Economic transformation, inclusive growth, and competitiveness:

Towards an Economic Strategy for South Africa

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Abstract: The combination of low growth and rising unemployment means that South Africa's economic trajectory is unsustainable. Government should implement a series of growth reforms that promote economic transformation, support labour-intensive growth, and create a globally competitive economy. We start by highlighting five fundamental building blocks of sustainable long-run growth and then identify a series of specific and detailed reforms to raise potential growth. These growth reforms are organized according to the following themes: (i) modernizing network industries; (ii) lowering barriers to entry and addressing distorted patterns of ownership through increased competition and small business growth; (iii) prioritizing labour-intensive growth in sectors such as agriculture and services, including tourism; (iv) implementing focused and flexible industrial and trade policy; and (v) promoting export competitiveness and harnessing regional growth opportunities. We estimate the economy-wide impact of the proposed interventions over time based on when they can realistically be implemented, and find they can raise potential growth by 2–3 percentage points and create over one million job opportunities.

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Executive summary

South Africa's current economic trajectory is unsustainable: economic growth has stagnated, unemployment is rising, and inequality remains high. The government should urgently implement a series of reforms that can boost South Africa's growth in the short term, while also creating the conditions for higher long-term sustainable growth. These growth reforms should promote economic transformation, support labour-intensive growth, and create a globally competitive economy. The specific and detailed reforms outlined here demonstrate that the only way to raise South Africa's potential growth is through the implementation of a series of deliberate and concerted actions across a range of fronts. However, any attempt to raise South Africa's potential growth rate must include progress on the fundamental building blocks of long-run sustainable growth. These include:

- Improving **educational outcomes throughout the educational life-cycle, with a particular focus on early childhood development** (which presents the greatest return on educational investment) and enhancing the relevance of education systems by better aligning learning outcomes to labour market needs.

- Implementing **youth employment interventions such as continued support for government programmes that incentivize job creation** (e.g. learnerships) and **apprenticeships that facilitate school-to-work transition** based on close cooperation between institutions of learning and the private sector.

- Expanding **effective, affordable, and integrated public transport systems and prioritizing targeted housing and urban development interventions to overcome spatial legacies**. The latter includes mechanisms to facilitate the growth of resale markets in social housing, fast-tracking the provision of title deeds to beneficiaries and leveraging private sector finance for low-income housing developments.

- **Addressing the skills constraint** through a combination of short-term solutions (such as the easing of immigration regulations for individuals with tertiary qualifications from accredited institutions) and the long-term educational reforms discussed above.

- Delivering **a capable state supported by a new compact between the government, private sector, and other social partners**. Government's commitment to the compact should prioritize strengthening the capability of the public sector and state-owned entities as well as achieving the right balance between policy progress and certainty to ensure the economy is able to attract investment. The private sector's commitment must ensure that businesses seek government policies that are unambiguously in the public interest.

- A **stable macroeconomic policy framework underpinned by a flexible exchange rate, inflation targeting, and credible and sustainable fiscal policy**. Low and stable inflation and a more sustainable fiscal trajectory reduces uncertainty, lowers borrowing costs across the economy, anchors returns expectations for investments and increases business confidence—all of which boost productivity.

Turning to the growth reform agenda, we draw on the National Development Plan to outline five themes and the contribution of growth reforms within each theme that prioritize economic transformation, inclusive growth, and competitiveness.

i. Modernizing network industries to promote competitiveness and inclusive growth

Network industries such as energy, transport, and telecommunications, provide essential services that underpin the growth, productivity, and competitiveness of an economy. South African network industries face some challenges including the absence of efficient economic regulation, old and poorly maintained infrastructure, a lack of access to quality services, and poorly managed state-owned companies. To address these challenges, a number of interventions should be prioritized.

- **Electricity:** In energy planning, the base case of the Integrated Resource Plan (IRP) should be unconstrained so that all policy options can be compared relative to the least-cost option; the IRP should be updated regulary to reflect changes in economic conditions and technology; future electricity tariffs should be managed in a transparent and predictable manner; and the over-reliance of municipal budgets on electricity revenue needs to be corrected. An independent transmission company, to be created from the unbundling of Eskom, should buy electricity transparently from independent power producers. Consideration should be given to regulation that enables households and firms to sell excess electricity they generate.

- **Telecommunications:** Government should release spectrum through an auction with a small set-aside for a government-controlled network, and competition should be allowed in Telkom's infrastructure that connects the local exchange to residential homes and businesses. Rapid deployment guidelines that accelerate the installation of telecommunications infrastructure should be finalized, and open access conditions should be imposed to minimize unnecessary duplication of telecommunications infrastructure. The Independent Communications Authority of South Africa's (ICASA's) proposed economic regulation component should be independent of line departments and directly funded from industry levies, as per international best practice. The state should leverage private-sector expertise in broadband roll-out, rather than relying exclusively on state-owned companies (SOCs).

- **Transport:** We need to finalize the Economic Regulation of Transport Bill; enforce separate accounting divisions or separate financial statements for the various operating divisions of Transnet to ensure subsidies across divisions are made explicit; grant third-party access to the rail network to encourage private sector participation; and introduce competition in ports and rail. Other interventions that can improve freight transport include facilitating the exchange of information and improving coordination between shippers and transport companies, and encouraging the shift from road to rail where practical and efficient. Public transport can play a significant role in overcoming historical spatial planning through the integration of modes by local government and the densification of cities in specific areas. Local governments should take responsibility for the integration of public transport and land use planning. We should consider a review of fuel price regulation and implement strategies to formalize the taxi industry.

- **Water:** The sector suffers from an infrastructure backlog and the current process to investigate appropriate institutional options for service delivery needs to be finalized. There needs to be a comprehensive management strategy for investment in water resource development, bulk water supply, and wastewater management; including applying lessons from the successful renewable energy independent power producers programme. An independent water regulator can improve the overall efficiency of water provision and improve price setting. The implementation of a national water conservation programme can reduce water waste and demand in urban areas.

Independent regulators such as the National Energy Regulator (NERSA), the Ports Regulator, and ICASA regulate sectors that are dominated by one or more large entities to ensure more efficient outcomes. Several unregulated areas that are dominated by large state-owned entities or the government (e.g. rail, road, port terminals, and water) should have their economic activities regulated by independent agencies. Where regulators exist, the government needs to ensure they have the capacity to effectively perform their functions. Regular reviews of regulated prices and their underlying formulae need to become the norm to ensure these are updated to reflect the latest available information and international best practice (e.g. the Ports Regulator recently reviewed the port tariff methodology).

ii. Lowering barriers to entry and addressing distorted patterns of ownership through increased competition and small business growth

Barriers to entry distort product markets and reduce the incentives for productivity and innovation, which directly inhibit growth. Large and old firms continue to dominate the economy as well as employment dynamics. New firm entry and effective rivalry among existing firms can generate significant consumer welfare benefits.

Several cross-cutting interventions can lower barriers to entry across a number of sectors:

- **Competition and market structure issues** should be considered in the drafting of new legislation, policies, and regulations.

- **Development finance should be made more accessible** to new entrants by the Industrial Development Corporation and others. A small business and innovation fund is being created to focus on the ideation and start-up phases of a business where the market failure in small business finance is most binding.

- Government support, in the form of **incentive programmes, needs to be better communicated** and simpler to apply for, especially for small business.

There are a variety of other interventions that would support the growth and entrance of rivals in specific industries.

- The **regulatory provisions in network industries such as telecommunications and banking should be changed to favour rivals provided these do not harm financial stability**—for example, conditions for banking licences can be made less onerous and banking regulations should be more flexible to new developments, such as the growth of mobile money in the rest of Africa.

- **Addressing exclusive leases is critical to create more competition among supermarkets**. The Competition Commission is working to ensure that existing supermarkets do not enter into leases with exclusivity clauses. The Competition Commission should reduce the duration and scope of these clauses in instances where such leases have already been entered into. Municipalities should tackle exclusivity directly through planning policies.

- **Switching costs could be reduced by instituting a regulated switching process with mandatory timelines in banking and telecommunications**. The South African Reserve Bank should exempt consumers from interest, penalty fees, and other charges incurred due to delays in switching bank accounts. Clear guidelines to facilitate mandatory sharing of Financial Intelligence Centre Act information can also ease switching.

While large businesses have the resources to navigate their way in a variety of circumstances, the combination of impediments such as a high regulatory burden, inflexible labour markets, and high levels of concentration present significant obstacles for small business. The costs of compliance with red tape (e.g. obtaining black economic empowerment (BEE) certification, applying for a tax incentive, or accessing a learnership through a sector education and training authority (SETA)) is the same across companies, making it much more expensive in relative terms for smaller companies.

- Lower barriers to entry can be facilitated by **reviewing red tape around licensing and municipal servitudes and** introducing a 'silence is consent rule' for licensing procedures that have low associated risks.

- Small businesses should be supported through public procurement: **late payments by government to small business should be addressed** (perhaps by allowing for automatic addition of interest on outstanding balances after a certain period). **Governments and state-owned entities need to, where possible, draft tenders to create greater opportunities for small business**. Acting as a sub-contractor to a large firm is one way for a small business to enter global value chains and to get into longer-term contractual relationships that can unlock access to credit—**a dispute resolution mechanism in the Chief Procurement Office or a separate ombudsman can improve oversight and monitoring of subcontracting relationships**.

- A commitment to a reduction of red tape can unlock opportunities for small businesses. **The Red Tape Impact Assessment Bill**, which was rejected by parliament on procedural grounds, **could be revisited**. The proposed bill requires all departments and self-regulatory agencies to reduce red tape by 25 per cent over five years. The government should consider **full or partial exemptions for small businesses from certain kinds of regulation** (e.g. the extension of bargaining council agreements) can assist small businesses (and other new market entrants)—special economic zones can be used as potential places where these types of interventions can be piloted.

iii. Prioritizing labour-intensive growth: agriculture and services

In a skills-constrained economy, the bias towards skills-intensive employment driven by technological advancement has the unintended consequence of raising wage premiums, which further entrenches inequality and contributes to rising unemployment. Agriculture and services, especially the tourism sector, are conduits for labour-intensive growth.

Several features of agriculture make it important in the pursuit of inclusive, labour-intensive economic growth: rural linkages, ability to absorb less-skilled labour, large multipliers due to extensive links with the rest of the economy, globally competitive labour productivity, and importance for export-led growth. Despite these advantages, the sector continues to experience low growth and declining employment. **Innovative joint ventures have shown to boost agricultural production and promote agrarian transformation and should therefore be supported.** This requires creating an enabling environment for investment in agriculture including:

- **Improving access to financing for farmers:** Farmers have unique financing requirements, typically demanding high levels of debt to offset uneven revenue streams. Concessional agricultural credit (e.g. declining subsidized interest rate loans) can play an

important role in targeting export-oriented and labour-intensive commodities and support various developmental objectives.

- **Providing adequate and affordable agricultural insurance:** Many agricultural producers in South Africa are not insured against the negative impacts resulting from natural disasters, such as drought, mainly due to the high costs associated with agricultural insurance. The Land Bank should take an active role in expanding the range of agricultural insurance products to support business continuity, ensure food security, spur rural economic development, and modernize the sector.

- **Improving extension services for smallholder and emerging farmers:** Intensive and high-quality extension support in partnership with industry associations is required for smallholders and emerging farmers to transition to higher-value agricultural commodities and can play a major role in reducing poverty and strengthening rural development.

- **Enhancing trade promotion, market access and access to water for irrigated agriculture** is crucial to unlock investment in labour-intensive crops such as apples, table grapes, citrus, avocados, and macadamia and pecan nuts. Export growth in these crops will come from improved market access, which must be supported by the availability of water.

- **Investing in establishing innovative market linkages for smallholders:** Contract farming and strategic government procurement, for example, can play an effective role in helping smallholder farmers achieve greater productivity, scale, access to inputs and markets, and ultimately facilitate graduation to emerging and commercial status.

The services sector has proven to be resilient in downturns relative to other sectors, is highly localized and supportive of industrial production and therefore key to enabling inclusive growth and economic transformation. The tourism sector, in particular, is characterized by low barriers to entry as most tourism businesses are small, providing services such as accommodation, tour guiding, day tours, and taxi services.

- Greater **budgetary support for tourism agencies is required** and measures should be introduced to protect their budgets from the negative impact of currency fluctuations given their impact on marketing in foreign destinations.

- The Department of Tourism should increase the level of support to tourism firms to navigate the highly regulated business environment.

- South Africa's visa regulations should be amended to ensure a better balance between security concerns and growing the tourism sector.

- Adopting proposals for the **reintroduction and enhancement of the Tourism Safety Initiative**, with highly visible policing in tourist hotspots can address the perception of South Africa as an unsafe destination.

iv. **Implementing focused and flexible industrial and trade policy to promote competitiveness** and facilitate long-run growth

High value-added sectors such as manufacturing promote productivity growth (which underpins long-run economic performance), diversifies exports, and is an important contributor to the

country's skills base. Increasing competition in global value chains has forced domestic manufacturers to increase their competitiveness through investments in new technologies and up-skilling their workforces. There is scope for improving South Africa's industrial policy in the following ways:

- **Developing metrics to assess industrial policy interventions that are not punitive but encourage a process of learning and improvement:** monitoring and evaluation must be a critical component of the incentive design process. There must be an emphasis on ensuring that adequate and accurate information is collected through the programme's life-cycle so that independent evaluations can be conducted periodically.

- **Allowing flexibility for South Africa's industrial policy interventions to incorporate experience from implementation over time while maintaining policy certainty:** Incentive adjudication committees should be allowed the flexibility to incorporate learning from their experiences. A clear set of criteria to determine which changes to programmes can be instituted will increase the transparency of programmes and ultimately improve accountability.

- **Increasing experimentation and piloting of industrial policy options:** this allows the agency or department in question to identify possible constraints or flaws in the programme design and will highlight procedural and system issues that need to be addressed while limiting policy uncertainty. Special Economic Zones can be used to experiment with policies on a small scale, before rolling them out to the wider economy (if it makes sense to do so).

- **Leveraging public procurement to support industrialization:** the government's status as a big buyer of goods and services through public procurement allows for this buying power to be leveraged to provide critical demand-side support to industry. This approach is effective if it is informed by evidence in selecting the products and industries that will meaningfully be assisted by this type of support. This can be achieved by:

    - Creating a repository of data on government procurement spending to allow evidence-based government-led product selection for designation;
    - Aligning and enforcing procurement processes at all levels of government;
    - Capacitating the South African Bureau of Standards to ensure that it is able to conduct local content verifications;
    - Collecting information on procurement spend across all levels of government to improve the targeting of public procurement as an industrial policy tool; and
    - Monitoring and enforcing designations to ensure that they are being adhered to by all organs of the state.

- **Rationalizing the Industrial Policy Action Plan (IPAP) to improve its efficacy:** the latest iteration of IPAP focuses on thirteen sectoral areas with numerous interventions under each (in addition, there are eight transversal focus areas). IPAP may have a greater impact if it targets fewer areas where the greatest gains can be made.

Trade policy is a key component of South Africa's industrial policy package: South African trade policy is currently administered by the International Trade Administration Commission (ITAC) which considers trade measures on a case-by-case basis through applications. This means that trade policy evolves on a piecemeal basis through applications to ITAC, which lends the process to an inherent bias towards larger, more organized firms. **ITAC should be capacitated**

so that it conducts broader value chain analysis of the impacts of submissions and is proactive in addressing the current biases of trade policy. There should be consistent monitoring and evaluation of industrial policy interventions, possibly through a multi-stakeholder monitoring body enhancing coordination between government departments and institutions.

v. Promoting export competitiveness and harnessing regional growth opportunities

Export orientation and sophistication are key drivers of long-run economic growth. South Africa needs to promote export competitiveness and actively pursue regional growth opportunities in order to leverage global and regional value chains for export growth. Technologically sophisticated exports, in particular, are crucial to structural transformation as they enable the economy to move from low- to high-productivity activities.

- The quality of and access to infrastructure can be improved through the **promotion of competition and private sector participation in infrastructure**.

- **New and re-negotiated preferential trade agreements with growing markets are required for key export products.**

- Government needs to collaborate with the private sector to set up an **automated licensing system for key export documentation**; and **review border control procedures, plant, and animal health standards**.

- **There is a need to increase awareness of South African export products abroad**. Incentives such as the Export Marketing and Investment Assistance Scheme may need to be focused on specific sectors.

- **Export credit and bridging finance to finance large projects should be provided at internationally competitive rates**. Export credit insurance and investment guarantees should cover political and currency risk.

Recent changes in South Africa's trading patterns, both the nature of the products as well as their destinations, have important implications for how we think about South Africa's export strategy. Between 2008 and 2014, manufacturing exports to the Southern African Development Community (SADC) more than doubled. Regional growth opportunities should be harnessed to promote export growth.

- Improving intra-regional logistics requires joint action across a range of areas **including border controls, standards, storage facilities, and increasing competition and investment in infrastructure**.

- With potential sources of energy spread across the region, **institutional models of power generation and distribution need a regional perspective**.

- Construction services exports into the continent can be expanded by pursuing **a common or harmonized procurement framework for SADC**; **harmonizing of border processes**; and **enhancing the export promotion schemes run by the Department of Trade and Industry (dti)**.

vi. Quantifying the impact of proposed growth reforms

The bulk of the interventions are realistically executable in the medium term, and include reforms in the telecommunications, agriculture, services, and transport industries. Short-term interventions are important as they lay a foundation for other reforms, while long-term interventions address competitiveness. In the long term, **the combined scenario (taking into account short, medium, and long-term interventions) can add as much as 2.3 percentage points to gross domestic product growth and create over one million job opportunities**. This is dependent on the successful implementation of the short-term reforms as well as complementary policies in place to address the constraints currently faced by the economy, including insufficient skills and capital availability. The contributions of the primary and secondary sectors are expected to moderate as services' growth accelerates. Insufficient availability of skilled workers and capital can hasten this shift, as the constraint causes a reallocation of resources from the primary and secondary sectors, to the services sector.

1 Introduction

South Africa's key economic challenges are well documented. Real gross domestic product (GDP) per capita has declined since 2015 (SARB 2018); productivity growth has been slow and appears to be slowing (Kreuser and Newman 2018; Aterido et al. 2019); the unemployment rate has recently been increasing from already high levels (Statistics South Africa 2017a); and inequality remains very high (Wittenberg 2017). The current state of the South African economy is unsustainable. Low economic growth entrenches poverty and inequality. High income inequality aggravates social fragmentation (Putnam 2007) and poses a risk to economic growth. Inequality contributes to extremely divergent views, which make compromises difficult—the resulting stalemate and policy uncertainty can contribute to economic weakness.

Addressing our economic challenges requires an immediate focus on policies that will raise South Africa's potential growth.[1] Recent estimates of South Africa's potential growth indicate that South Africa's growth rate is low and has been slowing.[2] Therefore, a sustainable trajectory for the South African economy is one where a series of reforms are implemented to raise South Africa's potential growth rate.

A growth-oriented policy agenda must be accompanied by interventions that change how the benefits of growth are distributed and fundamentally transform the systems and patterns of ownership and control that govern our economy. Initiatives that transform the economy must meet the dual tests of sustainability and intergenerational equity. In other words, economic transformation must be implemented in a manner that does not compromise the long-term ability of our economy to compete in global product and labour markets. This means that at the heart of our economic policy must be a concurrent emphasis on economic transformation, inclusive growth, and competitiveness as this offers the most sensible strategy to address the challenges of unemployment, poverty, and inequality.

Economic transformation refers to a rapid and fundamental change in the systems and patterns of ownership and control that govern the economy.[3] The primary aim of this change in economic relations must be the creation of opportunities for all South Africans to live productive, prosperous, and dignified lives. There are a range of factors that hinder greater participation by new firms in the economy, such as the existence of scale economies; regulations and policies that support incumbents or are ineffective in assisting rivals and new firms; competition legislation that favours large firms and incumbents; and access to finance challenges (CCRED 2016a, 2016b, 2016c, 2016d, 2016e). Historically segregated and entrenched spatial planning affects travel costs as well as job searches and effectively disadvantage many individuals from equal participation in the economy (Kerr 2015). These and other factors, which we elaborate upon in greater detail, prevent the South African economy from transforming in a meaningful way. Here we hope to

[1] Potential growth is the rate of increase of potential output, defined as the level of output an economy would sustain at full capacity utilization and full employment (World Bank 2018a).

[2] Potential growth estimates are highly sensitive to the methodology applied—recent estimates include those by Fedderke and Mengisteab (2017), Botha et al. (2018), and Steenkamp (2018), and range from 0.8 to 2.6 per cent.

[3] Economic transformation, as defined here, is conceptually different to structural transformation. The latter refers to the reallocation of economic activity across different sectors of the economy or, differently put, the transition from low productivity and labour-intensive economic activities to higher productivity and skill-intensive ones. While the primary focus of this document is to outline interventions that could contribute to economic transformation, the concept of structural transformation is occasionally invoked, for example, in the discussion of industrial policy.

provide an evidence-based view of the role growth reforms can play in promoting economic transformation.

