

# **AN ANALYSIS OF THE ENDOGENOUS AND EXOGENOUS FACTORS IMPACTING ON THE SUCCESS OF THE MOTOR INDUSTRY DEVELOPMENT PROGRAMME**

Justin Barnes and Mike Morris

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## **FOREWORD**

The Industrial Restructuring Project (IRP) was initiated at the beginning of 1996 as the KwaZulu-Natal Industrial Restructuring Project (KZN IRP). The project initially focused exclusively on KwaZulu-Natal, but is now aimed at supporting industrial policy in South Africa at the national, provincial and local levels. It is facilitated by international experts and is based at the School of Development Studies, University of Natal Durban. The project has two important features. Firstly, it focuses on critical issues that are impacting on the competitiveness of manufacturing sectors that are under threat from increased international competition and the liberalisation of the South African trade regime. Secondly, it is action-oriented in design. The findings that have been generated have, for example, been presented to numerous industry stakeholders, including government, business associations and trade unions. The project consequently has the support of various regional and national stakeholders.

This particular report/working paper has arisen out of both new research and the cumulative knowledge that has been generated from previous studies. These cover a number of IRP reports, working papers, journal articles and conference papers. Some of the themes covered include South Africa's manufacturing competitiveness, the automotive industry, the clothing and textiles sectors, footwear, middle-management capacity, human resource development, institutional support for industrial restructuring, and business services for manufacturing competitiveness.

Enquiries regarding IRP material should be addressed to: The Librarian, Centre for Social and Development Studies, University of Natal, Durban, 4041. Tel: 031 2601031; Fax: 031 2602359; email: smithm@mtb.und.ac.za.

Prof. Mike Morris  
Head: IRP

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At an academic level a special thank you needs to be directed to Professor Raphael Kaplinsky who provided detailed comments on an earlier draft of the paper. The views expressed in this paper are solely those of the authors, however and as such all responsibility for its content lies with the authors alone.

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## **INTRODUCTION**

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The Department of Trade and Industry (DTI) implemented the Motor Industry Development Programme (MIDP) in September 1995. This occurred in the context of rapid trade liberalisation and a major structural shift in government policy and the trade regime. Government eliminated its major demand side support for industry (various tariff and import control protective measures) and shifted towards a variety of supply side measures aimed at assisting the manufacturing sector to become more internationally competitive so as to assist firms to cope with imports and allow them to export. The MIDP was initiated in recognition of the problems besetting the domestic automotive industry in the new context, ie. its high-cost structure and low volume production that resulted from the various local content programmes that had protected it for over three decades. The MIDP was a sector specific part of the government's new industrial policy to rapidly increase the international competitiveness of the domestic automotive industry and facilitate increased exports of vehicles and components.

The MIDP was therefore established to entrench the outward orientation of the industry, thereby restructuring it to achieve global competitiveness, whilst at the same time maintaining its employment and output contribution to the South African economy (Black 1998). Importantly, moreover, the MIDP was established after considerable consultation between all industry stakeholders, including the South African government, the domestic Original Equipment Manufacturers (OEMs) and automotive component producers, as well as the National Union of Metalworkers of South Africa (NUMSA).

The Programme was initiated with five explicit objectives aimed at remedying the problems besetting it. These five objectives were to:

1. Improve the international competitiveness of OEMs and automotive component firms
2. Improve vehicle affordability in real terms
3. Enhance the growth of the assembly and components industries, particularly through exporting
4. Improve the industry's highly skewed trade balance
5. Stabilise employment levels

These objectives were deemed non-mutually exclusive and it was argued that they could be achieved through the *phased integration* of the South African industry into the global automotive environment. The MIDP, which runs in its present format until 2002, and which will continue to run (albeit in a slightly changed form) until 2007<sup>1</sup>, comprises five sets of policy mechanisms to achieve this strongly outward orientation:

1. A tariff phase down schedule that reduces nominal rates of protection of over 100 percent under Phase VI of the previous regime's Local Content Programme to 40 percent for completely built-up units (CBUs), and 30 percent for completely knocked down (CKD) components by 2002.
2. A duty free allowance for domestic OEMs of 27 percent of the wholesale value of the vehicles they manufacture.
3. A small vehicle incentive (SVI), which operates as a subsidy for the manufacture of more affordable vehicles. It operates via a duty drawback mechanism with the

value of the drawback being contingent upon the ex-factory value of the motor vehicle<sup>2</sup>.

4. The complete abolition of a minimum local content provision for domestic OEMs and
5. An import-export complementation (IEC) scheme that allows both OEMs and component manufacturers to earn duty credits from exporting. These duty credits can then be used to offset import duties on cars, components or materials, or alternatively they can be sold on the open market<sup>3</sup>.

If the MIDP is abstracted from the various forces that condition, facilitate and constrain the growth of the automotive industry then it is a relatively easy task to assess whether it is meeting its explicit objectives. Through an analysis of macro economic indicators one can ascertain whether its various objectives are being met. The Department of Trade and Industry have already done this in a number of publications, including the present review of the MIDP. The results (with some additions from our own research) are summarised below. However a thorough evaluation of the MIDP requires more than simply matching objectives with macro data. Since, unless the MIDP is contextualised within the primary forces driving the auto industry, and evaluated with respect to these underlying factors, an assessment based purely on macro data may obscure rather than reveal the true state of affairs. Essentially a holistic evaluation of the MIDP that goes beyond simply matching objectives with macro data also has to address the following questions:

What are the reasons underpinning the successes and/or failures of the MIDP? Are any of the explicit policy mechanisms of the programme fundamentally weak or are there broader issues impacting on the success of the programme such as shifts within the global automotive environment, weaknesses in the South African automotive marketplace and/or political economy issues?

These are some of the key issues explored in this paper that have not been dealt with elsewhere. As with the automotive political economy paper written for the DTI Policy Support Programme this piece draws together our perceptions of the MIDP, as developed through intimate engagement with, and rigorous research on, the automotive industry over the last four years.

In order to present the critical reflections that form its core focus, the paper comprises three sections. In the first section, the broader macro trends within the industry are highlighted, with these trends being tied back to the specific objectives of the MIDP to 'test' whether these have been met thus far. In the second section of the paper the various policy mechanisms of the MIDP are critically reviewed against these performance figures, as well as against the broader operating environment confronting the automotive industry in South Africa. The impact of endogenous and exogenous influences on the industry is examined, thereby allowing for a separation between internal policy constructs and external factors. In the third section, some of the major policy considerations and possible adjustments that emerge from the analysis are presented.

