The Presidency / ComMark

Sector Workshop



A Strategic Assessment of the South African Motor Vehicle, Parts and Accessories sector

Dr. Justin Barnes
Benchmarking and Manufacturing Analysts SA
&
Prof. Anthony Black
University of Cape Town

Draft report – Please do not quote or reference

A Strategic Assessment of the South African Motor Vehicle, Parts and Accessories sector

DRAFT REPORT

For
Trade and Industrial Policy Strategies

By
Dr. Justin Barnes
Benchmarking and Manufacturing Analysts SA
&
Prof. Anthony Black
University of Cape Town

1 November 2004

Contents

List of tables included

Introduction

This strategy document endeavours to analyse the South African automotive assembly and components industry's major market and production trends and dynamics as a mechanism for identifying current industry constraints and opportunities/challenges. It is comprised of six sections. Section 1 provides an overview of the sector's major trends as gleaned from TIPS data, whilst Section 2 reviews the sector's structure in respect of numerous criteria. In Section 3 market trends and competitiveness related issues are examined, with Section 4 then exploring the government policy framework in which the industry operates. Section 5 attempts to synthesise the constraints and opportunities/challenges confronting the sector. Finally Section 6 considers the policy implications arising from the analysis presented.

1. Overview of sector trends

As highlighted in Table 1, the motor vehicle, parts and accessories sector has performed well over the last decade. Comparing the average of the indicators for the period 1994-1998 with the average for the period 1999-2003, it is clear that there has been an improvement in the performance of the sector according to a number of key indicators.

The growth in real value added averaged only 0.7% per annum over the 1994-1998 period, but increased to 5.1% per annum over the 1999-2003 period. The average annual rate of export growth, measured according to final output, increased by 10% per annum during the first period, to 13.2% per annum in the second period. The importance of exports to output has thus clearly increased, with exports growing from an average of 14.4% of output in the first period to 36% of output during the second period. However, the automotive sector has also been subject to a rapid increase in import penetration with imports rising from 32.3 % of domestic demand in the first period to 47.3 % in the latter period. These trends are linked directly to the government policy for the automotive industry, as will be highlighted below.

Another feature has been the increase in labour productivity. Output per employee increased from an average of R436,681 over the 1994-1998 period, to R571,429 in the 1999-2003 period, while average remuneration per employee grew at a slightly slower rate between the two periods, increasing from R53,307 to R66,482. The rate of labour productivity growth has been increasing. From 1994 to 1998 the labour productivity index grew at only 0.3% per annum but increased at a much more rapid rate (5.7% per annum) from 1999 to 2003. Fixed capital productivity actually declined by –2.1% per annum in the first phase with the rate of decline accelerating to –4.4% for the period 1999-2003. The growth rate of multi-factor productivity accordingly showed only a slightly increasing trend (from -0.4% per annum in the first phase to 2.0% per annum in the latter phase). The industry has therefore become more capital intensive in the period under review and while growing labour productivity is to be welcomed it is not surprising that the actual number of employees declined by 2.44% (from an average 77,947 in the first phase to 76,045 in the latter phase).

Table 1: Data on motor vehicles, parts & accessories (SIC 381-3), 1994-2003

	1994 - 1998				1999 - 2003				Avg. change %
	Weighted	Not weighted	% Contribute	Avg. for period	Weighted	Not weighted	% Contribute	Avg. for period	
Weighted annual average % change*									
Value added at basic prices	0.72	1.84	1.31	6,785	5.11	5.51	1.49	8,770	29.25
Final output: Export of goods & services	10.01	11.29	3.43	4,636	13.16	14.71	7.65	12,507	169.79
Employees	0.24	0.91	0.99	77,947	-0.82	-0.59	1.02	76,045	-2.44
Average over the period*									
Employment output ratio: Employees per Rm				2.29				1.75	-23.58
Remuneration per employee (Rand)				53,307				66,482	24.71
Gross markup** - Current prices				8.98				9.42	4.90
GDFI*** output ratio-Current prices				0.04				0.06	50.00
Fixed capital stock ratio-Current prices				0.21				0.25	19.05
Export-output ratio-Current prices	9.9	10	1.71	14.35				35.94	150.45
Import leakage****-Current prices				18.41				25.48	38.40
Imports-domestic demand ratio-Current prices				32.27				47.32	46.64
Weighted annual average % change									
Labour productivity index				0.29				5.71	1869
Fixed capital productivity index				-2.06				-4.36	-111.65
Multi-factor productivity index				-0.41				2.02	592.68

Source: Tips – South African Standardised Industry Database

Note: *Rm at 1995 prices, unless otherwise stated, **Gross operating surplus ratio, ***Gross domestic fixed investment, ****Intermediate imports ratio

In summary, and based on TIPS data, the motor vehicle, parts and accessories sector has shown an accelerating growth trend both in terms of output and employment. Investment has increased and there has been an improvement in productivity. However, there is a concerning rise in imports and overall employment has declined. It is important to note that the sector has become more capital intensive. So while the sector has contributed significantly to the South African economy, it has not generated very significant direct employment. Its impact is felt more indirectly through the strong multiplier effect, as suggested by its high input usage levels and comparatively high average remuneration levels.

