Introduction
Spelt out in a series of annual Industrial Policy Action Plans (IPAP), South Africa’s industrial policy has been in place for over a decade. Instruments have been chosen to support the manufacturing sector in general and certain sectors have been prioritised and receive additional support.

This paper examines the major instrument of South Africa’s industrial policy, namely investment subsidies, and the three major priority sectors, autos and components, clothing and textiles and mineral beneficiation. The paper outlines the failure of industrial policy to realise its objectives. It also outlines the poor performance of South African manufacturing as compared with comparator countries. In the light of this failure and South Africa’s poor comparative performance, the paper proposes some alternative strategies to enhance manufacturing growth and employment.

The performance of the SA manufacturing sector
How has the manufacturing sector performed over the duration of South Africa’s current industrial policy, approximately a decade?

South Africa’s current manufacturing output is still below that of 2008. By contrast, emerging markets overall have increased manufacturing output by some 50%.

South African manufacturing output growth has consistently been below output growth in the rest of the economy. In sharp contrast to the IPAP and government strategies which envisaged a growing share of manufacturing, manufacturing as a share of GDP has fallen from 16% to below 12%. While other emerging markets have also seen a decline in manufacturing as a share of GDP, the decline has been far more severe in South Africa (IPAP, 2018:22).
The declared objective of the IPAP was to create an additional 350,000 manufacturing jobs by 2020. This objective was confirmed by the government’s overall strategy, as outlined in the New Growth Path (NGP) (Economic Development Department, 2013). However, South Africa’s manufacturing employment has fallen steadily. Manufacturing employs 320,000 fewer people than in 2008 (IPAP, 2018:20). This decline in manufacturing employment arises not only because of the slow rate of growth of manufacturing output, but also because the employment intensity of that growth, the amount of jobs per unit of output, is low. Moreover the employment intensity of manufacturing growth has been declining. Again, while the declining employment intensity of growth is not confined to South Africa, it is far more pronounced here.

“…. a worrying trend is the declining employment intensity of the South African economy – even more pronounced in the manufacturing sector…. Although this trend is not unique to South Africa, it manifests in a particularly acute form here....” (IPAP, 2018: 21).

Manufactured export growth has been very slow over the past decade. In terms of volume, non-mineral manufactured exports have stagnated. By contrast, South Africa’s industrial policy, the NGP and the National Development Plan all envisaged significant growth in manufactured exports. South Africa’s manufactured exports have grown far more slowly than its peers and South Africa’s manufactured exports are well below the country’s potential. Large and well-established exporters are exporting less new products and to fewer new destinations. At the same time new entrants into export markets are very limited. "South Africa has one of the lowest new firm entry rates into exporting among its peers" (World Bank, 2014: 21).

The evidence is compelling:

• Measured in terms of growth in output, employment and exports, South African manufacturing has fallen far short of the declared objectives of industrial policy. In addition, South African manufacturing has performed very poorly by comparison with countries at a similar stage of development.

• There is a consensus amongst practitioners that good practice industrial policy must include a regular review of policy. Have the supports met their declared objectives? Do these supports need to be reconfigured or reconsidered? Where, policy objectives have fallen far short of actual performance, and where a country’s performance is significantly inferior to that of comparable countries, the need for a substantive review is accentuated.

But, South Africa’s industrial policy has had no such substantive review. A substantive review of South Africa’s industrial policy, the overall policy as well as its different components, is overdue.

The rest of this paper outlines some of the key issues that such a review would need to consider.

South Africa’s Industrial Policy

Investment incentives

The cornerstone of South Africa’s industrial policy is an elaborate system of investment incentives. “One of the most effective DTI contributions in support of broadening economic participation, inclusive growth and job creation has been its continuous provision of incentive packages......These were mainly targeted at investments in plant, machinery and equipment, export marketing activities and the acquisition of business development services (IPAP, 2018: 46).

From 2011/12 to January 2018, 14,226 enterprises received incentives totalling some R61 billion (IPAP, 2018:46).

The DTI claims that between 2011 and 2018, incentives resulted in the creation of an estimated 670,994 jobs. (IPAP, 2018: 46). This is an extraordinary claim, particularly given that manufacturing employment declined significantly over this period. No substantiation is provided as to how this figure was determined.