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## **SECTION ONE: ATTAINING ITS KEY OBJECTIVES?**

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As outlined below, the MIDP has performed differentially in meeting its five key objectives. Analysis of OEM and automotive component operational competitiveness<sup>4</sup>, vehicle affordability and trade balance measures suggest improvement. The objective of attaining sectoral growth is more varied since measures of domestic output suggest deterioration whilst that of export output suggest performance improvement. Employment levels clearly suggest performance deterioration.

How does one evaluate mixed performance? In setting these five key objectives the DTI did not prioritise which of the objectives are the most important. This complicates an evaluation of variable success. However, in the context of the industrial policy's clear aim of reintegrating the South African economy into a globalised world economy on the basis of international competitiveness – competing with imports and increasing exports – it is possible to discern an implicit prioritisation of these objectives. These would be in prioritised order - increasing competitiveness performance, growth of exports (either through component manufacturers or OEMs), trade balance performance, growth of domestic output, local affordability of vehicles, and employment.

On balance therefore, in terms of the key objectives set, the MIDP could be said to have been relatively successful in meeting its objectives. Dealing in some detail with each of these objectives separately enables a more nuanced and measured assessment. Consequently the remainder of this section is devoted to an analysis of each of the objectives.

### **Competitiveness indicators**

Competitiveness performance figures for vehicle assemblers in South Africa are not available. The study presently being undertaken by the International Motor Vehicle Programme (IMVP) at the Massachusetts Institute of Technology (MIT) will hopefully ascertain the extent to which improvements have been made at the seven major assemblers in South Africa since the last study conducted in 1996. Qualitative inputs from senior personnel at the OEMs and their automotive component suppliers suggest, however, that significant operational competitiveness improvements have been made, especially at the more export-oriented assemblers.

As highlighted in the Industrial Restructuring Project's 1999 Follow-up Competitiveness Database Report (Barnes 1999d), competitiveness improvements in the South African automotive components industry have been significant over the last few years. A summary of the key operational competitiveness performance trends amongst the sample of automotive component firms is presented in Table 1. It is clear that substantial performance improvements have been recorded in most key operational areas.

<b>Table 1: Key operational competitiveness measures for a sample of automotive component manufacturers and their performance trajectory since 1995</b>			
Measure	Performance 1995	Performance 1999	Change: 1995 to 1999 (%)
Raw material stock holding (days)	33.1	28.0	15.4
Work in Progress stock holding (days)	11.2	10.2	8.9

Finished goods stock holding (days)	17.9	23.1	-29.1
Customer return rate (parts per million)	6,148	3,585	41.7
Labour turnover rate (%)	8.5	3.7	56.5
Absenteeism rate (%)	5.5	4.0	27.2

Source: Barnes (1999d)

The improvements in competitiveness over only a four year period are in fact quite staggering in certain respects, although the figures are still well off international best practice figures, thus highlighting the very poor competitiveness of firms prior to 1995 and the difficult competitiveness path that still lies ahead for the automotive components industry.

This is clearly illustrated in Table 2, which provides a summary overview of the average operational performance figures of the 1999 IRP dataset relative to a group of eleven international firms benchmarked against KwaZulu-Natal automotive component firms that belong to the KwaZulu-Natal Benchmarking Club<sup>5</sup>.

<b>Table 2: Average operational competitiveness levels of surveyed firms (1999) versus a group of international automotive component firms (1997)</b>			
Measure	Surveyed SA firms 1999	International firms 1997	SA vs. internat. firms (%)
Raw material stock holding (days)	28.0	20.8	-25.7
Work in Progress stock holding (days)	10.2	7.2	-29.4
Finished goods stock holding (days)	23.1	9.1	-60.6
Customer return rate (ppm)	3,585	260	-92.7
Labour turnover rate (%)	3.7	7.7	+108.1
Absenteeism rate (%)	4.0	4.6	+15

Source: Barnes (1999c), Barnes (1999d)

A key problem for the sector is that these significant improvements in operational competitiveness have not been translated into major improvements in profits and turnover on an industry wide basis. The majority of firms in the components sector have been struggling to maintain or increase profit and turnover trends over the last five years. The reasons for this are discussed below.

### **Improving vehicle affordability**

National Association of Automobile Manufacturers of South Africa (NAAMSA) figures indicate that new vehicle prices in South Africa have fallen by over 12 percent in real terms since 1995 (DTI 1999), thus suggesting the MIDP's efficacy in terms of its meeting of this key objective. However trends towards the middle to latter part of 1999 suggest an alternative trajectory emerging. A number of price increases have, for example, taken place recently with these increases exceeding the Consumer Price Index (CPI) by a large margin.

Finally, improving vehicle affordability should not simply be assessed in terms of simple financial indicators of affordability. It is quite clear that the quality,

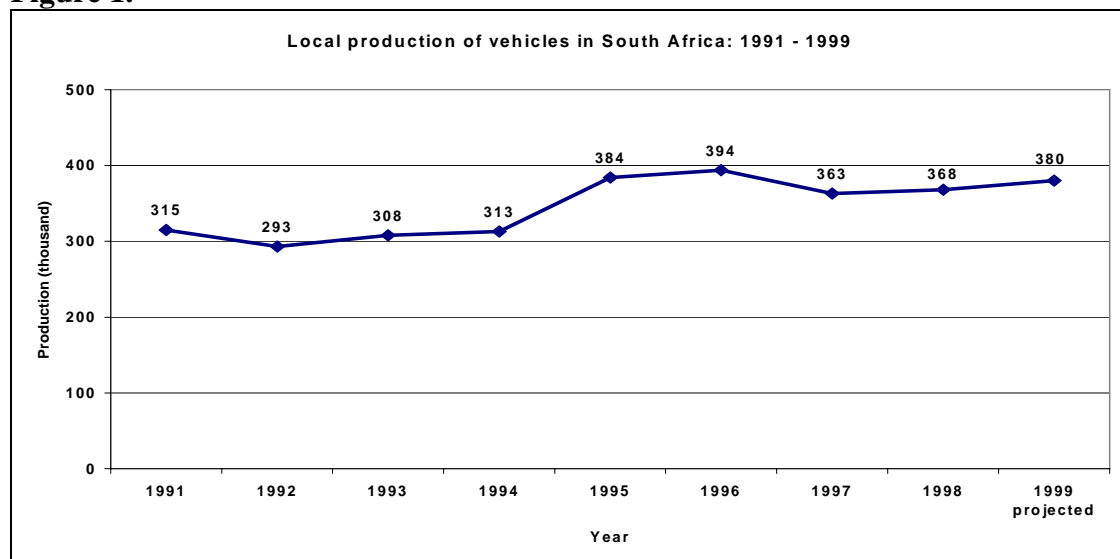
specifications and vintage of the cars have improved significantly and this is not really reflected in price per unit.

