PARLIAMENT
OF THE REPUBLIC OF SOUTH AFRICA

The costs and outcomes of industrial development initiatives 1994/95 -2014/15

Full report

Parliamentary Budget Office

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This report has been compiled in response to a request from the Chairperson of the Standing Committee on Appropriations in Parliament. The Committee asked the PBO to investigate the costs and outcomes of industrial development initiatives. The final terms of reference also included the Select Committee on Appropriations, and the Portfolio Committee on Trade and Industry.

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1 Introduction

South Africa has actively promoted industrial development. This has been the case both prior to 1994, and since the transition to democracy, especially over the last 10 years. A wide range of policies and programmes covering numerous sectors have been developed and implemented. These policies and programmes entail the allocation of limited state resources for particular ends. As these resources could have been used to promote industrial development through alternate means, or allocated to meet other important social and economic needs, it is important to evaluate the efficiency and effectiveness of the programmes and policies. This has become more important in the context of National Treasury imposing spending ceilings to reduce the budget deficit, resulting in less resources available to fund competing priorities. It also allows for particular social and economic objectives to be achieved through other means.

This report estimates the direct financial costs of the state's industrial policy initiatives since 1994. These costs are compared to a range of economic outcomes for the economy. It is not possible to attribute the specific outcomes in terms of investment, job creation or growth to specific policies and incentives as there are a range of factors affecting the performance of the economy. It is nonetheless useful to compare outcomes and performance of the targeted sectors relative to the opportunity cost.

1.1 Oversight and funding of department programmes

Government's appropriation of nationally raised revenue to different departments should be according to what it considers to be its priorities. This requires the performance plans of individual government departments – including specific programmes – and budgets to be aligned to the objectives of government. If a programme is not closely aligned to government's objectives, yet is funded, then resources could be better allocated to realise government's socio-economic priorities (IMF, 2015). In this respect it is important to note the distinction between short-term and long-term government priorities. Similarly, if the cost of a programme– aligned to the objectives of government – is high relative to its outcomes, then resource allocation can be improved through better management of existing programmes, or targeting the same outcomes through alternate policies and means (IMF, 2015; Rogers, Hawkins, McDonald, Macfarlan, & Milne, 2015). Facilitating this improved allocation of resources requires greater fiscal transparency and appropriate reporting.

Given the allocation of public resources to fund a range of programmes, it is important for the legislature to determine:

1. If the outcomes of the programmes have met their stated objectives – programme effectiveness
2. The cost of the programmes relative to outcomes – programme efficiency

Determining this will allow the legislature to decide:

1. If the programme should continue, or have its scale altered
2. If the objectives of a particular programme can be realised through less costly (more efficient) means
3. If an alternate programme should be funded instead, allowing for better prioritisation

1.2 Industrial policy and incentives

Economists and policy-makers differ on the role of the state in the economy in the pursuit of growth and economic development. Some espouse the state playing a minimal role in the economy, allowing the interaction of market forces to create growth and development. Others opt for greater state involvement in the economy. Industrial policy entails the state intervening in the economy to promote economic development.

Governments introduce industrial policies to steer investment in a particular direction to encourage development. Development, in this context, refers to the reallocation of resources from one sector of the economy to another in order to produce new goods and services using new technologies.

The *market failure* rationale for industrial policy is based on the view that economies face several market failures. Market failures occur when the private sector does not supply (or undersupplies) a good demanded in the market. This is costly to the overall welfare of society. The cost to society of the market failure warrants the state's intervention to address the market failure. The *market failure* rationale views industrial policy as being complementary to the free market, and not anti-market or a substitute.

The *structuralist* rationale for industrial policy is based on the view that countries do not need to passively rely on market forces to determine their level and path of development. Instead, the state can and should intervene to improve the country's productive capabilities.

The form of industrial policy depends on the market failure being addressed. Typical examples of how governments use industrial policy to correct market failures, and alter their developmental paths, include:

- Protecting infant and vulnerable domestic industries from foreign competition
- Providing support for labour-intensive industries with the objective of reducing unemployment
- Exploiting a country's natural resource through supporting industries that use the natural resource
- Incentivising "green industries" to achieve a more environmentally-friendly growth path

Instruments of industrial policy include:

- Subsidies
- Direct-transfers
- Tax-breaks
- Non-financial support
- State-ownership
- Trade barriers (tariff and non-tariff)

Debate

Industrial policy fell out of favour in the early 1990s with institutions such as the World Bank and IMF favouring a free-market approach to development. This approach proposes that resources – capital and labour for example – are best allocated by markets, and that government intervention results in undesirable outcomes. This led world renowned economist and Nobel economics laureate Joseph Stiglitz to reportedly remark that *"Industrial policy used to be a four-letter word at the World Bank"*.

In recent years, industrial policy has however regained popularity following some notable successes. China is perhaps the most visible recent example of this. State support of targeted industries has played an important role in transforming the structure of the Chinese economy. Without this state support, led in part by its state-owned enterprises, it's debatable whether China would have developed manufacturing capacity on the scale it has today.

This has led to a shift in the discourse on industrial policy in which it is no longer a question of if, but rather how industrial policy should be implemented. Rodrik (2010) identifies three key principles underpinning successful industrial policy. First, establishing a healthy collaborative relationship between government and the private sector helps the state to better identify potential opportunities and blockages. Second, industrial policy should incentivise the private sector to take on risks that it otherwise would not, but with the understanding that the support is temporary. Thirdly, designers of industrial policy should keep in mind that its aim should be to serve society at large and not any one

particular interest group. Transparency and accountability are, therefore critical in successfully implementing industrial policy.

Chang (2012) conceives of industrial policy as a game of trial and error. He believes that while it is likely that mistakes will be made, the evidence suggests that most countries will be better off in the long run with a more proactive development strategy.

There have been notable failed attempts at industrial policy. These include Ghana in the 1960s and some cases in Latin American countries since the 1940s (Robinson, 2009). Failed industrial policies can have a significant negative impact on an economy. Determining why industrial policy succeeds or fails has been the subject of much debate among scholars. A simple explanation would suggest that certain policies are simply better than others at promoting industrialisation. This one-size-fits-all approach has however been largely discredited as policies successful in some countries have failed in others. A subsequent theory is that to be successful, industrial policy has to be sensitive to the particular market failures prevalent. As economies often exhibit different market failures, industrial policies need to be tailored for the respective economy. Another theory is that industrial policy has the potential to promote economic development but only if the political environment is suitable (Robinson, 2009). It is argued that industrial policy has less of a chance of succeeding when the choice of industrial policy, project and location are driven by political criteria instead of economic ones.

1.3 Industrial policy and public finance

Implementing industrial policy entails the allocation of state resources, either the appropriation of a share of the national budget – in the case of subsidies and transfers—or the foregoing of revenue through tax concessions and rebates. As the resources dedicated to a particular industrial policy initiative could have been used for other social and economic objectives, the benefit derived for the country from the particular incentive/policy must be greater than the opportunity cost – the benefit that could have been derived from allocating the resources to another social or economic priority.

More importantly, it is critical for policymakers responsible for national budgets to ensure that the incentives provided are not redundant. That is, the provision of support by the state results in an increase in investment, exports, research, or employment that would not have been undertaken in the absence of the state's support (IMF, 2015). A programme is redundant (and wasteful) under circumstances wherein firms would have undertaken investment, exports, research, or employment etc. regardless of whether incentives were provided or not (DTI - DPME, 2014).

Demonstrating the benefit (potential or actual) of a policy or incentive is beset by several challenges:

1. If policymakers are considering a proposed policy, the outcomes cannot be known before full implementation of the policy. Similarly, the range of suitable alternate policies and their potential benefits are also unknown.
2. In considering a policy that has already been implemented, there are factors (outcomes) that can be observed (e.g. output growth, investment, employment) and those that cannot (e.g. potential growth, social cohesion). While other benefits may only be observed at a later date (e.g. the emergence of upstream suppliers and downstream producers for an industry supported by the state). It is therefore challenging to measure the full benefit of a policy.
3. Related to observable factors is the challenge of attributing causality of an outcome to a policy or program. For example, employment growth in a sector that receives state support could be the result of higher demand from a trading partner rather than the state's policies and incentives.
4. The benefit derived from a policy may accrue to a small group of the population (e.g. owners (shareholders) of the ship-building industry, its suppliers and employees) while the costs may be spread wider (e.g. domestic consumers and tax payers).

Even with (adequate) demonstration of the benefits and costs of particular incentives/policies, policymakers have to contend with political-economy challenges associated with industrial policy. Groups benefiting directly from government support are likely to lobby and advocate for the continuation or increase in the level of the support (IMF, 2015). The contribution of government-supported activities to the economy and employment allow for such groups to have significant influence over policymakers. The threat of employment and revenue losses from discontinuing support may result in the policy or incentive continuing, even if less beneficial than alternate allocation.

In addition to poor allocation, industrial policy incentives can also lead to unintended distortions - for example, subsidised firms in a sector outcompeting non-subsidised ones, leading to a loss of production and jobs. Industrial policies should therefore be reviewed regularly to determine, firstly, if they are effective, and secondly, if they represent value-for-money. Failure to satisfy either of these requirements indicates that public funds could be used to better effect elsewhere.

1.4 South Africa's approach to industrial development since 1994

South Africa has a long history with industrial policy. The apartheid state played a central role in the economy, supporting the development of domestic industry. Its initial objective was to improve the position of the white population. As international pressure, including sanctions, mounted against the apartheid government, it also attempted to reduce its dependence on imports through industrial policy. State support allowed for the emergence of various industries including the steel, synthetic fuels, and defence industries. The apartheid state made use of trade protection, subsidies, price controls and state ownership to develop domestic industry. By the end of apartheid, South Africa had a more diversified industrial base, over 300 state-owned enterprises, and had become less reliant on natural resource extraction.

With the transition to democracy, South Africa developed and implemented numerous policies directed at increasing growth, development, and creating employment. The objectives of these policies have been varied, and have included growth, employment, small business promotion, empowerment, spatial and regional development, and export promotion. The first decade of democracy saw the country focus more on broad macro-economic strategies to promote growth and development. Industrial policy tended to focus on supply-side measures, with a general reluctance to target particular sectors. However there were a few policies and incentives that can be classified as "industrial policy", the most notable of these was the Motor Industry Development Programme. While the targeted sectors benefitted from the incentives, the overall economy experienced increased competition as the country reduced its level of trade protection (a significant reduction in import tariffs).

In the mid-2000s, following the limited success of the macro-economic strategies to attract investment and increase employment, South Africa began to focus more on the micro-economic constraints to growth. This included the Micro-economic reform strategy, ASGISA, and eventually culminated with the National Industrial Policy Framework. This period – from the mid-2000s – saw greater use of sector-specific and targeted industrial development initiatives. The following summarises the key industrial policies – or broader growth policies with industrial policy components – implemented since 1994:

Table 1: Key incentives and industrial development polices since 1994

Year	Policy / Incentive	Brief description
1995	Improving Manufacturing Performance in South Africa	Identified the need to improve the productivity of manufacturing.
1995	Supply-Side Document	It attempted to increase the productivity of the economy, the DTI introduced "supply-side" investment incentives, R&D support, and human resource development.
1995 (2013)	Motor Industry Development Programme (MIDP) – replaced by the Automotive Production and Development Programme (APDP)	Before 1994 the motor vehicle and component industry was protected by 100% tariffs, leaving it uncompetitive. The MIDP was developed to reintegrate the sector into the global market. The MIDP was replaced by the APDP in 2013 (see section 6).
1996 - 1999	Tax holidays and increased depreciation for manufacturing projects	Attempted to promote new investments in the manufacturing sector.
2001	Strategic Investment Programme (SIP)	The SIP aimed to promote manufacturing activities through the provisions of tax deductions on the initial capital allowance.
2001	Microeconomic Reform Strategy (MERS)	Noting the failure of existing macro-policies to attract investment, the MERS identified challenges such as infrastructure and access to finance that needed to be addressed to improve competitiveness.
2002	Integrated Manufacturing Strategy (IMS)	The IMS proposed several interventions to develop the manufacturing sector, including the expansion of market access, promotion of beneficiation, and regional production.
2006	Customised sector programmes	Provided specific interventions for different sectors including aerospace, agro-processing, business processing, capital equipment, chemicals, clothing and textiles, electro-technical, film, metals, and tourism. The interventions were directed to enhancing the competitiveness of the sectors, and increasing exports, competitiveness, and employment.
n/a	Various tax incentives	Targeting manufacturing, mining, R&D, and small business.
2006	Accelerated and Shared Growth Initiative (ASGISA)	ASGISA replaced the Growth and Employment and Redistribution (GEAR) strategy. It was intended to be an over-arching growth policy focussing on both macro and micro issues. It importantly strengthened the focus on the micro-economic constraints to growth, including infrastructure, skills development, industry clusters, technology acquisition, SMME support, and regulation.
2007	National Industrial Policy Framework (NIPF)	The NIPF was the country's first comprehensive industrial policy since the 1995 Supply Side Document. The NIPF sets out the country's approach to industrialisation. The NIPF identifies the micro constraints to growth and employment. In response to these constraints it introduces 13 strategic programmes: 1. Sector strategies 2. Industrial financing 3. Trade policy 4. Skills and education for industrialisation 5. Competition policy and regulation 6. Leveraging public expenditure 7. Industrial upgrading 8. Innovation and technology 9. Spatial and industrial infrastructure 10. Finance and services for small enterprises 11. Leveraging empowerment for growth and employment

		12. Regional and African Industrial and trade framework 13. Coordination, capacity, and organisation
2007, 2010, 2011, 2012, 2013, 2014, 2015, 2016	Industrial Policy Action Plan (IPAP)	The IPAP is the implementation plan of the NIPF. Since the adoption of the NIPF there have been eight iterations of the IPAP, the most recent being IPAP 2016. The IPAPs presents the focus areas of support. These include both sector-specific as well as cross-cutting interventions. Unlike other industrial policies, the IPAPs contain specific Key Action Programmes, timelines, and role players.
2010	12i Tax allowance incentive	The 12i tax incentive is intended to improve the productivity of the South African manufacturing sector. It supports greenfield investments (new industrial projects), as well as brownfield investments (expansions or upgrades of existing industrial projects). It also supports training of personnel to improve labour productivity.
2012	Manufacturing Competitiveness Enhancement Programme (MCEP)	The MCEP was launched to support the manufacturing sector that was experiencing the effects of the global financial crisis and economic slowdown, as well as respond to market and institutional failures affecting the sector. The objective of the MCEP is to promote the firms competitiveness and retain employment (manufacturing jobs were being shed in response to adverse economic conditions). The MCEP consists of a production incentive programme (administered by the DTI) and a loan facility programme (administered by the IDC).

2 Costing South Africa's industrial development initiatives: methodology, data and limitations

2.1 Methodology and approach

Costs

In providing a cost estimate for industrial development, this study identifies the different programmes, sub-programmes, entities, and expenditure line-items of the Departments of Trade and Industry, Economic Development, and Small Business that relate to direct support for industrial development. Where available, the cost of these different programmes are retrieved from National Treasury and its publications – specifically the Budget Review and the ENE. The different expenditure line-items are classified according to different categories (sectors and objectives). The classification is not precise, as several programmes and entities relate to more than one category, and functions and reporting lines have changed. For example, incentives for special economic zones could be easily categorised in the category "general manufacturing" or in "spatial development". It should also be noted that it is not possible to include all costs incurred due to aggregation, which prevents the identification of costs incurred by the Department of Trade and Industry related to industrial support.

