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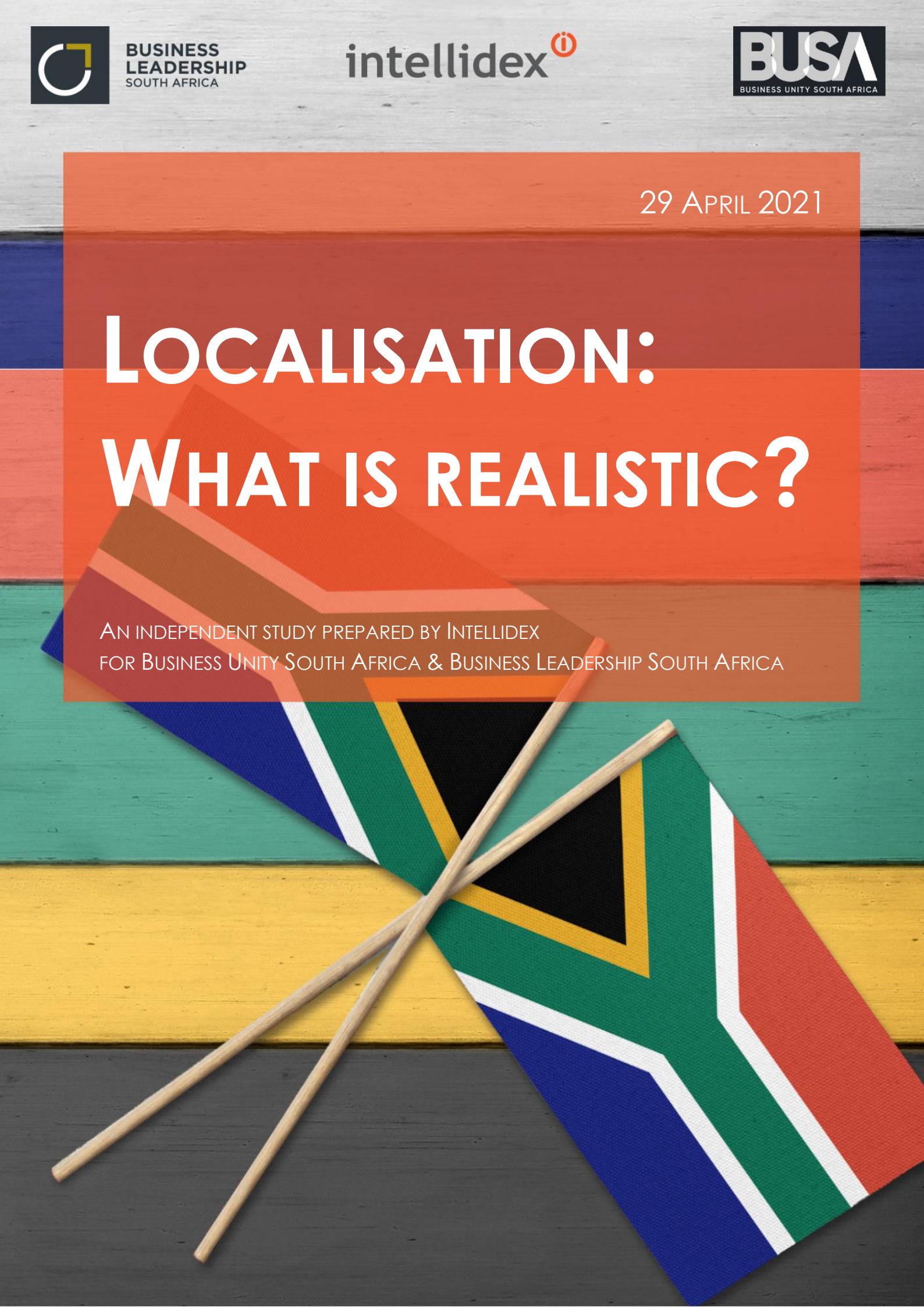
intellidexⁱ



29 APRIL 2021

LOCALISATION: WHAT IS REALISTIC?

AN INDEPENDENT STUDY PREPARED BY INTELLIDEX
FOR BUSINESS UNITY SOUTH AFRICA & BUSINESS LEADERSHIP SOUTH AFRICA



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BLSA is an independent association whose members include the leaders of some of South Africa's biggest and most well-known businesses. Through this forum, South Africa's business leaders engage key players in South African society, including government, civil society and labour, to exchange ideas in our national interest and to create effective dialogue. Business Leadership South Africa (BLSA) is the organisation through which members not only express this belief but take action to create a more prosperous and inclusive South Africa.

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Forward

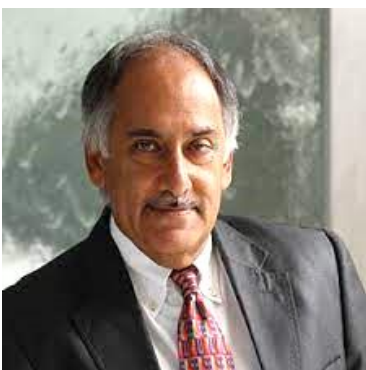
The study on localisation undertaken by Intellidex for Business Unity SA (BUSA) and Business Leadership SA (BLSA) is very opportune and serves as a touch point in the ongoing engagements on promoting local manufacturing in SA. BUSA has been engaging the Minister of Trade, Industry and Competition on this issue and we have identified localisation as a critical deliverable in the Economic Recovery Action Plan (ERAP). We have identified CEOs as “champions” who will promote localisation in specific product categories and we have also agreed to an indicative target of 20% import substitution of non-petroleum goods in the next five years. We are committed to working with government and other social partners to enable localisation but are cognisant of the environment that is essential for progress.

This study confirms our view that successful and sustainable localisation is dependent on a number of factors, many of which are not yet in place. The study undertook a literature review, looked at evidence from other countries, undertook a quantitative study on import, manufacturing and capacity data and surveyed 125 firms across sectors.

All findings confirm that appropriate conditions must be put into place as we consider increasing localisation in SA. These include an appropriate policy environment, necessary capacity to ensure quality and increasing SA's competitiveness. We must also ensure localisation efforts create jobs and do not lead to increased prices in commodities manufactured locally. The localisation initiative cannot be considered in isolation of the broader imperative of fundamental economic reforms that attract investment and enhance growth.

BUSA has been representing the business sector in engagements with government and other social partners on an economic growth strategy. We were instrumental, under the B4SA umbrella, in developing a post-Covid Economic Recovery Strategy, in which localisation is an element, but within the context of a fundamental re-positioning of the South African economy. We remain committed to working with all social partners to attract investment and put the country onto a sustainable economic growth path. Localisation is certainly an element of this but must be considered in the context of critical reforms for investment and growth.

This study also provides important data and analysis of one element of our economic growth trajectory. We believe the study is a critical instrument to contextualise our localisation efforts and ensure these are informed by empirical data, so that we progress in a manner that ensures localisation is sustainable and creates employment, increases competitiveness and produces quality product at competitiveness prices.



Cas Coovadia
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Executive Summary

Localisation has been highlighted by the government as a key policy aim during the recovery of the economy from the Covid-19 crisis. Organised business in Nedlac has been asked to substitute 20% of non-petroleum goods imports for domestically produced goods as soon as possible.

This study assesses whether such a target is realistic through three parts. First, we conduct a literature review, placing such a policy aim within the context of South Africa's own history of industrial policy and with evidence from other countries. Second, a quantitative study looks at how the import, manufacturing and capacity data can give us insights on such a target and whether it is possible to reach it. Third, we survey 125 firms across sectors to understand views on localisation and how fast they believe they can localise, what the constraints are and a range of related matters.

Broadly we draw the conclusion that localisation targets could well be achievable over the medium term but that the right conditions do not exist in most sectors. It will take time and investment to achieve the levels of onshore capacity, quality and appropriate price points – a timeline that cannot be forced through central dictate. It could, however, be encouraged with policy certainty, clear demand pipelines and a competitive export orientation.

Businesses seem positive and optimistic on the future potential for localisation from our survey but comes from a place of deep scepticism about government's understanding of business as well as pessimism about existing localisation policies. We found strong majorities for the future optimism and existing scepticism in our survey. Companies surveyed highlighted the price risk on pushing on with localisation without capacity – prices could rise by around 20% if such a move is undertaken too fast.

Our literature review highlights the fact that while there were certainly successes (such as domestic vehicle production), these were costly. Industrial policy had also failed to ensure export share competitiveness or healthy levels of FDI while failing to avert high levels of unemployment. The REIPPP programme showed how demand certainty can start to build local capacity. Conversely, it also reflected the negatives as demand certainty fell away in 2014, resulting in capacity shrinkage. This will be a key test industry going forwards with state mandated localisation targets that may push beyond capacity.

Our quantitative study shows that under the right conditions, meeting localisation targets within the next five years is possible for a number of key manufacturing sectors including paper, wood, motor vehicles, ceramic products, glass, basic iron and steel, and food and beverages. Still, this is likely longer than government is envisioning. Other manufacturing sectors are highly unlikely to meet localisation targets without significant policy support and macroeconomic tailwinds. These sectors include printing and publishing, textiles, clothing, footwear, rubber and machinery and electronic equipment.

In our survey, goods-producing companies thought they could undertake substitution of 12.6% of imports “right away” under the right conditions – but also highlighted that prices could rise by around 20% by pushing localisation now before the right conditions were in place. Companies labelled capacity and government policies as the key impediments. They also expressed concern at the amount government understood about capacity and industry and the challenges they faced.

The arc of policies shows how government is steadily moving further down the path of local content and intertwining it more with B-BBEE and supplier development. Government should be cautious about pushing too fast but rather lay the breadcrumbs that create certainty and demand in a faster growing economy. Business should also be cautious about over-committing where capacity is not available and lay out research and facts on capacity and realistic expansion paths.

Overall, we found that the 20% substitution target, in the short to medium term, is most likely not realistic – taking the evidence from the three chapters in this report. However, these targets could well be realistic over the longer term with broader reforms in place that stimulate domestic demand and competitiveness.

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Glossary

AfCFTA	African Continental Free Trade Area
AIA	Automotive Investment Allowance
APDP	Automotive Production and Development Programme
B-BBEE	Broad-based Black Economic Empowerment
BEE	Black Economic Empowerment
CTCIP	Clothing Textiles Competitiveness Improvement programme
CTCP	Clothing & Textile Competitiveness Programme
DIP	Defence Industrial Participation
DoD	Department of Defence
DTI	Department of Trade and Industry
DTIC	Department of Trade, Industry and Competition
EIP	Enterprise Investment Programme
FIT	Feed-in Tariff
IIO	Investment and Infrastructure Office
IPP	Independent Power Producer
IPAP	Industrial Policy Action Plan
IPP	Independent Power Producer
INES	Integrated National Export Strategy
MIDP	Motor Industry Development Plan
NIPP	National Industrial Participation Programme
NIPF	National Industrial Policy Framework
OEM	Original Equipment Manufacturer
PBO	The Parliamentary Budget Office
PPPFA	Preferential Procurement Policy Framework Act
REIPPPP	Renewable Energy Independent Power Producer Procurement Programme
R-CTFL	Retail-Clothing, Textile, Footwear & Leather
TCIDP	Textile and Clothing Industry Development Programme
VALA	Volume Assembly Localisation Allowance
WTO	World Trade Organisation

Introduction

Localisation is the topic of the moment in industrial policy in South Africa. Indeed, the issue got 15 mentions in February's state-of-the-nation address from President Cyril Ramaphosa.

Is "maximum local content" the best policy aim, however? Is localisation an unalloyed good?

Notionally, everyone's knee-jerk reaction is that more local content is always positive. However, such an idea needs to be balanced against the competing priorities of capacity, cost and quality. All these factors can sometimes pull in opposite directions.

The goal of business in an inclusive economy should be to maximise "development" in the broadest sense which means, in the South African context in particular, to maximise jobs growth. This implies low-cost, high-quality inputs and working at parts of the value chain that are particularly suited to the marginal member of the labour force in order to reduce unemployment. This may well also be a point in the value chain that coincided with maximal local content, but not by definition.

These questions have been crystalised by a request at the end of 2020 from DTIC Minister Ebrahim Patel to organised business in Nedlac to target 20% of non-petroleum imports to be substituted for locally produced goods. No firm timeframe has been set but the indication has been given that this should happen in short order.

What does such a target mean though in reality? Is it possible? Is it credible? Is it realistic?

It is unclear that there is anything behind the choice of this target from a research perspective or of evidence-based policy in the DTIC's thought processes on the issue – that we have found at least. Indeed, as part of this research, the feedback from business was that companies thought it was not clear that government understood the challenges involved in localisation at all.

The issue is also very topical, as a "chicken and egg" problem of demand versus (currently very limited) local supply in the REIPPP programme is playing out in the months ahead.

The appropriate setting of localisation policy is crucial – too loose and status quo thinking cannot be changed; too tight and price and quality outcomes can be eroded, there will be delays to projects as capacity has to be built and ultimately the consumer pays more and corporate profitability (and tax take) falls.

To answer the question of how realistic this target is of 20% of non-petroleum imports to be substituted, we lay out three spheres of evidence in three chapters in this report.

First, we look at a literature review of existing localisation programmes and place them in the context of such policy in recent times. We also then look at examples of what has gone right and wrong from other countries and lessons for South Africa.

Second, we look at a quantitative study – what the data tell us about the historic growth rates of sectors; their current capacity to produce more; and how long it might take to substitute 20% of imports.

Finally, we undertake a survey of 125 companies across all sectors of the economy and ask them a range of questions about their import intensity, their opinions on the potential to import substitute, the impact on prices and what is holding them back.

Throughout the three sections the same themes keep coming up: potential for further substitution; a readiness for business to support such a programme under the right circumstances; but also the lack of the right underlying conditions for meaningful substitution to occur.

The lessons in this report should be important for contextualising the localisation debate and policy push within Nedlac and the South African political economy – so business can constructively engage with these topics to maximise localisation without hitting up against these buffers where adverse consequences might result.

There is a substantial amount of further work to be done though. This, we believe is one of the very few “macro” level studies of localisation in South Africa that is cross-sectoral and takes a holistic, multipronged approach. Further work on sector-specifics but also cross-sector and whole-economy studies would enrich the debate further – to look in more detail at issues that we start to delve into here such as price elasticity, quantifying the impacts of constraints on more localisation, etc.

This report should then be a point of departure for introspection by social partners, sector business organisations and others as South Africa finds this optimal point for localisation that is evidence-based and outlines the consequences.

Recommendations

Several key issues come out from the three sections in this study that can act as recommendations on the path forward for localisation.

- There is a great degree of business good will on maximising sustainable localisation but, equally, there is scepticism on current localisation policy. Both organised business and government (and labour) can harness this but there must be transparency and credibility to take individual businesses along the journey. This good will should not be taken for granted.
- Localisation should not be a fundamental policy goal – it should be a second order policy aim only where there is analysis that imported cheaper, quality goods do not create a more positive jobs outcome considering all upstream and downstream impacts. An honest conversation should be had between all parties on the price increases that are acceptable and the trade off between prices, quality and jobs that may often exist (but not always). Jobs growth should be the fundamental policy aim from a whole economy (general equilibrium) perspective.

- One-size-fits-all commitments to localisation targets should not be accepted. They are likely to see large companies with investment and supply chain development capacity make commitments that are large individually but small in the scale of the economy. Instead, focus should be on widespread deepening of supply chain options for all companies of all sizes – but particularly SMMEs, because they can move the dial on a macro level more effectively.
- Government needs to offer up clearer roadmaps for the foundations for sustainable localisation, in particular for skills education, reliable electricity, interconnectedness of export markets, skills immigration and cutting red tape (to allow faster local licensing of OEM components and setting up of new businesses to produce onshore).
- Government should take a risk-averse stance on localisation requirements where they may slow down or impede necessary rapid investment – in particular in energy.
- The old canard of “policy predictability” in this context is important for developing demand pipelines. But more than that it also means that the endpoint is clear and sequenced and the trade-offs are well understood by all. Businesses seem to have no problem understanding what government wants at a high level but are sceptical that there is an understanding of the consequences. Business should be clear with government on the risks of a host of policy changes to a steady, sustainable shift down a localisation path – especially after the experiences of REIPPP.
- There needs to be a transparent and public exposition by business and government on what local capacity currently is. This is a key item for future work. While this study was a high-level, top down, cross-sectoral view, individual business associations need to provide more insights to DTIC and the public on capacity constraints and the processes and timelines to establish cost competitive capacity. DTIC needs to be more open about what it does and does not know on capacity issues (a topic that has become especially apparent regarding localisation for energy procurement).
- Individual businesses and sectoral associations, coordinated through BUSA, should publish clear pathways to sustainable localisation, showing the skills required, investment needed, blockages in place (regulatory, credit, demand, quality) and realistic timelines to achieve this. The needs of SMMEs here should not be forgotten.
- Localisation should be viewed as a step-by-step process that works its way from the assembly of offshore-produced components, then to local licensing for OEMs and through to pure local content production. A greater understanding of this pathway should be communicated in DTIC policies. The role of SMMEs in each step of this chain should be considered.
- DTIC, as a key early win on the path to sustainable localisation, should set up a unit within InvestSA that works with the Investment Envoys and Investment and Infrastructure Office (IIO) in the Presidency to map and target onshore licensing of production of OEM components and assembly of larger goods.

Chapter 1: Literature Review

Summary

The need for localisation in global politics of increasing isolation and nationalism

South Africa's democratic era began when the tenets of the Washington Consensus were at their most popular. Although South Africa did not fully embrace the ideas of small government and free trade, it did liberalise its trade and removed most of the barriers it had erected around its domestic industries.

In hindsight, this rush to participate in the global economy left many parts of the South African economy – particularly the manufacturing sector – exposed to competition from countries that were fully integrated into global supply chains. Some of these countries maintained high levels of protection for their domestic manufacturers, granting them extra advantages.

South Africa's industrial policy framework was piecemeal and often aimed at preserving existing jobs and industries rather than promoting new, export-facing ones. Competing priorities, particularly the drive to include black South Africans who had been excluded from the formal economy for decades, led to confusion and poorer outcomes in employment and industry growth. A lack of commitment and professionalism in many areas of government also reduced the effectiveness of industrial programmes.

The Washington Consensus has since fallen out of favour in the face of Latin America's string of crises and the success of protectionist measures in China and other southeast Asian economies.

The events of the past decade have further cooled the ardour of many countries for trade and industrial liberalisation: the aftermath of the global financial crisis and the deindustrialisation of the United States have reduced the appetite for free trade deals and greater integration of global supply chains.

In the last five years, Brexit and an increasingly isolationist United States have led to more nationalism in industrialised and developing countries alike. The effects of Covid-19 on international trade have exacerbated the view of globalisation and trade as a zero-sum game and increased the desire by many countries for more self-sufficiency and less integration.

South Africa is not immune to these global trends and the need to develop domestic industry is as great as it has been since the apartheid years of enforced isolation.

Localisation and industrial policy since 1994

Initially, localisation was not central to democratic South Africa's industrial policy. Following decades of apartheid isolation and underinvestment, the new government's priority was to signal the country's openness to international trade and investment.

Figure 1: Wordcloud of the vision for industrial policy from 1994



Source: DTIC, Intellidex

Industrial policy in the 1990s focused on reducing trade barriers and promoting exports. South Africa joined the World Trade Organisation (WTO) in 1995, reduced import tariffs, and pursued free trade agreements with a number of countries and blocs. In retrospect, the quick, sharp exposure to international competition placed much pressure on long-protected manufacturing sectors.

The first sector-specific policies (the MIDP in 1995 and the NIPP in 1997) were targeted at increasing domestic production, creating jobs and increasing exports. More universal policies followed prescribing rules and guidelines for economic growth and transformation of the economy (the PPPFA in 2002 and B-BBEE in 2007). The annual IPAP was also introduced in 2007. In 2011 the REIPPPP was launched.

All of these policies, programmes and laws have been updated and amended since their inception. They have enjoyed some success but have not fully lived up to expectations or achieved all their targets: jobs have been saved and even grown in certain targeted sectors but manufacturing output has stagnated over the past 15 years and employment has fallen since the 1990s.

The REIPPPP is arguably the most successful industrial policy of the democratic era and there are many aspects of its design and implementation that should be included in other localisation programmes.

Past industrial policy has cost the fiscus hundreds of billions of rands, and criticism of policy design and efficacy has grown, not just from foreign

partners and domestic producers but also within government departments. The new round of industrial policy has refocused on domestic production, developing local supply chains and creating new black industrialists and producers. However, employment and output have fallen compared with the 2018 baseline numbers that have been used for the new industry masterplan targets.

History of industrial policy and localisation in South Africa

For most of the twentieth century the South African economy was insular and inward-looking. The path dependency that resulted from mining-led industrialisation meant that manufacturing output was heavily concentrated in the extractive industries and their related supply chains.

The rapid liberalisation of the 1990s and the concentration on trade policy rather than industrial policy led to job losses and increased imports in certain manufacturing sectors, raising the need for localisation policies from 2000 onwards.

The South African manufacturing sector before 1994 and the effects of rapid liberalisation

South Africa's industrial growth in the late nineteenth and early twentieth centuries was driven by the discovery of gold and diamonds. Its industrial and development policies, both before and during formal apartheid, prioritised the social and economic development of white South Africans at the expense of black South Africans.

The rapid growth of the mining sector and a raft of racially discriminatory laws set in motion the path dependence of the South African economy. From the 1920s until the dismantling of apartheid in the 1990s, the economy was heavily influenced by the mining sector and the linkages to it.

Characteristics of the pre-1994 economy included: highly regulated and distorted labour markets; increasing isolation and delinking from the global economy; import substitution; and protected and inefficient manufacturing industries.

South Africa was able to rapidly industrialise on the back of cheap black migrant labour and global demand for its export commodities, particularly gold. Although its inward-looking policies were ultimately unsustainable, they were able to provide rapid development and support for white labour and white-owned businesses for decades.

With the advent of democracy in 1994, South Africa was suddenly reintroduced to the global economy. The shocks of trade liberalisation and open markets, after years of isolation and protection, were felt most keenly in the manufacturing sector. Large parts of it were uncompetitive and unprepared for what was to come. Thousands of jobs were shed in the textiles, clothing and automotive industries.

Localisation and industrial policy from 1994

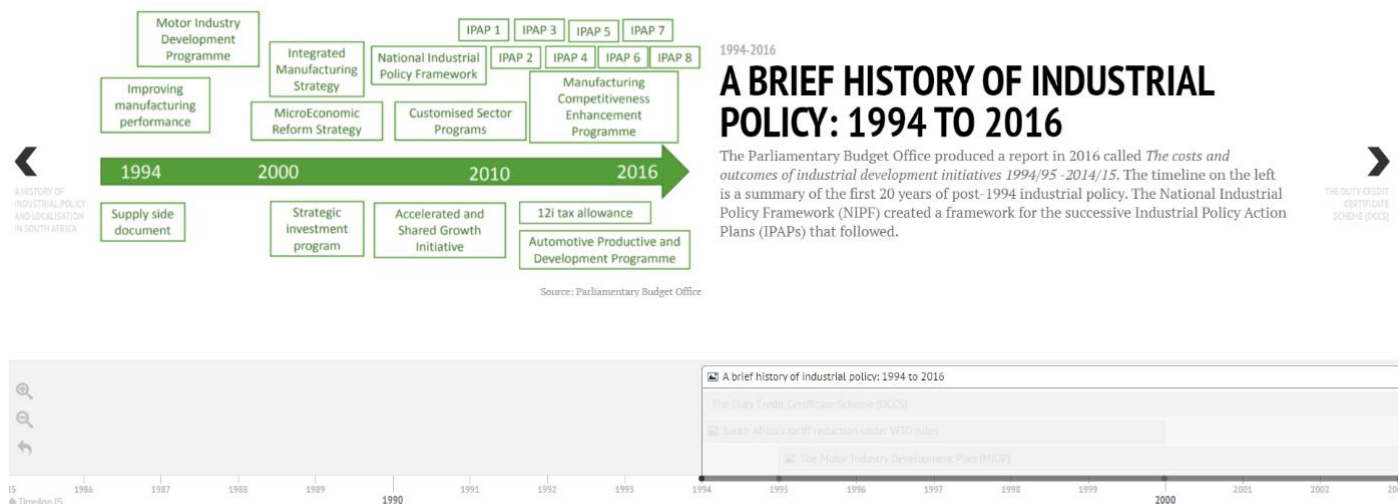
Industrial policy from 1994 to 2018 had numerous objectives, sometimes resulting in policy confusion and inefficiency. There was a strong drive to transform the economy and include all South Africans in its benefits.

