THE IMPACT OF THE 2008/9 GLOBAL ECONOMIC CRISIS ON merSETA FIRMS

A FOCUS ON EMPLOYMENT AND SKILLS

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ABBREVIATIONS AND ACRONYMS

AIDC	Auto Industry Development Centre
APDP	Automotive Production Development Programme
BRICS	Brazil, Russia, India, China and South Africa
CCMA	Council for Conciliation, Mediation and Arbitration
CETEMF	Capital equipment, transport equipment and metal fabrication
EU	European Union
FET	Further Education and Training
G7	Group of 7 industrialised countries: Canada, France, Germany, Italy, Japan, United Kingdom and United States
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GOS	Gross Operating Surplus
GVA	Gross Value Added
HET	Higher Education and Training
HR	Human Resources
IDC	Industrial Development Corporation
merSETA	Manufacturing, Engineering and Related Services Sector Education Training Authority
MIDP	Motor Industry Development Plan
Naacam	National Association of Automobile Component and Allied Manufacturers
Naamsa	National Association of Automotive Manufacturers of South Africa
NCA	National Credit Act of 2007
NCV	National Certificate Vocation
Nedlac	National Economic Development and Labour Council

NQF	National Qualifications Framework
NUMSA	National Union of Metalworkers of South Africa
OEM	Original Equipment Manufacturer
Plasfed	Plastics Federation of South Africa
RAP	Retrenchment Assistance Programme
R&D	Research and Development
SA	South Africa(n)
SATMC	South African Tyre Manufacturers Conference
Seifsa	Steel and Engineering Industries Federation of South Africa
SMMEs	Small, Medium and Micro Enterprises
TDM	Tool and Die Manufacture
the dti	The Department of Trade and Industry
US	United States

EXECUTIVE SUMMARY

This report sets out to provide merSETA with a better understanding of the impact of the 2008/9 global and local economic crises on the South African (SA) automotive, metals and plastics sectors. In line with merSETA's mandate to facilitate skills development in these sectors, the report focuses on changes in employment, and skills needs and skills development initiatives.

Beginning in the United States (US) financial sector in September 2008, the impact of the recession on the SA economy was evident in the data by May 2009. Government crisis support for the merSETA sector formed part of the National Framework Agreement reached through engagement with the National Economic Development and Labour Council (Nedlac) partners and formally announced in August 2009. Aside from the continued rollout of the R787 billion public infrastructure project the Framework included R6.1 billion set aside by the Industrial Development Corporation (IDC) for high risk loans to distressed sectors, R2.4 billion assigned to a training layoff scheme administered via the Council for Conciliation, Mediation and Arbitration (CCMA), and a sum of R780 million over three years to fund the early implementation of the regulatory amendments and automotive investment scheme components of the Automotive Production Development Programme (APDP), due to start formally in 2012. In addition to this, merSETA developed its Retrenchment Assistance Programme (RAP).

Key stakeholder interviews, intended to unpack in more detail the impact of the crisis and government's support on the merSETA sector, brought to light seven major themes that support and nuance evidence available in the literature:

1. The impact of the recession on the merSETA sectors cannot be separated from the challenges that manufacturing as a whole has faced since 2002. These include: the impact of the South African National Credit Act (NCA, 2007); currency volatility; increasing customer demands; rapid global advances in quality-related production technologies; high administered and logistics costs; import parity pricing of local raw materials; low labour productivity; the proliferation of both legal and illegal importation; and complex and unstable local social and political factors. All these impact demand, sustainable supply and profitability.

2. While the overall impact of the crisis on the merSETA sector has been negative, its effect on individual sectors, subsectors, and even on individual firms, has been uneven. Generally, smaller and locally owned firms, firms with a predominant export orientation, and firms with a narrow customer base or product range were among the hardest hit. From a sector perspective, the automotive industry as well as the metals and plastics firms supplying this industry suffered the most.

3. Workforce downsizing in response to the crisis was widespread and generally part of complex fixed-cost reduction drives, and included the following progressive steps: shift consolidation and reduction; ending labour brokers' contracts; hire freezes; voluntary separation and early retirement packages; production short time; and formal retrenchments. Importantly, at the beginning and even at the height of the crisis between the fourth quarter of 2008 and the second quarter of 2009, assistance programmes were yet formally in place.

4. The skills crisis remains a major problem for SA manufacturing growth and sustainability going forward. This is because of: the magnitude of skills shortages preceding the economic recession; the chronic nature of the challenges at school and FET levels; and firms' widespread and concerted efforts to retain their scarce and critical skills during the crisis.

5. Firm-level training has been negatively affected, although to a variable extent. Most companies froze training budgets at the beginning of the crisis, and most small- and medium-sized firms sustained this through the crisis. At larger companies manager training was dramatically reduced and enrolment in skills programmes virtually halved, however legislated training (such as safety, health and environment), artisan training, and operator-level training in support of new vehicle model launches and new plant establishment, generally continued.

6. Industry consensus is that government demonstrated a distinct lack of leadership around the crisis; what should have been simple programmes aimed at saving jobs became complex, cumbersome and restrictive instead. Overall, industry-level opinion is that crisis support from all quarters was 'too little too late'.

7. Finally, merSETA is can do more to support sustainable industry growth into the future by focusing on actively supporting skills development initiatives in and for its sectors.

The econometric data analysed reveals negative employment growth between 2005 and 2008 for five of the seven sectors that make up the merSETA sectors cluster. Forecast data suggests that while employment can be expected to rise again into the future, growth will be slow and will considerably lag behind growth in gross value added. The majority of the sectors are set to continue on a high-skills trajectory, with rises in real labour remuneration in relation to the overall sectoral wage bill as well as in relation to remuneration per employee. Overall the econometric analysis supports the literature review and as well as the views of key stakeholders.

The integrated findings from this study lead directly to a range of recommendations for merSETA:

- merSETA will have to consider the impact of reduced numbers of companies and employees in its planning for the way forward.
- merSETA needs to consider new and more flexible ways to provide financial support for a wider scope of training initiatives.
- merSETA should consider increasing the size of companies qualifying for the training voucher scheme from 50 employees to 150 employees to promote continued and increased training in the current economic environment.
- merSETA needs to review and improve its internal administration systems in support of timely payments to firms and more efficient learner registration and assessment.
- merSETA should continue, and even increase, its focus on artisan training.
- While still meeting its mandate for training quantity, merSETA needs to increase its focus on training quality and on real sector needs.

- merSETA should develop appropriate processes and incentives whereby sectors can cost effectively benefit from the full utilisation of their collective training capacity.
- merSETA should consider passing this report on to the departments of trade and industry and higher education and training, as the findings are also relevant to the higher-level policy decisions taken by these departments.

REPORT SYNTHESIS

Introduction

The Manufacturing, Engineering and Related Services Sector Education Training Authority (merSETA) has the responsibility of facilitating skills development in three major industries or sectors: the metals sector, the plastics sector and the automotive sector, which includes the motor assembly, components manufacture, new tyre manufacture and motor retail subsectors.[1] The merSETA sector accounts for a significant proportion of the South African manufacturing base, comprising a total of just under 45 000 firms employing around 600 000 people.

The South African (SA) automotive industry and new vehicle production in particular are by far the most critical under the merSETA umbrella, as the sector is core to the components manufacture, new tyre manufacture and motor retail subsectors. It is also a significant upstream and downstream customer for the metal (capital equipment, transport equipment and metal fabrication – CETEMF) and plastics sectors.[2] [3]

This report sets out to provide merSETA with a better understanding of the impact of the 2008/9 economic crisis on the SA automotive, metals and plastics industries, with a particular focus on changes in employment, and skills needs and skills development initiatives. In particular the study seeks to unpack the following issues:

- The current economic downturn and the effect that this has had on the merSETA sector, especially on employment;
- Government financial support to the merSETA sector since the beginning of 2008;
- Factors that impact on the economic performance of merSETA sector and its subsectors;
- The merSETA sectors' reaction to the economic downturn; and
- Skills shortages and scarce skills in the merSETA sector, including recent developments regarding the alleviation of such shortages and the effect that the recession has had on companies' training activities.

The research was conducted in four distinct phases: First, a literature review of available information was undertaken in November 2009. This provided the foundation for the second phase, which consisted of 32 key stakeholder interviews at relevant firms, institutions and organisations. The third phase was an independent econometric analysis on past trends and future projections by key economic variables of seven sectors matched to merSETA's chambers according to their two-digit Standard Industrial Classification (SIC)

[1] Please refer to the note on terminology for the use of the terms 'industry', 'sector' and 'subsector' in Section 1.3 of this report

[2] merSETA. 2009. merSETA Chambers, http://www.MerSETA.org.za/CorporateGovernance/Chambers/Auto/tabid/141/Default.aspx (accessed 13 November 2009).

[3] Adams W. 2009. Manufacturing, engineering and related services SETA (merSETA), AIDC Automotive Industry Conference 2009, 8 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).

codes.[4] Finally, the results and insights were integrated to generate the body of this report, which seeks to address merSETA's concerns most clearly and succinctly, and from which the study's conclusions and recommendations flow.

Effects of the Economic Downturn on the merSETA Sector

The current global economic crisis began with the meltdown of the United States (US) financial sector in September 2008. The US economy quickly slipped into a recession, resulting in a rapid and dramatic impact on the global economy. By May 2009 the impact of the global economic crisis on the domestic economy was evident in the data, and in June 2009 the recession was declared 'official' by President Jacob Zuma.

Media- and industry-level publications clearly reveal the extremely negative impact of the recent global and local economic recessions on the local metals and plastics manufacturing sectors, and even more starkly on the domestic automotive industry. Dropping demand for new vehicles and homes in particular, together with sustained Rand strength and increasingly limited access to credit for both firms and customers resulted in substantial manufacturing capacity standing idle. Firms grappled with survival in the face of rapidly dropping turnover, increasing relative fixed costs, and eroding profit margins.

Data from March 2009 reveals that all merSETA's sectors featured among the group of most distressed major sectors within South African manufacturing: the motor vehicle, parts and accessories and other transport equipment sector showed a decline of 35.3 % in year-on-year production volumes and a decline of 49.2% since the most recent production-volume high. Spare capacity within the sector stood at a high 29.2%. The basic iron and steel, non-ferrous metal products, metal products and machinery sector recorded a year-on-year reduction in production volumes of 23.5%. Spare production capacity for iron and steel was a massive 47.5%, while for metal products spare capacity stood at a substantial 24.4%. A year-on-year production volume decrease of 15.4% and a spare production capacity figure of 17.5% for the petroleum, chemical products, rubber and plastic products sector suggest that the plastics manufacturing sector was somewhat less affected than merSETA's other sectors. [5]

Data from the National Association of Automobile Manufacturers of South Africa (NAAMSA) provides more specifics with regard to the impact of the crisis on the domestic automotive assembly subsector.[6]

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[4] The Standard Industrial Classification (SIC) system does not align directly with merSETA chambers.

[5] Meer S. 2009. Does the South African automotive industry deserve a bailout? AIDC Automotive Industry Conference 2009, 7 October 2009, Port Elizabeth, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).

[6] NAACAM. 2008. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 3rd Quarter, 2008, http://www.naamsa.co.za/papers/2008_3rdquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 4th Quarter, 2008, http://www.naamsa.co.za/papers/2008_4thquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 1st Quarter, 2009, http://www.naamsa.co.za/papers/2009_1stquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 2nd Quarter, 2009, http://www.naamsa.co.za/papers/2009_2ndquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 3rd Quarter, 2009, http://www.naamsa.co.za/papers/2009_3rdquarter (accessed 13 November 2009).

The total new vehicle-export projection for 2009 (182 500) is only 64.2% of the total achieved in 2008 (284 211), with the largest numerical drop for passenger cars. In respect of domestic vehicle sales, all vehicles categories suffered the most dramatic reductions between the fourth quarter of 2008 and the second quarter of 2009, with evidence of some stabilisation being evident from the third quarter of 2009. For passenger cars the lowest drop in year-on-year sales figure is -24.5% for Quarter 3 of 2009, with the highest being -30.2% for Quarter 4 of 2008. In general, sales of large, expensive, and high-fuel-consumption vehicles suffered considerably more than smaller, cheaper and more energy-efficient cars.[7]

On the basis of the data presented above, it is unsurprising that total direct employment in the vehicle assembly subsector dropped from 35 458 in July 2008 to 30 325 in September 2009. The biggest drop, however, took place between September 2008 (the highest employment figure over the period at 35 686) and May 2009. Employment losses appear to have stabilised somewhat since July 2009, with September 2009 recording a very slight increase in total employment figures for the subsector.

Survival under these conditions for the majority of companies meant greater or lesser reductions in employment, as cutting wage bills formed a critical part of complex fixed-cost reduction drives. The outcome of the recession on the merSETA sector is overtly evident in the data. Between July 2008 and September 2009 the automotive assembly subsector reduced employment from 35 458 to 30 325. The components manufacturing subsector, which has suffered the largest proportion of firm closures,[8] shed roughly 18 000 jobs, dropping from a total employment figure of 82 000 in 2007 to 64 000 by the end of 2009. The new tyre subsector has seen the loss of about 700 jobs over the last four years, with the recent recession contributing to downward employment trends. In the motor retail subsector the 12 months prior to February 2009 saw the closure of about 300 dealerships and the loss of about 9 000 jobs. The plastics sector lost in the region of 2 000 jobs directly as a result of the recession, while the metals sector shed a substantial 75 000 jobs, dropping from an employment complement of 399 088 in February 2009 to one of 324 236 in December 2009.

Government Support to the merSETA Sector

The South African government is largely convinced of the importance of providing direct financial support to the domestic automotive industry. This sector makes a direct contribution to GDP of 1.5% and an indirect contribution of roughly 7% due to its strong linkages with: input industries; service industries and other sectors such as financial services, wholesale and retail, and advertising. Automotive manufacturing represents as much as 10% of the national manufacturing investment, which is a critical contributor to international technology transfer. The value of automotive exports in 2007 was greater than the value of gold exports in that year and represented 13.7% of total national exports. Finally, the sector employs 135 000 people directly and, as 88% of workers in the manufacturing sector are in formal employment, these jobs have extremely high social and economic value for the country.[9]

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[7] Venter T. 2009. Any lessons for SA as auto bail-out models abound? Engineering News, 13 March 2009, http://www.engineeringnews.co.za/article/saving-the-auto-industry---lessons-from-abroad-2009-03-13 (accessed 13 November 2009).
[8] http://www.kolbenco.co.za/ (accessed 25 November 2009).
[9] merSETA. 2008. Analysis of Workplace Skills Plans and Annual Training Reports 2005 – 2007 (Final Draft Report), Johannesburg.