### Enhancing the growth of the assembly and components industries

Measuring growth and output of this sector is extremely difficult especially when policy is intended to alter the relationships between the various factors comprising output. The best indicator would be value added but unfortunately such figures either do not exist or access is unavailable. Hence one is dependent on aggregate data (financial, unit output, total value) to provide an indication of improvement or deterioration. Given the fact that the MIDP has led to a clearer focus of how and what is produced domestically and what is externally sourced, gross aggregate measures may or may not be a true representation of the actual state of affairs with respect to the growth of the industry. Finally in measuring the growth of a particular sector one should compare it not only to its own internal trends but also to the performance of other sectors in the economy in order to gauge policy success. If the auto sector were simply to be holding its own relative to declines in other sectors then this may well be an indication of relative success.

In 1996, one year after the launch of the MIDP, domestic automotive production in value terms totalled R28.7 billion, with this increasing to R31.2 billion in 1997. However through 1998 the value of output dropped to only R28.5 billion. This highlights the industry's output stagnation in nominal terms and decline in real output levels over the last three years. However gross value of output for the last three years (the duration of the MIDP) has improved relative to the earlier years of the decade. A snapshot of the number of vehicles produced in South Africa further corroborates this picture, with the number of units manufactured since 1997 declining from peak 1995/1996 levels. Production levels are however higher than they were in the early 1990s.

Figure 1.

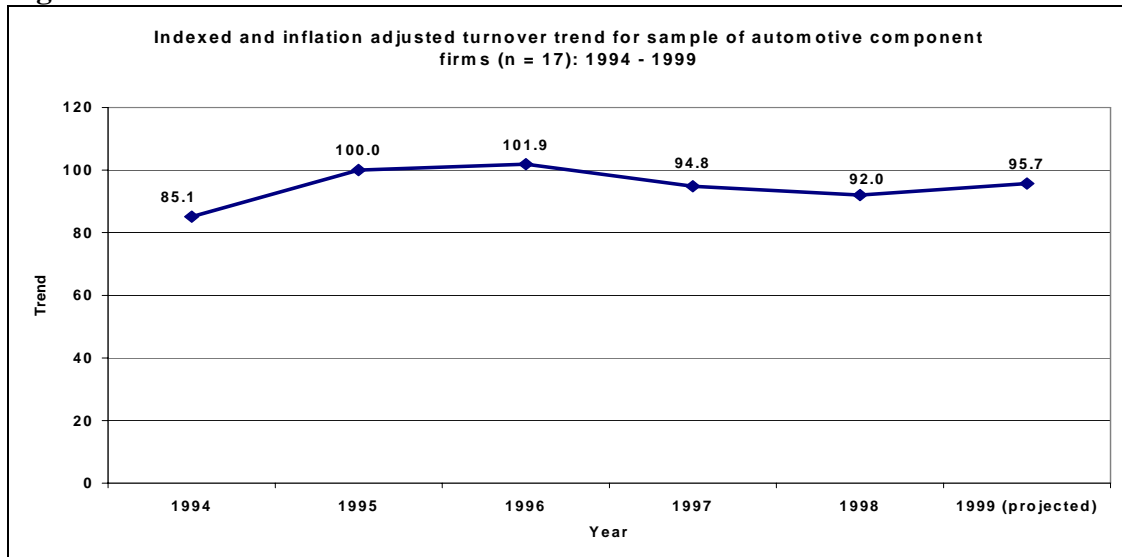


(Source: DTI (1999))

The lack of output growth at automotive firms is further illustrated by the continuing economic difficulties of automotive component firms surveyed in 1999. As revealed

in Figure 2, below, their output levels have been under constant pressure since 1995, with output levels in 1998 considerably lower than they were at the inception of the MIDP.

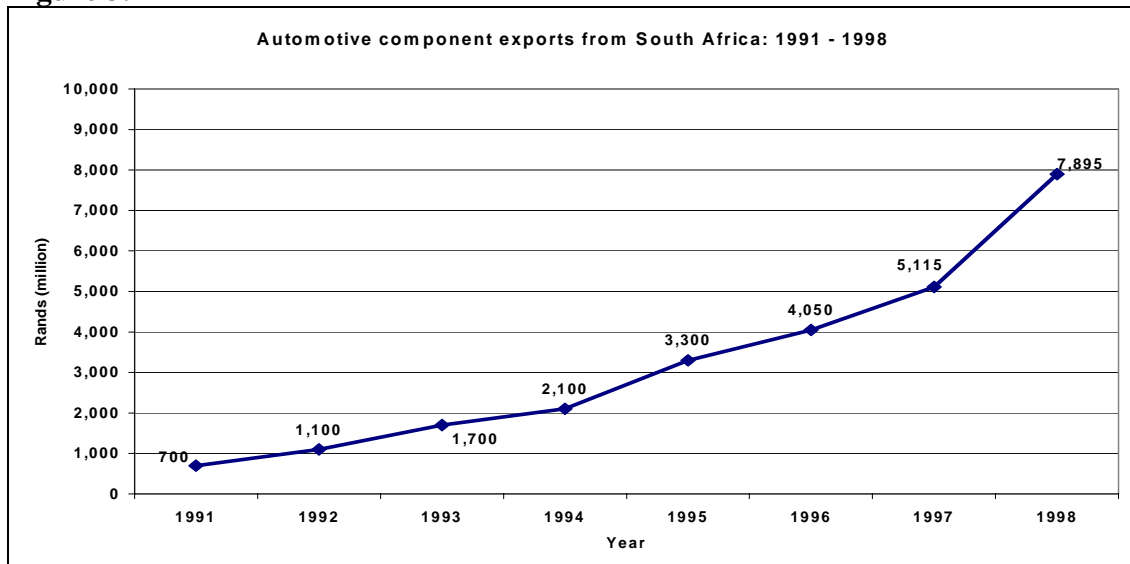
**Figure 2.**



Source: Barnes (1999d)

An important positive trend that emerges from an outline of output trends is the significant growth of exports from the industry. This is especially so in terms of component exports, which totalled R7.9 billion in 1998 and that are expected to reach R9 billion in 1999. The growth of automotive component exports during the course of the 1990s, especially from 1994, is illustrated in Figure 3.