The automotive manufacturing industry is comprehensively monitored through the Motor Industry Development Council, whilst the assembler (NAAMSA) and component manufacturer (NAACAM) associations also collect their own data. In addition, the DTI's automotive desk within TISA administers its own annual firm-level survey of automotive trends in SA, whilst the SA Automotive Benchmarking Club (SAABC), which has 71 participating firms, collects detailed firm-specific financial and competitiveness data on its members, as well as from firms in competing economies. Finally, there is considerable data available on the global vehicle assembly industry. Whilst each organisation collects slightly different information and often in varying formats, their data is broadly in line with the general picture painted by the TIPS dataset. One important caveat, however, is that the TIPS data substantially under-represents the importance of the automotive industry to the national manufacturing sector, as catalytic converters (R8,104 million, or 38.1% of component exports in 2003), stitched leather components (R2,899 million or 13.6% of exports in 2003) and various other export categories are not captured under SIC 381-3

(motor vehicles, parts and accessories). Some of the most significant growth in the automotive industry has been evident in these sub-sectors. This of course also impacts on employment data, which are in any event somewhat contentious. NAACAM data suggests a decline in employment in excess of TIPS figures, whilst Automotive Industry Export Council (AIEC) data suggests stable to marginal growth and SAABC data suggests employment growth of 11% over the last four years.

2. Analysis of sector structure

2.1. Market structure

The SA automotive industry is comprised of seven assemblers (Original Equipment Manufacturers or OEMs)[1], a number of substantially smaller, specialist medium and heavy commercial vehicle assemblers, and approximately 400 automotive component manufacturers. Automotive component manufacturers are then tiered according to their position in relation to OEM supply. Direct suppliers to OEMs are considered to be Tier 1s (about 200 firms), whilst those that supply the Tier 1s are classified as Tier 2s. Component manufacturers may also supply the automotive replacement market, either via the OEM's dealership network, and hence controlled by them, or via the independent aftermarket, which is dominated by large wholesale groups.

The automotive industry in SA, as well as everywhere else in the world is strongly controlled and governed by the OEMs. The industry's structure and evolutionary path is therefore tightly aligned with OEM strategies in both domestic and global markets. The increasing export orientation of OEMs has thus fundamentally changed the structure of their own operations, as well as those of the components industry. The breakdown of the OEMs' exporting and domestic sales figures in Table 2 reflects the fundamental shift that has occurred in this regard over the last few years. Whilst the domestic market used to absorb 96% of vehicle output only a decade ago it now absorbs 70% with the remainder being exported. Similarly, imports have climbed from 6.8% of the domestic market to 23% over this period. Both export and import ratios are expected to increase in the short term: exports to 35% of local production by 2006 and imports to 28% of the domestic market.

Table 2: Domestic market vehicle sales and production figures (passenger, LCV, M&HCV) - 1995 to 2003 and projections for 2004 to 2006

	1995	1996	1997	1998	1999	2000	2001	2002	2003	P-2004	P-2005	P-2006
Total domestic market	399967	421076	399275	351810	325775	354632	382529	363184	382600	454150	472200	488300
Total exports	15764	11553	19569	25896	59716	68031	108293	125306	126661	124500	175500	190500
Total production	388442	385252	361316	311333	325222	356250	406149	404441	421335	459000	518000	541000
Exports as % domestic production	4.06	3.00	5.42	8.32	18.36	19.10	26.66	30.98	30.06	27.12	33.88	35.21
Total imports	27289	47377	57528	66373	60269	66413	84673	84049	87926	119650	129700	137800
Imports as % domestic market	6.82	11.25	14.41	18.87	18.50	18.73	22.14	23.14	22.98	26.35	27.47	28.22

Source: Calculated from NAAMSA data

In the early 1990s, the majority of SA-based OEMS were South African owned, operating under license to MNCs and manufacturing exclusively for the domestic and

[1] BMW, DaimlerChrysler, Ford, General Motors, Nissan (which also assembles Fiat), Toyota and Volkswagen.

small Sub-Saharan African market; and yet by early 2004 all of the OEMS were either fully or majority owned by parent companies. This has had a direct impact on the composition of the automotive components industry, with MNC component manufacturers establishing Greenfield operations in SA (or purchasing existing SA operations)[2] in support of the OEMs, and in particular in support of export contracts[3].