Inclusive growth refers to a growing economy where the benefits of growth are shared broadly. In other words, economic growth must be accompanied by a reduction in inequality. However, the starting point should be an economy that grows. A deterioration in investor confidence, compounded by political and policy uncertainty, institutional weaknesses, and unresolved regulatory conflicts have contributed to a low-growth environment (National Treasury 2017). Low growth limits the ability of the economy to transform because it threatens the sustainability of critical social spending by government as well as the overall progressivity of tax and fiscal policy. Furthermore, low growth limits the counter-cyclicality of fiscal and tax policy, which could otherwise be deployed as an additional measure to boost aggregate demand. Ultimately, low growth may also threaten the overall long-term potential growth rate of the economy if it translates into the inability of a country to implement critical growth-enhancing interventions such as productive infrastructure or quality education and skills training. Putting the country on a higher growth path can be the result of structural transformation (i.e. moving into higher productivity areas) or by expanding existing activities where a comparative advantage clearly exists (such as the export of services and certain high-value agricultural products). As emphasized in our discussion of labour-intensive growth, we should not underestimate the importance of the latter.

Pursuing economic transformation and inclusive growth must be accompanied by an emphasis on building an economy that is globally competitive. In other words, driving an economic transformation and inclusive growth agenda cannot compromise the long-term competitiveness of a small open economy that needs to sell goods and services to the rest of the world and attract investment in order to finance its own economic prosperity. Unless we are able to boost our relatively low domestic savings rate and reduce our reliance on foreign savings to fund investment and economic growth, the competitiveness of our economy must remain a key focus area. The competitiveness of an economy can be measured in various ways, including through the prices of its inputs (e.g. port and electricity tariffs), labour or total factor productivity, or the competitiveness of specific markets (e.g. how deep and liquid its financial markets are). An emphasis on competitiveness also highlights the trade-offs associated with economic transformation and inclusive growth, where these exist. For example, prioritizing local procurement by state-owned entities can boost economic transformation and inclusive growth, but the short-run impact on competitiveness will not be neutral if local industries are unable to supply the designated products at the same price as their international counterparts. However, this does not mean the medium- to long-run impact on competitiveness will necessarily be negative; it merely highlights the fact that the economy may need to experience some short-run adjustment costs for a longer-run benefit.

These three outcomes constitute a virtuous cycle: economic transformation promotes inclusive and sustainable growth and is likely to contribute to a greater potential growth rate. Growth that is inclusive reduces inequality and can generate directly (through social spending, for example) and indirectly (through greater opportunities for participation in the economy), opportunities for economic transformation. A competitive economy that participates effectively in global and regional value chains grows faster and more sustainably. An emphasis on these three outcomes makes it clear that they are complementary, not mutually exclusive or competing. It enables economic policy to take account of the trade-offs one may encounter in pursuing these outcomes and mitigates potential unintended consequences of a singular focus on one at the long-term expense of another.

The trade-offs and unintended consequences of policy interventions are complex. For example, active industrial policy is part of every government's policy mix due to its ability to achieve structural transformation, improve long-term growth outcomes, and enhance the competitiveness

of an economy. However, industrial policy can also inhibit economic transformation if it targets large incumbents (who often have large employment creation potential) to the detriment of smaller players or new entrants that may otherwise diversify the patterns of ownership in the economy. A focus on exports can generate similar unintended consequences for smaller producers because exporting often requires economies of scale. By focusing on these three outcomes we hope to highlight their synergies as well as the associated trade-offs.

Some of the policy interventions suggested here are likely to generate losers and therefore require careful anticipation and management. For example, a growing renewable energy sector, which has massive job creation potential and would reduce electricity prices (Wright et al. 2017), will require management of the transition from coal to renewable energy through targeted programmes. This may include initiatives aimed at ensuring that those sectors that benefit from the transition contribute towards compensating the losers, for example through reskilling people currently employed in the coal mining industry or making direct contributions to the pension funds of coal miners. These initiatives can contribute towards ensuring that policy interventions are welfare neutral.

This paper is an attempt to translate the broad outcomes of inclusive growth, economic transformation, and competitiveness into specific programmes and draw on a range of domestic and international literature to support these policy priorities. This paper considers the contribution of specific growth reforms that can achieve the outcomes of economic transformation, inclusive growth, and competitiveness. The specific and detailed reforms outlined here highlight the fact that the only way to raise South Africa's potential growth is for government to embark on a series of deliberate and concerted actions across different fronts—these are what we refer to as 'growth reforms'. However, any attempt to raise South Africa's potential growth rate must include progress on the fundamental building blocks of long-run sustainable growth. We highlight five fundamental building blocks of long-run sustainable growth below.

First, there must be an emphasis on **improving educational outcomes** throughout the educational life-cycle as well as enhancing the relevance of education systems by better aligning learning outcomes to labour market needs. The South African education system, which other countries have used to promote equality of opportunity, perpetuates inherited socio-economic disadvantage: if your parents are poor, the chances of your being poor are about 90 per cent (Finn et al. 2016). The lack of a transformative education system is a key factor in this persistence. Our educational outcomes are poor, even when compared to other less well-resourced countries in the region. This is a major driver of intergenerational inequality and inhibits the inclusivity of growth and global competitiveness. Since the highest return to human capital investments are associated with the earliest interventions, an educational life-cycle approach must include a **strong emphasis on early childhood development**, which has demonstrated the ability to: (i) improve long-term health outcomes (Campbell et al. 2014); (ii) boost earnings by as much as 25 per cent (Gertler et al. 2014); and (iii) generate a rate of return on investment of 7 to 10 per cent through better outcomes in education, health, and productivity (Heckman et al. 2010). Evidence of inadequate teacher content knowledge (see Venkat and Spaull 2015) and significant reading deficits in primary schools (see Spaull and Kotze 2015) points to the need for a **comprehensive reading plan for primary school learners** drawing on successful experiences such as the provision of reader anthologies.

Second, we need to continue to **implement youth employment interventions,** including **training opportunities** that remove barriers to entering the labour market and **apprenticeships** based on close cooperation between technical, vocational, and other training institutions and the private sector to ensure that training needs are demand-driven (Bhorat et al. 2014). Investing in the capabilities and educational and health outcomes of young people is unlikely to yield a dividend

unless the youth are absorbed by labour markets (Mlatsheni 2014). To the extent that the fiscal position allows, **continued support for programmes, such as the employment tax incentive and learnerships, can support job creation and ensure that firms are not biased towards capital in their investments in productive capacity**. This includes new programmes that facilitate school-to-work transition through training and internship initiatives in collaboration with the private sector (Field et al. 2014).

Third, creating **sustainable cities and inclusive transport systems** can address inherited spatial legacies to lower inequality and support growth (SACN 2014). South Africa's spatial context has not changed significantly since 1994, which means that individuals who make up the majority of the workforce have to travel significant distances to get to work every day. Besides long distances, public transport routes are characterized by high peak demand, minimal off-peak use, and uni-directional travel patterns that do not promote economies of scale for operators. The costs of commuting in South Africa have increased by more than inflation on an annual basis. The lowest wage earners spend around 40 per cent of their income on transport and around 70 per cent of discouraged job seekers cite their location as the key constraint to looking for a job (Mlatsheni and Ranchhod 2017). Besides the costs involved, longer commuting times lead to much wasted time, lower productivity, and higher frustration levels for many commuters, which have a broader impact on the economy (Kerr 2015). Expanding effective, affordable, and integrated public transport systems and prioritizing targeted housing and urban development interventions can overcome spatial legacies in a meaningful way and contribute to sustainable wealth creation (SACN 2014). **This includes instituting mechanisms to facilitate the growth of resale markets in social housing, fast-tracking the provision of title deeds to beneficiaries, and better ways of leveraging private sector finance for low-income housing developments** (CAHF 2017). A growing urban housing market that builds on successful social housing developments is one of the best ways to boost inclusive growth.

Fourth, it is clear that a **combination of short- and long-term solutions is required to address the fact that the South African economy is severely skills constrained** (Levinsohn 2008). The clearest evidence of a skills constraint can be found in wage trends that show the demand for skilled labour has exceeded supply for some time now, causing the wages of high-skilled workers (i.e. those with a tertiary qualification) to rise dramatically. In 1994, the relative wages of tertiary-educated males were a bit less than six times greater than those with only primary education or less. By 2010, the ratio had expanded to nearly 10 (Branson and Leibrandt 2013). Wages for those at the upper end of the wage distribution (the 90th percentile) increased substantially relative to median wages: from 2.7 in 1994 to around 5 by 2011 (Wittenberg 2014). This is a near doubling of the wage premium for highly skilled labour. Compared to the United States, where the wage premium has been monotonically increasing for 35 years, South Africa's negative trend in wage inequality is vastly more dramatic (Arndt 2017). These wage trends are partly explained by skills-biased technological change but are also the result of an uneven and underperforming basic education system. It ultimately points to a severely skills-constrained economy, with the associated consequences for long-term growth—particularly for export competitiveness and sectors that require substantial inputs of skilled labour.[4] Addressing the skills constraint requires **a combination of short-term solutions (such as the easing of immigration regulations for individuals with tertiary qualifications from accredited institutions) and long-term educational reforms that can facilitate the rapid accumulation of skills**.

[4] This was first highlighted by the International Panel on Growth convened by Ricardo Hausmann (see Levinsohn, 2008).

Fifth, there is a wealth of evidence supporting the importance of economic institutions in explaining cross-country differences in income levels and growth (Acemoglu and Robinson 2008). Economic institutions represent collective choices that are the outcome of a political process and include factors like the security of property rights, market structure, and barriers to entry as well as contractual arrangements and enforcement (Acemoglu and Robinson 2008). These influence investments in physical and human capital, the incentive to innovate and develop new technology, and how production is organized. **Economic institutions that support growth require a capable state as well as a functional relationship between the state and the private sector** (National Planning Commission 2012). The quality of economic institutions is a function of the ability of the state to execute policy in a manner that is evidence based, consistent with the broad principles outlined in the constitution and followed by effective implementation. In South Africa, the current relationship between the private sector and the government is often dysfunctional and characterized by deep distrust (Spicer 2016). To create a basis for cooperation, a new compact between the government, private sector, and other social partners is required. Government's commitment to the compact must prioritize strengthening the capability of the public sector and state-owned entities as well as achieving the right balance between policy progress and certainty to ensure the economy is able to attract productive foreign and domestic investment that is urgently needed to enhance potential growth (see Box 1). The private sector's commitment to the compact must ensure that businesses seek government policies that are unambiguously in the public interest. To the extent that the private sector makes demands that are perceived as greedy and purely in their own narrow self-interest, it erodes the legitimacy and effectiveness of their engagement.

Box 1: Achieving the right balance between policy progress and certainty

Businesses face a significant amount of uncertainty related to the timing and content of government policy changes, as well as the potential impact that these policies will have on firm profitability. Several policy processes are delayed or affected by extended legal action. This includes the Mineral Petroleum Resources Development Act Amendment Bill (which was in limbo since 2013 until it was scrapped in late 2018) as well as the Mining Charter (which was recently finalized). The finalization of these policy processes can provide a predictable, stable, competitive, and certain regulatory environment to support increased economic activity and investment.

There are two channels through which policy uncertainty can cause lower investment. First, to the extent that investment projects are not fully reversible, uncertainty will increase the value of the option to wait until more information about the profitability of the projects is revealed (Gulen and Ion 2013). Second, uncertainty can increase the costs of external financing by increasing the risk of default or the equity risk premium, which can result in lower investment rates (Gulen and Ion 2013). Policy certainty improves business confidence, which is an important element in unlocking private sector investment. A focus on policy certainty does not mean that the policy and regulatory environment should remain static. It merely highlights the importance of ensuring that a changing policy and regulatory environment is sensitive to the views of all social partners and managed in an inclusive and transparent manner. Delivering policy certainty in a few policy areas is vital to re-establish trust and create an enabling environment for a social consensus to emerge.

Finally, it is widely accepted **that stable macroeconomic policy is a necessary condition for sustainable economic growth** (Faulkner et al. 2013). High inflation, unsustainable debt levels, and volatility in exchange rates and financial markets can undermine the ability of an economy to transform as well as its ability to grow in an inclusive manner. Growth reforms are more effective when implemented alongside macroeconomic policy that emphasizes **fiscal sustainability, a flexible exchange rate, and credible inflation targeting**. In recent years, government debt has grown considerably, funding pressures from state-owned companies such as Eskom have increased, revenue collection has underperformed and the public-service wage bill has been a major driver of the fiscal deficit (National Treasury 2019). Improved government finances and a more sustainable fiscal trajectory will contribute to a decline in borrowing costs across the economy and have important broader macroeconomic benefits. This, combined with well-

developed and regulated financial markets, will continue to provide a solid platform for long-term sustainable growth. In light of our relatively low domestic savings rate, prudent macroeconomic policy remains critical to ensure we are able to attract foreign savings to fund investment and economic growth.

Achieving the outcomes of economic transformation, inclusive growth, and competitiveness cannot be achieved without these and other complementary actions that enable a new era in economic growth and prosperity for the majority of South Africans. In this paper, key growth reforms that can contribute to economic transformation, inclusive growth, and competitiveness are outlined in five thematic areas. These themes, which are drawn from the priorities identified in the National Development Plan, are used as an organizing framework for detailed growth reforms that can contribute to the three outcomes identified above.

First, **modernizing network industries such as transport, energy, water, and communications can promote competitiveness and inclusive growth**. These industries are the back bone of the South African economy and key for long-term growth and global competitiveness. A 10 per cent increase in fixed broadband penetration leads to a 1.35 per cent increase in GDP growth in developing countries and a 1.19 per cent increase in developed economies (Minges 2016). A one-day reduction in inland transport times in Sub-Saharan Africa can lead to a 7 per cent increase in exports (Freund and Rocha 2010). South African network industries face serious challenges, including: (i) the absence of efficient economic regulation (which can lead to inefficient investments and high prices); (ii) old and inadequately maintained infrastructure; and (iii) poorly managed state-owned companies with severe governance challenges that pose a significant burden on the fiscus. Modern network industries can contribute to long-term growth and competitiveness if we implement institutional reforms to promote competitive pricing and leverage private sector participation to increase investment and improve service delivery.

Second, **enhanced competition can be a lever for inclusive growth and economic transformation by encouraging the growth of smaller firms, the entry of new firms, and growth in innovation and productivity**. Tackling anti-competitive behaviour and reducing government restrictions on competition can have a significant distributional impact by lowering consumer prices in markets that are important to low-income households. A 10 per cent reduction in mark-ups would increase productivity growth in South Africa by 2.0 to 2.5 per cent a year (Aghion et al. 2008). Actions following the Competition Commission's investigations into cartels in wheat, poultry, pharmaceuticals, and maize reduced South Africa's poverty rate by 0.4 percentage points (World Bank 2016). In telecoms, the construction of two long-distance fibre links between Bloemfontein and Johannesburg, in direct competition with Telkom's existing infrastructure, reduced the price of broadband transmission by 87 per cent between 2013 and 2014 (CCRED 2016a). Small, medium, and micro enterprises (SMMEs) are responsible for more than 50 per cent of all employment opportunities in South Africa and the sector contributes more than 45 per cent of the country's GDP (Global Entrepreneurship Monitor 2015). Despite the sizeable contribution of SMMEs to growth and employment, South Africa has one of the lowest creation rates of successful SMMEs. Around 70 to 80 per cent of SMMEs fail in the first year and only about half of the survivors last for the next five years (DSBD 2016). SMMEs have only a 37 per cent chance of surviving the first four years and only a 9 per cent chance of surviving the first ten (DSBD 2016). Reducing anti-competitive practices and barriers to entry can facilitate the entry of SMMEs, improve rivalry among incumbents, and generate inclusive growth benefits in the short term in a manner that promotes economic transformation.

Third, **labour-intensive growth is necessary to reduce untenably high levels of unemployment**. The South African economy is not creating jobs fast enough to match the

increasing labour force size, which grew by 1,029,000 (4.9 per cent year on year) in the first quarter of 2017 (Statistics South Africa 2017b). This led to an increase in the unemployment rate to 27.7 per cent, its highest level since September 2003 (National Treasury 2017). Of greater concern is that unemployment rates continue to be highest among youth (54.3 per cent for 15–24-year-olds in the first quarter of 2017), and those without a matric (33 per cent for those with incomplete secondary education compared to 28 per cent for matriculants) (Statistics South Africa 2017b). The concentration of unemployed among youth and individuals without tertiary education is unsustainable as it contributes to the intergenerational persistence of inequality. Agriculture and services present significant opportunities for lowering unemployment. Agriculture has considerable employment potential, particularly to absorb less-skilled labour, but it needs more effective mobilization of its commercially advanced capacity to support new market entrants, better land utilization, and improvements in productivity and market access. Services sectors have been by far the fastest growing in the domestic economy, averaging over 6 per cent per annum since 2009, and services sectors such as **construction, retail, and tourism** offer great scope to support inclusive growth by absorbing the youth. We need **deliberate policy measures and interventions that can bias economic growth towards employment-intensive sectors.**

Fourth, **implementing focused and flexible industrial and trade policy** to promote competitiveness and facilitate long-run growth should continue to be a strategic policy focus area. With the exception of a few small countries that have benefitted from effectively managed natural resource windfalls, virtually all countries that have sustained high growth rates for decades have done so on the back of industrial policies that prioritized high value-adding activities such as manufacturing (Rodrik 2014). There are several reasons why manufacturing has been an important element of the development strategies of countries like Korea, China, and Japan. Manufacturing is an engine of economic growth as industrial goods have a higher income elasticity of demand especially in world markets (Kaldor 1967).[5] The growth potential of labour productivity in manufacturing is much higher than in agriculture or services (Rodrik 2014). An expansion in manufacturing is more likely to lead to a dynamic profit–investment nexus and faster growth of GDP (Wells and Thirlwall 2003).[6] The rapid growth of manufacturing and labour productivity, the high investment rate and fast trade expansion constitute a virtuous circle (Li and Zhang 2008). Successful industrial and trade policy should be focused, flexible and premised on the notion of embedded autonomy. Focused industrial and trade policy requires the prioritization and rationalization of interventions, and flexibility comes from learning from experience and using pilots effectively (Hausmann and Rodrik 2003). Focus and flexibility, must be underpinned by embedded autonomy, which demands that the government elicit useful information from the private sector, which has the best knowledge of industrial and trade opportunities, but maintain its autonomy from private interests to minimize corruption and rent-seeking (Rodrik 2008).

Finally, South Africa's ability to fully leverage global and regional value chains requires **growing exports and improving export competitiveness, which means better integration into global and regional value chains**. Export orientation and sophistcation are critical to a country's development. Exports allow firms to access a larger market to exploit economies of scale, contribute to growth and employment, and generate the foreign exchange needed to finance imports. In recent years, South Africa's export performance has been disappointing (Pieterse et al. 2016). Poor export performance has resulted in a 15 per cent decline in South Africa's share of world exports since 2011. South African exports are highly concentrated: the top 5 per cent of South Africa's exporters account for 90 per cent of all exports, with the top 1 per cent accounting

[5] See Millin and Nichola (2005) for evidence from South Africa.

[6] See Tregenna (2008) for evidence from South Africa.

for close to 80 per cent (Purfield et al. 2014). Recent trends suggest that the most dynamic markets for South African exports lie in regional markets, which is precisely where smaller exporters and exporters in non-mining sectors are focused. The transport and logistics sector, which underpins a firm's ability to access cheap inputs, and to land products in foreign countries at a competitive price, is particularly important given the rise of regional and global value chains. These value chains offer significant growth potential for developing countries, particularly in the context of rising Chinese wages. Sub-Saharan Africa is expected to be the main beneficiary of up to 85 million manufacturing jobs which may migrate from China in the next generation (Lin 2011). Exploiting this opportunity depends on our ability to integrate into global and regional value chains.

The remainder of this paper is organized around five key themes of growth reforms. The growth reforms outlined here take many forms, including: labour market reforms (e.g. addressing the impact that the extension of collective bargaining wage agreements to small businesses has on labour costs and therefore youth unemployment); product market reforms (aimed at increasing competition so new firms can challenge incumbents, efficient firms can grow, and inefficient ones can exit) or other growth-enhancing reforms (e.g. land tenure reform to unlock economic value in rural economies). The reform agenda outlined here is not intended to be exhaustive, but summarizes recent evidence of the actions required to raise potential growth. In each case we articulate specific policy proposals and demonstrate how these can contribute to supporting economic transformation, inclusive growth, and enhanced competitiveness. In the final section, we estimate the impact of these reforms on potential growth.

2 Modernizing network industries

In energy planning the base case of the Integrated Resource Plan (IRP) should be unconstrained so that all policy options can be compared relative to the true least-cost option; the electricity tariff path should be managed in a transparent and predictable manner; the over-reliance of municipal budgets on electricity revenue needs to be reconsidered. Independent Power Producers (IPPs) should not be frustrated and grid investments should be monitored more closely. We need to restructure the electricity sector to support long-term growth and create a secure energy supply, a sustainable electricity utility, and the conditions for higher investment in electricity generation, transmission, and distribution.

In terms of the information and communications technology sector, spectrum should be allocated through an auction, with provisions for effective rivals, conditions for universal service and access, and a small set-aside for a wholesale open access network. In addition, broadband should be rolled out to underserved areas enabled through a more competitive telecoms sector and lower data prices.