In line with the above, financial support for the automotive industry has been in place since 1995, when the Motor Industry Development Plan (MIDP) was first introduced. Due to expire in 2012, government announced in September 2008 that the MIDP would be succeeded by the Automotive Production Development Programme (APDP). The APDP, which consists of stable and moderate import tariffs, a local assembly allowance, a production incentive, and an automotive investment scheme, seeks to reverse some of the negative unintended consequences of the MIDP and has been designed to sustain and expand the industry's material contribution to the South African economy as well as to deepen its local manufacturing impact.[10]

In many of the counties hard hit at the beginning of the global financial crisis, government stimulus packages in an effort to stave off national recessions were massive and rapid. For automotive industries the range of bailout models used internationally has been impressive and includes soft loans, tax reductions on small cars, reduced interest rates on automotive loans, scrapping allowances, fuel economy regulations, technology grants, increased import tariffs, and surgical bankruptcy. [11]

The South African automotive industry approached government in February 2009 for assistance to help curb growing job losses as a result of the global and domestic economic downturn. Specifically the request was for access to credit, loan finance and low interest, with a figure of R10 billion over an 18-month period mentioned at the time by Stewart Jennings, the president of Naacam.[12]

Government crisis support for the merSETA sector formed part of the National Framework Agreement reached through engagement of the Nedlac partners and formally announced in August 2009. The foundation of the response was the continued rollout of the R787 billion public infrastructure expansion programme.[13] Most critical for merSETA sector, however, were the funds of R6.1 billion set aside by the Industrial Development Corporation (IDC) for high-risk loans to firms in distressed sectors struggling to access credit; the R2.4 billion assigned to a training layoff scheme to be administered via the Council for Conciliation, Mediation and Arbitration (CCMA) and aimed at assisting firms to avoid retrenchments; and the regulatory amendments and automotive investment scheme components of the APDP that were brought forward and due to begin in June 2009, for which the February 2009 National Budget set aside R780 million over three years.[14] [15] But while the fiscal stimulus package in South Africa has been comparable in size to those of the G7 countries, the range of instruments used is considerably narrower.[16]

Firms accessing government funds either via the training layoff scheme or via the IDC have had to guarantee no formal retrenchments. In addition, the IDC funds – which are borrowed by the institution from the

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[10] the dti. 2009. Minister's statement: Automotive development programme announcement, 03 September 2008, page 2, http://www.naacam.co.za/apdp_news.htm (accessed 13 November 2009).
[11] Powels D. 2009. The South African Automotive Industry: A reflection on the first year of the economic crisis, 7 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).
[12] Macanda P. 2009. SA auto sector wants government bailout, Moneyweb, http://www.moneyweb.co.za/mw/view/mw/en/page87?oid=267289&sn=Detail (accessed 13 November 2009).
[13] Minister of Economic Development. 2009. Global economic crisis – the framework and South Africa's response, Presentation to Portfolio Committee and Select Committee, http://www.pmg.org.za/files/docs/090828ministerspres.ppt (accessed 13 November 2009).
[14] NAAMSA. 2009. NAAMSA media release on the 2009/2010 national budget, 12 February 2009, http://www.naamsa.co.za/papers/20090212/ (accessed 13 November 2009).
[15] MSN News. 2009. Finalising auto investment scheme, 18 November 2009, http://news.za.msn.com/economic/article.aspx?cp-documentid=150930470 (Accessed 24 November 2009)
[16] Powels D. 2009.

international market and therefore need to generate a profit – are loaned to firms on a case-by-case basis and subject to a number of conditions: firms must be able to demonstrate their economic viability over the longer term despite current challenges and should have a clear turnaround plan that contributes to the sustainable recovery of the business within a reasonable time frame. Furthermore, funds may not be used to bail out shareholders or banks or for normal expansions.[17]

Also, in direct response to the crisis, merSETA developed its Retrenchment Assistance Programme (RAP). The announcement of the RAP just prior to government's announcement of the training layoff scheme necessitated a sudden revision of the programme's guidelines so as to avoid duplication with the national programme. The RAP focuses on assisting retrenched workers to be re-skilled for the merSETA sector and to become economically active. Towards this end, the merSETA Board approved an amount of R80 million, while the auto sector itself allocated a further R25 million.[18]

Overall, while government and other support for the manufacturing sector has been welcomed, a number of concerns have been raised. First, in comparison to most other countries, the South African government was very slow to respond to the economic crisis and the help has come too late for some. Second, it is believed that the tail end of the recession is approaching and that if implementation of the framework is not immediate the plans may have considerably less impact than they were intended to have. Finally, there is the question of whether the amounts set aside for re-training and industry support are sufficient to meet the needs.[19]

Major Themes from Key Stakeholder Interviews

Interviews with key stakeholders, intended to unpack in more detail the impact of the current economic crisis on the merSETA sector, brought to light seven major themes that add to and nuance the evidence from the literature review:

The impact of the crisis cannot be separated from the recent South African manufacturing context

First, stakeholder interviews highlighted over and over that the impact of the recession on local automotive, metal and plastics manufacturing sectors cannot be separated from the well documented[20] challenges that manufacturing as a whole has faced since 2002.

Availability of credit

The South African National Credit Act (NCA), introduced in 2007 at the time that the automotive industry was gearing up for growth, considerably tightened the lending criteria for both companies and individuals and resulted in an immediate dramatic reduction in new vehicle sales, as fewer people qualified for loans.

Under the banner of the NCA banks became extremely risk averse through the crisis, calling in loans and cutting credit lines to firms in 'risky' manufacturing sectors. As firms were using these to support opera-

[17] Meer S. 2009.
[18] Adams W. 2009.
[19] Gibbons C. 2009. Recession: What is SA doing about it? Leader.co.za, 12 November 2009, http://www.leader.co.za/article.aspx?s=6&f=1&a=1658 (accessed 13 November 2009).
[20] Jennings S. 2009. Panel discussions: Vision 2020 is it a fantasy or a reality, AIDC Automotive Industry Conference 2009, 7 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).

tional costs, severe cash flow problems resulted. Smaller and locally owned firms were disproportionately affected as multi-national firms accessed international credit and in some instances even extended financial support to suppliers facing severe credit-access challenges. The general consensus at industry level is that unless the criteria for the NCA are revised – at least in respect of auto and home financing – local demand for manufacturing products will remain suppressed, despite a more general economic recovery.

Currency volatility

Global supplier and customer networks, long product planning cycles, supplier relationships being established during new model planning phases, and annual cost-down agreements all mean that profitability in the auto sector is highly dependent on a stable and competitive local currency. Despite some weakness at the start of the crisis, the Rand has shown sustained relative strength since then, promoting a proliferation of imports and undermining exports by increasing their prices on the world market. Industry has raised questions as to why the Reserve Bank has not made moves to intervene and thus support the improved competitiveness of South African exports.[21]

Increasing customer demands

Demands from customers for increasingly differentiated environmentally friendly and higher-quality products at reduced prices place extreme pressure on the global automotive industry. As plants compete against international sister companies, pressure from OEMs onto their first- and second-tier component suppliers is continuously escalating. Where they are able, component manufactures subsidise OEM supply with slightly more profitable direct sales into the export and replacement markets; where they are unable to do so sustainability is at risk. In response, the global automotive industry has on the whole made considerable efforts in recent years to consolidate operations, reduce fixed costs, improve efficiencies and thus improve generally low gross profit margins.[22] [23]

Global advances in technology

The local components manufacturing subsector is struggling to keep up with rapid global advances in technologies such as computer aided design (CAD), computer aided modelling (CAM), and Computer Numerical Control (CNC), all of which increase productivity and quality and thus support global competitiveness and exports.[24] In their efforts to deepen local content many OEMs have persuaded international first-tier suppliers to set up greenfields operations in South Africa instead of deepening the traditional supplier base of locally owned firms. Concerns relate to the lack of skilled South Africans needed to productively and efficiently maintain this imported technology in the longer term.

Administered and logistics costs

[21] Marais H. 2009. The impact of the global recession on South Africa, Amandla, http://www.amandlapublishers.co.za/home-menu-item/156-the-impact-of-the-global-recession-on-south-africa (accessed 13 March 2010).
[22] Jennings S. 2009.
[23] merSETA. 2009. Sector Skills Plan 2005-2010: 2009 Annual Review, 11 August 2009, Johannesburg.
[24] merSETA. 2009. Sector Skills Plan 2005-2010.

Administered and logistics costs in South Africa, including port tariffs, electricity, water and municipal rates, are generally high for the level of service received. Eskom's price hikes are anticipated to result in firm closures and the loss of 10 000 jobs and the viability of our energy-intensive manufacturing base going forward is threatened, as it is generally not anticipated that these costs can to be passed on to customers. In addition, comparatively expensive and inefficient local ports, together with unprecedented rises in the oil price through most of 2008, have added substantially to firms' logistics costs, with the lower volumes being transported since the start of the crisis cancelling any benefits from the subsequent drop in the oil price. Fears at industry level are that as technology ages and new investments in capital equipment are required from multinational owners, decisions will be made to invest in plants in less expensive countries, rather than in South Africa.[25] [26] [27]

Raw material input costs

A consistent problem for South African manufacturing firms is the local pricing of raw material from monopolistic upstream suppliers, with industry arguing that it is subject to the 'worst of both worlds'. Import parity pricing models for both local steel and polymer directly affect all merSETA's sectors through undermining international competitiveness and exports.[28] Industry is banking on the Department of Trade and Industry's new Industrial Policy Action Plan (IPAP), unveiled in February 2010 and due to start in April 2010.[29] The plan presents specific programmes to support local manufacturing, including reducing the cost of raw materials.

Labour productivity and skills availability

In comparison to competitor countries, South African labour is generally considered to be poor value for money. Low labour productivity is considered to be the result of the complex interaction between: a poor quality and poorly articulated public education system; scarcity of artisans along with more general high-level skills shortages and skills gaps; the highly unionised nature of the manufacturing labour force; and the political forces driving transformation. Low labour productivity undermines South Africa's ability to compete internationally and encourages manufacturing firms to follow a capital- rather than labour-intensive growth path.

Fair and unfair competition

South Africa is facing a proliferation of legal importation of new vehicles and components, as well as illegal imports of second-hand vehicles from Japan and new tyres from China. Naamsa's Vehicle Crime Prevention Committee is working closely with Business Against Crime in order to combat this,[30] while government has committed to provide SARS with the additional resources to combat importation fraud. Together the factors outlined in the sections above contribute to the South African manufacturing sector be-

[25] Powels D. 2009.
[26] Jennings S. 2009.
[27] Maree J, Lundall P, Godfrey S. 2009. Metals beneficiation, in Kraak A (ed) Sectors & Skills: The Need for Policy Alignment, 2009, pp 91-2, HSRC Press, Cape Town.
[28] Maree J, Lundall P, Godfrey S. 2009.
[29] Trade Invest South Africa, New Industrial Policy Action Plan unveiled, 19 February 2010, http://www.tradeinvestsa.co.za/news/414420.htm (accessed 16 March 2010).
[30] merSETA. 2009. Sector Skills Plan 2005-2010.

ing subjected to high levels of both fair and unfair competition, particularly from the East,[31] and industry level fears that the APDP's 25% tariff freeze on vehicle imports will be insufficient to stem the tide of importation.[32]

The local political and social context

Finally, a range of political and social factors in South Africa undermine certainty in production and, therefore, in the competitiveness of local firms: Questions of national leadership, the impact on labour productivity of HIV/AIDS, labour disputes and long bargaining talks cannot be ignored or under-emphasised in their destabilising effect on global confidence that South African industry can maintain reliable production supply for both domestic and international markets.[33] [34]

The impact of the crisis has been uneven

A second major theme emerging from the key stakeholder interviews is that within the overall negative impact of the crisis on the merSETA sector, its effect on individual sectors, subsectors, and even on individual firms, has been uneven. This is unsurprising given the range of pressures preceding the crisis. Within this uneven picture, however, some trends emerge – generally, smaller and locally owned firms, firms with a predominant export orientation, and firms with a narrow customer base or product range were among the hardest hit.

From a sector perspective, the automotive industry suffered the most. Within this group, OEMs and multinational first-tier component- and new tyre manufacturers faired considerably better than locally owned components suppliers and those higher up the value chain, where firm closures have been concentrated. The motor retail subsector was most badly affected at the level of new vehicle sales from franchise dealerships. Modest growth in auto parts sales and servicing as older vehicles were retained and scrapping delayed, however, sustained many of these companies through the worst of the crisis.

The metals sector was slightly less affected than automotives, while the plastics manufacturing sector was the least affected overall. At one extreme firms within these sectors that supply the automotive and construction industries, and metals producers focusing on the export market, were disproportionately impacted. At the other extreme metal fabricators supplying the new power stations and plastics manufacturers supplying the local food packaging market largely escaped the effects of the recession.

Workforce downsizing was part of a complex process

Interviews at firm level revealed that workforce downsizing in response to the crisis was generally part of complex fixed-cost reduction drives. In the face of dropping demand for manufactured products, escalating fixed costs and overheads in relation to turnover, and limited or even reduced access to credit, reducing wage bills was critical to reducing overall operating costs. Importantly, at the beginning and even at the height of the crisis between the fourth quarter of 2008 and the second quarter of 2009, no training layoff or retrenchment assistance programmes were yet in place.

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[31] Jennings S. 2009.
[32] Creamer T. 2009. Industry welcomes new Cabinet-endorsed auto support scheme, Engineering News, 4 September 2008, http://www.engineeringnews.co.za/article/industry-welcomes-new-cabinetendorsed-auto-support-scheme-2008-09-04 (accessed on 13 November 2009).
[33] merSETA. 2009. Sector Skills Plan 2005-2010.
[34] Marais H. 2009.

Dropping production volumes in companies were initially managed through shift consolidation and reduction. This was rapidly followed by the ending of labour brokers' contracts, resulting in large-scale (although largely unregistered) job losses. As the crisis progressed measures that in many firms preceded the crisis – such as hire freezes and voluntary separation and early retirement packages – were instituted or scaled up in order to cut permanent employment numbers. As production demand continued to drop, the majority of firms at the same time instituted short time, layoffs and extended shut downs to trim the wage burden of permanent staff. Some firms managed, through innovative non-statutory agreements with their employees, to limit the impact of these measures on wages.

The final step of formal retrenchments was reached reluctantly for most companies. The data on job losses, however, suggests that for many this final step was unavoidable. And while retrenchments were generally selective, with efforts made to retain scarce and critical skills, in the case of firm closures job losses were wholesale.

Overall, as a result of the strategies employed by firms prior to this final step, only a handful of companies did not reduce employment as a direct result of the economic crisis – even when they could claim that they had 'had no formal retrenchments'. Going forward, growth in the short-term to medium-term future is unlikely to lead to increasing employment, and certainly not permanent employment, as industry remains cautious of risk and extremely conscious of fixed costs.

Scarce and critical skills remain a problem

In the stakeholder interviews industry reiterated that the skills crisis remains a major problem for South African manufacturing growth and sustainability going forward. This is because of: the magnitude of skills shortages preceding the economic recession; the chronic nature of the challenges at school and FET levels underlying the problem;[35] [36] [37] and firms' widespread and concerted efforts to retain their scarce and critical skills during the crisis.

Industry-level efforts to retain skills include the development of databases of retrenchment employees. In addition to the efforts of particular firms in this regard, the AIDC has been commissioned to establish and manage such databases for the Gauteng and Eastern Cape automotive sectors, while NUMSA reports having a database of retrenched workers that could assist companies seeking to re-employ people. Plasfed and Naacam also indicated that they informally circulate the CVs of highly skilled people within their sectors.

Urgency for merSETA and other education and training stakeholders to continue and even increase their focus on the skills crisis is underlined by the impact of the crisis on training activities (as discussed in the next section), as well as the automotive industry's high skills trajectory and indications that an increased emphasis will be placed on multi-skilling workers for improved production efficiencies, and on developing pools of higher-level skills among lower-level employees in support of improved succession planning.

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[35] Erasmus J. 2009. The 'skills gap' within manufacturing, AIDC Automotive Industry Conference 2009, 8 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009)
[36] Barnes J. 2009. On the brink? Skills demand and supply issues in the South African automotive components industry, in Kraak A (ed) Sectors and Skills: The Need for Policy Alignment, HSRC Press, Cape Town
[37] Du Toit R, Roodt J. 2009. Engineers, technologists and technicians, in Kraak A and Press K (eds) Human Resources Development Review 2008: Education, Employment and Skills in South Africa, pg 452-475, HSRC Press, Cape Town

Only to a very small degree has the current crisis 'eased' skills shortages in that the lead-times required by companies to find people to fill key positions are reported to have dropped slightly.

Firm-level training has been affected by the recession

Firm-level training has indeed been negatively affected by the crisis, although also to a variable extent. Cash flow problems resulted in widespread freezing of training budgets at the beginning of the crisis, with small- and medium-sized firms unlikely to have continued training activities at all through the worst of the crisis.

Training activity among larger firms has been more variable. Since the beginning of 2009 management level training and training at NQF levels 6 and upwards has either been totally stopped or considerably scaled back. Enrolment of employees in plastics and metals skills programmes through 2009 declined by between 40% and 50%. Legislated training (such as safety, health and environment), artisan training and operator-level training in support of new vehicle model launches and new plant establishment, however, generally continued. And while most firms continued to fill new artisan learnership positions as these opened up, many were not able to indenture learners who had completed the theoretical part of their training and, instead, released them into the labour market.[38]

In the automotive sector, and particularly at OEM level, companies utilised layoff and extended downtime periods in support of training activities. Even though very few made use of merSETA's RAP programme, or of government's training layoff scheme, training at operator- and artisan level continued and in some cases even increased because of the additional time made available for training through reduced levels of production.

Government support is considered 'too little too late'

Industry consensus is that government demonstrated a distinct lack of leadership around the crisis; what should have been simple programmes aimed at saving jobs became complex, cumbersome and restrictive instead. Industry listed the major challenges in the successful implementation of government's support programmes as being: the announcement of programmes long after the worst of the crisis was over; the generally poor communication around their availability; unclear guidelines for merSETA's RAP; the insufficient duration of support offered through the layoff scheme in light of the extent of the crisis; the burdensome and generally uncompetitive nature of IDC funds; the requirement of the programmes for guarantees of no retrenchments; the requirement to continue paying unaffordable social wages for labour during layoff periods; and the insufficient institutional capacity of the CCMA. Overall, industry-level opinion is that crisis support from all quarters was 'too little too late'.

merSETA can do more to help

Finally, while merSETA is considered by industry to be among the most efficient of the Setas and valuable in respect of training support, stakeholders feel that the institution can do a lot more to support sustainable industry growth into the future by focusing on its primary mandate: actively supporting skills development initiatives in and for the merSETA sector.