The PPPFA and B-BBEE focused on the overall structure of the economy and sought to increase procurement, ownership, enterprise development and employment of previously disadvantaged South Africans, among other things. Sector-specific policies such as the MIDP and TCIDP wanted to increase domestic output and employment through export-led growth.

Policymakers shifted focus from export growth to domestic output and employment retention from 2009 mainly because the previous sectoral policies had not yielded the expected results. Localisation outcomes improved over the next 10 years but at a great cost to the fiscus. The value of domestic output increased but so did imports, while job losses continued in sensitive sectors.

A new round of industrial policy was proposed in 2017 and sectoral masterplans were launched from 2019. Four were created for the manufacturing sector while the poultry masterplan has already been successful in increasing local production while reducing imports.

Figure 2: Industrial policy from 1994 to the present ([Link to interactive timeline](#))



South Africa has been a member of the [World Trade Organisation \(WTO\)](#) since 1995. Certain [regulations](#) stipulated under the WTO are against the use of import substitution and partially restrict the implementation of local content policies. However, there's much legal uncertainty around such regulations and developing countries like South Africa continue to search for policy space to explore local content policies.

With South Africa being party to multilateral trade agreements such as the WTO Agreement, some localisation policies would not be officially allowed.

In 1994 the new government began to establish localisation policies specifically to make the economy more inclusive of previously disadvantaged people. A number of political and social shifts occurred took place including new policies aimed at addressing inequality.

The localisation policies came into fruition in 2002 when the government enacted the [Preferential Procurement Policy Framework Act](#) (PPPFA) to advance enterprises owned by historically disadvantaged people. The goal was to ensure that those who had been discriminated against on the basis of race and gender had an opportunity at fair competition in the economy.

In 2007, the [Broad Based Black Economic Empowerment \(BBBEE\) Act](#) was introduced to redress race-based inequality in business and strive for fair participation in the economy for all. It was designed specifically to focus on the empowerment of black citizens in South Africa. Certain of its aims intersect with the objectives of localisation and the development of domestic industries – preferential procurement, ownership and employment.

The first Industrial Policy Action Plan (IPAP) was introduced in August 2007 as an implementation plan related the principles espoused in the National Industrial Policy Framework (NIPF). The NIPF was introduced by the Department of Trade and Industry (dti).

The initial objectives of the IPAP were to build industrialisation by increasing manufacturing, so bolstering the economy through job creation and diversification of existing trade through active localisation. There was specific focus on ensuring the inclusion of marginalised people, as well as investing in their communities.

The drive to change the structure of the South African economy

The majority black population of the country had been left underdeveloped and impoverished by slavery, colonialism and, finally, apartheid. Tackling these problems was a task for every government department and the focus was on employment, ownership and industrialisation of black South Africans.

At the same time there was a need to make the entire country competitive and fully integrate it into the global economy. The DTI dismantled most of the protective structures that had accreted over many years, reduced import tariffs and removed much of the support to inward-focused and uncompetitive industries.

Government policies and priorities were thus often in conflict with each other and this led to confusion and a lack of focus at times.

The National Industrial Participation Programme (NIPP) and the Defence Industrial Participation (DIP) (1997)

The NIPP was promulgated in 1996 and endorsed by Cabinet in April 1997. Its [objective](#) are to leverage economic benefits and increase investments into the country. In addition, through the establishment of the NIPP, the government demonstrated its commitment to industrial participation by establishing the NIPP to support the development of South African industry.

When the government makes purchases from foreign companies of more than US\$10 million, an NIP obligation is placed on the recipient company to reinvest a portion of the costs in South Africa. All government purchases of imports and contracts with foreign competitors that amount to or exceed [US\\$10 million](#) are also eligible for the NIP obligation. The NIP obligation is calculated as 30% of the imported portion of the purchase contract and

can be fulfilled through local economic activities that have the potential to make a positive impact on developing the local industry.

Before the government concludes and finalises a procurement agreement with a foreign company, the company is required to sign an [obligation agreement](#) with the DTI within a month of signing it. The purpose of the obligation agreement is for both parties, the DTI and the supplier, to agree to the stipulated NIP obligation value and requirements.

The Defence Industrial Participation (DIP) programme complements the NIPP by focusing specifically on the South African defence industry and playing a developmental role in the country's defence industrial base. [Arm Scor managed all DIP activities](#) while all non-military portions under the DIP were managed by the dti.

Contracts with an imported value of between US\$2 million and US\$10 million have a DIP obligation attached to them approximately equivalent to the value of the purchase contract.

Prior to the supplier/potential DIP obligor being awarded the tender, they need to submit a DIP proposal. These proposals are processed through Arm Scor and assessed for their potential benefit against the strategic requirements of the Department of Defence (DoD) and the local industry.

For the agreement to be concluded and the purchase contract to be signed, the DIP proposal must have been assessed based on the extent to which they support the capabilities required in the defence industry. These include providing for a strategic design, development, manufacturing, logistical support and upgrade capability for a technologically advanced and modern defence force.

All proposals are, in addition, evaluated for their potential benefit against the stated [strategic requirements of the DoD and local industry](#). These are formulated based on the strategic needs of the South African National Defence Force (SANDF).

The Preferential Procurement Policy Framework Act (PPPFA)

In 2002 the government enacted the [Preferential Procurement Policy Framework Act](#) (PPPFA) to advance enterprises owned by historically disadvantaged persons. This was to ensure that those who had been discriminated against on the basis of race, gender and class had an opportunity at fair competition in the economy. This would allow for the liberalisation of the country's economy through encouraging the entrance of new and small businesses.

The [PPPFA Regulations were promulgated in 2001](#), stipulating how the Act would be a procurement policy through which preference in awarding contracts would be given to previously disadvantaged persons.

The PPPFA prioritised the protection and/or advancement of women, black people and people with disabilities, with a major emphasis also on small and medium enterprises. The PPPFA would achieve this through prescribing a preference point system to be followed in awarding tenders. The PPPFA was aligned to the policy framework of the B-BBEE Act.

In 2011, the [PPPFA was amended](#) and local content regulations were included. In addition to the Act's empowerment objectives, the PPPFA also

set out Industrialisation objectives under Section 8 of the Act which looked at "local production and content".

Local content regulations in this section include that: (i) The DTI is empowered to [designate specific industries/sectors for local production](#) to meet a specified level of local content; (ii) Organs of state must include local content in their bid invites; (iii) A bid that fails to meet the required local content is unacceptable.

The PPPFA was revised in 2017 to align the 2017 revisions of the Act to the revised B-BBEE Codes of Good Practice. Since the implementation of the revised PPPFA in 2017, the DTI has designated approximately 100 products across different sectors to develop the domestic manufacturing sector.

One of the major consequences of the PPPFA is the impact it had on South Africa's domestic production capacity. Over time, through the PPPFA regulations, the DTIC has increased local content levels as well as the production thresholds for some sectors.

Broad-Based Black Economic Empowerment (B-BBEE)

In 2003, the initial Broad-based Black Economic Empowerment (B-BBEE) Act was introduced. In 2007, the Codes of Good Practice were published. This was a framework for measuring black economic empowerment (BEE) in terms of seven elements: (i) ownership; (ii) management control; (iii) employment equity; (iv) skills development; (v) preferential procurement; (vi) enterprise development; and (vii) socioeconomic development.

In 2007, the B-BBEE Act was introduced to redress race-based inequality in business so as to ensure fair participation in the economy for all. It was designed specifically to focus on the empowerment of black citizens. The enhancement of the economic participation of black people was directly related to the objective of localisation, which is to develop domestic industries to stimulate the economy and increase the country's competitiveness.

The [B-BBEE Act is a government policy](#) that was enacted to remedy the wrongs of the past by prioritising the economic advancement of black people and transforming the economy into a more inclusive one.

The [B-BBEE Act does not promote local procurement directly](#) but its regulations incentivise local procurement. Under the B-BBEE codes for the procurement element, a premium is awarded to procurement from companies that are 50% black-owned and 30% black women-owned.

Sectoral and targeted policies

Automotive sector: Motor Industry Development Plan (MIDP, 1995-2012); and Automotive Production and Development Programme (APDP, 2013-present)

Before 1994, South Africa's automotive industry was characterised by high levels of protection and low export volumes. From 1989 it began to dismantle the protectionism and inward focus of previous decades, exposing the industry to increased international competition. The lower tariffs were coupled with import-export complementation arrangements, providing import rebates to firms that exported a similar value of goods.

The liberalisation of the industry followed a period of stagnant domestic demand in the 1980s, coupled with international isolation and shrinking export markets. From 2002, domestic sales grew strongly on the back of strong economic growth before falling in the wake of the global financial crisis in 2008. Vehicle exports as a percentage of domestic production then grew rapidly, but this was more a function of pedestrian domestic demand and increased competition from imports than as a result of absolute growth in exports.

The [MIDP](#) was established in 1995 with the objective to assist the local automotive industry become internationally competitive over a short time period. In addition, it focused on providing incentives to rationalise production into a smaller range of products and achieve economies of scale.

The implementation of the MIDP focused on reducing tariffs and increasing exports. It was devised to help the industry transform from just vehicle assembly to components production and ultimately full manufacturing.

The MIDP awarded export credits to vehicle and component manufacturers. These credits could offset the import duty, thereby reducing the costs of importing raw materials for the production process.

The APDP was established in 2013 to replace the MIDP. Unlike the MIDP's export-oriented focus, the APDP's prioritised domestic production and localisation of automotive components while simultaneously ensuring incentives were maintained for OEMs to manufacture vehicles in South Africa for export and domestic sales.

Another initiative, the Automotive Investment Allowance (AIA) provided a 20% benefit on the capital costs of the manufacturer's assets. The AIA is payable to vehicle assemblers and automotive component manufacturers which are able to produce 50,000 units per year.

Through both the MIDP and APDP, the automotive sector has received approximately R324.2 billion in 2015/16 in [government support](#) from 1994/95 to 2014/15. Through the APDP, the government also supported the automotive industry by awarding tax rebates. The cost of these rebates rose from R18.4 billion in 2013/14 to more than R28 billion in 2016/17.

Amendments were made to the first APDP which expired at the end of 2020. The new APDP will focus on value addition as it introduces the Volume Assembly Localisation Allowance (VALA) formula. The new APDP will allow vehicle manufacturers to be eligible for additional benefits should they wish to build extra vehicle components for export.

Clothing and textile sector: Textile and Clothing Industry Development Programme (TCIDP, 1995-2009); and Clothing & Textile Competitiveness Programme (CTCP, 2009-2019)

Support for the sector has been ongoing since 1995. The TCIDP was designed to assist clothing exporters but the majority of production in the sector is designated for the domestic market. The programme design was also not compliant with some of the WTO's rules. The CTCP was implemented to replace the TCIDP and correct some of its shortcomings.

The CTCP was in place from 2009 to 2019, with a focus to stabilise the industry and prevent further loss of market share and jobs. It included the following programmes:

- A capital upgrading programme available via the Enterprise Investment Programme (EIP) with preferential loans via the IDC at prime less 5%; and
- A firm and cluster level Clothing Textiles Competitiveness Improvement programme (CTCIP).

The CTCP focused on creating industrial clusters where manufacturers would work together within a single value chain or market sector, with the aim of driving economies of scale and lower input costs.

The CTCP was replaced by the retail-clothing, textile, footwear & leather (R-CTFL) masterplan in November 2019.

The Renewable Energy Independent Power Procurement Programme (REIPPPP)

The [REIPPPP is a public-procurement programme](#) designed and implemented to introduce and then keep increasing the supply of renewable energy. In addition, the programme would play a significant role in combating climate change.

The REIPPPP has gone further than the PPPFA and B-BBEE in its prioritisation of local content and job creation. It has also supported specific manufacturing industries at a far lower cost than other targeted industrial policies.

It has been one of the most successful government programmes in the past decade in terms of management and design, and it has also benefited from very favourable market factors. Its achievements have not been exclusively in the area of localisation, nor is its track record of local procurement unambiguously positive. Still, there are many lessons in its design and execution which can be applied to future localisation programmes.

In 2009, the government explored feed-in tariffs (FITs) for renewable energy, but they were rejected in 2011 in favour of competitive tenders. From its first bid round in August 2011 the REIPPPP has attracted many international and local private project developers and investors. In its second and third bid rounds, the programme experienced consecutive, significant price reductions.

The first three successful bidding rounds were held within three years and were widely successful. New power plants were built and commissioned in

record time under a highly transparent and competitive process. In total, four bid windows have been completed and the fifth is expected in 2021.

The tender scoring process is weighted 70% on price and 30% on other development factors. These factors have changed across different bid windows but are generally analogous to the B-BBEE elements: the emphasis is on job creation, social upliftment, and economic transformation, primarily through broader economic ownership.

However, in contrast to B-BBEE, the REIPPPP emphasises black job creation over black economic empowerment and reclassifies enterprise and socioeconomic development as local community development targets rather than BEE targets. Overall, REIPPPP targets economy-wide jobs, local content benefits and local community development over BEE.

The REIPPPP also revised its local content target thresholds and targets over time.

Localisation and industrial policy for the future: 2020-2035

The Department of Trade, Industry and Competition (DTIC) was formed from the merger of the DTI and the Department of Economic Development in 2019. It has been working on a new industrial policy, including a number of masterplans for critical manufacturing sectors. In February 2021 it presented its [2019/2020 Annual Report](#) and the latest policy plans and targets.

Figure 3: Wordcloud of the new industrial policy master plans



Source: DTIC documents, Intellidex

The **automotive masterplan** was first discussed in 2018 and was due to be launched on 1 January 2021 but has been pushed back by at least six months due to the Covid pandemic. The plan's targets – based on 2018 figures before Covid battered local demand and production– will be even more ambitious than they were two years ago.

The plan will govern the industry from 2021 to 2035. The original targets include a doubling of jobs from 120,000 to 240,000, an increase in vehicle production from 600,000 to 1.4 million units, and an increase in local content from 40% to 60%.

The **poultry masterplan** was signed in November 2019. Its successes since then include:

- An increase in local production of one million chickens since the introduction of a new import tariff on poultry – equal to 5% of the industry's capacity;
- R1.1 billion investment in upgrading and improving facilities;
- 930 new jobs created;

- Imports of poultry decreased by 17% in the first 10 months of 2020

The plan has spurred investment in the rest of the supply chain: soybean and maize production is expected to increase. Agricultural employment has increased with 26 new soybean farmers and 13 new chicken farmers.

The **retail-clothing, textile, footwear & leather (R-CTFL) masterplan** was signed in November 2019 and covers 2020 to 2030. It replaced the Clothing & Textile Competitiveness Programme (CTCP) which ran from 2009 to 2019. It focuses on the value chain from manufacturing to retail sales and includes the retail sector in its programmes and targets. Its targets include:

- Increasing the locally manufactured share of retail sales from under 43% to 65% by 2030;
- Increasing employment from 210,000 to 330,000 (170,000 retail and 160,000 manufacturing);
- Increase local procurement to R66 billion.

The **sugarcane value chain masterplan** was signed in November 2020 and will run until 2030. It includes diversification plans for fuel ethanol.

Literature evidence on localisation

It is difficult to quantify all of the outcomes of industrial policy over the past 25 years. Firm-level figures are difficult to obtain and causal links between policy support and industry outcomes (output, exports, employment) are not always clear.

Support for the automotive and renewable energy sectors has yielded the best results. Job retention and new investment has occurred in the automotive sector, and the renewable energy programme has resulted in rapid expansion of electricity supply at a low cost to the fiscus. Local content targets for renewable energy inputs have been focused and achieved for the most part.

Overall, industrial support has not been cheap and has still not been able to prevent job losses and the growth of imports in targeted sectors. Foreign partners have raised concerns over the compliance burden for some elements of industrial policy, particularly the PPPFA and B-BBEE requirements for ownership and supply chain development.

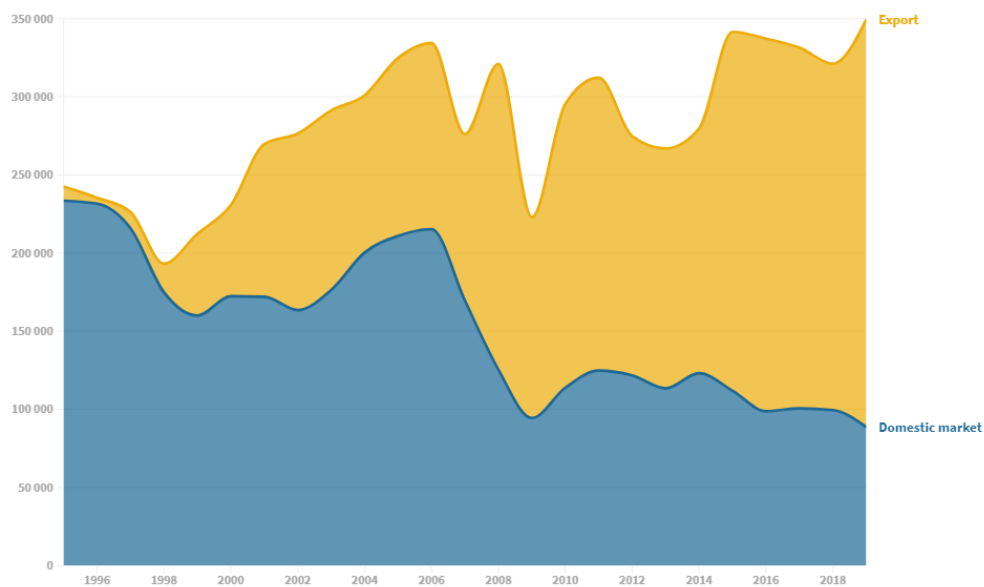
Policy successes

Automotive sector

Following the implementation of the MIDP, automotive exports as a percentage of total SA exports grew significantly from [4% in 1995 to 13.5% in 2005](#). After the extension of the MIDP from 2003 to 2012, the South African automotive industry continued its increase in investment, domestic sales and export growth.

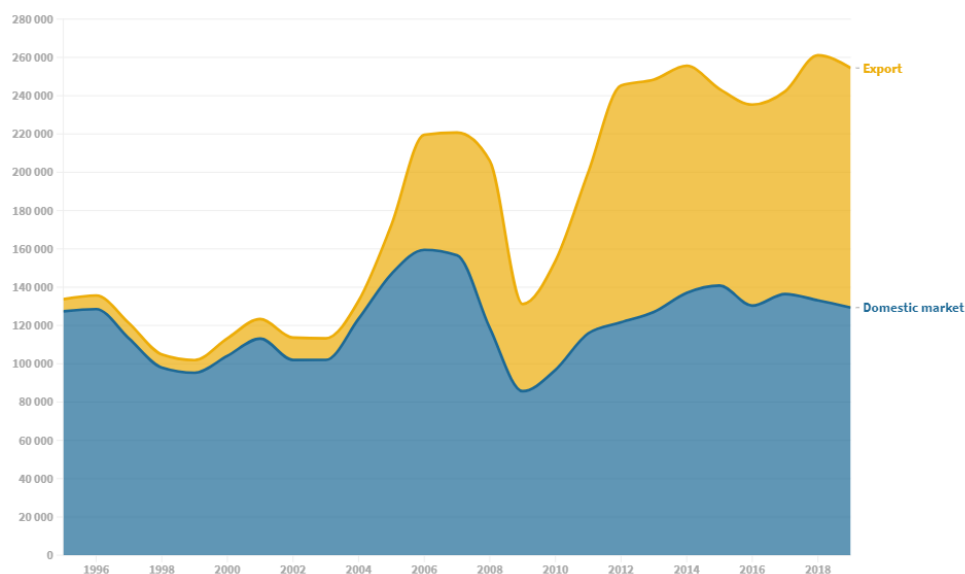
The value of automotive exports grew [96.4%](#) between 2013 and 2019. This growth can be attributed to the implementation of the APDP.

Figure 4: Passenger vehicle production 1995-2019 ([link](#))



Source: Naamsa

Figure 5: Light commercial vehicle (LCV) production 1995-2019 ([link](#))



Source: Naamsa

B-BBEE

B-BBEE has resulted in a significant transfer of ownership of equity to previously disadvantaged South Africans through a number of share schemes. Evidence of successful localisation through local procurement is harder to find.

Revisions to B-BBEE legislation have prioritised ownership and control over job creation and local procurement. There have also been struggles with "fronting", or cosmetic transformation, which does not fundamentally change the underlying composition of the economy.

REIPPPP programme (2011)

From 2011 to 2018, 102 projects were procured with [51](#) already operational by 2016. These are spread across the country, with locations determined by where the resource is most available. There is thus a high concentration of solar power plants in the Northern Cape due to the high levels of sunshine while the majority of wind farms are in the coastal provinces such as the Eastern Cape and Western Cape.

The REIPPPP has achieved great success in stimulating local and foreign investment into the country's energy sector. By the end of 2018, the REIPPPP had secured more than R209.4 billion in committed private sector investment of which approximately R49 billion was from foreign direct investment.

REIPPPP Success Factors

(i) Programme design

The programme design of the REIPPPP enabled it to assist South Africa in [increasing its new generating capacity](#) in a short time period. The REIPPPP was able to have multiple bid winners due to the size and structure of the bidding process. This contributed to the support and engagement that the programme received from the private sector through participation. The potential project profitability that was possible for developers was clearly visible from the tariffs with caps set, which stimulated the initial interest in the programme and attracted larger numbers of bidders in later rounds.

(ii) Political support

Climate change has been a trending global issue that countries all over the world seek to address with great urgency. South Africa's efforts can be seen from the long history of policy statements and the development of strategies to utilise collaborative action between the public and private sectors to explore renewable energy usage. A milestone for the renewable energy agenda was achieved during South Africa's hosting of the Conference of the Parties (COP) to the UNFCCC in 2011 to assess progress in dealing with climate change. It was at this conference that the South African government's [Green Economy Accord](#) was signed with the private sector and other stakeholders.

(iii) Others

Management of the **programme** – there was a dedicated project unit, the IPP Office, established in the Department of Energy which made the facilitation of the programme more effective compared with the limited

attention the programme would have received if managed and automatically facilitated through general government operational policies and procedures.

Access to funding – by the end of 2018, R209.4 billion had been [committed by the private sector into the REIPPPP](#). This meant that the programme was able to remain largely off the formal government's budget for a certain period, which alleviated pressure on fiscal resources. Some of the entities that made up the majority of the investment into the REIPPPP included Old Mutual, Red Cap, Phakwe and Pele Green.

Policy shortcomings and failures

Automotive sector

Although the MIDP brought about a number of positive outcomes, some of the [negative outcomes](#) included the provision of import credits, which drove up imports. Total imports of vehicles and components have increased rapidly since the inception of the MIDP, from R16.4 billion in 1995 to R 136.1 billion in 2012.