2.2. Regional concentration

The SA automotive industry is concentrated in only three regions, highlighting the importance of external economies and customer proximity to the supply chain. The most important region covers the Gauteng (mainly the East Rand and Pretoria) and a portion of the North West (GaRankuwa and Brits). This region is home to three of the OEMs (BMW, Nissan/Fiat and Ford), and approximately 50% of the SA automotive components industry. The second most important region is the Eastern Cape, covering Port Elizabeth/Uitenhage (General Motors and Volkswagen) and East London (DaimlerChrysler). This region is thus also home to three OEMs and about 30% of the national automotive components industry. The third major region is Durban/Pietermaritzburg, which has one OEM (Toyota) and about 15% of the components industry. Unfortunately, whilst national statistics on the automotive industry are widely available, the same cannot be stated for provincial data.

It is important to note in this regard that measuring the full extent of the automotive manufacturing industry is difficult. Firms that supply into the industry at the 3rd or 4th tier (or sometimes even at the 1st tier) are often not exclusively automotive focused. A metal fabrication firm may, for example, supply only 40% of its output into the automotive industry. This firm would be classified outside of the automotive industry, when its survival is in fact strongly tied to the health of its automotive business. This is why the Durban Automotive Cluster has 40 automotive component manufacturer members employing 11,000 people, when Statistics South Africa data only indicate total automotive component manufacturer employment of 7,500 in KwaZulu-Natal. If one extrapolates this finding to the national automotive industry then the likely employment figure is well above that highlighted in the TIPS database (76,045). We estimate the figure to be at least 115,000, with approximately 32,000 of these jobs in vehicle assembly, 6,000 in tyres and 77,000 in component manufacture.

Whilst employment in the automotive industry is higher than is often recognised, this does not mean that the sector offers great potential for employment growth. Whilst certain sub-sectors (e.g. wiring harnesses and stitched leather component manufacture) are very labour intensive, the bulk of the motor vehicle, parts and accessories sector is relatively capital-intensive. Furthermore, the skill requirements of the sector are quite high. According to TIPS data, only 50.3% of total employment in the sector is semi-skilled or unskilled while 31.4% of the workforce is in mid-level skill occupations, and 18.3% of jobs require high-level skills. This is consistent with research completed by the AIDC and DAC, revealing the skills intensity of the sector. Unfortunately, this research also suggests major skills shortfalls in the industry. As a

[2] Examples of recent MNC investments in the components industry include Faurecia, Johnson Control, Lear Corporation, Dana Corporation, ZF Lemforder, Arvin-Meritor, Taigene, Visteon, Delphi, Venture, Cataler, Corning and NGK Ceramics.

[3] Major vehicle export platforms include BMW (3-Series), DaimlerChrysler (Mercedes C-Class), Volkswagen (Polo, Golf) and Toyota (Corolla hatch back). These export platforms are expected to continue into the future, with Toyota adding large scale Corolla and LCV exports to its portfolio.

result, much of the efforts of the AIDC and DAC are centred on skills development within the sector. These efforts generally take place through the MERSETA.

3. Market and competitiveness trends

3.1. Demand conditions

The domestic automotive market is presently performing at near record levels with year to date 2004 vehicle sales well ahead of 2003 levels. Based on year to date sales volumes, aggregate 2004 sales should reach 454,150 units, a full 18.7% ahead of 2003 levels. If attained, this would slightly exceed the record sales level of 453,541 units attained as far back as 1981. This indicates just how sluggish the domestic market has been since the early 1980s. The growth of the last few years, together with upbeat industry projections, presents a more optimistic picture. For instance, NAAMSA is projecting domestic sales of 488,300 units by 2006. Whilst the domestic market is presently buoyant, export growth has slowed recently, with 2003 exports levels of 126,661 vehicles hardly changing from the levels achieved in 2002 (125,306 units). Year to date 2004 exporting levels are well below 2003 levels, with NAAMSA projecting a total of 124,500 units exported for the year. Toyota's and Daimler Chrysler's new export contracts, along with the launch of the next generation 3-Series BMW in 2005, will reinvigorate exports, however, and NAAMSA predict vehicle exports to reach 190,500 by 2006. Imports into the domestic market are increasing at a rapid pace, negating some of the benefit of a growing domestic market.

Similar trends apply in automotive component manufacturing. The principal driver of production is direct or indirect (via locally assembled vehicles) exporting, with the domestic market increasingly unattractive – due to limited volumes and high levels of imports. After rapid export growth from 1995 to 2002, which the dti calculates at 590% in nominal terms (from R3,318 million to R22,883 million), 2003 export levels declined to R21,269 million. Firm-level research conducted through the SAABC in 2004 suggests this trend has continued into 2004, largely due to the appreciation of the Rand and a reduction in MIDP benefits that makes exporting less viable for many firms.