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[38] According to interviews with Plasfed and Gijima, who present both learnerships and skills programmes for the plastics and metals sectors respectively.

Current challenges are considered as being: the lack of financial support for critical industry-level training that is not yet accredited; delays in payment, especially to small- and medium-sized firms, for training milestones reached; delays and challenges in getting apprentices and learners registered; difficulties in accessing theoretical training for learners and in getting them assessed as competent; and suboptimal internal administration systems and related staff training. Addressing these issues is considered critical to improving merSETA's efficiency and effectiveness as a key support organisation.

Future Employment, Skills and Wage Trends

The econometric data analysed supports the qualitative information obtained through the literature review and the key stakeholder interviews.

The negative employment growth evident between 2005 and 2008 for five of the seven sectors that make up the merSETA sectors cluster[39] underscores the range of challenges faced by manufacturing firms, as well as the domestic motor vehicle sales subsector, in the years directly preceding the 2008/09 global and local economic recessions. Furthermore, the data supports industry's assertions that drives to improve efficiencies and reduce fixed costs, including wage bills, were already in place in many firms at the onset of the crisis.

Again supporting industry views, the forecast data suggests that while employment can be expected to rise again into the future, growth will be slow and will considerably lag behind growth in gross value added for all three of the GDP growth scenarios analysed (1.4%, 2.9% and 3.9%). At the same time, the majority of the sectors in the merSETA cluster have been, and are set to continue, on a high-skills trajectory with the proportion of skilled and highly skilled workers rising in relation to unskilled and semi-skilled workers.

Rises in real labour remuneration are anticipated for the majority of merSETA's sectors. This is in relation to the overall sectoral wage bill as well as in relation to remuneration per employee. The latter, which represents an increasing cost burden to firms, is likely to be related in part to the increasing proportion of skilled and highly skilled employees and also in part to the premium salaries paid to these workers due to skills gaps and shortages. Overall the econometric data analysed highlights the negative impact of the recent economic crisis on employment within the merSETA sectors cluster and magnifies the cost burden that manufacturing will carry into the future in relation to generally increasing demands for scarce-skilled and highly skilled workers.

Recommendations

The findings from this study lead directly to a range of recommendations for merSETA:

- The largely negative impact of the crisis on the merSETA sector has impacted both the total number of firms as well as the number of employees in the sector. Together these factors will impact on the

[39] Sectors included in this analysis are: rubber products manufacturing; plastic products manufacturing; basic iron & steel manufacturing; basic non-ferrous metals manufacturing; machinery & equipment manufacturing; motor vehicles, parts & accessories manufacturing; and sales & repair of vehicles and fuel stations operation.

skills development levies paid. **merSETA will have to consider this factor in its planning for the way forward.**

- The study uncovered examples of critical firm- and industry-level training that merSETA is not financially supporting due to issues related to local qualification registration. **merSETA needs to consider new and more flexible ways to provide financial support for training so as to include such initiatives.**
- The combination of high direct- and indirect training costs, together with continued cash constraints, means that small- and even medium-sized companies are likely to have lower levels of training activities in the short-term future than in the pre-crisis past. merSETA's training voucher scheme for small companies was applauded as a very positive development at industry level. **merSETA should consider increasing the size of companies qualifying for the training voucher scheme from 50 employees to 150 employees to promote continued and increased training in the current economic environment.**
- Cash-constrained firms will be even less inclined to train if they cannot be guaranteed of timely merSETA payments for training milestones reached and if the challenges related to learner registrations, and accessing theoretical training and assessments are not addressed. **It is critical that merSETA review and improve its internal administration systems in support of timely payments to firms and more efficient learner registration and assessment.**
- The shortage of artisans in merSETA sectors remains a major problem. This is evident in firms' general commitment to continue artisan training even during the economic crisis. In the same way **merSETA should continue with, and even increase, its focus on this critical area of skills shortages by considering new and innovative ways to provide appropriate training incentives to companies across the board.**
- It is understood at industry level that merSETA's mandates are laid out by the National Skills Development Strategy II, which provides quantitative goals for learner registrations, and that achieving these goals has generally only been possible through a focus on developing lower-level- generic and sector-specific skills. Despite this, industry has continued on a high-skills growth path, one that demands quality in qualifications rather than just an increased quantity of these within the labour market. **merSETA needs to consider ways in which it can meet its mandate for quantity, but at the same time align its activities towards real sector needs. In particular, merSETA should consider increased and more flexible means to support high-level and even extremely firm-specific training.**
- Large firms with dedicated training facilities and staff indicated that they often have spare training capacity. **merSETA should develop appropriate processes and incentives whereby sectors can cost effectively benefit from the full utilisation of all their training capacity.**
- Finally, the economic crisis merely exacerbated existing challenges facing the sector – many as a result of, or as a result of the lack of, national government policies. Industry is banking on the Department of Trade and Industry's new Industrial Policy Action Plan to provide clear strategies on the way in which government intends to address these challenges. Despite the fact that these issues

generally fall outside of merSETA's jurisdiction, they are of interest to the institution as they impact the viability and sustainability of the sectors it supports. **merSETA should consider passing this report on to the departments of trade and industry and higher education and training, as the findings are also relevant to the higher-level policy decisions taken by these departments.**

1 INTRODUCTION AND METHODOLOGY

1.1 PURPOSE OF THE STUDY

The Manufacturing, Engineering and Related Services Sector Education Training Authority (merSETA) was established in response to the Skills Development Act (No. 96 of 1998). merSETA has the responsibility of facilitating skills development in three major sectors: the metals sector, the plastics sector and the automotive sector, which includes the motor assembly, components manufacture, new tyre manufacture and motor retail subsectors.[40] Together the merSETA sector accounts for a significant proportion of the South African (SA) manufacturing base and comprise a total of just under 45 000 firms employing around 600 000 people.[41] [42]

Each merSETA company belongs to one of five chambers:

- The Metals Chamber comprises firms involved in the manufacturing and servicing of capital equipment including transport equipment;
- The Auto Chamber involves SA's seven large automotive assemblers, also known as original equipment manufacturers (OEMs);[43]
- The Motor Chamber includes firms involved in the motor retail and service industries, as well as in the manufacture of automotive components;
- The New Tyre Chamber consists of firms involved in the manufacture of new tyres; and
- The Plastics Chamber includes firms involved in the manufacture of plastics products from locally manufactured polymers.

In respect of national industries,[44] the South African (SA) automotive industry and new vehicle production in particular are by far the most critical under the merSETA umbrella, as the sector is core to the auto, motor and new tyre subsectors and is a significant upstream and downstream customer for the metal (capital equipment, transport equipment and metal fabrication – CETEMF) and plastics sectors .[45]

This report aims to provide merSETA with a better understanding of the impact of the 2008/9 economic crisis on the SA automotive, CETEMF and plastics industries. The report's particular focus is changes in employment and skills needs and skills development initiatives. As outlined in the project's terms of reference, the discussion seeks to systematically address:

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[40] Please refer to the note on terminology for the use of the terms 'industry', 'sector' and 'subsector' in this report
[41] merSETA. 2009. merSETA Chambers, http://www.MerSETA.org.za/CorporateGovernance/Chambers/Auto/tabid/141/Default.aspx (accessed 13 November 2009).
[42] Adams W. 2009 Manufacturing, engineering and related services SETA (merSETA), AIDC Automotive Industry Conference 2009, 8 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).
[43] The seven major companies in this subsector include: BMW South Africa; Ford Motor Company South Africa; General Motors South Africa; Mercedes-Benz South Africa; Nissan South Africa; Toyota South Africa; and Volkswagen South Africa.
[44] The literature tends to report on the impact of the global and national economic crises on larger industries and sectors rather than on individual subsectors. The same approach is used in this chapter's discussions.
[45] merSETA. 2009. merSETA Chambers.

- The current economic downturn and the effect that this has had on the merSETA sector, especially on employment;
- Government financial support to the merSETA sector since the beginning of 2008;
- Factors that impact on the economic performance of the sector and its subsectors;
- The merSETA sector's reaction to the economic downturn; and
- Skills shortages and scarce skills in the merSETA sector, including recent developments regarding the alleviation of such shortages and the effect that the recession has had on the training activities of companies.

1.2 STUDY METHODOLOGY

The study consisted of four distinct phases:

First, a literature review of available information was undertaken in November 2009. In seeking to answer the research questions, the review also determined the gaps in the available literature. Confirming the published information, as well as filling the gaps in available information, was the foundation for the key stakeholder interviews, for which relevant individuals, firms, associations, organisations and government departments were sought.

Second, 32 key stakeholder interviews were conducted between December 2009 and February 2010. Stakeholders were purposively selected to cover relevant sector-support organisations and institutions as well as all five merSETA Chambers, at the levels of both organised industry and individual firms. A detailed list of the companies and organisations interviewed is provided in Appendix 1. Extended shut-down periods among a range of firms complicated the interview schedule and extended the period for this phase of the research.

Third, an independent econometric analysis was undertaken in order to generate quantitative data on past trends as well as on future projections of key economic variables based on three different national economic growth scenarios. While merSETA consists of the five chambers listed in the section above, this classification is not aligned to the economic grouping or classification of sectors according to the Standard Industrial Classification (SIC) system. In support of this analysis available data was used from the following relevant sectors, matched according to their two-digit SIC code level:

- Rubber products manufacturing;
- Plastic products manufacturing;
- Basic iron and steel manufacturing;
- Basic non-ferrous metals manufacturing;
- Machinery and equipment manufacturing;
- Motor vehicle, parts and accessories manufacturing; and
- Sales and repair of vehicles and fuel station operations.

In the final phase of the study, the results and insights generated from each of the above activities were integrated in order to generate the body of this report, which seeks to address merSETA's research questions most clearly and succinctly and from which the study's conclusions and recommendations flow.

1.3 TERMINOLOGY USED IN THE REPORT

While the merSETA is based on a five-chamber structure, this structure does not align with national accounts data or with the literature references for the firms contained in this group. While the majority of merSETA firms fall within the manufacturing sector in the national accounts data, and make up a large proportion of total SA manufacturing, merSETA also includes motor retail and service firms, which fall within the service and retail sectors in the national accounts data. Furthermore a number of sectors that fall in the larger manufacturing sector in the national accounts data e.g. clothing, textiles and footwear are excluded from merSETA. Within merSETA metals and plastics firms are represented by one chamber each, while automotive firms are represented by three different chambers (Auto, Motor and New Tyre). Furthermore, components manufacturing firms (national manufacturing sector), and motor retail and service firms (national services sector) are both included in merSETA's Motor Chamber.

The figure below provides a conceptual map.

	merSETA					
SERVICES		MANUFACTURING				SECTORS / INDUSTRIES
OTHER	RETAIL	AUTOMOTIVE	METALS	PLASTICS	OTHER	SUBSECTORS
		Automotive Assembly	Capital Equipment	Polymer Production		
		New Tyre	Transport Equipment	Plastics Convertors		
	Motor Retail	Components	Metal Fabrication	Plastic Pipes		
			Other	Other		

Colour Key	merSETA Chambers
	Metals Chamber
	Plastics Chamber
	Auto Chamber
	New Tyre Chamber
	Motor Chamber

Figure 1-1

Conceptual map of sectors and subsectors and their relation to merSETA chambers

This lack of alignment posed a challenge for this study in respect of consistency in the use of terminology.

In the literature the terms 'industry', 'sector' and 'subsector' are relative rather than specific terms. For instance 'industry' can be used to describe a major group such as the 'plastics industry' or to describe a very small group within this such as the 'polystyrene food packaging industry'. Similarly the terms 'sector' and 'subsector' do not refer to the specific size of the industry group, but to their size relative to each other in the discussion context: when the South African manufacturing sector is used as the major group, the automotive industry would be referred to as a 'subsector'. However if the automotive sector is used as the major group then components manufacturing would be referred to as a 'subsector'.

For the sake of consistency in this report terms are used as follows:

- The term 'merSETA sector' is used to refer to the total group of firms that fall within the scope of the merSETA.
- merSETA is considered to have jurisdiction over three major industries or sectors: automotive, metals and plastics. These are referred to as the 'merSETA sectors'.
- The terms 'sector(s)' and 'industry(ies)' are used interchangeably to refer to these major groupings.
- Smaller groupings within these major sectors (such as automotive assembly, components manufacture, new tyre manufacture, motor retail, metal fabrication etc) are referred to as 'subsectors'.
- The exception to the usage of terms above is in Table 2-1 and Chapter 5 where all the groups extracted from the national accounts data and used to represent merSETA (see Section 1.3 above) are referred to as 'sectors'. The term 'merSETA sectors cluster' is used to refer to the collective of these sectors.
- When the term 'manufacturing sector' is used, this includes the manufacturing portion of merSETA firms, but excludes the motor retail and service portion. Finally, merSETA chambers are not used in this report as group descriptors.

1.4 OUTLINE OF THE REPORT

Chapter 1 introduces the current study and provides details on the methodology and the report outline.

Chapter 2 presents evidence of the impact of the current economic downturn on the automotive, metals and plastics sectors. Starting with an overview of the global economic crisis and its impact on the SA economy, the chapter then presents available data on declines in production volumes and employment.

Chapter 3 considers the SA government's support for the merSETA sector. As automotive industry support has been ongoing since 1995, forms of 'government financial support' considered in this chapter are necessarily broader than those offered as a direct result of the crisis or only by national government.

Chapter 4 presents the major qualitative themes emerging from the key stakeholder interviews. These generally support information derived from the literature, but provide additional information as well as texture and nuance to qualitative data at the sector level.

Chapter 5 provides a summary of the principal findings arising from the econometric analysis, with a focus on employment, skills and wage trends in merSETA's sector cluster. While the full details of the econo-

metric analysis have been included in Appendix B, the summary in Chapter 5 is intended to highlight the findings that are most critical to merSETA and to make these more accessible for readers.

The conclusions and recommendations arising from the study form the final chapter of the report and are presented in Chapter 6.

2 EFFECTS OF THE ECONOMIC DOWNTURN ON THE mer-SETA SECTOR

2.1 OVERVIEW OF THE CRISIS AND ITS EFFECTS ON THE SOUTH AFRICAN ECONOMY[46] [47]

The current global economic crisis began with the meltdown of the United States (US) financial sector in September 2008. The US economy quickly slipped into recession, resulting in a rapid and dramatic impact on the global economy. Direct consequences of the crisis included: sharp falls in the price of oil and many minerals; substantial drops in aggregate global demand, particularly for 'big ticket' items such as houses and vehicles; slow-downs and closures in factories across the world; diminishing credit flows to companies; retrenchments of about 50 million workers worldwide; deepening rural poverty; and many people losing their homes and other property.

The SA government was slow to admit that the national economy was likely to enter a recession. As recently as March 2009 there were still predictions that the economy would grow, albeit marginally at 1%, despite an assessment by The Economist that SA was the riskiest of the 17 middle-income countries it had surveyed in respect of vulnerability to global 'contagion'.[48]

The impact of the global economic crisis on the domestic economy was evident in the data by May 2009: income from the exporting of minerals virtually dried up while economic growth slowed down rapidly. Multiplier effects meant that job losses in one area affected other areas of the economy. Rand volatility increased, credit became more difficult to obtain, and current account deficit pressures continued. The largest loss in Gross Domestic Product (GDP), taking into account sector size, was in manufacturing, with activity back at the levels for 2004. Manufacturing sectors most affected by the economic crisis included metals and machinery and the automotive industry, while the crisis accelerated the contraction of the clothing and textiles industries. In June 2009 the recession was declared 'official' by President Jacob Zuma.

The magnitude of the impact of the crisis in SA is revealed through a number of record statistics:

- 179 000 jobs were lost in the first quarter of 2009 and 267 000 were lost in the second quarter while an additional 302 000 work seekers had become 'discouraged';
- The national current account deficit had grown to 7% of GDP by May 2009;
- The value of SA's exports fell by 24% in the first quarter of 2009;
- There was a 47% rise in company failures in the first four months of 2009;

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[46] Marais H. 2009. The impact of the global recession on South Africa, Amandla, http://www.amandlapublishers.co.za/home-menu-item/156-the-impact-of-the-global-recession-on-south-africa (accessed 13 November 2009).

[47] Minister of Economic Development. 2009. Global economic crisis – the framework and South Africa's response, Presentation to Portfolio Committee and Select Committee, http://www.pmg.org.za/files/docs/090828ministerspres.ppt (accessed 13 November 2009).

[48] Marais H. 2009.

- The mining sector shrank by 33% in the final quarter of 2008;
- The manufacturing sector shrank by 22% between October 2008 and March 2009;
- By March 2009 more than 21% of the total productive capacity of SA factories was standing idle;
- Household debt rose from being roughly 50% of disposable income in 2002 to about 80% of disposable income by 2008; and
- The Department of Labour had more than 226 000 applications for unemployment insurance between September 2008 and the end of February 2009, with the magnitude of job losses in the informal sector likely to have been much higher.