To provide a better sense of cost estimates of industrial development support, this study also provides the cost estimates in constant 2015/16 Rands. It does this using a fiscal-year GDP deflator.[1]

In identifying the different sectors, this report used the Standard Industry Codes (SIC) and not Statistics South Africa's sector definitions, as the SIC codes allow for greater disaggregation. Accordingly, manufacturing includes products SIC 2000 – 3999, clothing and textiles includes SIC 3110 – 3170, and motor vehicles and components includes SIC 381 – 383.

Sector performance

This study describes the performance of three key sectors, namely general manufacturing, motor vehicles, and clothing and textiles. This is provided to give Members of Parliament a sense of the performance of the sectors that have the largest share of support from the state. Comparing the performance and outcomes of the sector to the support received from the state is confronted by several challenges.

Firstly, under typical evaluation and impact analysis of programmes and incentives, the outcomes that should be considered are determined by the objectives and targets of the programmes and incentives under consideration. However, many of the programmes do not present clear and explicit objectives at the outset, while performance reporting is limited, and has also changed over time. Noting these limitations, a recent industrial support programme evaluation undertaken by the DTI and DPME recommended that the programme should "clearly define its objectives, with corresponding targets, and its achievement of these should be measured annually" (DTI - DPME, 2014). In addition, this report focuses on sectors which are the target of a range of incentives and programmes, and not a particular incentive or programme (the DPME is currently evaluating specific programmes and incentives). As a result, several observable performance indicators are of interest.

Secondly, outcomes and benefits are more challenging to observe and calculate. While costs are generally explicit and can be retrieved from government financial statements with a financial value, benefits are not always observable and difficult to quantify. For example, supporting a sector with significant linkages to the rest economy may result in increased growth, investment, and employment

[1] This report includes Rand amounts in both nominal and real terms. Nominal figures are the Rand amounts reported at a specific period in time. Real figures reflect Rand amounts from different periods in time expressed in the Rand value of a specific point in time (e.g. fiscal year 2015/16), this allows for comparison across time.

in those sectors. This requires the benefits accruing to related sectors to also be considered for a more complete estimate. Impacts and outcomes also include what has been prevented, especially negative changes – e.g. employment levels in the sector may have been lower, and the intervention could have prevented job losses. Outcomes may also be positive or negative, and may take a long time to be realised.

Thirdly, attributing the observable outcomes to a particular programme or incentive requires the attribution of causality to that programme or incentive. This is quite challenging. There are many other factors also affecting the performance of the sector, such as the global economy, the domestic economy, commodity prices, capacity of government or agency to administer incentives etc. (Rogers, Hawkins, McDonald, Macfarlan, & Milne, 2015). In the absence of firm-level data these factors cannot be controlled for. For example, it is not known if additional investment in the sector occurred due to the incentive and support or if the investment would have occurred in either case. Similarly, in the case of sectors where employment levels have decreased – the counterfactual could have been worse - i.e. employment levels could have been lower in the absence of the state's support.

Given the above challenges, and the absence of firm-level data, this report does not attempt to attribute causality of the observed outcomes and performance of the respective sectors to the relevant policies and programmes. It instead presents the performance of the three respective sectors since 1994, wherein causal contribution can be claimed.

This study focusses on the following metrics for the relevant sectors:

1. Gross domestic product
2. Employment
3. Gross fixed capital formation
4. Exports

2.2 Data

Costs

The cost estimates of South Africa's industrial development programmes since 1994 are based on data from the National Treasury. Expenditure data for most of the relevant programmes was received from the National Treasury. Where necessary, this data has been supplemented and updated based on the most recent Estimates of National Expenditure (ENEs). Tax expenditure data was also sourced from the National Treasury. Tax expenditure data has however only been published by National Treasury since the 2015 MTBPS. Where possible, this data has also been updated based on the most recent Budget publications. Tax expenditure data is only available until the 2013/14 fiscal year. Where the figures in the ENE do not correspond to what was received from National Treasury, figures received from National Treasury's numbers are used. As the data used is incomplete and based on the Estimates of National Expenditure, the costs provided in this report are estimates.

With the focus of this study on the cost of South Africa's industrial development programmes, this study looks primarily at the DTI's programmes as they relate to industrial development. It has however been necessary to include the Department of Economic Development and the Department of Small Business as the creation of these departments entailed the transfer of programmes and entities away from the DTI[2].

2.3 Limitations

Programme evaluations and assessments are constrained by the availability of data. This is a challenge for even detailed programme evaluations attempted in South Africa (see the DTI-DPME, 2014). We

[2] The Department of Economic Development was created in 2009, and the Ministry of Small Business in 2014.

use publically available data to present the performance of the respective sectors. Growth, gross-value add, and employment data are from Stats SA. Trade data is from the South African Revenue Service. Decomposed sector specific data (i.e. GDP, exports, gross fixed capital formation)) are from Quantec[3].

Only having access to sector-level data, and not firm-level data prevents us from comparing the performance of firms that have received support to those that have not. In addition to the limitations noted above in the methodology and data section, this study is also faced by the following limitations.

- This study focuses only on national programmes and initiatives. It does not consider programmes at the provincial and local government level, nor does it consider programmes by the private sector. It is therefore only a partial picture of national support for industrial development.

- Caution is required in interpreting the costs of tax expenditure. While it represents resources foregone, in the absence of the incentive, business activity may have been lower, consequently the tax expenditure would have been lower.

- This study only considers the directly observable outcomes/ performance of the sector – not the indirect or unobservable.

- While this study presents the performance of different sectors (along with the cost of the incentives directed to the sectors), it should be noted that it does not consider the limitations of the respective departments and agencies to implement policies and programmes. The effectiveness and outcomes of policies and programmes also depends on the contributions of other actors, organisations etc. (Rogers, Hawkins, McDonald, Macfarlan, & Milne, 2015).

- This study does not take into account global factors that may have affected global and domestic aggregate demand. It also does not take into account the unintended consequences of regulatory and policy choices that affect the economy.

- The effectiveness and outcomes of policies and programmes is also affected by many other factors – the causal chain is not closed.

- The unintended consequences of programmes and policies (positive and negative) are not considered. Unintended consequences may be positive or negative (Rogers, Hawkins, McDonald, Macfarlan, & Milne, 2015).

[3] Quantec Research's Standardised Industry Indicator Database provides the most disaggregated and up-to-date set of standardised industry time-series available for South Africa. It is compiled by combining a set of industry and national account indicators with a consistent input-output framework spanning three decades. The methodology used by Quantec Research can be accessed on their website.

3 Overall resources dedicated to industrial development initiatives

3.1 Expenditure

South Africa directly spent R84.3 billion on industrial support and development initiatives between 1994/95 and 2014/15. Three sectors account for more than half of this spending. The manufacturing sector received the largest share of this allocation, receiving R32.1 billion (38%) over the 21 year period. Significant expenditure was allocated to a range of other sector-specific initiatives including, business process outsourcing, film production, agriculture and tourism. This totalled R17.8 billion, about 21 per cent of total expenditure. The average share of the main budget dedicated to industrial development increased from an average of 0.5 per cent between 1994/95 – 2004/05, to over 0.9 per cent since 2005/06. This is, in part, due to the increased focus and funding for industrial policy since the launch of the DTI's National Industrial Policy Framework in 2007, and the subsequent Industrial Policy Action Plans (IPAPs). Similarly, support for small business development has also grown strongly from around 2007. Expressed in constant prices in 2015/16 Rands, South Africa dedicated R122 billion of expenditure to industrial development initiatives.

Figure 1: Total expenditure by sector/function 1994/95 – 2014/15 (nominal Rands)

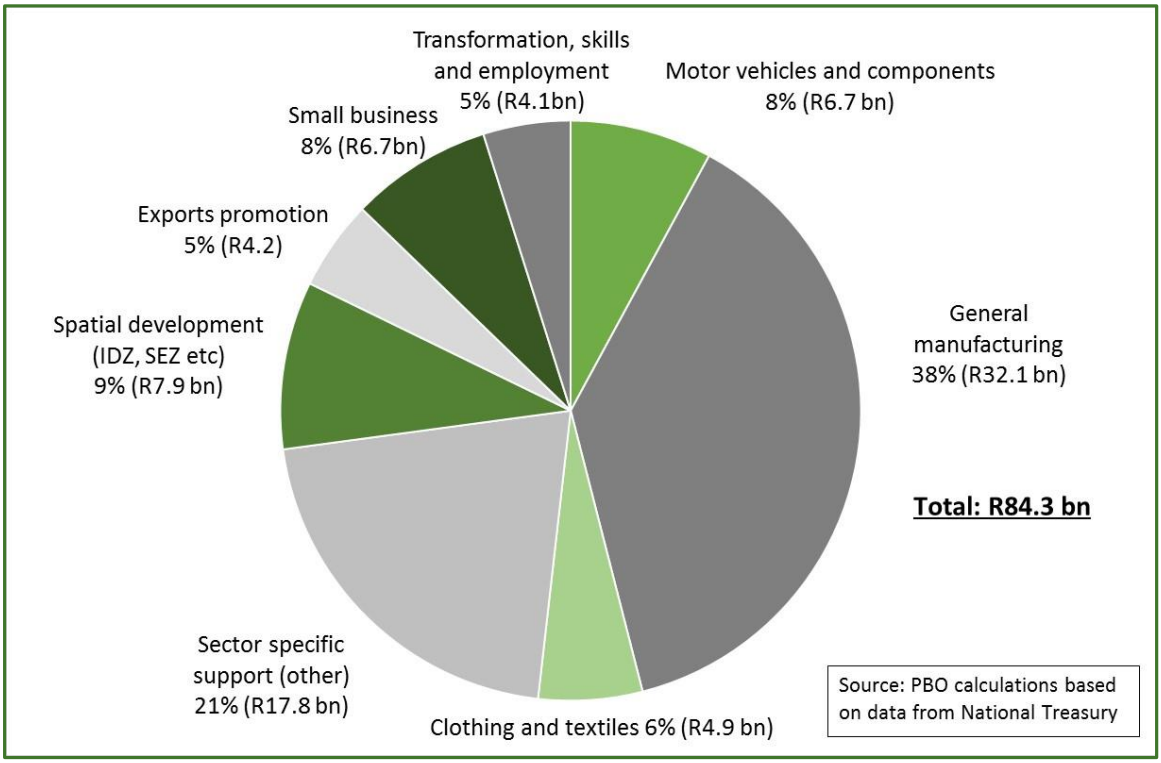


Table 2: Expenditure by sector/focus 1994/95 – 2014/15

Incentive	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	Total	as share of total
R million																							
Motor vehicles and components									68.0	17.0	24.0	11.6	15.0	11.0	17.0	770.2	924.1	1 980.1	2 017.8	817.8		6 673.6	7.9%
General manufacturing		1 349.0	1 012.0	809.9	557.8	527.2	344.9	204.6	475.8	398.0	348.9	280.8	268.1	293.7	1 412.4	2 555.8	1 886.3	3 478.1	5 588.4	6 171.7	4 164.0	32 127.3	38.1%
Clothing and textiles													2.0		3.0	62.0	800.0	1 203.0	1 402.0	683.9	724.9	4 880.8	5.8%
Sector specific support (other)					31.0	75.0	113.0	128.0	168.4	231.8	340.3	434.8	607.6	907.6	1 187.6	1 922.2	1 647.3	2 052.2	2 323.4	2 780.0	2 813.7	17 763.8	21.1%
Spatial development (IDZ, SEZ etc)										38.1			438.0	850.8	872.5	1 301.7	932.0	615.7	778.4	1 345.9	720.3	7 893.3	9.4%
Exports promotion				30.4	65.9	97.1	558.8	261.3	195.0	237.0	185.7	237.5	127.5	210.3	235.8	244.7	254.4	290.1	206.3	347.1	439.9	4 224.8	5.0%
Small business				33.1	5.0	120.0	141.0	273.6	170.0	100.3	47.2	212.1	374.2	332.2	499.7	444.0	519.2	605.9	825.0	972.5	988.7	6 663.6	7.9%
Transformation, skills and employment					174.0			23.0	4.5	97.5	172.0	426.5	589.9	748.4	368.6	545.9	10.5	99.3	170.0	302.4	369.6	4 102.2	4.9%
Total	-	**1 349.0**	**1 012.0**	**873.3**	**833.6**	**819.3**	**1 157.7**	**890.5**	**1 081.7**	**1 119.7**	**1 118.1**	**1 603.3**	**2 422.3**	**3 354.2**	**4 596.4**	**7 846.5**	**6 973.8**	**10 324.3**	**13 311.2**	**13 421.4**	**10 221.2**	**84 329.4**	**100.0%**
as share of main budget	-	**0.9%**	**0.6%**	**0.5%**	**0.4%**	**0.4%**	**0.5%**	**0.3%**	**0.4%**	**0.3%**	**0.3%**	**0.4%**	**0.5%**	**0.6%**	**0.7%**	**1.1%**	**0.9%**	**1.2%**	**1.4%**	**1.3%**	**0.9%**		

Source: PBO calculations based on National Treasury data

Table 3: Tax expenditure by sector/focus 1994/95 – 2014/15

Incentives	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	*2014/15	Total	as share of total
(R million)																							
Motor vehicles and components		631.0	3 542.0	3 351.0	3 499.0	4 193.0	5 668.0	6 026.0	7 298.0	8 162.0	8 084.0	12 708.0	9 357.0	8 166.0	13 710.0	14 284.6	13 088.0	14 466.0	14 172.0	5 767.0		156 172.6	75.3%
General manufacturing									626.0	626.0	626.0	626.0	626.0	626.0	977.7	2 380.4	4 464.8	4 468.2	3 660.8	3 564.6	2 430.0	25 702.5	12.4%
Clothing and textiles	2 189.0								714.0	1 121.0	932.0	2 189.0	1 563.2	1 563.0	1 828.0	2 024.0	2 230.0	860.0	652.0	468.0		18 333.2	8.8%
Small business																	1 479.9	1 551.4	1 867.6	2 232.4		7 131.2	3.4%
Total tax expenditure	**2 189.0**	**631.0**	**3 542.0**	**3 351.0**	**3 499.0**	**4 193.0**	**5 668.0**	**6 026.0**	**8 638.0**	**9 909.0**	**9 642.0**	**15 523.0**	**11 546.1**	**10 355.0**	**16 515.7**	**18 689.1**	**21 262.7**	**21 345.5**	**20 352.4**	**12 032.0**	**2 430.0**	**207 339.4**	
as share of total tax revenue	**2.0%**	**0.5%**	**2.5%**	**2.1%**	**2.0%**	**2.2%**	**2.7%**	**2.5%**	**3.2%**	**3.4%**	**2.8%**	**3.9%**	**2.5%**	**1.9%**	**2.8%**	**3.3%**	**3.2%**	**3.0%**	**2.6%**	**1.4%**	**0.3%**		

* latest tax expenditure data available is for 2013/14

Source: PBO calculations based on National Treasury data

Table 4: Expenditure and tax expenditure by sector/focus 1994/95 – 2014/15 (R million)