1 Employment creation is the only quantified objective that the IPAP provides by which the performance of industrial policy can be assessed. Kaplan, 2013: 12
A number of questions arise:

- Since the investment incentives are available to all firms, how much of the incentive is being provided to firms that would have made the investment without the incentive?
- In a very low growth environment, as is the situation in South Africa, the key constraint on investment is a lack of demand. Where demand for a firm's product is not growing, will a lower cost of investing induce a firm to invest?
- Critically, since most of the investment support is for capital investment, do investment incentives encourage the substitution of capital for labour i.e. result in a less labour demanding manufacturing growth path?

Support for manufacturing capital investment in South Africa takes place in a context where labour market flexibility is low and where the costs of labour, including the costs of hiring and firing, are increasing. The national minimum wage will result in further significant cost increases for those manufacturing firms employing workers at less than the minimum wage, particularly for labour intensive firms.

By lowering the costs of capital in a context where labour costs are rising, South Africa’s industrial policy may be contributing to a less labour demanding manufacturing growth path. We noted earlier that the declining employment intensity has been more pronounced in South African manufacturing than in other comparator countries.

Auto and auto components

The development of the auto and auto components sector has been the primary target of South Africa’s industrial policy. No other manufacturing sector has received anything comparable to the support and the attention that has been provided to autos and auto components.

The DTI claims that its programmes and supports for the sector have been extremely successful. They point to increases in output and investment and particularly to the growth in exports, which have been very significant. This narrative of evident success is widely accepted and there have been calls for the policy for this sector to be extended to other sectors. In his reply to the debate on the State Of the Nation speech in June 2018, President Ramaphosa spoke of South Africa’s future industrial policy as building “…on the successes achieved in areas like automotive manufacturing.” However, the picture is more complex.

At the outset, it is important to note that the policy objectives for the industry have not been met. There were three key objectives of the support programmes:

- The first objective was an increase in production. In 2008, South Africa produced 563,000 vehicles. The declared objective was to double production to 1 to 1.2 million vehicles by 2020. In 2018, 610,854 vehicles were produced; an increase of a little over 8% in a decade. The figure for 2019 is likely to be lower.
- The second objective was to “deepen” local content. However, local content levels have been declining and are now below 40%.
- The third objective was, on the back of rising output and increasing local content, an increase in employment. However, aggregate employment levels have declined.

Even the export performance of the sector needs to be qualified. While exports have been growing, so have imports and with the declining local content of vehicles exported, the adverse trade balance remains large. Indeed, the major reason as to why the adverse balance of trade is not currently even greater is that local car sales (and hence imports) are low given the weak economy.

As the new South African Automotive Masterplan report concludes, despite more than a decade of substantial government support, there is no indication that the South African auto industry has become more competitive. Moreover, and this is significant, the sector has not performed as well as in other countries that have a similar GDP per capita and

\[1\] In the period 2004-2006, employment in motor vehicles and parts and accessories was 116,416; a decade later, in the period 2014-216, employment had declined to 92,213. Quantec data.
economic structure, such as Brazil. “These factors do not suggest a fundamental change in either the South African automotive industry’s base competitiveness or its strategic position. The national government may be providing substantial support to the South African automotive industry …………. but the industry has not performed as well as a range of comparator economies” (Barnes et al, 2018:16)

What of the costs of the supports provided to the autos and components sector by government? National Treasury calculated that the costs of support at approximately R211 billion between 1995 and 2012. Since 2012, support has increased significantly. For 2018, Treasury calculated that support to the industry was R27 billion. This figure is for tax foregone. This dwarfs the support given to any other sector – indeed it far exceeds the support given to the rest of the South African manufacturing industry.

In addition, there are costs to the consumer in the form of higher costs of cars and components as a result of tariff protection afforded the industry. In 2007, the National Treasury estimated the annual cost of the program to consumers to be about R15 billion. More recent data are not available.