2.2 MANUFACTURING PRODUCTION AND EMPLOYMENT

At a macro level, Table 2-1 below outlines the most distressed major sectors within manufacturing in the SA economy by March 2009.[49] Notably, all of merSETA's sectors are represented here. The motor vehicle, parts and accessories and other transport equipment sector had been impacted the most by the global economic crisis, with a decline of 35.3 % in year-on-year production volumes and a decline of 49.2% since the most recent production-volume high. Spare capacity within the sector stood at a high 29.2%.

The basic iron and steel, non-ferrous metal products, metal products and machinery sector recorded a year-on-year reduction in production volumes of 23.5%. Spare production capacity for iron and steel was a massive 47.5%, reflecting the substantially reduced demand for raw material inputs from sectors down the value chain, both locally and abroad. For metal products spare capacity stood at a still substantial 24.4%.

A year-on-year production volume decrease of 15.4% and a spare production capacity figure of 17.5% for the petroleum, chemical products, rubber and plastic products sector suggest that merSETA's plastics manufacturing sector weathered the global and domestic economic storms considerably better than its other sectors did.

[49] Meer S. 2009. Does the South African automotive industry deserve a bailout? AIDC Automotive Industry Conference 2009, 7 October 2009, Port Elizabeth, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).

Table 2-1

South African economy: Most distressed major sectors within manufacturing, March 2009

Manufacturing Sector	Volumes of Production				Spare capacity changes		Business confidence
	Average monthly % change (y-o-y) over 6-month period ending:			% change from most recent high	Current spare capacity levels	% point increase in spare capacity since Q3 '08	Index point decline since most recent high
	Mar 08	Oct 08	Mar 09				
Motor vehicle, parts and accessories and other transport equipment	0.4	-0.7	-35.3	-49.2	29.2%	13	77
Basic iron and steel, non-ferrous metal products, metal products and machinery	-0.5	-3.7	-23.5	-27.5	47.5% (iron & steel) 24.4% (metal products)	29.3 (iron & steel) 5.8 (metal products)	94 (fabricated metals) 77 (basic metals) 77 (machinery)
Furniture and other manufacturing division	9.3	6.0	-14.9	-29.1	15.3% (other manufacturing)	9.6 (other manufacturing)	77 (furniture)
Textiles, clothing, leather and footwear	6.5	-2.5	-11.7	-23.8	23.4% (textiles) 29.6% (leather)	4.2 (textiles) 7.4 (leather)	59 (textiles) 48 (clothing)
Glass and non-metallic mineral products	3.2	-2.0	-10.9	-20.5	19.8% (non metallic)	6.2 (non metallic)	86 (non-metallic)
Petroleum, chemical products, rubber and plastic products	7.6	9.8	-7.2	-15.4	17.5% (basic chemicals)	4.4 (basic chemicals)	72 (plastics) 64 (chemicals)
Wood and wood products, paper, publishing and printing	0.0	2.4	-7.0	-17.3	17.3% (wood & wood products)	4.2 (wood and wood products)	100 (wood) 82 (printing) 50 (paper)
Radio, television and communication apparatus and professional equipment	2.9	3.0	-5.2	-17.1	N/A	N/A	N/A
Food and beverages	3.0	4.0	2.7	-6.8	N/A	N/A	81 (beverages) 78 (food)
Electrical machinery	11.3	11.6	4.7	-8.6	19.5%	1.2	83
Total manufacturing	**3.3**	**2.3**	**-13.2**	**-21.6**	**21.4%**	**6.5**	**67**

Source: Meer S. 2009.

While no additional recent information is available in the literature on the performance of the CETEMF and plastics sectors, a substantial volume of literature provides both qualitative and quantitative information of the impact of the current economic crisis on the automotive industry.

Classic of times of economic difficulty is the dramatic drop in demand for homes and vehicles. In line with this, year-on-year world passenger car market figures for August 2009 showed a drop in sales of 13.8%. More specifically, the Central and Eastern European market dropped by 47.0%; the North American mar-

ket by 26.8%; the SA market by 26.7%; the South American market by 8.3%; and the Western European market by 6.7%. Only the Asia Pacific market managed to grow by 7.0%.[50] In general, sales of large, expensive vehicles and vehicles with high fuel consumption suffered considerably more than those of smaller, cheaper and more energy-efficient cars.[51]

All SA's motor companies are foreign owned and are thus subject to decisions made outside the country. In the face of global motor industry breakdowns, SA's firms were not secure and talk of disinvestment by parent companies created an undercurrent of doubt, which was reinforced by firm closures among local branches of multinational companies or local technology licence partners.[52]

Table 2-2 to Table 2-5 and Figure 2-1 were compiled from figures presented by the National Association of Automobile Manufacturers of South Africa (NAAMSA) in their Quarterly Review of Business Conditions for the third quarter of 2008 to the third quarter of 2009.[53]

The driver of manufacturing production is consumer demand. This demand is measured in product sales. SA's projected total new vehicle export figure for 2009 (182 500) was 64.2% of the total achieved in 2008 (284 211). The largest numerical drop was for passenger cars, with a total of 195 670 units exported in 2008 and a projected export figure for 2009 of 128 000 (Table 2-2). By the end of September 2009 a total of 114 666 vehicles from all vehicle categories had been exported. This represents 62.8% of the total projected for 2009, which is somewhat concerning as a substantially larger 73.4% of the total sales for 2008 had been achieved by the end of September of that year.

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[50] Powels D. 2009. The South African Automotive Industry: A reflection on the first year of the economic crisis, 7 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).
[51] Venter T. 2009. Any lessons for SA as auto bail-out models abound? Engineering News, 13 March 2009, http://www.engineeringnews.co.za/article/saving-the-auto-industry---lessons-from-abroad-2009-03-13 (accessed 13 November 2009).
[52] Furlonger D. 2009. Why the motor industry should be rescued, Leader.co.za, 14 March 2009, http://www.leader.co.za/article.aspx?s=1&f=1&a=1175 (accessed 13 November 2009).
[53] NAACAM. 2008. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 3rd Quarter, 2008, http://www.naamsa.co.za/papers/2008_3rdquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 4th Quarter, 2008, http://www.naamsa.co.za/papers/2008_4thquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 1st Quarter, 2009, http://www.naamsa.co.za/papers/2009_1stquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 2nd Quarter, 2009, http://www.naamsa.co.za/papers/2009_2ndquarter (accessed 13 November 2009);
NAACAM. 2009. Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 3rd Quarter, 2009, http://www.naamsa.co.za/papers/2009_3rdquarter (accessed 13 November 2009).

Table 2-2

South African new vehicle exports, 2005 – 2009

	2005	2006	2007	2008	2009 projection
Passenger Cars	113 899	119 171	106 460	195 670	128 000
Light Commercial Vehicles	25 589	60 149	64 127	87 314	53 000
Medium & Heavy Commercial Vehicles	424	539	650	1 227	1 500
Total	**139 912**	**179 859**	**171 237**	**284 211**	**182 500**

Source: NAAMSA. 2009.

Table 2-3 shows percentage quarterly changes domestic vehicle sales, from Quarter 3 of 2008 to Quarter 3 of 2009. For all categories of vehicles, dramatic reductions in sales were most evident between the last quarter of 2008 and the second quarter of 2009. Some recovery of domestic vehicle sales is evident from data from the third quarter of 2009.

Table 2-3

Domestic vehicle sales % change: Comparisons with preceding quarter, Q3-2008 – Q3-2009

	Q3-2008	Q4-2008	Q1-2009	Q2-2009	Q3-2009
Passenger Cars	9.7	-18.0	-4.4	-15.7	14.3
Light Commercial Vehicles	-9.9	-11.9	-15.6	-11.3	18.4
Medium Commercial Vehicles	-14.7	-13.3	-10.6	-20.4	-4.2
Heavy Commercial Vehicles / Busses	-0.7	-24.5	-33.9	-11.1	15.8

Source: NAAMSA. 2009.

When considering domestic sales figures over the same period with the corresponding quarter of the previous year (Table 2-4), the magnitude of the drop in demand, together with the implications of this for the local automotive industry, remained stark by the third quarter of 2009.

Table 2-4

Domestic vehicle sales % change: Comparisons with corresponding quarter of the previous year

	Q3-2008	Q4-2008	Q1-2009	Q2-2009	Q3-2009
Passenger Cars	-25.0	-30.2	-30.0	-32.1	-24.5
Light Commercial Vehicles	-22.6	-24.8	-39.1	-45.1	-22.2
Medium Commercial Vehicles	-29.8	-38.8	-43.3	-50.9	-40.9
Heavy Commercial Vehicles / Busses	-15.1	-19.1	-44.7	-55.8	-55.8

Source: NAAMSA. 2009.

Prior to the unexpected collapse in global and domestic market demand for new vehicles, the automotive sector was set on growth. For this reason capacity investments were continuously being made in support of increasing volumes of future production. Unutilised production capacity has significant negative implications for a firm's return on investment and ability to generate profits from economies of scale. Table 2-5 shows substantial negative changes in capacity utilisation in the SA automotive assembly subsector in

2008, with further reductions to record lows for the second quarter of 2009. Mild recovery is evident for the latest quarter for which data was available at the time of the study.

Table 2-5

Changes in capacity utilisation in the SA automotive assembly subsector, 2004 – 2009

	2004	2005	2006	2007	2008	Q1-2009	Q2-2009	Q3-2009
Cars	79.7	81.1	80.1	67.7	68.3	63.9	48.3	54.6
Light Commercials	72.1	79.9	87.8	82.7	73.9	71.3	43.4	53.1
Medium Commercials	57.2	84.4	97.9	91.7	89.9	83.3	52.5	63.9
Heavy Commercials	86.0	95.9	95.1	95.3	87.6	68.1	51.8	70.1

Source: NAAMSA. 2009.

Tied closely with changes in capacity utilisation is the production shift pattern at manufacturing firms. While the majority reported double shift patterns in the third quarter of 2008, by the second quarter of 2009, most firms were operating the bulk of their departments on single shifts according to a shortened production week.

On the basis of the data presented above, it is unsurprising that total direct employment in the vehicle assembly subsector dropped from 35 458 in July 2008 to 30 325 in September 2009 (Figure 2-1). The biggest drop, however, took place between September 2008 (the highest employment figure over the period at 35 686) and May 2009. Employment losses appear to have stabilised somewhat since July 2009, with September 2009 recording a very slight increase in total employment figures for the subsector.

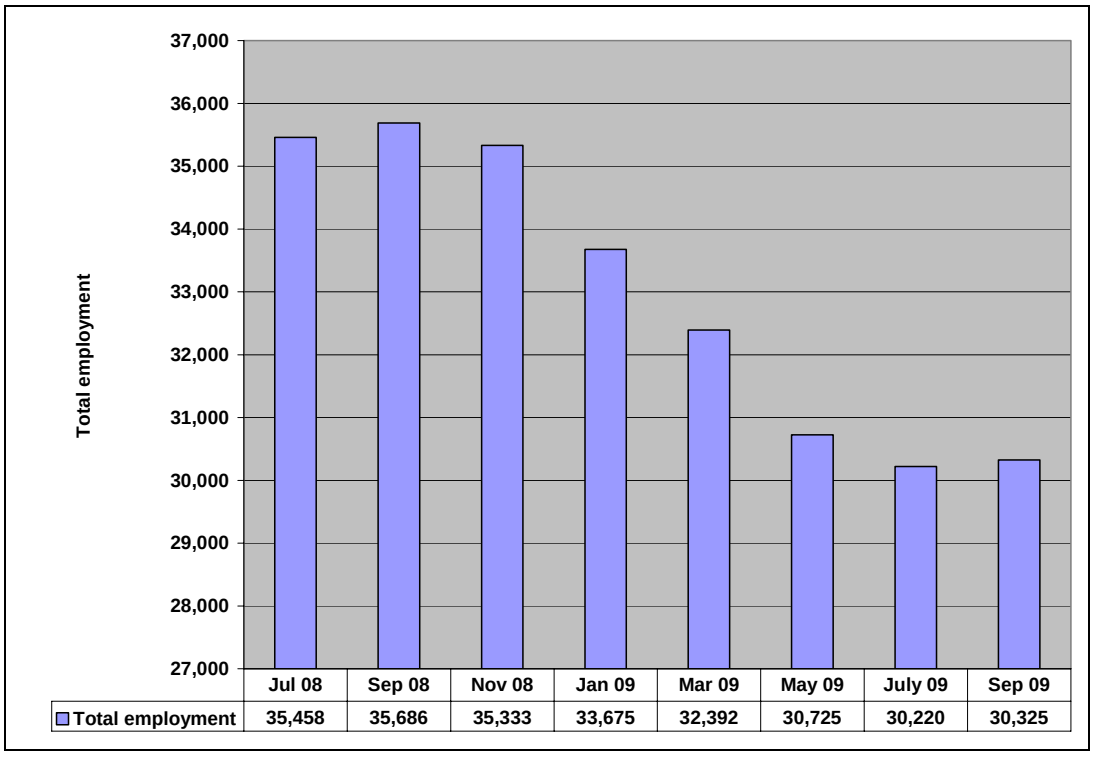

Figure 2-1

Changes in total employment in the SA automotive assembly subsector, Jul 08 – Sep 09

Source: NAAMSA. 2009.

Data obtained directly from the various industry associations provides additional information on the magnitude of employment losses in the other automotive subsectors and in the other merSETA sectors. The National Association of Automotive Component and Allied Manufacturers (Naacam) reports that employment losses in the components subsector were dramatic: The subsector lost over 18 000 jobs, dropping from an estimated total employment figure of 82 000 in 2007 to an estimated total employment figure of 64 000 by the end of 2009. The considerably smaller new tyre subsector, on the other hand, saw minor levels of retrenchments at the beginning of the crisis that formed part of a continued downward trend in employment that had started four years earlier. This subsector has seen the loss of roughly 700 jobs over the last four years.

The plastics sector reportedly lost about 2 000 jobs during the economic recession. Most of these were in automotive-focused firms, and the remainder from across the sector as small companies closed down. This recent reduction, however, needs to be seen in the context of a sector that reduced its overall employment from 42 000 in 2000 to 36 000 in 2008 in line with general dropping levels of employment in manufacturing.

Finally, the Steel and Engineering Industries Federation of South Africa (Seifsa) reported that the CETEMF sector lost roughly 75 000 jobs throughout 2009. Employment dropped from an all-time high of 399 088 in February 2009 to a level of 324 236 in December 2009, representing the first year of employment contraction since 2000.

The full impact of job losses in the automotive manufacturing industry varies across the country. While the sector is concentrated in the Gauteng and North West provinces, a more diversified regional economy means that the overall impact is likely to be somewhat less here than in regions such as the Eastern Cape, where a heavy regional economic reliance on the industry makes the province particularly vulnerable.[54]

The impact of the economic crisis has also been felt downstream of automotive manufacturing and assembly: The Retail Motor Industry Organisation (RMI) reported a closure of about 300 car dealerships in the 12 months prior to February 2009. Imperial Holdings, which owns about 200 outlets, reported shutting down approximately 22 dealerships over the same period[55] while McCarthy closed 28 of its 148 dealerships. It is estimated that the retail motor subsector lost in the region of 9 000 jobs directly as a result of the economic crisis.

Overall, the impact of the economic downturn on merSETA's sector in general, and on the automotive industry in particular, has been dropping levels of production due to record reductions in domestic sales and exports and, as a result, high levels of spare production capacity. Together with this the merSETA sector has shed thousands of formal jobs in an effort to reduce costs and remain viable. Some firms did not manage to survive and like Kolbenco, SA's last piston manufacturer, have 'ceased manufacturing operations and (are) in the process of disposing of plant and machinery'.[56]

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[54] The Herald Editorial. 2009. Effects of recession seen the number of jobs lost, Times Live, 29 October 2009, http://www.timeslive.co.za/opinion/editorials/article172562.ece (accessed 13 November 2009).
[55] Macanda P. 2009. SA auto sector wants government bailout, Moneyweb, http://www.moneyweb.co.za/mw/view/mw/en/page87?oid=267289&sn=Detail (accessed 13 November 2009).
[56] http://www.kolbenco.co.za/ (accessed 25 November 2009)

It would, however, be wrong to place all the current troubles at the door of the global economic crisis. On the basis of an analysis of industry performance between 2001 and 2006, automotive sector expert Dr Justin Barnes warned in his writing in 2007 that despite an average annual growth in employment of 4.4% for the period under review, a number of factors suggested that a more cautious view of the future was necessary. These factors included:[57]

- Growing international competition from the East – in respect of both vehicle assembly and component manufacture;
- Ongoing Rand strength;
- The cost of raw materials in SA, which makes the cost of domestic manufacture higher than in competitor countries;
- Uncertainty relating to the Motor Industry Development Plan (MIDP);
- The growing import surge into the domestic economy; and
- Vast skills shortages, which have gained increasing attention from government, labour, and stakeholders in business.