The APDP had a stated target of producing [1 million vehicles per annum by 2020](#), which the programme has failed to meet. Domestic production was approximately 640,000 vehicles in 2019 and 608,000 in 2018.

Policy support was successful in increasing the value-add in the sector but did not grow jobs: formal employment fell from 120,000 in 1995 to 90,000 in 2014.

Clothing and textiles sector

Following cumulative growth of about 33% between 2004 and 2010 under the TCIDP, the sector shrank by about 5% over the next four years after the implementation of the CTCIP. Exports did stabilise from 2010 to 2014 but this came after a collapse of 60% in export values from 2001 to 2010.

Employment in the sector fared even worse: 230,000 people were formally employed in clothing and textiles in 1998. This had fallen to 150,000 by 2004. Under the TCIDP, employment fell further to 100,000 by 2010 and 85,000 in 2014.

NIPP and DIP

The 1999 arms deal, known formally as the Strategic Defence Package, has been mired in controversy and accusations of corruption since its inception.

Most of the benefits of the NIPP/DIP were expected to be tied to the arms deal through offsets programmes. These offsets, widely criticised at the time for their design, were supposed to create 65,000 jobs. By 2006 only 13,000 had been created.

The interest payments on the arms deal increased as the rand depreciated sharply. In 2001 these costs were estimated at R23 billion, representing a substantial opportunity cost for the fiscus and for industrial policy.

PPPFA, B-BBEE and REIPPP: criticism from international partners

The EU Chamber of Commerce and Industry in Southern Africa produced a 2020 report entitled: *The impact of local content policies on EU exports and investment, and economic transformation in South Africa*.

The report found that local content requirements increased the costs of production in the renewable sector by about 10%. Protectionism and industry concentration in the iron and steel and plastics sectors meant that imports were often cheaper and of better quality than local suppliers, limiting the options for localisation.

The higher costs associated with the PPPFA and B-BBEE compliance discouraged foreign firms. Rather than investing in local capacity and transferring equity to a domestic partner, many firms chose rather to sell goods and services through a South African agent, raising the price of domestic output.

Costs of industrial support

The Parliamentary Budget Office (PBO) presented a report, *The costs and outcomes of industrial development initiatives 1994/95 -2014/15*, to the Standing Committee on Appropriations in August 2016.

The report summarised the financial costs and outcomes (changes in manufacturing output, exports and employment) of 20 years of industrial policy, focusing on the automotive and clothing/textiles manufacturing sectors.

It found that the cost of programmes “[was] high relative to outcomes” and that these “can be improved through better management or alternate policies or means”.

The report calculated the constant (2015/16) rand value of industrial support using data from National Treasury, Stats SA and Quantec. It found that a total of R477 billion had been dedicated to industrial development. Of this, 71% was in the form of tax expenditure (subsidies, rebates, tax breaks and so on).

The motor vehicles and components sector had received R324 billion (tax expenditure of R316 billion and expenditure of R8 billion). The clothing and textiles sector had received R41 billion (R35 billion in tax expenditure and R6 billion in expenditure).

While both sectors had increased output and sales, employment numbers fell despite the support. The clothing and textiles sector continued to lose ground to imports, whose share of retail sales increased to over 55%.

Lessons for industrial policy

There have been numerous criticisms and explanations for the failures of industrial policy over the past 25 years, particularly the struggles to increase local content.

Some policies have been criticised for being too overarching and general: B-BBEE targets for employment, ownership and procurement have been challenged and adapted by a number of sectors. The high costs of ensuring compliance with the legislation have also been flagged, particularly by foreign firms.

In contrast, some sector-specific policies have been seen as being too focused on certain industries in isolation, ignoring the unintended consequences for other sectors. For example, the prioritisation of the basic iron and steel sector has been criticised for raising the costs of downstream activities in the metal products and other sectors, raising the costs of inputs for these sectors.

Similarly, the clothing and textiles industries sometimes adopted an oppositional stance against each other despite the fact that both industries were included under one sectoral policy. The trade protectionism sought by the textiles industry was criticised by downstream clothing manufacturers for raising their input costs.

The first round (1995-2012) of industrial policy was export-oriented, and some of the policy instruments (eg, MIDP) included offsets in the form of import rebates on imported components. This had a perverse effect on the balance of trade in the automotive sector.

The successful policies (REIPPP and APDP) focused on domestic production and supply chain integration. These two aspects of industrial policy have remained the focus of the latest round of policy.

The successes of the REIPPP and international case studies point to the successful components of industrial policy that should be prioritised in future. These include: clear policy design; coordination and trust between the public and private sectors; ensuring sufficient capacity in public monitoring; and careful design of programmes and incentives.

International case studies

Vietnam

The evolution of Vietnamese industry began with the initiation of [Doi Moi in 1986](#). Doi Moi is a set of economic reforms launched by Vietnam to transition from a centrally-planned economy to a market-orientated one. This meant that the country would limit state interference and state intervention would mostly be at the planning phases of policies.

Free market incentives and regulations launched Vietnam's economic growth and consequently birthed a thriving open economy where private businesses and foreign-owned enterprises were encouraged.

The implementation of the Doi Moi process entailed four main actions: (i) Diversifying the country's economy through developing multiple sectors; (ii) forcing state-owned enterprises to become more self-reliant by removing subsidies; (iii) abolishing price controls; and (iv) encouraging foreign investment.

The initial step taken under the Doi Moi process was the shift from an import-substitution to an export-orientation strategy. Vietnam's development of its domestic industries and the industrial output growth the country experienced came as a result of its export-oriented policy.

The process of liberalisation in Vietnam was accelerated in the 1990s when the country began entering into [trade agreements](#) such as the Textile-Agreement with European Union in 1992, ASEAN Free Trade Agreement in 1995 and the World Trade Organization in 2007.

Vietnam has also entered into bilateral trade agreements with the United States, China, India, Japan and Korea. The outcome of these agreements was the lowering of tariffs on imports to and exports from Vietnam.

Upon transitioning into an open economy, the government prioritised adopting a pro-investor approach by implementing domestic reforms such as enabling Foreign Direct Investment. In 1986, Vietnam established the country's [Law on Foreign Investment](#) which detailed the country's plans to better facilitate foreign investment into the country.

From the 1980s to 1990s, Vietnam's industry was dominated by the production of **steel, cement, electricity, zinc** and **coal**. Thereafter, new industries emerged after the discovery of oil. The [top sub-industries](#) with the highest share in total industrial output between 1991 and 2005 included: (i) **food products**; (ii) **non-metallic mineral products**; (iii) **transport equipment (motor vehicles and trailers)**; (iv) **metal products**; and (v) **chemicals**.

The manufacturing sector in Vietnam has experienced impressive growth for the past three decades as a result of deepened integration over time with other world economies. Focus areas for private businesses in Vietnam have been the following: (i) **processing (garments, leather, food and beverages, wood and paper)**; (ii) **chemicals and metallurgy (rubber, oil refinery, steel-making)**; and (iii) **engineering and consumer goods (electronics, computers, automobiles, furniture, recycling)**.

Vietnam's comparative advantages include:

Low wages: Perhaps Vietnam's biggest advantage is its low cost of labour. In 2010, manufacturing wages in Vietnam were [just two-thirds of those in China](#). Despite pressure from foreign clients and a series of increases in the minimum wage, [working conditions and remuneration in Vietnam are still considered "harsh"](#).

A young and educated workforce: A quarter of Vietnam's population is between 21 and 34 years old, and [half of the workforce is aged between 21 and 39](#). Public basic education has been prioritised by the government: the adult literacy rate is above 98% and [Vietnam placed 12th in the OECD's global education rankings in 2015](#).

Geographic proximity to major global supply chains: Vietnam is next door to major manufacturers in the computing, automotive, and other high-tech sectors. [With pressure on thin margins in these countries](#), Vietnam is an obvious choice for relocation by major manufacturing companies.

Lessons for South Africa

Implement export-orientated strategy

Through the Department of Trade and Industry, South Africa has developed and implemented the Integrated National Export Strategy (INES). INES comes after critical analysis of the SA's export sector in order to identify priority areas for enhanced export performance. Similar to Vietnam, SA developed this strategy as a tool aimed to boost the capacity for value-added goods. In order to achieve the 6% a year export growth target prescribed in the INES by 2030, SA would have to increase domestic manufacturing of exported goods. Unlike Vietnam, SA has not been developing and implementing strategies to reinforce the development of its

manufacturing sector such as developing a model to unlock entrepreneurial opportunities for emerging businesses.

Identify priority manufacturing subsectors and products

The government, through the Department of Trade and Industry, has been successful in identifying focus areas (subsectors and products) where increased local content may be possible. However, the government needs to prioritise rigorous consultations with private businesses in order to extract specific industry growth constraints. Collaborative action, through effective communication, between the private and public sectors in Vietnam ensured compliance and a cohesive effort towards increasing domestic production in targeted sectors.

State-owned entities leading innovation and production in every sector

State-owned entities (SOE) are an avenue for launching economic growth. The Vietnamese government created SOEs for this exact reason, which resulted not only in an economic boost but also an eventual downturn in growth through the stifling of competition in the market. The SA government with its SOEs could similarly boost economic growth by ensuring a presence in viable manufacturing subsectors. A limitation of the number of SOEs in each subsector, along with partial private ownership, would avoid the mistakes seen in Vietnam, ensuring a more sustainable model of growth in changing markets.

Brazil

Brazil pursued industrialisation in the early 1900s. [Between 1930 and 1945](#), Brazil started encouraging import substitution through a policy called '[Import Substitution Industrialisation](#)' (ISI). This policy focused on promoting domestic production of goods that were previously imported. The ISI policy was implemented from 1930 to 1960 in Brazil with funds from the state, private investors and foreign economies being used to finance the implementation of this strategy. The focus industries during the process of substitution were: (i) **transportation**; (ii) **energy**; (iii) **minerals**; and (iv) **extraction and transformation**.

Brazil, like South Africa, is a country [rich in minerals](#), biodiversity, solar energy, and fertile soil. The country's economic structure was historically attached to agriculture and mining before it succeeded in transforming and diversifying. It achieved this through fully developing domestic sectors to manufacture goods that were being imported.

The implementation of import-substitution continued until the early 1980s and its success was exhibited through the [above-average growth rate](#) the Brazilian economy experienced from 1947 to 1980. However, the import substitution industrialisation policy resulted in a scarcity of capital in Brazil because it reduced the country's dependence on foreign products which served as inputs in many manufacturing processes. This was one of the policy's biggest flaws – reducing dependence on developed countries meant that Brazil failed to produce and export sufficient quantities of goods due to the shortage of imported inputs to be used in the production process.

From the 1990s, Brazil started implementing a set of liberalisation reforms which included [trade liberalisation](#). The successful industrialisation of Brazil

from the 1950s to 1970s can be attributed to the central role played by the government. It was able to play a developmental actor role through the [establishment of state owned companies](#) in the secondary sector with particular focus on industries such as steel, minerals, petroleum and chemicals. Foreign capital was invested in local production of manufactured consumer products such as cars and electrical appliances.

Brazil's comparative advantages include:

Access to raw materials: Brazil is the world's leading producer of **tin, iron ore** and **phosphate**. It has large deposits of **diamonds, manganese, chromium, copper** and **bauxite**. These commodities are important inputs into many industrial processes.

Proximity to world markets: Brazil's location on the Atlantic Ocean and its closeness to the Panama Canal greatly influence its **trade** with other countries. **Brazil's** exports can be shipped through any of the seven major seaports on the coast.

Labour supply: Until the early 1980s, Brazil's labour costs were competitive with many low-cost Asian countries; however rising labour costs through to the early 2000s have greatly reduced the sector's international competitiveness. [A large pool of relatively skilled labour in the Sao Paulo Metropolitan Area](#) has enabled employment in the area to remain fairly stable.

Lessons for South Africa

Diversifying economic structure

Like Brazil, SA's economic structure was historically attached to agriculture and mining. Over time, SA has made progress in its attempts to diversify its economic structure. From 1994-2012, SA has progressively increased its export of non-fuel primary products and shifted towards medium-skill and technology-intensive manufactured products. In diversifying sustainably, South Africa needs to be careful of moving too far away from where the country has comparative advantage as this may result in decreased overall growth in the long term.

Import substitution

In pursuing an Import Substitution strategy, Brazil abandoned imports and these included capital goods which were needed in building the country's domestic manufacturing sector. It is important for South Africa to not neglect the necessity of importing certain equipment and raw materials which serve as inputs in particular sectors in order for increased local production to be possible. Pertinent to a successful export promotion strategy for SA is increased large investments in the expansion of the economic infrastructure. This strategy was effective in building domestic capacity for Brazil. South Africa can finance this through developing, similarly to Vietnam, a model aimed at better facilitating foreign direct investment into the country.

United States

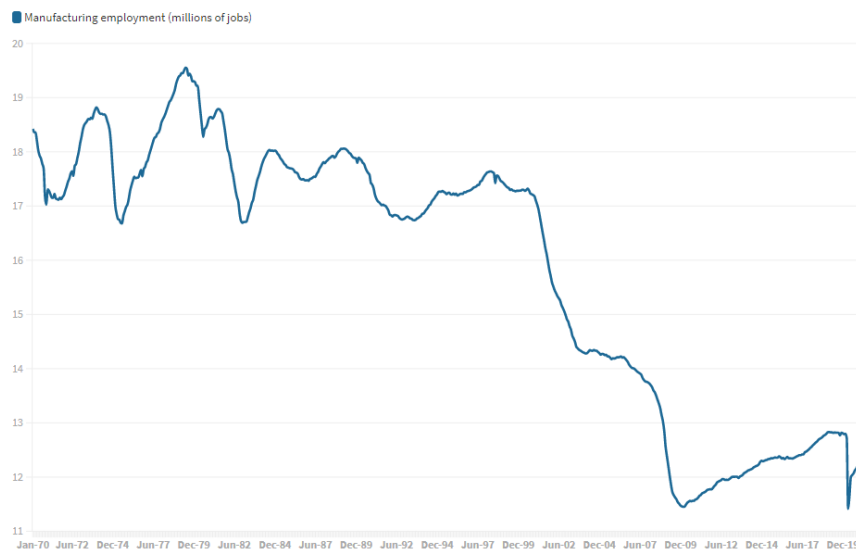
The manufacturing sector has become less significant to the overall economy since its late-1960s heyday, and it has declined sharply since 2001, firstly as a result of trade and tax policies that discouraged domestic production, and secondly from the global financial crisis of 2008.

Three new industrial policies were created between 2009 and 2013, and the sector did recover partly from the multi-decade lows of 2010. However, an isolationist trade policy under the Trump administration and the COVID lockdown of 2020 has reversed any recovery of the last ten years.

Fifty years ago, manufacturing made up a quarter of the US economy and provided over 18 million jobs. Between 1970 and 2000 the sector's contribution to the economy fell from 25 percent to 15 percent while employment remained steady, varying from 16.7 million to 19.6 million jobs.

From 2001 to 2010 the sector rapidly shed jobs, reaching a 70-year low of 11.5 million jobs in the first quarter of 2010. The global financial crisis in 2008 accelerated the fall in employment but more than half of the 5.5 million job losses occurred before 2007.

Figure 6: US manufacturing employment 1970-2020 ([link](#))



Source: Naamsa

American Recovery and Reinvestment Act 2009 (ARRA)

The ARRA was a stimulus package enacted in 2009 with [two main objectives](#): (i) to preserve and create jobs; (ii) and to promote economic recovery. The ARRA was a massive round of government spending of approximately \$800 billion intended to create new jobs and to recover jobs that were lost due to the 2008 financial crisis. ARRA was the largest fiscal stimulus in American history and was considered one of the main achievements of the Obama administration.

The Act was successful in meeting its first objective to preserve and create jobs through quickly distributing funds in critical sectors such as energy, health care, infrastructure and education to immediately stimulate job creation. [Literature evidence exists](#) proving that state fiscal relief can have

a positive effect on employment figures. The ARRA included a [‘Buy American’ provision](#) prioritising the use of US domestic products. The ARRA promoted localisation by prescribing that all **iron, steel and manufactured goods** used in any ARRA funded project requiring the construction, alteration, maintenance or repair of a public building, must have been produced in the US.

Advanced Manufacturing Partnership 2011 (AMP)

The AMP was chartered in June 2011. The AMP focused on investing in emerging technologies and creating high quality manufacturing jobs. Emerging technologies that the US was looking to invest in included: (i) information technology; (ii) biotechnology; (iii) nanotechnology. Prioritising these focus areas, was meant to help reduce manufacturers' costs, improve quality and accelerate product development.

The following [key focus areas for investment](#) were identified: (i) building domestic manufacturing capabilities in critical national security industries; (ii) reducing the time needed to make advanced materials used in manufacturing products; (iii) increasing the energy efficiency of manufacturing processes; and (iv) developing new technologies that would dramatically reduce the time required to design, build and test manufactured goods.

The AMP was developed with the intent to provide a platform for collaborative action between academia, US manufacturers and the US government to invent and utilise new cutting-edge technologies that would set the US apart as a leader in next-generation technologies.

National Network for Manufacturing Innovation 2013 (NNMI)

In 2013, President Obama proposed the creation of the [NNMI](#). The purpose of this initiative was to revitalise the US manufacturing sector by placing a specific focus on manufacturing technologies and innovation. The NNMI initiative's objective was to strengthen the American manufacturing industry while also driving innovation by encouraging collaborative action between the public and private sectors.

The NNMI was successful in building a network of research institutes in the US to focus on developing manufacturing technologies and subsequently introduce new capabilities in the manufacturing sector.

Recovery and trade wars under President Trump

The manufacturing sector's recovery was steady but slow in the last decade. Manufacturing output and employment improved but by the first quarter of 2020 was still below pre-crisis levels.

Trade policy under the Trump administration became increasingly confrontational and isolationist as the US imposed import barriers on its main trading partners, notably China and the EU. This resulted in retaliatory action, sanctioned under WTO rules.

There is evidence that China's countervailing duties were chosen to inflict the maximum amount of political damage on the US; the largest barriers were placed on exports of soybeans from the US to China, affecting farmers in political swing states. Export markets that had been built up over years

were decimated within two years as China substituted imports from other countries, including Brazil.

From March 2020, as the US entered Covid lockdown, output and employment in manufacturing fell back to 2010 levels. Much of these losses have been pared, but currently the sector's levels of activity are close to 2013 levels, with barely 500,000 more jobs than at 2010's lows.

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Chapter 2: Quantitative study

A huge disparity in capacity and historic growth rates points to problems meeting blanket targets, but sectoral improvements could well be feasible.

Summary

South Africa's manufacturing sector volumes has fared poorly over the past 15 years: output has remained unchanged since 2004.

Growth in the value of manufacturing has been better, with the largest manufacturing sectors experiencing nominal sales growth of between 4% and 12% over the same period.

Targeted industrialisation policies have been successful in some cases. The **motor vehicles, parts and accessories** sector has benefited from targeted and regularly updated policies, including significant subsidies and export credits.

However, South Africa's weak fiscal position and degraded bureaucratic capacity militate against any new industrial support policies on a similar scale. There is a low probability of successful replication of support in the automotive sector across other struggling sectors.

Localisation targets have been modelled on the import values of 2020 and the average growth in sectoral value of the past five years. These assumptions are based on the nominal value of manufacturing and are vulnerable to changes in the exchange rate and a general economic recovery.

The localisation model does indicate a high probability of meeting localisation targets within the next five years for a number of key manufacturing sectors, including the **paper, wood, motor vehicles, ceramic products, glass, basic iron and steel**, and **food and beverages** sectors.

Policymakers will need to decide how to structure localisation targets: it is possible that targets can be met on an aggregate level (equivalent to a 2- or 3-digit SIC code classification), while specific industries could fail to meet targets. For example, the **basic iron and steel** group is likely to meet localisation targets within a short time while the **chemicals** group is not. Material risks remain for the **metal products** subsector yet certain subsectors in the **chemicals** group may meet localisation targets within three years.

Other manufacturing sectors are highly unlikely to meet localisation targets without significant policy support and macroeconomic headwinds (including a recovery in domestic demand and a favourable exchange rate). These sectors include the **printing and publishing, textiles, clothing, footwear, rubber** and **machinery and electronic equipment** sectors.

The table below summarises the size of the localisation requirements for the 10 largest sectors (2- and 3-digit SIC classification) and the equivalent annual growth rates needed to meet localisation targets within three, five and 10 years:

Figure 7: Localisation growth implications by product

Sector	2020 sector size (Rm)	Total growth required	2015-2020 annual growth	3-year target: annual growth	5-year target: annual growth	10-year target: annual growth
Paper products	R77 202	3.50%	2.9%	1.2%	0.7%	0.3%
Rubber products	R16 008	19.62%	1.0%	6.2%	3.6%	1.8%
Printing and publishing	R40 310	9.13%	-3.6%	3.0%	1.8%	0.9%
Plastic products	R66 176	10.03%	1.8%	3.2%	1.9%	1.0%
Textiles and clothing	R42 565	23.77%	-3.9%	7.4%	4.4%	2.2%
Basic iron and steel, non-ferrous metal products, metal products	R477 144	2.44%	5.1%	0.8%	0.5%	0.2%
Food and beverages (incl. agriculture)	R563 021	2.44%	12.9%	0.8%	0.5%	0.2%
Chemical products	R245 574	11.90%	1.8%	3.8%	2.3%	1.1%
Motor vehicles, parts and accessories	R271 287	11.98%	4.5%	3.8%	2.3%	1.1%
Machinery and electronic equipment	R72 965	72.09%	-3.5%	19.8%	11.5%	5.6%

Source: Intellidex, SARS

The three sectors with the greatest localisation requirements (equivalent to between 50% and 55% of non-oil imports) are a mixed bag: the **motor vehicles** sector should meet targets within 3 years, the **chemical products** sector may need more than 5 years without targeted assistance and the **machinery and electronic equipment** sector will probably miss its localisation targets even after 10 years.

Industrial policies have historically prioritised politically sensitive industries at the top of the manufacturing supply chain, including the **basic iron and steel** and the **textiles** industries. Trade protection, in the form of high import tariffs, has been a favoured strategy. This has often had a perverse effect on the performance of downstream industries such as **clothing** and **metal products**.

Policy-makers must decide whether these political priorities are worth the trade-offs in jobs and output of downstream industries. For example, the **basic iron and steel** sector employs fewer than 3 000 people in South Africa while the **metal fabricating** industry employs over 200 000 people. Industrial policy should focus on an entire value chain and use policy instruments that will not distort domestic markets or attract retaliatory action in the form of countervailing tariffs from affected trading partners.

Detailed breakdown

Figure 8: Imports 2020 ([link](#))



Source: SARS trade data

Trends in imports of goods

More than a quarter of South Africa's non-oil imports by value are imports of **machinery: cellphones, computers, electrical equipment and other appliances and machinery**. The demand for these goods has increased strongly over time, growing 7.5% year on year (yoy) from 2018 to 2019. In contrast, exports of machinery have grown at an annualised rate of about 2%.

Motor vehicles, parts and accessories is the second-largest group of imports. It includes imports of rail, shipping and air vehicles. The value of these imports has grown by about 13% yoy from 2010 to 2020.