**Figure 3.**

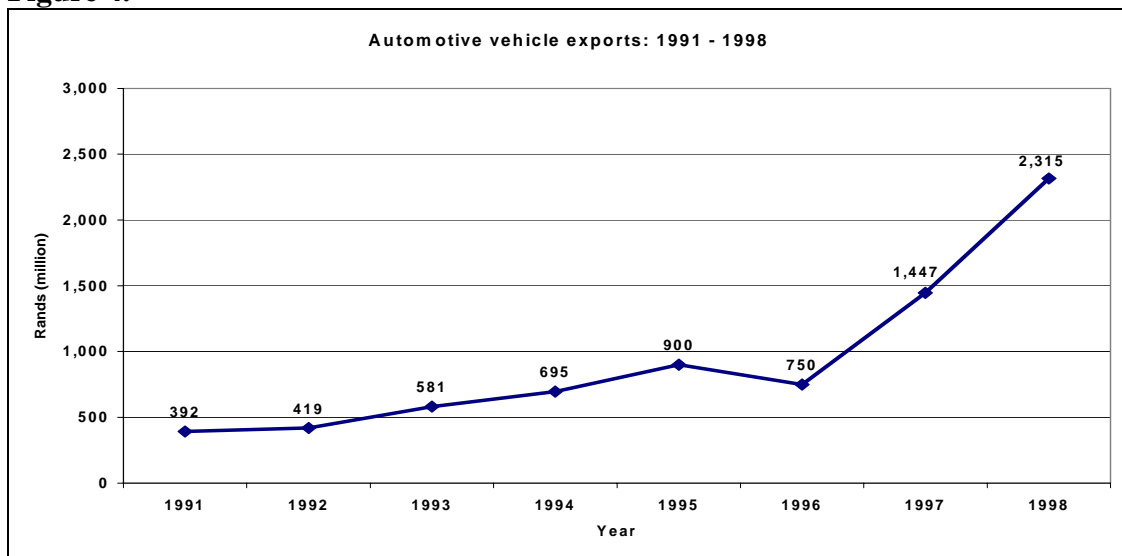


Source: DTI (1999)

Light vehicle exports, after an initial lull between 1995 and 1996, have also increased significantly over the course of the last two years and this suggests further momentum in exports from the industry in South Africa. This trend is clearly highlighted in Figure 4. Importantly, moreover, this trend is expected to increase through 1999, with

vehicle exports for the first ten months of 1999 up 130 percent on the corresponding period in 1998.

**Figure 4.**

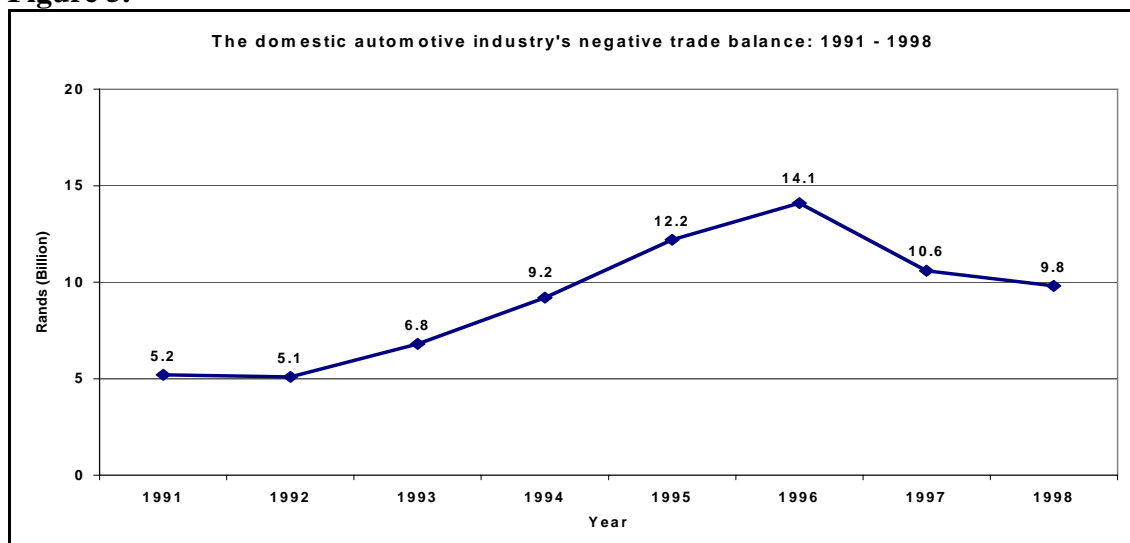


Source: DTI (1999)

### Improving the industry's trade balance

The significantly increased levels of exports of components and vehicles over the last three years have arrested the disturbing sharply rising negative trade balance in the industry. Furthermore as is clear from Figure 5 the trend has been reversed since 1996. However, the value of imports still exceeds the value of exports by a considerable margin. Once again this is a complex issue and it is difficult to read off performance success of the MIDP simply from this macro indicator. The undoubted improving trade balance since 1996 has to be placed in the context of deteriorating domestic demand (see below) in order to get a real indicator of the success of the MIDP.

**Figure 5.**



Source: DTI (1999)

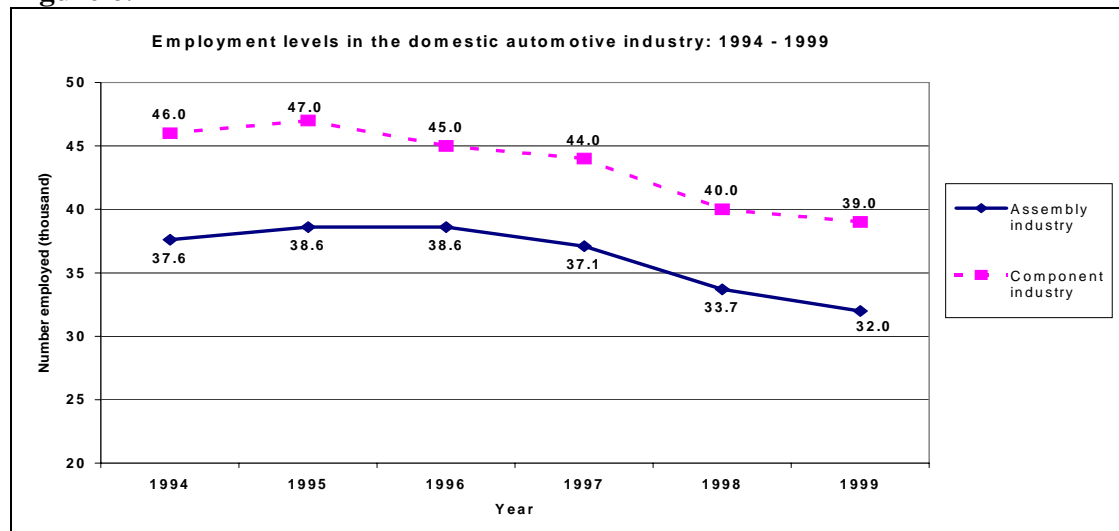


### Employment creation/maintenance

The MIDP set itself the goal of at worst maintaining levels of employment within the automotive assembly and component industries. Yet, as highlighted in Figure 6 which tracks employment trends in the two industries through the 1990s, this has not occurred. Employment has declined by significant margins in both assembly and component manufacture since 1995. Employment losses in assembly amount to approximately 6,600 jobs, with this equating to 21 percent of present employment levels. Automotive component employment losses have been as severe with 8000 jobs lost. This also equates to 21 percent of the automotive components industry's present employment levels.