We need to adopt effective regulation for the transport sector and introduce separate accounting divisions or separate audited ring-fenced financial statements for the various operating divisions of Transnet to ensure cross-subsidies are made explicit, leverage private sector participation to grow investment, and introduce competition in ports and rail. Other interventions that can improve freight transport include improving coordination between shippers and transport companies; ensuring effective intermodal, inter-regional, and institutional cooperation; and encouraging the shift from road to rail where practical and efficient. For public transport to play a significant role in overcoming historical spatial planning requires the integration of modes through local government and the densification of cities in specific nodal areas along identified corridors. In addition, we should consider a review of fuel price regulation and implement strategies to formalize the taxi industry.

The water sector suffers from an infrastructure backlog and the current process for investigating appropriate institutional options for service provision needs to be finalized. An independent water regulator can improve the overall efficiency and effectiveness of water provision and facilitate appropriate price setting. When it comes to regulated prices: (i) unregulated areas such as rail, road, and water should be regulated urgently; (ii) where regulators exist, we need to ensure they have the required capacity to effectively perform their regulatory function; and (iii) regular reviews of regulated prices and their underlying formulae need to become the norm to ensure these are updated to reflect the latest available information and international best practice.

The energy, telecommunications, transport, and water industries are the foundations on which long-term inclusive growth must be built (National Planning Commission 2012). These industries meet basic and constitutional needs; connect people to information, employment, business, education, and welfare opportunities; and make value chains possible—in turn enhancing productivity, competitiveness, and economic growth. Presently, South Africa cannot fully harness the productivity benefits due to the absence of efficient economic regulation, backlogs in infrastructure investment and maintenance, lack of access to quality services, and poorly managed state-owned companies. Each sector faces its own unique set of challenges which must be addressed.

2.1 Electricity: planning, pricing, and Eskom's sustainability

The South African electricity sector has experienced various challenges over the past decade (Makgetla 2017). While Eskom's pressing short-term operational challenges have abated somewhat, another crisis is on the horizon. Global economic realities and demand are changing rapidly with technological changes in the electricity space (Makgetla 2017). At the same time, South African economic growth continues to slow and electricity tariffs continue to rise, affecting competitiveness and household welfare, and pushing demand off grid. Other challenges include a highly imperfect electricity planning processes, a lack of consensus on the role of competition in the electricity market, as well as backlogs in grid investment (Eberhard (2004, 2016).

The Integrated Energy Plan (IEP) is the government's high-level plan which presents an overall view of future energy demand and the investment needs of the South African energy system (which includes electricity, gas, coal, and petroleum). The Integrated Resource Plan (IRP) is the electricity subsector plan of the IEP. While the IEP provides a vision, the IRP is legally enforceable in terms of the allocation of new capacity. The primary objective of the IRP is to determine long-term electricity demand and detail how it should be met in terms of generating capacity, type, timing, and cost, through a least-cost optimization process (Department of Energy 2016). In energy planning, **the base case of the IRP should always be unconstrained** so that all policy options can be compared relative to the true least-cost option (see Box 2). Further, the process to update the IRPs takes a long time, which is difficult in light of the speed of technological changes in the sector and changing economic conditions. The energy plans need to be **updated regularly to incorporate the latest information and data** regarding economic indicators as well as technology prices, and must consider the impact of the technology choice on electricity prices and electricity consumers. In addition to cost considerations, the **technology choice in electricity planning should also be influenced by the availability of skills** and South Africa's existing capabilities. For example, renewable technologies require more low- and semi-skilled workers whereas nuclear technologies require highly skilled experts and technicians, which are in limited supply locally.

Box 2: An unconstrained, least-cost IRP

In response to the release of the IRP base case in November 2016, the Council for Scientific and Industrial Research (CSIR) used the same modelling framework as the Department of Energy (DOE) to develop an unconstrained, least-cost version of the IRP. This model does not include the limits imposed on renewables and has the results of the latest IPP bidding rounds as inputs for the cost of solar photovoltaic (PV) and wind. All other IRP assumptions were kept the same.

The CSIR finds that, by 2050, its **least-cost mix would cost R70 billion less per annum** than the DOE's base case. Renewables' share of total energy would be over 70 per cent in comparison with the current 30 per cent limit in the DOE's base case. At the same time, this would generate half the emissions, create more jobs, consume significantly less water, and still satisfy projected demand.

Source: Wright et al. (2017).

Between 2008/09 and 2016/17, electricity prices increased by an average rate of 18.2 per cent per year, based on NERSA's annual increases. To ensure Eskom's sustainability going forward, electricity tariffs will need to continue to increase. However, this will place a significant burden on firms and households. Even under a relatively low projected electricity tariff path, electricity expenditure by households will almost double by 2030, impacting lower- to middle-income households the most. This has implications for welfare, economic growth, investment, and employment. Some firms and households will mitigate the impact of electricity tariffs by opting to use appliances or technologies that reduce their reliance on the grid, such as gas stoves, solar water geysers, and rooftop PV systems. As electricity tariffs rise and technologies improve, off-grid alternatives are becoming cheaper. This development is positive for welfare and economic growth and should be supported, provided we actively manage any unintended consequences especially for poorer households. Government does not have to spend on large electricity capital infrastructure build if the system allows households and businesses to sell electricity back to the grid (Mahlalela and Knight 2017). Consideration should be given to **regulations and legislation to enable households and firms to sell the excess electricity** they generate through rooftop solar PV systems (see, for example, Mahlalela and Knight 2017). Similar **regulations can be introduced in the industrial sector to gain access to the grid** to permit wheeling of electricity, which would support industrial growth (Montmasson-Clair et al. 2017).

Grid defection has implications for Eskom and municipalities who rely on electricity sales as a revenue source. **Municipalities should consider alternate sources of revenue** to ensure their developmental mandate is fulfilled. As an increasing number of higher income households go off-grid, municipalities' ability to subsidize Free Basic Electricity will be constrained—which also has welfare impacts. However, this situation can be mitigated by **installing solar PV panels on social housing**, which would provide free electricity for indigent households as well as an additional income from selling power back into the grid (Mahlalela and Knight 2017). This should be viewed as an opportunity for municipalities to broaden their revenue stream, invest in renewable strategies, and support inclusive growth.

Eskom's current business model is unsustainable, and its contingent liabilities pose a significant burden on the fiscus. Around the world, large dominant electricity producers have restructured to cope with technological changes such as the rise of smart meters, micro grids, self-generation, and small modular power plants (International Renewable Energy Agency 2015). The old model of a vertically integrated, state-owned monopoly has been challenged, and new institutional models have been explored with different levels of unbundling, competition, and public or private ownership (Kind 2015). Pursuit of the existing model will lead to excess capacity, higher electricity prices, and falling relative costs of off-grid technologies, which will result in a vicious cycle of rising electricity prices. Eskom will have to share the costs of electricity generation among a declining pool of customers as more and more customers move off-grid as tariffs rise.

Box 3: The Independent Systems Market Operator (ISMO)

The 1998 Energy White Paper called for increased private sector participation in the electricity supply industry and open and non-discriminatory access to the transmission network. This was to be achieved through restructuring Eskom into separate generation and transmission entities. The central aim of the ISMO Bill was to remove the operation of the electricity grid from Eskom and place it in an independent, state-owned entity. However, in 2015, it was decided that the ISMO be no longer pursued due to the power supply crisis that the country faced at the time and Eskom's internal instability. Given that electricity supply is far more stable and that Eskom is approaching a crisis, the discussions around ISMO should be revived.

Eskom needs to restructure and modernize its business in light of international developments as well as its own poor technical and commercial performance. Alternative models are being

explored, such as the **separation of generation assets—leaving the state-owned transmission company to buy electricity transparently from IPPs and state-owned power generators** (see Box 3). Government could take a decision that **Eskom should sell coal-fired power stations, possibly through a series of auctions**. Through these auctions, Eskom would sell the power station itself, all its power station-specific obligations (staff contracts, coal-supply contracts, supplier contracts, environmental obligations, etc.), together with a power purchase agreement (PPA) at a predefined, power station-specific tariff. The PPA would entail new power station owners to supply a specific amount of electricity annually (an electricity budget) over the remaining lifetime of the power station to the Single Buyer Office at Eskom at a predefined tariff. The revenue this could generate depends on the tariff assumptions, but assuming cost reflective tariffs the sale of these assets could raise around R450 billion (Bischof-Niemz and van den Berg 2018). Restructuring the electricity sector will limit the fiscal and economic risk that Eskom poses and support economic transformation through more entrants into the electricity space.

The IPP programme provides additional electricity to the grid through a diversified energy mix of renewables, coal, cogeneration, and gas from the private sector. So far, 102 projects have been procured and R194 billion has been invested (Department of Energy 2017). Many jobs for South African citizens have been created in addition to localization and economic empowerment opportunities (see Box 4). The IPP programme will also support the provision of electricity at a lower cost. The latest rounds of solar PV and wind IPPs, once they come online, will be able to generate electricity at a lower cost than Eskom's Medupi and Kusile. In addition, the Gas-to-Power Programme, for which RFPs will be issued this year, intends to procure 3,126 MW of capacity and has the significant potential to develop a whole new industry in South Africa (Department of Energy 2017). **Eskom's unwillingness to sign independent PPAs with bidders in the past**, despite the fact that Eskom can cover IPP costs through the tariff process, has undermined investor confidence. Enabling the **independence of the single buyer's office** (or the transmission company, as described above) will ensure the sustainability of IPPs going forward.

Box 4: Jobs in renewables

Falling costs and supportive policies have been a boon for jobs in the renewables sector. Globally, over 9.8 million people were employed in the renewables sector (REN21 2017). This is significantly higher than the 5 million jobs in 2012. Further, jobs in renewables are exceeding the jobs in fossil fuel-based generation. Even in the US, a country known for being carbon-intensive with few pro-renewable policies, this is very much the case. Although renewables only contribute around 15 per cent of the energy generated in the US, they provide 67 per cent of the jobs in the energy sector (United States Department of Energy 2017). The bulk of these jobs are in construction, installation, manufacturing, and wholesale trade. In contrast, the bulk of coal-based energy jobs are found in utilities and mining. South Africa is considered a renewable energy 'super power'—ranking 6th in terms of renewable energy production potential per square km (Drew 2015). Clearly, this industry is a major source of potential jobs in South Africa. Government should be doing as much as possible in the policy space to **allow this industry to flourish**, while at the same time **managing the transition through targeted programmes**, such as those aimed at reskilling people currently employed in the coal mining industry.

The transmission grid, which connects IPPs to the rest of Eskom's electricity network, enables the IPPs to come online. Distribution networks are critical as they connect customers to the grid. Eskom is underspending on transmission and distribution networks in favour of maintenance of its plants and new build programme (Makgetla 2017). For the sustainability of the grid going forward and, given that Eskom's finances are likely to be constrained for some time, a move to **ring-fence grid investments** and have these monitored by NERSA should be supported. **Restructuring the electricity sector** will also assist in alleviating this challenge by removing the incentive for Eskom to underinvest in the grid. Alternatively, a concessioning model for the transmission network may be implemented.

2.2 Telecommunications: competition, spectrum allocation, and broadband roll-out

The cost of communicating is excessively high in South Africa. We rank 126th in terms of prepaid mobile cellular tariffs and 69th in terms of fixed broadband internet tariffs (World Economic Forum 2015). Even out of 17 African states, South Africa is the fourth most expensive in terms of broadband costs. One gigabyte of data costs US$14.10 in South Africa. In Cameroon (the cheapest country), one gigabyte costs US$2.10 (World Bank 2016). At the same time, the quality of broadband is poor. South Africa ranks 119th globally in terms of download speed. Average connection speed in South Africa in 2016 was 6.5 Mbps, ranking it 73rd out of 146 countries (Akamai 2016). South Africa also has extremely low levels of information and communications technology (ICT) uptake and access, especially of broadband, in comparison with other countries (Robb 2017). While South Africa performs poorly compared to its peers in ICT indicators, any progress that has been made to date in price, quality, and access has largely been due to increased competition, through the entrance of challenger firms and regulating for competition (CCRED 2016a).

While mobile has dominated the broadband space, it is not a sustainable technology for the future of broadband. As technologies improve and demand for data continues to rise, fixed-line broadband is the only future-proof broadband technology as there is no limit to its ability to transmit data. On the other hand, spectrum (used for mobile broadband) is an inherently limited resource. While fibre-to-the-home providers have successfully entered this space in some areas, Telkom is the only company to have a substantial fixed-line access network (also known as the local loop, which connects households to exchanges) (Stucke 2015). This is the most expensive component of the fixed-line infrastructure. **Immediate enforcement of local loop unbundling**, as per the ICT policy, would enable multiple providers to have access to the local loop, enhance competition, and reduce unnecessary infrastructure duplication'.

Obtaining rights of way to deploy telecoms infrastructure in South Africa is notoriously difficult, with lengthy processes that vary between municipalities and public entities (CCRED 2016a). There are also cases where firms have had to litigate to roll out their network. This is particularly challenging for smaller firms who lack the resources to cope with the delays. However, **rapid deployment guidelines** are in the process of being finalized by the Department of Telecommunications and Postal Services (DTPS) as part of the ICT White Paper Policy process. These guidelines will standardize and accelerate the rights of way process. The poor enforcement of the facilities-leasing regulations in the Electronic Communications Act delays the progress of services competition and benefits the incumbents. **Open access conditions** (which are central to DTPS policy) **should be imposed** to minimize unnecessary duplication of infrastructure and to bring about services-based competition.

Effective economic regulation is essential for constraining incumbents and enabling the DTPS to meet its goals (see Box 5 for a broader discussion of regulated prices). The Independent Communications Authority of South Africa (ICASA) has admitted to being a weak regulator, which has benefitted incumbents (Mncube (2011)). However, the success of mobile termination regulation hints at ICASA's potential. Stronger powers of enforcement need to be ensured. **ICASA's proposed economic regulation component should be independent of line departments and be directly funded from industry levies**, as per international best practice (International Telecommunications Union 2000).

The Department of Telecommunications, as part of its 2013 SA Connect broadband strategy, intends to roll out fibre to schools, hospitals, and other government institutions across the country. In 2016, the department issued a tender for Phase 1 of the roll-out, but there were no bidders that were able to meet the very specific tender requirements (Bateman 2016). The department is in the

process of rationalizing state-owned companies in the telecommunications sector and has indicated that it seeks to establish a new infrastructure company. In the meantime, there are indications that state-owned companies (SOCs) **in the telecoms space will be tasked with the government's broadband roll-out**. However, the **private sector's proven capability in broadband infrastructure development could also be leveraged**, through conditions attached to spectrum licences, to speed up the process and reduce the burden on the fiscus.

Notwithstanding the above, the delay in digital migration and the spectrum allocation process is the single biggest constraint on the growth of the telecommunications sector and is a bottleneck for broader economic growth. Spectrum is a scarce and finite resource, which when used for broadband, is an enabler for economic activity and development (International Telecommunications Union 2012). A large proportion of high-demand spectrum will only be available for use for mobile technologies (i.e. 3G, 4G, and even 5G) once the analogue signal has been switched off. To date, the digital migration process has been significantly delayed due to the challenges around set-top box procurement, which aims to provide indigent households with set-top boxes for their televisions so that they can receive programming through a digital television signal. The Department of Communications has revised the process around its set-top box distribution, due to the legal and budget-related problems experienced to date. The latest position is that the government will embark on a retail-driven approach, such as giving vouchers to indigent households to buy set-top boxes from commercial providers rather than continuing with a plan to run the project itself. Consumers will be able to choose their type of technology and even supplement the vouchers with their own income to buy high-speed devices, including integrated digital TV sets. With spectrum allocation, broadband speeds will improve dramatically and prices will likely fall, which will support growth and improve welfare.

Box 5: Regulated, administered, and reference prices

There are several regulated prices in South Africa including: fuel prices, electricity tariffs, reference prices for wheat, maize and sugar cane, port prices, and mobile termination rates. Instituted to address market failures and mimic competitive outcomes, these prices determine the global competitiveness of South African firms and the disposable income of South African households through their impact on inflation.

It is clear that where there is a strong, capacitated, and independent regulator, these prices can come down and have a positive impact on consumers and the economy. The introduction of mobile termination regulation by ICASA in 2011 resulted in consumer savings of over R30 billion in 2014 (CCRED 2016a). The volume of call minutes increased by 23 per cent between 2010 and 2014 in comparison with 10 per cent growth in the period between 2006 and 2010 (CCRED 2016a). The port regulator's ten-year pricing strategy will reduce container tariffs from 267 per cent above the global average in 2015/16 to 43 per cent below the global average for container tariffs (National Ports Regulator 2017).

In instances where departments responsible for regulating prices have instituted reviews, prices have come down. For example, the fuel price review instituted by the Department of Energy in 2003 resulted in lower fuel prices: -4c/litre for petrol, -7c/l for diesel and -10c/l for paraffin (SAPIA 2012).

These examples tell us a few things: **(i) unregulated areas should be regulated urgently (e.g. rail, road, and water); (ii) where regulators exist, we need to ensure they have the required capacity to effectively perform their regulatory function; and (iii) regular reviews of the prices and their underlying formulae need to become the norm to ensure these are updated to reflect the latest available information and international best practice.**

The policy position on licensing of spectrum has been one of much debate since 2016. The National Integrated ICT Policy White Paper (2016) stated that all currently unassigned high-demand spectrum will be set aside for assignment to a wholesale open access network (WOAN). However, there was much concern that there is no known example of successful WOAN implementation (GSMA 2017). With no single entity being able to own a portion of the spectrum

or pay fair economic value for it, it will reduce infrastructure investment and result in inefficient use of spectrum. As a result, the minister performed significant consultation with stakeholders including ICASA on the best approach to implement this policy provision and a study was also commissioned by the CSIR. The study provides recommendations on the WOAN to ensure its viability and sustainability on the basis of a 20 per cent market share of unassigned high-demand spectrum and excess unassigned spectrum for other electronic communications network service licensees.

As a compromise between the DTPS and ICASA, in October 2018 ICASA announced plans to license high-demand radio frequency spectrum by the end of March 2019. They aim to auction batches of radio frequencies for 4G and simultaneously establish a WOAN. However, the exact amount that will be dedicated to the WOAN is not yet known. The WOAN will be a new entity, whose legal form is currently undetermined, that will sell wholesale connectivity to retail service providers.

2.3 Transport: regulation, pricing, and competition[7]

South Africa's high transport costs have been attributed to a lack of competition due to the existence of natural monopolies and the presence of state-owned companies in the sector. This situation is further exacerbated by the fact that South Africa has a fragmented approach to transport economic regulation and there are inherent incentives for inefficient cross-subsidies that cover up the true cost of service provision. While there is an independent port regulator and an aviation regulator within the Department of Transport (DOT), there are no explicit regulators for rail and road transport. Further, Transnet Port Terminals remains unregulated, while the National Ports Authority is regulated. The introduction of **effective regulation of the transport sector, through the Economic Regulation of Transport Bill, is likely to contribute to competitive pricing and improved service quality in the freight rail and port system. Introducing separate accounting divisions or separate audited ring-fenced financial statements for the various operating divisions of Transnet will ensure cross-subsidies in the system are made explicit** (Pieterse et al. 2016)

As seen in the energy and telecoms sectors, bringing in competition and private sector participation can increase investment and improve service delivery, without weighing on the balance sheets of state entities. This will also encourage the development of new and small firms in the infrastructure space, which will promote economic transformation. The direct impacts of more competition in the infrastructure space on the balance sheets of state-owned entities are likely to be outweighed by the efficiency gains to the rest of the economy. There are many opportunities for private sector participation in the transport sector. Government should invite private sector participation where it cannot presently afford to invest or where value for money can be demonstrated for a private sector risk premium. **Granting third-party access to the core rail network** is crucial for promoting private sector participation in rail and concessioning of branch lines, while Transnet still retains ownership of all rail infrastructure assets (Pieterse et al. 2016). **Introducing competition between port terminal operators** and in other areas such as warehousing and logistics at the ports could bring the performance of the major ports in line with international best practice (Pieterse et al. 2016). Finally, all infrastructure projects of strategic importance should be developed in **coordination with government, the private sector, and SOCs** to alleviate pressure on the balance sheets of these entities (Pieterse et al. 2016).

[7] The recommendations on port, rail, and regional road freight reform are drawn from Pieterse et al. (2016).

Many geographical areas have clusters of diverse economic activity that add up to significant volumes of export freight, most likely on a relatively consistent basis. But spread across many firms, of different sizes and over many sectors, a lack of information and other challenges inherent in coordination of these volumes prevent the freight market from working as efficiently as it could. **Facilitating the exchange of information and more explicit coordination** can address market failures and improve access, enabling small firms to gain scale and access to efficient intermodal solutions. This can be supported through the **establishment of freight portals and applications** (Pieterse et al. 2016). The government, through Transnet, may support operational solutions to freight consolidation on branch lines (where economic scale can be reached) by subsidizing risk. Better coordination is required for efficient operation of port facilities, freight nodes, and infrastructure corridors leading to and from national ports (Pieterse et al. 2016). The respective roles and responsibilities of port and transport authorities, municipalities, and other spheres of government need to be clarified.