Incentive	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	*2014/15	Total	Share of total
Motor vehicles and components		**631.0**	**3 542.0**	**3 351.0**	**3 499.0**	**4 193.0**	**5 668.0**	**6 026.0**	**7 366.0**	**8 179.0**	**8 108.0**	**12 719.6**	**9 372.0**	**8 177.0**	**13 727.0**	**15 054.9**	**14 012.0**	**16 446.1**	**16 189.8**	**6 584.8**		**162 846.2**	**59.7%**
Expenditure									68.0	17.0	24.0	11.6	15.0	11.0	17.0	770.2	924.1	1 980.1	2 017.8	817.8		6 673.6	2.1%
Tax expenditure		631.0	3 542.0	3 351.0	3 499.0	4 193.0	5 668.0	6 026.0	7 298.0	8 162.0	8 084.0	12 708.0	9 357.0	8 166.0	13 710.0	14 284.6	13 088.0	14 466.0	14 172.0	5 767.0		156 172.6	57.6%
General manufacturing		**1 349.0**	**1 012.0**	**809.9**	**557.8**	**527.2**	**344.9**	**204.6**	**1 101.8**	**1 024.0**	**974.9**	**906.8**	**894.1**	**919.7**	**2 390.0**	**4 936.2**	**6 351.2**	**7 963.5**	**9 270.5**	**9 757.6**	**6 594.0**	**57 889.6**	**18.2%**
Expenditure		1 349.0	1 012.0	809.9	557.8	527.2	344.9	204.6	475.8	398.0	348.9	280.8	268.1	293.7	1 412.4	2 555.8	1 886.3	3 495.3	5 609.7	6 193.0	4 164.0	32 187.2	10.1%
Tax expenditure									626.0	626.0	626.0	626.0	626.0	626.0	977.7	2 380.4	4 464.8	4 468.2	3 660.8	3 564.6	2 430.0	25 702.5	8.1%
Clothing and textiles	**2 189.0**								**714.0**	**1 121.0**	**932.0**	**2 189.0**	**1 565.2**	**1 563.0**	**1 831.0**	**2 086.0**	**3 030.0**	**2 063.0**	**2 054.0**	**1 151.9**	**724.9**	**23 214.0**	**7.3%**
Expenditure													2.0		3.0	62.0	800.0	1 203.0	1 402.0	683.9	724.9	4 880.8	1.5%
Tax expenditure	2 189.0								714.0	1 121.0	932.0	2 189.0	1 563.2	1 563.0	1 828.0	2 024.0	2 230.0	860.0	652.0	468.0		18 333.2	6.3%
Sector specific support (other)					**31.0**	**75.0**	**113.0**	**128.0**	**168.4**	**231.8**	**340.3**	**434.8**	**607.6**	**907.6**	**1 187.6**	**1 922.2**	**1 647.3**	**2 052.2**	**2 323.4**	**2 780.0**	**2 813.7**	**17 763.8**	**5.6%**
Expenditure					31.0	75.0	113.0	128.0	168.4	231.8	340.3	434.8	607.6	907.6	1 187.6	1 922.2	1 647.3	2 052.2	2 323.4	2 780.0	2 813.7	17 763.8	5.6%
Spatial development (IDZ, SEZ etc)										**38.1**			**438.0**	**850.8**	**872.5**	**1 301.7**	**932.0**	**615.7**	**778.4**	**1 345.9**	**720.3**	**7 893.3**	**2.3%**
Expenditure										38.1			438.0	850.8	872.5	1 301.7	932.0	615.7	778.4	1 345.9	720.3	7 893.3	2.3%
Exports promotion				**30.4**	**65.9**	**97.1**	**558.8**	**261.3**	**195.0**	**237.0**	**185.7**	**237.5**	**127.5**	**210.3**	**235.8**	**244.7**	**254.4**	**290.1**	**206.3**	**347.1**	**439.9**	**4 224.8**	**1.3%**
Expenditure				30.4	65.9	97.1	558.8	261.3	195.0	237.0	185.7	237.5	127.5	210.3	235.8	244.7	254.4	290.1	206.3	347.1	439.9	4 224.8	1.3%
Small business				**33.1**	**5.0**	**120.0**	**141.0**	**273.6**	**170.0**	**100.3**	**47.2**	**212.1**	**374.2**	**332.2**	**499.7**	**444.0**	**1 999.1**	**2 157.3**	**2 692.6**	**3 204.8**	**988.7**	**13 794.8**	**4.3%**
Expenditure				33.1	5.0	120.0	141.0	273.6	170.0	100.3	47.2	212.1	374.2	332.2	499.7	444.0	519.2	605.9	825.0	972.5	988.7	6 663.6	2.1%
Tax expenditure																	1 479.9	1 551.4	1 867.6	2 232.4		7 131.2	2.4%
Transformation, skills and employment					**174.0**			**23.0**	**4.5**	**97.5**	**172.0**	**426.5**	**589.9**	**748.4**	**368.6**	**545.9**	**10.5**	**99.3**	**170.0**	**302.4**	**369.6**	**4 102.2**	**1.3%**
Expenditure					174.0			23.0	4.5	97.5	172.0	426.5	589.9	748.4	368.6	545.9	10.5	99.3	170.0	302.4	369.6	4 102.2	1.3%
Total	**2 189.0**	**1 980.0**	**4 554.0**	**4 224.3**	**4 332.6**	**5 012.3**	**6 825.7**	**6 916.5**	**9 719.7**	**11 028.7**	**10 760.1**	**17 126.3**	**13 968.5**	**13 709.2**	**21 112.1**	**26 535.6**	**28 236.4**	**31 687.2**	**33 684.9**	**25 474.6**	**12 651.2**	**291 728.7**	**100.0%**
as share of main budget	**1.6%**	**1.3%**	**2.6%**	**2.2%**	**2.1%**	**2.3%**	**2.9%**	**2.6%**	**3.3%**	**3.4%**	**2.9%**	**4.1%**	**3.0%**	**2.5%**	**3.4%**	**3.7%**	**3.6%**	**3.6%**	**3.5%**	**2.4%**	**1.1%**		
Total in constant prices (2015/16 Rands)	**9 376.0**	**7 710.2**	**16 424.0**	**14 131.6**	**13 458.3**	**14 504.3**	**18 107.5**	**17 038.6**	**21 409.3**	**23 071.7**	**21 242.9**	**31 932.9**	**24 281.9**	**21 970.1**	**31 098.1**	**36 642.6**	**36 343.5**	**38 521.6**	**38 717.5**	**27 591.4**	**13 076.6**	**476 650.7**	

* latest tax expenditure data available is for 2013/14

Source: PBO calculations based on National Treasury data

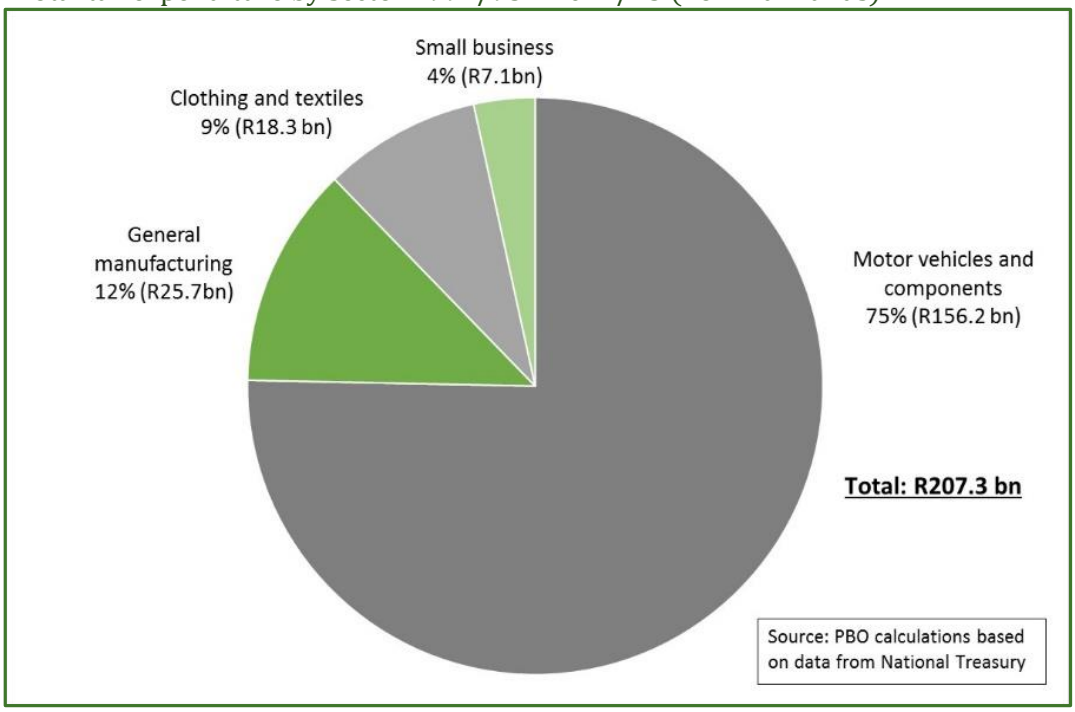
Table 5: Customs duties compared to resourced dedicated to sector 2007/8 – 2014/15

	Custom duties		Total resources dedicated to sector
	Rands million (nominal)	as share of total resources dedicated to sector	Rands million (nominal)
Clothing and textiles	36 915	254.5%	14 504
Vehicles & transport equipment	81 519	90.4%	90 192
Data: SARS and National Treasury, PBO calculations			

3.2 Tax expenditure

In contrast to on-budget expenditure, tax expenditure incurred by government is dedicated to only a few sectors, namely motor vehicles, manufacturing, clothing and textiles, and small business. Tax expenditure incurred for industrial development purposes between 1994/95 to 2014/15 amounted to R207.3 billion. The motor-vehicle development incentives is South Africa's longest running tax incentive, and accounts for three-quarters of tax expenditure incurred. There has been a noticeable increase in tax expenditure incurred in general manufacturing, this has been largely due to the Section 12i tax incentive. Expressed in constant prices in 2015/16 Rands, South Africa incurred R393.15 billion of tax expenditure to support industrial development initiatives.

Figure 2: Total tax expenditure by sector 1994/95 – 2014/15 (nominal Rands)



3.3 Total resources dedicated

Adding expenditure and tax expenditure provides an estimate of the total resources dedicated to industrial development. Since 1994 South Africa has dedicated R291.73 billion to industrial policy initiatives. Expressed in 2015/16 Rands, South Africa dedicated R476.65 billion to support industrial development initiatives.

On-budget support for industrial development only represents about 29 per cent of resources dedicated to industrial development. The larger share of support for industrial development is from tax expenditure (71%). However, in recent years the share of support of expenditure has increased relative to tax expenditure. This is, in part due to the NIPF.

Support received by the motor vehicles, and the clothing and textiles sectors is predominantly in the form of tax incentives. Clothing and textiles, and small business are split between expenditure and tax expenditure.

Figure 3: Composition of resources dedicated by sector

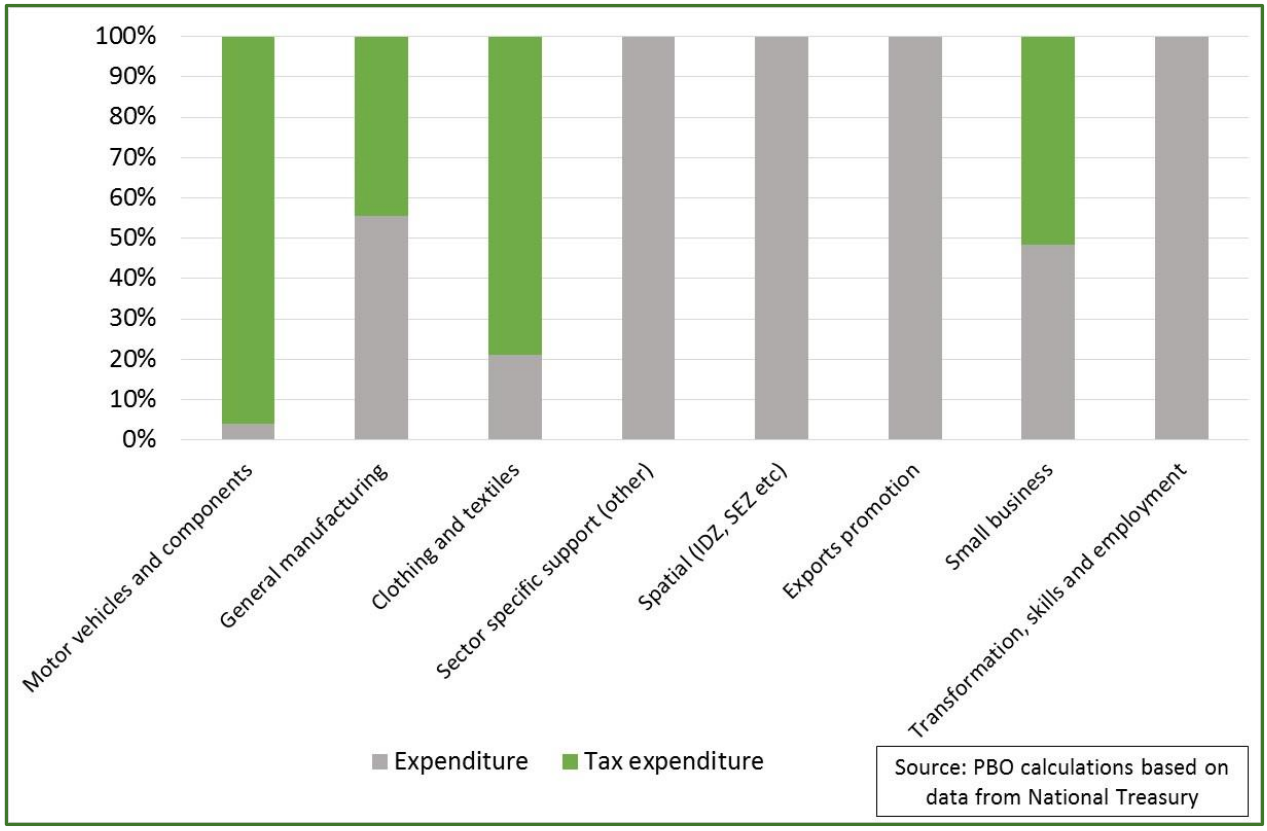
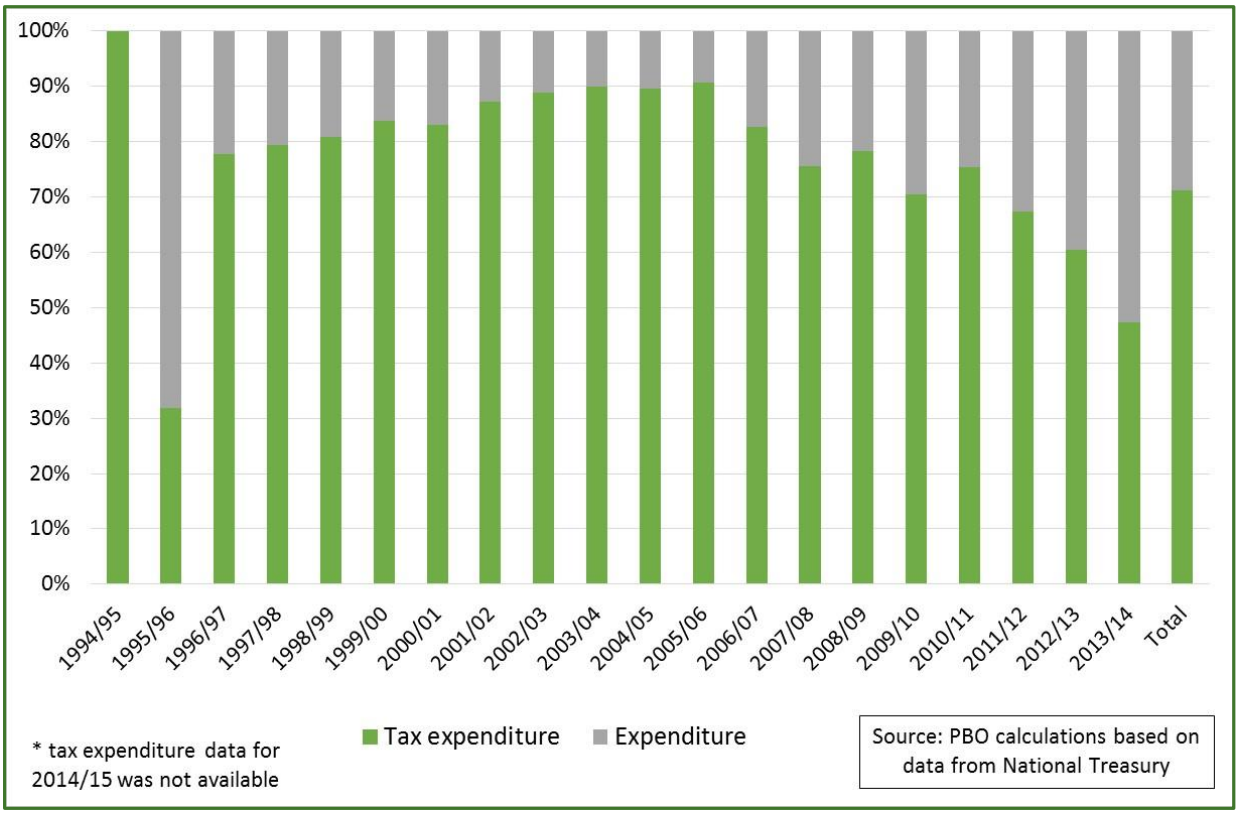