Findings from the 1999 Follow-up Competitiveness Database Study (Barnes 1999d) support this level of employment decline in the automotive components industry. For example, the twenty-one firms that participated in the 1999 competitiveness database survey experienced similarly large employment losses, with their 1999 employment levels sitting at only 82 percent of their 1995 levels.

**Figure 6.**



Source: DTI (1999)

### Summary

Overall then, on the basis of the existing macro data available and in terms of its key objectives, the MIDP four years down the road appears to be performing in a rather mixed fashion. The two areas identified as critically important that clearly appear promising relate to the improved operational competitiveness of the industry and its increased export propensity. The trade balance also shows significant improvement but it still remains negative. Affordability of vehicles has improved but the price hikes of the last few months of 1999 suggest a disturbing alternative trend. The domestic growth of the industry appears to be problematic, whilst employment levels are seriously down.

On balance, in terms of the available data, it could be argued that the MIDP has performed reasonably well. One cannot go much further given the current state of the macro data available. There are perhaps a number of other manipulations that could be attempted to extend the assessment on the basis of the macro data. One could, for

example, attempt to compare overall trends in the auto industry on each of these variables with trends of the total manufacturing sector, thereby deriving some sort of index of industry well being relative not to itself but to other sectors. Most assessments of the MIDP based on macro data however stop at this point.

Although any sophistication of the macro data indicators is obviously to be welcomed, the key challenge in assessing the MIDP is not simply a matter of refining the macro data comparators. It is critical to develop an entirely different kind of analysis in order to get behind these macro measures and situate the MIDP within the dynamics of the local and international industry.

On the basis of the macro indicators most commentators or stakeholders take up starkly opposing positions: do these macro figures highlight the failures of the MIDP, or are present performance weaknesses simply transitory in nature and likely to be remedied over time as the domestic industry further entrenches itself into the global market place? These are, of course, critical questions, highlighting as they do these two opposing viewpoints. The first viewpoint characterises the MIDP as fundamentally flawed, concluding that it should be replaced with an alternative programme. This contrasts with the view that maintains that the programme is in fact a success, with the benefits of this success likely to be realised in due course. Neither of these two opposing viewpoints suffices. This is because they are not based on a thorough enough analysis of the MIDP within the primary domestic and international forces at play. It is to this form of assessment that the heart of this paper is devoted in the following sections.

As will be discussed in Section Two, whilst certain of the MIDP mechanisms are clearly playing an important role in the successful restructuring of the industry, others are rapidly exposing the industry to global trends<sup>6</sup> and political economy<sup>7</sup> factors that are contributing to the enormous difficulties it is experiencing. Whilst the MIDP is an interventionist programme aimed at fundamentally restructuring the industry it is critical that one recognise the role played by domestic and international factors in the shaping of the South African automotive industry over the last four years. It is therefore necessary to make a distinction between the endogenous and exogenous variables impacting on the success of the MIDP.

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## **SECTION TWO: THE IMPORTANCE OF ENDOGENOUS AND EXOGENOUS FACTORS IN THE SUCCESS OF THE MIDP**

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### **Endogenous Factors**

The various policy mechanisms that constitute the MIDP have most certainly shifted the operating terrain for automotive assemblers and component manufactures in South Africa. This has occurred at two levels. Firstly, due to the rapid trade liberalisation that has taken place, OEMs and component firms alike need to improve their competitiveness to keep foreign imports out of the domestic market and gear themselves for entry into foreign markets. Secondly, and related to this, both OEMs and automotive component firms need to reposition themselves in new value chains to consolidate global linkages and facilitate exports. Neither of these two processes occurs instantaneously and as such the *phased integration* of the industry into the global automotive environment is of critical importance. The competitive threat posed by *too rapid integration* into the global automotive environment cannot be

underestimated. For example, as was highlighted in Section One, despite substantial improvements in competitiveness between 1995 and 1999, South African automotive component manufacturing competitiveness is still poor, on average, relative to international standards. Whilst *phased integration* into the global automotive environment should allow time for this transition to competitiveness to take place, too rapid exposure could also rapidly undermine the industry.

This is an accusation that has been levelled against the various policy mechanisms of the MIDP. For example, whilst domestic component manufacturers appear to be heavily protected, with CKD (completely knocked down) imports for OEMs still attracting a 37,5 percent duty, this level of protection for the components sector is deceptive. The OEMs are able to bring-in duty free components through the IEC (import-export complementation) scheme, with this being done either through CBU (completely built up, or complete vehicles) exports, or by exporting components directly or on behalf of component manufacturers. Alternatively they can buy-in duty credits from component suppliers who are exporting into the international aftermarket. In addition, OEMs can bring in duty free products through the small vehicle incentive programme window. Given the various mechanisms by which the OEMs can earn duty rebates it is extremely difficult to calculate the exact level of protection for the automotive components industry. By 1998, the effective rate of protection offered to the component sector was clearly, however, negligible with one estimate putting it at only 3 percent (Engineering News, June 28-July 2, 1998).

The reasons underpinning this too rapid assimilation into the global operating environment for automotive component firms relates to the weaknesses endogenous to the MIDP viz. a viz. the global connectedness of the automotive industry in South Africa. The Import Export Complementation (IEC) component of the MIDP to a far greater extent and the Small Vehicle Incentive (SVI) programme to a lesser extent creates opportunities for the manipulation of the MIDP by those OEMs and automotive component firms with strong international linkages. In order to increase their importing propensity certain OEMs have actively encouraged the development of low value-added component activities in South Africa for export into their global families. The massive increase in catalytic converter and leather seat cover exports through the 1990s are indicative of this trend. The magnitude of this development was not anticipated by the MIDP and yet it is clearly being facilitated by the programme's endogenous shortcomings. The IEC component of the MIDP, through its acceptance of local raw materials as local value added content in its duty rebate calculations creates a perfect breeding ground for this manipulation. For every Rand of platinum exported as part of a catalytic converter one Rand of automotive component can be imported duty free, thus lowering the effective rate of protection for other automotive component firms, and exposing the industry to an extremely rapid tariff phase down schedule.

Given their variability in terms of connectivity into the global operating environment (see Barnes and Kaplinsky 1999), not all OEMs have benefited to the same extent, with certain South African owned OEMs struggling to facilitate exports. OEMs that are principally South African owned and that are therefore weakly connected to their global parent companies (such as Toyota SA) are consequently weakly placed strategically. It is those OEMs that are 100 percent owned by their global parent companies that appear to have benefited the most in this regard. Their ability to

directly connect into global value chains, or alternatively facilitate connections for their component manufacturers places them in extremely strong market positions. Their export values in 1999 appear to have reached levels whereby they can bring in almost duty free CKD components and CBUs to complement their model ranges.