The main constraint to effective regional road freight transportation is a lack of harmonization of standards and pricing across the Southern African Development Community (SADC). There are also non-tariff barriers that exist across SADC that inhibit the ability of road transporters to move cargo across the region. The location, planning, financing, development, and operation of intermodal freight terminals should be conducted **jointly by private sector logistics companies and the rail operator**. Improving integration in service and network provision for regional (cross-border) rail can be achieved by: **improving border-crossing arrangements; establishing joint border stations** or moving clearance to defined inland terminals; and ensuring the **coordination of track access charges** across freight corridors within the region. The **establishment of joint operating centres** (JOCs) offers a potentially attractive solution—JOCs on the Maputo and North–South Corridors have reduced transit times by more than 50 per cent and had a positive impact on operating costs and tariffs (Pieterse et al. 2016).

Although rail freight tariffs are generally lower than road freight charges, road freight transport continues to maintain a very high market share of about 70 per cent. This can be partly attributed to a lack of security, deteriorating rolling stock, ageing infrastructure, and inefficient operations in the rail sector. Further, heavy goods vehicles are effectively subsidized as they currently do not fully pay for the maintenance costs arising from the negative externalities that they impose on road infrastructure. In light of this, the Green Paper by the DOT proposes **stricter enforcement of traffic laws, full cost recovery from road freight operators and related external environmental costs, and major improvements in rail services**. The global trend is to use **distance- and weight-based user charges** to generate funds for road construction and maintenance and ensure that road operators compete fairly with rail (Pieterse et al. 2016). Ensuring that infrastructure and operational efficiencies are up to standard is a prerequisite for this shift, otherwise this reform will increase the burden on the economy. While a road-to-rail shift may not have a direct impact on economic competitiveness, it will improve the efficiency of the transport system and support the viability of Transnet's rail business.

Box 6: Addressing spatial legacies

Spatial planning needs to improve through initiatives such as the densification of the cities in specific nodal areas and along identified corridors. Reducing costs of transport as a proportion of economic expenditure requires a containment of urban sprawl (accessed largely by private vehicles) and the development of more densified, integrated cities where people live and work in similar spaces. It is a widely held view globally that the most efficient urban form is compact, mixed land use with an extensive public transport network that includes high-intensity movement corridors with environments that enable walking and cycling (South African Cities Network 2011). In 2010, the City of Joburg committed to the Corridors of Freedom initiative, which is intended to change the current settlement patterns of urban sprawl and uncontrolled spread of low-density developments on the fringes of the city to high-density and mixed-use developments. These corridors are also intended to have an effective and affordable public transport system and nodes enabling residents to travel only short distances between home and

work, cutting down on costs and travel time. Part of this is the Bus Rapid Transport network which accounts for the bulk of expenditure on this initiative.

In terms of housing, the most common supply-side initiative is the provision of social rental housing (either directly or increasingly through support to not-for-profit housing organizations). In South Africa, there is a rental housing option for households with a monthly income below R7,500, which provides for private sector participation.[8] However, the programme has not created the conditions for significant private sector participation as there has been a failure to raise the nominal value of the Restructuring Capital Grant subsidy in line with inflation, and a failure to raise the nominal value of the household income bands for the target population of beneficiaries in line with inflation.

Currently, and given the constrained fiscal environment, there is a budgetary balancing act required between rural development (housing, electrification) and urban development that corrects Apartheid-era spatial planning. Given that spatial development is the responsibility of a number of government departments from the local, provincial, and national spheres, integrated planning and policy coherence is challenging. The Cities Support Programme is an initiative of the National Treasury to address spatial inequalities and development challenges at the city level, in part facilitating policy coherence. It is aimed at providing implementation support to South African cities, specifically around human settlements, public transport, economic development, and climate resilience and sustainability.

It is well known that South Africa's spatial context has not changed significantly since 1994, which means that individuals who make up the majority of the workforce have to travel significant distances to get to work every day (see Box 6). In addition, the costs of commuting in South Africa have increased by more than inflation on an annual basis (Kerr 2015). Besides the costs involved, longer commuting times lead to much wasted time, lower productivity, and higher frustration levels for many commuters (Kerr 2015), which has an impact on economic transformation and growth. There are also implications for operators as public transport routes are characterized by high peak demand, minimal off-peak use, and uni-directional travel patterns which do not promote economies of scale (GTAC 2014). South Africa's public transport system is also costly from the government's perspective given limited levels of integration and the numerous parties involved. Subsidies are relatively expensive as the large amount spent on public transport benefits very few people (FFC 2014)[9]—state subsidized transport was only used by less than 9 per cent of the working population in 2012 (Kerr 2015). **Public transport, including the management of rail and subsidized bus contracts, should be assigned to local government in large cities and metros to ensure the integration of public transport with land use planning. Fuel price regulation should be reviewed**, particularly in terms of spot price benchmarks and where regulation has purposefully supported incumbents such as Sasol. **Creative models to formalize taxis should be pursued** (e.g. the Gautrain 'midibus' service is run by the taxi industry at a number of Gautrain stations), so that taxis can also be brought into the subsidy net.

2.4 Water: infrastructure, regulation, and institutional models

The estimated demand for water in South Africa will reach 17.7 billion cubic metres in 2030 (Boccaletti et al. 2010). Supply, by contrast, will equal only 15 billion cubic metres—not including the possible effects of climate change (Boccaletti et al. 2010). In addition to our water resource constraints, a significant amount of water is lost in the water provision system. Water lost to

[8] Between 2007/08 and 2013/14, almost 60 projects in 11 municipalities have produced 18,000 units in a variety of housing types—high-rise, walk-up and single story. Two-thirds of all units are in eThekwini, Johannesburg, and Cape Town. Units vary between bachelor and three-bedroom flats, but around 60 per cent are two-bedroom units (DPME 2016).

[9] To put this into context, directly state-subsidized public transport (train and bus) was used by less than 9 per cent of the working population to get to work in 2013 (down from around 12 per cent in 1993).

leakages makes up 25 per cent of total water consumption and 68 per cent of non-revenue water (Teagle 2015).[10] This situation can be attributed to old and poorly maintained infrastructure, a complex institutional structure, water tariffs that do not adequately cover the costs, and entities that face significant technical, financial, and management challenges.

South Africa will be unable to support inclusive growth and economic transformation if water supply is severely constrained. According to the 2019 Budget Review, water infrastructure projects have been allocated R90.4 billion between 2019/20 and 2021/22. There **needs to be a comprehensive management strategy for investment** in water resource development, bulk water supply, and wastewater management. It is also critical here to **learn from the success of the IPP programme** in the electricity space and adapt this model to infrastructure provision in the water sector, particularly in areas such as the provision of water, irrigation, and sanitation. The department is currently developing appropriate institutional options for service provision, through the **creation of regional water and wastewater utilities** and **expanding the mandates of the existing water boards**. It is also in the process of establishing an **independent water regulator—**which will improve the overall efficiency and effectiveness of water provision and ensure appropriate price setting. In addition, there needs to be a **national water conservation programme to reduce water waste** and demand in urban areas.

3 Lowering barriers to entry and addressing distorted patterns of ownership through increased competition and small business growth

Lower barriers to entry can be facilitated by reviewing existing regulation around licensing and municipal servitudes and rethinking the role of development finance and patient capital, especially as it relates to the needs of smaller businesses. Government incentive programmes need to be better communicated and simpler to apply for, especially for small businesses.

SMMEs should be supported through public procurement, the establishment of a 'One-Stop Shop' and a commitment to a reduction of red tape. The Red Tape Impact Assessment Bill, which was rejected by parliament on procedural grounds, should be revisited. It is worth considering full or partial exemptions for SMMEs from certain kinds of labour regulation (e.g. the extension of bargaining council agreements). Consolidating existing funds for SMME support into a single fund with a clearly defined mandate and associated performance metrics could make a meaningful impact on SMME support without needing to deploy additional funds. The focus of this fund must be in the start-up or ideation phase of a business where the market failure in SMME finance is most binding.

South Africa's lagging productivity growth and declining export performance have been partly attributed to a lack of competition both in upstream and downstream industries. Market concentration in key sectors has also reduced the inclusivity of South Africa's economic growth: improved competition prevents households from overpaying for consumer goods and provides them with more product choice. While large businesses have the resources to navigate their way in a variety of circumstances, the combination of impediments such as a high regulatory burden, inflexible labour markets, and high levels of concentration present significant obstacles for SMMEs. The cost of compliance with red tape (e.g. obtaining BEE certification, applying for a tax incentive, or accessing a learnership through a sector education and training authority) is the same across companies, making it much more expensive in relative terms for smaller companies.

[10] Non-revenue water, which is the difference between the volume of water put into a water distribution system and the volume that is billed to customers, has three components: (i) leaks; (ii) commercial loss (metering inaccuracies and water theft); and (iii) unbilled authorised consumption such as free water given to certain groups (Teagle 2015).

Although smaller firms are not always fully compliant, these obstacles are reflected in much lower rates of firm entry and rates of self-employment in South Africa compared to our peers. Ultimately these factors entrench the dominance of incumbents and make it very difficult for the economy to transform. We focus on two important microeconomic policy reforms that can address distorted patterns of ownership and boost firm entry and self-employment: (i) lowering barriers to entry; and (ii) promoting small business growth.

3.1 Lower barriers to entry to address distorted patterns of ownership

South Africa's economic structure—characterized in part by extremely high levels of concentration—has not changed much in the past two decades. A lack of progress in tackling entrenched dominance, which presents a significant barrier to entry in several sectors, continues to hinder greater participation in the economy. Barriers to entry distort market structure and typically reduce the incentives for productivity and innovation. A lack of competition and product market dynamism is directly inhibiting our growth prospects. Large and old firms continue to dominate the economy as well as employment dynamics.

New firm entry and effective rivalry among incumbents can generate significant consumer welfare benefits. Capitec's entry as an effective rival in the retail banking space has realized consumer savings close to R20 billion annually and has also extended services to the previously unbanked (CCRED 2016d). The reduction in mobile call termination rates enabled Cell C to be a more effective competitor and induced MTN and Vodacom to reduce rates, realizing a consumer saving estimated to total R47 billion from 2010 to 2015 (just for the subscribers of Vodacom and MTN) (CCRED 2016a). Given the continued concentrated nature of economic activity in South Africa, as we do more to lower barriers to entry, significant gains in consumer welfare can be realized that put the economy on a more inclusive growth path.

Recent case studies in banking, brewing, and supermarkets and three sector studies in agri-processing, telecommunications, and aviation have identified factors that hinder greater participation in the economy.[11] The key barriers to entry can be organized into the following areas: (i) regulation; (ii) legislation; (iii) scale economies; (iv) learning effects and requirement for patient capital funding; (v) vertical integration; (vi) routes to market; (vii) costs associated with packaging, promotions, and display; and (viii) switching costs.

- **Existing regulations can hinder entry.** In banking, onerous licensing conditions have meant that applications for banking licences from major supermarkets and telecommunications firms have been turned down.[12] Local regulations, such as those governing urban planning, can also have an impact on competition, as in the case of municipal servitudes which hinder telecoms infrastructure roll-out (CCRED 2016a). Even regulations that no longer exist can still have an effect on entry. In the maize and wheat milling sectors, which had state-regulated cartels, the networks developed during regulated periods are entrenched to the exclusion of entrants (CCRED 2016b).

- **Most legislation does not consider issues of competition and industry structure on an industry level**. For example, the recent amendments to the Liquor Act, meant to drive

[11] This is drawn from a joint project between National Treasury and the Centre for Competition, Regulation and Economic Development (CCRED).

[12] There is a trade-off between easing regulation in financial services and financial stability. One way to address this would be through the implementation of a tiered banking system where different categories of banks are limited to differing levels of risk.

transformation, are unlikely to change the structure of the market as they largely relate to transforming the ownership of existing firms and not opening up opportunities for small rivals. Similarly, the Department of Trade and Industry's past attempt to ban alcohol advertising would have harmed new entrants (Roberts 2016).

- **The high fixed and sunk costs related to scale economies are often a barrier to entry for new firms**. This is especially the case in supermarkets where there are very large-scale effects in distribution (CCRED 2016e). In activities such as dairy, poultry, and beer, there are economies of scale in processing and packaging facilities (CCRED 2016b, 2016c). In banking, branches and an ATM network remain critical (CCRED 2016d).

- **In most cases, it takes time for new entrants to develop the internal processes, knowledge, networks, and scale required to be competitive.** This requires investors who are willing to forgo an immediate return for long-term potential (Roberts 2016). In poultry, the flow of production means it can take three years or more for firms to become competitive (CCRED 2016b). In Capitec and Fruit and Veg City's case, it took more than a decade for these firms to make a significant impact in their sectors (CCRED 2016d, 2016e).

- **Financing entry and expansion is critical.** In addition to the need for 'patient capital' there is also the need for higher-risk appetite—financiers are cautious of providing funding to rivals taking on powerful incumbents. Firms who do not have the support of networks struggle to enter the market. In the telecoms sector, for example, entrants appear to be linked to a network of serial ICT entrepreneurs (CCRED 2016a). While it may be argued that there is significant government funding available for small businesses, there is a lack of awareness of such programmes and the red tape and bureaucracy involved in accessing these funds is a hindrance (Roberts 2016).

- **In some cases, entrants are reliant on their rivals for key inputs or markets, or alternatively have to be vertically integrated themselves to succeed.** In telecommunications, the failure to implement local loop unbundling means rivals to Telkom have been dependent on the incumbent for access to Telkom's copper infrastructure (CCRED 2016a). In beer, macro brewers are vertically integrated through to distribution, which is a challenge for entrants such as Soweto Gold (CCRED 2016c). In poultry, successful entrants have operated in feed and/or the supply of breeding stock (CCRED 2016b).

- **Incumbents use a variety of techniques to hinder their rivals' ability to reach consumers**. SAB and Coca-Cola, for example, provide subsidized fridges on condition that rival products are not stocked there (Roberts 2016). Exclusive leases at shopping malls are a straightforward block for retailers (such as Fruit and Veg City, Game, as well as smaller retailers) to access potential markets (CCRED 2016e). In agri-processing, smaller rivals have struggled to get supermarket space on shelves and special displays which are usually exclusive to one supplier (CCRED 2016b).

- **In consumer goods the costs of packaging, advertising, and display are important for establishing brand awareness, but can be significant.** And due to economies of scale, these costs are proportionately larger for smaller companies. National supermarket chains are able to attract customers through promotions, even though the price of the supermarket 'basket' may not be cheaper (CCRED 2016e). Promotions and advertising expenditures are very substantial in telecommunications and banking but are key to

building trust and attracting customers from incumbents, as has been the case for Capitec and Cell C (CCRED 2016a, 2016d). Brand awareness is vital to entice customers away from incumbents.

- **There are also direct obstacles and costs to switching in a number of products**, these are most obvious in telecoms and banking. Regulation, such as number portability in telecoms, has helped (CCRED 2016a). However, new entrants still have to allocate a lot of resources to entice customers and ensure that the switching process is as simple as possible.

We identify several cross-cutting interventions that would help lower barriers to entry across a number of sectors: (i) competition policy in new regulations; (ii) development finance, venture capital, and patient capital; and (iii) government support.

- **Competition and market structure issues should be taken into consideration in socio-economic impact assessments when reviewing current or drafting new legislation**, policies, and regulations, where applicable.

- **The role of development finance and patient capital:** The Industrial Development Corporation can do more in terms of addressing the varying needs of smaller businesses to make development finance more accessible to new entrants. In exceptional cases, penalties from competition cases could be channelled into a development finance fund for rivals and entrants, especially black industrialists.

- **Government support**, in the form of incentive programmes, needs to be better communicated and simpler to apply for, especially for small business. However, it must be kept in mind that any form of finance and direct support, without measures to address the range of barriers to entry and growth, will not be effective.

In addition to the cross-cutting interventions noted above, there are a variety of other interventions that would support the growth and entrance of rivals in specific industries. The proposed interventions cover the following areas: (i) regulating for competitive rivalry in network industries; (ii) developing routes to market for supermarkets; and (iii) reducing switching costs in banking and telecommunications (Roberts 2016).

- **The regulatory provisions in network industries such as telecommunications and banking should be changed to favour rivals.** Conditions for banking licences should be made less onerous and banking regulations should be more flexible to new developments, such as the growth of mobile money in the rest of Africa. Local regulations at the municipal level can open up basic facilities such as poles and ducts throughout towns and cities to support telecommunications infrastructure development. Economic regulators, such as the telecommunications regulator, should be strengthened and capacitated to ensure that the environment within a sector supports existing and upcoming rivals.

- In terms of opening up supermarket rivalry, **addressing exclusive leases is critical**. The current market inquiry by the Competition Commission must tackle this issue through legally enforceable undertakings by incumbent supermarkets to: (i) not enter into leases with exclusivity clauses; or (ii) mandate the reduction of the duration and scope of the

clauses in instances where such leases have already been entered into. Urban planning by municipalities can also have a major impact in ensuring open and flexible retail space and a mix of formats, as well as tackling exclusivity directly through planning policies. Support to new entrants and independent retailers can be provided through government facilitating access to distribution centres and logistics networks.

- **Switching costs could be reduced** by instituting a regulated switching process with mandatory timelines in banking and telecommunications. The South African Reserve Bank (SARB) should consider a process where consumers are not liable for interest, penalty fees and other charges incurred due to delays in switching bank accounts. The sharing of Financial Intelligence Centre Act information, with clear guidelines on where liability lies in the case of contraventions (the original or second bank) would also ease switching.

There is clearly no 'silver-bullet' which can lower barriers to entry and address distorted patterns of ownership through increased competition. **Concerted effort and coordination are required across all levels of government to identify and eliminate barriers to entry across sectors, with particular emphasis on reducing uncompetitive and unnecessary levels of concentration across the economy.** In essence, this means ensuring that: (i) economic regulation (including legislation) favours entrants and ensures incumbents can be effectively challenged; and (ii) government drives enabling measures to support rivals and smaller firms.

3.2 Promote the growth of small, micro, and medium enterprises[13]

There are five main avenues through which government supports SMME development: (i) public funding; (ii) non-financial public support programmes; (iii) tax policy; (iv) procurement policy; and (v) regulation and competition policy. An extensive institutional and organizational infrastructure exists for small business financing, including wholesale and retail financing as well as credit guarantees, and other ancillary services such as business development services and implementation of special sector schemes. There are also a number of agencies dedicated to supporting small business development, such as the Small Enterprise Development Agency and Small Business Finance Agency, as well as sector-specific programmes that target small business (e.g. the loans to emerging contractors programme offered by the Department of Human Settlements). Many national incentives have a component directed at small business. For example, the Manufacturing Competitiveness Enhancement Programme (MCEP), pays out higher matching grants to small and medium-sized businesses for qualifying investments than it does for large firms. Several recent measures offer support to small business through the tax regime, including a simplified tax regime for small business. Procurement policy is another key avenue through which government aims to support small businesses; the Preferential Procurement Policy Framework Act regulations are currently being amended to enhance the provision of support for SMMEs through the points-scoring system.

Despite these interventions, which have had varying degrees of success, SMMEs continue to grapple with a number of challenges:

[13] Our understanding of the SMME sector, and the various dynamics within it, is weakened by the lack of a common definition of SMMEs. As a result, various studies of SMMEs as well as data collected are not strictly comparable. The Department of Small Business Development is leading work to harmonize definitions and to gain a better understanding of the nuanced differences between firms that constitute this broad definition.

- A **high regulatory burden** has been identified as a significant hurdle for the growth of SMMEs (OECD 2015).[14] Small businesses spend an aggregate 4 per cent of turnover on red tape and the smallest firms (those employing fewer than 21 people) are the worst affected (Small Business Project 2013a). For those employing more than 40 people, red tape accounted for 3 per cent of turnover. For firms employing fewer than 21 people, R1 in every R20 goes to red tape. Among those employing more than 40, the equivalent figure is R1 in every R33 (Small Business Project 2013b).

- **Rigidities in labour market institutions and regulations raise costs for SMMEs**. This includes the extension of collective bargaining wage agreements to SMMEs. If these wage agreements raise labour costs without concomitant increases in productivity, it reduces the global competitiveness of South African workers and may inhibit the long-term sustainability of SMMEs and contribute to rising youth unemployment. In addition, the introduction of the National Minimum Wage could potentially have an adverse effect on small businesses who cannot afford the increase. While there is an exemption available for small and micro enterprises, there are concerns that having to apply for this exemption introduces additional red tape.

- **Access to finance:** There are a plethora of state funds and funders—many with overlapping mandates and a lack of scale and expertise. As a result, repayment ratios are low and impairments high. At the same time, entrepreneurs continue to complain about the lack of affordable credit. There is also a significant market failure at the ideation and start-up phases of the SMME growth cycle. A related issue is the lack of credit information for SMMEs. Although credit information services for retail clients are well established and highly developed in South Africa, there is a lack of generally available information on which to base credit decisions for small enterprises.

Box 7: The importance of high-growth firms

There is growing awareness that there is a subset of firms in the economy—high-growth firms (HGFs)—that contribute a disproportionately large proportion to net employment growth. These firms also contribute disproportionately to innovation and productivity growth. HGFs are broadly defined as the fastest growing firms in the economy and have been found to be responsible for a disproportionate contribution to net employment growth in developed countries (Shane 2009). HGFs are the most productive and innovative firms in their industries (Li and Rama 2013) and consistently create a disproportionately large share of new jobs at any given point in time across different countries.