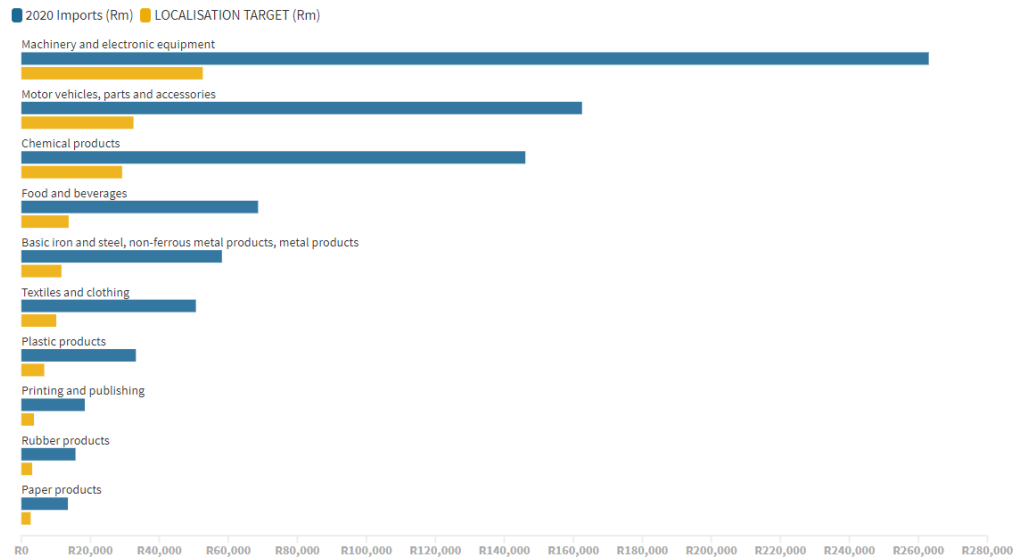
Chemicals is the third-largest group of imports by value and has seen strong growth in the rand value of imports over the past 10 years. **Pharmaceutical products, organic chemical compounds, and inorganic chemical compounds** are the largest sub-groups.

Together, these three product groups make up over 55% of imports by value. This share has remained consistent over 10 years.

While **machinery** imports (and **pharmaceutical products**) consist mostly of finished goods, **mineral products** and other imports of **chemicals** are important inputs into a range of manufactured goods. South Africa's reliance on these imports has a direct effect on the supply chains for domestic manufacturing and important implications for future localisation and diversification.

South Africa's localisation challenge is significant: based on 2020 import numbers the manufacturing sector will have to produce an additional R164-billion of goods to compensate for a 20% reduction in imports. Over R140-billion of this will need to come from the top 10 import groups:

Figure 9: Localisation targets for top 10 import groups ([link](#))



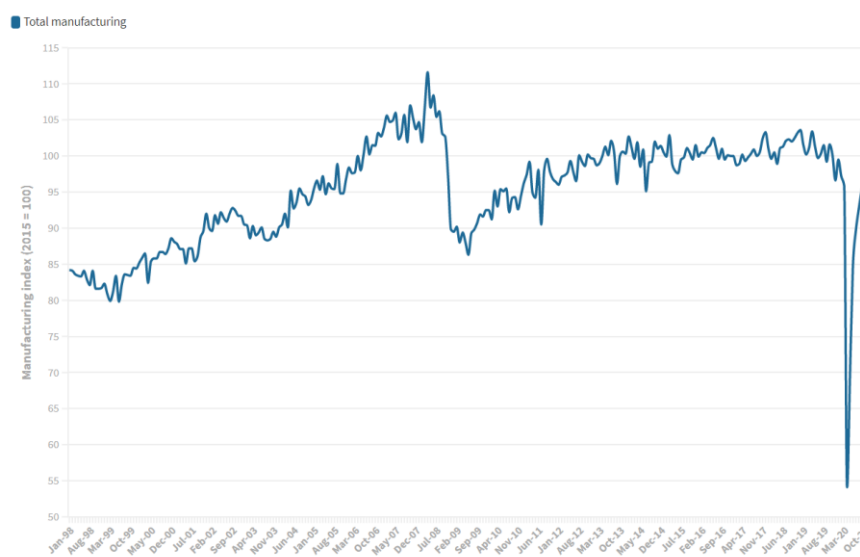
Source: SARS trade data

Trends in domestic manufacturing and exports

Manufacturing output and sales

Manufacturing output growth has been anaemic for a long time. From 1998 to 2020, overall output in the sector has grown cumulatively by less than 20% - under 1% annually. Output at the end of 2020 was almost 15% below the all-time high reached in mid-2008:

Figure 10: Total manufacturing output (2015 = 100) ([link](#))

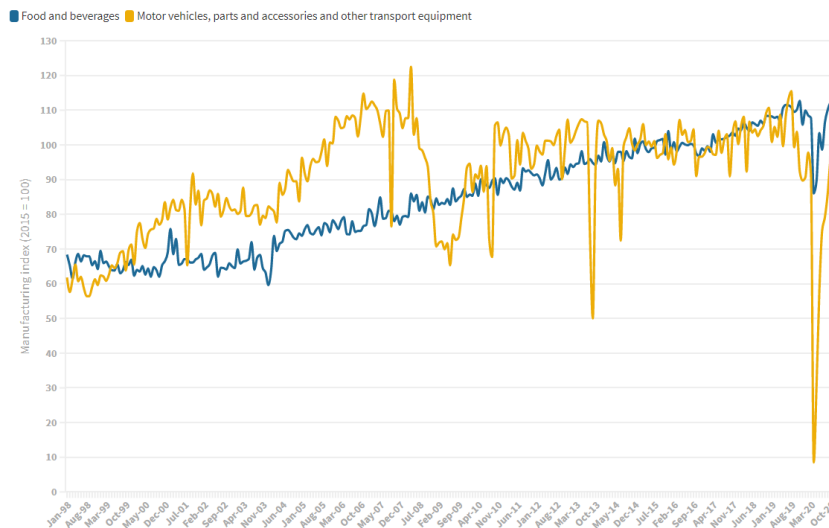


Source: StatsSA monthly manufacturing data

Manufacturing output growth has been poor across every sector: the best-performing sector, **food and beverages**, has seen a cumulative increase in output of just 10% over the last five years. The **motor vehicles, parts and accessories and other transport equipment** sector is the only other sector that has grown since 2015, and by a mere 1.5% cumulatively.

The other eight sectors have all shrunk since 2015: output in four of these eight sectors is lower by more than 10% compared with five years ago:

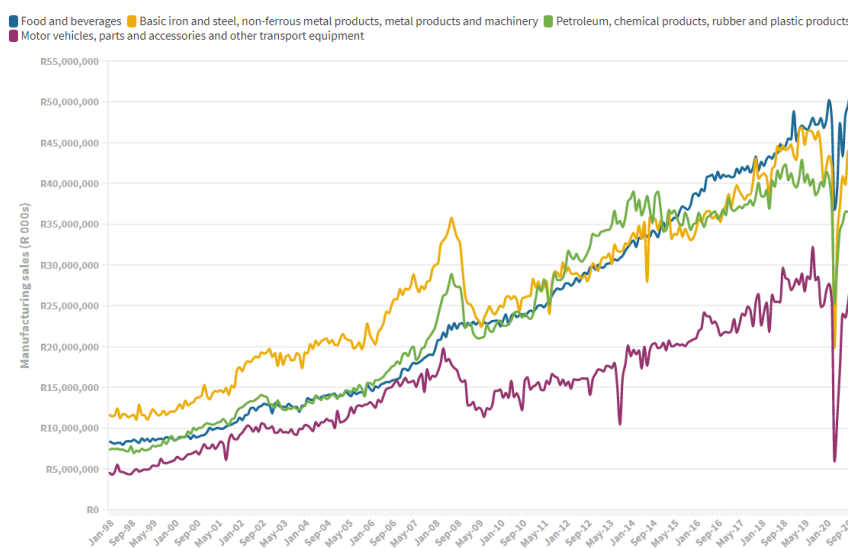
Figure 11: Manufacturing output: best-performing sectors (2015 = 100) ([link](#))



Source: StatsSA monthly manufacturing data

The growth in manufacturing sales has fared better, although much of this increase is due to a weaker exchange rate. Many of the larger manufacturing sectors (including **motor vehicles, chemicals, food and beverages**, and **iron and steel**) have experienced average annual sales growth between 4 and 12%:

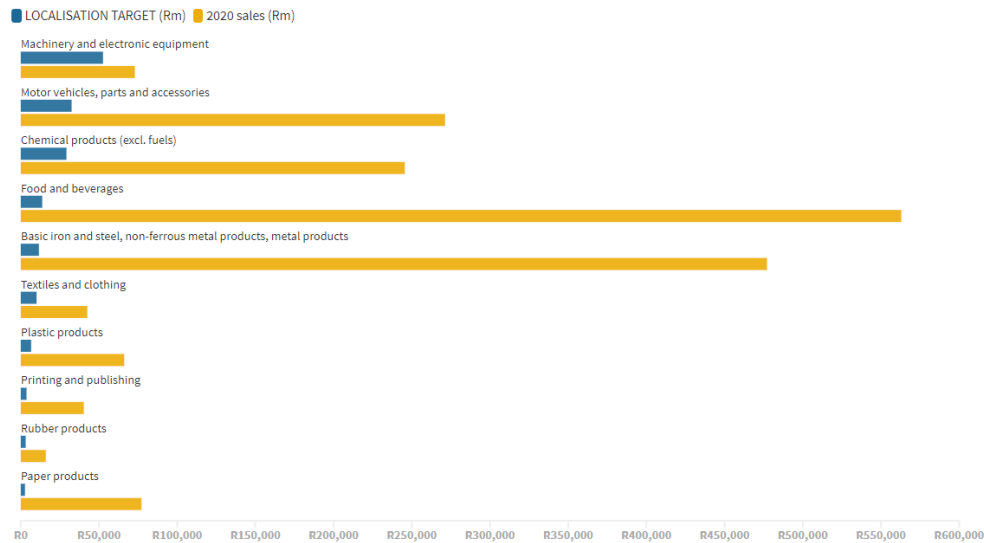
Figure 12: Manufacturing sales: best-performing sectors (2015 = 100) ([link](#))



Source: StatsSA monthly manufacturing data

The graph below shows the value of the 10 largest manufacturing sectors compared with the required value of localisation:

Figure 13: Localisation targets and current size of domestic sectors ([link](#))

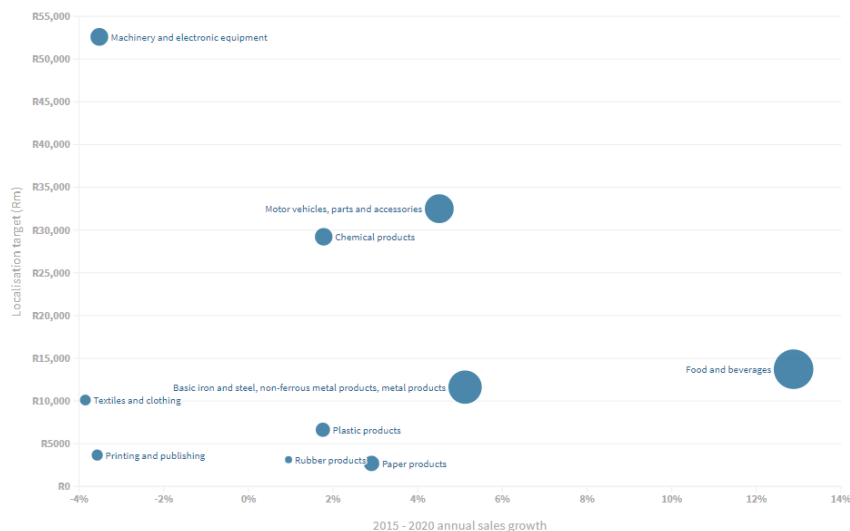


Source: StatsSA monthly manufacturing data, SARS trade data

The localisation requirement, expressed as a percentage of the size of the domestic sectors, is under 10% for the **food and beverages, basic iron and steel, paper, and printing and publishing sectors**. It is more sizeable (between 10 and 20%) for the **plastics, chemicals, motor vehicles, parts and accessories, and rubber** sectors. The requirement is significant for the **textiles, and machinery and electronic equipment** sectors.

It is not just the size of the sectors but also the recent growth (or decline) in these sectors that is relevant. The scatter plot below compares the localisation requirements with growth in the relevant sectors:

Figure 14: Localisation targets and current growth of domestic sectors ([link](#))



Source: StatsSA monthly manufacturing data, SARS trade data

The localisation targets can also be expressed as a cumulative growth rate of the current size of each manufacturing sector:

Figure 15: Localisation targets

Sector	2020 sector size (Rm)	Total growth required	2015-2020 annual growth	3-year target: annual growth	5-year target: annual growth	10-year target: annual growth
Paper products	R77 202	3.50%	2.9%	1.2%	0.7%	0.3%
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Machinery and electronic equipment	R72 965	72.09%	-3.5%	19.8%	11.5%	5.6%

Source: Intellidex, StatsSA

Exports of manufactured goods

A quarter of South Africa's exports are in the **mineral products** group, mostly **ores** and **coal** exports. This sector contributed between 20% and 25% of exports by value over the last 10 years. Exports of **precious metals (gold, platinum, diamonds, jewellery, and other precious metals)** is the second-largest export group, contributing between 17% and 24% of export value over the last 10 years. The **vehicles and accessories** group (which includes air, rail and sea vehicles and parts) has contributed between 8% and 12% of exports over the last 10 years.

These three groups contribute between 50% and 60% of exports by value in any given year. Much of this value is from the exporting of raw materials with little value-add (**ores, coal, precious metals**) and few supply linkages to other manufactured goods.

The value of these exports has grown strongly over the past 10 years: each sector has seen cumulative growth of about 120%, or an effective annual growth of over 8%.

Figure 16: Exports 2020 ([link](#))

Source: SARS trade data

Relationship between domestic output, exports, imports and localisation

The historical performance of the manufacturing sector is a strong indicator of the potential for localisation. The sub-sectors and industries which have increased output and sales, invested in new capacity and maintained high levels of capacity utilisation are most likely to perform well and make the biggest contributions to localisation.

Similarly, industries which have experienced healthy export growth may also be strong contenders for localisation. Export growth could be an outcome of a healthy, growing industry that is branching into new markets and has the potential to compete with imports. However, it might also be due to producers substituting one market for another on the back of a weaker exchange rate and softening domestic demand.

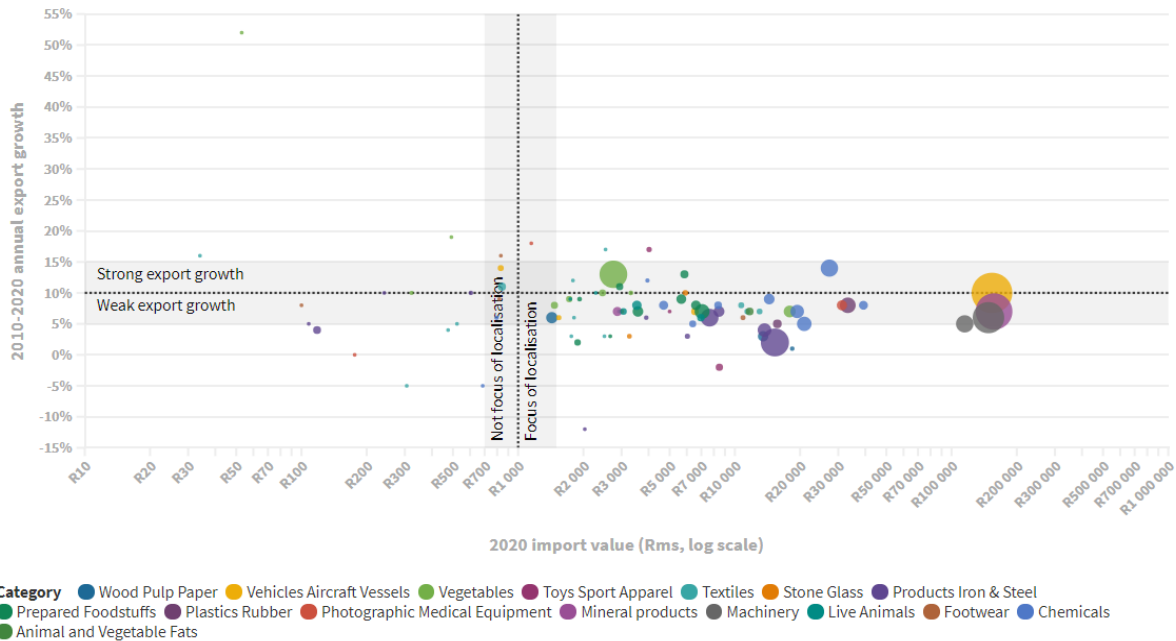
Industries which have seen weaker export growth also have potential for localisation. Weaker historical growth may be a result of technological or trade barriers which could be overcome in the medium term.

Sectors and industries with high levels of imports are obvious priorities for localisation; if there is a generally applied localisation target of 20% of imports, then focusing on high-value sectors can help policy-makers meet their targets.

The quadrant chart below summarises the performance of imports and exports over the last 10 years in South Africa. The industries in the chart make up more than 98% of all exports and imports by value. The two

quadrants on the right have all sectors and industries with over R1-billion of imports in 2020. The size of each point on the chart is proportional to the value of exports in 2020:

Figure 17: Exports and import trends ([link](#))



Source: SARS trade data, StatsSA monthly manufacturing release

Industries in the top right quadrant are characterised by a high value of imports and strong export growth over the 2010-2020 period. These include:

- **Motor vehicles and accessories:** Exports were at R135-billion in 2020, with average annual growth of 10%. Imports were at R153.6-billion in 2020 but had averaged just below R200-billion for the previous two years.
- **Chemical products:** Exports were R24.5-billion in 2020, with average annual growth of 14%. Imports were R27.3-billion in 2020.
- **Residues and waste from the food industry:** Exports were R5.32-billion in 2020, with average annual export growth of 13%. Imports were R5,85-billion in 2020.
- **Albuminoidal substances:** Exports were R1.46-billion in 2020, with average annual export growth of 12%. Imports were R3.95-billion in 2020.
- **Fruit and nuts:** Exports were R62.6-billion in 2020, with average annual export growth of 13%. Imports were R2.75-billion in 2020.

Industries in the bottom right quadrant are characterised by a high value of imports and weaker export growth over the 2010-2020. These include:

- **Catalytic converters, computers and mechanical appliances:** Exports were at R80.6-billion in 2020, with average annual export growth of 6%. Imports were R148-billion in 2020.

- **Cellphones, electrical equipment and machinery:** Exports were R24.7-billion in 2020, with average annual export growth of 5%. Imports were R115-billion in 2020.
- **Pharmaceutical products:** Exports were R6.4-billion in 2020, with average annual export growth of 8%. Imports were R39.2-billion in 2020.
- **Plastics and articles thereof:** Exports were R20-billion in 2020, with average annual export growth of 8%. Imports were R33.2-billion in 2020.
- **Medical and photographic equipment:** Exports were R8.71-billion in 2020, with average annual export growth of 8%. Imports were R31.2-billion in 2020.

Capacity constraints

Manufacturing sub-sectors and industries will have varying levels of success in producing domestically what they currently import. Some industries will struggle to localise to any significant degree even over the long term if they lack critical inputs that cannot be substituted or imported. Other industries may be unable to localise in the short term but can resolve their constraints over the medium term, possibly through capital investments, technological changes or staff hires.

The following capacity constraints are the most significant and pressing threats to South Africa's localisation drive over the short and medium term. The StatsSA quarterly reports on capacity utilisation and BUSA members' survey responses have been the main data sources used to quantify key constraints. Industry reports and other thematic research has informed the modelling of qualitative constraints (e.g., logistical and bureaucratic bottlenecks).

Underutilisation of manufacturing capacity

Raw materials

Most manufacturing sectors do not struggle with a shortage of raw materials, and most shortages tend to be temporary. Shortages tend to result in losses of less than 1% of capacity utilisation.

There are, however, three manufacturing sectors where a shortage of raw materials has contributed to high and persistent output losses.

The **basic iron and steel** sector is one; shortages have been high and persistent, resulting in an average capacity underutilisation of 5.6% from 2004 to 2020. Raw materials supply was more volatile between 2004 and 2012, resulting in underutilisation rates that ranged from 0% to 11%. Since 2013, a shortage of raw materials has resulted in underutilisation of between 5% and 7%.

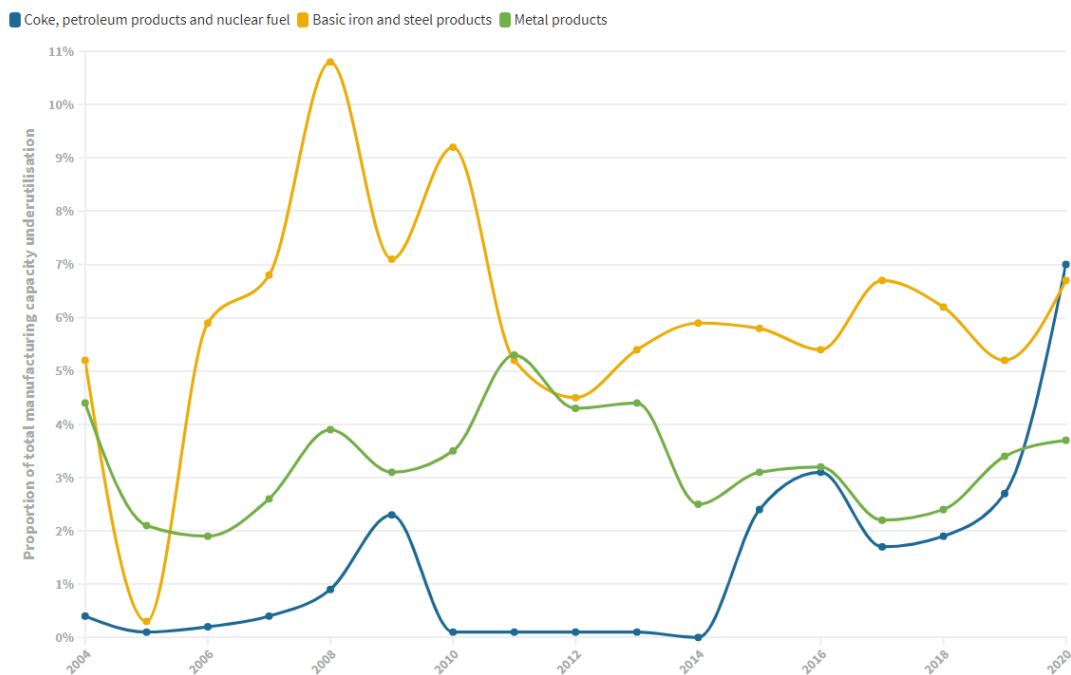
This trend is a concern: there is a risk that this persistent capacity constraint becomes structural.

Shortages in the **coke, petroleum products and nuclear fuel** sector were low from 2004 to 2014. Besides a temporary spike in 2009, shortages resulted in underutilisation of less than 1% over this period. From 2014 onwards, raw

material shortages have contributed to underutilisation of at least 2%, and the trend has been sharply upward since 2018. Capacity underutilisation in the sector that is attributable to just raw material shortages now sits at 7%.

Raw material shortages in the **metal products** sector, partly due to undercapacity in the **basic iron and steel** sector, have contributed to capacity underutilisation of between 2% and 5% since 2004. The trend in underutilisation is more stable than that of **basic iron and steel** as the availability of imports has ameliorated any shortages in domestic production.