Figure 4: Composition of resources dedicated over time



4 Manufacturing

The manufacturing sector has been a consistent focus of South African industrial and economic policy pre and post 1994. There have been several programmes, policies, initiatives and incentives directed towards the development of this sector. In fact the country's first industrial policy, the DTI's "Improving Manufacturing Performance in South Africa", targeted the manufacturing sector. This was followed by another policy from the DTI, the "Support measures for the enhancement of the international competitiveness of South Africa's industrial sector", also known as the "supply-side document". The country later introduced the "Integrated Manufacturing Strategy" (IMS) which proposed interventions to grow the manufacturing sector. In 2007 South Africa adopted the National Industrial Policy Framework (NIPF). The NIPF is the country's first comprehensive industrialisation strategy. The NIPF and its subsequent IPAPs identify manufacturing as a key sector.

The continuous emphasis on the manufacturing sector is premised on the view that the manufacturing sector is critical in the process of industrialisation. Growth in the manufacturing sector, with its strong backward and forward linkages to other sectors, contributes to growth across the economy, higher employment and exports.

Considering the range of programmes and policies funded for the development of the manufacturing sector, the main objectives of government in the manufacturing sector can be identified. Table 6 presents the main objectives of the various manufacturing incentives and programmes considered in this report under "general manufacturing". It shows that investment, competiveness, capabilities-acquisition, growth, and employment have been key objectives of manufacturing-oriented initiatives.

The most prominent manufacturing incentive has been the motor vehicles and components sector development program, formerly the MIDP and now the APDP. This is discussed in the following section.

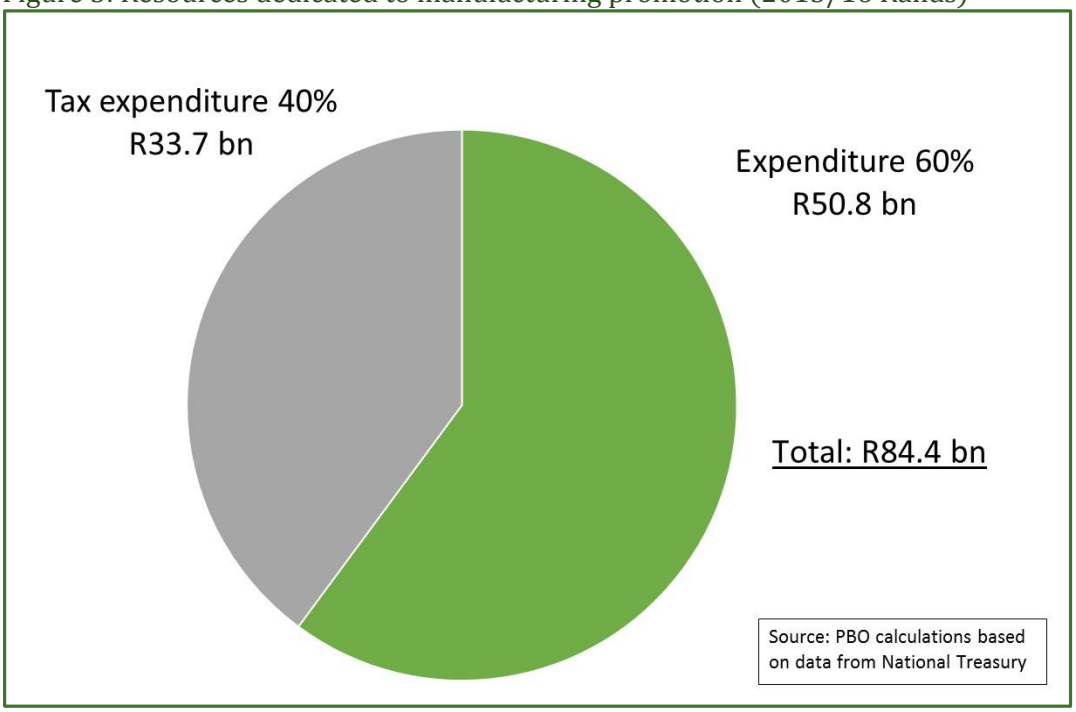
Table 6: Key objective of manufacturing programmes and incentives

	Investment	Skills development	Energy efficiency	Competitiveness and exports	Growth	Employment
Expenditure						
Competitiveness Fund (CF)				X		
Council for Scientific and Industrial Research: Aerospace industry					X	
Critical Infrastructure Programme (CIP)	X		X	X	X	
Enterprise Investment Programme (EIP)	X					X
Funds for Research into Industrial Development Growth & Equity (Fridge)				X	X	
Manufacturing Competitiveness Enhancement Programme (MCEP)					X	
Manufacturing Development Incentives	X			X	X	
Manufacturing Investment Programme	X				X	
National Foundry Technology Network	X	X		X	X	X
Sector Partnership Fund (SPF)				X	X	
Small and Medium Manufacturing Development Programme: manufacturing	X			X	X	X
Support Programme for Industrial Innovation (SPII): manufacturing	X			X		
Technology and Human Resources for Industry Programme (THRIP)		X		X	X	
Technology Venture Capital Fund	X			X	X	
The National Cleaner Production Centre	X	X	X			
Tax Expenditure						
12i Tax Allowance Incentive (12I TAI)	X		X	X		
Industrial Policy Projects: Investment and Training Allowance (Sec.12i)	X	X		X	X	
Strategic industrial projects	X	X		X	X	X

4.1 Resources dedicated

During the period 1994 – 2015 South Africa dedicated R85 billion in 2015/16 Rands for the promotion and development of the manufacturing sector. About 60 per cent of this was through expenditure and about 40 per cent through tax expenditure.

Figure 5: Resources dedicated to manufacturing promotion (2015/16 Rands)



4.2 Sector performance

The manufacturing sector has grown considerably since the transition to democracy in 1994. The sector is now 1.6 times the size it was in 1994, growing from R229.5 billion in 1994 to R379.5 billion in 2015. The sector's contribution to GDP averaged around 15 per cent between 1994 and 2008. Since 2008, the sector's contribution to GDP declined, and now averages around 13.5 per cent. This indicates that the sector has grown slower than the economy since the 2008 financial crisis.

Figure 6: Manufacturing growth 1994 – 2014

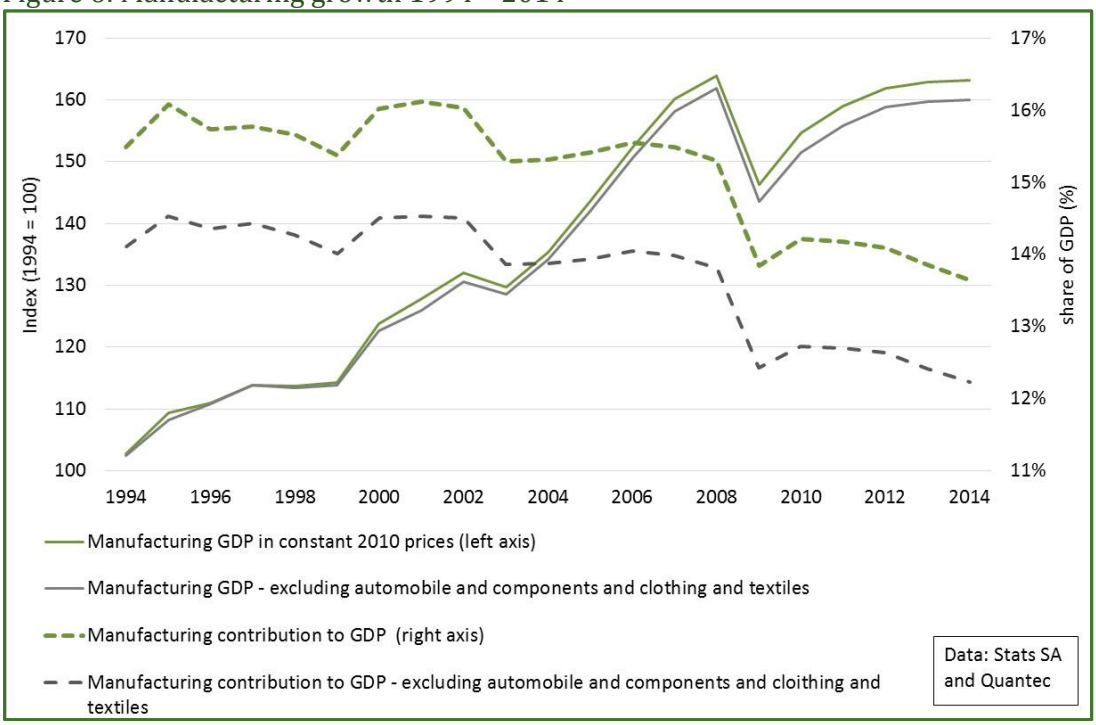
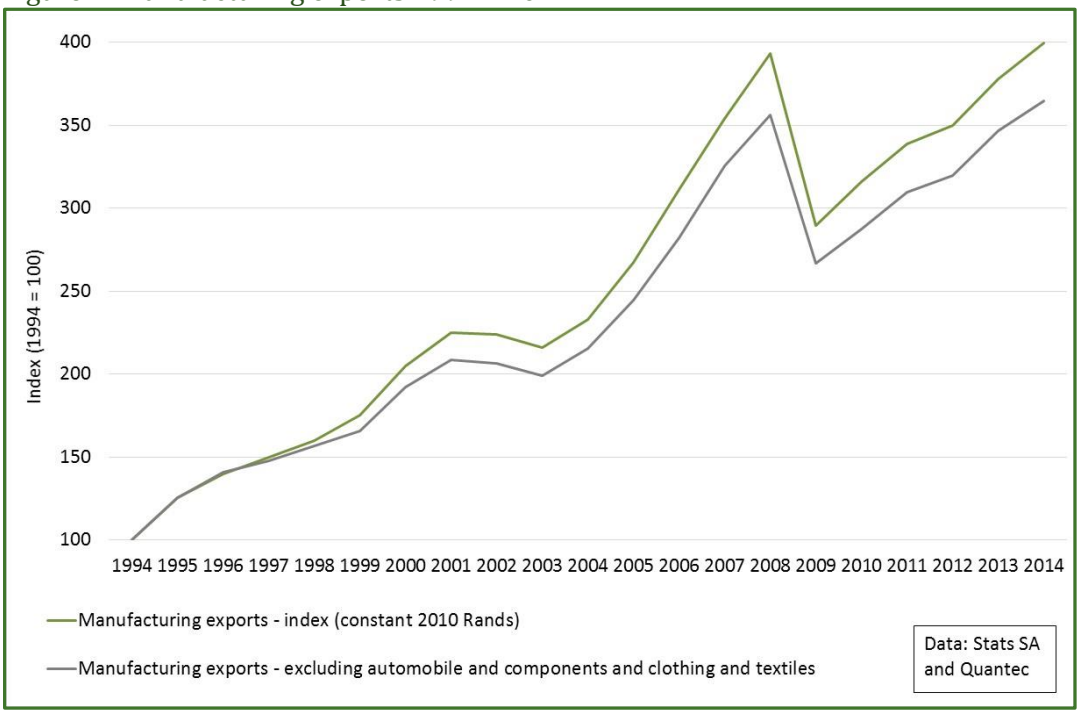


Figure 7: Manufacturing exports 1994 – 2014

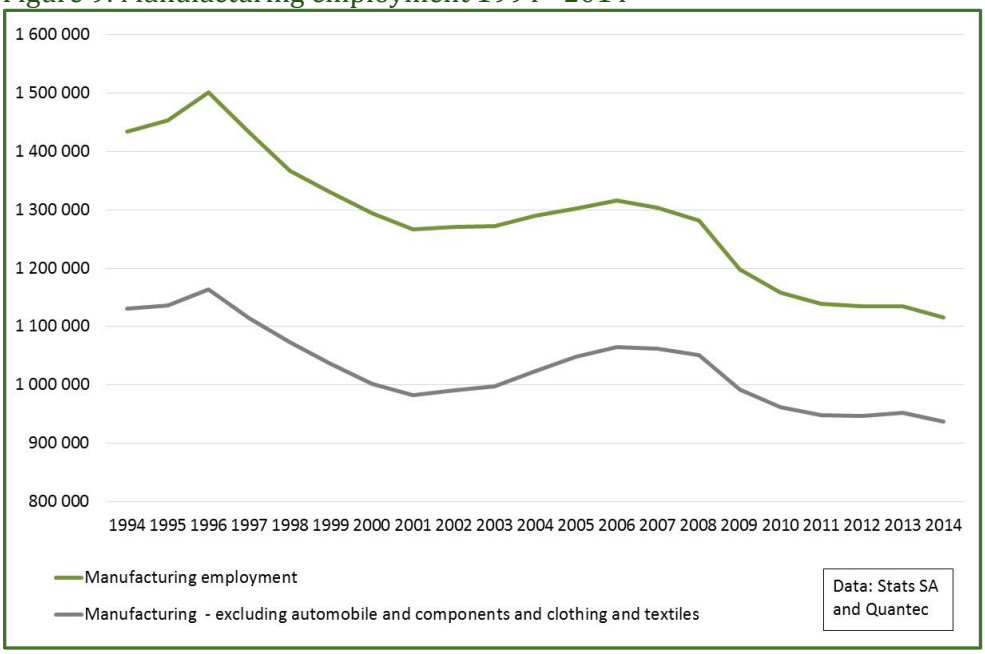


Manufacturing exports have performed particularly well since South Africa's reintroduction into the global economy in 1994. It took the country less than six years to double its volume of manufacturing exports. This suggests the success of the country's policies to ensure successful reintegration into the global economy. Manufacturing exports fell by over 25 per cent between 2008 and 2009 as the effects of global financial crisis reduced demand. It has taken over five years for manufacturing exports to return to pre-financial crisis levels. Manufacturing exports have grown from under 30 per cent of total exports in 1994 to about 65 per cent today. This reflects both an increase in the volume of exports, as well as the shift in the composition of exports - higher value goods.