A recent paper uses tax administrative data to define HGFs in various ways and explore the characteristics of these firms (see Mamburu 2017). Several interesting findings emerge: first, HGFs that have fast-growing employment are larger and older than the average firm in the economy, and they are more represented in services sectors. In contrast, HGFs that have fast-growing sales are also larger and older than the average firm but are more heavily concentrated in manufacturing. Second, smaller, younger HGFs are similar in age and size to the average firm in the economy and are also more concentrated in the services sector. Finally, firms that import and export are more likely to be HGFs. The findings of the paper suggest that any public policy which seeks to foster the emergence of HGFs must be cognisant of how it identifies these enterprises, and it must also be cautious of adopting a single definition for all policy objectives.

The challenges highlighted above relate mostly to the general business environment, which is a critical component in promoting the emergence of new businesses and the growth of existing small businesses. Creating an environment in which SMMEs can thrive is inextricably linked to creating conditions in which all businesses can thrive (see Box 7). Thus, indicators such as the World Bank's

[14] See also Small Business Project (2014).

Ease of Doing Business and the Global Competitiveness Monitor are meaningful ways in which South Africa can monitor the changing conditions in which SMMEs operate—and intervene accordingly.

There are three ways in which we need to support SMMEs to address high levels of concentration in the economy as well as distorted ownership patterns: (i) leverage the role of public procurement; (ii) reduce red tape; and (iii) broaden financing options.

Leverage the role of public procurement

There are several steps that can be taken to support small businesses using public procurement in a manner that facilitates economic transformation. First, small businesses continue to complain of late payments by government departments. The problem seems to be concentrated in health, education and public works (DPME 2017). This divergence may be due to a lack of a common definition of when an invoice is considered to have been submitted (i.e. on first submission by a contractor or when the department accepts the invoice as complete). There are also long, drawn-out disagreements on whether work has been completed to an acceptable standard. While there is a dispute resolution mechanism for public procurement, this is ineffective as it puts the onus on business to follow up, and there are fears that instituting such a process may disadvantage a company with regard to future tender opportunities. **A relatively simple solution here would be to allow for automatic addition of interest on outstanding balances after a certain period. Companies found to be abusing this system can now easily be traced via the Central Supplier Database and potentially blacklisted**. This would remove the incentive for firms to deliberately delay the process either through the late or incomplete submission of invoices.

Second, SMMEs argue that many tenders are too large and complex for them to compete for. An analysis of the size and complexity of published tenders reveals that while there are many that small businesses qualify for, most of these are of little value and therefore account for a small percentage of the total value. Related to this is that there are often significant costs, in terms of time and effort, involved in finding out about tenders and then developing and presenting bids. **Enforcement of the recently announced 30 per cent set-aside for SMMEs in public procurement will encourage departments to carefully consider this in their drafting of tenders to create greater opportunities for SMMEs**.

Third, the ban on upfront payments disadvantages small business for whom cash flow is a critical issue. This causes liquidity risks for SMMEs, which are compounded by the risk of delayed payments. Financial institutions, banks in particular, were found to be reluctant to extend credit to SMMEs even when presented with a signed contract. Subcontracting is one way around this, but many SMMEs have complained that the subcontracting relationship is often exploitative. Currently, government does not monitor or regulate subcontracting arrangements. **Steps should be taken to improve oversight and monitoring of the subcontracting relationship, possibly through the creation of a subcontracting ombudsman or a dispute resolution mechanism in the Chief Procurement Office**.

Reduce red tape

An overly onerous regulatory environment can reduce the rate of entrepreneurial activity and business ownership (Ardagna and Lusardi 2010; Klapper et al. 2007). Regulation is disproportionately costlier for small and young firms and discourages informal firms from formalizing (Andrews et al. 2011). The complexity of regulatory procedures at all levels of government—such as licensing and compliance with regulation—raises barriers to entry and inhibits the expansion of new and young firms. Given the highly concentrated nature of industry

in South Africa, regulatory burdens protect incumbent firms from competition (OECD 2015). Although government has taken steps to make it easier to register a business, most notably by automating business registration, other processes to start a business remain more time-consuming and bureaucratic than in other countries (OECD 2017a). Reducing regulation to best practice in three areas could boost GDP per capita by 1.1 per cent over five years (OECD 2017a).

Government can support SMMEs by committing to a reduction of red tape across all three spheres of government. The Red Tape Impact Assessment Bill, which was rejected by parliament on procedural grounds, should be revisited. The Bill proposes that a new Red Tape Impact Assessment Unit would review all new legislation and determine whether a full 'red tape impact assessment' is needed. The new legislation would also **require all departments and self-regulatory agencies to evaluate existing regulation and reduce red tape by 25 per cent over five years**. Lessons from Mexico (see Box 8) indicate that design and accountability are critical factors in the success of such an initiative. South Africa should consider following a similar route, with this independent unit being housed in the DPME to facilitate the concentration and accumulation of expertise, as well as accountability through regular reporting to the president. In addition to reviewing the 'red tape' implications of new legislation, it is clear that **an assessment of the existing policy and regulatory constraints to investment, including a clear timeframe for addressing these**, is required to eliminate unnecessary regulatory hurdles. **Consideration should be given to full or partial exemptions for SMMEs from certain kinds of regulations, including labour regulations** to mitigate the start-up costs for SMMEs, but also to reduce the considerable regulatory requirements. As discussed later, special economic zones can be used as potential places where these and other interventions can be tested before being implemented across the economy.

Box 8: Reducing red tape best practice from Mexico: The State Commission for Regulatory Improvement

The Federal Commission for Regulatory Improvement (COFEMER) was established to enhance the government's capacity to create high-quality regulation and to improve the quality of existing regulations. A complete review of legislation affecting private enterprises was initiated in 2009 using a process adhering to OECD good practice. In 2010, the government eliminated more than 16,000 standards, regulations, resolutions, and circulars and at least 2,000 steps of red tape. These reductions in red tape steps were largely in response to the government's 'Most Useless Step' contest, which asked businesses and other stakeholders to submit their suggestions about unnecessary steps that could be eliminated.

Reducing regulatory burdens is expected to improve competitiveness and accelerate growth. According to the Ministry of Public Administration, federal procedures have been reduced by a third and internal government regulations by 47 per cent thanks to the work of COFEMER. Over half of the entrepreneurship-related procedures targeted in the Regulatory Improvement Programme will improve business operation and 42 per cent will affect the ease of starting a business. A monitoring system created in COFEMER requires government offices and agencies to report twice yearly on their progress in implementing reforms and to produce a complete evaluation at the end of 2012.

Source: OECD (2013b).

Another mechanism for reducing red tape is to **make use of One-Stop Shops as a single government contact point for SMMEs** to review the compliance cost and regulatory burdens for SMMEs, while also reducing the cost of information asymmetries and lack of access to networks. **Expanding the physical and virtual reach of the One-Stop Shops recently opened by the Department of Trade and Industry (dti) to SMMEs could allow entrepreneurs to register a new business and apply for local and national government permits in a simplified manner. Co-locating these with local governments or other government offices and creating a virtual one-stop shop would improve access to this service**. The information

should be shared within the government so that firms only provide information to the government once.

Broaden financing options

Accessing credit through formal financial institutions is a challenge for entrepreneurs who have little collateral or have no proven creditworthiness and therefore a higher-risk profile. The post-funding support that is necessary to ensure the successful growth of the business is often lacking—either the mentors have little experience in running small businesses or have little experience of the sector in which it operates. Small businesses continue to grapple with problems in accessing start-up capital. The newly launched private sector small business fund and various other initiatives like the Gazelles programme tend to focus on scale-ups (i.e. expanding existing businesses), at the expense of start-ups. Most entrepreneurs rely on a combination of loan financing (when they can access it), angel investors, and their own capital where available.

A failure to support early-stage entrepreneurs clearly disadvantages those who do not have capital, collateral or access to angel investors. This policy failure, in turn, inhibits the ability of government to promote economic transformation and the resultant gap presents an opportunity where public funds can be deployed more effectively. **Consolidating existing funds for SMME support into a single fund with a clearly defined mandate and performance metrics could make a meaningful impact on SMME support without needing to deploy additional funds.** The National Treasury is working with the Departments of Small Business Development and Science and Technology on the design and implementation of a small business ideation and early start-up fund to address some of the shortcomings of the current funding landscape.

4 Prioritizing labour-intensive growth: the role of agriculture and services

Innovative joint ventures have been shown to boost agricultural production and promote agrarian transformation and should therefore be supported. This requires creating an enabling environment for investment in agriculture including financing solutions for farmers; adequate and affordable agricultural insurance; improved extension services for smallholder and emerging farmers; enhanced trade promotion, market access, and access to water for irrigated agriculture; as well as investment in establishing innovative market linkages for smallholders.

Greater budgetary support for tourism agencies is required and measures should be introduced to protect their budgets from the negative impact of currency fluctuations given their impact on marketing in foreign destinations. In addition, the Department of Tourism should increase the level of support to tourism firms in navigating the highly regulated business environment. The process of reviewing and amending South Africa's visa regulations should be prioritized. Adopting proposals for the reintroduction and enhancement of the Tourism Safety Initiative, with highly visible policing in tourist hotspots can address the perception of South Africa as an unsafe destination.

South Africa suffers from stubbornly high levels of unemployment that are compounded by inefficient spatial patterns that makes participation in the formal and informal economy costly and difficult for individuals (National Planning Commission 2012). Like most open economies, rapid technology change in production is creating an increasing bias towards skills-intensive employment demand. In a skills-constrained economy, this has the unintended consequence of raising wage premiums. This further entrenches inequality, but most importantly discriminates against the bulk of South Africa's labour force (semi- and unskilled workers) and contributes to rising unemployment. Agriculture and services, especially the tourism sector, are conduits for labour-intensive growth.

4.1 The role of agriculture in promoting labour-intensive growth

Several features of agriculture make it important in the pursuit of inclusive, labour-intensive economic growth: its rural linkages, ability to absorb less-skilled labour, large multipliers due to extensive links with the rest of the economy, globally competitive labour productivity, and importance for export-led growth (Cramer and Sender 2015). A growing agricultural sector can therefore help address our challenges of unemployment and low growth while countering rural poverty.

Despite these advantages, the sector continues to experience declining employment (Hall 2009). Commercial agriculture has suffered subdued capital investment, low growth, rising debt, and policy uncertainty (while remaining largely profitable). Smallholder farmers (who are a potential source of job creation) struggle with access to finance, agronomic challenges such as disease management and seed quality, product quality, and insufficient support from extension services (Von Loeper et al. 2016). Given South Africa's history of distorted land tenure and land ownership, it is critical to grow the sector while simultaneously addressing the unequal distribution of income and assets (see Boxes 9 and 10). This includes the important role of asset ownership in securing loans which can unlock wealth and improve productivity in the long run. All this indicates that agrarian transformation is crucial, requiring a fundamental change in the systems and patterns of ownership and control in agriculture.

Innovative joint ventures can boost agricultural production and promote agrarian transformation

There are many examples of commercial farmers, farmers' organizations, and other private sector institutions that have elected to drive agrarian transformation through innovative joint ventures. Even those who are critical of joint ventures as a panacea for agriculture and land reform in South Africa[15] acknowledge that joint ventures can yield encouraging results for smallholders. These include increased production, access to services such as training and technical assistance, access to inputs and production credit, as well as access to formal markets (including compliance with standards). These aim to overcome the challenges faced by the sector. We draw key lessons from a review of fifteen case studies which have contributed significantly towards agrarian transformation (Steenkamp et al. 2017).[16]

Based on this review, we outline a common set of principles and success factors to guide such initiatives, citing some examples:

- **The private sector led the design and implementation across the selected projects:** The private sector has played a critical role in the success of these projects from their inception. Significant buy-in and commitment from private sector players, including commercial farmers, large-scale agri-processors, retailers, large and small-scale cooperatives, and industry associations are clearly shown as an important success factor in each project. In most cases, the various players took it upon themselves to address and expedite agrarian transformation in their respective subsectors and regions. Due to their established position in the market, private sector partners are able to help beneficiaries

[15] Anseeuw et al. (2015b) point to the limited number of success stories, unequal power relations, and skewed benefits between partners and communities, a loss of control and decision rights over production and resources, and a (questionable) implicit assumption that the commercial farming model is superior.

[16] See Steenkamp et al. (2017) for a more detailed review of the 15 case studies.

overcome their unique financing and working-capital constraints as well as other risk-management concerns.

- **Access to finance is essential for the implementation and long-term sustainability of agrarian transformation:** Most joint ventures require funds from a combination of private and public sources. These include the commercial farmers, agribusinesses, public finance corporations, development finance institutions, and government departments. The type of financing varies significantly across projects. Types of support include soft loans, government grants, provision of infrastructure and moveable assets, infrastructure and asset sharing, and direct funds from commercial partners. Each of these constitutes a form of concessional finance.

- **Successful joint ventures usually possess unique institutional arrangements:** The complexity of successful agrarian transformation demands project-specific institutional arrangements that are tailored to the commodity and region in which the project is situated. A one-size-fits-all approach, in particular to address land reform, should not be adopted, given the nuanced complexity of issues at hand.

- **Contract farming can be an effective method of expanding small-scale farming:** Contract farming typically involves agribusinesses providing small-scale farmers with key inputs (financing, seeds, fertilizer, training, etc.) and then purchasing a certain percentage of the farmers' output. Such partnerships support smallholders to achieve higher productivity, scale, and access to inputs and markets and can ultimately help them to advance towards commercial status.

- **Access to domestic and export markets is a significant barrier to entry for small-scale farmers as well as less-established emerging farmers:** Cooperation with commercial farmers and large agribusinesses (and, in certain cases, with retailers) is crucial in order to provide smallholder and emerging farmers with an effective channel to access domestic or international markets. Being incorporated into existing market linkages and value chains (of their commercial farmer or agribusiness partner) is decisive in enabling these farmers to expand and diversify production.

The experience, expertise, regulatory compliance, and strong brand reputation of larger agribusinesses is vital for emerging partners to access domestic downstream markets as a first step, and to subsequently have any chance of entering the export market. Joint ventures are not intended to replace existing government initiatives aimed at driving agrarian transformation. However, by utilizing the financial resources and expertise in the private sector, they can be used successfully to complement existing government interventions such as training and extension services to targeted subsistence and smallholder producers.

Some have raised questions about the ability of joint ventures to contribute to effective agrarian transformation. However, having reviewed several successful projects, it is clear that many of these factors can be overcome through the careful design of the partnerships and the models implemented. Joint ventures remain an important complement to existing government interventions that are aimed at achieving agrarian transformation while ensuring that agricultural production is not compromised. These examples of successful joint ventures can be replicated in some form across the country, as long as specific local conditions are considered. Moreover, joint ventures can be scaled up if government creates a more enabling environment for investment in agriculture through well-designed and implemented policies. It is important, however, to

emphasize that joint ventures constitute just one type of model for agrarian transformation and typically require significant investment from large commercial farmers and agribusinesses.

Box 9: Land reform in South Africa

South Africa has a long history of distorted land tenure as a result of such discriminatory policies as the non-white majority of the population having very little claim to land tenure while the white minority had access to much of the country's land for ownership. The need to address unequal distribution of income and assets including the role that the ownership of assets has for livelihoods or collateral purposes (unlocking wealth and improving productivity) is critically important, as are property rights, food security, and the agricultural sector to the country's economy. Further, land reform and restitution does not only affect the ownership structure of the country's land, but also the perceptions of investors in related sectors of the economy such as agriculture. Finally, the issue of land reform is used to fulfil certain political objectives to ensure political buy-in or stability. Land reform must be oriented around growing the agricultural sector to foster economic development, and not purely be an endeavour to transfer land.

It is estimated that South Africa has a total land area of 122 million ha, of which 25 per cent is owned by the state. According to the Department of Rural Development and Land Reform, since 1994, approximately 7.4 million hectares of land have been transferred to previously disadvantaged South Africans through the restitution and redistribution components of its land reform programme. While this signals some progress, it is far from the target of 24.6 million hectares (or 30 per cent) set initially for 2014. In February 2014, the land restitution process was re-opened for a further five years with an estimated 397,000 claims expected to be lodged. This is despite 9,149 claims from the first round of restitution, which ended in 1998, remaining unsettled. Numerous restitution projects are not productive, and some have even collapsed completely, which drastically reduces their impact on poverty alleviation and job creation (Anseeuw et al. 2015a).

Land reform is an ongoing process, but an important one that needs to take place despite associated complexities. The challenge to the process is with respect to the approach and model to be implemented, given that the current pace of land reform is not satisfactory. To mitigate the uncertainty that may be generated by a comprehensive approach to land reform, it must be managed in a manner that is transparent, consultative, and within a broad framework to ensure that factors critical to ongoing investment in agriculture and food security, such as the security of private property rights, are respected throughout the reform process.

4.2 Create an enabling environment for investment in agriculture

Most countries with large and growing agricultural sectors provide significant support to commercial and smallholder farmers and maintain a relatively stable, certain, and supportive policy environment. Our agriculture sector receives less government support than those of our global peers, and it seems that we have not taken up all the potential policy space that exists to support the sector. International best practice provides some insight into how government can support the sector to scale-up agrarian transformation. These recommendations apply to the agriculture sector as a whole, but also to emerging farmers, smallholders, and land reform beneficiaries, in particular.

Implement innovative financing solutions required by farmers

Farmers have unique financing requirements. They typically require high levels of debt to offset uneven revenue streams which arise from the seasonal nature of the agriculture production cycle and are therefore very sensitive to interest rates (Hong and Hanson 2016). A major requirement for new or expanding farm businesses (especially for high-value crops) is long-term loans with deferred interest repayments—this helps to overcome the cash flow difficulties in the early years of establishment/expansion. An effective means to support agriculture, while limiting the financial burden on the state, is through subsidized interest rate loans. Countries such as Brazil, Chile, Indonesia, Turkey, Ukraine, Kazakhstan, and Russia successfully provide subsidized interest rate loans to farmers (OECD 2017b). In Brazil, concessional agricultural credit is the main support instrument for commercial and small-scale farms. In recent years, the Land Bank has expanded its concessionary finance offering by blending different sources of funding to provide more attractive

terms for farmers (Land Bank 2016, 2017). To the extent that these products target export-oriented and labour-intensive commodities, it can have significant positive consequences for the rural economy and inclusive growth. Concessionary finance could also increasingly be provided to commercial farmers in exchange for developmental concessions such as equity for farmworkers or contract farming arrangements with smallholders (to ensure they do not crowd out agribusiness products offered by commercial banks).

Introduce adequate and affordable agriculture insurance

Agricultural insurance provides farmers with financial coverage against fluctuations in income which may arise from low productivity caused by catastrophic events such as drought and hail, among others (Iturrioz 2009). Because the agriculture sector plays an important economic and social role—given its extensive links with the rest of the economy and importance for food security—business continuity in the sector is critical. Agricultural insurance can be an important tool for managing business continuity, and for ensuring food security on the one hand and spurring rural economic development and the modernization of the agricultural sector on the other. From an international perspective, it is not uncommon for the state to be a participant in the provision of agricultural insurance (Mahul and Stutley 2010). This is usually because the business risk of providing agricultural insurance to rural areas, particularly to smallholder farmers, is high, resulting in unaffordable premiums for many farmers. Many agricultural producers in South Africa are not insured against the negative impacts resulting from natural disasters, such as drought, mainly due to the high costs associated with agricultural insurance.

Improve extension services for smallholder and emerging farmers

Effective agricultural extension services can play a key role in reducing poverty and strengthening rural development (Benson and Jafry 2013). In South Africa, the quality of extension services is largely inadequate, and the coverage ratios are very low. If smallholders and emerging farmers are to transition to higher-value horticulture crops, intensive and high-quality extension support is required. Chile introduced a unique system aimed at facilitating large-scale roll-out of extension services to its many smallholder farmers (OECD 2008b). It uses state subsidies to enable private service providers to deliver extension services to smallholders. This model can be adapted in a South African context to involve industry associations and other agri-businesses in the provision of effective extension services to smallholder farmers.

Box 10: Certainty and security of rights across a variety of tenure options

Tenure security is vital to secure incomes for existing farmers and to attract new entrants into agriculture. However, the declaration of the Communal Land Rights Act as unconstitutional highlights the challenges surrounding land tenure in South Africa (see Claassens 2008). Studies of the land allocation process within traditional areas in the Eastern Cape reveal fault lines between traditional leaders and ward councillors, resulting in vastly different land tenure and usage right allocation systems (Bennett et al. 2013). Other factors, like the active role played by traditional leaders as election brokers in rural areas (de Kadt and Larreguy 2018), suggest the strong influence of non-property related factors in the allocation of property rights. Unlike property rights holders in the formal, registered property rights environment, people with informal or communal land rights need to rely heavily on social mechanisms to protect and enforce transactions—resulting in different qualities of institutions and the need for self-enforcement of the same types of rights (Eggertsson 2013).