3.2. Sector competitiveness

Whilst export growth has been the foundation of the automotive industry's recent success, it is clear that future growth is going to become more difficult. This is because global market conditions have become increasingly onerous, particularly in the key European Union and North American[4] markets. Some of the most prominent international trends are outlined below:

1. Global vehicle sales have been stable over the last four years, with limited aggregate growth expected over next few years. This limited growth has exacerbated competition and maintained global production over-capacity, which is estimated at 25% to 30%. Aggregate global sales figures also hide three key trends: (1) substantial regional variations in sales performance, with Asia performing exceptionally well relative to the rest of the world, (2) highly variable OEM performance, with certain firms such as Toyota performing impressively,

[4] The EU was responsible for 29.9% of South African vehicle exports and 70.8% of component exports in 2002. Given AGOA benefits, growth into North America has also increased rapidly, reaching 22.6% and 11.1% of vehicle and component exports respectively in 2002.

and (3) vehicle segment differences, with certain market segments performing better than others

2. High levels of competition have driven merger and acquisition activity at assemblers and component manufacturers (e.g. in 2003 PriceWaterhouseCoopers identified 588 transactions in the automotive industry, worth US$21 billion). This has resulted in global groupings and the dominance of sub-sectors by fewer firms.
3. All of the above trends have had a direct impact on the automotive components industry, resulting in a number of important developments:
   a. Price reductions on new products, emergence of new customers and competitors, Just in Time and Just in Sequence manufacturing requirements, modularisation and sub assembly pressures, fixed term cost-down contracts, Research and Development pressures due to lead and follower sourcing.
   b. Continued tiering of the automotive component supply chain.
   c. Emergence of e-business pressures at two levels: e-commerce (e.g. Covisint, reverse auctions) and supply chain integration (e.g. common ERP platforms).
   d. Emergence of environmental pressures at three levels: manufacturing (e.g. the need for firms to adhere to ISO 14001), design (e.g. End of Life Vehicle legislation in the EU), and alternative energy (e.g. hydrogen fuel cells).

The implications of these trends are potentially severe, particularly given that SA is only the world's 18th most important producer, manufacturing 0.69% of the world's passenger vehicles and 0.76% of its light commercial vehicles. Asia is becoming both a major market and producer of vehicles and automotive components, with China's growth particularly striking. In addition, it is projected that as the Asian markets mature, more aggressive exporting into the Triad markets will take place, thus exacerbating competitiveness conditions. For SA vehicle and component manufacturers to succeed, they will need to meet global requirements in respect of their quality, cost, flexibility, reliability, adaptability and innovative capabilities. This is a daunting challenge, but one the SA automotive industry appears to be grappling with. At an OEM level this is highlighted by BMW SA's success in winning a global quality award, and the industry's progression towards lean manufacturing. For example, the annual number of vehicles produced per employee at the eight OEMs improved from 7.5 in 1996 to 12.6 in 2001, a 40.5% improvement. Whilst this is partially due to rationalised models and increased volumes per model, it is also due to enhanced operational competitiveness associated with adherence to lean production principles.

Similarly, the South African automotive components industry has also improved its competitiveness very substantially, with SAABC data revealing the progress made over the last three years as highlighted in Table 3.

Table 3: Competitiveness progress amongst SA auto component manufacturers (2000 to 2003) and an assessment of their 2003 competitiveness relative to internationally benchmarked firms

Lean production indicator	Unit of measure	SA improvement 2000-3	SA average 2003	International average: 2003	SA vs. international gap
Total inventory holding	Days	15.8%	41.4 days	30.4 days	36.3%
Customer return rate	Parts per million	60.2%	1,300	614	111.7%
Delivery reliability to customers	%	1.9%	93.7%	94.9%	1.3%
Absenteeism	%	18.6%	3.6%	4.7%	(24.3%)
R&D spend as % sales	%	6.5%	1.3%	2.7%	51.5%

Source: South African Automotive Benchmarking Club database

The SA automotive industry is served by a number of institutions dedicated to improving its competitiveness. These include the Automotive Industry Development Centre (AIDC), which has offices in the Gauteng and the Eastern Cape, the SA Automotive Benchmarking Club, which has operations in each major automotive region, the Durban Automotive Cluster and the Automotive Industry Export Council.

