galeshewe is unlikely to be effective in more remote areas like Delft.

International experience points to the advantages of adopting an 'open model' approach. An open model does not pick winners. It focuses on creating an enabling environment rather than subsidising unproductive activities, rendering it is less vulnerable to political patronage. An open model is neither reliant on state largesse nor the economic literacy of municipal policymakers. Instead, it enables the policymaker to focus its efforts on two or three binding constraints inhibiting entrepreneurs that fall within core provincial and municipal functions. However, one limitation is the inherent difficulty in attributing neighbourhood-level impacts to such strategies, owing to the diffuse and indirect benefits they may generate.

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Township economies
How is one to interpret these diverging insights – that cities must inevitably make place-based decisions about some kind of activity and that PBPs are seldom successful unless there is some pre-existing economic potential – in light of the move towards an approach to urban economic strategy that prioritises 'township economies'?

The answer is ambiguous. On the one hand, there are clearly going to be some kinds of investments in some townships that are clearly good for growth and development. This will be the case where addressing infrastructure deficits will make possible an expansion of economic activity, the preconditions for which already exist, but which would not occur unless some kind of catalytic investment takes place. Here, the goal would be to fast-track or kickstart the beneficial processes of agglomeration described earlier. It does not follow from the existence of inequalities in intra-city infrastructural endowments, however, that the best use of scarce public investment funds is always to procure infrastructure in lagging regions: if the opportunity set is more attractive in an 'already developed' area, it may be better to invest there while using other tools to improve access to those opportunities for residents of lagging areas. We recognise, however, that making these decisions is by no means straightforward, and that there are likely to be many instances in which the benefits of alternative investments are sufficiently close that a 'pro-township' orientation would be justified.

What we do not think is justified, however, are a set of ideas about 'township economies' that has been articulated by some people in authority, especially in the Gauteng provincial government. These more problematic ideas come in two flavours: one would reserve some kinds of economic activity in townships exclusively for South African entrepreneurs, while the other would commit to deploying the provincial procurement budget in such a way as to ensure that a substantial fraction will have to be channelled to businesses that are based in the townships.

The core problem with proposals to reserve some kinds of economic activity in designated townships for South African-owned businesses and entrepreneurs is that it is unjust and Constitutionally unjustifiable. It is also economically perverse in that, by reserving township retailing or other activities for South Africans, the policy would reduce competition and would, therefore, tend to raise prices for consumer goods in precisely the communities that are least able to afford this.

A different kind of problem is that, as we know from long and bitter experience, these kinds of policies are often used as a cover to facilitate tender manipulation for corrupt purposes. Finally, this approach suffers from a peculiar form of vagueness: how would one define a qualifying township-based firm in allocating procurement budgets? Does it have to have an office in a township? Does its owner or managers or staff have to live in a township? Must its customers? It is obvious that different approaches to defining a township-based firm would lead to quite different sets of qualifying businesses. As far as we can tell, no one has even begun to think about these issues and to consider the trade-offs, and it is hard not to suspect that the vagueness is deliberate since it ensures maximal discretion for policymakers in circumstances in which corruption and patronage is bound to take flight.

The more sophisticated the ambition, the more data you need

A critical challenge that South Africa's cities face is that the data available to them has some distinct deficiencies, especially at the sub-city level. Stats SA produces some data on the state of cities' labour markets as part of the Quarterly Labour Force Survey. It is also the source of population estimates through the census (albeit that these may be too infrequent for city-level planning if there are significant flows of migrants into/out of a city). Some of this data can be cross-checked with administrative data – notable SARS's – but there good reasons to expect some differences between these sources. There are no official estimates of GDP at the metropolitan level, although researchers have tried to estimate GVA for cities' economies (albeit that the main provider of these estimates – Quantec – does so without disclosing the methods and data they use to infer regional and city GVA). While luminosity data can sometimes assist in assessing whether a city's economy is growing, these data are difficult to interpret, and should be used with care.

"What luminosity data can and cannot reveal about South Africa's urban economies" by Takwanisa Machemedze, available here.
Satellite images of the Earth at night show how much light is emitted by residents of any area, and, since this is linked to how developed an economy is, variations in night lights across space and time can be used to track various urban dynamics. Machemedze explores South African luminosity data to assess the extent to which it can reveal changes in the size of urban areas, movements into towns and cities, and changes in urban poverty, inequality and access to electricity. The results of a careful analysis show a weak but positive relationship between South African census data on the extent of urbanisation and the lit areas derived from the night lights data. The analysis also reveals that the proportion of poor households decreases as lit areas increase. However, data about night lights performed poorly at predicting poverty rates and inequality, most likely because night lights reflect the provision of public services rather than household socioeconomic status. The paper suggests that further study of the night lights data could help identify informal settlements and how they have evolved.

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These issue are fully canvassed by von Fintel and Machemedze, and there is no reason to repeat their conclusions here. What is worth emphasising is that the data – though by no means unhelpful – are not sufficiently spatially granular or collected sufficiently frequently for cities to use them to evaluate policy options, make policy choices and assess whether or not those policies are working. This has huge implications because it is implausible that the set of decisions taken in the absence of appropriate data would match the optimal set of decisions that would have been taken had such data been present. Nor is this just a problem for decision-makers in the public sector: businesses that want to do sophisticated things need sophisticated data, and the absence of that data might make some kinds of investment or some kinds of activity unfundable. As with the public sector, decisions taken in the absence of data will rarely have been the same as decision that might have been taken had the relevant data been present.

The implication of all of this is that one priority for South Africa's cities is to maintain and strengthen the quality and reliability of the data on which they rely. While there are clearly lots of other priorities, ensuring the availability of data needed to make good choices and to evaluate the impact of those choices is critical if our cities are to find more effective strategies.

Concluding remarks

South Africa's cities face multiple, overlapping and interconnected challenges. They are, nonetheless, the country's best hope for turning our economy and our manifold social crises around. This is because of the dynamism and inherent economic potential of urban agglomeration and because, simply by virtue of their smaller size significant progress might be more easily achieved. Nor is it irrelevant that there exists the potential for markedly more local accountability in the cities than there is in provincial and national politics.

The prosperity that cities can generate is not inevitable. Many cities fail to deliver on their potential to become growth, jobs and opportunity generating machines. To succeed, cities need to maximise the benefits of increased human interaction by managing land use efficiently to make sure the physical environment facilitates growth; make sure transport systems work effectively and, in Glaeser's words, manage the "demons of density" such as public health risks, crime, congestion and high property prices. If cities get these things right, their own population growth and in-migration, even of large numbers of poor people, can be accommodated. Cities need to focus very closely on the extent to which their programmes actually achieve the goals of poverty reduction and at what cost, and they should ultimately be judged by how fast poor people become less poor over time.

When cities do not have considerable or even exclusive jurisdiction over critical functions like policing, public transport planning and the like, as is the case in South Africa, challenges in the coordination of activities across government can stymie even the best plans. At the same time, the quality of urban governance, and, in particular, the determination and vision of its leaders, matters a great deal in determining whether and to what extent it manages these challenges.

It is critical, therefore, that cities are governed by credible and legitimate political leaders. As we have seen in recent years, however, city government seems to be increasingly prone to political crisis and instability. If the cities are to succeed economically, it is vital that steps are taken to stabilise their politics and to ensure that their leadership has sufficient space to authorise the policy changes that are needed. This may require meaningful political realignment, a process that, given the fraught character of existing party politics, may require intervention from civil society, including organised business, if it is to succeed. We need to find ways to encourage prominent citizens or real community leaders to participate in metro governments. This is not just a place for those who cannot make it in national politics.

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