Determining the true extent of the subsidy, and especially the costs to the consumer, is complex and open to debate. Treasury figures have been disputed as inflated. On the other hand, Treasury estimates exclude some factors e.g. the support provided to the industry by provincial governments and the costs to consumers of the virtual prohibition on the importation of second hand cars. At this point in time, we have no clear view on the true overall costs of support for this sector. Determining the true costs – costs to Treasury and costs to South African consumers – would be a critical component of any review.

Of particular significance are the direct costs of Treasury support for investments in the sector. Under the Automotive Investment Scheme (AIS) assemblers and component manufacturers receive non-taxable cash grants of at least 20% and up to 30% (provided certain non-onerous conditions are met) of their investment. As with investment incentives in general, as outlined in the previous section, this raises several questions. In respect of the investment incentives to autos and components manufacturers, there are, some additional concerns:

- Investment incentives given to local firms are internal transfers – from South African taxpayers to other South African nationals. In the auto industry, particularly the auto assemblers, foreign owners are the largest recipients of investment incentives.
- Investment incentives are designed to provide an incentive to firms who have difficulty accessing funds or who are deterred from investing by the high costs of borrowing. The vast bulk of the investment incentives in autos and components are received by firms that are well capitalised and have ready access to capital at low rates.
- Where investment incentives are large, as they are in this case – between 20 and 30% and paid in cash – the incentive for firms to “inflate” the costs of the assets that qualify for the subsidy is concomitantly high. Where there are qualifying assets that are difficult to price, such as transfers of plant and equipment or know-how that are internal to the firm, the potential for transfer pricing exists.

A review of the investment incentives available to the autos and components sector will need to take account of these issues.

Unusually, policy for the auto and components industry has been assessed by a team of high-level external experts under the South Africa Growth Initiative, a project initiated by the Treasury. While this assessment was a little over a decade ago, it is worth citing the conclusions. The gain from policy was calculated as the number employed in the sector multiplied by the wage. The costs were the transfers to foreign firms. Under even the most optimistic of assumptions the transfer to foreign firms was significantly larger than the maximal labour gain. The authors were accordingly unambiguous in their assessment. The Motor Industry Development Programme (MIDP) – the policy at the time - was “…a net drain on the national economy even under the most favourable assumptions.” (Hausmann et al,
The team of external experts accordingly advocated a change in policy. They proposed that future policy should focus on the development of the auto component supplier industry. They recognised that this would be actively resisted by some of the auto assemblers (known as original equipment manufacturers or OEMs). However, the fear that the OEMs might desert South Africa if they were denied their subsidies did not deter the external experts. Indeed, they saw this as a positive. “Under our proposed scheme, not all OEMs will necessarily find it profitable to remain in South Africa or to ramp up their operations. Our sense is that some of the OEMs are hooked on the rents generated by the IRCCs [Import Rebate Credit Certificate which allowed OEMs to import vehicles and components at lower levels of duty – DK], and any phasing out of these, as we are recommending, will be met by stiff resistance and threats of closure and exit. At the same time, the long-term health and sustainability of the industry depend on screening out and separating those firms that are interested in producing in South Africa purely because of subsidies from those that can see a path to unassisted competitiveness. Our proposal is aimed, among other objectives, at achieving this screening.” (Hausmann et al, 2008: 15)

A comprehensive review of the policy for the auto and components sector will need to address a fundamental question: If increasing employment is the key objective of industrial policy, should industrial policy be so strongly focused on autos and components – an industry, which is one of the most capital intensive and in which, a comparatively high proportion of the jobs are skilled?

Clothing and textiles

Clothing and textiles is one of the most labour intensive sectors. It generates significantly more jobs per unit of output, direct and indirect, than do the other sectors: clothing particularly, some three times more than autos and auto components, for example. Moreover, a much higher proportion of the jobs are unskilled and semi-skilled.

Clothing and textiles has long been selected for special attention and support in terms of South Africa’s industrial policy. While supports have not been as extensive as for the autos and components sector, they have nevertheless been significant.

In 2009, government introduced a number of measures to support the sector. These measures included:

- Increasing duties on a range of clothing products from 40 to 45 per cent
- Enhanced enforcement against the smuggling of imports
- Local procurement by government of all of its clothing, textile and footwear requirements
- A strong public campaign to buy South African products
- Investment subsidies.
- Extensive support by the Industrial Development Corporation (IDC) for investments in this sector

Enhanced protection against imports and increased procurement were designed to ensure that the local industry increased its share of the local market. “In 2009, government introduced a stronger industrial policy and a package of measures to help the industry recapture domestic market share” (Patel, 2016).