Figure 18: Manufacturing capacity underutilisation: shortage of raw materials ([link](#))



Source: StatsSA quarterly manufacturing capacity utilisation release

Skilled labour

A **shortage** of skilled labour is not a significant constraint for most sectors. On average, skilled labour shortages lead to capacity underutilisation of only 1%. There are four sectors where a shortage of skilled labour is a concern:

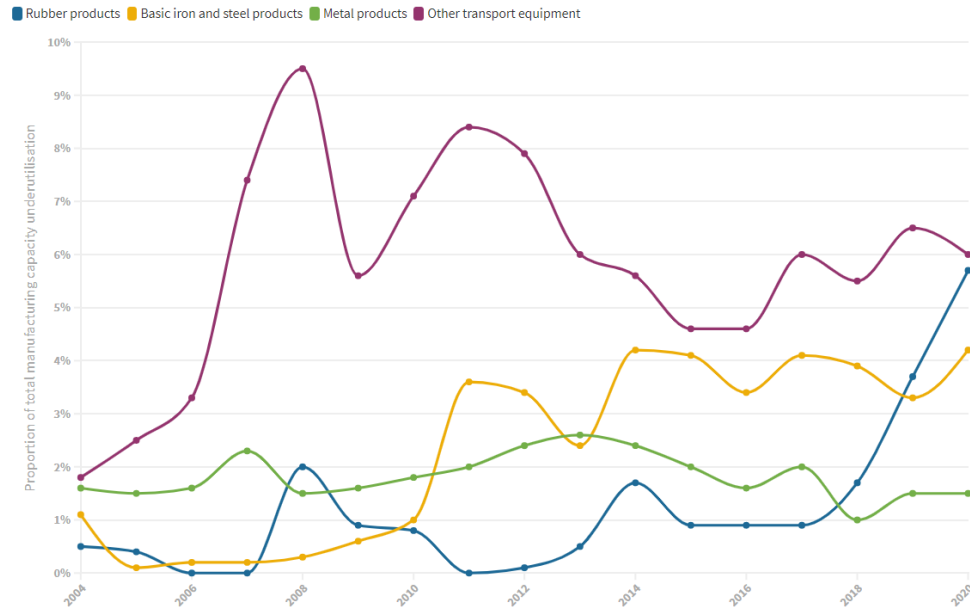
Other transport equipment: A persistent and steeply increasing shortage of skilled labour since 2004 resulted in capacity underutilisation of 9.5% by 2008. Since 2013, shortages have led to underutilisation of between 4.5% and 6.5%.

Rubber products: Shortages were not significant between 2004 and 2017 (apart from temporary bottlenecks in 2008 and 2014) but since 2018 shortages have led to an increased rate of capacity underutilisation.

Basic iron and steel: Skilled labour shortages have been increasing since 2010. Since 2014, they have resulted in an average capacity underutilisation of about 4%.

Metal products: The shortage of skilled labour saw underutilisation peak at 2.6% in 2013 but it has since declined. Underutilisation has been 1.5% for the past two years.

Figure 19: Manufacturing capacity underutilisation: shortage of skilled labour ([link](#))



Source: StatsSA quarterly manufacturing capacity utilisation release

Unskilled and semi-skilled labour

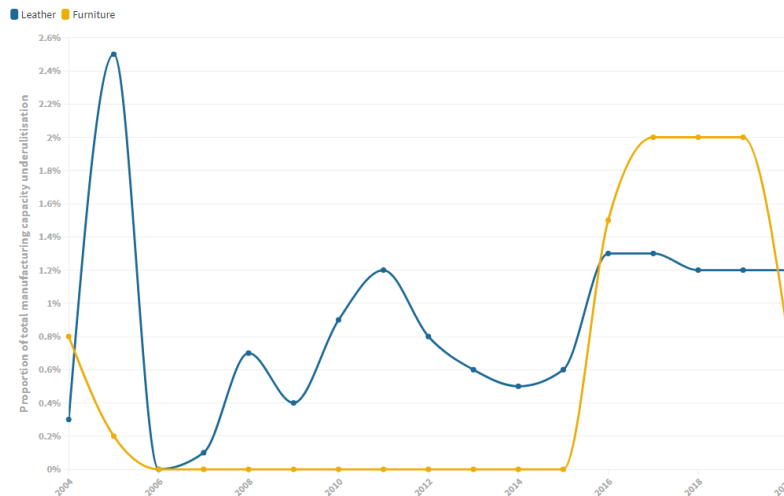
Very few sectors are affected by a shortage of unskilled or semi-skilled labour and the effect on those sectors is of a much smaller magnitude.

Manufacturing capacity utilisation fell by less than 0.3% on average since 2004. Only two sectors have seen capacity utilisation fall by more than 1%:

leather and **furniture**.

Capacity underutilisation in the **leather** sector has ranged from 0.4% to 1.3% since 2009. Since 2016, it's been stuck in a tight band between 1.2% and 1.3%.

After many years of zero underutilisation in the **furniture sector**, it shot up suddenly to 2% between 2015 and 2017 before falling back to 0.8% in 2020.

Figure 20: Manufacturing capacity underutilisation: shortage of semi- and unskilled labour ([link](#))

Source: StatsSA quarterly manufacturing capacity utilisation release

Insufficient demand

Insufficient demand is the biggest constraint on domestic production, accounting for average underutilisation of 10.8% of manufacturing capacity since 2004 and 12% over the past five years.

This poses a significant risk to any localisation strategies over the medium term. If one of the goals of localisation is to substitute imports with domestic production, local producers will need the assurance that there is demand for their products.

A lack of demand also makes it more difficult for local producers to scale up their output, unless an increase in exports can fill the gap left by weak local demand. However, a volatile exchange rate makes consistent export growth more difficult.

Most manufacturing sectors have experienced significant underutilisation due to insufficient demand: 21 of 27 sectors over the past five years have had average spare capacity in the double digits (as percentage of total capacity). Six sectors have been heavily affected:

Underutilisation in the **leather** sector has fluctuated between 8.4 and 29.8% since 2004. In the last three years it has risen to 29.8%.

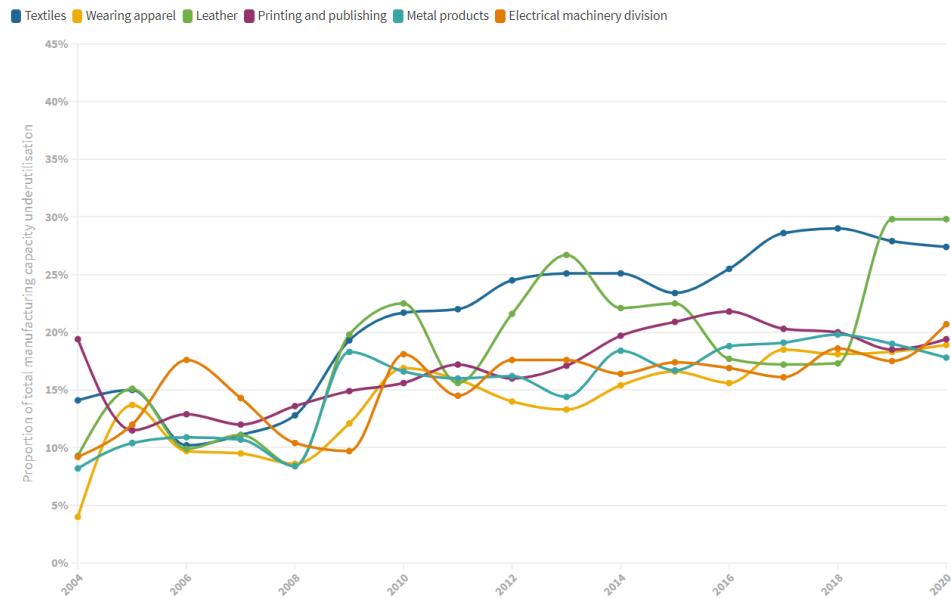
In the **textiles** sector underutilisation has remained above 22% since 2011 and above 27.4% for the last four years.

The **electrical machinery** sector has had underutilisation of at least 14.5% since 2011. It is currently at a multi-year high of 20.7%.

Underutilisation in the **printing and publishing** sector has remained above 16% since 2012 and is now at 19.4% after reaching a high of 21.8% in 2016.

The **wearing apparel (clothing)** sector has seen underutilisation of at least 13.3% since 2013 and is now at 18.9%.

Underutilisation in the **metal products** sector has been at least 14.4% since 2013. Since a high of 19.8% in 2018, however, it has fallen to 17.8%.

Figure 21: Manufacturing capacity underutilisation: insufficient demand ([link](#))

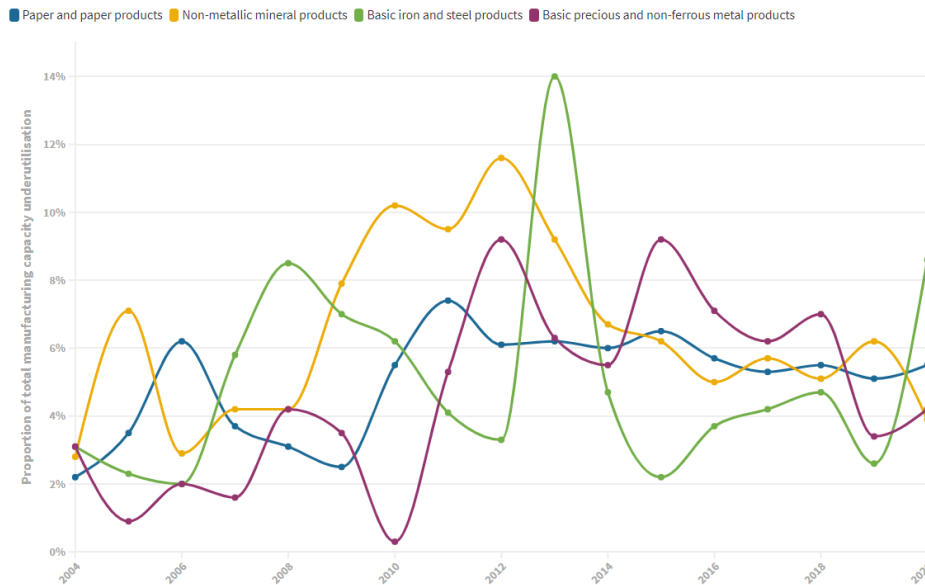
Source: StatsSA quarterly manufacturing capacity utilisation release

Other factors

Other factors, collectively, are the second-largest reason for underutilisation of capacity. According to the StatsSA definition, "[o]ther reasons include reasons such as downtime due to maintenance, changes in productivity and seasonal factors."

Other factors were responsible for an average underutilisation of 4.3% since 2004 and 4.8% over the last five years.

The vagueness of this group of constraints makes it difficult to draw clear conclusions from the data, nevertheless there are five manufacturing sectors where other factors have made a significant contribution to capacity underutilisation:

Figure 22: Manufacturing capacity underutilisation: other factors ([link](#))

Source: StatsSA quarterly manufacturing capacity utilisation release

Capacity underutilisation for the **iron and steel** sector has ranged from 2% to 14% since 2004. It reached a seven-year high of 8.6% in 2020.

Underutilisation in the **paper and paper products** sector has been in a tight band of 5.1% and 6.5% since 2012. There is a concern that this trend represents a structural problem, although the exact constraint is not clear.

In the **basic precious and non-ferrous metal products** sector, underutilisation has been volatile, with a low of 0.3% in 2010 to highs of 9.2% in 2012 and 2015. It was at 4.2% in 2020.

Underutilisation in the **non-metallic mineral products** sector peaked at 11.6% in 2012 but has been trending downward since, falling to a 14-year low of 3.9% in 2020.

Other constraints

Electricity supply

From 2008 to 2012, electricity prices more than doubled. Now in 2021, electricity costs four times more than it did at the beginning of 2008, with a further increase of 15% to come from April 2021.

The quadrupling of prices in just 13 years has led to significantly higher input costs for electricity-intensive sectors. According to StatsSA's Supply-Use tables for 2014-2016, the most electricity-intensive sectors (electricity input costs as a percentage of total input costs) are:

- **Mining of gold and uranium ore** (29.9% of total input costs)
- **Nuclear fuel and basic chemicals** (9.2%)
- **Glass** (4.9%)
- **Other chemical products and man-made fibres** (4.3%)
- **Agriculture** (3.6%)
- **Mining of metal ores** (3.0%)

Most of electricity-intensive sectors are primary producers and important inputs for other sectors. The **basic chemicals, textiles, agriculture, and mining** (of metal ores) sectors feed into many other sectors, including **other chemicals, clothing, rubber, plastics, leather, iron and steel, and metal products** sectors.

The shortage of electricity is the biggest threat to South Africa's industrial policy goals over the long term. The entire supply chains of **the iron and steel, textiles and clothing, and chemicals sectors** are under threat unless South Africa can establish a reliable and growing supply of generating capacity.

Port, rail and freight capacity

Long-term underinvestment in transport and logistics capacity has created bottlenecks that limit growth in exports and imports. In cases where sectoral growth depends on the supply of critical inputs (eg, imports of metals and plastics for the **machinery** and **equipment** sectors), this acts as a brake on the growth of local production in key manufacturing sectors.

Bureaucratic capacity and co-ordination

Certain sectors have **high regulatory hurdles** to overcome before output can be increased. For example, the **chemicals** sector has legislation on the prohibition and control of operations involving hazardous substances. The relevant laws include the National Environmental Management Act; the Hazardous Substances Act; and the Occupational Health and Safety Act.

Labour legislation and the (sometimes competing) interests of the Department of Labour may delay or even prohibit the creation of development zones that would otherwise benefit from cheaper labour. South Africa's relatively high labour costs (compared with countries such as Vietnam and Bangladesh) make it difficult to increase production in labour-intensive sectors such as **textiles, clothing, leather, footwear and furniture**.

The overall **bureaucratic confusion and lack of co-ordination** between departments may be the biggest challenge to expansion and growth in underperforming sectors. Evidence from Asian countries and successful industrialisation cases in the rest of Africa (e.g., the cut flower industry in Ethiopia) point to the need for political champions of industrial policy. These champions often come from the highest echelons of political office and can mean the difference between successful or unsuccessful sectoral growth strategies.

Modelling capacity constraints and supply growth for selected sectors

Methodology

Historical output and export growth for key sectors

Manufacturing output growth has been weak since 2005 and particularly poor since 2015. Only two of the 10 main manufacturing divisions (**food and beverages**, and **petroleum, chemical products, rubber and plastic products**) have seen positive growth over the last 15 years and only **food and beverages** has expanded in the last five years.

At the disaggregated level (equivalent to the level 4 / 4-digit SIC code classification) there are a handful of industries not in the **food and beverages** division that have grown consistently and posted positive growth over the last five years:

- **Glass and glass products** has grown by a cumulative 1% over the last five years
- **Accumulators, primary cells and primary batteries:** 6.5%
- **Bodies for motor vehicles, trailers and semi-trailers:** 1.2% over the last five years.

These are cumulative growth figures; the equivalent annual growth ranges from 0.2 to 1.3%. This is insufficient to keep pace with the growth of imports in these sectors.

Output growth over a 10- or 15-year horizon is better in almost every case but the trends of the last five years are more relevant. They speak to the prevailing macroeconomic and other structural problems in South Africa. These include: falling rates of capital formation; a weak rand; a continuing trend of deindustrialisation; high electricity prices; and a weak bureaucracy.

The table below lists the top 23 exports over the last 10 years:

Figure 23: Key export groups

CATEGORY	GOOD	2020 VALUE (RM)	2019 VALUE (RM)	2018 VALUE (RM)	2010 VALUE (RM)	CUMULATIVE GROWTH	ANNUAL GROWTH 2010-2020
VEGETABLES	Vegetable Plaiting Materials	R600	R553	R257	R7	6312%	52%
VEGETABLES	Resins and Vegetable Saps	R204	R220	R268	R42	451%	19%
PHOTOGRAPHIC MEDICAL EQUIPMENT	Clocks and Watches	R411	R379	R407	R77	421%	18%
TOYS SPORT APPAREL TEXTILES	Miscellaneous Manufactured Articles	R2 330	R2 170	R2 160	R460	383%	17%
TEXTILES	Man-made Staple Fibres	R953	R902	R755	R182	378%	17%
FOOTWEAR	Prepared Feathers	R377	R418	R394	R89	347%	16%
TEXTILES	Silk	R32	R30	R39	R8	336%	16%
CHEMICALS	Chemical Products	R24 500	R16 800	R13 800	R4 950	271%	14%
VEHICLES AIRCRAFT VESSELS	Ships, Boats and Floating Structures	R2 870	R2 960	R2 510	R774	259%	14%
PREPARED FOODSTUFFS	Residues and Waste from the Food Industries	R5 320	R4 290	R4 230	R1 340	244%	13%
VEGETABLES	Fruit and Nuts	R62 600	R49 400	R48 700	R16 000	235%	13%
CHEMICALS	Albuminoidal Substances	R1 460	R1 070	R996	R393	199%	12%
TEXTILES	Cotton	R712	R888	R931	R284	197%	12%
TEXTILES	Wool, Fine or Coarse Animal Hair	R5 280	R5 470	R6 400	R1 990	187%	11%
PREPARED FOODSTUFFS	Prepared Cereals and Pastry	R4 110	R3 850	R3 570	R1 340	187%	11%
PRODUCTS IRON & STEEL	Base Metals	R1 540	R2 440	R2 170	R756	171%	10%
PRODUCTS IRON & STEEL	Lead and Articles Thereof	R431	R499	R409	R170	163%	10%
VEGETABLES	Coffee, Tea, Mate and Spices	R1 980	R1 910	R1 930	R747	160%	10%
LIVE ANIMALS	Live Animals	R1 110	R1 030	R951	R400	158%	10%
VEGETABLES	Live Trees and Other Plants	R1 350	R1 360	R1 200	R513	154%	10%
VEHICLES AIRCRAFT VESSELS	Vehicles and Accessories	R135 000	R165 000	R144 000	R58 300	154%	10%
VEGETABLES	Oil Seeds and Oleaginous Fruits	R3 860	R3 370	R3 000	R1 350	153%	10%
STONE GLASS	Ceramic Products	R2 570	R2 660	R2 380	R1 010	151%	10%

Source: SARS, Intellidex

These are nominal rand figures. They have neither been adjusted for inflation nor for any changes in the nominal exchange rate. It is also possible that export growth represents a displacement of domestic consumption and not a concomitant increase in overall production.

Still, there is some value in examining which sectors have seen strong export growth. These sectors may be able to reach productive economies of scale without relying initially on domestic demand, and this in turn may drive greater localisation over the medium term.

A third of these exports (eight out of 23) are from the **food and beverages** sector. By overall rand value there are also significant exports from the **chemicals** and **transport equipment** sectors.

Localisation targets as a percentage of current sales

Manufacturing sales growth has been higher than output growth, particularly over the last five years. This creates a much more positive picture for localisation targets.

The following assumptions have been made for the baseline scenario with respect to localisation targets and the value of domestic manufacturing:

- Localisation targets will be based on 2020 import and values
- There will be no adjustments to these targets
- Projected growth in manufacturing sales is a function of changes in output volumes and sales values for the past five years
- There will be no significant changes in industrial policy or capacity constraints over the next five years

The table below calculates the total sales growth that will be needed in each sector in order to achieve localisation targets:

Figure 24: Required growth by segment

SECTOR	2020 IMPORTS (RM)	LOCALISATION TARGET (RM)	2020 EXPORTS (RM)	2010- 2020 ANNUAL EXPORT GROWTH	2020 SALES (RM)	2015- 2020 SALES GROWTH	SALES GROWTH REQUIRED
PRINTING AND PUBLISHING	R18 400	R3 680	R1 570	1%	R40 310	-3.57%	9.13%
PAPER AND PAPERBOARD	R13 500	R2 700	R8 790	3%	R77 202	2.91%	3.50%
PULP OF WOOD AND OTHER PRODUCTS	R1 430	R286	R10 500	6%	R29 708	-0.63%	0.96%
MOTOR VEHICLES, PARTS AND ACCESSORIES	R162 511	R32 502	R144 410	10%	R271 287	4.51%	11.98%
TEXTILES AND CLOTHING	R50 588	R10 118	R17 711	8%	R38 857	-3.85%	26.04%
FOOTWEAR	R10 900	R2 180	R2 010	6%	R5 371	1.97%	40.59%
CERAMIC PRODUCTS	R5 910	R1 182	R2 570	10%	R46 617	-1.06%	2.54%
GLASS AND GLASSWARE	R3 260	R652	R1 860	3%	R11 937	-1.06%	5.46%
BASIC IRON AND STEEL, NON-FERROUS METAL PRODUCTS, METAL PRODUCTS	R58 132	R11 626	R126 023	4%	R362 162	5.12%	3.21%
FURNITURE	R8 480	R1 696	R4 250	-2%	R12 228	3.73%	13.87%
FOOD AND BEVERAGES	R68 617	R13 723	R147 614	12%	R511 731	12.88%	2.68%
PLASTICS AND ARTICLES THEREOF	R33 200	R6 640	R20 000	8%	R66 176	1.76%	10.03%
RUBBER AND ARTICLES THEREOF	R15 700	R3 140	R6 080	5%	R16 008	0.95%	19.61%
MACHINERY AND ELECTRONIC EQUIPMENT	R263 000	R52 600	R105 300	6%	R102 821	-3.52%	51.16%
CHEMICAL PRODUCTS	R27 300	R5 460	R24 500	14%	R99 923	1.78%	5.46%

Source: SARS, StatsSA, Intellidex

Certain sectors can achieve their localisation targets within a short time – within two to three years. These include the **paper, wood, motor vehicles, ceramic products, glass, basic iron and steel**, and **food and beverages** sectors.

In the case of the broad **iron and steel** group and the **chemicals** group, the aggregate target could mask targets in certain sub-sectors, including the **metal products** sector.

The 2020 manufacturing output in the **basic iron and steel, non-ferrous metal products, metal products and machinery** (level 2 SIC) grouping was R477 billion. The **basic iron and steel products** and **non-ferrous metals products** subsectors contributed R260 billion to the grouping, 55% of the total. The downstream subsectors in this grouping (including the **metal products** and **machinery** subsectors) are smaller in value but arguably more important for the success of long-term localisation and supply-chain integration.

Some sectors will be able to achieve their targets over the medium term, within five to eight years. These include the **furniture** and **plastics** sectors.

Other sectors will find it hard to achieve their localisation targets, even over the medium term (five to 10 years). These include the **printing and publishing, textiles, clothing, footwear, rubber, and machinery and electronic equipment** sectors.

Current and future constraints on output

Weak domestic demand is the biggest constraint to localisation. This suggests that certain manufacturing sectors will have to pursue a two-pronged approach of increased production and the development of new export markets in order to achieve their localisation goals.

A **constrained electricity supply** is a significant threat to the medium-term growth of key industries, including the **iron and steel, metal products, and basic chemicals** industries.

The **protection of the iron and steel sector** through high import tariffs and the political prioritisation of a domestic producer is a major constraint on the growth of downstream industries, including the **metal products, machinery and equipment** sectors.

A **lack of bureaucratic capacity** and the lower prioritisation of a clear industrial policy (including political backing at the highest level) could prevent struggling sectors (**textiles** and **clothing**) from reversing years of decline and/or achieving economies of scale through new export markets.

Iron and steel / Basic metals

The iron and steel sector is likely to meet its localisation targets within two years, based on the size of the sector and the historical growth in sales. Certain sub-sectors (such as **zinc, tin, and certain metal products**) may not meet localisation targets in the medium term, or at all. However, these sub-sectors make up a small percentage of the sector's total value.

The long-term trajectory of this sector has direct implications for localisation in downstream sectors (including **metal products** and **machinery**).

Machinery and equipment

This sector faces significant structural challenges. Many of the products that are imported (**cellphones, computers, precision equipment**) will be difficult to manufacture locally.

The localisation constraints include: a shortage of skilled labour and technological transfer; limits on inputs (including **metal products, plastics and chemicals**); and currency volatility.

Meeting the 20% targets would mean effective growth of over 72% in the value of domestic production. This contrasts with an average annual contraction in domestic sales of 3.5% over the last five years.

The sector will not meet its localisation targets over the medium term. Certain targeted industries within the sector may meet localisation targets but this requires more research and focus.

Food and beverages

This sector is the biggest manufacturing success story of the democratic era. It has seen average export growth of 12% since 2010 and sales growth of 13% since 2015.