Motor vehicles and components share of total manufacturing exports has grown significantly since the mid-1990s. This follows the implementation of the MIDP (discussed below). This can be seen in Figure 8 in the increasing gap between manufacturing exports and manufacturing exports excluding motor vehicles and components, and clothing and textiles.

Figure 8: Manufacturing exports as a share of total exports and GDP 1994 - 2014

Figure 9: Manufacturing employment 1994 - 2014



Employment in the manufacturing sector has been in consistent decline since the transition to democracy. The sector used to employ 1.43 million people in 1994 – 14 per cent of total formal employment. This fell to about 1.1 by 2014 – 10 per cent of total formal employment. With employment creation as a stated objective of several of the manufacturing-oriented programmes and incentives, it should be noted that the sector has become less reliant on labour. Despite consistent increases to manufacturing output and exports since 1994, the sector has in fact decreased its level of employment. This, combined with the overall increase in investment on the part of the manufacturing

sector, indicates greater reliance on capital in the production process. This is in line with international experience, wherein the resurgence in manufacturing is less reliant on labour and more capital-intensive. The manufacturing sector has also become less reliant on semi- and un-skilled labour, and more reliant on highly-skilled labour. This suggests that the manufacturing sector is unlikely to directly provide significant employment opportunities for semi- and un-skilled individuals. However, it is plausible that growth in manufacturing may increase demand from other sectors given significant industry linkages, increasing demand for labour for certain sectors.

Figure 10: Manufacturing employment by skill level 1994 - 2014

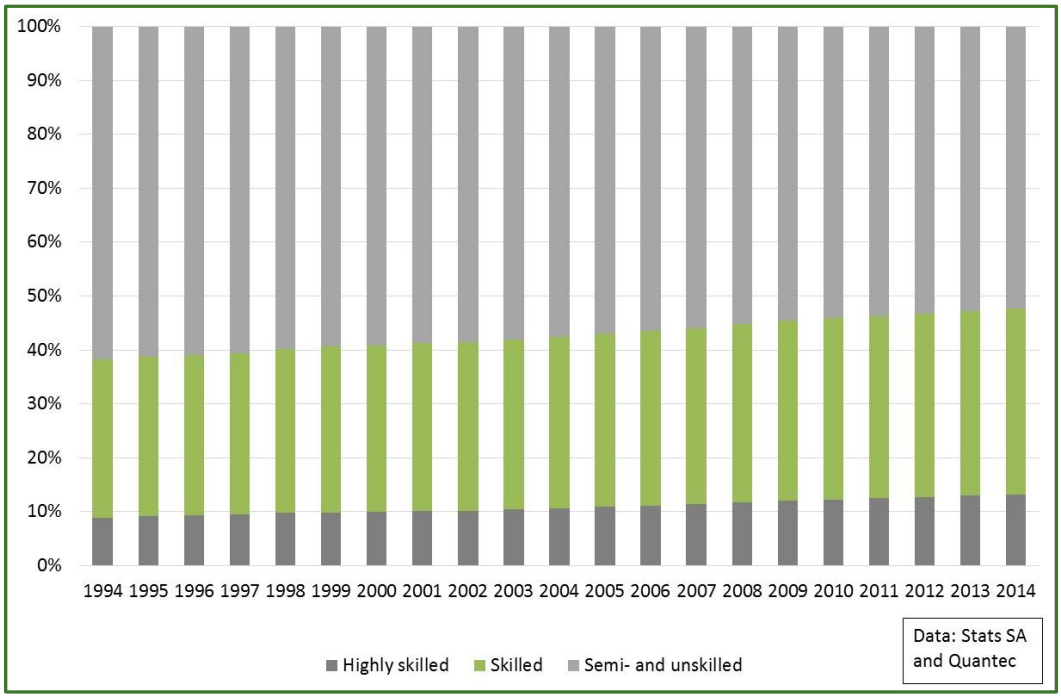
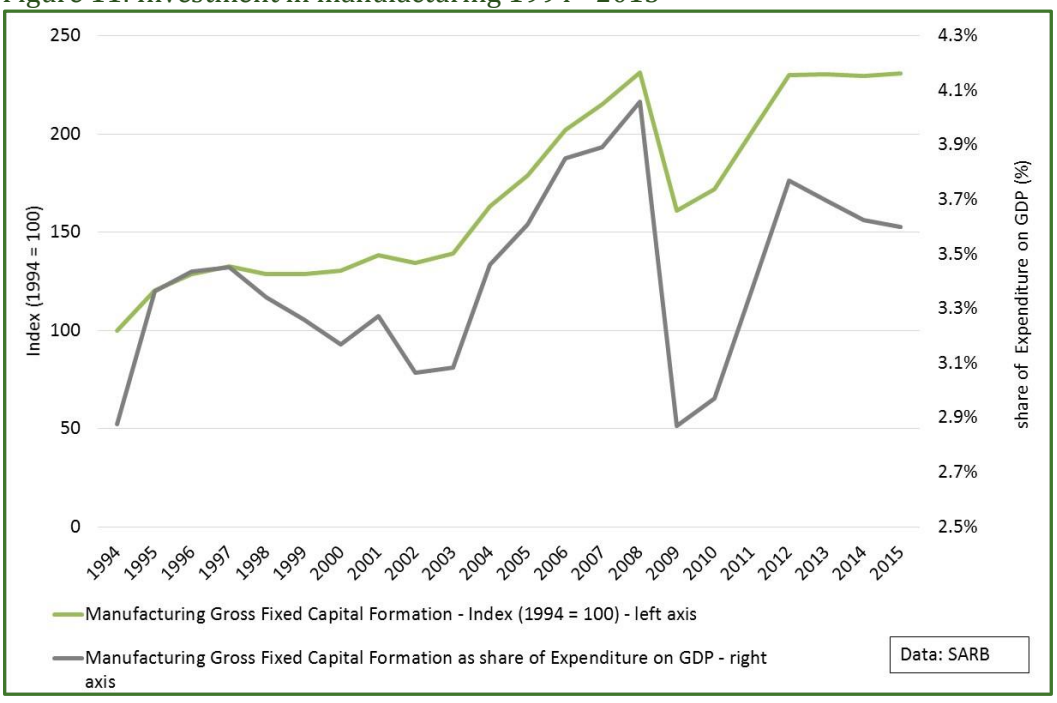


Figure 11: Investment in manufacturing 1994 - 2015



5 Motor vehicles and components

In 1994, the South African automotive sector was relatively small, inwardly-focused, and labour-intensive. The sector employed around 111 000 workers at the time with a capital to labour ratio 40 per cent of its current level. Following the transition to democracy in 1994, the motor industry needed to adjust to the liberalisation of the domestic market. South Africa's reintegration into global markets left some established industries exposed to foreign competition. The industry, it was argued, was not in a position to compete on a level-footing with global competitors. Industrial support measures were introduced subsequent to South Africa's reintegration into global markets to assist in making the sector more competitive.

Before 1995 the motor industry in South Africa was protected by import tariffs in excess of 100 per cent, along with demanding local-content requirements. The result was a wide range of motor vehicle products at high prices that would not have been able to compete with more efficient local or global competitors in the absence of protection.

Government protection was therefore considered necessary to:

1. Avoid major losses to the sector arising from trade liberalisation, including employment losses.
2. To afford the sector the time necessary to restructure, such that production could focus on a narrow range of products produced on a larger scale for export. All other required components and products were to be imported.

The government at the time considered the introduction of incentive programmes and protection measures to assist the industry. In 1995, the Motor Industry Development Programme (MIDP) – now known as the Automotive Production and Development Programme (APDP) was introduced. The MIDP was a set of incentives and subsidies targeting the South African automotive sector. It later was modified and extended on several occasions.

The MIDP provided protection by placing high tariffs on vehicle imports. This protected local manufacturers from imports. Other measures included providing local manufacturers credits for importing vehicle components to use in domestic production. This allowed local manufacturers to import vehicles or components at duty-free rates, and then sell them into local market at prices inclusive of the duty.[4]

The MIDP officially ran from 1995 – 2012 after which it was substantially modified and renamed the APDP, which was to include the medium, heavy and commercial vehicle segments of the industry (DTI, 2013). The APDP came into effect in 2013 and is intended to run until 2020. The programme is built on three pillars:

1. The Volume Assembly Allowance (VAA) – its purpose is to incentivise local manufacturers to expand domestic production by paying an 18-20 per cent refund on the value of import taxes paid by the company. The incentive is intended to make it relatively more attractive for local manufacturers to expand their existing operations in South Africa.

[4] It is important to note that the industry also benefited from a range of other incentives provided by national, provincial and local governments. The degree of government assistance for the automotive industry, therefore, extends beyond the MIDP.

2. The Production Incentive (PI) – incentivises local manufacturers to add value to raw materials or components through further manufacturing activities, with the intention of increasing South Africa's role in the global supply chain.
3. The Automotive Investment Scheme (AIS) – is an investment grant which transfers cash to companies to the value of up to 35% of their qualifying investment spend.

The Volume Assembly Allowance and the Production Incentive is funded from the customs duties collected by SARS for the importation of both complete build-up (CBU) and complete knock-down (CKD) vehicles.[5] The Automotive Investment Scheme is funded from Treasury and is tax-free in the hands of the manufacturer.

Table 7: Comparing the MIDP and APDP

	MIDP (1995-2012)	**APDP (2013-2020)**
Tariffs	The level of protection offered through import tariffs was reduced consistently from **65%** and **49%** in 1995 for CBUs and CKDs respectively, to **25%** and **20%** in 2012	The level of protection offered through import tariffs will remain constant at **25%** and **20%** for CBUs and CKDs respectively from 2013 to 2020
Local Original Equipment Manufacturers (OEM) Vehicle Allowance[6]	**DFA (Duty Free Allowance)**: • **27%** of the local assembled vehicle's wholesale price is rebated against the duty payable on imported components that are used in the production of vehicles for the domestic market	**VAA (Volume Assembly Allowance)**: • Enhances the attractiveness of local vehicle assembly • **18-20%** of local assembled vehicle's wholesale price is rebated against the duty payable on imported components that are used in the production of vehicles, irrespective of where the production is sold, as long as annual units per plant exceed **50 000**
Industry incentives	**Import Duty Credit Certificates:** • Export linked duty credits earned for using local materials • **14%** Benefits calculated on local material used	**Market neutral PI (Production Incentive)**: • Incentivises local value addition • Benefits calculated on local production value. 'Vulnerable Industries' receive higher benefits

[5] Import duties can differ according to whether the vehicles imported are already built, or in parts.
A Complete Build-Up (CBU) import refers to a vehicle that is assembled entirely out of South Africa. A Complete Knock-Down (CKD) import is a vehicle that has been assembled in South Africa using components and technology assembled outside the country. Typically, government's intending to provide protection to local automotive industries, tax CBU imports more heavily. This is thought to provide a stronger incentive for motor vehicles manufacturers to establish production facilities within the borders of their various target markets. This may then lead to further investment, job creation and skills transfer.

[6] The original equipment manufacturer (OEM) is the original producer of a vehicle's components. Foreign manufacturers who choose to establish production facilities in South Africa, qualify as local OEMs.

Investment assistance	**PAA (Productive Asset Allowance)**: • Only benefits OEM and 1st tier suppliers whose investment is linked to a local OEM • **20%** benefit (in the form of a import duty credit), payable over **5 years** (4% per year)	**AIS (Automotive Investment Scheme)**: • Promotes investment in the sector by assisting with cash flow • Benefits original equipment manufacturer (OEM) and auto component suppliers as long as investment is automotive focused • **25-35%** benefit (cash-back), payable over **3 years** (6.67% per year)

5.1 The costs of support to the motor vehicles sector

The automotive sector has received about R324.2 billion in 2015/16 Rands in government support over the period 1994/95 – 2014/15 through both the MIDP and APDP. This accounts for about 60 per cent of the total industrial support covered in this report. This is in part due to the limited role of industrial policy in the first decade of democracy. Total resources dedicated to the sector should also be considered in relation to the customs duties received from importing motor vehicles and components. From 2007/8 to 2014/15 SARS collected R81.5 billion in customs duties from importing vehicles and transport equipment. This amounts to over 90 per cent of total resources dedicated to the sector during that period (see table 5).

Figure 12 shows the split between tax expenditure and actual expenditure. The significantly larger share dedicated to the sector has been in the form of tax expenditure. Of the R316 billion of revenue foregone by government, 52 per cent has been via the duty free allowance, and 46 per cent through import duty credit certificates. Both were incentives under the MIDP.

Figure 12: Resources dedicated to motor vehicles sector (2015/16 Rands)