These factors are critical to consider in the discussion of government's support for the manufacturing sector in general and the automotive industry in particular, both from a short-term and long-term perspective, which is the topic of the next chapter. These factors are also critical to the context in which merSETA firms entered the recession, and thus emerge again as key themes from the key stakeholder interviews (Chapter 4 of this report).

[57] Barnes J. 2009. On the brink? Skills demand and supply issues in the South African automotive components industry, in Kraak A (ed) Sectors and Skills: The Need for Policy Alignment, p. 30, HSRC Press, Pretoria.

3 GOVERNMENT SUPPORT TO THE MERSETA SECTOR

3.1 THE ARGUMENT FOR FINANCIAL SUPPORT OF THE AUTOMOTIVE INDUSTRY

A number of factors underlie the argument for government financial support to the automotive industry. First, the sector makes a direct contribution to GDP of 1.5%. Owing to its strong linkages with input industries (such as aluminium, chemicals, electronics, leather and textiles, plastics, steel, machinery and equipment), service industries (such as engineering, logistics and tooling) and other industries such as financial services, wholesale and retail, and advertising, the automotive industry's indirect contribution to GDP is roughly 7%.

Second, automotive manufacturing represents as much as 10% of the national manufacturing investment, which makes it a critical contributor to international technology transfer.

Third, the value of automotive exports has been increasing since 1995 and represented 13.7% of SA's total exports in 2007. The value of automotive exports in 2007 was greater than the value of gold exports in that year (see Table 3-1 and Table 3-2). While the automotive industry continues to have an overall trade deficit, with imports still higher than exports, this has declined in recent years and would be magnitudes higher if vehicle and component imports were not offset to some extent by the export of locally manufactured products.[58] [59]

Table 3-1

Auto exports as % of total SA exports[60]

	1995	2000	2007
Total SA exports (R billion)	102.1	210.4	494.4
Total automotive exports (R billion)	4.2	23.4	67.6
Automotive exports as a % of total SA exports	4.1	11.1	13.7

Source: Powels D. 2009.

Table 3-2

Gold exports versus automotive exports[61]

	Gold exports (R billion)	Automotive exports (R billion)	Ratio Gold exports : Auto exports
1995	21 484	4 218	5.1 : 1
2000	27 838	23 358	1.2 : 1
2007	39 898	97 600	0.6 : 1

Source: Powels D. 2009.

[58] The dti. 2009. Minister's statement: Automotive Development Programme Announcement, 03 September 2008, page 2, http://www.naacam.co.za/apdp_news.htm (accessed 13 November 2009)
[59] Furlonger D. 2009.
[60] Powels D. 2009.
[61] Powels D. 2009.

Finally, the automotive industry employs 135 000 people directly. As 88% of workers in the manufacturing sector are in formal employment, these jobs have extremely high social and economic value for the country.[62]

While the critics of government support state that the automotive industry is receiving disproportionate benefits relative to its economic contribution, and that consumers suffer as they are prevented from accessing the benefits of lower world vehicle prices,[63] it is clear that the industry has to a large extent managed to convince the SA national government of the importance of providing the support necessary to maintain automotive manufacturing in the country: The Minister of Trade and Industry has recently described the automotive sector as the nation's 'largest and leading manufacturing sector',[64] while the Chief Director for Industrial Policy has recently reiterated that the sector has a 'very high positive multiplier effect on the rest of the economy in terms of value-added manufacturing, employment, investment, balance of payments and net revenue generation'.[65]

3.2 THE MIDP AND THE APDP

The Motor Industry Development Plan (MIDP) was introduced by government in 1995 in recognition of the contribution the automotive industry made to the national economy at the time, as well as its potential contribution into the future. The plan was an attempt by government to gradually expose the sector to international competition as it emerged from its apartheid history of multinational disinvestment and high levels of import tariff protection. The plan was affected through providing a planned reduction of import tariffs on both completely built-up units and components. In addition, the plan incentivised the export of local products. Overall, the aim of the MIDP was to promote the rationalisation of the sector and an increase in global competitiveness levels.

The MIDP was indeed successful in raising local production volumes and in increasing local sector exports. Despite this, the programme also led to a number of unintended negative consequences, key among which were: a proliferation of imports that resulted in a growing trade deficit for the sector; disproportionate advantages for automotive assemblers to the detriment of the local components manufacturing sector; and no real alleviation of the challenges related to a lack of local economies of scale. These factors, together with continuous advances in technology by established first-world players and the entry into the global market of Asian countries such as India and China, have meant that despite 14 years of support, SA automotive assemblers – and components manufacturers to an even larger extent – remain uncompetitive on the world stage without some form of government support.[66]

The MIDP is due to expire in 2012. In 2005 government commissioned a review of the programme with a view to announcing a follow-up programme that would address some of the noted challenges. During the

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[62] merSETA. 2008. Analysis of Workplace Skills Plans and Annual Training Reports 2005 – 2007 (Final Draft Report), Johannesburg
[63] Creamer T. 2009. Industry welcomes new Cabinet-endorsed auto support scheme, Engineering News, 4 September 2008, http://www.engineeringnews.co.za/article/industry-welcomes-new-cabinetendorsed-auto-support-scheme-2008-09-04 (accessed 13 November 2009).
[64] the dti. 2009. Minister's statement: Automotive Development Programme Announcement, 03 September 2008, page 2, http://www.naacam.co.za/apdp_news.htm (accessed 13 November 2009)
[65] Creamer T. 2009.
[66] Barnes J. 2009.

three years that the review took to complete there was significant uncertainty over the industry's future in SA.

Finally, on 3 September 2008 government announced that the MIDP would be replaced by the Automotive Production Development Programme (APDP) that will run from 2013 to 2020. This programme, which is World Trade Organisation compliant, seeks to reverse some of the negative unintended consequences of the MIDP and has been designed to sustain and expand the automotive industry's material contribution to the SA economy as well as to deepen its local manufacturing impact. [67]

The APDP has four key components:

- Stable and moderate import tariffs from 2012 of 25% for completely built-up units and 20% for components used in vehicle assembly;
- A local assembly allowance that will let OEMs producing more than 50 000 vehicles a year import 20% of their components duty free, reducing to 18% over three years;
- A production incentive in the form of a tradable duty credit of 55% (reducing to 50% over five years) on the value-added element of a component, measured from the selling price less the raw material input price. An additional 5% will be available for vulnerable subsectors; and
- An Automotive Investment Scheme, which will take the form of a direct grant to the value of 20% of the project over three years and will be used to support investment into new plants and machinery.

The specific motivation for these programme components includes government's desire to: provide just enough tariff protection to justify continued local vehicle assembly; encourage higher volumes of local assembly in line with a target of doubling production to 1.2 million units by 2020 (Vision 2020); support increasing levels of local value addition along the domestic value chain in order to reap the positive spin-offs for employment creation; and encourage investments by assemblers and component manufacturers in equipment upgrading. Government's expectations of the private sector, other than increasing production volumes, include progress towards transformation, increased local content, and increasing contributions to skills development and training.

The announcement of the APDP was welcomed by industry despite the fact that a number of details – such as the definitions of raw materials and value added – still need to be sorted out. The programme is considered to be well balanced in respect of its consideration of the auto industry within the framework of government's industrial policy objectives as well as the public interest. Furthermore, certainty over the post-MIDP policy framework has provided industry with a meaningful time frame and framework in which to further build up the competitiveness of the automotive manufacturing sector in the country, at both assembly- and components-manufacturing levels.[68] [69] [70]

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[67] the dti. 2009.
[68] Venter T. 2009.
[69] Creamer T. 2009.
[70] NAAMSA. 2008. NAAMSA reaction to the dti announcement of the APDP to replace the MIDP from 2013 through 2020.

While most of the components of the APDP are to come into effect in January 2013, regulatory amendments and the Automotive Investment Scheme were to begin in June 2009 as a contribution towards sector support through the crisis. The February 2009 National Budget supported this by indicating that R870 million would be made available to the APDP over the next three years.[71] The Automotive Investment Scheme guidelines were only finalised and released at the end of October 2009; however, it was indicated that claims would apply retrospectively from July.[72]

3.3 ECONOMIC CRISIS SUPPORT SINCE 2008

In many of the counties hard hit at the beginning of the global financial crisis, government stimulus packages in an effort to stave off national recessions were massive and rapid. Table 3-3 below shows the recent financial support provided by the state in the G7 and BRICS countries, the latter group comprising Brazil, Russia, India, China and SA. While the fiscal stimulus package in SA is comparable in size to those of the other countries listed, the range of instruments used is considerably narrower.[73]

[71] NAAMSA. 2009. NAAMSA media release on the 2009/2010 national budget, 12 February 2009: http://www.naamsa.co.za/papers/20090212/ (accessed 13 November 2009).
[72] MSN News. 2009. Finalising auto investment scheme, 18 November 2009, http://news.za.msn.com/economic/article.aspx?cp-documentid=150930470 (accessed 24 November 2009).
[73] Powels D. 2009.

Table 3-3

Recent fiscal/financial support: G7 and BRICS countries

		Brazil	Britain	Canada	China	France	Germany	India	Italy	Japan	Russia	USA	SA
Fiscal stimulus* (% of GDP)		0.2	1.1	2.0	15.0	1.5	3.1	1.3	4.3	2.0	1.1	5.8	2.9
Likely stimulus** (% of GD)		0.2	1.1	2.0	6.0	0.4	2.4	1.3	0.5	2.0	2.0	5.8	2.9
Nature of stimulus	Infrastructure		√	√	√	√	√		√			√	√
	Tax cuts	√	√	√	√	√	√	√	√	√	√	√	√
	Non-bank bail-outs		√	√	√	√	√	√	√	√	√	√	
	Interest rate cuts	√	√	√	√	√	√	√	√	√	√	√	√
Financial support	Liquidity provision	√	√	√	√	√	√	√	√	√	√	√	
	Loan guarantees		√	√		√	√		√	√	√	√	
	Capital injection		√	√		√	√			√	√	√	
	Asset purchase & 'bad bank'		√	√			√			√	√	√	
	Bank nationalisa-tions		√									√	

*announced
**estimated likely effect
Source: Powels D. 2009.

As part of these national stimulus packages, the height of the global financial crisis – between September 2008 and March 2009 – saw government bailouts of embattled national automotive industries making world headlines. While the long-term value of these strategies to the sustainable growth of the global

automotive industry has not yet been determined, the range of bailout models used internationally has been impressive:[74]

- In the US, the government quickly stepped in to provide General Motors and Chrysler with soft loans worth billions of dollars to prevent bankruptcy;
- The French government gave loans of €3 billion to both the Peugeot Citroen group and to Renault;
- In China, government offered consumers a tax reduction on small cars from the beginning of 2009 in an effort to stimulate falling demand;
- The Indian government reduced interest rates on automotive loans;
- Scrapping allowances of various sizes (e.g. the US Cash for Clunkers programme) were introduced in a number of other countries including Japan and Britain; while
- Other support included fuel economy regulations, technology grants, increased import tariffs (e.g. in Russia), and surgical bankruptcy.

Not all nations have, however, been able to provide packages of such magnitudes. Those that have not been able to provide packages have expressed concerns about the impact of such covert protectionism, as interventions may have shifted the bulk of job layoffs and plant closures towards the developing world.[75]

The SA auto industry approached the government in February 2009 for assistance to help curb the growing job losses stemming from the global and domestic economic downturn. This request must be seen in the context of government's stated recognition of the importance of the industry to the local economy, the history of the MIDP and anticipated support through the APDP, as well as the global context of auto-industry bailouts. Specifically the request was for access to credit, loan finance and low interest rates. The figure mentioned at the time by Stewart Jennings, the president of Naacam was for R10 billion over an 18-month period.[76]

It took the SA government six months from its acceptance of the necessity for a National Framework Agreement to support the economy in February 2009 to its public announcement in August 2009. Government's engagement of the National Economic Development and Labour Council (Nedlac) partners to develop a mutually acceptable solution to the challenges facing the country took time, while additional factors that delayed the process included: the April elections and G20 meetings; the establishment of a new Cabinet in May; confirming the recession as 'official' in June; and then thrashing out the priority measures of Nedlac's proposed intervention framework.

The core of government's response, which is aimed at 'jobs, food prices and addressing the indebtedness of consumers', has been the continued rollout of the three-year R787 billion public infrastructure expan-

[74] Powels D. 2009.
[75] Venter T. 2009.
[76] Macanda P. 2009.

sion programme as general support for national demand and employment. In addition, the framework comprises six primary measures:[77]

1. A R2.4 billion injection into the National Jobs Fund. The money is available to companies that would ordinarily retrench workers to use in support of an alternative 'training layoff'. This entails workers taking up to three months off work with an allowance of 50% of their wages (of a basic salary of up to R6 239 per month) and participating in a training programme. At the end of the period it is hoped that these workers, with their improved skills, will be reabsorbed into their companies. The funding will be made available to firms over the next two years and the trigger for the process is the Council for Conciliation, Mediation and Arbitration of South Africa (CCMA). Sector Education Training Authorities (SETAs) also have a crucial role to play in facilitating the training and acting as a funding conduit.
2. An amount of R6.1 billion set aside for the interventions by the Industrial Development Corporation (IDC), primarily through making available credit and working capital to companies from any sectors that are in distress due to the recession.
3. A specific focus on distressed industries: the automotive industry, clothing and textile and CETEMF. Support for the auto industry is linked to conditionalities on jobs, affordability, environment and modest pay and dividends, and will be handled as part of the IDC funds. Increased incentives are to be made available for firms in the CETEMF group.
4. A major clampdown on customs fraud as this, together with illegal imports, has led to many thousands of job losses. SARS is very involved in combating fraud and additional resources have been made available to it to take action against companies suspected of smuggling, round-tripping, export-incentive abuse, counterfeits, quota fraud, rebate item abuse and under-declaration.
5. A focus by the Competition Commission on reducing food-price pressures on consumers across a range of products.
6. Prioritising a reduction in the pressure on over-indebted consumers through debt-management programmes.

Support for merSETA firms within this plan lie largely in the government's training layoff scheme and in the IDC's support for distressed firms. The IDC's Shakeel Meer provided more detail of its planned support programme for the automotive sector at the Automotive Industry Development Centre's (AIDC) annual conference held in Port Elizabeth in October 2009:

In recognition of the sector's contribution to the national economy and decent jobs, and the fact that the current economic downturn represented conditions outside of the industry's control, the question of whether or not to provide government support is considered almost rhetorical. Despite this, government has limited resources and can neither afford a blanket bailout of the sector or to support foreign operations. This called for prioritisation, focus and collaboration, the context of the current support programme.

[77] Minister of Economic Development. 2009.

The focus of the IDC is to address market failures and gaps by supporting development-focused investments, which may otherwise not happen, in partnership with private sector companies. This entails the IDC taking higher risks than commercial financiers would. However, as the IDC borrows money from the international market, it needs to generate a profit on its loans and cannot afford the soft loans offered to international companies or requested by the sector.

Support to the sector is given on a case-by-case basis, to firms experiencing problems due to the current economic challenges. Firms have to demonstrate their economic viability over the longer term despite current challenges and should have a clear turnaround plan that contributes to the sustainable recovery of the business within a reasonable time frame, once global economic conditions improve.

A range of additional funding instruments is also on offer to automotive firms through the IDC. These instruments, which can be structured according to business need and capacity, include:

- Short- and medium- to long-term facilities;
- Working capital facilities to cover requirement such as stock, debtors and creditors, as well as operational expenses of the business;
- Guarantees to outside facilities;
- Suspensive sale facilities or loan facilities to finance capital expenditure that can improve a firm's viability;
- Equity in cases where the company is under-capitalised;
- Capital deferments and debt conversion to existing clients; and
- Capital moratoriums and interest capitalisation.

The overall intention of IDC funds is not to bail out shareholders or banks and not to finance normal expansions. A number of conditions and restrictions are attached to their use. Specifically the funds are not to be used for: [78]

- Management remuneration;
- Payment of dividends;
- Repayment of shareholders loans;
- The disposal by existing shareholders of their shareholding;
- Payment to creditors;
- Capital repayment of bank loans; or
- Job losses.