The sector requires growth of less than 3% to meet its localisation targets and will almost certainly meet its targets within one year.

Policymakers can maximise the success of localisation in this sector by ensuring that growth is broad-based across most (if not all) sub-sectors and is focused on high-value products (ie, processed and niche agricultural products).

Basic chemicals

The basic chemicals sector requires growth of 11.9% to meet its localisation targets. Average annual growth in the sector has been 1.8% over the last five years. The sector will not meet its localisation targets in the next five years without targeted interventions and a removal of structural constraints such as logistics bottlenecks.

Risks to localisation include a shortage of raw materials and a lack of domestic demand. On a disaggregated level, it will be difficult to meet localisation targets for **pharmaceutical products**, **cosmetics** and **toiletries**.

Motor vehicles, parts and accessories

The sector requires sales growth of 12% to meet its localisation targets while average growth has been 4.5% over the last five years. It is likely to meet its targets in the next three years.

Much depends on the recovery of local demand which fell sharply in 2019 and 2020.

Textiles and clothing

The sector requires sales growth of 24% to meet localisation targets. Sales have shrunk by an average of 3.9% over the last five years.

The sector has experienced a long-term decline since 1994 and is unlikely to meet localisation targets even over the next 10 years without a targeted and coordinated sectoral strategy. The new master plan, which includes the retail sector in the value chain, needs the support and buy-in of the retail sector to succeed.

High labour costs, a shortage of inputs, weak domestic demand and a volatile rand all pose significant threats to localisation.

Recommended localisation path and expected timeframe

The **motor vehicles, food and beverages, basic iron and steel** and **paper products** sectors are likely to meet localisation targets within the next five years, if not three. These sectors have experienced healthy growth over the last five years and are large and established.

Policymakers should focus on sub-sectors which are underperforming and target these for growth.

There should be a special focus on the **iron and steel sector** which has come under criticism for its high prices and monopolistic practices. There are negative implications for downstream sectors, such as **metal products**, if prices are not reduced.

There is an opportunity to push for greater supply chain integration since there is less pressure on the sector to meet its targets. The industry is awaiting the finalisation of the steel industry master plan. The [draft](#) was released in October 2020

The **chemical products, rubber** and **plastic products** sectors may only meet their targets over a 10-year period, and they will need particular focus if localisation targets are to be met. Policymakers should look at the disaggregated picture to see where there are weak supply chains and infrastructure bottlenecks. It may be that certain sub-sectors can be targeted for growth: the **chemical products** sector can meet localisation targets within five years if it is properly enabled. The **rubber products** sector will need help if it is to meet localisation targets within 10 years.

The **textiles and clothing** and **printing and publishing** sectors are likely to miss their localisation targets. These sectors have experienced a long-term decline in output. Focus in these sectors should be on preserving jobs and stabilising employment and output.

The retail-clothing, textile, footwear & leather (R-CTFL) master plan is targeting a 50% increase in employment and domestic output between 2020 and 2030. The buy-in and support of the retail sector is critical for the success of the master plan.

The greatest concern is in the **machinery and electronic equipment** sector which would need to grow by over 70% to meet its targets, compared with an annual decline in output value of 3.5%. There is no clear path to achieving localisation targets in this sector.

One preliminary approach may be to exclude those industries where South Africa has little to know chance of localisation success, such as the cell-phone industry. Imports of cell-phones are over R15 billion per year, equivalent to a localisation target of at least R3 billion. If policy-makers concentrate on a sub-group of this sector they are likely to set more realistic localisation targets and to have a higher probability of success.

Chapter 3: Localisation views of individual businesses

Survey Results

We wanted to get the views of individual businesses within the BUSA and BLSA membership orbits – to see what an on-the-ground assessment would be of the ability to localise, the implications and potholes. Our survey of 125 companies showed a strong desire and willingness to localise but “usual suspect” constraints were holding things back, while there’s concern over the cost implications of moving too fast. In summary we found the following:

- *A broad majority of firms are negative on current localisation policy but are positive about the aims and commitments of future policy.*
- *Capacity onshore and price are the top ranked blockages for companies buying more onshore. Technology availability and government policies also featured as a concern.*
- *Businesses thought that government did not understand well the challenges of trying to localise or the costs involved.*
- *Goods-producing companies thought they could undertake substitution of 12.6% of import “right away” under the right conditions. This rose to 32.3% of imports substituted after five years. Service-producing companies only saw possible substitution of 5.5% of imported inputs right away under the right conditions, rising slowly then to 11.6% after five years.*

We have seen what the literature has had to say and have dug into the data and had a quantitative look at the ability to undertake localisation – but what do South African businesses actually think? Given the complexity of the issue, this is crucial. The data can only tell us so much about supply chains and future change, given the political economy and sentiment-related issues that stem from policy issues like this.

Methodology

We conducted a survey of BLSA and BUSA member firms. Given that BUSA is mainly a collection of industry organisations, the survey was forwarded by them to their individual member companies themselves. The survey was distributed widely within these structures and substructures.

The online survey ran for three weeks during February 2021. We asked companies to ensure that the questionnaire be completed by the most senior person who had the most knowledge of the firm’s supply chain management and import content. Companies self-selected to respond to the survey. Several reminders were sent through BLSA and BUSA structures but individual companies themselves were not chased by us.

Most questions were optional except for sectoral identification and import content questions. Apart from totally blank responses outside of the required questions, generally we found a high rate of response to all questions. We removed those that responded only to the required questions.

The responses were then screened for possible duplicates from the same companies by three methods. The first was where the same company was clearly evident in email addresses or companies given – we found two pairs and included only the response from the most senior person.

Then we screened via IP addresses and sector. We found five pairs and one triple. In all cases we found the most senior respondent had answered the most questions and took these into our sample.

There were 154 total responses. We had 125 clean responses after removing (non-required questions) blanks (22 removed) and duplicates (seven removed).

The survey was anonymous – respondents did not have to leave their contact details or company name. However, the option did exist. While respecting anonymity, we were pleased to see we had a very strong cross-section of the largest companies and importers as well good SMME representation. As we can see below, we also had a good cross section of firm sizes.

In analysing the results, we use both raw averages across the sample and a weighting system. Given that it is not possible (in any easy way at least) to define what each sector in the economy imports in total, (because while imports are broken down by item codes that correspond to some sectors by name, sectors will import a variety of different item codes), so it is difficult to define sectoral import weights. We therefore weight sectors by GDP. We use 2019 nominal GDP weights. This is not perfect, but we do not believe there is a more reliable or robust way of defining such weightings.

While this larger study on localisation is about goods imports substitution, clearly both goods-related sector companies and service-producing companies import goods. The import intensity (as a share of output in real or nominal terms) will however be very different. As such we split the sample into service-producing companies and goods-producing companies (108 responses – manufacturing etc).

Note that the ICT sector falls awkwardly between these two categories. Some ICT companies are purely service providers while others have to import electronics, parts, etc. We have decided to include them in service-producing companies on closer inspection of the respondents. Health companies are also problematic. We decided, looking at their import intensity, to include them with goods-producing companies, but they also could fall into either. We therefore have 17 services responses overall.

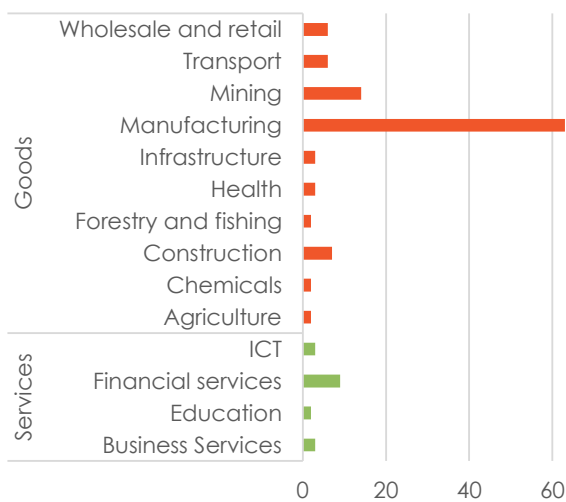
Some results were manually altered where, for instance, the “other” field saw free text added that was clearly one of the existing categories. Sector selection allowed people to select multiple sectors and a small number did. Most of these also provided their company and these were then manually allocated to just one sector. A number of companies wrote in “infrastructure” or “energy” which we have pulled out into a separate category from what might otherwise be put into “construction”.

Results – about the businesses

While most of our respondents are from the manufacturing sector (63) and then a distant second being mining (14) – there are still two or more companies in each sector.

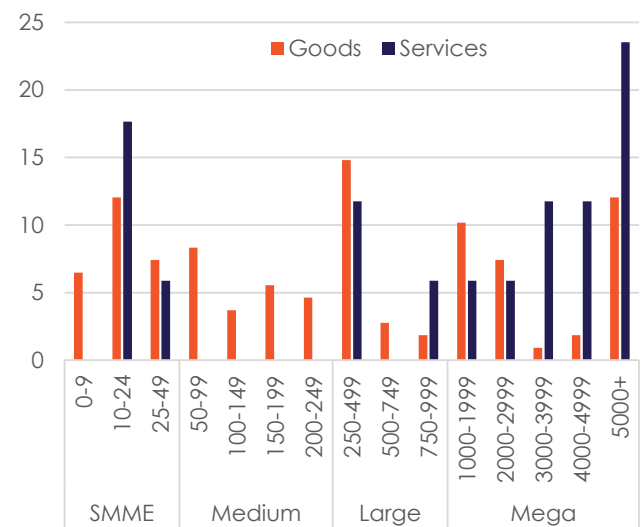
There is a pretty even distribution of size of goods-producing companies by number of employees: 26% small, 22% medium, 19% large and 32% what might be termed “mega”. Services company respondents were more lumpy – 24% were small and 59% mega. Financial service-producing companies accounted for this bulge. Within goods-producing companies, manufacturing also saw an even distribution across sizes.

Figure 25: Sector of respondents (number)



Source: Intellidex

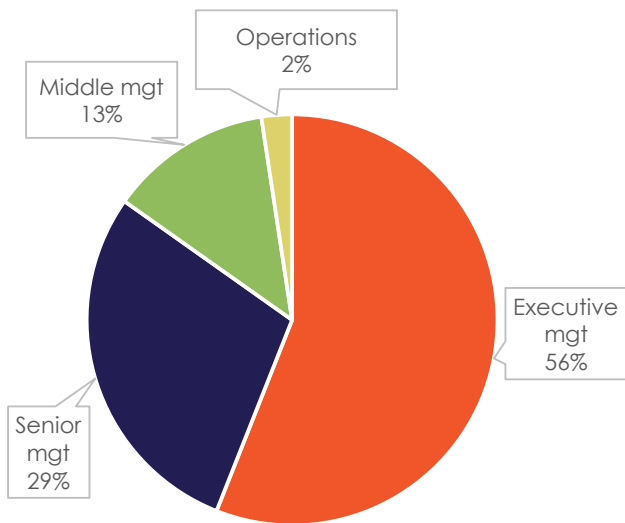
Figure 26: Number of employees (% of group)



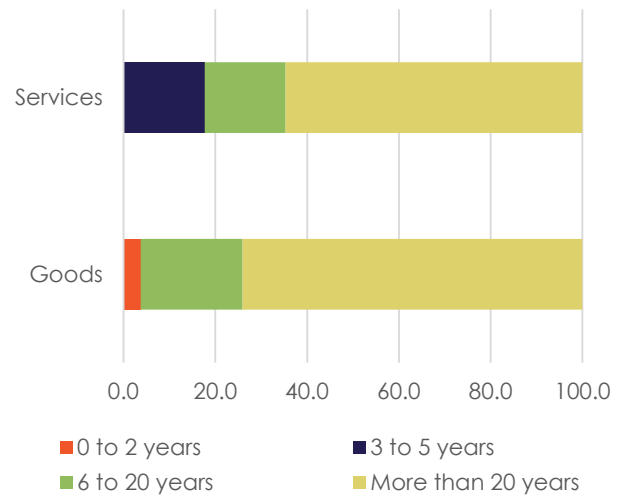
Source: Intellidex

We requested that senior personnel complete the survey and 85% of respondents were executive or senior management.

The sample was dominated by companies older than 20 years – 74% of goods-producing companies and 64% of service-producing companies. Manufacturing and mining companies dominated the older strata.

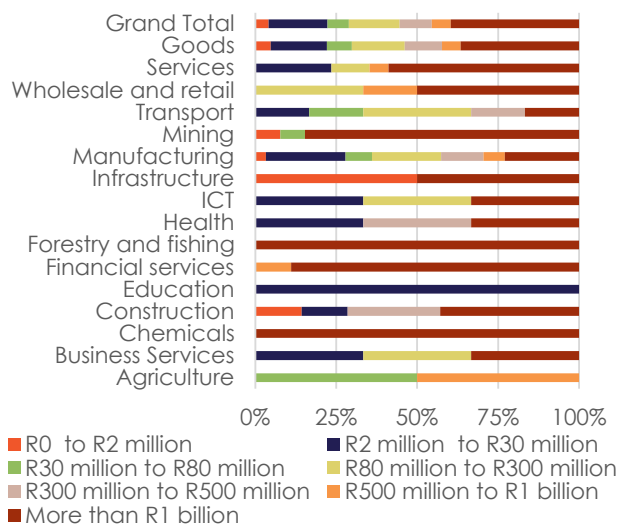
Figure 27: Seniority of respondents

Source: Intellidex

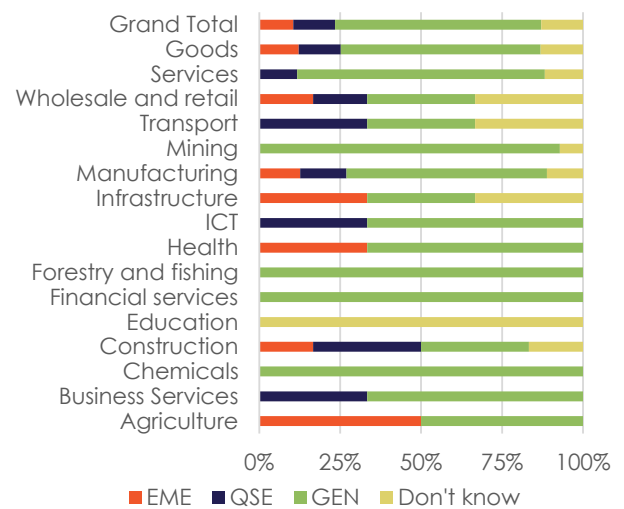
Figure 28: Company age (share of group)

Source: Intellidex

The picture of size is replicated by looking at both turnover as it is for B-BBEE status. Across all goods-producing companies, though, we can see a diversity of sizes again, while services is more top-heavy.

Figure 29: Company turnover per year

Source: Intellidex

Figure 30: BBBEE related size

Source: Intellidex

Results – imports

We asked¹ companies what their current share of direct goods imports was – ie, which they received themselves directly from offshore, as a proportion of input costs. Note that we asked these questions related to goods imports to the service-producing companies as well as the goods-producing companies – given that the framing of the current localisation discussion is about substitution of goods imports, not services imports. We also asked what their ultimate goods import share was, when looking down through their entire supply chain. The first part of the question is easy enough for companies to answer and they will often hold data on this, but the second is tricky – but still useful and informative, we believe. It is hard for companies to estimate the share of imports of their onshore suppliers and their suppliers.

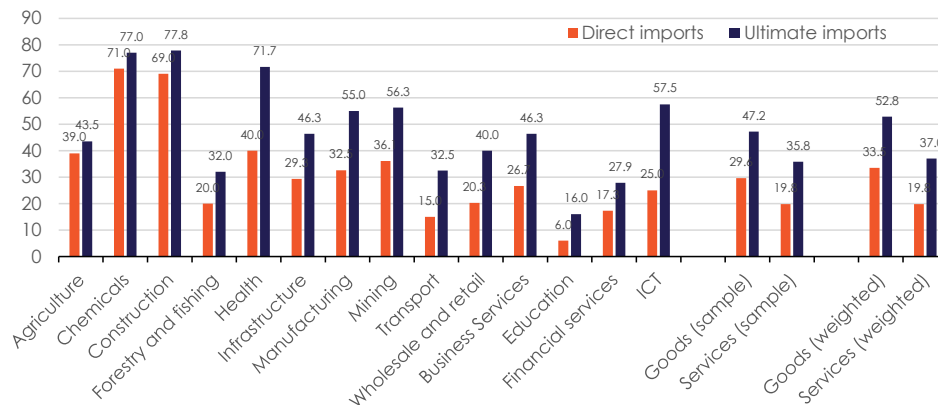
Chemicals and construction companies came out clearly on top, well ahead of others. Service-producing companies were lowest but also, interestingly, transport (which has a well-developed onshore manufacturing base of course). Overall, service-producing companies were at roughly half the direct imports of goods-producing companies (19% vs 33%) though the gap was slightly closer on ultimate imports at 37% vs 58%.

Most sectors saw 10-15% of input costs not directly imported as being ultimately imported. However, health, mining and ICT all stood out for having much larger gaps, suggesting the possibility of onshore intermediation between imports and the companies and one might question (though it is beyond the scope of this study) what the value added would be of that “bridge”.

This data will be important later when we look at import substitution responses from companies – to gain a sense of share of input costs that can be substituted.

This import data does roughly correspond with import intensity of headline GDP, which is a useful check.

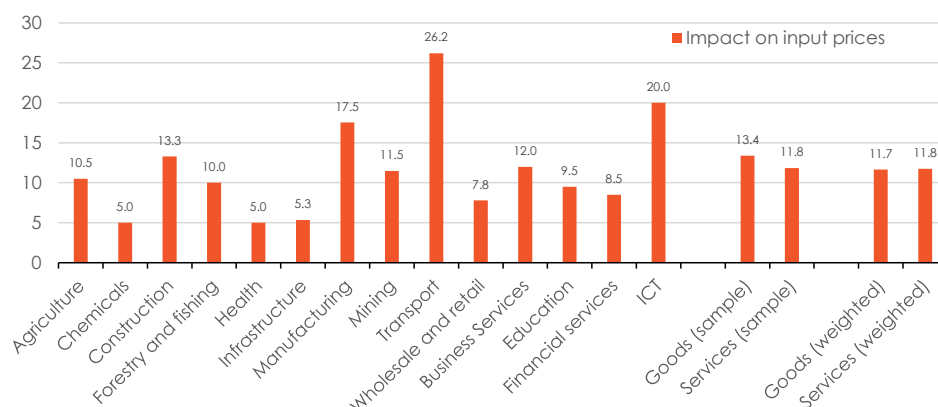
¹ The questions were: “As accurately as you can, what share (of ZAR value) of your total South African firm’s inputs of goods are imported directly?”; and: “As accurately as you can, looking through local intermediaries you buy from, what share (of ZAR value) of your South African firm’s total inputs of goods are ultimately imported?”

Figure 31: Direct and ultimate (via supply chain) imports as a % share of input cost

Source: Intellidex

We then asked respondents what the impact on their input costs was from localisation requirements. We let the interpretation of this be open ended given the rules differ across different industries. All companies face the enterprise and supplier development B-BBEE scorecard requirements which favours purchasing from local HDI firms, but some sectors like mining have further requirements in their charter. Broadly, looking at the verbatim responses, companies appear to have taken this question to mean the general impact of buying local from both regulatory and non-regulatory pressure.

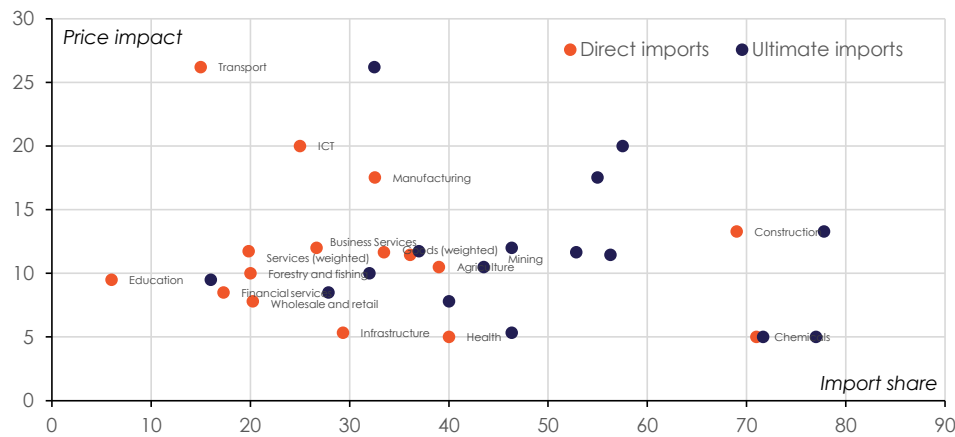
We can see price impacts across both goods- and service-producing companies of 11%. Transport comes out highest at 26% and the lowest are chemicals and health, though both have high import content. Interestingly, an intermediate sector like manufacturing is high at 18%. Importantly for retail and consumer prices, wholesale and retail reports 7.8% average price increases – lower than average, suggesting perhaps some margin compression through supply chains that protect consumers.

Figure 32: Impact of existing rules on input prices (%)

Source: Intellidex

To judge the price differential impact of localisation we can look at plotting the price impact vs import content. For those with low import share and high price impact like transport, but also a high-cost impact vs their import share like construction, we can see that there is a high cost impact per unit of domestic content. The following two figures show this. Construction particularly stands out which could be due to the high cost of onshore raw materials like cement, as well as import tariffs. This sees a 6% increase due to local content rules for every 10% of local content. Manufacturing and transport stand out for around a 4% increase in prices per 10% of local content. On average for goods-producing companies, we see an increase of 2.5% per 10pp of local rather than imported content.

Figure 33: Comparison of price impact vs share of input costs imported

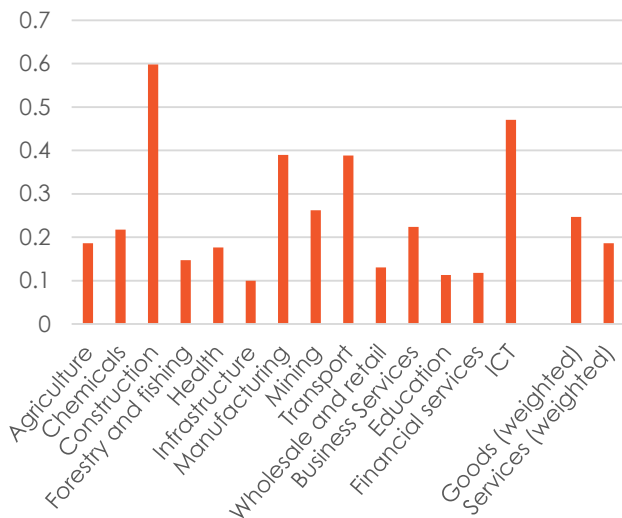


Source: Intellidex Note: Label applies to direct imports – read directly to right for ultimate imports point for that sector

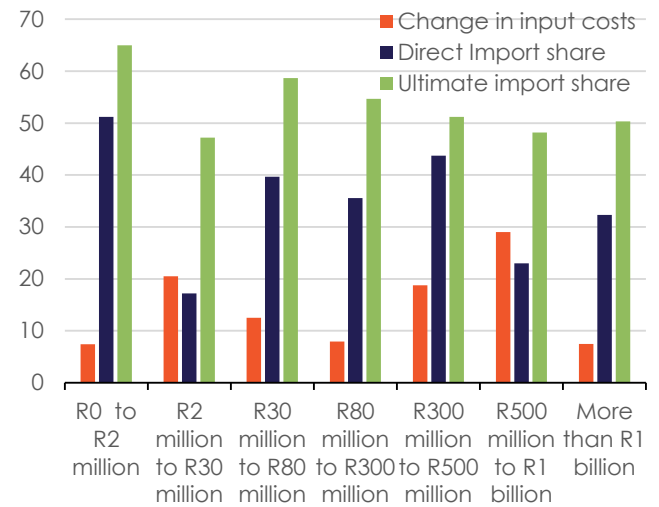
We should note these are NOT elasticities and need to be treated with care. They are designed to show the context of price increases from local content rules in relation to the size of non-imported goods (ie, local content), not changes vs changes (which would be an elasticity).