There have been many claims that this programme has been successful; that it has rescued the industry from near extinction, and that the industry is turning around. IPAP claims that, “in the wake of the devastation of the sector that followed from the liberalisation and restructuring of the industry in the 1990s (with approximately 120 000 jobs lost) over the past decade the sector has been saved from extinction and stabilised” (IPAP, 2018: 35).

However, while there have been some positive

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1 Over 20% of jobs in motor vehicles parts and accessories are classified as skilled. At the other end of the industrial spectrum, wearing apparel, 5% of the jobs are classified as skilled. Calculated from Quantec data.

2 Two incentives were introduced – the Production Incentive Programme and (ii) the Competitiveness Improvement Programme. By mid-2017, R5.1 billion was approved for the former and R1.1 billion for the latter.

3 See also Patel, 2016. “Our interventions in the industry have, on the whole, been a success, though much remains to be done to fully
developments and some significant investments in new state-of-the-art factories, the aggregate data tell a very different story.

Prior to 1994, the industry employed almost one quarter of a million. By the time the new programme for the industry was initiated the number was down to about 100,000. However, since then there has been no let-up in employment loss. Currently employment is in the region of 76,000. Of particular concern is that output has been declining significantly and this decline continues unabated “Textiles and clothing experienced its fourth consecutive year of production decline, contracting by 2.4% in 2018. Manufacturers in wearing apparel products had a particularly disappointing 2018, recording a 4.9% drop in production. Leather products and textiles didn’t do too well either, falling by 3.9% and 3.3% respectively. (StatsSA, 2019).

Once again, there has been a vast gap between the stated objectives of policy and actual performance. The need for an external review of current policy is evident.

In this case, however, there is an even more fundamental issue. As outlined earlier, the focus of current policy for the clothing and textile sector is the domestic market – “to recapture the domestic market.” There is, in effect, currently no significant policy for this sector that aims at the enhancement of exports.

Labour intensive manufacturing export growth, of which clothing and textiles is the prime example, has been a critical constituent of development for almost all developed countries and labour intensive manufacturing export growth is currently underpinning high rates of growth in many Asian countries. Labour intensive export manufacturing provides a stimulus both to growth and to unskilled and semi-skilled employment. But, how can labour intensive manufacturing, such as clothing and textiles, succeed in export markets when South African manufacturers cannot even compete in the protected domestic market?

One “mechanism” to advance labour intensive export manufacturing that has been employed by a large number of countries, particularly in Asia, is through the development of an Export Processing Zone (EPZ). In broad terms, an EPZ is a limited area where firms – manufacturers, but also potentially other activities – can locate and where conditions, including critically access to and cost of labour, allow for these firms to produce competitively for the export market.

South Africa has at least one site which, under certain conditions, could prove a very attractive location for labour intensive export activities – namely Nelson Mandela Bay and specifically Coega. There are a number of attractive features. Three are key:

- Excellent infrastructure – especially port facilities.
- Substantial number of developed, serviced sites for investors readily available
- The ready availability of large numbers of people who have previously been employed and trained (including in labour-intensive manufacturing activities), but who are now unemployed.

The last is particularly important. EPZs in Asia employ recent arrivals from the countryside who are, in the main, devoid of industrial experience and training. By contrast, in the Nelson Mandela Bay region there are many long-urbanised, comparatively well-educated unemployed workers with significant industrial experience. There are probably between 30-40,000 unemployed in the area with industrial experience. Indeed, many will have worked in labour intensive manufacturing activities such as clothing and footwear which were, just a short time ago, extensive in the area. These are precisely the activities that the

realise the potential of the sector.”

What follows is only a brief outline of a proposal for the establishment of an EPZ in Coega. A more detailed proposal was made (unsuccessfully) to the Presidential Job Summit.