While government support for the manufacturing sector has been welcomed a number of concerns have been raised. First, in comparison to other countries the SA government has been very slow to respond to the economic crisis and the help has come too late for some. Second, it is believed that the tail end of the

[78] Meer S. 2009.

recession is approaching and that if implementation of the framework is not immediate the plans may have considerably less impact than they were intended to have. This relates to concerns that a general lack of policy coherence may retard implementation. Finally, there is the question as to whether the amounts set aside for retraining and industry support are sufficient to meet the needs.[79] Key stakeholder views of these issues are presented in greater detail in Chapter 4.

3.4 OTHER FORMS OF SUPPORT

In addition to national government, two other agencies are mandated to support the automotive, plastics and metals sectors: merSETA through focusing on skills development and the AIDC through focusing on a range of issues related to the development of the automotive subsectors particularly.

In direct response to the crisis, merSETA developed its Retrenchment Assistance Programme (RAP). The announcement of the RAP just prior to government's announcement of the training layoff scheme necessitated a sudden revision of the programme's guidelines so as to avoid duplication with the national programme. The RAP focuses on assisting retrenched workers to be re-skilled for the merSETA sector and to become economically active. Towards this end, the merSETA Board approved an amount of R80 million, while the automotive industry itself allocated a further R25 million. In addition to this merSETA has committed to continuing its focus on its basic mandate of skills development in support of the next economic upturn.[80]

The AIDC has the mandate to support the development of the local automotive industry. However, the centre itself is dependent on external funding for all its activities. The AIDC expressed frustration that as no emergency funds were available for it to be of immediate assistance, it was instead forced to follow the route of the Medium Term Expenditure Framework (MTEF). This demanded the submission of a project proposal in August 2009 and if funds are approved they will only be disbursed in April 2010. Thus the first AIDC benefits that any automotive firms will see in response to the 'crisis' will be between July and August 2010.

While also delayed in their responses, the Gauteng and Eastern Cape provincial governments appear to be serious about making a difference to the automotive sectors in their regions and have committed funds to the AIDC and promised cooperation in this regard. Thus, for both these provinces the AIDC is currently in the process of developing databases of unemployed peopled with industry-relevant skills and experiences. These will form the foundation for a range of projects that aim to locate, re-skill and re-deploy these people into the automotive production and servicing subsectors, either as direct employees or as self-employed SMME supplier businesses.

[79] Gibbons C. 2009. Recession: What is SA doing about it? Leader.co.za, 12 November 2009, http://www.leader.co.za/article.aspx?s=6&f=1&a=1658 (accessed 13 November 2009).
[80] Adams W. 2009.

4 MAJOR THEMES FROM KEY STAKEHOLDER INTERVIEWS

Having considered the impact of the current economic crisis on firms in the automotive, CETEMF and plastics manufacturing industries in SA and the support the national government and other agencies have made available to manufacturing, this chapter focuses on presenting the major themes that emerged from the 32 key stakeholder interviews.

4.1 THE IMPACT OF THE CRISIS CANNOT BE SEPARATED FROM THE RECENT SA MANUFACTURING CONTEXT

Key stakeholder interviews highlighted over and over that the impact of the recession on local automotive, metals and plastics manufacturing cannot be separated from the well documented[81] challenges that the manufacturing sector as a whole has faced since 2002. This section of the report highlights the pressures on the local manufacturing sector that predate the onset of the economic crisis and the interaction between the global financial crisis and these ongoing challenges.

4.1.1 Availability of Credit

In 2006/7 SA had the fastest growing new vehicle market in the world and the local automotive industry was gearing up for a new trajectory of growth by making substantial investments in productive, retail and service capacity.

The South African National Credit Act of 2007 (NCA) considerably tightened the necessary criteria for both companies and individuals to qualify for borrowing money. The aim of the Act was to restrict reckless lending and to reduce the debt burden – particularly on working-class South Africans – and to contain the social problems that result from heavy debt.

The immediate impact of the Act on the automotive industry was a dramatic reduction in new vehicle demand, as fewer people qualified for loans. SA went from the fastest growing to the fastest contracting national market for new vehicles. Thus, in the run up to the global economic downturn, local vehicle assemblers, suppliers and motor retailers had few available cash resources as these were either locked up in high levels of stock or committed to new investments.

The motor retail industry, and particularly franchise dealerships, felt the impact of the NCA directly, with dropping levels of employment in the new car sales subsector. Assemblers and component manufacturers were protected from the full impact of the drop in local vehicle sales by rising export volumes until the end of 2008, when the advent of the global economic crisis resulted in sharp contractions in international demand for new vehicles and components.

Through the crisis SA banks became extremely risk averse and under the banner of the NCA, called in loans and cut credit lines among 'risky' manufacturing sectors. The problem was compounded in that many customers lacked the credit to place orders or to purchase products. Firms that were already suffering from a drop in demand and had been using credit lines to support operational costs experienced se-

[81] Jennings S. 2009. Panel discussions: Vision 2020 is it a fantasy or a reality, AIDC Automotive Industry Conference 2009, 7 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).

vere cash flow problems when these lines were cut. A number of automotive companies interviewed reported that two years ago loans had been available to them at prime -2%, while the best rate currently available was prime +2%. Thus, they argue, even where loans have been available, these are at uncompetitive rates as banks do not appear to have passed on the benefits of dropping interest rates to firms in distressed sectors.

Larger firms, and particularly those with multinational linkages, have had access to outside resources that have assisted them through the crisis. Smaller and locally owned companies have not had this benefit and have had to carry a larger burden during the recession. The firm-level research highlighted that almost all domestic OEMs and even a few multinational first-tier suppliers extended financial support to crucial suppliers who were facing severe credit access challenges. Assistance was generally provided through a restructuring of payments to these companies and/or through direct raw material purchases.

The Department of Trade and Industry (the dti) indicated that while the government engaged the Banking Council in an effort to encourage banks to relax some of their lending criteria, banks have shown a 'hardened attitude of risk aversity' and the implementation of the request has been variable.

The NCA and the increasing difficulty of accessing credit through the economic crisis has also impacted on the metals and plastics industries both directly and indirectly. Directly, firms have struggled to access company credit. Indirectly, a significant proportion of firms supply the automotive industry and the domestic housing and construction both of which have been dampened considerably by potential customers' inability to access the necessary funds.

And while the general feeling at industry level is that the NCA has been beneficial, there is also the concern that until the criteria are revised – at least in respect of auto and home financing – local demand for new vehicles and new homes will remain suppressed, despite a more general economic recovery.

4.1.2 Currency Volatility

The automotive industry has global supplier and customer networks. Furthermore, planning cycles are long and supplier relationships and contracts are established during the planning phase of each new vehicle model, often years prior to the launch. Built into these contracts is an annual cost-down agreement – based on the understanding that increasing efficiencies will be translated into reduced production costs that can be passed on to the customer. Volatility of the SA Rand against major global currencies makes planning for profitable local production very difficult. Weakness of the Rand increases the cost of imported components and supports SA manufacturing exports through the lowering of prices on the world market. Additionally, it acts as a disincentive for the sales of imported goods, both legal and illegal. Despite some Rand weakness at the start of the current economic crisis, the domestic currency has shown sustained relative strength since then.

As currency volatility and Rand strength in particular undermine the competitiveness of SA manufacturing, some stakeholders have raised questions as to why the Reserve Bank has not made moves to intervene in the continuing Rand strength, in the face of the current economic crisis. It is speculated that the reasons are multi-layered and include the reduction in the cost of the various imports needed to support

government's overhaul of transport, energy and other infrastructure and to prop up the investment of SA firms in Africa and beyond.[82]

4.1.3 Increasing Customer Demands

Demands from increasingly discerning customers are a source of extreme pressure on the global automotive industry. Within an overall demand for reducing relative prices, customers are also demanding increasingly differentiated products and increasing quality and after-sales support service. These pressures are most sharply felt at the level of new car sales and thus also by the OEMs.

In line with demands for increasing quality at more competitive prices, there has been a general move in the global automotive industry over the past few years to consolidate operations, reduce fixed costs, improve efficiencies and thus improve gross profit margins. Plants within one company are being forced to compete against each other for new models, highlighting the need for globally competitive skills, labour productivity and technology within SA assemblers.

OEMs in turn are exerting increasing pressure up the value chain onto their first- and second-tier component suppliers. This pressure is now at the level where profit margins for component suppliers are not only extremely low but also their supply to OEMs is in some cases being subsidised by the margins from more profitable direct sales into the export and replacement markets. Where automotive component manufacturing firms do not have access to these alternative markets, sustainability is at risk.[83]

The demand for diversity of automotive models and derivates has also had a negative impact on the retail motor industry through the economic crisis. With 18 000 models or derivates on the SA market, each requiring its own spares and skills in servicing and product maintenance, efficiencies in the subsector have been almost impossible to maintain.

Impacting on all three merSETA sectors is the cost associated with meeting increasing environmental pressures. These occur in the form of legislated requirements for the use of greener technologies and – in the automotive industry specifically – through consumer demands for cleaner and more fuel-efficient vehicles. Industry acknowledges the need to tackle the challenging balance between economic progress and environmental protection, as well as the fact that the automotive, metals and plastics sectors in particular need to be seen to be part of the solution and not part of the problem.[84]

4.1.4 Global Advances in Technology

The SA manufacturing sector is struggling to achieve and maintain global competitiveness in production because of the difficulty it experiences with keeping up with global advances in technology. Such technologies include computer aided design (CAD), computer aided modelling (CAM), and Computer Numerical Control (CNC), the last of which is impacting sheet metal fabricators by dramatically improving productivity and quality. Internationally, the trend is for the development of small clusters of specialised firms working together, which enables exploitation of niche markets.[85] The use of old technology among the

[82] Marais H. 2009.
[83] Jennings S. 2009.
[84] merSETA. 2009. Sector Skills Plan 2005-2010: 2009 Annual Review, 11 August 2009, Johannesburg.
[85] merSETA. 2009. Sector Skills Plan 2005-2010.

predominantly domestic-market-focused plastics manufacturing sector is one of the reasons why the sector is struggling to break into export markets.

For this reason many local OEMs, in their efforts to deepen local content, are focusing on persuading international first-tier suppliers to set up greenfields operations in SA. In this way the necessary technology is 'imported', which threatens the traditional supplier base of locally owned firms. Aside from this threat, industry has expressed concerns that while it is easy to import technology, SA needs to have the skills base to maintain this technology if it is to be productively and efficiently used.

4.1.5 Administered and Logistics Costs

'Administered costs' refers to the prices that firms pay for non-raw material inputs and services over which they have no bargaining power. Included are items such as port tariffs, electricity, water and municipal rates. SA ports are comparatively expensive and inefficient, adding considerably to the cost penalties paid by manufacturing firms.

In addition to this, since the beginning of 2008 electricity prices and municipal rates have both seen considerable price increases. These were unforeseen and firms were not able to include them in their production-pricing negotiations with customers. In the face of the current slump in overall demand and the resulting pricing pressures, firms have been forced to absorb these costs.

Eskom's electricity price hikes have an impact on the manufacturing sector that goes way beyond exacerbating the impact of the current recession. As the past policy of cheap energy was used to attract foreign direct investment to the manufacturing sector, SA has a generally energy-intensive manufacturing base, particularly among its larger companies. Industry has expressed huge concern about production viability going forward, as it is not anticipated that these costs will be able to be passed on to customers in the future either. Additional firm closures and the loss of 10 000 jobs are anticipated in the automotive components subsector due to Eskom's electricity price increases. Furthermore, as technology ages and new investments in capital equipment are required from multinational owners, there are fears that decisions will be made to invest in plants in less expensive countries, rather than in SA.

'Logistics costs' refers to those costs arising from the movement of input and output products between suppliers and customers. Unprecedented rises in the oil price through most of 2008 added substantially to firms' transport costs, while the lower volumes being transported since the start of the crisis have to a large degree cancelled any benefits from the subsequent drop in the oil price.[86] [87] [88]

While industry acknowledges that electricity costs need to increase if the service is to be sustainable, it stresses that government needs to pace the changes so that a positive investment mood is maintained and industry is not squeezed beyond what it can cope with.

4.1.6 Raw Material Input Costs

An ongoing problem for SA manufacturing firms is the local pricing of raw material from monopolistic upstream suppliers. For the CETEMF and automotive industries competitive disadvantage results from the

[86] Powels D. 2009.
[87] Jennings S. 2009.
[88] Maree J, Lundall P, Godfrey S. 2009. Metals beneficiation, in Kraak A (ed) Sectors & Skills: The Need for Policy Alignment, 2009, pg 91-2, HSRC Press, Cape Town.

local pricing of steel, which is set by ArcelorMittal at the 'world price'. This is considered to be the average price of the 'basket' of steel from four countries (Brazil, Russia, China and Germany) plus the costs of importation. This pricing structure not only undermines local producers, but also acts as a disincentive for foreign investment. Table 4-1 shows a comparison of mark-ups on basic SA metal prices, and the comparative disadvantage that SA based manufacturers face as a result.[89]

Table 4-1

Mark-ups of basic metal prices, 2003/04[90]

Prices	Carbon Steel	Stainless Steel	Aluminium
SA net export price	100	100	100
EU price	122	120 - 139	107
East Asian price	101	113	104
SA buyer price	146	130	105 - 109

Source: Maree J, Lundall P, Godfrey S. 2009.

The government's metal sector strategy aims to promote both upstream and downstream linkages and also to create fair competition for the sector. Despite the strategy having been in place for at least two years, the entire sector – and particularly the metal fabrication subsector – is still struggling with the cost of raw material inputs.[91] The dti argues that while an agreement was made with Mittal prior to the sale of the majority share in Iscor for 'developmental pricing' of local steel, Mittal has not complied. Additionally, an agreement that SA automotive manufacturers would be charged the ex-works prices that the OEMs are charged for steel could not be implemented because the OEMs would not divulge this information. And while Mittal was recently hit by the Competition Tribunal of South Africa for non-competitive pricing, the large fine is currently under review and, based on the fact that Mittal recently posted losses, the future may see the Competition Tribunal ruling overturned.

Similarly, in the plastics manufacturing sector, polymers are locally produced by Sasol Polymer and Safripol, who set prices according to import parity. In an effort to reduce the price of raw materials to the plastics sector, the dti has implemented a phased reduction of import duties on polymers to increase competition to local polymer producers.

Industry argues that SA manufacturing is being squeezed between Eskom, ArcelorMittal and Transnet, the three 'privatized monopolies' that subject the sector to the 'worst of both worlds'. It is hoped, however, that the dti's new Industrial Policy Action Plan (IPAP) – unveiled in February 2010 and due to kick into action in April 2010[92] – will present specific programmes to achieve the visions outlined in the various customised sector programmes, including reducing the cost of raw material and supporting local beneficiators.

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[89] Maree J, Lundall P, Godfrey S. 2009.
[90] The markups are given as index numbers with the SA net export price (the basic index) set at 100. The differences in the indexes can then be read as percentages above the SA net export price.
[91] merSETA. 2009. Sector Skills Plan 2005-2010.

[92] Trade Invest South Africa, New Industrial Policy Action Plan unveiled, 19 February 2010, http://www.tradeinvestsa.co.za/news/414420.htm, (accessed 16 March 2010).

4.1.7 Labour Productivity and Skills Availability

In comparison to competitor countries, SA labour is generally considered to be poor value for money. Industry argues that a number of factors underlie the challenge of low labour productivity.

First, wages increase in relation to the generally limited supply of artisans and experienced management skills, and even more so for the small group of relevantly skilled people from previously disadvantaged backgrounds. SA's wage and management costs are more than double the costs of a competitor such as Thailand, while artisan costs are more than 10 times higher. Second, at labour level, the highly unionised nature of manufacturing employment also serves to drive labour costs beyond the level that the market would otherwise pay. In this regard the National Union of Metalworkers of South Africa's (NUMSA) current drive to ban the labour brokers that supply the manufacturing sector with contract labour is considered to pose a significant threat to the industry's viability.

Third, deteriorating public basic education and further education and training (FET) systems – together with financial and political incentives to admit and graduate students in the higher education sector despite skills deficits – means that SA firms are generally buying a lower level of skill for the same level of qualification than are their competitors in other countries.

Taken together, low levels of labour productivity are considered one of the major factors undermining SA's ability to compete internationally, particularly with the East, where the quality of production is now world class and where most of the major international manufacturing companies represented in SA have set up sister plants.

In the context of industry-level drives to improve quality, low levels of local labour productivity have provided the incentive to upgrade capital equipment and technology and to reduce employment levels, allowing companies to produce the same or even greater volumes with fewer, more highly skilled people.

The issue of scarce and critical skills is the subject of a more in-depth discussion later in this chapter. Nevertheless, it needs to be mentioned at this point that there is widespread recognition at both industry- and government levels that global competitiveness of SA manufacturing is being constrained by shortages of qualified and experienced people, particularly in certain trades and professions, and by skills gaps among qualified people that relate to: generic skills such as communication, time management and interpersonal skills; specific skills related to technology advances; and general management skills.