We think it's useful also to look at import content and price impact by firm size. We find a poor correlation for change in input cost – though very large companies do have the lowest price impact from local content rules which may suggest pricing power. There is a weak negative correlation between import share and direct inputs but this is stronger for ultimate inputs.

We might suppose some possible reasons for this are that firm size allows for greater onshore supply chain enterprise development (required for larger companies too in the B-BBEE scorecard), whereas these costs are too high for smaller companies.

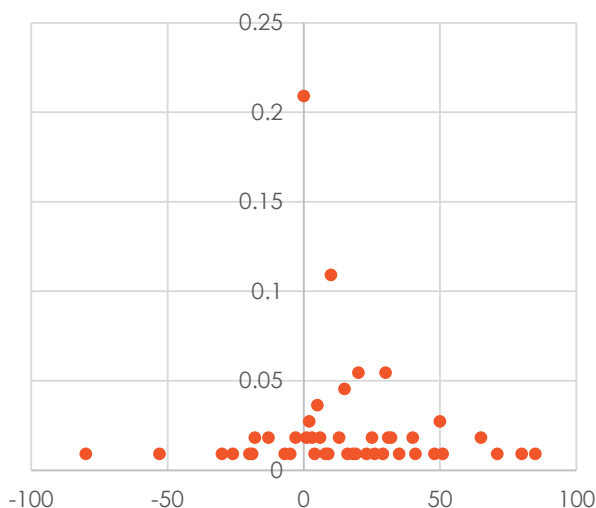
Figure 34: Change in price from local content per unit of local input

Source: Intellidex Note: these are NOT elasticities

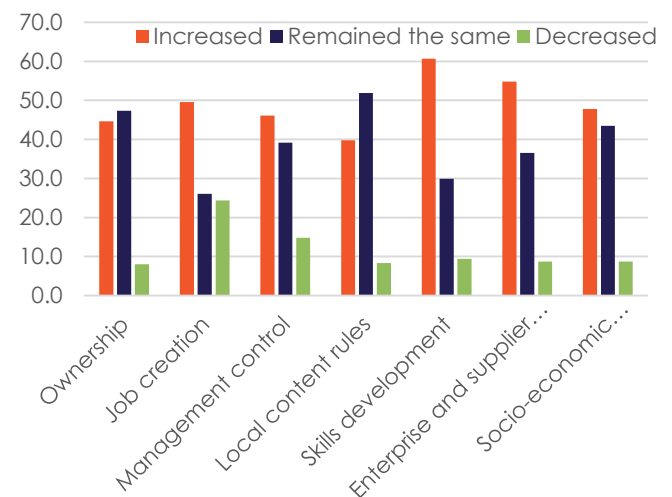
Figure 35: Results by size of respondent (%)

Source: Intellidex

When we look at the full distribution of input cost impacts from localisation, we do actually see some respondents identifying lower costs rather than higher costs. These are mostly in the manufacturing sector and some added free text responses – all saying that lower transport costs meant that onshore costs were lower. However, four identified that they used locally licensed offshore OEMs, which were less costly than shipping the same products from the OEM offshore. This has important lessons for REIPPP and other industrialisation pushes under way.

Figure 36: Distribution of input costs impact (full sample, %)

Source: Intellidex

Figure 37: Share of all respondents – shift in importance of factor in past five years

Source: Intellidex

Results – current views

Having understood the current state of our respondents' imports and price impacts from localisation, we turned to their views on policy.

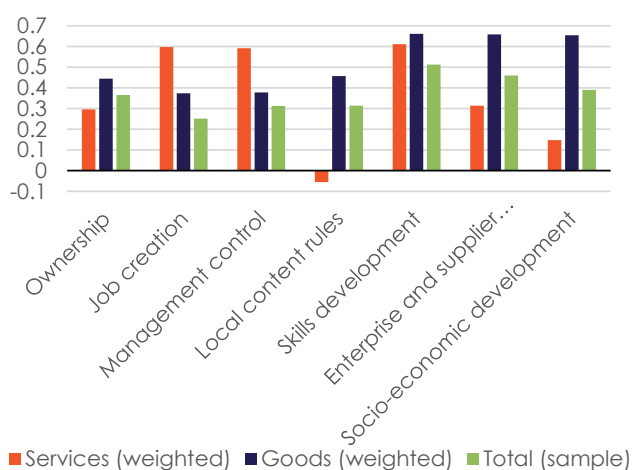
First we asked how various parts of the B-BBEE scorecard plus local content rules applicable to their firm had shifted in importance for them in the past five years. In general, there was a strong balance to an increase in importance of all factors. However, skills development and then enterprise and supplier development particularly stood out. Splitting out the two categories, we can see that there were strong and consistent increases for goods-producing companies in these two areas as well as socioeconomic development. Service-producing companies, meanwhile, saw the top focus on skills development and then job creation and management control.

Local content saw a decreased focus from service-producing companies (which makes sense given this is a concept much less applicable to them in regulatory codes for their sectors) vs goods. However, for goods it still was not particularly strong in terms of increase in focus. This is interesting but makes sense when compared to the fact that enterprise and supply chain development also largely encompasses local content concepts (though they are not exactly the same).

Taking a broad sweep of these results, we think we can say that local content concepts expressed directly or through enterprise and supply chain development have been an increasingly important concept for the balance of firms in the past five years.

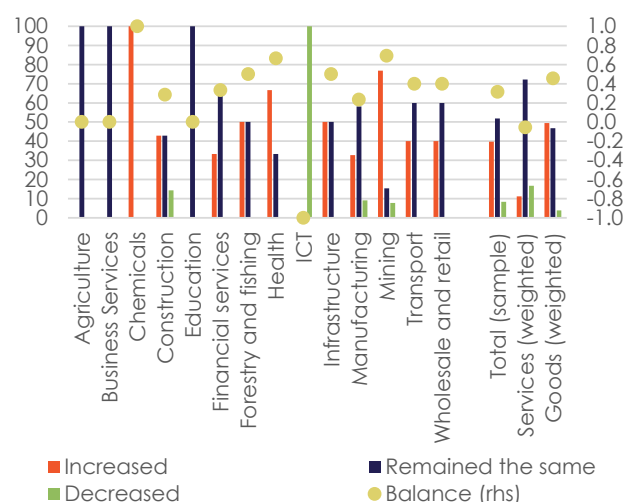
By sector, localisation as a concept has stood out, especially for chemicals, health and mining, looking at the balance of respondents.

Figure 38: Balance of view – shift in importance of factor in past five years



Source: Intellidex Note: +1= all respondents in group saw increase in importance, -1= all respondents in group saw decrease in importance

Figure 39: Shift in view of importance over five years on localisation



Source: Intellidex Note: For balance, +1= all respondents in group saw increase in importance, -1= all respondents in group saw decrease in importance

While this was not a survey about the B-BBEE scorecard, there are interesting views for further consideration elsewhere – especially on how the increasing focus has shifted down to the “bottom” of the scorecard (which we might

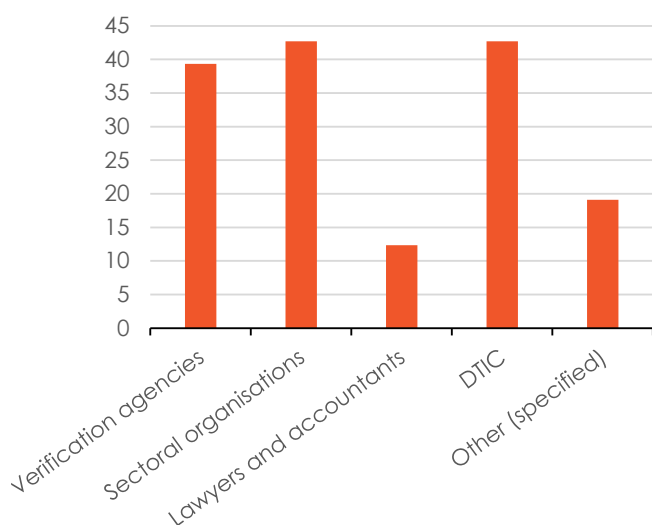
argue is more important for development) for goods companies, whereas for the service companies it is still more “top focused”.

Where do people get information on localisation issues and how do they form their views? We asked companies an open-ended question including an open text box for “other”. They could select multiple options.

Interestingly, sectoral business organisations and DTIC came in joint highest, followed by verification agencies. The latter reflects their importance in advisory as well as their quasi-regulatory function. We were surprised that lawyers and accountants were ranked so low even for the biggest companies – a gap in provisions maybe for such companies to think on.

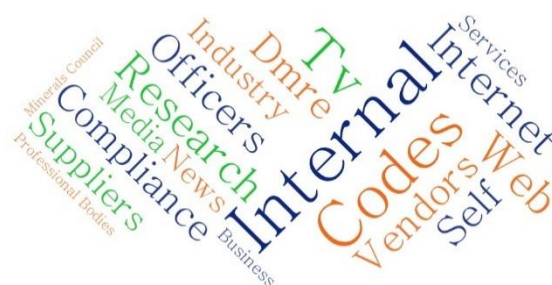
The “other” responses concentrated on own/self-research, highlighting the importance for transparency and clear communications. Some departments other than DTIC were also mentioned (DMRE especially given the mining segment in of our respondents), and then also interestingly suppliers or counterparties – showing the importance that the “look-through” principle has in parcelling policy pressure, disclosures and information up and down value chains. As this look-through principle intensifies in future industrial policy, so this route, one might suppose, will get more important – highlighting the need for clarity and good communications to prevent any Chinese whispers problems.

Figure 40: Share of responses (%) for sources of localisation information



Source: Intellidex

Figure 41: Other sources for localisation information – word cloud by number of responses



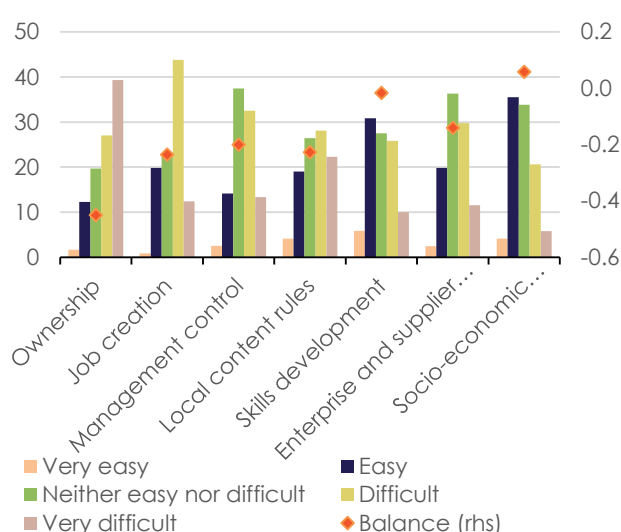
Source: Intellidex

We then wanted to get a sense of how easy it was to comply with the existing rules that industries face through supply chain requirements or industry specific localisation rules. We asked a range of questions to gauge this.

The first was relative to other scorecard-related requirements. Companies stated they found local content rules moderately difficult – about the same level as job creation rules and management control rules, but less difficult than those on ownership. They were more difficult though, than socioeconomic and skills development rules.

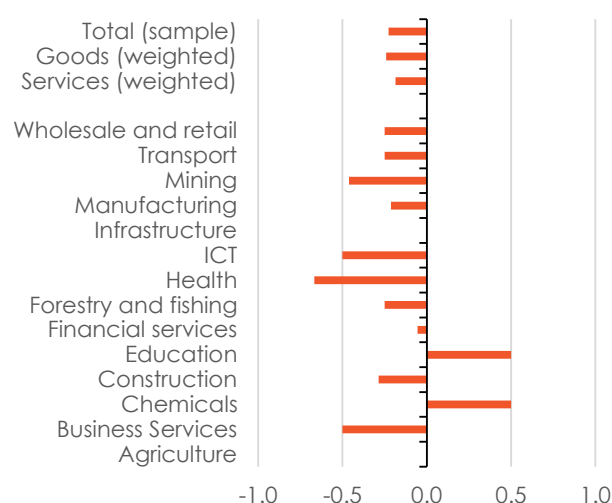
Interestingly the “test” here was to compare with enterprise and supplier development rules which, as we have explained above, are not identical but reflect how most companies are increasingly facing localisation requirements. Here there were roughly the same minority saying it was easy or very easy – 23.1% and 22.3% respectively for local content and enterprise and supplier development. Both saw roughly the same proportion of companies rating it as “difficult” to comply (28.1% and 29.8% respectively) – but the difference was really in those seeing it as “very difficult” – 22.3% for localisation and 11.6% for enterprise and supply chain development. This makes sense considering the “optional” nature of enterprise and supply chain development (to some degree – one just ends up with a lower B-BBEE score) vs localisation requirements that are more binding.

Figure 42: Ease for respondents to comply with requirements (% balance score)



Source: Intellidex Note: Balance, +1= all respondents thought it very easy, -1= all respondents thought it very difficult

Figure 43: Balance of ease to comply with local content rules by sector

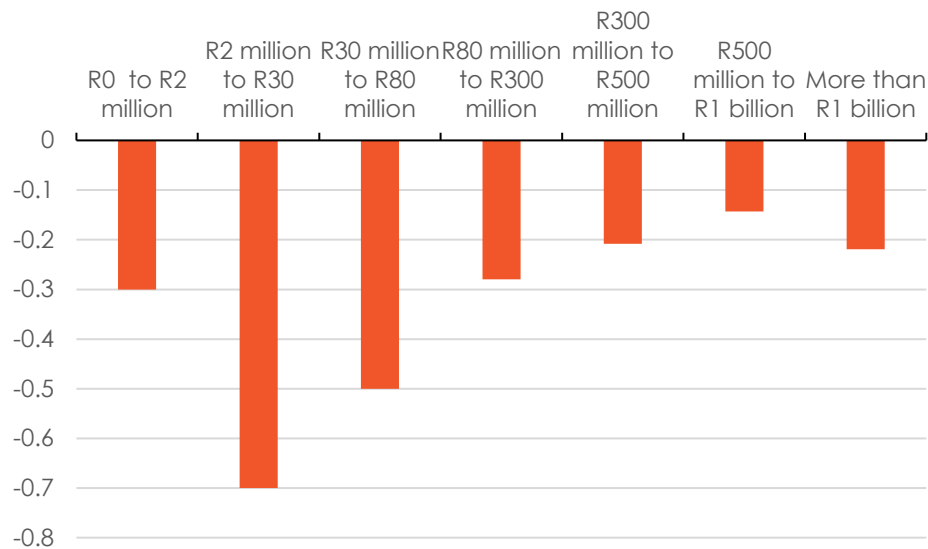


Source: Intellidex Note: Balance, +1= all respondents thought it very easy, -1= all respondents thought it very difficult

Health, mining, ICT and businesses services saw the most negative balance of views, with education and chemicals more positive. Most were in the middle, marginally on the negative side. Of those key sectors – zooming in to look at those sectors where greater than a third of sector respondents marking it as “very difficult” – we get agriculture, business services, health, ICT, infrastructure and mining.

An interesting cross check is for a correlation between size of company and ease to comply. We do this by looking at the balance of ease to comply by respondent company revenue.

We do indeed find a correlation. Those of the ZAR2mn-30mn budget are most negative while those of ZAR500mn-1bn are least negative. There is an interesting improvement for companies in the ZAR0-2mn bracket which likely reflects the fact that often (in most industries where you get such sized companies), local content is an exempt issue. We should remember that the three levels of the B-BBEE scorecard see smaller enterprises exempt from submitting scorecards.

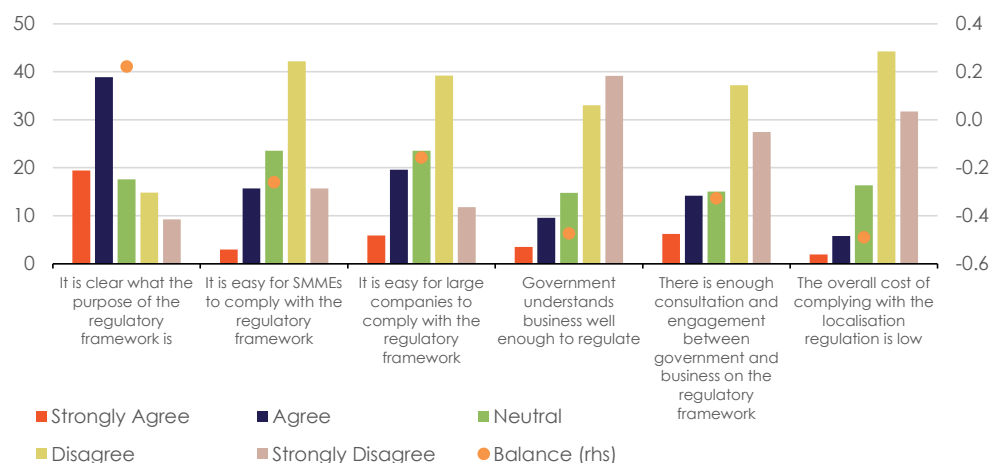
Figure 44: Balance of ease to comply with rules on localisation by turnover of company

Source: Intellidex Note: Balance, +1= all respondents thought it very easy, -1= all respondents thought it very difficult

Finally, we asked companies what they thought about the drivers of their views on the issue.

A strong majority of 58% agree or are neutral on the current policy framework being clear, while 76% “disagree” or “disagree strongly” that the costs of compliance are low. This is followed closely by 72% thinking that government understands business well enough to regulate them on localisation – an important outcome considering the complexity of supply chain management. Interestingly this garnered the most “strongly disagree” responses.

Only 20% thought there was enough consultation and engagement between government and business on localisation. Interestingly, there was disagreement on the statement that it was easy for both SMMEs and large companies to be compliant, though there was more negativity for SMMEs.

Figure 45: Sample views on localisation framework - % agreeing or disagreeing and balance

Source: Intellidex Note: Balance, +1= all respondents strongly agreed, -1= all respondents strongly disagreed

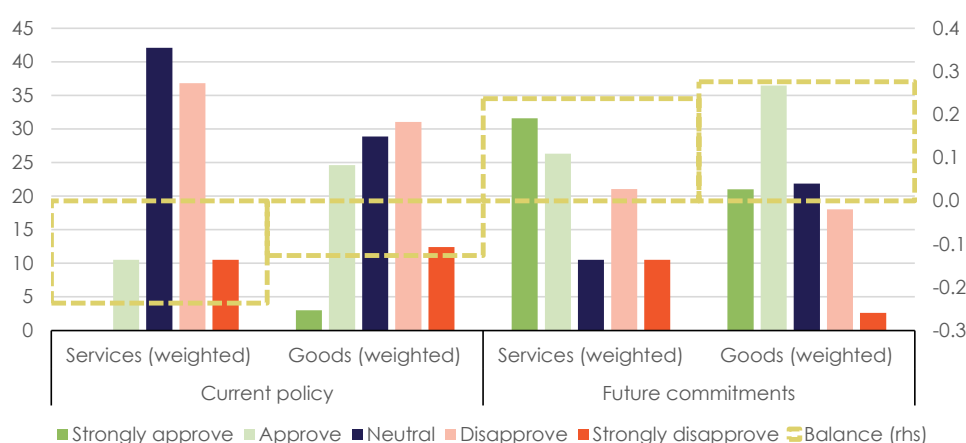
Results – Policy opinions

We turn now to the **key results** on approval for the new policy commitments. We posed to companies that government and organised business had committed to 20% of non-oil import substitution for local content – asking their opinion on this compared with existing policy.

The results are important, we believe. The balance of respondents approved of future commitments while also viewing current policy disapprovingly. There was some more scepticism on both counts from services than goods-producing companies. Goods companies in general had less extreme opinions.

Figure 46 to Figure 48 show further details of these main results from our survey.

Figure 46: Approval rates (% of respondents, lhs) and balance of view score, (rhs) of current policy and future commitments by government and organised business



Source: Intellidex Note: Net approval, +1= all respondents in sector saw approved, -1= all respondents in group disapproved

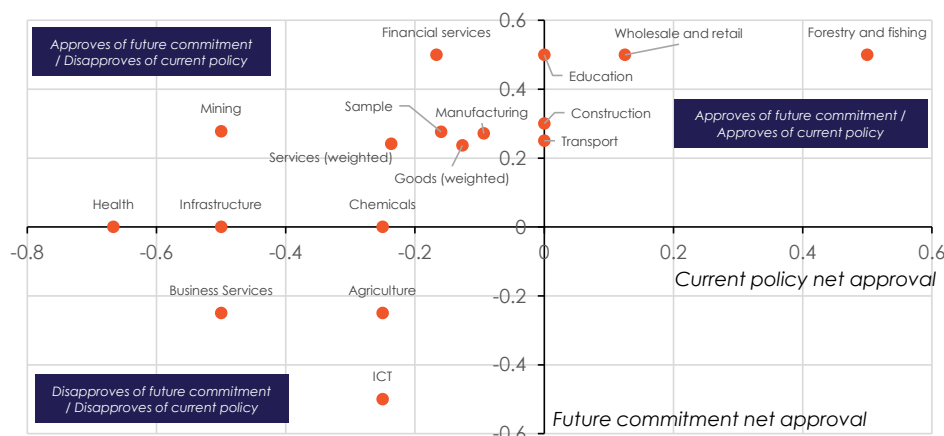
Breaking it down by industry and looking at the net balance of approval score for each, we can see that none approved of the current policy and disagreed with the future commitments. Two industries approved of both the current policies and future commitments – they were wholesale and retail trade and forestry and fishing.

Three industries were neutral on current policy but approved of future commitments – education, construction and transport. Three industries disapproved of current policies (but were an improvement) and were neutral on future commitments – they were health, infrastructure and chemicals. Some degree of scepticism here from infrastructure-related companies on goings on in REIPPP is interesting.

Three industries disapproved of both the current policies and future commitments – agriculture, business services and ICT.

The remainder disapproved of current policy but approved of future commitments – mining, manufacturing and financial services.

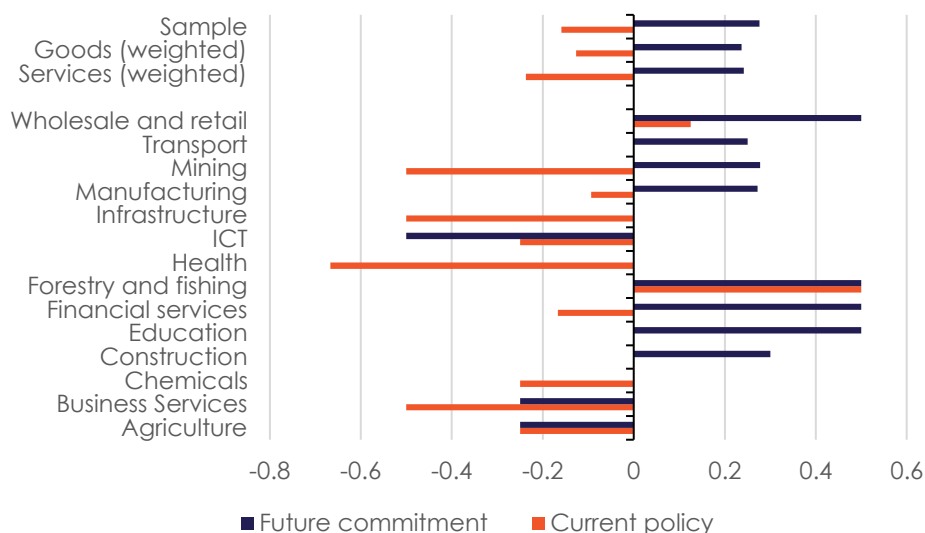
Figure 47: Net approval rates of current policy and future commitments by government and organised business



Source: Intellidex Note: Net approval, +1= all respondents in sector saw approved, -1= all respondents in group disapproved

The splits here are interesting and we will look further into possible reasons and analysis in the final section of this chapter.