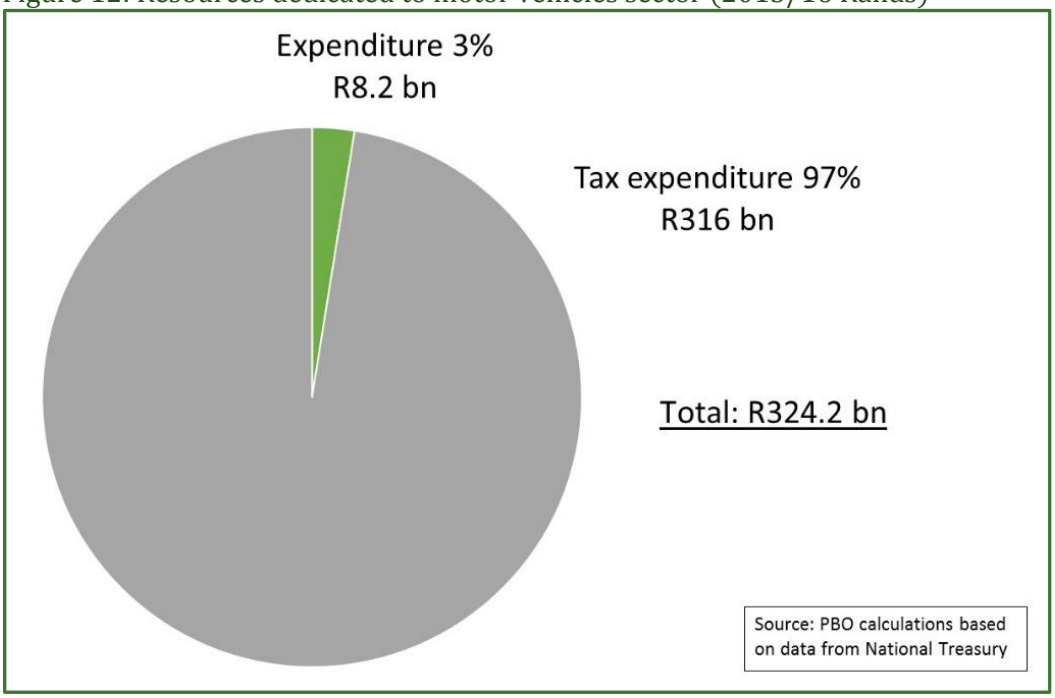
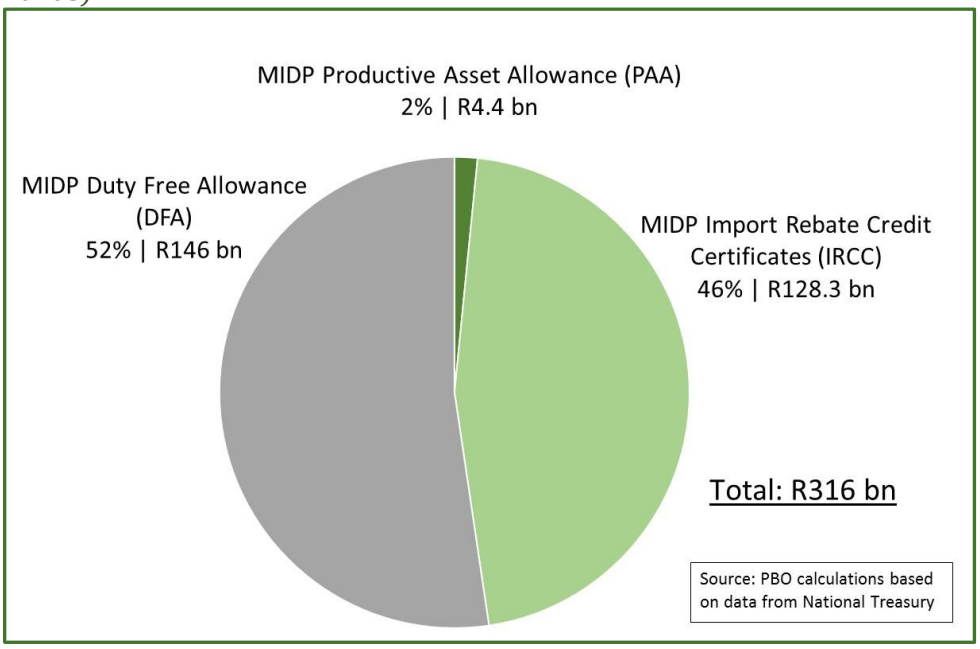
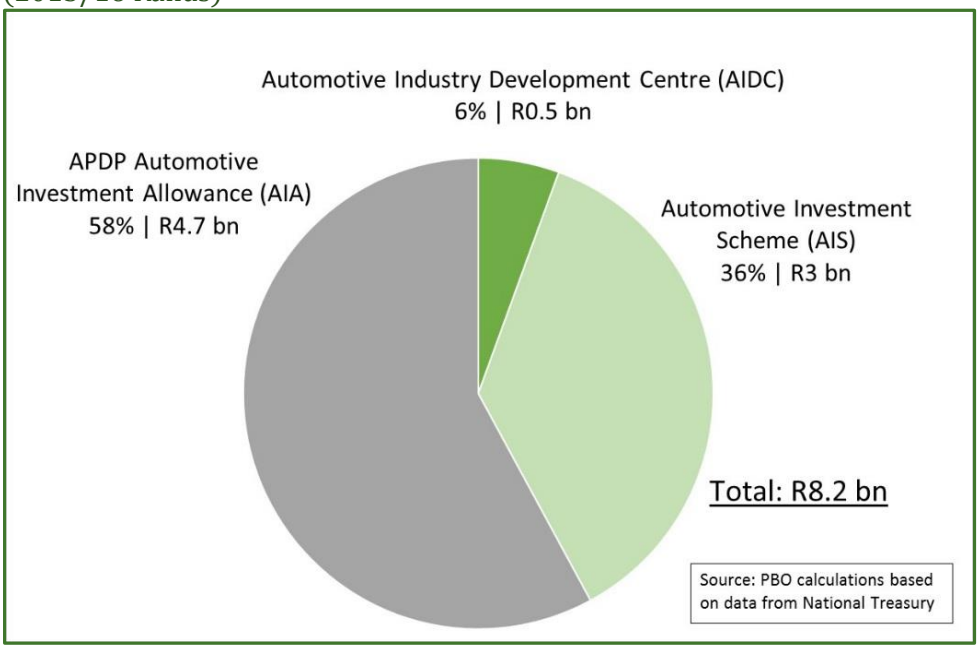


Figure 13: Tax expenditure: Motor vehicles and components 1994/95-2014/15 (2015/16 Rands)



Actual expenditure on the automotive sector is dominated by the Automotive Investment Scheme which forms part of the APDP. The only industry support included in this report that does not fall under either the MIDP or APDP is the expenditure relating to the Automotive Industry Development Centre (AIDC). The AIDC describes itself as a "government support centre to increase the local automotive industry's global competitiveness, and to promote Gauteng as the automotive industry investment destination of choice" (Automotive Industry Development Centre, 2016).

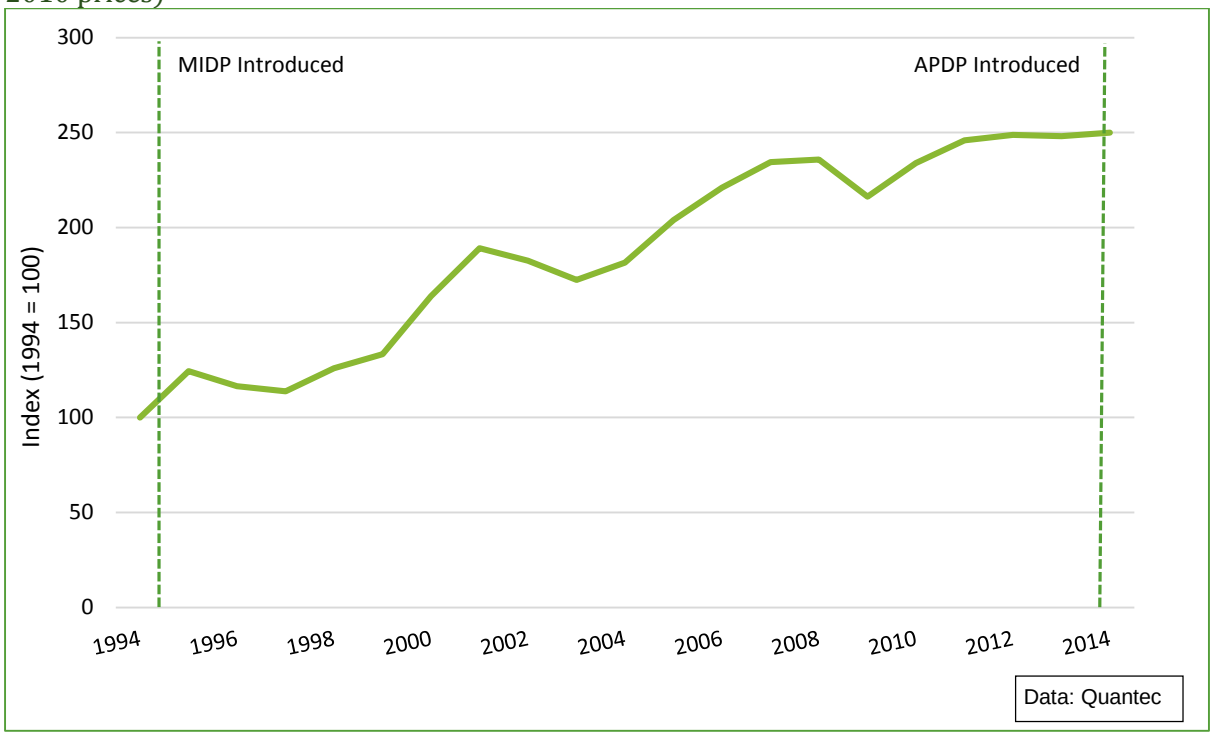
Figure 14: Expenditure: Motor vehicles and components incentives, 1994/95-2014/15 (2015/16 Rands)



5.2 Sector performance

The South African automotive sector has grown steadily since 1994, but has become less labour-intensive. The latest data suggests that growth may have stagnated. This is in part due to the poor and uneven global recovery following the financial crisis. Figure 15 shows that the industry is approximately two and a half times the size of what it was in 1994 when measured by its gross value-add, growing from R11.1 billion in 1994 billion to R27.8 billion in 2014.

Figure 15: Real gross value-added by motor vehicles, parts and accessories sector (constant 2010 prices)



The reintegration of the South African economy into global markets after 1994 resulted in stronger growth for the sector. The extent to which the introduction of the MIDP contributed to this is unclear. After the global financial crisis in 2009, the value-added by the industry declined, and later recovered. The figure does, however, appear to indicate a growth plateau since 2012. These developments are also related to changes in value-chains across the global auto industry. More recent data will verify if this represents a structural – permanent – change in the previous trend or if it is merely a cyclical – temporary – downturn. The future of South Africa's auto industry will depend on its ability to maintain its place in the global value chain, and adapt to changing production techniques.

Figure 16 shows the value of industry exports since 1994, reflecting the same trends as in figure 15. The impact of reintegration and government support – through the MIDP – appear to have led to the strong growth in exports.

Figure 16: Value of motor vehicles, parts and accessories exports (constant 2010 prices)

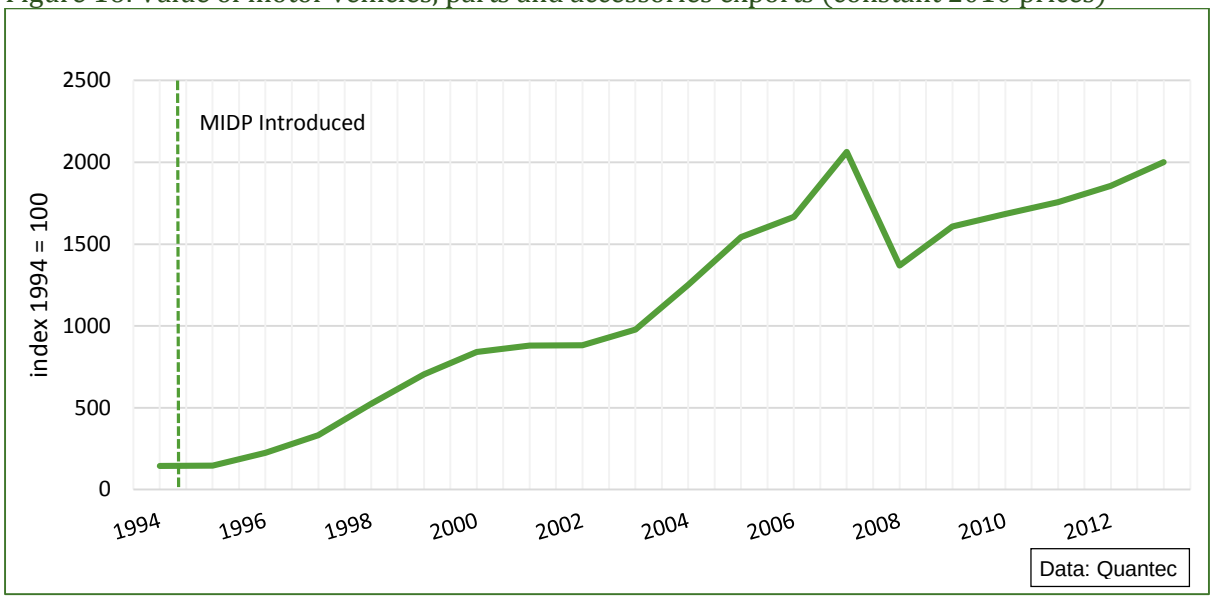
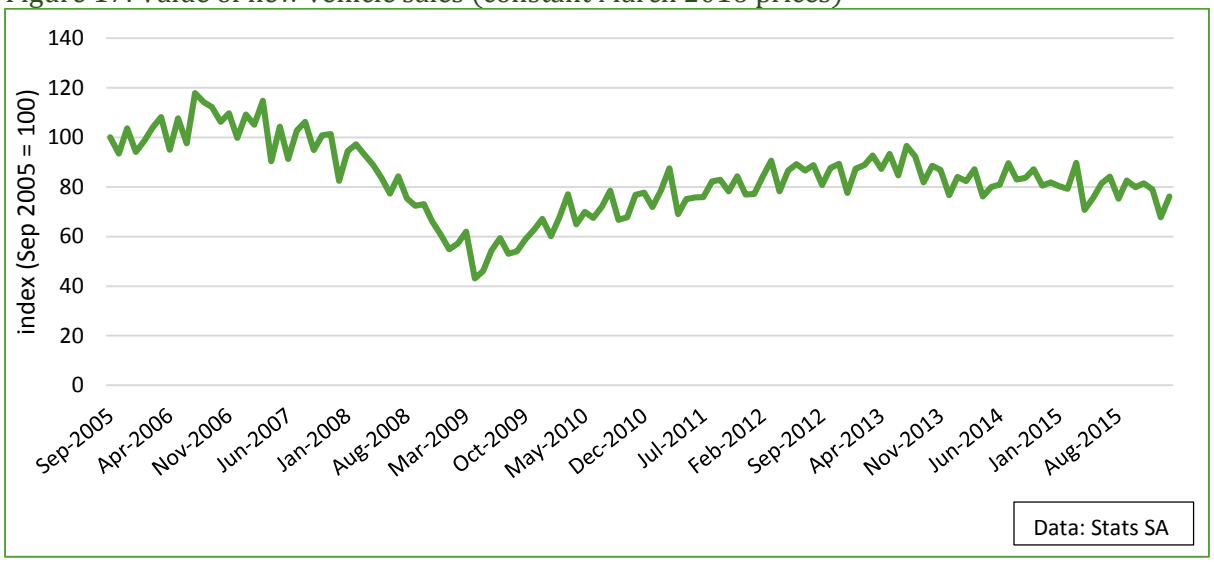


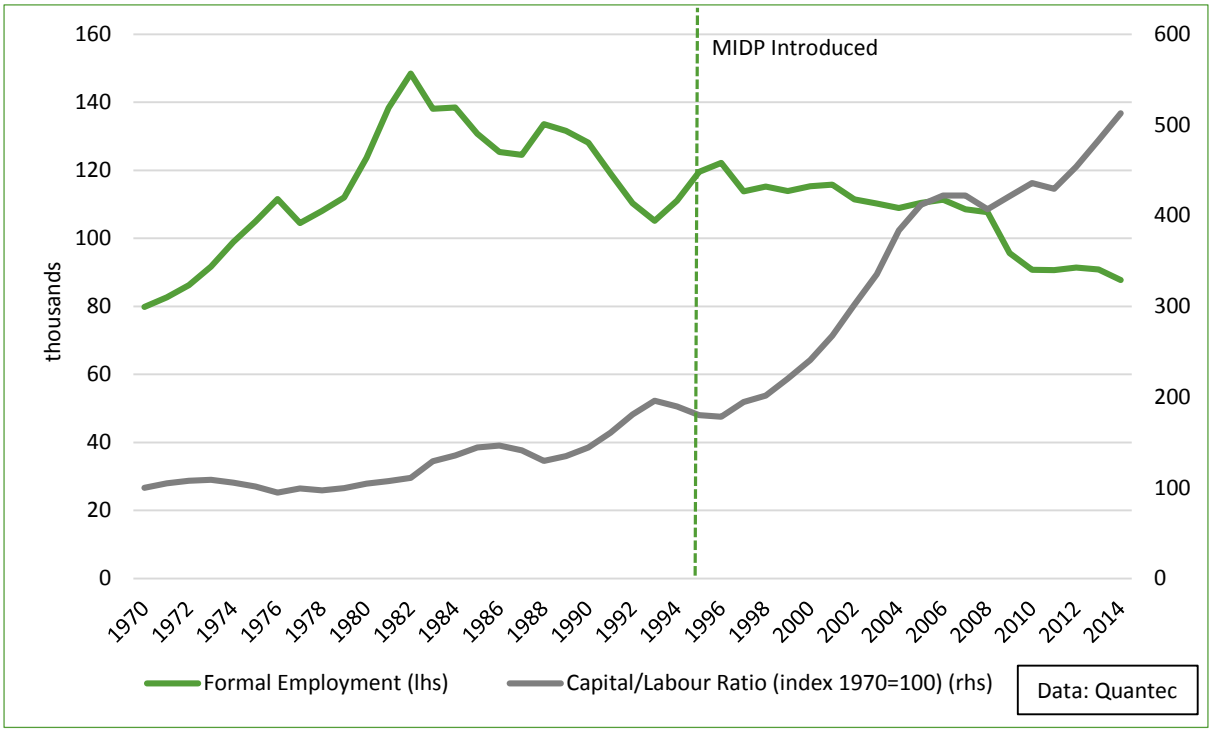
Figure 17 shows the value of new vehicle sales, and reflects the impact of the 2009 recession as well as the subsequent recovery. The recent slowdown in the sector is better reflected in this series as it is more recent – up to the end of February 2016. Compared with the 2012/13 financial year, the value of the most recent financial year's new vehicle sales represents a contraction of 8.5 per cent.