3.3. Opportunities and growth potential

Whilst domestic market conditions are presently positive for the automotive industry, the clearest long-term opportunities are still in the export market. In the short term these pertain to existing, secured export contracts, with Toyota's emergence as a major exporter of vehicles particularly promising. DaimlerChrysler has recently announced increased export volumes for the next generation C-Class Mercedes Benz. Key opportunities here relate to increasing the local content of vehicles assembled in South Africa for export. Local content is presently well below historical levels, with this needing to be corrected if the local manufacturing industry is to secure the full benefits of local vehicle assembly. For certain export platforms local content is, for example, below 40%. In the medium term opportunities pertain to entirely new vehicle export contracts. In this regard, Nissan, General Motors and Ford may have opportunities to secure contracts over the next couple of years. Direct and indirect component exports also offer substantial opportunities, although investment levels in the industry will need to increase substantially if either of these opportunities is to be realised.

The automotive industry has a strong multiplier into other sectors, with its inputs covering electronics, harnesses, leather, ferrous and non-ferrous metals, plastics, glass, textiles, precious metals and chemicals; and yet these benefits are not being fully realised as a result of high import levels.

4. Automotive policy framework

4.1. National government policies

The automotive industry's strong performance especially in regard to exports post-1995 suggests a strong link between the promulgation of the Motor Industry Development Programme in 1995 and the industry's subsequent success. It is thus necessary to outline the basic parameters of the MIDP. This is important as the vehicle and automotive components sector policy environment stretches back to 1961, when the first of a series of six local content programmes were introduced. The MIDP succeeded the local content programmes in September 1995, and included five aims: (1) improve the international competitiveness of firms in the industry, (2) enhance its growth through exporting, (3) improve vehicle affordability, (4) improve the industry's highly skewed trade balance and (5) stabilise employment levels.

These objectives were to be achieved in part through encouraging a higher degree of specialisation and greater economies of scale in the industry. The major policy measures were a gradual reduction in protection accompanied by ability to offset duties by exporting. Specifically the key elements were:

1. The removal of minimum local content provisions and the introduction of an import-export complementation scheme which allowed vehicle and component manufacturers to earn duty credits from exporting. These duty credits were tradable and could be used either to offset import duties on cars, components or

materials. It thus allowed assemblers to buy credits from component exporters to offset duties on imported CBUs or components sourced internationally.
2. A tariff phase down schedule to reduce nominal rates of protection to 40% for vehicles and 30% for completely knocked down (CKD) components by 2002.
3. A duty free allowance for OEMs of 27% of the wholesale value of the vehicle.
4. A small vehicle incentive (SVI), which provided a subsidy for the manufacture of more affordable vehicles. It operated via a duty drawback mechanism with the value of the drawback linked to the value of the motor vehicle.

Since its inception, the MIDP has been through two reviews (1999 and 2002). The first review extended the programme to 2007, introduced the Productive Asset Allowance (PAA), providing duty credits equivalent to 20% of investments, spread out over a five-year period (but only for investments that facilitated the rationalisation of particular product lines) and withdrew the SVI, as it was perceived to be having limited impact on making vehicles more affordable. Finally, it introduced a phase down of export benefits from 2003 to 2007. The second review extended the MIDP to 2012, focusing on ensuring the predictability of the incentive scheme. This took the form of a further decline in export facilitation support and the continued gradual reduction in import tariffs, with vehicle and CKD duties to reach 25% and 20% respectively by 2012 (from 2007 levels of 30% and 25% respectively). The overall profile of the MIDP's various technical elements is presented in Table 4.

Table 4: Basic parameters of MIDP to 2012

				Value of Export Performance			Ratio of Exports against Imports			
Year	CBU Duty	CKD Duty	DFA	CBUs	Components	Qualifying PGM value	Components, HCVs & Tooling exported vs. CBU LVs imported	Components, vehicles, tooling exported vs. components, HCVs, tooling imported	CBU LVs exported vs. CBU LVs, HCVs, components imported	PAA
1995	65%	49%	27%	100%	100%	100%	100:65	100:100		N/A
1996	61%	46%	27%	100%	100%	100%	100:65	100:100		N/A
1998	54%	40%	27%	100%	100%	100%	100:65	100:100		N/A
2000	47%	35%	27%	100%	100%	100%	100:65	100:100		N/A
2002	40%	30%	27%	100%	100%	50%	100:65	100:100		20%
2004	36%	28%	27%	90%	90%	40%	100:60	100:100		20%
2006	32%	26%	27%	82%	82%	40%	100:60	100:100		20%
2008	29%	24%	27%	74%	74%	40%	100:60	100:100		To be reviewed
2010	27%	22%	27%	70%	70%	40%	100:60	100:100		
2012	25%	20%	27%	70%	70%	40%	100:60	100:100		

The conformance of the MIDP to World Trade Organisation rules on export subsidies has come under question although government argues that it is essentially a trade facilitation measure. It is, therefore, likely that the MIDP will be subjected to another review during 2005. Whether the programme will be retained in its current form until 2012 is therefore open to question. Detailed firm-level and broader policy research suggests that the MIDP has been a robust policy instrument that has played a foundational role in the industry's success. The programme has, however, been less successful in encouraging investment. The PAA is consequently due to be reviewed, with firms claiming it is ineffective and that other dti programmes such as the SMEDP do not meet their particular requirements. Large component manufacturers, in particular, do not appear to qualify for any form of investment support.