Whilst automotive component firms that export into the global marketplace through the IEC obviously benefit from increased output and theoretically the duty rebates earned, 68 percent of exporting automotive component firms surveyed in 1998 stated that their domestic OEM customers kept their duty rebates for facilitating the export contracts. Given their lack of political leverage (through the removal of all local content provisions) the automotive component firms claimed to be largely disempowered to counter these arrangements, thus placing them in a strongly subordinate position relative to the OEMs. This is an issue that is explored in far greater detail in the recent political economy paper written for the DTI PSP (see Barnes 1999b).

From an endogenous perspective the major weaknesses of the MIDP consequently appear to relate to its duty rebate mechanisms. Discussions with automotive component representatives in Australia in July of this year verified this position, with their view being that the major weakness of the MIDP was in its counting of raw material as local content. This provides domestic OEMs and CBU importers alike with the opportunity to manipulate the export of low value added automotive products with high levels of local raw material, so that they can import high value added components or CBUs to displace local manufacture. The long-term implications of this trend is technology displacement and the possible long term undermining of the South African automotive components industry.

An analysis of the types of automotive components being exported from South Africa clearly supports this contention. As highlighted in Table 3, catalytic converters, leather seat covers and aluminium based products make up the bulk of automotive component exports, with the vast majority of these exports being directed to Germany, which illustrates the strong connectivity of the South African industry to German automotive firms.

<b>Table 3: South Africa's five most important automotive component exports and their export destinations</b>			
<b>Product</b>	<b>Value (1998)</b>	<b>% of Component exports (1998)</b>	<b>Major export destinations (1997)</b>
Stitched leather seat covers	R1,854m	23.5	Germany (91%)
Catalytic converters	R1,520m	19.3	Germany (61%)
Tyres	R498m	6.3	Zimbabwe (17%), Netherlands (16%)
Silencers/exhaust pipes	R493m	6.2	Germany (78%)
Road wheels and parts thereof	R446m	5.6	UK (29%), Germany (22%)
Total exports	R7,895m	100	Germany (48.9%)

Source: DTI (1999) and DTI (1998)

Given the high proportion of raw material value for each of these component types (especially catalytic converters and stitched leather seat covers) it is clear that

significant volumes of high value added imports are being bought into the country duty free by virtue of their inclusion for duty rebate purposes. Even more strikingly, all of the large volume export products highlighted in Table 3 are not critically important for OEM supply in South Africa. Automotive component manufacturers that are supplying into the seven domestic OEMs are consequently not providing their customers with products built off large production runs for both the domestic and export markets. Whilst economies of scale need to be built on the back of exports, economies of scale are not being generated for OEM focused automotive component firms. The inverse would actually appear to be occurring with OEMs having shorter production runs due to CBU import penetration, which presently stands at approximately 20 percent of the local market, and no duty disincentives on their CKD imports due to their export programmes.

The exporting of high raw material content-low value added components that are not important for domestic vehicle manufacture allows the OEMs to reduce local content in their vehicles, especially their new model releases. The Volkswagen A4 export contract is an extreme example of this trend. When the project was initiated there was no local content in the domestically assembled vehicles, with this process only starting from mid 1999 – although the magnitude of this local sourcing is still open to question. The net effect of this type of trend for the domestically focussed automotive components industry is potentially highly problematic.

Given the varying levels of global connectedness within the automotive industry one also needs to question the tradability of the Import Rebate Credit Certificates (IRCCs) earned by automotive component firms. The DTI's Duty Credit Certificate (DCC) scheme for textiles and clothing manufacturers does not, for example, allow the trading of rebate certificates. By permitting the transfer of IRCCs the MIDP is allowing the major role players within the industry (ie. the OEMs) to manipulate the IEC in such a way as to maximise benefits for themselves in a way that undermines the automotive components industry. This applies to both the well connected and the more poorly connected OEMs. The ability to purchase IRCCs at increasingly discounted rates (75 percent to 85 percent of their duty value) from automotive component manufacturers that are selling independently into foreign markets is most certainly a saving grace for the more poorly connected OEMs. It is the purchase of the IRCCs that gives them the flexibility to maintain wide model ranges for the domestic market, with many of these models having low levels of local content. CBU importers are in a similar position, with their IRCC purchases permitting easier access to the domestic market.

Criticising the various policy mechanisms of the MIDP in isolation from the broader exogenous factors impacting on the automotive industry in South Africa is, however, extremely unfair. The world automotive industry is a globally integrated and connected industry. No automotive industry (certainly in the developing world) can develop or be viewed in isolation from the impacting forces of the global automotive industry. The various performance objectives of the MIDP may, for example, be looking far more favourable and its different policy mechanisms may have borne far more positive results:

1. If the local market had boomed on the back of more significant levels of foreign investment in the South African economy,

2. If overcapacity in the global automotive industry had not reached such critical proportions or
3. If the restructuring of global automotive value chains had not gathered such momentum over the last few years.

This list is not all-inclusive with various other *exogenous* factors impacting on the success of the MIDP. It is critical, however, that these exogenous factors be considered and that one does not view the MIDP's facilitation of the development of the South African automotive industry as a closed experiment in a scientific laboratory. The MIDP may have endogenous strengths and weaknesses in terms of its various policy mechanisms, but by its very nature the MIDP through its outward orientation lays the industry open to exogenous forces that are unpredictable and potentially both beneficial and damaging to the industry.