Figure 17: Value of new vehicle sales (constant March 2016 prices)



A poignant global trend in the industry has been the move towards mechanisation in the production process. This is reflected in Figure 18 which shows that employment in the industry peaked in the early 1980s, and has declined since. Despite a brief increase after reintegration in 1994 and the subsequent growth in the industry's real value-added, this has continued to occur. Employment levels at the end of 2014 were under 88 000, compared with the 1982 peak level of approximately 148 500. Since 1994, the sector had shed 23 364 by the end of 2014. This should be considered in relation to the objectives of the MIDP/APDP which do not identify employment creation in the sector as objectives.

Figure 18: Employment levels and capital-to-labour ratio in motor vehicles, parts and accessories sector



With a focus on mechanisation, there has been a change in the labour intensity of the industry. Since the introduction of the MIDP in 1995, the capital to labour ratio – which measures the amount spent on machinery and equipment inputs relative to labour – has nearly doubled. Employment levels are currently declining towards their 1970 level. This trend is likely to continue as advances in production technology promote further productivity gains from the use of capital.

5.3 Assessment of sector support

Given the sector trends described above, several studies have attempted to evaluate the effectiveness of the support programmes. This section summarises some research findings from independent studies. The DTI's objectives and accompanying key performance indicators (KPIs) for the incentives are also discussed.

Industrial policy is thought to have played a significant role in integrating South Africa's automotive industry into global value chains. Considering the primary objective of the MIDP/APDP – to afford the local automotive industry time to adapt to global competitive standards – the programmes can be viewed as a success. The programmes are also likely to have enabled substantial investment in the industry and the strong growth in exports (Flatters, 2005; Hausmann, Rodrik, & Sabel, 2008). Catalytic converters, and stitched leather seat covers in particular have achieved notable success.

It is however generally agreed that the industry is not yet in a position to compete without the support provided to it by government (Hausmann, Rodrik, & Sabel, 2008; Barnes & Morris, 2008). The sector faces several challenges to its long-term sustainability, including (Barnes & Morris, 2008):

1. Oversupply
2. Constrained demand from key export markets - predominantly advanced economies
3. The emergence of lower cost production locations – mainly in Asia

Given the macro-economic and exogenous nature of these challenges, careful consideration is required regarding the future of industrial policy in the auto-sector. Suspending or reducing support for the sector, may result in a loss of market share that would be difficult to regain when global demand recovers. This is especially a concern given the significant capacity and capabilities of the sector in the country.

Criticisms

Criticisms of the automotive support programmes are generally centred on two areas. Firstly; on the design of the support programmes, and secondly; on whether support programmes represent value-for-money.

The limitations in programme design are argued to be the result of policymakers not being close enough to the active participants in the industry – which is thought to obscure their sense for the true costs. This may explain the perceived lack of policy responsiveness to the recent global financial crisis. The design of the MIDP, for example, remained stagnant following a 42 per cent drop in South Africa's largest automotive export, catalytic converters, in the year following the crisis (Gastrow, 2012). It is argued that the current MIDP/APDP focus on exports has served its purpose and that the current incentives should be shifted to promote the establishment of large-scale domestic component suppliers (Hausmann, Rodrik, & Sabel, 2008). This would allow OEMs to ramp-up their operations without the burden of having to import costly components across large distances.

Regarding programme cost, it is argued that the true economic costs associated with sector specific policy interventions, such as the MIDP/APDP, are not fully known. The estimates provided by the PBO in this report represent observable financial costs which is a narrower measure than economic costs - which includes other indirect and unobservable costs. Raising import tariffs provides an example. Increasing import tariffs leads directly to higher domestic vehicle prices which has an indirect effect on consumer choices. Another example would be the foregoing of state revenue – through import duty reductions – as well as investment grants which puts pressure on the fiscus, and can affect budget allocation. Further, that the grants are being funded by taxpayers could have negative implications and, therefore, be unsustainable (Flatters, 2005). The concerns raised by critics have led to calls for an independent review of the economic benefits and costs of the MIDP/APDP (Flatters, 2005). Given these concerns, it is useful to consider how the DTI evaluates the performance of its automotive policies. The DTI uses several key performance indicators in their annual reports to measure the effectiveness of the incentives in the automotive sector. The most prominent of which are:

- The number of new vehicles produced
- Value added – as measured by the sales price of an asset less its cost of sales
- The automotive trade balance – the rand value of automotive exports less imports
- Employment

This report raises several concerns in relation to these indicators. Broadly, the extent to which the incentives are directly responsible for any reported improvements in the indicators is uncertain. Without a more thorough analysis, it is difficult to claim direct causal links. The Department could therefore, at most, infer that improvements *may* be linked to the incentives.

The second indicator addresses the objective to increase local content in South African vehicles. Measuring the local content in South African vehicles is, however, particularly difficult to gauge from available national data. This is primarily for two reasons:

1. The definition of the automotive sector is not clearly specified
2. It is difficult to measure the value of local content used in the production process

The DTI uses the 'value-added-to-total value of sales ratio' to measure the progress in meeting this objective. There are several problems with this approach.

Firstly, the manufacturing activity data for both value-added and sales are collected according to the Standard Industrial Classification (SIC) – which is a system for classifying industries. The potentially relevant SICs for the automotive sector capture manufacturing activity for motor vehicles, trailers and semi-trailers, parts and accessories for motor vehicles and their engines as well as other transport equipment. The selection of sub-sectors of the industry can influence the outcome of this indicator.

Secondly, value-added – as calculated in the national accounts of South Africa – incorporates a range of other operating expenses – employees' salaries, rent, utilities etc. – as part of its determination of 'cost of sales'. This makes it a less-than-ideal indicator of the degree to which local manufacturers have enhanced the value of the raw materials and/or components imported.

The automotive trade balance indicator currently includes only imported auto components intended for local manufacturers which distorts the true state of activity in the sector. According to the latest reading of this measure, the vehicle and component manufacturers participating in the APDP recorded a R5.3 billion surplus in 2015 – the value of exports (R151.5 billion) was greater than the value of imports (R146.2 billion) (The Automotive Industry Export Council, 2016). When including after-market spare part imports, the surplus converts to a R45.2 billion deficit. Spare-part imports are arguably a legitimate component of the sector's business activities with foreign suppliers, and it would therefore be useful to have it included as part of the indicator.

Finally, the inclusion of an employment objective and its accompanying KPI could lead to missed targets. This report has already highlighted the strong trend of mechanisation and reduced labour intensity in the sector over the last 45 years. Focusing industrial policy on growing employment numbers in the sector may therefore be counterproductive. Another challenge is with the estimation of indirect job creation as a result of the automotive incentives. While the sector does form part of a highly integrated supply chain, accurate estimates of the number of jobs created in other industries through its expansion are difficult to determine but should not be dismissed.

6 Clothing and textiles

The Clothing and Textiles sector experienced a period of decline in output from its peak in the early 1980s. Like many sectors in the pre-1994 period, it was inwardly-focused with the value of its exports (R7.7 billion) marginally higher than automotive exports (R4.2 billion), but low relative to other developing countries. At the end of 1994, the sector employed approximately 180 000 workers. At the time, less protection was provided to the sector compared to other sectors such as automotives.

In the late 1980s the clothing and textiles sector's exports were considered to be relatively low. In 1987, the then President's Council found that the industry appeared to exhibit an anti-export bias because of the high cost of importing raw materials for manufacturing. It was found that at the time South African manufacturing firms were paying 24 per cent more for their inputs than their OECD competitors. In response to these findings, the government introduced an import duty credit scheme as part of a broader structural adjustment program. The objective of the scheme was to encourage cross-border trade by rewarding companies which increased exports, with tax credits on their raw material imports.

In 1994 the structural adjustment programme was discontinued and the duty credit certificate scheme (DCCS) was introduced in its place. The programme offered similar import duty credits to the previous scheme but was phased out as of the end of the 2004/05 financial year to coincide with the introduction of the Textile and Clothing Industry Development Programme (TCIDP). The TCIDP contained a similar import duty credit arrangement which allowed manufacturers to claim rebates for qualifying exports. The level of the rebate is structured according to the type of export, with clothing receiving the highest, followed by fabric, and then yarn (Edwards, 2005).

Criticisms of the TCIDP included:

- It solely provides support to South African clothing and textile exporters, while the majority of manufacturers in the sector produce exclusively for the domestic market
- It has facilitated the rapid growth in imports from predominantly Asian manufacturers
- There is evidence that the programme is being abused by Southern African Customs Union members

While the TCIDP expired in 2010, the rebate remains a central feature in the DTI's industrial policy suite for the sector. Today, industrial policy in the clothing and textiles sectors includes; an import duty tax rebate; an investment grant; and a research-support centre.

Import duties on clothing and textiles remain high. In 2009, the Southern Africa Clothing and Textile Workers Union (SACTWU) applied for increases to these tariffs for 124 clothing lines. Their application was successful with the duties on 121 clothing lines increasing from 40 per cent to 45 per cent and the remaining three lines increasing from 20 per cent to 45 per cent. The 45 per cent import duty is the maximum duty allowed by the World Trade Organisation, to which South Africa belongs.

To encourage investment in the sector more directly, the DTI initiated the Clothing and Textile Competitiveness Improvement Programme (CTCIP) in 2009. Its introduction followed a prolonged period of decline in the local industry. This was due to the growth in Asian apparel exports, domestic competitiveness issues, labour relations, and ineffective government incentives. A key objective of the CTCIP is to enhance the competitiveness of South African apparel manufacturers. It aims to achieve this by enhancing the quality, cost and delivery of domestic manufacturers so that they are able to compete sustainably with global competitors. The programme provides grants to a group of linked entities within the sector that qualify as 'clusters'. Clusters are identified as being either 'ordinary' or

'national'. The rationale behind funding clusters, as opposed to individual companies, is that coordinated group initiatives have a better chance of achieving lasting competitiveness gains within their value chains or sub-sectors. Grants are awarded based on the percentage of qualifying expenditure undertaken by a cluster. To qualify for the grant, cluster expenditure must focus on the development of either its people, processes, markets or technical innovation.

Table 8: Cluster support under the Clothing and Textile Competitiveness Improvement Programme

	Ordinary Cluster	**National Cluster**
Cost Sharing Grant	• An investment grant of **75%** of the qualifying project cost on cluster projects. The remaining 25% should come from the cluster participants • The grant does not cover the cost of machinery, equipment, commercial vehicles, land or buildings • The grant is limited to a cumulative ceiling of R25 million over the project's implementation	An initial investment grant of **100%** for the first year, after which it becomes a cost sharing grant over four years equivalent to: Year 2 - **95%** from the incentive programme and **5%** from cluster participants Year 3 - **90%** from the incentive programme and **10%** from cluster participants Year 4 - **80%** from the incentive programme and **20%** from cluster participants Year 5 - **70%** from the incentive programme and **30%** from cluster participants
		Source: DTI

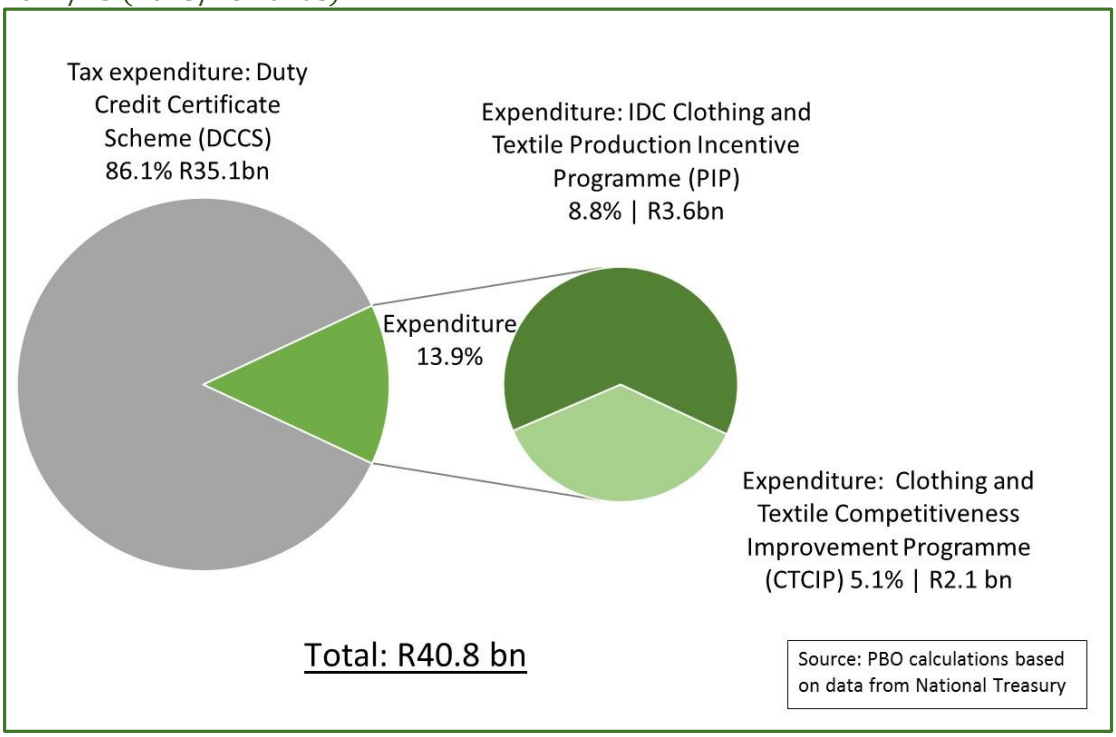
The final pillar of government support to the sector is the Textile and Clothing Centre of Excellence. The Centre, established at the CSIR, focuses on providing research and development support to the sector. The Centre is tasked with assisting in the coordination of local research as well providing access to international research, expertise and facilities. Human capital development is a key objective of the centre (CSIR, 2016).

6.1 The costs of support to the clothing and textiles sector

Government support for the clothing and textiles sector has amounted to at least R40.8 billion in 2015/16 Rands over the period 1994/95 – 2014/15. This accounts for 7.3 per cent of overall industrial support expenditure covered in this report. While the sector receives a relatively small proportion of overall government support, it is not insignificant. Over the period, the clothing and textiles sector has received the third highest financial support from government on a sector basis. Total resources dedicated to the sector should also be considered in relation to the customs duties received from importing clothing and textiles. From 2007/8 to 2014/15 SARS collected R36.9 billion in customs duties from importing vehicles and transport equipment. This amounts to over two-and-a-half times the total resources dedicated to the sector during that period (see table 5).