4.1.8 The Local Political and Social Context

A number of political and social factors in SA serve to undermine certainty in production and, therefore, also the competitiveness of local firms: The ousting of President Thabo Mbeki in 2008 and the past controversies surrounding the current President, the impact on local labour costs and productivity of HIV/AIDS, and labour disputes and long bargaining talks cannot be ignored or underemphasised in their destabilising effect on global confidence that SA industry can maintain reliable production supply for both domestic and international markets.[93] [94]

[93] merSETA. 2009. Sector Skills Plan 2005-2010.
[94] Marais H. 2009.

4.1.9 Fair and Unfair Competition

Together, the factors outlined above contribute to the SA manufacturing sector being subjected to high levels of competition, both fair and unfair. The strong local currency, labour pressures, high interest on loaned capital and recent increases in administered costs and logistics costs all result in automotive assemblers, component manufactures, and other upstream metals and plastics manufacturers in the Asian block being able to produce components and vehicles at considerably lower prices than SA manufacturers can. This situation has led to a proliferation of both legal and illegal imports.[95]

In the automotive industry concern was raised about the proliferation of legal importation of new vehicles as well as the illegal importation and the registration of second-hand vehicles, mainly from Japan. The new tyre subsector highlighted legal and illegal imports as a threat to its long-term survival. In respect of the illegal imports, an anti-dumping charge has been laid against China. The problem according to industry, however, is that cases take years to be resolved and that China is a major market for SA raw material and seems to enjoy a greater level of political support than the local manufacturing sector.

Support for the automotive sector can, however, be seen in Naamsa's Vehicle Crime Prevention Committee working closely with Business Against Crime in order to combat illegal vehicle importation,[96] and in government's commitment to providing SARS with additional resources for combating importation fraud. Overall, however, fears within the automotive industry remain, with questions as to whether the APDP's 25% tariff freeze on vehicle imports will be sufficient to stem the tide of importation, particularly from the East.[97]

4.2 THE IMPACT OF THE CRISIS HAS BEEN UNEVEN

One of the most striking findings of the interviews at firm level was that despite being extremely negative on the whole, the impact of the crisis has been uneven; the effect of the recent global crisis and local economic recession has not been equal across merSETA's sectors or even within these sectors. In light of the context of manufacturing in SA in the years prior to the recession, as outlined in the section above, this should not be surprising.

4.2.1 Impact on the Automotive Industry

The automotive industry was the first to show signs of the impact of the crisis and has, without a doubt, been the most severely affected. With both motor manufacturing and retail focusing on ramping up production and sales, many firms were literally 'caught in the headlights' when the recession struck.

Dropping domestic levels of new vehicle sales severely affected the motor retail subsector and particularly the franchise dealerships. Price reductions and special offers made to customers to get stock moving resulted in dealerships' profit levels on new car sales dropping from 3% in 2006/7 to 1.2% in 2009. Conversely, overhead and fixed costs increased from 8% of turnover in 2007 to 15% of turnover in 2009,[98] associated with reduced turnover levels as well as the recent expansion in rental facilities. Cost-

[95] Jennings S. 2009.
[96] merSETA. 2009. Sector Skills Plan 2005-2010: 2009 Annual Review.
[97] Creamer T. 2009.

[98] Brand Pretorius, CEO of McCarthy, in a personal interview, 29 January 2010.

consolidation efforts resulted in the closure of dealership branches, while many independent dealerships were also forced to close. In the process the subsector suffered considerable losses of sales and administration staff.

On the other side of the coin, however, the motor retail subsector experienced modest growth in auto parts sales and servicing, as older vehicles were retained and scrapping delayed. This not only generated income that sustained many motor retail companies through the worst of the crisis but additionally allowed for the retention of the majority of artisan skills. General acknowledgement exists within the subsector that the recession brought about a necessary consolidation and correction to a market that is to a degree still overtraded.

Upstream of motor retail, the local automotive assemblers massively downscaled production volumes as the demand for new vehicles dropped both locally and internationally. In general, however, the extent of the negative impacts of the crisis on these companies reflects the way in which their international parents weathered the storm: some local assemblers survived the crisis without any formal retrenchments (e.g. Toyota and BMW), while others – and particularly those linked to US parent companies – were forced to formally downsize their workforces (e.g. General Motors and Ford). And while the majority reported variable levels of supplier-company closures, BMW benefited from some additional production assigned to it by its German parent and managed to retain all its suppliers. Volkswagen South Africa at the same time reported gaining global market share over the period as relative demand for its product type increased. Importantly, all OEMs were able to access more competitive international credit through their multinational linkages.

Components manufacturers have probably been the most severely affected within the automotive sector. During the second quarter of 2009 an average of one firm per week was shutting down. A number of factors underlie this. First, component manufacturers are heavily dependent on local automotive assembly, as well as on export contract to OEMs in Europe and the US, both of which markets suffered massive production decreases. Second, the long-term and fixed nature of supplier contracts meant that finding alternative markets or customers for products during the crisis was for the majority of these firms not a viable option. Finally, many component firms, particularly at the second- and third-tier levels of supply, are smaller, locally owned firms with limited access to resources.

Variability in the impact of the crisis on the components subsector is not only related to the size, ownership and product focus of these firms but also to the relative global health at the onset of the recession of the OEMs they supply. By this is meant not only the financial status of the OEMs but also their position in relation to various product lifecycles and to their degree of focus and implementation of improved competitiveness strategies. For instance, for Ford the crisis coincided with a company policy change that saw the consolidation of global platforms, with the SA plant moving from producing passenger vehicles to producing light commercial vehicles only. With this already impacting negatively on a number of the company's local suppliers, Ford had little spare capacity through the crisis to support its struggling supplier base. A number of companies, including Kolbenco, could not manage to survive this double blow, which resulted in their closure. At the other end of the spectrum, BMW was already a couple of years into its drive to reduce fixed costs and improve profitability and so entered the recession with relatively low stock levels and in a fairly stable financial position. Furthermore, the local BMW and VW plants both have new model launches within the next 24 months, and preparation for this (including the retention of contracted

suppliers for these models) continued on schedule. Overall, component manufacturers that supply OEMs such as BMW, VW and Toyota fared a lot better than those supplying General Motors and Ford.

Key stakeholders at OEMs consider closures at component firms to be another layer in the culling process of local, uncompetitive companies. Where alternative suppliers could be found, contracts from OEMs were relocated, with these suppliers thus benefiting from new relationships and business into the future. Where no alternative local suppliers were available, OEMs provided direct support to ensure their survival.

While some stakeholders expressed concern that firm closures within the components subsector will have a direct negative impact on local content levels (and through this on the goals of the APDP) most OEMs argue that contracts were generally reallocated to other traditional local suppliers or to the group of multinational first- and second-tier suppliers that have recently been encouraged to start up greenfields operations in SA, in order to minimise the impact on logistics costs of these altered contracts.

Within the new tyre subsector Apollo Tyres (formerly Dunlop), with a focus on the domestic replacement market, fared much better than the other producers that are heavily dependent on OEMs and export markets. Apollo and Bridgestone managed to avoid retrenchments, while Continental Tyres and Good Year had minimal retrenchments at the beginning of the period only. Furthermore, Apollo benefited from a new production contract from its Indian parent company during the period that even saw a slight increase in employment at its Ladysmith plant.

4.2.2 Impact on the Metals Sector

As an upstream supplier of a large portion of manufacturing and construction, the CETEMF sector was negatively impacted by dropping demand globally and locally. Domestic firms focusing on the automotive sector and those producing piping and wire rod for the construction and housing sector fared a lot worse overall than metal fabricators that have been buffered from the full impact of the crisis by their supply contracts for the new national power stations. Firms involved in the supply of capital equipment and transport equipment for the local mining and agricultural sectors (e.g. Bell Equipment) also suffered considerably, as large capital expenditure projects were put on hold and potential customers struggled to access credit for financing purchases.

Exports for the metals sector were particularly badly affected, with export orders for companies such as ArcelorMittal and Columbus Stainless almost drying up completely. Dropping production volumes not only affected direct profitability and employment at these companies but also impacted on the sustainable supply of the full range of necessary raw materials to local downstream manufacturing customers, as production of particular products was delayed in order to build up sufficient volumes to justify production runs.

4.2.3 Impact on the Plastics Sector

Similar to the metals sector, the companies involved in plastics manufacture supply a range of markets (including building and construction, automotive, agriculture, household goods, toys, and food and general packaging) and the impact of the crisis on this sector was related to companies' major market focus. As the sector supplies mainly the domestic market, the impact of the crisis was furthermore linked to the local demand for these products rather than to international demand.

Unsurprisingly, plastics firms supplying automotive manufacturing and assembly, as well as those supplying the housing market, suffered considerable demand reductions. Smiths Plastics, for instance, whose largest customer is Toyota, continues to operate on reduced production time despite having retrenched over 400 workers. By the same token, the Gauteng plant of DPI Plastics saw its production volumes drop by over 40% as demand for pipes and fittings for new domestic building projects dropped. The company was forced to retrench 52 members of its 320-member-strong workforce. At the other end of the spectrum, companies in the food packaging subsector were only minimally affected by the crisis as local demand for food products remained relatively stable. And where these firms were not impacted by cheap competitor imports, profitability was in fact supported by reduced polymer prices.

4.2.4 Summary

Within this uneven picture certain trends in respect of the impact of the crisis emerge. Firms particularly hard hit tend to be smaller and/or locally owned and/or export oriented and/or with a narrow customer base or product range. From a sector perspective, the automotive industry suffered the most, and within this the components manufacturing subsector. While the metals sector was slightly less affected than the automotive sector was and the plastics manufacturing sector suffered the fewest negative impacts overall, metals and plastics manufacturing firms supplying the automotive and construction and building industries were disproportionately affected, as were metals producers focusing on the export market.

As a silver lining to this generally dark cloud, the study uncovered examples of firms that increased their global market share, winning new supplier contracts and increasing profitability as a direct result of the events of the past 18 months. Other potentially positive outcomes – such as a generally renewed focus on the multi-skilling of labour and on production efficiency for increased productivity – are discussed in greater detail later in this chapter.

4.3 WORKFORCE DOWNSIZING WAS PART OF A COMPLEX PROCESS

Discussions with key stakeholders revealed that workforce downsizing in relation to the economic crisis was not a straightforward process. Instead, efforts to reduce companies' wage bill were part of larger fixed-cost reduction drives, with formal retrenchments generally seen as a last resort.

In the face of dropping demand for manufactured products, escalating fixed costs and overheads in relation to turnover and limited or even reduced access to credit, firms were forced to consider ways to reduce operating costs. In some cases percentage targets were set for companies, either by local management or through directives from international parent companies. Examples of escalating firm-level efforts to reduce general operating cost included:

- Getting rid of nice-to-haves but not need-to-haves such as flowers in the reception area and magazine subscriptions;
- Conducting meetings and conferences in-house wherever possible;
- Limiting travel and all related expenses to the bare minimum;
- Stopping membership of local benchmarking-club initiatives;
- Reducing higher-than-legislated stocks of items such as shop-floor first-aid kits and oxygen cylinders;

- Delaying the new allocation of safety boots for shop-floor workers;
- Cutting social expenditure budgets such as those for HIV/AIDS programmes;
- Freezing training budgets, particularly at NQF Level 6 and higher; [99]
- Freezing research and development (R&D) budgets; and
- Freezing capital expenditure projects or downscaling these massively.

Outside of these strategies, the majority of firms were additionally forced to focus on reducing wage bills, particularly as the crisis progressed. This followed a fairly systematic process. According to the various complexities of firms' individual circumstances, financial sustainability was reached at different points and not all firms reached the phase of formal retrenchments. The process of wage-bill reduction uncovered through firm-level interviews is outlined below:

- Consolidation and reduction of shifts;
- Release of contract workers;
- Hire freezes – either total or with exceptions for critically important skills;
- Short time, layoff periods and extended production shut-downs;
- Voluntary separation and early retirement packages – open to management discretion;
- Non-statutory company-level arrangements with employees; and
- Formal retrenchments.

In view of the extent of the crisis in the manufacturing sector, firms that managed to survive through shift consolidation and reduction, the release of contract workers, and hire freezes were considered to have done well. At the other end of the spectrum, firms that closed down were forced to undertake wholesale retrenchments. The majority of firms, however, found themselves somewhere in between and having to make difficult decisions with long-term consequences.

As the impact of the global financial crisis was evident on local manufacturing firms long before it was declared official, the majority of companies did not have any formal government support to consider during their fixed-cost-reduction drives. This was especially the case with proactive firms that undertook scenario planning in late 2008 in response to the developing crisis in the US and implemented the related plans early in 2009. This is important to bear in mind in this section's discussion.

Despite an overall increase in metals-sector employment between 2000 and 2008, manufacturing employment on the whole has been in decline over the last decade – a direct outcome of the various challenges outlined in Section 4.1 above. For this reason a number of companies reported having selective hire-freeze programmes and voluntary-separation- and early-retirement packages in place prior to the recession in order to facilitate workforce downsizing through natural and supported attrition. Even in the metals sector, Seifa reports that a large proportion of the new jobs created over the past decade have

[99] National Qualifications Framework.

been of the atypical contract type as firms have been reluctant to appoint people permanently in the face of general global uncertainty and restrictive local labour legislation.

Shift consolidation and reduction at firm level as a primary response to dropping production levels resulted first in reduced overtime shifts for workers. As the process continued, companies with contract workers ended their contracts with supplying labour brokers and large-scale (largely unregistered) employment losses resulted.

Formal retrenchments are expensive and the majority of firms made every effort to avoid or minimise these. Concurrent with the release of contract workers, therefore, many firms implemented or up-scaled the hire freeze on permanent staff, effectively reducing the number of permanent employees. Firms indicated that not only was this strategy effective in reducing overhead costs but that savings were also achieved though limiting the direct internal and external costs related to recruitment. Exceptions to the rule were generally allowed for scarce and critical skills. Discretionary early-retirement- and voluntary-separation packages are also not considered by firms as formal retrenchments. While this route was not without cost to companies, benefits were considered to lie in the general reduction of the permanent workforce size, as well as in the opportunity to increase the average level of skill and reduce the average workforce age. In summary, only a handful of companies did not downsize their workforces as a direct result of the economic crisis, even when they could claim that they 'had no formal retrenchments'.

Permanently employed workers were afforded the most security. Firms utilised temporary layoffs in the form of short time and extended leave periods to reduce labour costs yet retain permanently employed workers. All SA's vehicle assemblers implemented these measures and for many they are ongoing. Similarly this strategy was widespread among the components subsector, while in the metals sector roughly one third of workers were affected by short time. Yet despite these strategies, data presented in Chapter 2 clearly shows that retrenchments of permanent workers took place on a large scale during the crisis. Notwithstanding the costs involved, for many firms this final step could not be avoided.

An anomaly uncovered by the interviews was a trend of resignations in certain companies in the early stages of the crisis among unskilled and semi-skilled permanently employed workers. The reason underlying this emerged as workers' desire to access their pension payouts to service personal debts. Firms involved implemented debt counselling and in this way managed to stem the tide and protect employment.

NUMSA points out that while the loss of every job in a country like SA is a tragedy, this is particularly so in the case of permanent jobs. Every permanently employed worker carries a huge social burden in terms of health (in particular HIV/AIDS support) and education for extended families as the country's social security system is weak. Thus the number of people directly and indirectly affected by layoffs and permanent employment losses is far greater than the number of jobs affected.

In the case of wholesale retrenchments due to company closures, the full complement of company skills was released into the labour market. People with technical, artisan, administration and other management skills are considered likely to have found alternative employment relatively easily both inside and outside of the merSETA sector. On the contrary, released and retrenched shop-floor workers joined the masses that were released or retrenched from surviving companies, all considered to have been unlikely to find alternative employment.

In general, where retrenchments were selective, companies followed the 'first in first out' principle, with exceptions being made for key skills. Retrenchments occurred across all levels of employment. In the motor retail subsector they were skewed towards sales and administration staff (white-collar workers), while in the manufacturing sectors they were skewed towards unskilled and semi-skilled operator positions (blue-collar workers). In respect of the latter, management supported the retention of higher-level skills with arguments of scarcity and the costs and challenges of recruitment and, in smaller firms, with the challenges related to the multiple responsibilities of people at these levels.

In contrast to this, labour argues that it was unfairly forced to bear the brunt of a crisis that was caused by 'capital's greed' and that was 'imported from the West'. NUMSA also claims that a large portion of the Nedlac negotiation process was undertaken in 'bad faith', as the majority of the companies that embarked on retrenchment programmes had already started the process prior to the conclusion of the negotiations. This, in addition to labour's argument that company profitability rather than employees were the key priority through the crisis, is likely to sour relations in respect of the upcoming three-year wage negotiation process for the automotive industry.