### **Exogenous factors**

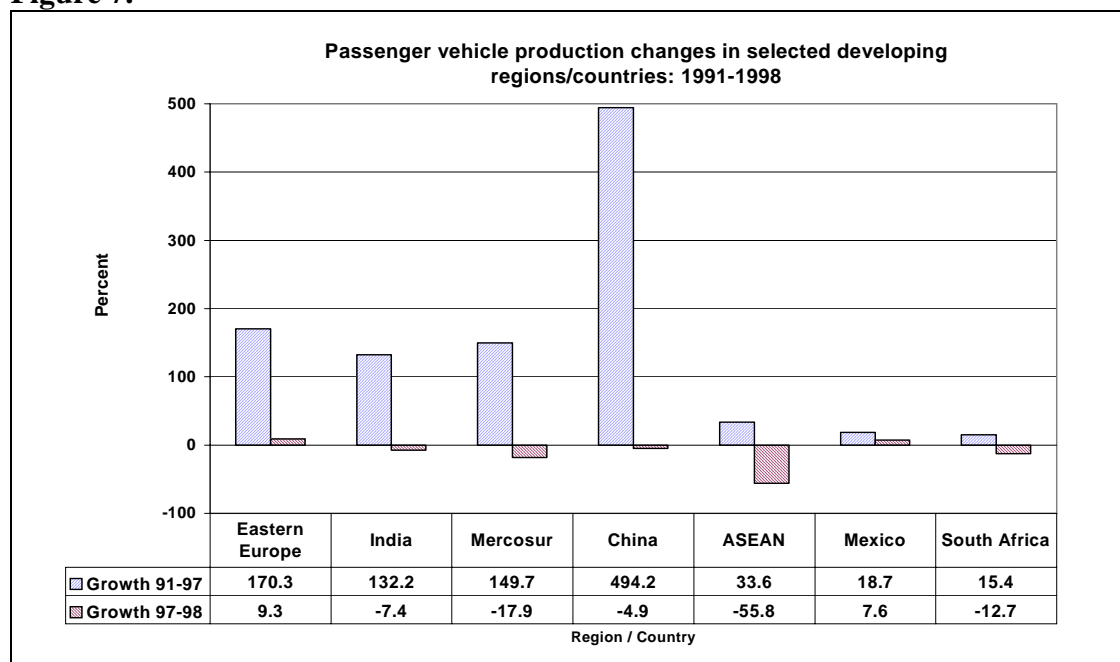
A very clear illustration of the importance of exogenous factors lies in the interface between the IEC component of the MIDP, domestic market performance and exporting volumes. Due to stagnant vehicle demand in South Africa (see Figure 1) - which cannot be attributed to the MIDP given lower real vehicle prices through the latter part of the 1990s - the effective rate of protection for the automotive components industry has been impacted on enormously. If the local market had grown by 20 percent over the last four years the duty rebates earned on exporting would prove far less comprehensive in terms of the covering of duty payments, hence a greater propensity to purchase locally produced components. This propensity would have been further encouraged by higher volume production runs for automotive component manufacturers, thus giving them a greater incentive to invest in new capital equipment and improve their competitiveness.

However, neither of these two scenarios has occurred. The local content levels in locally assembled vehicles have dropped and, with a few isolated exceptions, only limited new capital investment has taken place at OEM focused automotive component firms.

It would thus seem, on the face of it, that this particular exogenous factor has consequently been a major factor contributing to the MIDP's poor performance. It may well be one of the major factors contributing to the MIDP's poor performance in terms of its output and employment objectives. It may well also have operated to significantly and inadvertently shorten the global integration period for especially automotive component manufacturers, thus exposing firms to massive levels of competitiveness over a period of only three years. Taking into account the impact of this exogenous factor and with the benefit of hindsight, the key issue that policy makers have to grapple with is whether *phased integration* has given way to *too rapid integration*?

Production over-capacity in the global automotive industry presently stands at between 25 percent and 50 percent of output, with the East Asian crisis having played an important contributory role in this regard (Barnes 1999a). This stands in marked contrast to the early 1990s when most of the important developing economy vehicle markets were growing rapidly. This is clearly highlighted in Figure 7.

**Figure 7.**



Source: Barnes (1999a)

Production over-capacity in the global industry is not only attributable to developing economy difficulties, however. Market growth in developed economies (with the exception of the United States market, which has experienced healthy growth rates) has been largely stagnant, with declines experienced in Japan and South Korea. The net result of this over-capacity has been increased competitiveness, with the world's major OEMs looking to cut their costs, whilst at the same time getting new products to the market sooner in order to capture market share.

The competitiveness pressures that have resulted from this over-capacity have had a direct impact on the automotive industry in South Africa, and hence the success of the MIDP. Through its necessarily outward orientation the MIDP has exposed the local industry to increasingly intensive global changes, but one cannot blame the MIDP for the changes in the international operating environment (Barnes 1999a). These changes relate to:

1. High levels of competition due to vehicle production overcapacity in most market segments, with OEMs consequently looking at new ways in which to capture market share and cut costs. This has resulted in strong competitiveness pressures amongst OEMs and component suppliers, as well as the transfer of certain important design responsibilities from the OEMs to multinational automotive component firms.
2. Increased OEM and automotive component investment in certain geographical localities, despite global overcapacity.
3. Consolidation of both OEMs and the world's largest automotive component manufacturers through mergers and acquisitions.
4. Tiering of the automotive components industry due to lead source and modularisation requirements within automotive value chains.

Given the manner in which they directly impact on the South African automotive industry, how these international trends play themselves out is of critical importance. As with the critical issue of domestic market stagnation, these trends have a direct impact on the ability of the MIDP to meet its objectives for the industry. Global over-capacity and the continued investment by OEMs and component manufacturers in certain geographical localities means that it is more difficult for the domestic industry to find viable export markets – global competitiveness is now only a starting condition for entry into the global marketplace. Connectivity into global value chains becomes equally important with these being determined by equity relationships with MNCs, the establishment of suitable licensing agreements with new technology owners, etc.

If one considers how the East Asian crisis has impacted on vehicle sales in numerous developing economies and how the global changes outlined above have shaken the foundations of powerful players in the global automotive industry (most notably the South Koreans), then perhaps the domestic automotive industry has actually not performed too poorly. This is irrespective of whether MIDP objectives have been met or not. The local automotive industry may actually have proved rather resilient to a general downturn in global automotive conditions and the restructuring that has resulted from the key strategic movements of the world's major players.

It is critical that we constantly keep in mind the important fact that the automotive industry in South Africa produces only just over half a percent of global production. When the winds of global automotive change intensify it is inevitable that they buffet the local automotive industry. The MIDP through its various policy mechanisms that encourage outward orientation facilitates this. This does not, however, mean that the MIDP can control the powerful global winds and the manner in which they impact on the health of the industry.

### **Summary**

These are just a few examples of exogenous factors that impact directly on the successful development of the South African automotive industry and by implication the attainment of the MIDP's objectives. One cannot look at the endogenous factors impacting on the MIDP's success/failure in isolation from these exogenous forces, as the problematic performances of certain of the policy mechanisms of the MIDP appears to rest in this interface between endogenous and exogenous factors.

This does not mean that the internal policy mechanisms of the MIDP cannot be improved upon and current weaknesses corrected. It does, however, mean that one cannot separate the various mechanisms of the MIDP from the domestic and international operating environment, particularly in terms of market and political economy issues. The various policy considerations that arise from these factors are explored below

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## **POLICY CONSIDERATIONS**

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In analysing the MIDP the most important issue appears to pertain to the too rapid integration of the South African automotive industry into the global automotive environment, due to factors both endogenous and exogenous to the programme. The IEC component of the programme has been exploited by globally connected OEMs. In the context of the stagnant domestic market, this has resulted in an over supply of



duty credits which has contributed to the difficulties being experienced by OEM focused automotive component firms. In the absence of the South African government being able to manipulate the international factors impacting on the industry and given the slow growth rate of the domestic economy, there are two broad policy resolutions to the imbalances created by this rapid integration. These pertain to the manner in which the IEC relates to the auto industry, and the size of the domestic auto market.