One response to the question of varying certainties across a range of property rights is to suggest that everybody should be awarded title deeds (de Soto 2000). In this way, every property rights holder is subject to the same system, and therefore the same certainties. However, between the costs of extending a registration system and the unintended negative consequences on the poor, title deeds are arguably not a panacea for providing secure tenure (Kingwill et al. 2006).

There may be opportunities to advance tenure security outside of mainstream approaches. If given appropriate policy consideration and implementation resources, these approaches could have significant impact in South Africa. The Philippines, for example, included within their Comprehensive Agrarian Reform Programme an option for

landowners and restitution applicants to conclude a voluntary settlement that had a lesser impact on state resources—a move that could allow the development of interesting models and partnerships between existing landowners and claimant communities (Ballesteros and dela Cruz 2006). In Afghanistan, there has been moderate success in the implementation of community-driven land registration mechanisms, where such mechanisms were designed to work alongside existing traditional leadership systems (Murtazashvili and Murtazashvili 2016).

Drawing from these, one way to improve tenure security in South Africa would be to provide a mechanism for communities to develop a register of tenure rights at a local level, driven through District Land Committees, and for the state to focus on providing process certainty to allow rights holders to transact with these property rights. The availability of these mechanisms coupled with the freedom to securely transact (and to realize gains from trade, and thus stimulate investment into property) will assist in unlocking some economic gain, particularly in the rural economy.

Enhance trade promotion, market access, and access to water for irrigated agriculture

Access to water and irrigation systems are critical for unlocking increased investment in agriculture (National Planning Commission 2012). Agriculture is the largest user of water, consuming over 60 per cent of available surface resources (Department of Water and Sanitation 2017). Increasing demand for water, aggravated by climate uncertainty, is in many respects placing agriculture at the 'back of the queue' in terms of accessing additional water resources. The current 1.5 million hectares under irrigation can be expanded through the better use of existing resources and by developing new water schemes (National Planning Commission 2012). There has also been insufficient investment to reduce the substantial loss of potential crop area and production arising from inefficient irrigation practices and maintenance backlogs. In the Eastern Cape, for example, with more appropriate water management policies it would be possible to increase the acreage under citrus in Sundays River Valley by about 30 per cent, with a huge impact on wage-earning opportunities (Sender 2014). In many countries, irrigation is considerably important for reliable agricultural production, and in all agricultural success stories the government has played an important role in providing irrigation infrastructure. Chile's success in exporting agricultural products was the result of public intervention in irrigation and a very effective and transparent water licensing regime for agriculture (Chang 2009).

Invest in establishing innovative market linkages for smallholders

Both commercial and smallholder farmers have very different market access requirements. The requirements for smallholders to link to urban markets or modern supply chains are very different to those of commercial farmers of higher-value exports to meet the product standards required to access global markets. Both, however, are important sources of potential job creation. Contract farming can be an effective method of expanding smallholder farming (Hall et al. 2017). Such partnerships support smallholders to achieve greater productivity, scale, access to inputs and markets, and ultimately facilitate graduation to emerging and commercial status. However, onerous and restrictive contract terms placed on smallholders by large agribusinesses and retailers often hinder any transition to emerging or commercial status.

Various government policies, including the National Development Plan, identify strategic government procurement as a tool for supporting smallholder farmers. International best practice on how strategic state procurement has been used to support smallholders can be used to inform the design of a pilot that uses strategic procurement (or structured demand, as it is also known) to support smallholder farmers. Structured demand connects large, predictable sources of demand for agricultural products to smallholder farmers, which reduces risk and encourages improved quality, leading to improved systems, increased income, and reduced poverty. A recent successful pilot allowed smallholder farmers in South Africa to supply maize for a World Food Programme initiative in Lesotho (Department of Agriculture, Forestry and Fisheries 2013). To solve the market

access constraint faced by smallholders, a strategic procurement mechanism could be put in place to connect smallholder farmers with government contracts in a structured and sustainable way.

4.3 Harnessing a growing services sector to boost economic transformation

Domestic consumption of services has doubled over the last two decades and currently accounts for the largest share of consumption (42 per cent in 2014) (UN Comtrade 2015). The services sector has a number of features that are important for inclusive growth and competitiveness:

- **Services have been more resilient than other sectors in downturns:** On an annual basis, services consumption has not contracted since the mid-1980s (UN Comtrade 2015). Growth in services consumption tends to be less volatile than other categories of consumption. This stabilizing feature helps to smooth economic growth through volatile commodity cycles, helping to reduce economic volatility and support investment and consumption.

- **Services activities are highly localized**: Services are almost completely supplied by the domestic market (96 per cent of services are supplied domestically) and used mostly in domestic production and expenditure (51 per cent are used by domestic industry, with 44 per cent used in domestic expenditure) (UN Comtrade 2015). These features mean that services sectors tend to have higher growth and employment multipliers than goods markets—making the growth of services sectors through greater exports a real potential driver of employment.

- **Services activities support industrial production:** Measured in terms of use, the biggest services sectors in South Africa are real estate services, financial services and other business services (i.e. accounting and legal), passenger transport, and telecommunications. These services, alongside transport and warehousing services, tend to be linked with industrial production. Thus, policies that stimulate industrial development, indirectly also stimulate services.

- Although there is a lack of disaggregated data by skills level and sector, **industry-level studies indicate that the bulk of jobs created in services sectors benefit low to semi-skilled workers** (Altman and Mayer 2003; Altman et al. 2005). For instance, the tourism sector has low barriers to entry, which makes it an ideal sector through which to target other policy objectives such as inclusive growth (see tourism discussion below). Retail, while exhibiting higher barriers to entry, has been a significant source of employment growth—and most of this labour has been at the lower end of the skills table.

These features indicate that services activities should be part of any attempts to enable inclusive growth and economic transformation. We suggest that the policy focus should be on supporting services exports, including tourism, as it is clear that this is an area of comparative advantage for South Africa. Despite a marginal decline in South Africa's market share in global service exports (from 0.44 to 0.30 per cent between 2003 and 2013), services exports quadrupled in real terms between 1993 and 2013. Between 2002 and 2008, exports of finance, insurance, ICT, and construction services all grew in excess of 20 per cent per annum. South African exports of services now account for US$14 billion per annum, most of which (65 per cent) is comprised of travel services (tourism and business) (UN Comtrade 2015). In Section 6 we discuss the opportunities for services exports, including construction, retail, and finance in the context of increased participation in regional value chains.

The importance of growing tourism for inclusive growth and transformation

Tourism is one of the key sectors that can deliver inclusive growth through its labour absorption potential. Tourism is characterized by low barriers to entry as most tourism businesses are small, providing services such as accommodation, tour guiding, day tours, and taxi services. An important aspect of its contribution to inclusive growth and economic transformation is the fact that unlike mining, manufacturing, and financial services, tourism is not clustered in specific development nodes. This makes it an important economic driver of rural economies and a mechanism to create sustainable employment opportunities outside urban and industrial areas. This is especially important given South Africa's historically uneven spatial development patterns.

Tourism accounts for 9.8 per cent of total employment, up from 6.5 per cent in 1995, and a similar share of GDP (WTTC 2017). The gross direct value added of the tourism industries for South Africa amounted to R198.7 billion (or 5.8 per cent of total gross value added (GVA) generated) in 2014 and R210.0 billion (or 5.9 per cent of total GVA generated) in 2015.[17] The significantly larger increase in indirect and induced contributions highlights the fact that the tourism sector has become more interlinked with other sectors in the economy and is therefore an important driver of inclusive growth. The tourism sector is currently linked to 12 industries in the South African economy. We estimate that for every direct job created in the tourism sector, one additional job is created on an indirect or induced basis, making its linkages stronger than in many other sectors.[18]

In terms of the updated National Tourism Sector Strategy, the Department of Tourism aims to increase tourism's total contribution to GDP to R948 billion and increase the number of direct and indirect jobs supported by the sector to 2.2 million by 2026 (National Department of Tourism 2017). Tourism is therefore an important potential driver of growth. Approximately 10 million international tourists arrived in South Africa in 2016, up by 12.8 per cent from the previous year. African countries make up 74.7 per cent of total tourist arrivals and about 97.5 per cent of tourists from Africa are from the SADC (Statistics South Africa 2016).

South Africa's tourism competitiveness can be improved through several interventions. First, **greater budgetary support for tourism agencies is required and measures should be introduced to protect their budgets from the negative impact on currency fluctuations** given its impact on marketing in foreign destinations. While a depreciating currency opens up new international market segments, budgetary support to tourism agencies is required to pursue these opportunities. The current budget of SA Tourism compares poorly with the tourism budgets of competitor nations—South Africa is ranked 130th out of 136 countries for the scale of budgetary support for travel and tourism (World Economic Forum 2017).

Second, **the Department of Tourism should increase the level of support to tourism firms in navigating the highly regulated business environment**. Tourism businesses face among the highest levels of regulation in the country given the various intersections of their business operations—this includes construction permits and health and safety standards in addition to the normal regulatory burden (Small Business Project 2006). In comparison, our tourism competitors are far more supportive of potential investment in tourism. Tourism Australia offers a dedicated contact person for major tourism projects through its Tourism Major Facilitation Service to guide prospective investors through the government approval process. It is not clear to what extent this

[17] Based on estimates from the Modelling and Forecasting unit of the National Treasury using data from the Tourism Satellite Account from Statistics South Africa.

[18] Ibid.

function could be performed locally through the One-Stop Shops, but currently major investors in the tourism sector are largely left to navigate the complex regulatory terrain by themselves.

Third, **South Africa's visa regulations should be amended to ensure a better balance between security concerns and the growth of the tourism sector.** The tightening of visa regulations is out of step with a global move towards an easing in visa requirements. Countries are typically making it easier for tourists to travel, and South Africa risks falling behind.

Finally, we **should adopt proposals for the reintroduction and enhancement of the Tourism Safety Initiative, with highly visible policing in tourist hotspots**. The perception of South Africa as unsafe remains a key stumbling block to tourism growth and the successful implementation of this initiative would provide tourists with added reassurance. Although initially a private sector initiative, it could be enhanced through additional funding and other support from government. Countries which rely heavily on their tourism sectors, such as Thailand, are known to have a dedicated police presence in tourist hotspots. Funds from the Tourism Incentive Programme could be used to support the South African Police Service in providing a more visible police presence in these areas or supplementing visible policing strategies of various municipalities located in tourism hotspots.

5 Implementing focused and flexible industrial and trade policy

More effective industrial policy requires us to rationalize the Industrial Policy Action Plan to improve its efficacy; conduct periodic and independent evaluations of industrial policy interventions to ensure that they are effective in meeting their objectives; and embed flexibility in industrial policy by incorporating learning into programmes. There is a need for more experimentation and piloting of industrial policy options, allowing departments and agencies to gain a better understanding of critical constraints and market failures. Another priority area for industrial policy is demand-side support. The main instrument in this regard is leveraging public procurement to support industrialization. The efficacy of this intervention needs to be strengthened by creating a repository of data on government procurement spending to allow evidence-based government-led product selection for designation; aligning and enforcing procurement processes at all levels of government; and capacitating the South African Bureau of Standards to ensure that it is able to conduct local content verifications.

ITAC should conduct broader value chain analysis of the impacts of submissions and be proactive in addressing the current biases of trade policy. There should be consistent monitoring and evaluation of industrial policy interventions, possibly through a multi-stakeholder monitoring body enhancing coordination between government departments and institutions. The high import intensity of most exporters means that an effective trade policy cannot focus on export promotion alone and must include an emphasis on ensuring that intermediate inputs are competitively priced.

Long-term development is fundamentally about structural change: it involves producing new goods with new technologies and transferring resources from traditional activities to higher productivity areas (Rodrik 2007). Structural transformation is achieved by altering industrial structure; promoting productivity-based development; and diversifying exports, especially higher value-added exports. Export orientation and sophistication are key elements of modern industrial policy. Export orientation sustains competitive pressures and forces innovation, and export sophistication through a focus on productivity and innovation is key to sustainable long-run growth (Cherif and Hasanov 2019). Exporters tend to be larger, more productive, and pay higher wages than domestic firms (Edwards et al. 2018).

High value-added sectors such as manufacturing are important contributors to structural transformation (see Box 11). Increasing competition in global value chains has forced domestic manufacturers to increase their competitiveness through investments in new technologies, training

and up-skilling their workforces (see OECD 2010, 2013a; Purfield et al. 2014). This is reflected in the increasingly sophisticated nature of global manufacturing exports both in terms of skills and technology.

In South Africa, the contribution of manufacturing to both GVA and employment has declined in recent years. In addition, the manufacturing sector's capital base has shrunk. Capital stock was valued at R677.7 billion in 2008 but eroded to R587.3 billion at the end of 2016 in real terms (SARB 2018). Despite the numerous policy interventions aimed at supporting the sector's performance, the country is effectively deindustrializing.

Box 11: Structural transformation: manufacturing vs agriculture

Structural transformation usually implies a transition away from low-value and low-productivity agriculture into high-value and high-productivity manufacturing, for example, by moving away from citrus fruit into citrus juice. A recent paper challenges this simplistic dichotomy by illustrating that the distinction between manufacturing and primary agricultural products (and between processed and unprocessed primary commodities) is increasingly difficult to define, misleading, and needs to be reviewed. The authors argue that the technological sophistication, research and development (R&D), sophisticated packaging, temperature and disease control, and computerized logistics that go into producing a fresh orange ready for consumption in a foreign market can outstrip the technology and manufacturing transformation required, say, to produce a carton of orange juice. There are three implications of this point: (i) agriculture should be a site of industrial policy with incentives designed with this in mind; (ii) the criterion used to decide which rural activities to promote should not be whether or not a given commodity is processed or unprocessed but which commodity has the highest value and fastest growth rate of demand in international markets; and (iii) there is a need to reassess the level of resources devoted to small-scale agricultural enterprises that are unlikely, on the basis of the South African and international evidence, to generate decent wage employment or a fast rate of growth of high-value agricultural exports.

Source: Cramer and Sender (2015).

South Africa's industrial and trade policy is articulated in the Industrial Policy Action Plan (IPAP) which is aligned to the country's broader economic growth strategies such as the National Development Plan and New Growth Path. It aims to boosts productivity, competitiveness, and facilitate export-led growth, among other priorities (DTI 2017). Several policy instruments are deployed to implement trade and industrial policy including tax incentives (e.g. Section 12i of the Income Tax Act), on-budget incentives (e.g. the MCEP), public procurement (e.g. local content designations), the provision of strategic infrastructure and differentiated pricing (e.g. special economic zones and port tariff incentives), lending to equity participation in strategic sectors (through the Industrial Development Corporation, for example), trade policy (e.g. differentiated tariffs and anti-dumping duties), and competition policy (e.g. reduction of mark-ups and input costs for strategic sectors) (DTI 2017).

Box 12: Rethinking beneficiation: upstream and downstream mining linkages

A key priority of the South African government is to identify, define, and implement strategies that will structurally transform the economy away from its dependency on primary activities to a more sustainable, knowledge-based, higher-value growth trajectory. Three types of industry linkages naturally arise from the need to extract, process, and refine a mineral deposit: (i) downstream (beneficiation) linkages (e.g. jewellery from platinum); (ii) upstream linkages (e.g. pumps, valves, and trucks used in mining); and (iii) lateral linkages (arising from the modification and application of generic technologies or services to other industry sectors).

An approach that relies only on transforming mined commodities into higher-value commodities (e.g. platinum into autocatalysts) is narrow and does not consider the significant potential of upstream and lateral linkages which can have large spillover effects into industries which have no direct linkages to the minerals sector. Upstream manufacturing is engineer intensive, agile, and able to reinvent itself, which means it is not dependent on mining. When the mineral deposits are exhausted, these businesses can either import their input materials or reinvent themselves entirely. Downstream beneficiation is dependent on the availability of mineral resources and once such resources are depleted the businesses have either to close or import feedstock.

Focusing only on downstream beneficiation at the expense of opportunities from the entire set of potential 'lateral' sectors is the wrong approach and a bad policy paradigm, because: (i) policies that assume that moving 'downstream' is a natural progression are not supported by international experience; (ii) the small impact of forward linkages on production patterns is even weaker from primary raw materials than from other manufactured good; and (iii) the small impact of forward linkages is as true for industrialized countries as it is for developing countries. Structural transformation in exports should favour sectors with similar technological requirements, factor intensities, and other requisite capabilities, and not only products connected in production chains (Hausmann et al. 2008).

Encouraging local production of inputs for the mining sector through upstream linkage development is important for three broad reasons: (i) new technologies, products, and processes allow the exploitation of previously unviable or uneconomic deposits and extend the life of current mining operations; (ii) up- and downstream industries have the potential to become independent sources of value addition, jobs, revenues, and exports for an economy over time; and (iii) lateral migration of technologies to non-resource sectors can promote further industrial growth and technological advancements in other sectors (Walker and Jourdan 2003). The South African mining inputs cluster is well placed to exploit resources that are presently not mineable and, in doing so, to galvanize the development of a world-leading mining technology design and manufacturing cluster. While South Africa retains a comparative advantage in mining-related innovation, declining R&D, and skills development are eroding its capacity to sustain such competitiveness in the future.

Mining-based economies that industrialized frequently did so through promotion of related technological developments, as with the Nordic countries and Australia, rather than focusing explicitly on beneficiation. Instead of a focus on beneficiation, narrowly defined as adding value to South Africa's mineral wealth, the policy focus should be on the upstream and downstream linkages that arise from the mining sector, encompassing technology transfer and spillover effects into various resource-independent sectors. This broader approach can potentially enhance the industrialization of the economy, raise skill intensity, create employment, and support growth.

Current trade and industrial policies have made some progress towards attaining economic and structural transformation and contributing to inclusive growth. South Africa's industrial policy is on the right track, but some important adjustments could significantly improve its effectiveness (see Boxes 12 and 13). Our approach to trade and industrial policy should not come at the cost of increased productivity and competitiveness. There are various ways in which industrial and trade policy can be refined to mitigate its potential negative impacts on our competitiveness and improve the overall effectiveness of interventions.

There is a **need for prioritization and rationalization of interventions within industrial policy**. For instance, the latest iteration of IPAP focuses on thirteen sectoral areas with numerous interventions under each (in addition, there are eight transversal focus areas). This is likely to limit the impact of the respective interventions because there are limited resources (both in terms of the budget and personnel), and additional sectors strain these resources further. IPAP may have a greater impact if it targets only the areas where the greatest gains can be made. This requires correctly identifying the intervention and policy instrument required to achieve the desired industrial policy outcome. For instance, a sectoral incentive that narrowly targets a specific outcome, such as export promotion, might be limited in its efficacy because it either is not able to target the particular market failure that government support is required to address or the target firms may have heterogeneous characteristics (e.g. size, age, or location). It may resultantly be more beneficial to use an alternative policy instrument. For instance, inadequate demand may be hampering scale-up in production and resultantly limiting a firm's ability to produce export competitive products. In this instance, a demand-side intervention such as public procurement may be more effective at achieving the industrial policy outcome.

A greater focus is required on **developing metrics to assess industrial policy interventions that are not punitive but encourage a process of learning and improvement** (Warwick and Nolan 2014). A key insight from the government's comprehensive incentives review process is that a robust review of incentives is only possible if the right data has been collected along the

way. This means that during the incentive design process there must be an emphasis on ensuring that potential beneficiaries provide information throughout the process that will enable its subsequent evaluation. The findings of the current review will inform how the incentives package can be strengthened to maximize impact and value for money. For instance, it may elevate the need to reassess or prioritize the objectives against which we measure the success of our industrial incentives. Incentives should be measured against their stated objectives—this should create a self-regulating mechanism for policy makers in that policy instruments will less likely be stacked with objectives. Incentives that are stacked with objectives are more difficult to monitor and evaluate. A focus on one clear objective such as export growth could be used to rationalize and augment the current suite of incentive programmes.

South Africa's industrial policy must be flexible in nature and incorporate experience from implementation over time while maintaining policy certainty (Rodrik 2008). For instance, current incentive programmes are learning that qualifying criteria alone are not adequate through the adjudication process or by comparing the merits of projects against each other. The MCEP is a useful example of how this learning and flexibility can be incorporated into an incentive programme. When MCEP was first introduced in 2012, all companies who met the qualifying criteria were awarded support on a first-come-first-served basis. But over time, the programme's guidelines were augmented to allow the adjudication committee the space to assess the additional, impact and strategic value of projects against each other. Similarly, other government programmes, such as the Industrial Participation Coordinating Committee and the Renewable Energy Independent Power Producer Procurement Programme, have incorporated learning from their implementation processes to improve their impact and efficacy. Moreover, a clear set of criteria under which changes to programmes can be instituted could increase the transparency of programmes and ultimately improve accountability.

There is **a need for more experimentation and piloting of industrial policy options** (Hausman and Rodrik 2003). This allows the agency or department in question to identify possible constraints or flaws in the programme design and highlights procedural and system issues that need to be addressed while limiting policy uncertainty. A pilot programme also allows the concept of the project to be tested, along with its impact. It forces some cooperation with the private sector and others with an interest, as it requires some sharing of knowledge and resources. Special Economic Zones (SEZ) can be effective tools in this regard. SEZs allow the scope to experiment with policies on a small scale before rolling them out to the wider economy (if it makes sense to do so). An example is the Shanghai Free Trade Zone, which was established in China to pilot reforms before they are rolled out to the wider economy.