In addition to the MIDP, the dti supports a number of industry initiatives, including certain AIDC programmes, the Motor Industry Development Council and the AIEC. Whilst considered beneficial to the industry, none of these interventions have mechanisms to increase investment and/or local content.

4.2. Provincial/local government support

The automotive industry's importance to the Gauteng, Eastern Cape and KwaZulu-Natal is evident in relation to these regions' providing a range of assistance to the sector. Support is most developed in the Gauteng region, where the AIDC, through Blue IQ funding, has established a number of ambitious programmes to improve the competitiveness of the automotive industry, including the establishment of a state of the art supplier park in Rosslyn. The AIDC structure has recently been replicated in the Eastern Cape, with funds from the Eastern Cape Development Corporation. The eThekwini Municipality funds 50% of the Durban Automotive Cluster, which is a partnership between 42 firms in KwaZulu-Natal. It has various firm-based interventions in place to develop the automotive industry in that region.

4.3. Black Economic Empowerment

BEE is extremely limited in relation to automotive manufacturing, with all of the OEMs and the major component manufacturer MNC-owned. Thus the major change in ownership over the last decade has been the growing level of control by foreign firms. Many South African-owned firms have been purchased by MNCs over the last couple of years, whilst others (such as the Dorbyl companies) have shifted from 1st to 2nd tier supply. Whilst the OEMs are attempting to increase procurement from BEE suppliers they have generally done this in respect of non-line supply, e.g. services, consumables, etc. rather than in terms of component supply. Opportunities at the 1st tier level appear very limited, although there are initiatives in place to increase purchasing from 2nd tier BEE suppliers. The AIDC runs a programme in this regard, as does the DAC. Research conducted through the DAC in KwaZulu-Natal in 2002 revealed that only 0.5% of automotive component purchasing was from BEE suppliers and that less than a dozen BEE automotive component manufacturers operated in the province (all SMEs that generally operate at the 2nd tier level). There is currently no BEE charter for the automotive industry, with the larger OEMs insisting that BEE be dealt with at a firm, rather than sectoral level.

5. Constraints and challenges confronting the sector

Given the industry's export orientation, the major constraints confronting it pertain to its marginal status in relation to an international industry that is rapidly globalising and has 25-30% excess production capacity. In its bid to attract international investment, South Africa does not have advantage of a major growing domestic market such as China, Brazil or India, nor is it located adjacent to major markets such as in the case of Mexico (in relation to the US) or Central European countries (in relation to the EU). The MIDP has created appropriate trading conditions that help compensate for this disadvantaged position, but if the industry is to continue expanding, it needs to maintain an outward orientation that is increasingly based on real competitiveness (rather than artificial inducements such as the MIDP's import-export complementation scheme). Developing these real competitiveness capabilities is the industry's most substantive challenge, particularly given the phase down of MIDP support and possible further adjustments to the scheme.

Whilst the industry is clearly moving in the right competitiveness direction, given the intensity of global competition and the emergence of new low cost competitors, far more needs to be done, not only in relation to firm-level issues, but also in respect of broader institutional and infrastructural issues. These are listed below:

Table 5: Opportunities to bolster the position of the SA automotive industry

Firm-level	Institutional/infrastructural
o Adherence to lean production o Acquisition of updated technologies o Expansion of capital capabilities o Increased local sourcing (especially BEE) o Enhanced ICT o Increased human resource investment o Technology agreements with MNCs	o Rail infrastructure o Port efficiencies o Tertiary education institution orientation o Cluster support

6. Policy recommendations

Five key policy related issues stand out in relation to ensuring that the SA automotive industry continues to develop and contributes to the growth of manufacturing:

1. SA's automotive policy is widely regarded as having played a positive role. It is essential that policy stability and certainty is maintained. If adjustments are to be made to the MIDP they should be gradual. Many firms have shaped their business strategies around the MIDP's technical parameters and it is thus essential that some form of trade facilitation element remain in place for some years to come.
2. Capital investment support – ways need to be found to increase the level of investment particularly where such investment 'crowds in' further investment by suppliers. Provincial governments need to be fully appraised of national strategy. For instance the introduction of new assemblers producing in low volumes should not be encouraged given that an important objective of policy has been to encourage a gradual reduction in the number of vehicle models being produced in SA, albeit in higher volumes.
3. Much will depend on domestic market demand remaining strong. Whilst the industry's recent success has been built off an exporting foundation, it is critical that domestic market demand remain robust given that two-thirds of domestic vehicle production remains destined for the domestic market. Lower real vehicle prices as tariffs are reduced will help here, although government should be cautious of any special tax dispensation to boost sales.
4. Export facilitation (warehousing in EU, North America) – The most prominent reason for the automotive industry's lack of international competitiveness is its extended distance from the markets into which it supplies. In addition to the cost implications of this distance, customer JIT requirements compound the pressures being felt by firms. Establishing a joint JIT warehousing facility for component manufacturers could play an instrumental role in improving the exporting performance of firms.
5. African market growth – The SA automotive industry suffers from not having a regional market to supply into. Free trade in southern Africa and beyond the region will help here especially if accompanied by more rapid economic growth. In negotiating such access, SA needs to be mindful of the cost implications for its neighbours of sourcing SA vehicles as opposed to the importation of cheap second hand vehicles, for instance.

Appendix A: Alternative data sources and research

Alternative data sources

- Statistics South Africa
- Department of Trade and Industry database
- Customs and Excise data for an estimate of exports and imports by province
- Global Insight data for national and provincial data
- www.Agoa.info for AGOA trade data
- National Association of Automotive Manufacturers of South Africa (www.naamsa.co.za) for South African vehicle assembly data
- National Association of Automotive Component and Allied Manufacturers (www.naacam.co.za) for automotive component manufacturer data
- South African Automotive Benchmarking Club database for competitiveness data on the South African automotive components industry
- Durban Automotive Cluster, for data on the KwaZulu-Natal automotive components industry (www.dbnautocluster.org.za)
- OICA (www.oica.net) for global vehicle manufacturing and market sales data

Recently completed research

Wad, P. (2004), "International linkages and the automobile component industry in developing countries: a comparative study of Indian, South African and Malaysian auto supplier firms", **Conference Paper**, International Conference on '*Globalization, Internationalization of Companies and Cross-Cultural Management'*, Aalborg University, October 27-29, 2004.

Barnes, J. et al (2004), "An analysis of the MIDP's contribution to the success of the South African automotive industry – Policy lessons for the clothing, textiles and paper and paper products industries", **NPI Research Report**, 26/06/2004.

Barnes, J and Morris, M (2004) The German connection: Shifting hegemony in the political economy of the South African automotive industry, **Industrial and Corporate Change**, Vol. 13, No. 5, pp. 789-814.

Barnes, J and Lorentzen, J (2004), Learning, upgrading and innovation in the South African automotive industry, (submitted to **Transformation)**

Barnes J, Kaplinsky R and Morris M, (2004) Industrial Policy in Developing Economies: Developing Dynamic Comparative Advantage in the South African Automobile Sector, **Competition and Change** (forthcoming).

Barnes, J. and Black, A. (2003), "Medium and Heavy Commercial Vehicle Motor Industry Development Programme Review Report", Unpublished mimeo for the Department of Trade Industry, Government of South Africa, October 2003.

Barnes, J. and Black, A. (2003), "Motor Industry Development Programme: Review Report", Unpublished mimeo for the Department of Trade Industry, Government of South Africa, 24 February 2003.

Department of Trade and Industry (2003), South Africa: Current Developments in the Automotive Industry, DTI, Pretoria, 2003.

Barnes, J (2002), "Up, up and away or a bubble that is likely to burst? A value chain analysis of the key exporting sub-sectors of the South African automotive components industry", Research Report No. 51, School of Development Studies, University of Natal (July 2002)

Black, A. (2002), "The Export 'Success' of the Motor Industry Development Programme and the Implications for Trade and Industrial Policy", Paper

presented at the Trade and Industrial Policy Strategies (TIPS) Annual Forum, Johannesburg, Trade and Industry Policy Secretariat.

Department of Trade and Industry (2002), South Africa: Current Developments in the Automotive Industry, DTI, Pretoria, 2002.

Flatters, F. (2002), "From Import Substitution to Export Promotion: Driving the South African Motor Industry", http://qed.econ.queensu.ca/faculty/flatters/main/writings.html, Queens University, Canada.

Black, A. (2001), "Globalisation and Restructuring in the South African Automotive Industry", Journal of Industrial Development, Vol. 13, No. 6.

Department of Trade and Industry (2001), South Africa: Current Developments in the Automotive Industry, DTI, Pretoria, 2001.

Humphrey J. (2001), "Global Value Chains and Local Development in the Automotive Industry", Background Paper for UNIDO World Industrial Development Report, 2002, Vienna: UNIDO.