The first major policy resolution relates to reducing the export benefits of the IEC. This could potentially be done with three different policy adjustments:

1. On the basis of careful and clear discussions with the OEMs most affected, instituting a phased programme to remove in the short term, and immediately reduce all local raw material content from calculations of local value added.
2. Making the IRCC non-tradable, with duty rebates converting into tax concessions when not required for the offsetting of duties.
3. Lowering the duty rebate attached to exporting.

The inclusion of domestic raw materials in duty rebate calculations is hugely problematic. Whilst a number of important industries have developed very quickly on the back of this policy provision, questions have been raised about their sustainability and it has had a negative impact on the domestic automotive components industry generally. Its removal consequently needs to be carefully considered. This should obviously take into account the need to maintain a friendly policy environment for global OEMs, as well as bear in mind the investments and export promises that have been made on the basis of the current policy provision.

Hence detailed consultation with those in the industry most affected, so as to ensure that policy instability is not created, is required in order to consider the problem and develop a phased program of immediate reduction and short term removal of domestic raw material in duty rebate calculations.

Making the IEC non-tradable would make it operate in much the same way as the DTI's Duty Credit Certificate scheme for clothing and textile manufacturers. The one important exception is that the duty rebates would not operate on a use it or lose it principle but could be converted into tax concessions which might be directly linked to investment (otherwise they will only bolster the bottom-line). This would stimulate capital investment at those firms that are aggressively increasing their presence in the export market, but who do not require duty credits to offset their imports.

Both these policy adjustments would restrict opportunities for duty rebate manipulation by the OEMs, thereby ensuring the more phased integration of the industry into the global operating environment. Importantly, moreover, weaker domestic OEMs who are unable to export products themselves would potentially be squeezed out of the domestic market, thus rationalising the assembly industry and cutting down on brand and model proliferation in line with the MIDP's original intentions. CBU importers will be similarly effected, thus squeezing their presence in the South African market.

Lowering the duty rebate attached to exporting has been analysed in detail during the course of the MIDP mid-term review process, with the phasing out of the IEC set to take place between 2002 and 2007. This is, however, only one side of the equation.

As argued in Section Two, because the local automotive vehicle market has stagnated the MIDP has too quickly exposed the industry to global competition. This has lessened the demand for IRCCs and effectively cut the real levels of protection for automotive component firms. Whilst there is certainly validity in a phasing down process, this needs to be supported by the introduction of a programme to support vehicle sales in the South African market. A growing domestic market will raise the effective rates of protection on the automotive components industry, as well as the domestic OEMs.

Encouraging the growth of the domestic automotive industry through domestic market expansion may smack of protectionism, but it may be essential for the future success of the MIDP in that it would give the industry more leverage in its engagements with the international automotive industry. A proposal that should be worthy of consideration relates to the subsidising of new vehicle sales through trade-in guarantees, such as those being put in place for the minibus taxi industry in South Africa and that have worked effectively in a number of European countries. In addition the state should be 'encouraging' civil servants and government departments to purchase locally manufactured vehicles only. Lastly, more focus needs to be given to the bolstering of customs entry and exit points into South Africa to prevent the illegal importation of second hand vehicles. Whilst volumes may be low, such illegal importation is restricting the growth of the domestic automotive market and as such needs to be radically curtailed.

If strong domestic automotive market growth of 5 percent to 10 percent per annum could be achieved over a period of five years, there would most definitely be greater scope for the phased global integration of the domestic automotive industry in a manner that builds rather than undermines it. In addition, many of the present criticisms of the MIDP would fall away, with certain of its endogenous policy weaknesses not being as brutally exposed by issues of global connectedness, political economy and changes in the global automotive market.

Finally, a better understanding of the exogenous factors impacting on the MIDP needs to be fostered within the DTI and within firms. Supply side support mechanisms for the industry are still largely ineffectual and whilst substantial progress has been made in terms of the delivery of supply side support for the industry over the last couple of years, the process needs to be further bolstered. A critical understanding of the exogenous factors impacting on the industry should form a core input in the decision making process in this regard.

The current global and domestic automotive situation is not composed solely of threats and respective weaknesses. A number of opportunities clearly exist and the essential thrust of the outward orientation of the MIDP facilitates the domestic automotive industry taking advantage of these. As is clear from the data, a number of component firms have made substantial progress in raising their operational competitiveness, as well as in penetrating export markets. The MIDP in particular, and DTI generally, needs to develop specific supply side measures to support these

dynamic firms, as well as facilitate the establishment of firm networks with them at the core to encourage the spread of competitiveness learning between firms. Since connectivity is so critical a factor in the global automotive industry, government policy directed at this industry should also be sharply focused to assist truly dynamic component suppliers to feed into international networks.

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## FOOTNOTES

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1. The MIDP is presently being reviewed. Whilst post-2002 changes have yet to be finalised, the basic tenets of the programme are set to remain in place through to 2007.
2. The calculation for this subsidy is 0.003 percent multiplied by the amount by which the wholesale price of the vehicle is below R40,000 multiplied by the wholesale price.
3. For every Rand of South African value added/raw material in a CBU exported, a Rand of CBU or components can be imported duty free. For every Rand of South African value added/raw material in components exported either 75 cents of CBU or one Rand of components can be imported duty free. The issuing of import rebate credit certificates (IRCCs) controls the scheme. These certificates are transferable once only, thus giving them a cash value on the open market.
4. In assessing competitiveness the DTI does not sufficiently differentiate between measures of operational competitiveness and of macro financial competitiveness. We have stressed measures of operational competitiveness as opposed to financial competitiveness since the former provides a long term indication of international competitiveness. This is not to say that profit and turnover measures are not regarded as important. Clearly they are important indicators of current viability. However they provide a very mixed picture for the component sector (see Barnes 1999d) and do not sufficiently highlight the enormous strides that component firms have made in respect of their operational shop floor activities.
5. The KwaZulu-Natal Benchmarking Club is an automotive focused continuous improvement network based in Durban based on the DTI's Sector Partnership Fund supply side measure. It comprises 11 KwaZulu-Natal based automotive component firms and Toyota SA.
6. For an outline of the global trends impacting on the South African automotive industry see Barnes (1999a).
7. For an outline of the political economy factors shaping the South African automotive industry see Barnes (1999b).

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