In South Africa, broader questions need to be asked about the efficacy of how SEZs are currently being used as industrial policy instruments. It is unclear whether the incentives put in place to encourage firms to locate in SEZs, such as lower corporate income tax rates, are effective at crowding in the desired private investment (see Farole 2011). We need to develop a more nuanced understanding of the circumstances under which SEZs are most effective by understanding which SEZs are successful, what makes them effective, and whether they are appropriate tools for clustering industrial activity and addressing unequal spatial development. Answering these questions will enable a process to improve the design, functioning, and ultimately the impact of SEZs as a key industrial policy tool.

Box 13: Strengthening innovation systems and technology absorption

The only way to effectively increase economic growth in the long term is through improvements in productivity. Investment in innovation is one of the major drivers of productivity growth. R&D can foster innovation by improving the capability for developing new products and processes and improving existing ones. This is crucial

for improving competitiveness and inclusive growth. South Africa has experienced weak productivity growth and a low share of R&D expenditure to GDP compared to its peers in the past.

Research using tax administrative data reveals that few firms reported R&D expenditure for tax purposes. These R&D-active firms are on average older and larger (both in terms of gross sales and number of employees) and are concentrated in the manufacturing and services sectors. Within manufacturing, South Africa has a relatively high share of R&D-active manufacturing firms in the food, wood, primary metals, fabricated metals, and autos subsectors. The analysis suggests that: (i) R&D intensity, as measured by the R&D to sales ratio, in South African manufacturing firms is considerably lower than that observed in other countries (albeit predominantly OECD countries); and (ii) the elasticity of output with respect to R&D is within the range observed in previous studies. This implies that the estimated return to R&D in South Africa is high compared to that found for other countries. Intuitively this makes sense, given the low prevalence, persistence, and intensity of R&D expenditure of manufacturing firms. One possible explanation for the implied high rate of return to R&D relates to how innovative activity in a catching-up country like South Africa might differ from that in an OECD country on the technological frontier. If the composition of spending on innovative activity in South Africa is such that less is spent on R&D and more is spent on licensing and similar activities that import (buy-in) established technology, it could actually then imply a lower rate of return than what the analysis suggests.

Source: Schaffer et al. (2018).

Another priority area for industrial policy is demand-side support. The main instrument in this regard is **leveraging public procurement to support industrialization**. Local procurement has the potential to directly drive economic transformation through preferential procurement.[19] It can further be leveraged to support domestic industrialization particularly in a subdued economic environment where demand is limited or the growth of infant industries is stifled by import pressure. This intervention is actioned through local content designations, which entails the designation of specific products for local procurement by public entities and government departments (DTI 2017). Products for local content designations selected by the dti are approved by the Office of the Chief Procurement Officer by way of an instruction note. They aim to leverage public spending in a way that supports industrial capability, economic growth, transformation, and employment. One of the key considerations in using this instrument is that it is fairly blunt, which requires government to actively drive product selection for designation to be effective. **This needs to be informed by government demand and the sustainability of local production beyond government support**.

Specific interventions are required to strengthen the efficacy of public procurement as an industrial policy tool, including: (i) creating a repository of data relating to government spend, disaggregated to product level, to inform proactive product designation; (ii) aligning and enforcing procurement processes at all levels of government; (iii) improving mechanisms to ensure the payment of small businesses within the legislated 30 days; (iv) building capacity at the South African Bureau of Standards to ensure that it is able to conduct local content verifications for successful bidders on tenders that include designated products; (v) collecting information on procurement spend across all levels of government to improve the targeting of public procurement as an industrial policy tool; and (vi) building the capacity in the government (in collaboration with industry) to monitor and enforce designations to ensure that they are being adhered to by all organs of the state.

Given the importance of exports for long-run sustainable growth and competitiveness, trade policy is a key component of South Africa's industrial policy package. South Africa is dominated by super exporters who account for the vast majority of exports, many of whom are also large importers

[19] Through the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000) and Preferential Procurement Regulations, 2017.

(Edwards et al. 2018). Therefore, any strategy to boost exports will need to facilitate intermediate imports. This has several implications for industrial and trade policy. First, most exporters rely on imported inputs, capital, and technology, much of which cannot necessarily be produced domestically or at the requisite quality. By importing certain goods and services, firms are also exposed to global best practice and able to raise their own productivity. Second, global value chains are increasingly important in global trade (Purfield et al. 2014). This means that unless a firm is part of an accredited supplier list or global supply chain, it is very difficult to get large contracts or participate in global procurement deals.

Third, in cases where a particular value chain is dominated by a large, protected, inefficient producer and importing a replacement product is costly due to trade protection, this imposes a significant cost disadvantage compared to global peers and affects the overall competitiveness of that entire value chain. Fourth, import competition can also put competitive pressure on local firms, making them more efficient or innovative, or incentivizing them to export (see OECD 2010; Edwards et al. 2018). **The high import intensity of most exporters means that an effective trade policy cannot focus on export promotion alone and must include an emphasis on ensuring that intermediate inputs are competitively priced.** Finally, a currency depreciation is commonly viewed as positive for exports, but to the extent that these exporters also import, the implications of the impact of currency depreciations are less well understood. As such, the responsiveness of exports to exchange fluctuations becomes less predictable. In light of this trade and industrial policy need to consider the impact of higher cost intermediate imports on the final price of exports.

Due to a lack of more effective and appropriate trade agreements (which is discussed in the next section), South African trade policy evolves on a piecemeal basis through applications to ITAC. A major challenge for ITAC is that trade support is provided on a product-by-product basis. This lends the process to an inherent bias towards products produced by large and well-organized firms who can adhere to the administrative requirements associated with ITAC applications, which can reduce overall competitiveness. These industries tend to be further upstream while downstream industries (which are often less concentrated and more dynamic) tend to have less participation in the process. **This means that proactive steps are required to address the current bias in trade policy in favour of products produced by large incumbent firms.**

Another imperative for industrial policy is the **consistent monitoring and evaluation of policy proposals** (Warwick and Nolan 2014). This need cuts across all industrial policy interventions and requires adequate capacity to ensure that it occurs. For instance, the government has started using reciprocal commitments to mitigate the potential impact of trade support through ITAC on other parts of the value chain or to pursue increased investment or employment in local content designations. However, there is no clear monitoring mechanism for these commitments which speaks to a broader concern around the enforcement of policy interventions generally—particularly when they are not housed in legislation. There is currently no way of knowing if these reciprocal commitments are appropriate, practical, or effective. The absence of this information significantly and negatively affects the application of reciprocal commitments in industrial policy. **A possible solution is to create a multi-stakeholder monitoring body (similar to the one established to monitor the reciprocal support for the tariff support afforded to manufacturers of flat steel).** This forces coordination between different government departments and institutions in a way that enhances coherence and pushes for the prioritization of industrial policy initiatives.

Finally, **industrial policy interventions cannot effectively achieve their desired outcomes if they are not complemented by an overall supportive business environment.** The cross-cutting interventions that are required to boost the overall competitiveness of South Africa's

manufacturing sector are discussed in greater detail in the next section. These cut across a range of sectors, markets, and products and are often related to interventions required to get competitive pricing, efficiency, and efficacy of network industries such as electricity, communications, and transport. Other factors that enhance the overall business environment include those that enhance the ease of doing business and are related to issues like regulations and licensing, compliance costs, and municipal planning procedures.

6 Promoting export competitiveness and harnessing regional growth opportunities

To promote export competitiveness, we need to implement cross-cutting interventions to boost the export competitiveness of firms. These include: (i) improving the quality of and access to infrastructure; (ii) implementing new and re-negotiated agreements with growing markets for key export products; (iii) ensuring that market access requirements can be resolved expediently (possibly through automated licensing systems and a review of border control procedures); (iv) increasing awareness of South African products abroad; and (v) improving access to export credit and credit insurance. Strategic regional opportunities include intra-regional transport towards the integration of markets; a regional approach to energy systems; and deepening regional industrialization through construction.

South Africa needs to promote export competitiveness and actively pursue regional growth opportunities in order to leverage global and regional value chains for export growth (Purfield et al. 2014). Exports have been identified as a key driver of economic growth. Technologically sophisticated exports, in particular, are crucial to structural transformation as it enables an economy to move from low- to high-productivity activities. In recent years the focus on supporting trade growth has embraced behind-the-border issues as many countries have been unable to compete in global markets despite greater (often preferential) market access. This shift recognizes that a firm's ability to compete in international markets is the combination of a complex set of demand- and supply-side issues, including macroeconomic policy, infrastructure, and related services, transport and logistics, and coordination failures (World Bank 2015). There is an increasingly challenging global export environment (particularly in traditional markets and manufactured goods). For this reason, South Africa needs to shift its focus towards increasingly attractive regional growth opportunities which hold significant potential to increase intra-regional exports and foster growth and economic development in the region (National Planning Commission 2012). To realize the growth in exports that South Africa aims to achieve, we propose specific cross-cutting interventions that can improve the export competitiveness of South African firms. This is followed by a discussion of regional growth opportunities, given the increasing importance of the African market in South Africa's export basket.

6.1 Implement cross-cutting interventions to boost the export competitiveness of firms

Several cross-cutting interventions are required to boost the overall competitiveness of South Africa's exporters and remove barriers to entry for firms that are currently unable to enter global or regional value chains. These interventions cut across a range of sectors, markets, and products, and are discussed below.

Improve quality of and access to infrastructure: Infrastructure is a critical enabler of export performance, especially for South Africa given the inland concentration of economic activity as well as our unique global geography (Pieterse et al. 2016). Critical export infrastructure spans a few network industries where the government exercises direct control, such as transport, communications, and electricity. The detailed policy choices and reforms required to modernize South Africa's network industries are outlined in an earlier section and include: (i) institutional reforms to promote competition; (ii) pursuing private sector participation to increase investment;

(iii) improving service delivery; and (iv) addressing market failures that can improve access to infrastructure.

Bilateral trade agreements are critical to ensure exporters have competitive access to growing markets (Edwards and Lawrence 2012): Under the recently signed Economic Partnership Agreement between the European Union (EU) and the Southern African Customs Union (SACU), South Africa's duty-free quota of wine that can be exported to the EU increased from 48 to 110 million litres, and under the African Growth and Opportunity Act extension to 2025, South Africa will now have better market access to the USA for several key products (including lamb, ostrich and beef, apples, citrus, avocados, and mangoes). However, in many growing markets South Africa has less preferential trade access than competitors. Compared to South Africa, Australia, Chile, Peru, New Zealand, and Argentina have preferential trade access to several growing markets including Malaysia, Thailand, the Philippines, and Vietnam (Citrus Growers Association 2017). A lack of preferential market access through new trade agreements has a direct negative impact on the competitiveness of South African exporters and undermines long-term growth. Negotiating new trade agreements is complicated by two factors: (i) South Africa is part of a customs union, which requires certain trade-offs that need to be considered alongside other members of SACU; and (ii) getting new trade agreements through the National Economic Development and Labour Council introduces an additional hurdle that is often insurmountable. However, **new and re-negotiated trade agreements for key export products are critical. They must be supported by market- and sector-specific assistance to exporters that is related to the specific requirements in destination markets.**

Market access requirements need to be met expeditiously: Even where trade agreements exist, the export of most products, especially agricultural products, can occur only if: (i) destination markets accept South Africa's product standards (for example, in agriculture this would include plant and animal health standards as well as sanitary and phytosanitary (SPS) protocols); and (ii) exporters receive the necessary export documentation and licensing timeously and accurately. In most cases, these market access requirements are implemented by government departments and agencies such as the South African Bureau of Standards. To the extent that these departments and agencies experience capacity constraints, it is critical to leverage public–private partnerships to improve market access for exported products. **An obvious starting point is for the government to collaborate with the private sector to: (i) set up an automated licensing system for key export documentation; and (ii) review border control procedures, plant and animal health standards, SPS, and veterinary protocols to ensure correct protocols are followed, ensure that updated procedures are implemented, and procedures are audited on a regular basis**.

Increase awareness of South African export products abroad: Potential and existing exporters require a broad range of market and sector-specific support to succeed in global markets—especially for small or medium firms (DTI 2013). Agriculture, manufacturing, and tourism exports rely heavily on the awareness of their 'products' in destination markets and in many cases these awareness campaigns have proven to be successful. **Incentives such as the Export Marketing and Investment Assistance Scheme may need to be refined to focus on sectors where these types of incentives are proven to be effective.** Anecdotal evidence suggests that many firms succeed when they are better organized and their export efforts are coordinated by an industry body. For example, on the agri-processing side, the South African wine and brandy industry has Project Khulisa, which leads a coordinated and targeted approach to specific export markets on behalf of member producers. Through these efforts, industry associations can combine resources on behalf of disparate members to focus on specific markets that have been identified as critical for export growth. The fruit and nut industry has a trade working group within the Fruit Industry Value Chain Round Table that coordinates and resolves issues related to market access and export protocols on behalf of fruit exporters.

Access to export credit and credit insurance is critical to allow exporters to compete and participate in global value chains (Manova 2014)**.** This includes export credit and bridging finance (in local or foreign currency) to finance large projects at internationally competitive rates. Export credit insurance and investment guarantees are also important for covering political and currency risk including credit finance assistance for the importation of capital goods (e.g. the Export Credit Insurance Corporation of South Africa enabled a US$88 million loan facility by Nedbank and Rand Merchant Bank with political and commercial risk insurance for Aureus Mining's new gold project in Liberia (Cornish 2016)). **The availability of these instruments that cover key risks are critical to the development of large projects to ensure these are executed in a globally competitive manner.** Anecdotal evidence suggests that exporters often find these products expensive and inaccessible within the very quick turnaround times required to facilitate the successful negotiation of large international projects.

6.2 Leverage regional opportunities to promote export growth

Recent changes in South Africa's trading patterns, both the nature of the products as well as their destinations, have important implications for how we think about South Africa's export strategy. Between 2008 and 2014, manufacturing exports to the SADC have more than doubled (Oxford Business Group 2014). This is mainly attributable to the growth in food and beverages products which are exported predominantly to other African countries. The importance of SADC, in particular, has grown, as almost 40 per cent of our manufactured goods are exported to the region (Oxford Business Group 2014).

To facilitate sustainable regional integration, South Africa and the SADC secretariat have designed industrialization strategies with a clear emphasis on the need to graduate from the export of raw commodities or low value-added manufactured products to higher value-added goods that boost productivity and global competitiveness. IPAP sets out the country's industrial policy priorities over the medium term and identifies regional integration through contributing towards industrial development in Africa, as a component of South Africa's industrial policy. The SADC secretariat developed the SADC Industrialisation Strategy and Roadmap which frames the vision for regional industrialization and development. The strategy highlights the use of value chains and their linkages, both forward and backward, in promoting regional industrialization and development.

Intra-regional foreign direct investment (FDI) is one of the most important mechanisms through which Africa's increasing demand can be met (UNCTAD 2014). Intra-African investments are increasing, led by South African, Kenyan, and Nigerian multinational firms. Between 2009 and 2013, the share of cross-border greenfield investment projects originating from within Africa increased to 18 per cent, from less than 10 per cent between 2003 and 2008 (UNCTAD 2014). South Africa is not only the largest recipient of FDI in Africa, it is also one of the largest investors in greenfield FDI projects in Africa. South African outward FDI almost doubled to US$5.6 billion in 2014, due to investments in the telecommunications, mining, and retail sectors across Africa (UNCTAD 2014). South Africa more than doubled its share of greenfield investments into Africa from 3 per cent between 2003 and 2008 to 7 per cent between 2009 and 2013, making it one of the largest investors in Africa. The returns from these investments are reflected in South Africa's dividend receipts, which have steadily increased in recent years, rising from 2 per cent in 2002 to 15 per cent in 2013.

Meaningful regional integration is required for South Africa to leverage opportunities in the region to promote growth in exports. This entails ensuring that there is reciprocity in trade with countries in the region by allowing them to export products to South Africa. This should be mutually beneficial and aligned to our economic development objectives. As such, South Africa needs to

prioritize strategic regional value chains that facilitate mutually beneficial trade, considering the political dynamics of the countries we intend to trade with.

6.3 Harness regional opportunities: transport, energy, and construction

Given the evolution in South Africa's trading patterns and the increasing importance of the African market, there should be a focus on opportunities presented by the region. For these opportunities to be significant, they must unlock new markets for investment and growth for the South African economy and offer development opportunities and new markets for other regional economies. Such mutually beneficial ventures will in turn facilitate increased regional economic cooperation in the future, which will further expand opportunities for South African industries in Africa. We recommend a few key strategic opportunities below:

- **Intra-regional transport towards the integration of markets:** Intra-regional transport costs are exceedingly high. For example, Zambia is very cost competitive in terms of agricultural production, but it is cheaper to import refined sugar from South America due to higher transport costs. Although larger transport companies have the resources to navigate these challenges, border delays and other regulatory restrictions inhibit competition. **Improving intra-regional logistics requires joint action across a range of areas including border controls, standards, storage facilities, and increasing competition and investment in infrastructure** (Vilakazi and Paelo 2017).

- **A regional approach to energy systems**: There is a broad range of choices for future energy systems in southern Africa. The operation of hydropower on the Zambezi and wind power systems in promising locations can be complementary. Fossil fuels, such as gas, are abundant in the region and can be utilized for various power programmes. With potential sources of energy spread across the region, **institutional models of power generation and distribution need a regional perspective** (Gebretsadik et al. 2014).

- **Deepening regional industrialization through construction:** It is estimated that the average economic growth rate for African countries will be 6 per cent a year between 2010 and 2040 (CIDB 2015). Continuing growth and prosperity will boost the demand for infrastructure and construction services, creating substantial opportunities for local construction firms, which have notable competitive advantages in providing basic infrastructure on the African continent. The main contracting services being exported by domestic firms are transportation (i.e. roads, bridges), general building (i.e. malls, hotels, and housing), and other services (i.e. water, waste, and sewage). **This opportunity can be leveraged to deepen regional industrialization as well, because a key constraint to regional industrialization remains inadequate infrastructure.** South African lead firms in construction services can subsequently be leveraged to provide the requisite skills, in collaboration with firms in other member states. Many of the challenges facing construction companies in Africa cannot be mitigated by domestic support measures alone. Ways to facilitate the expansion of construction services exports into the continent include **pursuing a common or harmonized procurement framework for SADC; harmonizing of border processes; and enhancing the export promotion schemes run by the dti.**

While the above avenues pertain to nascent opportunities for regional growth and development, the retail and wholesale trade sectors have already significantly expanded into the region. The experiences of the South African companies who have penetrated these markets offer valuable

lessons for a focus on the region by other industries. A report by the Wholesale and Retail SETA and the Cape Peninsula University of Technology found that the main obstacles incurred by South African retailers in the region include **underdeveloped supply chains, logistical challenges (non-uniformity of rules and regulations, especially with regard to transport logistics), a lack of heterogeneity across markets, and protectionist policies and tendencies of other African governments (Dakora et al. 2016).** Some of these challenges can be mitigated by engagement on a political level—particularly with regard to the heterogeneity of regulations. There is scope to engage with regional blocs such as SADC to harmonize certain of these obstacles. However, South Africa would also need to carefully consider how to demonstrate reciprocity in these agreements as the 'protectionist tendencies and policies' of other governments are similarly evident in South Africa's own policies.

7 Quantifying the impact of proposed reforms

We use the National Treasury's South African General Equilibrium (SAGE) model to estimate the economy-wide impact of some of the proposed interventions over time.[20] Computable general equilibrium (CGE) models, such as SAGE, simulate the functioning of a market economy. By incorporating information about the types of commodities and resources that economic actors (such as firms and households) use and supply to the economy, and by incorporating their behaviour in product and factor markets, the model serves as a 'laboratory' for examining how different policies could possibly influence the economy.

While this analysis builds on earlier work, such as Faulkner et al. (2013), the emphasis here is on specific sector reforms. Based on many of the interventions proposed, we construct and model several scenarios to assess the impact of the above policy interventions on the economy. In addition, we construct a scenario that combines all of the identified interventions. For each scenario, the economy-wide impact is considered as the difference between the specific results produced by a scenario and a business-as-usual scenario in which these interventions do not take place. The reforms have been modelled over the short, medium, and long terms, assuming a realistic implementation timeline for the various interventions over a ten-year scenario period. For example, interventions to boost tourism growth by changing the visa regime, can be effected within two years, whereas preferential trade agreements to boost market access for exported goods will take much longer. The core assumptions are that the short-term shocks will take effect after two years, while medium-term shocks take effect after four years, and long-term shocks after seven years.

7.1 Short-term scenarios

The short-term shocks are assumed to come into effect from year two. The interventions identified as executable in the short term include those related to tourism activity, the agricultural sector, and some reforms related to competitiveness and the telecommunications industry.