In respect of workers in Cambodian SEZs “The average standard of literacy is not high and 30% of new employees have apparently never attended school and cannot read. These workers can be employed only in the most routine manual operations…recruitment is becoming more difficult for zone firms. Rates of worker turnover are high and firms report that they must make special efforts to recruit new workers in the most outlying provinces of Cambodia.” (Warr and Menon, 2015:10)
EPZ would seek to attract.

The existence of a sizeable readily available experienced labour force combined with an already developed site is not replicated in any other country. There are a number of other advantages:

- Good access to a number of export markets
- A very attractive living environment
- Unlike EPZs in Asia which rely almost exclusively on attracting foreign investors, there is a well-established pool of national and even local investors. National and local investors are far easier to attract than are foreign investors.

The DTI has a programme for Special Economic Zones (SEZ). No new legislation would be required to establish an EPZ. However, two additions/modifications would be required if an EPZ located at Coega is to provide an attractive location for labour intensive export-oriented activities.

The first addition/modification concerns labour. The cost of labour for labour intensive manufacturers is, of course, a key consideration. South Africa’s labour costs are comparatively high. The recently enacted National Minimum Wage (NMW) will further significantly increase wage costs.

However, in terms of the Employee Tax Incentive (ETI), firms located in the SEZs can claim a subsidy of R1 000 per month a year for workers earning up to R4 500 monthly. In the second year, the subsidy decreases to R500 per month. The subsidy terminates after the second year. With a subsidy of R1 000 per month, South African wage costs become competitive – at least with EPZs in Asia that engage at “the upper end” of such labour intensive export activities. A wage subsidy of R1 000 per month would render labour costs in Coega competitive with EPZs in Cambodia, for example – a country which has been very successful in developing labour intensive export manufacturing in EPZs. The existence of a labour force with more education and experience would likely result in higher levels of productivity. This, in turn, would result in lower unit labour costs and underpin competitiveness.

As it stands however, the ETI is limited to two years. For an investor setting up a new operation in an EPZ this is far too limited a time period. Within a very short period of time, a labour intensive export activity would be rendered too costly. The ETI would need to be extended to at least 5 years – ideally longer – at the full rate of R1 000 per month.

The second addition/modification concerns the management of the SEZ so as to maximise the benefits of excess capacity at Coega. Global best practice is that EPZs are run by private firms with a profit incentive to attract and service tenants. Private investors are often loath to make a significant investment in a new EPZ venture where risks are high and returns are uncertain. In the case of Coega however, much of the investment has already been made. Coega allows for an arrangement whereby existent spare capacity could be leased to a private investor/operator with incentives tied to performance. The more the operator succeeds in attracting firms to locate in Coega, the higher the returns to the private operator.

Unused or underutilised sites at Coega should be leased to a private operator. The incentives to the private investor/operator should be in line with those offered elsewhere that have proven attractive to securing private firms to invest in and operate an EPZ. It is important to note that the costs to government entailed in seeking to provide an attractive location for labour intensive export activities in the EPZ are very limited.

- The wage subsidy is limited and it is only paid when additional workers are employed.
- Unlike most other incentives that are directed at subsidising investment, this subsidy is aimed directly at employment creation.
- Much of the required investment for an EPZ in Coega has already been made.

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8 The minimum wage for clothing, textile and footwear workers in 2019 in Cambodia is $182 per month. At the NMW of R3 200 per month, South African wages are around $225 per month – and the NMW is likely to rise further in 2019. Direct comparisons of wage costs are difficult and are very dependent on fluctuating exchange rates. This comparison should be seen as broadly indicative.

9 For a useful guide as to the requirements for a successful EPZ see UNCTAD, 2019 :Chapter 5.
In sum, if government established an EPZ as outlined, and the EPZ failed to attract investors, the costs involved would be very limited. Moreover, the costs rise in tandem with the employment gain. By contrast, on the upside, the EPZ provides potential for both significant employment and export gain. The potential upside gain is accordingly very high while the downside, in the event of the costs of failure resulting from an inability to attract investors, is very low.

The EPZ allows government to explore a new direction in industrial policy at very little cost. This is an experiment worth making – or at the very least, exploring further.