Figure 48: Net approval rates of current policy and future commitments by government and organised business



Source: Intellidex Note: Net approval, +1= all respondents in sector saw approved, -1= all respondents in group disapproved

Results – looking forward

Turning attention from the views on future commitments to companies' actual ability to deliver on them, we asked what constrained their own ability to localise more in the foreseeable future and similarly what they thought would restrain their supply chain from doing so. In each question, companies had to rank the answers in order of priority. We convert this into a standardised score below.

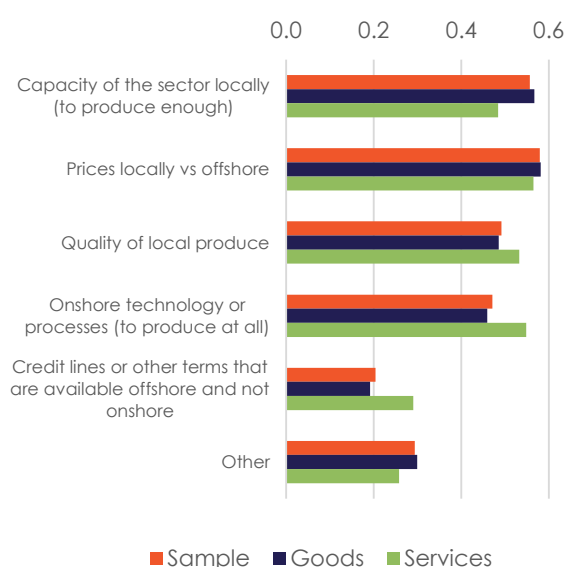
Answers were quite consistent between the two.

In both the price of onshore produced inputs vs offshore, imported goods came out top for goods-producing companies. Existing onshore capacity of technology and processes came top. This was followed closely by onshore capacity for companies' own ability. Quality came a little lower and onshore technology or processes lower still – implying that importation of processes has not been a real restraint. Preferential credit or other terms for offshore vs onshore inputs didn't really seem to pay a price (eg, export trade credit from foreign countries).

Service-producing companies showed a more even spread in drivers.

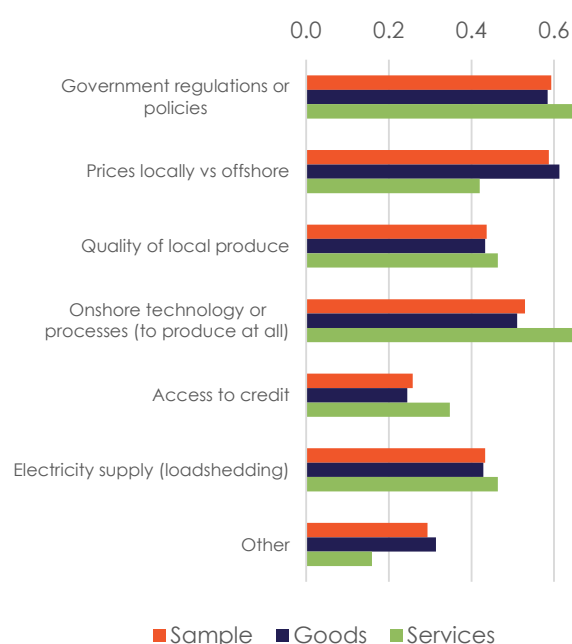
Supply chain restraints interestingly did not register loadshedding that highly though it did get frequently mentioned in the open-ended "other" box on both this question and the previous one. Again, price came out highest but government policies a close second for goods companies. Service companies saw technology problems from sourcing onshore more than goods companies, whereas price was much less of an issue. Again, perceptions were that access to credit was not a problem.

Figure 49: Constraints to respondent using more local content (priority score)



Source: Intellidex Note: Higher score means priority rankings were given to reason in forced ranking

Figure 50: Perceived onshore supply chain constraints

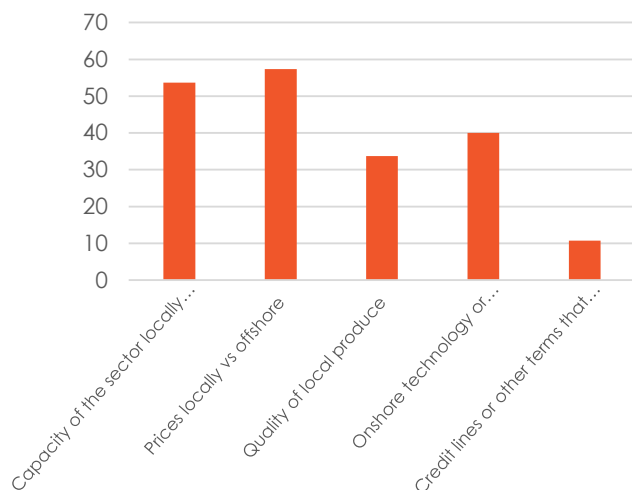


Source: Intellidex Note: Higher score means priority rankings were given to reason in forced ranking

The broad impression here, however, is that there is a slew of factors holding back localisation, but they are not insurmountable.

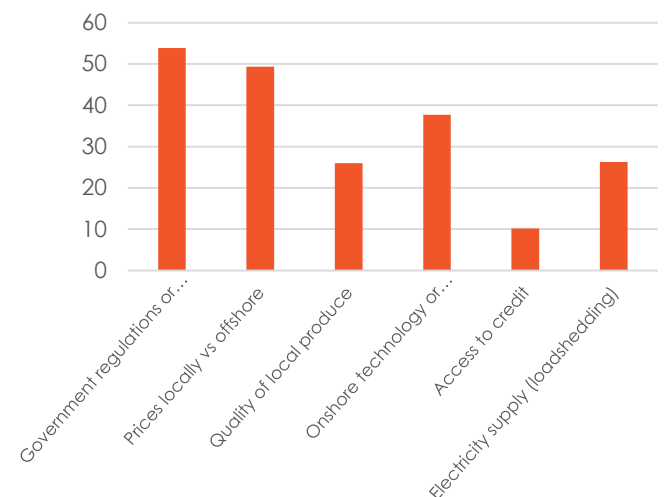
Another way of looking at it is that 57% ranked price in the top two responses, then 54% ranked capacity holding them back. For their supply chains, 54% ranked government regulations in the top two, followed by 49% with price.

Figure 51: Constraints to respondent using more local content (% ranking in top two priority)



Source: Intellidex

Figure 52: Perceived onshore supply chain constraints (% ranking in top two priority)



Source: Intellidex

Below we see the verbatim responses for both companies' own choices and perceived for their supply chain. It was interesting that at least 80% of companies chose to write in detail.

There was a strong thread through the responses of a lack of local options, OEMs and parts only being available offshore. Many mentioned Eskom and unreliability of production – especially for raw materials like steel. Many specifically mentioned a desire to take on as much competitively priced local product as possible. “We always try,” said one company, another said: “We support where we can but often have limited options.”

Of note, there was another thread that companies were tied to OEMs and required parts with certain standards but that these OEMs did not produce in SA and should do. This is an area that DTIC should look at closely.

Similarly, many mentioned specifically that capacity meant choice or customisation options.

Broadly, the answers showed – in our interpretation – constructive feedback and a willingness to do more but perhaps with some degree of exasperation– especially with DTIC.

Figure 53: Word cloud for blockages and change required

Source: Intellidex

Turning to the sectoral breakdown we can see the key drivers. Capacity is key for chemicals, infrastructure and mining. Price the priority for agriculture, education, forestry and health. Manufacturing sees capacity and price equally ranked. Availability of onshore technology or processes ranks highest for ICT and interestingly for wholesale and retail. Quality features for transport and businesses services.

Figure 54: Average rank by sector of constraint on own import substitution

	Capacity of the sector locally (to produce enough)	Prices locally vs offshore	Quality of local produce	Onshore technology or processes (to produce at all)	Credit lines or other terms that are available offshore and not onshore	Other
Agriculture	2.5	1.0	5.0	4.0	5.0	3.5
Business Services	2.5	2.5	2.0	3.5	4.5	6.0
Chemicals	1.0	2.0	3.0	4.0	5.0	6.0
Construction	2.6	3.2	2.0	3.4	3.8	6.0
Education	6.0	1.0	2.0	4.0	5.0	3.0
Financial services	3.2	2.5	2.7	2.8	3.5	4.8
Forestry and fishing	3.0	1.5	3.0	2.5	5.0	6.0
Health	4.0	1.3	4.0	4.0	3.3	6.0
ICT	2.5	3.0	3.5	1.5	4.5	6.0
Infrastructure	2.0	2.5	2.5	3.5	4.5	6.0
Manufacturing	2.5	2.5	3.3	2.9	4.7	5.1
Mining	1.9	2.6	2.9	3.0	4.5	4.9
Transport	3.0	2.3	2.0	3.5	5.3	5.3
Wholesale and retail	3.3	3.0	2.3	2.0	5.0	3.5

Source: Intellidex

The broader supply chain view is more nuanced. Onshore technology availability becomes more important for forestry and infrastructure while government regulations and policies feature heavily. We can see again how loadshedding is less of a binding constraint.

Figure 55: Average rank by sector of perceived constraint on supply chain

	Government regulations or policies	Prices locally vs offshore	Quality of local produce	Onshore technology or processes (to produce at all)	Access to credit	Electricity supply (loadshedding)	Other
Agriculture	2.0	1.0	4.0	4.0	5.0	5.5	6.5
Business Services	3.0	3.0	2.0	2.5	5.5	6.5	5.5
Chemicals	1.0	2.0	5.0	3.0	6.0	4.0	7.0
Construction	2.5	3.0	2.0	3.8	3.8	5.6	7.0
Education	6.0	7.0	5.0	1.0	2.0	4.0	3.0
Financial services	1.5	4.0	4.0	3.2	4.4	2.2	6.0
Forestry and fishing	3.5	3.0	4.0	1.5	6.0	3.0	7.0
Health	2.3	1.3	3.7	4.7	4.7	4.3	7.0
ICT	3.0	3.5	4.0	1.0	5.0	4.5	7.0
Infrastructure	3.5	3.5	2.0	1.0	3.5	5.5	7.0
Manufacturing	3.2	2.6	4.1	3.4	5.2	3.3	6.1
Mining	1.9	3.3	3.9	3.3	5.0	4.0	5.5
Transport	2.0	2.7	5.5	4.0	5.7	3.5	5.0
Wholesale and retail	2.0	3.0	4.7	2.3	5.0	4.3	4.0

Source: Intellidex

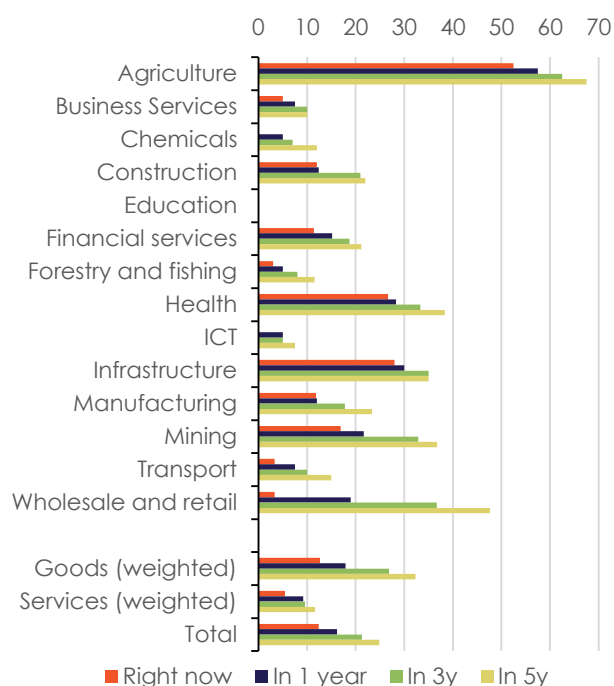
What then, with these constraints, do companies think they can achieve in terms of localisation. We asked companies what was possible – in terms of share of current inputs that are imported, could be substituted, over various time frames under the right conditions. This is a challenging question that required respondents' expert judgment and deep knowledge of their supply chain.

Clearly there are risks to partial vs general equilibrium of one company being able to take up local excess capacity when many couldn't simultaneously. But we are looking here at an outer limit case – a best case scenario where there are not supply constraints.

We found that agriculture thought they could import substitute fastest, then health and infrastructure. Service-producing companies felt they were less able to substitute faster than goods-producing companies. Wholesale and retail interestingly did think they would be slower out of the gates but then would be able to substitute to a greater degree than most other sectors – over five years. Mining was similar.

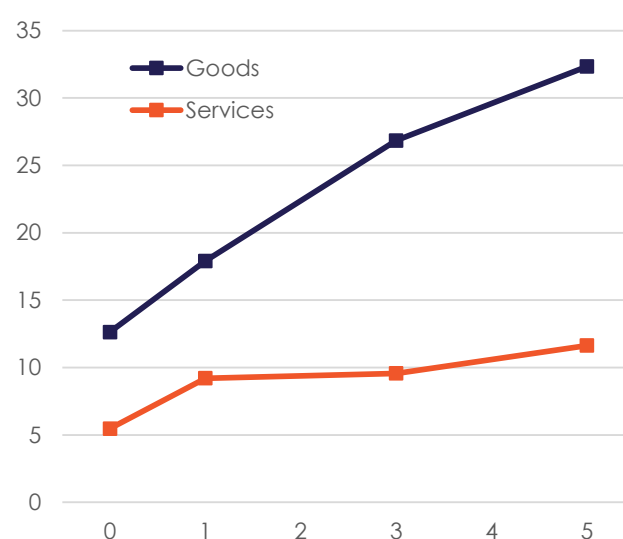
Chemicals and transport companies, with some of the most complex supply chain technologies, felt they were least able to substitute, along with forestry and business services.

Figure 56: Capacity to localise what share of imports over what timeframe (under the right conditions) – share of imports (%)



Source: Intellidex

Figure 57: Capacity to localise over what time-frame (under the right conditions)



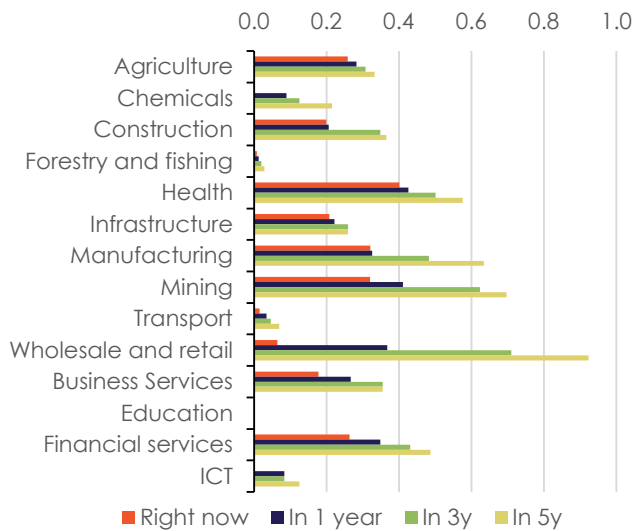
Source: Intellidex Note: weighted

Looking at each grouping overall, we see decent volume for goods-producing companies of 12.6% import substitution considered to be possible "right away" *under the right conditions*. This rose to 17.1% after one year and then 32.3% of imports substituted after five years. Service-producing companies only saw 5.5% of imported inputs being substitutable right away *under the right conditions*, rising slowly then to 9.2% after one year and 11.6% after five years.

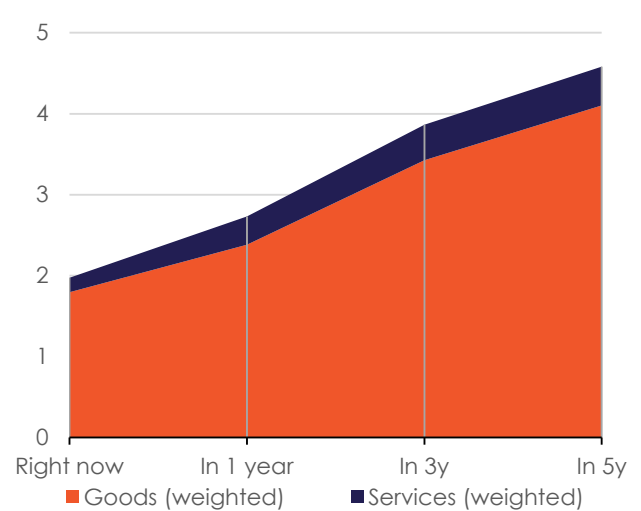
We convert this to a percentage of GDP output of each sector (it is not possible to view a share of % of GDP inputs or imported) to get a sense of importance of scale and where policy focus should be. Services should be treated with a significant amount of salt here – given they have significant value added between inputs and outputs. As such we specifically exclude financial services companies. Construction and infrastructure are assumed to share the same GDP category here and so each sees it compared with half the GDP category size.

Initially health stands out, but others quickly overtake. In particular over time, wholesale and retail trade stands out over five years with 0.9% of GDP substituted. Next, over the same period, comes mining at 0.7%GDP and then mining at 0.6% GDP.

Added together, we could see around 2.0% GDP import substituted in short order, rising to 4.6% of GDP over five years. These are substantial amounts but depend on optimal policy and underlying conditions.

Figure 58: Localisation potential as a share GDP (%) by industry

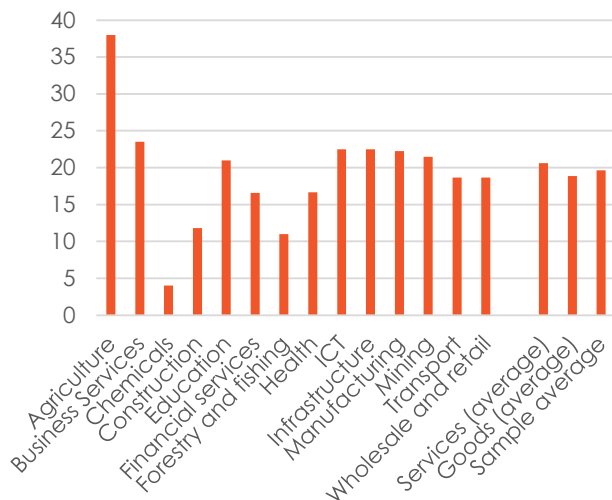
Source: Intellidex

Figure 59: Localisation potential as a share GDP (%) by group

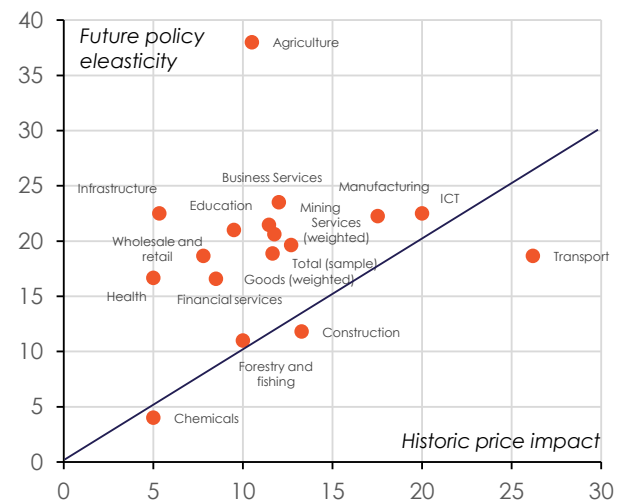
Source: Intellidex Note: Excludes financial services

Finally, we asked companies what the impact of price would be of them of substituting 20% of imported goods now, under current conditions. This was to gauge the impact of forcing the shift without the above conducive foundations, in particular for the many industries that put capacity as a top issue. Some caution is needed here – while respondents were self-selected to be experts in their supply chains, judging price elasticities is difficult and can be non-linear.

The bulk of companies expected an increase in prices of about 20%. Mining, infrastructure and manufacturing came in just above at 21-22%. Wholesale and retail came in a little lower at 19%. Agriculture came in the highest at a 38% price increase while chemicals was at the lower at 4%. Construction and forestry were at 11%.

Figure 60: Price elasticity of attempted substitution of 20% of import prices

Source: Intellidex

Figure 61: Comparison of price responses in survey

Source: Intellidex

Given the difficulty in answering this question, we can check it against the historic price impact seen from existing policies – by looking at the price changes seen scaled by current imports. This is not a perfect measure but allows some giggle check of outliers. Transport comes in for future price changes surprisingly low. Agriculture is surprisingly high. Infrastructure is also rather high.

One explanation for these outliers is where capacity constraints are now very close, for instance for agriculture and infrastructure (and in general, most sectors are “above the line” in the figure above), compared with transport which has a subsidy scheme in place that might enable capacity to expand.

Concluding Analysis

We think, from this substantive survey analysis of a broad cross-section of company sizes and sectors, that there is a clear willingness and desire to buy local as much as possible. Yet the constraints are quite clear and can be addressed with policy certainty and demand as well as predictable government policy.

These conflicting sentiments came across in the verbatim responses which were constructive, yet also showed hints of pessimism and frustration. Many wider macro issues were raised in terms of the ease of doing business, including labour laws (four responses) and generalised policy certainty (seven responses).

There were some calls for more local content designation and import tariffs but generally respondents seemed to favour a more market-based approach which saw the needs of various stakeholders balanced. Enforcement came up in 12 of the responses – particularly SOE procurement and the need to lead by example.

The DTIC's new local content portal, if it can be effective and user-friendly, may provide some reassurance to a number of companies that stated that it is not easy to bring local content production to the attention of the department, though the new portal is meant more to bring it to the attention of customers. Several responses said the DTIC needed to better understand the local landscape and what was possible in production terms and when.

A number of respondents posed interesting concerns around export and AfCFTA: how can companies exporting from SA and building globally competitive businesses be expected to import substitute when they should be deepening global supply chains, particularly in the rest of Africa. Some called for an exemption of export-led companies to ensure that there would be jobs maximisation onshore interlinked to new global supply chains. Currently there is an uneasy calm in sectors with compacts like car manufacturing, but it would seem there is some cry from industry for a more thoroughly thought-out policy in this area from DTIC.

Similarly, the need for OEMs or OEM-accredited locals manufacturing "offshore" goods onshore was seen as a crucial area raised in verbatim responses. This issue has come up in REIPPP-related procurement rules increasingly and should – based on the number of responses – be a major topic of interest to DTIC to promote. AfCFTA surely provides a new and wider market for OEMs based onshore that DTIC should support.

Three respondents mentioned steel prices and four referred to concrete and building materials as being prohibitive, and that prices of local input goods made export businesses uncompetitive.

There is much food for thought and further research possible here. Companies could be asked more detailed questions on the order of addressing priorities, for instance, or about specific input costs like steel. These however are better dealt with by sectoral-level surveys that can deal with idiosyncrasies.

We think there is strong evidence from this, first of its kind, generalised macro level localisation survey of South African companies that there is a path that can be found. There is a willingness to think positively about future options, but the foundations are clearly crucial and there are high levels of scepticism based on current policies. This moment may not last, however, and it should be grabbed –government could regain much credibility by resolving the highlighted constraints.

The outcome of missteps is clearly large, with a price hike roughly of 20% as procurers hit onshore capacity constraints, which will dent sentiment. The survey also hints at this more negative outcome from being too aggressive and ill prepared for a push to localisation.