Figure 19 shows the split between aggregate tax expenditure and actual expenditure. Tax expenditure accounts for 86 per cent of the total support for the sector. The remaining 14 per cent is made up of the Clothing and Textile Production Incentive Programme (8.8%) and the Clothing and Textile Competitiveness Improvement Programme (5.1%).

Figure 19: Tax expenditure and actual expenditure: Clothing and textiles incentives 1994/95-2014/15 (2015/16 Rands)



Import Duty Credits have been provided in various forms to the sector since 1994. In contrast, the PIP and CTCIP represent recent initiatives with the first expenditure being recorded in the 2009/10 financial year. This largely explains the share of the DCCs in figure 19. The average inflation-adjusted annual expenditure on DCCs has been approximately 3.75 times that of the PIP, and 5.2 times that of the CTCIP. Import Duty Credits thus remains the most accessed incentive. The effectiveness of an incentive designed to promote exports could be questioned given the decline in the sector's exports since 2001.

The new incentives have not yet fully addressed previous criticisms. In particular, that government support continues to focus on exporters and not the majority of manufacturers that sell exclusively into the domestic market. The CTCIP is an attempt at addressing this imbalance, however uptake rates are low relative to other incentives.

The trend analysis suggests that other factors may have played a larger role in the real growth in sector output rather than the introduction and uptake of incentives. This can be inferred from comparing the growth trends in the sector with the introduction of various incentives. It should however be noted that it is difficult to precisely measure the impact on growth of a particular incentive. It would therefore be inaccurate to make definitive statements regarding the efficacy of the sector's incentives based exclusively on the above trend analysis.

6.2 Sector performance

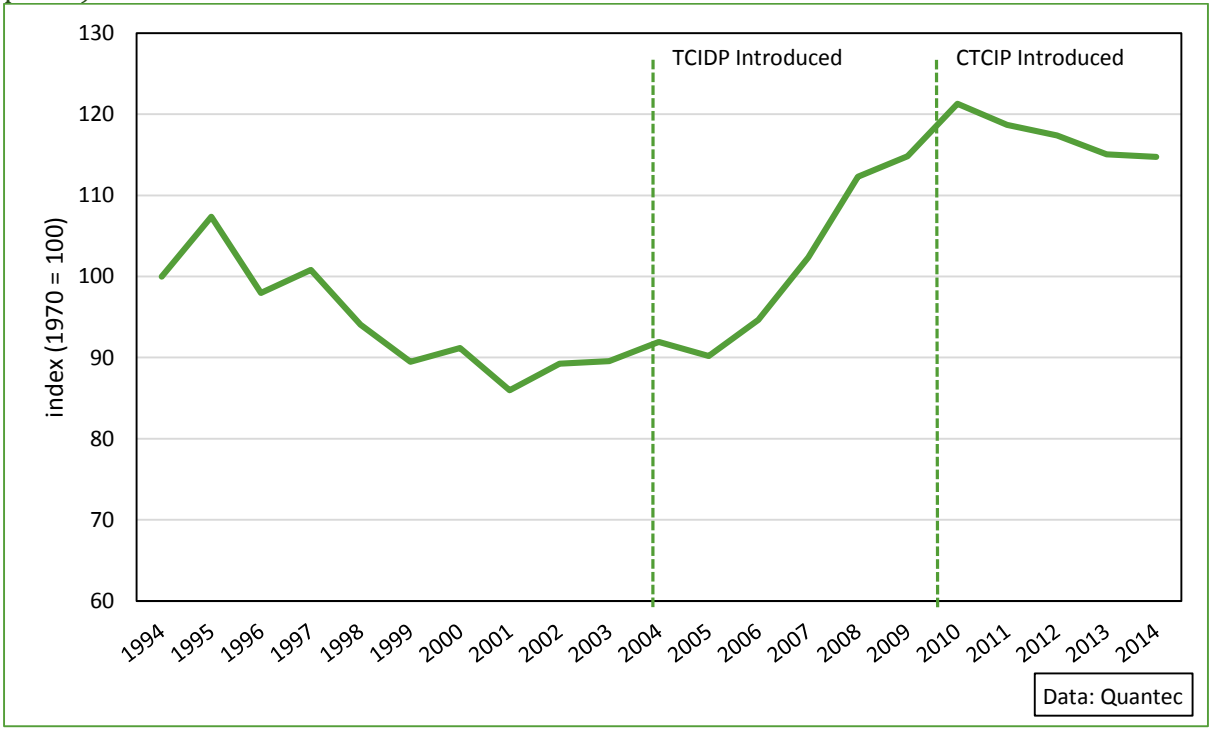
The clothing, textiles and footwear sector has recovered marginally following over 20 years of decline. The decline in exports has halted, albeit at relatively low levels, but employment levels continue to decline.

After marked growth in the real output of the sector from 1970-1981, a downward trend ensued until 2005. Two reprieves occurred in the late 1980s and mid 1990s as the political environment in South

Africa stabilised. Despite the brief respites, competition from international manufacturers – particularly those from Asia – have hampered growth. As of 2001, the sector had grown only 16 per cent in real terms since 1970. At this point, the sector was approximately 36 per cent smaller than at its peak in 1981.

After a few years of stagnant growth, the sector grew from 2005 to 2010 by approximately 35 per cent or about 6.1 per cent per year in real terms. This corresponds with the introduction of the TCIDP. The last few years have seen the sector decline marginally. Between 1994 and 2014 the sector recorded real growth of approximately 15 per cent.

Figure 20: Real gross value-added by clothing, textiles and footwear sector (constant 2010 prices)



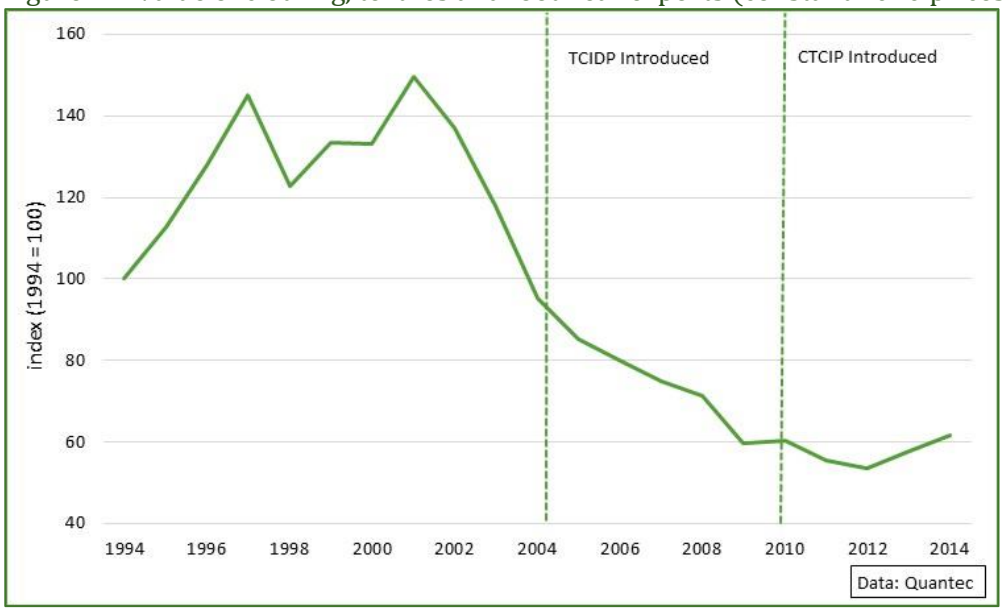
Similar to what has been observed in other sectors, the reintegration of South Africa into the global economy lifted the sector's exports. Figure 21 shows that the real value of exports had increased by 50 per cent as of 2001. Growth in exports occurred over the same period in which the overall output by the industry declined. This suggests some degree of export substitution in which manufacturers sold increasingly more of their products into foreign markets relative to domestic markets.

This trend has mostly reversed since 2001 with exports plummeting, reaching a low in 2012 at which point the value of exports was 64 per cent lower than at its peak. This occurred despite the introduction of the TCIDP. Export value has been below its 1994 level since 2004. Since 2001, it appears that the industry has grown on the back of strong domestic sales. This can be inferred from output growing over the period despite shrinking exports. The decline in exports appears to have stalled since 2012, with moderate growth in the last few years. As of the end of 2014, export values were still 38 per cent below their 1994 level.

Employment levels have been declining since the sector's peak production period in the early 1980s. Compared with its peak in 1982, the number of employees has shrunk approximately 64 per cent as of the end of 2014. Employment in the sector closely tracked its real output up until the mid-1990s.

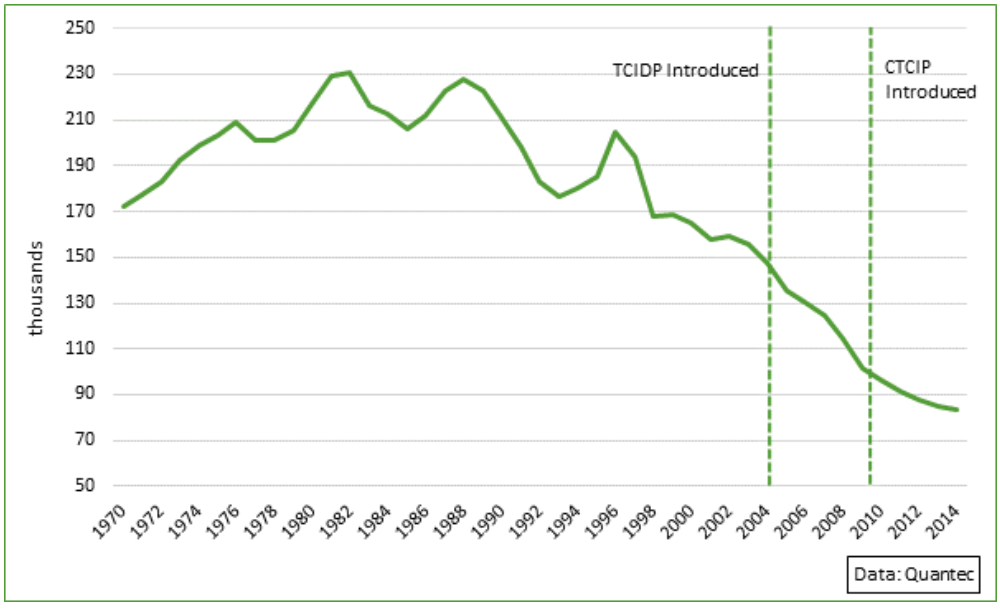
Figure 22 shows that the decline in employment momentarily reversed for two short periods coinciding with the two spikes in real output shown in Figure 21.

Figure 21: Value of clothing, textiles and footwear exports (constant 2010 prices)



Since the mid-1990s, the sector's employment levels appear to have de-coupled from its real output. Despite the sector's strong growth in output over the period 2005-2010, employment has continued to decline with the TCIDP and CTCIP unable to reverse the trend. This corresponds with the movement towards the increased use of capital in the production process. This has led to productivity gains and growth. As is the case in other manufacturing sectors, this trend may continue into the future.

Figure 22: Employment levels in clothing, textile and footwear industry[7]



[7] Calculation excludes non-apparel leather manufacturers.

7 Conclusion

South Africa has actively promoted industrial development over the past 22 years. A wide range of policies and programmes covering numerous sectors have been developed and implemented. These policies and programmes entail the allocation of limited state resources for particular ends. As these resources could have been allocated to meet other important social and economic needs, it is important for legislators to be aware of the efficiency and effectiveness of the programmes and policies. This has become more important in the context of National Treasury imposing spending ceilings, resulting in less resources available to fund competing priorities. This report estimated the direct financial cost of the state's industrial policy initiatives since 1994, based on National Treasury data.

This report estimates that South Africa directly spent R84.3 billion on industrial support and development initiatives between 1994/95 and 2014/15. Three sectors account for more than half this spending. The manufacturing sector received the largest share of this allocation, receiving R32.1 billion (38%) over the 21 year period. The average share of the main budget dedicated to industrial development increased from an average of 0.5 per cent between 1994/95 – 2004/05, to over 0.9 per cent since 2005/06. This is, in part, due to the increased focus and funding for industrial policy since the launch of the DTI's National Industrial Policy Framework in 2007, and the subsequent Industrial Policy Action Plans. Expressed in constant prices in 2015/16 Rands, South Africa dedicated R122 billion of expenditure to industrial development initiatives between 1994/95 and 2014/15.

On-budget support for industrial development only represents about 29 per cent of resources dedicated to industrial development. The larger share of support for industrial development is from tax expenditure (71%). Tax expenditure incurred for industrial development purposes between 1994/95 to 2014/16 amounted to R207.3 billion. Tax expenditure is dedicated to only a few sectors, namely motor vehicles, manufacturing, clothing and textiles, and small business. The motor-vehicle development programme is South Africa's longest running tax incentive, and accounts for three-quarters of tax expenditure incurred. There has been a noticeable increase in tax expenditure incurred in general manufacturing, this has been largely due to the Section 12i tax incentive. Expressed in constant prices in 2015/16 Rands, South Africa incurred R393.15 billion of tax expenditure to support industrial development initiatives.

Total resources dedicated – the sum of expenditure and tax expenditure – to industrial development initiatives since 1994 amounts to R291.73 billion. Expressed in constant prices in 2015/16 Rands, South Africa dedicated R476.65 billion to support industrial development initiatives.

The manufacturing sector has been a consistent focus of South African industrial and economic policy. There have been several programmes, policies, initiatives and incentives directed towards the development of this sector. During the period 1994 – 2015 South Africa dedicated R57.9 billion (R85 billion in 2015/16 Rands) for the promotion and development of the manufacturing sector. About 60 per cent of this was through expenditure and about 40 per cent through tax expenditure. While manufacturing value-add and exports have continued to grow since 1994, the sector's employment levels have fallen from 1.43 million people in 1994 (14% of total formal employment) to 1.1 million (10% of total formal employment). The sector has become less reliant on labour, especially unskilled and semi-skilled labour, suggesting that it will not be a source of significant employment opportunities in the future.

The country's industrial development initiatives focussing on the automotive sector, namely the MIDP and the APDP, have played a significant role in integrating South Africa's automotive industry into global value chains. The sector is approximately two-and-a-half times the size of what it was in 1994. The programmes are also likely to have enabled substantial investment in the industry and the strong growth in exports. The automotive sector has received about R162.8 billion (R324.2 billion in 2015/16 Rands) in government support over the period 1994/95 – 2014/15 through both the MIDP and APDP. This accounts for about 60 per cent of the total industrial support covered in this report. As is the case with general manufacturing, the number of people employed in the sector has decreased (by 23 364) since 1994.

Government support for the clothing and textiles sector has amounted to at least R40.8 billion in 2015/16 Rands over the period 1994/95 – 2014/15. This accounts for 7.3 per cent of overall industrial support expenditure covered in this report. Tax expenditure accounts for 86 per cent of the total support for the sector. The remaining 14 per cent is made up of the Clothing and Textile Production Incentive Programme (8.8%) and the Clothing and Textile Competitiveness Improvement Programme (5.1%). The clothing, textiles and footwear sector has recovered marginally following over 20 years of decline. The decline in exports has halted, albeit at relatively low levels, but employment levels continue to decline.

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