**Mineral beneficiation**
The beneficiation of South Africa's raw materials is a major thrust of South Africa's industrial policy with a particular focus on platinum group metals (PMG) “...mineral beneficiation has been identified in IPAP as a key instrument for the industrialisation agenda. On the back of detailed research and collaborative work, South Africa is well poised to assume a globally comparative role in the hydrogen economy and energy storage space – with a number of key projects already being implemented by government, the IDC and the industry. Creating new demand for Platinum Group Minerals (PGM) has become a major objective, with fuel cells and energy storage technology development at the leading edge. The developing fuel cell industry will also help to boost energy efficiency and carbon reduction.” (IPAP, 2018: 39)

Other minerals selected for beneficiation include titanium, manganese, vanadium and gold. However, there is little evidence that these programmes have had any significant success. The evidence on the development of fuel cells, energy storage and titanium, for example, suggests that South Africa is well behind other countries with little prospects of catching-up. (Kahn, 2019: 15-17)

The same team of international experts who assessed the policy of the auto and components sector, also examined the issue of beneficiation. Their conclusion was stark. “The generalization that countries should beneficiate as a development strategy is rejected by the data and it suggests that rather than presuming that beneficiation provides an appropriate development path, those advocating such an approach in any given situation, need to provide a case by case justification of their reasoning. Without such justification beneficiation could prove extremely costly. The government does not have limitless capacities and resources, so any focus on one set of activities necessarily comes at the expense of others. Concentrating on beneficiation may also lead policymakers to overlook more attractive “lateral” development opportunities. Capabilities developed in mining may lead more naturally to other types of engineering for example, than to downstream minerals processing. For these reasons, we would argue that beneficiation is a bad policy paradigm and should be dropped from South Africa’s development strategy.” (Hausmann, Klinger and Lawrence, 2008b).

There are two principal reasons as to why possession of the raw material does not provide a sufficient basis on which to manufacture downstream products. The raw material in a pot or a pan is iron, to take but one example, but the cost of the iron in a pot or a pan is a minute part of the cost of the pot or the pan. Furthermore, the saving in transport or energy costs from locating downstream production close to the source of the mineral is a minute share of the final cost of the mineral.

As physical objects, pots and pans are a logical extension of iron and steel. But, as a set of economic activities, pots and pans differ radically from iron and steel – successful pots and pan production requires different skills, capabilities, access to markets etc. than those that are required for the production of iron and steel. Countries that have the skills and capabilities in the production of the raw materials very rarely also have the capabilities, skills and market access required for successful downstream production.

The supply of equipment and components to the mining industry presents far more opportunities for
development. South Africa produces a wide range of mining equipment and components. The DTI has recently recognised the potential for expansion. In 2018, it launched a major new initiative to enhance development of this sector.

South Africa has significant technological expertise in mining and mining related technologies. These technologies, in robotics and environmental technologies such as waste disposal, have widespread applicability outside of the mining industry.

Policies could be developed to incentivise South African firms with capacities in mining and mining related technologies to develop new products and services outside of mining and enter into new markets. This could, for example, entail support for activities such as training or market research being undertaken by firms that are seeking to develop new products and/or enter new markets.

Scandinavian countries have been particularly successful in facilitating the lateral movement of technological capacities initially developed in relation to natural resource products into sophisticated manufacturing and services.

**A note on a review**

A review would bring South Africa into line with best practice industrial policy. It would allow for an assessment to be made as to the effectiveness of industrial policy over the past decade. Based on that assessment, it would allow for existent policies to be modified and adapted. A review would also allow for new policies, new instruments and new sectors, to be considered particularly where existent policies have been found wanting – with outcomes falling far short of declared policy objectives and South Africa’s manufacturing performance significantly lagging that of other comparator countries.

By way of conclusion, there are two issues in regard to the review, perhaps obvious, but nevertheless worth stressing:

- The review must be undertaken by people or organisations that have not been engaged in the formulation or the implementation of the current industrial policy. Potential conflicts of interests and the need for new perspectives requires that this be an external review.
- Any major policy changes resulting from such a review will have to be introduced judiciously. Firms will have made investments and commitments based on the incentives in the existent policy framework. Any significant reorientation of policy arising from such a review will therefore take time and require consultation.
References