The impact of **tourism** improvements is likely to be small, given the industry's relatively small share in the economy. Nevertheless, tourism activities are important for supporting labour-intensive growth due to its ability to absorb large numbers of relatively unskilled workers. Reforms such as destination marketing, regulations in tourism activities, and policies that support tourism (such as relaxing visa restrictions and improving safety and security) are expected to boost tourism

[20] Other published research where this model has been used includes Alton et al. (2014) and Cullis et al. (2015).

demand. A review of visa facilitation examples by the World Tourism Organisation and World Travel and Tourism Council (WTTC 2012) finds that the effects of reforms on international arrivals are positive, but the size of the impact can vary widely. Based on these studies, we assume export growth in tourism services (accommodation, catering, and transport) to exceed the baseline scenario by 8–10 percentage points initially, stabilizing to around 5.5 per cent in the long run. Domestic demand for tourism is also expected to be positively affected, with growth exceeding baseline assumptions by 2–4 percentage points initially, before stabilizing at around 1.5 percentage points.

Improved marketing, and effectively leveraging public–private partnerships to boost market access, can gradually raise foreign demand for South African **agricultural exports**. As the agriculture sector gains competitiveness, and as reforms become more entrenched, we assume that efficiency in the agriculture sector will continue through the medium term. The agriculture assumptions are informed by modelling work completed by the Bureau for Food and Agricultural Policy (BFAP) for the agriculture workstream of the CEO's Initiative.[21] This modelling exercise, conducted in partnership with key industry associations in agriculture, contains an assessment of the potential impact of specific trade policy and water interventions on agricultural growth. These and other improvements to agricultural competitiveness materialize gradually over the simulation period. This is modelled through an improvement in export demand and productivity which results in a R6 billion increase in agricultural exports by the end of the 10-year simulation period.

Short-term interventions in the **telecommunications** industry, such as issuing rapid deployment guidelines, releasing spectrum through an auction process, imposing open access conditions, and leveraging the private sector for rolling out broadband would likely reduce the cost of doing business in telecommunications and encourage competition in the sector. An increased supply in broadband through the release of spectrum will reduce prices (see, for example, Katz and Avila 2010; Robb 2017). We assume gradual reductions in the cost of telecommunications over the short term, so that by year 3 the price of telecommunications would be 25 per cent lower than it would have been without the interventions. Further reforms, highlighted above, would also lower the cost of telecommunications, although these are considered to be fully implemented over the medium term. Thus, the additional reforms are modelled in the medium-term reforms below.

If implemented effectively, the above interventions and their associated impact on growth is expected to improve policy certainty and enjoy investor support as the business environment becomes more favourable. Since South Africa is savings constrained, we assume a small improvement in the growth of net foreign inflows of 0.5 percentage points to supplement available funds for investment (see Faulkner et al. 2013 for a similar approach). Without larger inflows of foreign savings, insufficient domestic savings would limit the positive impact of the reforms—this would be because there would be stronger competition for limited investment resources, which would likely prompt an increase in interest rates.

7.2 Medium-term scenarios

The medium-term scenarios are assumed to apply from year 4. We expect the majority of the interventions, outlined below to be implemented in the medium term.

[21] The BFAP sector model is used to estimate the impact of trade and water intervention on agricultural production and export growth. This model has been used to generate an annual baseline since 2004, representing a single possible future scenario for the South African agricultural sector. The BFAP sector model is used to simulate specific scenarios and conduct impact analysis, which are then compared to the baseline. See, for example, BFAP (2017).

Policy effort in the **telecommunications sector** such as reforms to encourage new entrants into the sector by improving ICASA's independence and capacity and improving the ability of new firms to enter by reducing switching costs in finance and telecoms will reduce prices relative to the baseline due to increased competition. However, these are expected to have a less direct and immediate effect on the price of communications. In addition to the 25 per cent decline in prices modelled over the short term, we introduce another gradual decline in prices that starts in year 4 and reaches 25 per cent by year 10.

In addition to prices and competition, telecoms reforms can have meaningful effects on efficiency and capital deepening, and an improvement in skills. Lorenzani and Varga (2014) estimate the impact of these channels when looking at digital structural reforms in European countries. While these additional channels are important to take into account, they do require an improvement in supply of skilled labour. We take some of these additional channels into account as follows:

- The services sector is a major user of telecoms services. Due to the network effects of improved connectivity, the anticipated cost savings and quality improvements to telecoms are expected to promote efficiency in commercial and public services. The scenarios consider small productivity spillovers in services sectors which are the main industrial users of telecoms.[22] This is in line with findings of Fornefeld et al. (2008) and LECG (2009), where improvements in broadband access lead to productivity improvements.

- The interventions are anticipated to increase household access to telecoms services, because they become more affordable. Burger et al. (2015) estimate that poorer households are more sensitive to changes in the price of communications than wealthier households, suggesting that poorer households would respond more strongly to the lower prices compared to wealthier households. We further assume that, as wealthier households' appetite for communication services is largely fulfilled, the lower cost of telecommunications would not raise their demand for the service, but instead free up purchasing power for use elsewhere. We therefore assume that the share of the consumption basket dedicated to communication would rise among poorer households and fall for the richest households.

- Expanded and affordable access to information and educational resources is expected to lead to some improvement in the quality and throughput of secondary- and tertiary-educated labour, but not enough to address the skills constraint. Section 1 identifies a rapid accumulation of skills as a supportive policy priority in addition to the reforms highlighted in this document. This has not been explicitly considered in this modelling and may support a stronger improvement in the estimated impacts.

Regulatory changes that allow better access and competition in rail and port operations, as well as other measures to facilitate regional trade, such as improved border-crossing arrangements and JOCs that expedite the movement of goods and people, are expected to improve the turnaround times for **transport services** and lower their cost. The concentration, inefficiency, and high costs of South Africa's port and rail operations are well documented (see OECD 2008a and Pieterse et al. 2016). The effects of lower costs in network industries in South Africa have been estimated by Faulkner et al. (2013), who find that a 30 per cent decline in the cost of transport, logistics, and communication, coupled with a doubling of foreign investment could raise GDP growth by 1.2

[22] Service industries such as water transport, air transport, insurance, and recreation services are excluded due to a low intensity of telecommunications use.

percentage points and create 620,000 jobs after a decade. We apply a similar scenario, in which we reduce the price of freight transport services by 17 per cent over a decade and include productivity gains in land and water transport and transport services to account for an expected improvement in competition. We further assume small productivity spillovers of between 0.05 and 0.15 percentage points in sectors that use freight transport intensively. These include sectors such as agriculture, certain segments of manufacturing (food, chemicals, and iron and steel) and wholesale trade.

By reducing burdens on the ability to trade across borders, the time and cost savings of freight transportation and logistics are expected to promote production in sectors such as agriculture, steel, and wholesale trade for which freight is a large cost component. Like most CGE studies of trade facilitation, we consider more efficient trade services to lead to lower transaction costs when moving goods across borders (see OECD 2003). We expect the improvements when trading across borders to boost wholesale trade services and agriculture, as long turnaround times at borders have inhibited their efficiency and competitiveness (see Vilakazi and Paelo 2017).

Access and affordability of public transport is a constraint to the labour market in South Africa, affecting unskilled labour and the ability to access opportunities in the formal labour market (Kerr 2015).[23] Efforts to improve the operation of public transport, particularly taxis and trains, are expected to boost the performance of and reduce costs in the informal sector. We assume an improvement in informal sector productivity of 0.6 percentage points above the baseline. We assume a large supply of unskilled labour, so while improved public transport is expected to increase that further, we also assume improved public transport to slightly ease the 'spatial compensation' cost.

South Africa has comparably high mark-ups, and reducing these can have strong impacts for growth, productivity, and employment (Edwards and van de Winkel 2005; Fedderke et al. 2007). Faulkner and Makrelov (2009), Faulkner et al. (2013), and the World Bank (2018b) estimate that reducing mark-ups has significant macro and micro economic effects. These studies estimate that reducing the size of the mark-ups could raise GDP growth by between 1.2 and 1.8 percentage points.

Lowering **barriers to entry** and promoting small business growth are considered to be key reforms that are necessary in order to address distorted patterns of ownership.

- Regulatory provisions that address anti-competitive practices are expected to reduce mark-ups, which tend to be higher in services sectors and sectors that do not face significant competition from the rest of the world (Edwards and van de Winkel 2005). Lower mark-ups reduce the purchasing price of various goods and services, which provides value to consumers, although at the expense of lower profitability of anti-competitive industries. Lower mark-ups in services sectors are expected to boost the productivity of various services, because the lower barriers to entry promote the entry of new firms. In both World Bank (2018b) and Faulkner et al. (2013), increased competition is modelled through a progressive halving of the mark-up, which leads to improved productivity and lower prices. We assume productivity gains of around 0.1 percentage points in the following activities: retail and motor trade, transport services, rental services, R&D, business

[23] For international evidence, see Moreno-Monroy (2016), who find that improved functioning of public transport can increase access to formal employment.

services, and health services. The productivity gains encourage increased supply and lower market prices of these services.

- Addressing exclusive leases, lowering switching costs, and reducing red tape are further expected to lower the cost of starting and operating businesses. We assume that, after 10 years, the cost of real estate services is 22 per cent lower than the baseline scenario, and the cost of financial intermediation and insurance is around 7 per cent lower than the baseline scenario.

- Improving access to development finance is expected to encourage business development, especially in services, which is more labour intensive. This is expected to boost the demand for labour. New business development in services is expected to raise demand for skilled labour and lead to acceleration in the growth of skilled workers. We assume growth in secondary-educated labour supply rises from 1.7 per cent per year to 1.88 per cent per year between years 4 and 10. Among tertiary-educated workers, we expect labour supply growth to rise from 1.7 per cent per year to 1.94 per cent per year. If the demand for skilled workers is not matched by the supply, the skill labour premium will increase and the positive impacts from the reform will be smaller.

The **agriculture sector** is identified as a potential source of labour-intensive growth. Measures for improving productivity by smallholder farmers, such as access to finance and insurance, contract farming, extension services, and access to export markets, are expected to improve the efficiency of small-scale farmers. The continued trade promotion and arrangements for better market access are set to continue encouraging agricultural exports. We assume the reforms to raise agricultural productivity by 0.2 percentage points above its long-term average and efforts to boost market access to raise export demand by between 2 and 5 percentage points.

As highlighted in the short-term scenarios, effective implementation of the interventions is expected to boost investor support, leading to larger net foreign inflows and an easing of the domestic savings constraint. We consider the interventions over the medium term to have a stronger and more favourable impact on the business environment than those over the short term. Therefore, we assume the interventions will raise the pace of foreign savings growth by 1.3 percentage points compared with the baseline scenario, compared with 0.5 percentage points for short-term interventions.

7.3 Long-term scenarios

The identified long-term scenarios are anticipated to commence from year 7 and include trade promotion for **agriculture**, renegotiating bilateral **trade** agreements, and improving quality and access to infrastructure.

The proposals also outline the need for greater participation in regional and global value chains. In the medium term, **regional opportunities** are set to be prioritized, and South Africa is expected to meet market requirements. A focus on responding to regional growth opportunities implies that interventions may be targeted at export products for which the rest of Africa is South Africa's main export destination. These are expected to translate into stronger export growth over the long term.

We assume the increase in agriculture supply and competitiveness to be met with an increase in export demand for agriculture of around 20 per cent by year 10, compared with the baseline scenario. The 20 per cent increase is informed by case studies such as Copenhagen Economics (2016), who consider observed changes in exports between the EU and Korea, Mexico, and

Switzerland, and Bureau and Jean (2013), who estimate that bilateral exports can increase by an average of 18 per cent if a preferential margin of 5–10 per cent is achieved.

Stronger export growth and efforts to improve agriculture development and other exports are expected to yield slightly faster overall growth. We expect this to cause an increase in foreign investment, but this is expected to be marginal. We apply a gradual, 0.5 percentage point improvement in the long-term growth of foreign savings (Faulkner et al. 2013).

7.4 Other considerations

The scenarios above are limited in that they consider the anticipated effect of reforms. In the Introduction, we mentioned several fundamental policy priorities, from improving educational outcomes to addressing the skills constraint through high-skilled immigration, that are critical to enable the sustainable development of the South African economy. These policy priorities, while not explicitly modelled here, can help to support the achievement of the reforms and boost growth and employment in their own right. Recent work by the World Bank (2018b) seeks to model some of these reforms and consider their impact on growth.[24] Similarly, the work of Faulkner et al. (2013) contains some assumptions, such as a higher growth elasticity of employment and an explicit behavioural change that raises savings, that are not explicitly considered here, but could further growth and employment. These priorities, while not modelled here, can therefore lead to greater increases to potential growth if executed along with the reforms presented here.

7.5 Scenario results

The estimated impact on real GDP and its components together with the potential number of jobs created after a decade under each scenario are presented in Table 1. The results suggest that growth starts to ramp up in the short-term scenario as these interventions lay the foundation on which the rest of the reforms build. Stronger growth in GDP and job creation is seen over the medium-term period, when most of the interventions take effect.

[24] For example, the World Bank (2018b) simulates the impact of accelerated skills migration by assuming that an additional 150,000 skilled workers join the labour force between 2018 and 2030, resulting in an increase of 5.8 per cent in the supply of skilled labour by 2030. In their model, relaxing the skills constraint is estimated to increase GDP by 2 per cent in 2030 compared with the baseline scenario.

Table 1: Estimated impact on expenditure components of GDP growth

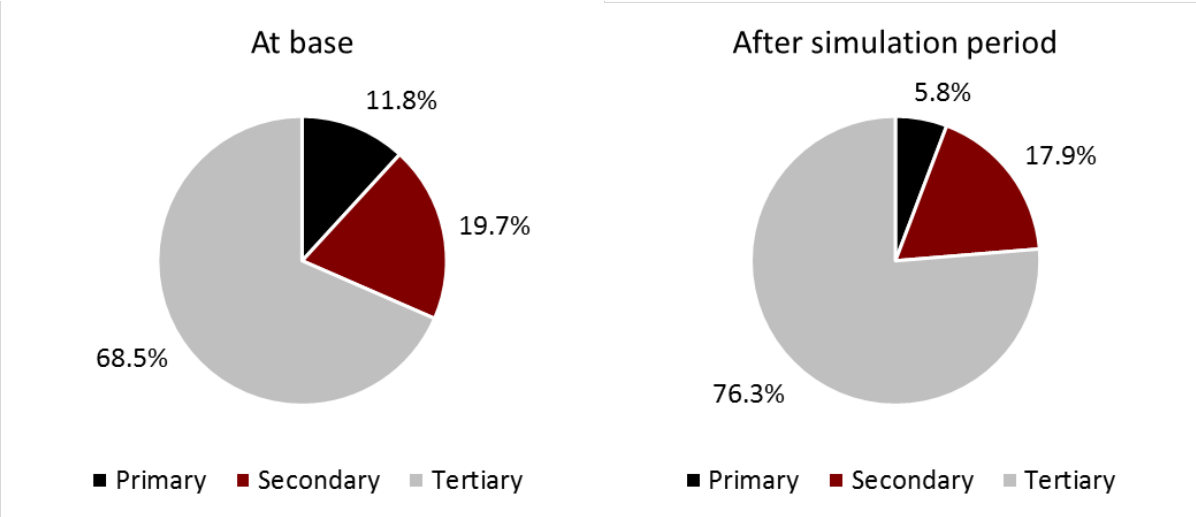
	Additional growth in expenditure components (% points)		
	Short term (average over years 1–3)	Medium term (average over years 1–6)	Combined long term (average over years 1–10)
Absorption	0.8	1.8	2.4
Private consumption	*1.0*	*2.2*	*2.9*
Fixed investment	*0.7*	*1.7*	*2.2*
Government consumption	*0.5*	*0.7*	*0.9*
Exports	0.8	0.9	1.6
Imports	0.8	0.9	1.8
Gross domestic product at market prices	**0.8**	**1.8**	**2.3**
Additional employment ('000, after 10 years)	**142**	**929**	**1,011**

Source: Based on estimates from the Modelling and Forecasting Unit's SAGE model.

In the combined long-run scenario, we estimate that the policy interventions could raise average GDP growth by 2.3 percentage points over ten years and create just over one million jobs compared with a scenario without the policy interventions. However, these outcomes could potentially be much higher if the other structural reforms not modelled here, such as addressing the skills constraints through immigration policy, are taken into account.

The expected change in the structural composition of the economy is displayed in Figure 1. It shows a bias heavily in favour of the services sector. The services sector currently makes up about two-thirds of the economy. Given the strong growth expected in network industries and business services, the contribution of the services sector to the economy is estimated to rise to 76 per cent. This comes at the expense of the primary sector, whose contribution is expected to fall from 12 per cent to 6 per cent, and the secondary sector, where the share of total value added is expected to decline from 20 per cent to 18 per cent. This is because the majority of the proposed interventions are directly aimed at interventions to network industries and service enterprises.

Figure 1: Structural composition of the economy, combined long-term scenario



Source: Based on estimates from the Modelling and Forecasting Unit's SAGE model.

The estimated impact on sectoral GVA is presented in Table 2. The results indicate that transport and communication services and financial and business services industries show the strongest growth.

Table 2: Estimated impact on sectoral output, by scenario

↓ Sector / Scenario →	Deviation in growth of real value added (% points, average over 10 years)		
	Short term	Medium term	Combined long term
Agriculture, forestry, and fishing	3.8	5.0	5.0
Mining and quarrying	-4.0	-4.9	-5.0
Manufacturing	3.9	4.1	4.0
Electricity, gas, and water	1.8	2.7	2.8
Construction	4.3	5.7	6.0
Trade, catering, and accommodation	4.3	5.2	5.3
Transport, storage, and communication	5.6	8.0	9.7
Finance, insurance, real estate, and business services	5.0	8.3	8.4
Community, social, and personal services	2.7	3.4	3.6

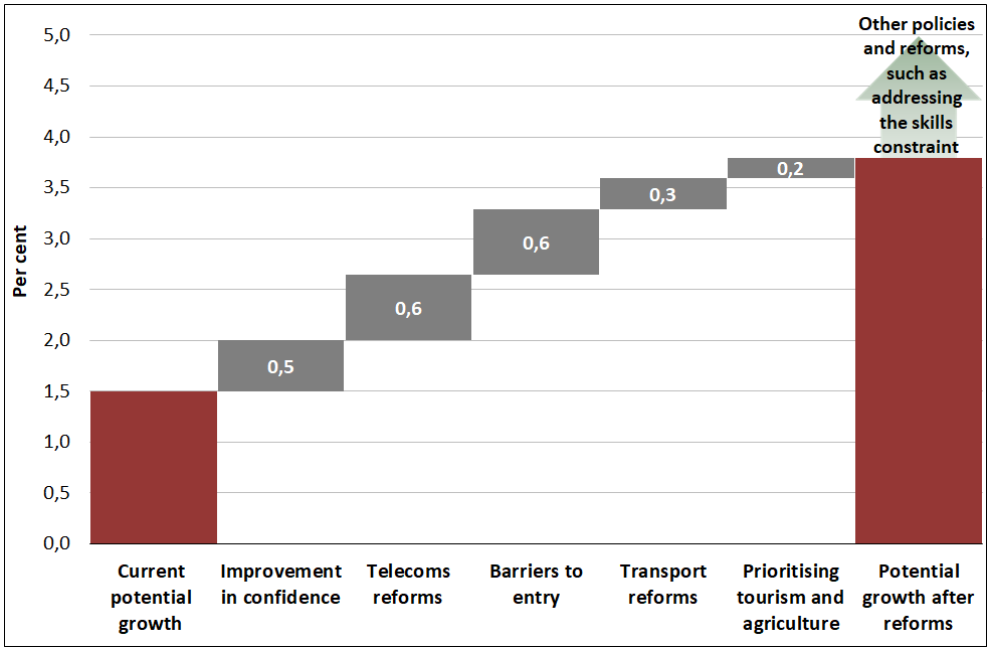
Source: Based on estimates from the Modelling and Forecasting Unit's SAGE model.

Table 2 illustrates some of the trade-offs that lead to the shift in the structural composition of the economy. The telecommunications and transport interventions benefit the tertiary sector relatively strongly. Similarly, initiatives to encourage business development are expected to improve the performance of the business services sector. In the presence of scarce resources, there will be a reallocation of capital and labour. This again highlights that the positive and broad-based impact

of these reforms on the economy is highly dependent on the implementation of complementary reforms, such as addressing the skill constraint in the economy and increasing the level of savings.

The results confirm that the reforms are likely to provide additional support to the economy, adding an estimated 2.3 percentage points to baseline growth over the next ten years, while creating over one million jobs. However, as before, scarce resources such as skilled labour, capital, and investment would likely see a change in the structural composition of the economy away from the primary sector and towards the service sector.

Figure 2: Estimated impact of reforms on potential growth



Source: Based on estimates from the Modelling and Forecasting Unit's SAGE model.

The estimated impact of the reforms over time also shows the significance of the interventions in the short, medium, and long terms. Although the impacts of the interventions in the short term are likely to be smaller relative to the medium-term interventions, they lay the foundation for making the successful implementation of other reforms a success. Figure 2 illustrates that the proposed interventions could boost the potential growth rate by 2–3 percentage points over a ten-year period.

Figure 2 considers only the reforms highlighted in this document. However, as indicated earlier, other policies and reforms not explicitly considered here could further raise potential growth. These additional priorities, such as education and labour market interventions, and measures to reduce the savings constraint can work to raise the impact on potential growth further and facilitate the achievement of the reforms themselves.

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