Barnes, J. and Kaplinsky R (2000a), "Globalisation and the death of the local firm? The automobile components sector in South Africa", Regional Studies, Vol. 34, No. 9, 2000, pp. 797-812., 2000.

Barnes, J. and Kaplinsky, R. (2000b) Globalisation and Trade Policy Reform: Whither the Automobile Components Sector in South Africa? Competition and Change, Vol. 4, pp. 211-243

Barnes J. and Morris M. (2000) "An analysis of the endogenous and exogenous factors impacting on the success of the Motor Industry Development Programme", CSDS Working Paper No. 27, Durban: Centre for Social and Development Studies, University of Natal

Barnes, J. (2000) Changing lanes: The political economy of the South African automotive value chain, **Development Southern Africa**, Vol. 17, No. 3, September 2000.

Barnes, J. (2000) Global trends in the automotive industry: Their likely impact on South African automotive assembly and component manufacturers, **Transformation**, No. 43.

Appendix B: Current initiatives in the sector

National

- **Motor Industry Development Council (MIDC)**, a multipartite body comprised of senior industry representatives and chaired by the DTI. The MIDC monitors the progress of the South African automotive industry in its regular bi-monthly meetings and proactively attempts to grapple with industry policy and broader development issues.
- **Automotive Industry Development Centre:** Although principally Gauteng based, the AIDC has secured funding from the DTI to run a national programme focusing on the development of SMMEs at the second and third tier. Particular attention is being given to PDI-owned firms.
- **Motor Industry Supply Chain Continuous Improvement Programme (MISCCIP):** This programme is being coordinated through the AIDC and has as its principle objective the creation of a common ICT platform for the South African automotive industry. By generating a common platform within the automotive industry, the intention is to substantially reduce ICT infrastructure costs for firms.

- **SA Automotive Benchmarking Club:** This programme has been in place since the end of 1997. Supported by over 70 automotive component manufacturers and a number of OEMs, it operates as a continuous improvement network using firm-level benchmarks and a best practice sharing methodology to elevate the competitiveness of the South African automotive industry.

Gauteng

- **Gauteng Supplier Park:** This highly ambitious Gauteng government funded initiative has led to the recent opening of an advanced, state of the art supplier park in Rosslyn. The Supplier Park is believed to be one of the most advanced in the world.
- **Automotive Industry Development Centre:** Established in 2000, the AIDC is a joint venture between the Gauteng Provincial Government and the CSIR. The AIDC is endeavouring to enhance the competitiveness of the automotive industry through a number of interventions in the fields of logistics; production and process engineering; design, engineering and testing and human resource development.

Eastern Cape

- **Automotive Industry Development Centre:** In June 2003, the AIDC secured funding from the Eastern Cape Development Corporation to establish an AIDC Eastern Cape. The intention is to replicate the Gauteng structure in the province.

KwaZulu-Natal

- **Durban Automotive Cluster:** This public/private sector partnership has been in existence since 2001. Involving 42 firms and 50% funded by the eThekwini municipality, it uses an industry-led clustering methodology to initiative and complete collaborative upgrading programmes for the regional automotive industry in the fields of supplier development, BEE firm development, logistics, human resource development and competitiveness benchmarking.

Appendix C: Information gaps

There is excellent national data available on the South African automotive vehicle manufacturing industry, with NAAMSA compiling accurate monthly records on both market sales and production trends. However, the nature of the automotive components industry makes it difficult to generate accurate data on its performance. As a result, no accurate, complete and up-to-date database is available to analyse sectoral performance trends. It is imperative to have information available on 2nd and 3rd tier component manufacturers, as these firms represent the foundation of the industry in many respects, and yet such information is unavailable on an aggregated basis. As importantly, there is a lack of data on component manufacturing trends below the national level.

Appendix D: Key people in the automotive sector

1. Mr. Nico Vermeulen – Executive Director, NAAMSA
2. Mr. Clive Williams – Executive Director, NAACAM
3. Mr. Ian Robertson – Managing Director, BMW SA, and President, NAAMSA
4. Mr. Dave Coffey - Managing Director, Shatterprufe, and President, NAACAM
5. Mr. Roger Pitot – Consultant to NAAMSA and expert on the MIDP
6. Mr. Alan Plummer, Managing Director, Metair Group of Companies
7. Mr. Ettienne Human – Director, SA Tyre Manufacturers Conference
8. Mr. Brian Potter – Director, Johnson Matthey, and President of the CCGI
9. Mr. Gustav Meyer – Senior Manager, TISA Automotive Desk
10. Ms. Ingrid Metz – Manager, ITAC, and MIDP expert