In line with this, labour is convinced that retrenchments and layoffs were higher than they needed to be for company survival and that many firms took advantage of the opportunity to reduce their permanent employee complement. On the whole, company-level interviews did not support this viewpoint, with a number of companies (particularly locally owned, family-oriented companies) indicating that profitability had suffered considerably as they made every effort to avoid and limit retrenchments.

Another strategy employed by firms during the crisis was securing an exception from the National Bargaining Council for wage increases through 2009. While this did indeed relieve some of the direct pressure on cash-strapped companies, the exemption was granted on condition that double increases would be paid to workers in the next round in order to prevent an erosion of their real wages over time. These companies are due to face this cost challenge soon and, because there has not been any substantial recovery in the markets, many are concerned that pressure to comply will lead to delayed company closures.

An innovative strategy employed by BMW and called 'work-time accounts' assisted the company in avoiding retrenchments. This voluntary scheme, for which about 70% of employees signed up prior to the crisis, works on the system that overtime hours are not paid out directly but instead are banked and can, at a later stage, be used as extended paid leave when production volumes are low. The account system also allows for an 'overdraught' of up to 200 hours per employee. Those employees with credits in their accounts used this to access pay during forced shutdown periods, while others joined the scheme at the start of the crisis and received wages from their 'overdraught' facility. Between the work-time accounts and government's training layoff scheme, workers at BWM managed to access their full wages throughout the crisis.

A final issue uncovered by the interviews in relation to employment is the issue of workers' retrenchment packages at companies that closed down. As these companies were under severe financial stress, it is unlikely that full packages were immediately available for disbursement. Instead, direct arrangements between firms and ex-employees will probably see settlements continue through 2010 as company assets are sold.

Moving forward there appears to be a general consensus that while a few more firm closures can be expected in 2010, the recession as a whole has 'bottomed out' and moderate growth is likely in the short- and medium-term future. Initial growth will, however, not be related to increases in employment and certainly not permanent employment, as the manufacturing sector remains cautious of risk and extremely conscious of fixed costs. Furthermore, while some companies have stopped short time and temporary plant closures, even with production volumes sitting at 50% to 60% of full capacity, many others indicated that these strategies are set to continue, at least into the second half of 2010.

4.4 SCARCE AND CRITICAL SKILLS REMAIN A PROBLEM

Skills shortages (scarce skills) and skills gaps (critical skills) within the manufacturing sector as a key factor constraining growth and the efficient and sustainable use of imported technology were first determined in 2002. Unfortunately, since then the situation appears not have improved but deteriorated instead. All research undertaken since that time by merSETA and external agencies, as well as for this particular report, continues to support the same clear picture.

Skills shortages at the artisan level, across all the merSETA sectors, include toolmakers, electricians, fitters and turners, millwrights, and electronics, while management and professional skills shortages span industrial engineers, mechanical engineers, production management and supervisors. Across the board, the critical skills most required by the industry are listed as being: a positive attitude; solid work ethics; thinking skills related to maths and reading skills; problem-solving skills; and interpersonal and communication skills. Among artisans and professionals particularly, critical skills also relate to specific technical abilities and a general knowledge of the industry.[100] [101] [102]

Linked to this is the widespread concern about the aging nature of the pool of artisans – with the average age for journeymen in the motor retail subsector currently at 52 years – and the challenges of recruiting and retaining representative numbers of black employees with these particular skills.

The blame for this picture is generally laid at the door of the national public education system. In addition to issues of poor career guidance, SA is very low ranking in international school-level maths and science tests, subjects that are critical for entry into the majority of engineering and trade qualifications. Many engineering faculties in Higher Education and Training (HET) institutions have for this reason instituted bridging- and academic-development programmes in an effort to compensate to some degree for the inadequate education of many entry-level students. Concerns also relate to high rates of dropout from these programmes and thus declining throughput levels, which further block the pipeline of scarce skills.

With regard to the FET sector, concerns focus on: outdated curriculums that are not aligned with industry needs; educators that are themselves not qualified or experienced artisans; outdated technology and training equipment; and the fact that the majority of graduations tend to be at the lower NQF levels 1 and 2 rather than at the higher NQF levels 3 to 6.

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[100] Erasmus J. 2009. The 'skills gap' within manufacturing, AIDC Automotive Industry Conference 2009, 8 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171 (accessed 13 November 2009).
[101] Barnes J. 2009.
[102] Du Toit R, Roodt J. 2009. Engineers, technologists and technicians, in Kraak A and Press K (eds) Human Resources Development Review 2008: Education, Employment and Skills in South Africa, pp 452-475, HSRC Press, Cape Town.

Furthermore, a major industry concern for skills development at the artisan level over the past couple of years has been the replacement of the theory component of the old N2 with the National Certificate Vocation (NCV). The problem arose in that the NCV, which is compulsory for qualification as an artisan but not compulsory for admission into in-service training, did not fit into the new learnership structure and was only offered on a full-time basis through FET colleges and technical high schools. While this has recently been rectified through making the NCV available through workplace-based skills programmes, for a few years industry struggled to get its trained artisans qualified.

Over the past 20 years the electronic technology used in car manufacture has become increasingly sophisticated. This trend is expected to continue into the future and is underpinned by rapid advances in the equipment used to manufacture and assemble vehicles. As a result, the automotive sector's skills structure has changed dramatically, with rising demand for higher levels of skills even at the most basic levels of employment. This is because operators are required to not only operate but also to set, check and maintain complex machinery. The Tooling Association of South Africa estimated that two thirds of jobs within the sector are likely over the next decade to require the skills that are held by less than one third of the present workforce.

Industry argues that the generally poor image of the manufacturing sector among prospective entrants is fuelling the challenges in the training environment. The image of manufacturing operators, and even of artisans, is unfortunately still low, which deters talented young people from entering the sector and developing the high-level skills that are really required for success.

The findings of this study support industry's demand for increased skills at the entry level for all automotive subsectors as well as for the large capital-intensive upstream producers in the plastics and metals sectors. Key stakeholders interviewed indicated that at operator level new entrants now require the minimum qualification of Matric with maths and science, or Matric with a technical qualification at NQF Level 3. This is considered critical to achieving success in the various learnerships that these operators complete as part of their job-specific training, as well as for providing the foundation necessary for career progression and promotion within the industry.

While the literature suggested that the job losses of low-skilled workers associated with the economic downturn could in fact speed up the skills-structure transformation, the findings from this study in relation to this suggestion are more nuanced. In cases of substantial workforce downsizing, firms did indeed report an upward movement in the average skill level of the remaining employee base, as retention[103] focused on a balance of qualification, experience and the ability to perform multiple tasks. Among firms where the average level and basic level of skill was already very high, every effort was made to retain all employees as they were seen as critical for future growth. These firms thus had little scope for making use of the current situation as a means to alter the company's skills profile. Among the majority of plastics manufacturers, where it was indicated technology changes were not rapid, reports were that re-employment into the future would be of people at the same level as those retrenched through the current

[103] Despite companies' skills-retention efforts and the discretionary nature of voluntary-separation packages, a number of firms, particularly in the automotive industry, indicated that people with scarce skills had in fact resigned during the recession due to the general uncertainty of sector and the job opportunities afforded by government's current large infrastructure projects.

recession. Conversely, among the sectors on a high-skills trajectory, firms indicated that recruitment into the future would continue to be at the higher level. At the same time, an increased focus would be placed on multi-skilling workers for improved production efficiencies and developing pools of higher-level skills among lower-level employees in support of improved succession planning.

Also emerging from the industry-level interviews was the concern that skills deficits in the sector are not constrained to the lower levels. Skills gaps at manager level are considered a key factor in the extent to which the economic crisis has negatively impacted individual companies. Particularly among the group of smaller, locally-owned firms that closed, a lack of management skills and of vision and forward planning (in respect of market diversification and investments in the latest technology) is considered to have exponentially compounded external challenges related to access to credit and other resources and is considered to be a direct cause of company failure. Conversely, a number of larger and multinationally owned companies indicated that watching the crisis develop in the US in 2008 provided management with the time to undertake scenario planning and to implement the necessary steps to ensure survival as early as the first quarter of 2009.

As the skills resident in the people that have vacated jobs over the past 18 months, regardless of their levels, represent an investment by companies in respect of training and specific experience, the interviews sought to uncover any strategies used by industry to retain access to these people as potential employees as growth returns. The dti indicated that it had requested the AIDC and merSETA to set up and manage a database of people with relevant industry skills. The AIDC argued that in the absence of funds from the dti allocated specifically in support of this request, it has not been able to respond directly. Since the Gauteng and Eastern Cape provincial governments had in the meantime supplied the necessary funds for their particular regions, a database was in the process of being compiled from retrenchment data from companies, as well as from the information provided directly to it by individuals. Industry as yet has no access to this database and few companies are aware of its development.

Other than this effort, a couple of larger and multinationally owned companies indicated that they had set up their own databases of both contract workers and permanent employees that had been released as a result of the crisis and that re-employment into the future would begin with this group. In addition, a couple of industry associations, including Plasfed and Naacam indicated, that they were informally circulating the CVs of highly skilled people in an effort to retain their skills within their sectors. Finally, NUMSA reported that if it were approached, it could assist companies to find past employees using its own database of retrenched workers.

In summary, the majority of companies appear to have made every effort to retain their scarce and critical skills through the crisis. Where this was not possible, these people were quickly absorbed by other companies whose hire freezes did not extend to cover this group or by government's current large infrastructure projects. Only to a very small degree has the current crisis 'eased' skills shortages in that the lead-times required by companies to find these skills and fill positions have dropped slightly. On the whole, however, scarce and critical skills shortages are anticipated to be as much, if not more, of a constraining factor for industry into the future, or certainly for as long as industry remains viable and growing.

4.5 FIRM-LEVEL TRAINING HAS BEEN AFFECTED BY THE RECESSION

Few firms train purely because of the skills development levy and the rebates they receive for accredited training through merSETA. The direct and indirect cost of training is far higher than the rebates received, which, with the exception of small firms using merSETA's training voucher system, are retrospective and impact substantially on company cash flow. Thus a key question for MerSETA is the extent to which the current economic recession has impacted on firm-level training.

Key stakeholder interviews suggest that similar to the impact of the crisis on industry as a whole, its impact on training has been uneven and negative on balance.

The majority of firms froze training budgets in efforts to stabilise cash flow, especially at the beginning of the crisis. Small- and medium-sized firms, for which training is more resource intensive and that have not established a strong culture of training, are unlikely to have continued training activities when firm survival was at stake.

Training activity among larger firms was more variable. At the one extreme a handful indicated that they had not spent any of their training budgets through the crisis, while at the other extreme a handful indicated that training activities had continued at all levels as planned. Most firms, however, scaled back considerably, or totally stopped management training and the support of staff training at NQF Level 6 and upward, but continued with legislated training (such as safety, health and environment), artisan training and operator level training in support of new vehicle model launches and new plant establishment.

Training providers such as Gijima in the metals sector and Plasfed in the plastics sector reported a general continuation in companies' commitment to training artisans, particularly those already enrolled in learnerships and apprenticeships. Furthermore, many companies continued to fill new artisan training positions during the crisis as these arose. In both sectors, however, the enrolment of employees in 'public' courses – skills programmes not linked to formal learnerships – declined by 40% to 50%.[104] At the same time many firms, particularly in the metals sector, ended their contracts with learners after the 52-week period of theoretical training, unable to register them during the recession for their indentured year of practical training. While these firms raised concerns about 'losing' the skills they had invested in, they considered the unemployment on the part of these learners to be temporary as demand for these skills across industry as a whole remained high.

ArcelorMittal, taking part in merSETA's Accelerated Artisan Training Programme, reports having its basic training budget doubled between 2008 and 2009,[105] and increasing the number of artisans in its training pipeline from 880 in 2009 to 923 in 2010. The company plans to give qualified artisans from this programme the choice of either remaining in its own artisan pool – to be deployed to various plants and pulled into key projects as they arise – or of being released into the SA labour market as ArcelorMittal's contribution to the national artisan skills pool.

In the automotive sector, and particularly at OEM level, companies utilised layoff and extended downtime periods in support of training activities. Even though very few made use of merSETA's RAP programme,

[104] Information provided verbally in interviews with Willy Matthiae of Gijima (8 January 2010), and Anton Hannekom of Plasfed (19 January 2010).
[105] Notably, at the same time its management-training budget through 2009 was totally frozen.

or of government's training layoff scheme, training of operators and artisans continued. In some cases training even increased, because of the additional time made available for training through reduced levels of production. Furthermore, OEMs reported that because of the general higher-level skill at operator level and the opportunities available for internal career advancement, the majority of employees willingly participated in training even when no remuneration was offered for such attendance during layoff periods.

The study also revealed a number of industry- and firm-level initiatives in support of training that have either been set up as a direct result of the impact of the economic crisis or have continued in spite of it:

- The AIDC, using merSETA's RAP funds in addition to funds provided by the Gauteng Provincial Government, has developed a programme together with Ford that aims to re-train retrenched workers from the company and assist them in establishing micro-businesses to supply the OEMs directly or to provide services to the local vehicle-servicing subsector.
- A number of the large firms have set up in-house training facilities that offer both merSETA-accredited- as well as not-yet-accredited training in an effort to standardise training for the company across the country. Polyoak in the plastics packaging subsector, for instance, used an initial lump sum from merSETA to start the Polyoak Business School, with operation costs now funded though a combination of merSETA levy rebates and levies on payroll charged to each of its individual plants.
- ArecelorMittal, in an effort to increase the number of black candidates with the right entry-level qualifications for technical and engineering training, has set up schools at their training facilities that take potential learners through grades 10 to 12 maths and science. Those who do very well are offered engineering bursaries; those who do moderately well are offered technician bursaries; and those that pass are offered training in artisan learnerships and operational learnerships.
- The RMI has very recently set aside R6 million for a programme called 'Training 100', which is predominantly focused on developing potential employees for the motor retail subsector with qualifications in scarce and critical skill areas.
- Firms in the motor retail subsector in the Bloemfontein area have formed a partnership with the local FET college to set up a local training centre to meet their direct and urgent skills needs. Through the RMI, the subsector is also currently in the process of identifying suitable FET colleges in all the other major centres of the country to act as skills development partners.
- The National Tooling Initiative of the Tooling Association of South Africa is an industry-led programme for developing a new system that trains artisans in the area of tool, die and mould making as these skills are critical to support all manufacturing activities as well as to support SA companies in winning international tenders. Drawing on funds from industry, international grants, the dti and the departments of education, this initiative has adapted for local conditions an international qualification recognised by industry. The programme is implemented through regional clusters that revolve around a particular FET college or skills development centre chosen and capacitated for the task. As part of the programme, 2010 sees the first intake of learners into the new one-year pre-apprentice programme, which will focus on developing the skills necessary to promote success at the apprenticeship level.

4.6 GOVERNMENT SUPPORT IS CONSIDERED 'TOO LITTLE TOO LATE'

Labour argues that the National Framework Agreement arrived at through the Nedlac process was a good agreement on the whole, despite being a compromise. In light of this, as well as the thousands of job losses that resulted through the crisis, labour sees the generally low uptake of government support by industry and the levels of funds still available in these programmes as shameful.

Industry, on the other hand, argues that government showed a distinct lack of leadership around the crisis, and that what should have been simple programmes to save jobs instead became complex, cumbersome and restrictive. The major challenges in the successful implementation of government's support programmes are considered by industry to be the following:

- The vast majority of proactive firms had already completed and were already implementing their crisis strategies (including retrenchments) by the first quarter of 2009. No government support was available at this time, and outside of merSETA's RAP, support has not been aimed at people who have already been retrenched.
- Many firms were not made aware of the various support programmes offered through government, even when these became available. Some found out too late to make use of them, and others – particularly small- and medium-sized firms – are still not aware of them. Most firms make no distinction between government's training layoff scheme and merSETA's RAP programme, referring to them both as support for training layoff.
- The availability of support through the training layoff scheme is for only three months. The nature of the crisis has been such that firm's financial positions were unlikely to improve within this period. So the question has been asked: 'What then?'
- IDC funds, despite being available relatively early in the crisis period, are considered burdensome to access and generally uncompetitive. While some firms managed to access these funds and utilise them successfully,[106] multinational firms with access to other forms of credit chose on the whole to avoid this form of restrictive government support.
- Both IDC funds and the training layoff scheme place restrictions on retrenchments. Even many large firms could not guarantee that by accessing support they could avoid all retrenchments.
- The requirement to continue paying social wages for labour during layoff periods if training layoff support was accessed was considered to be too high a cost burden on cash-strapped companies and is the major reason that OEMs on the whole chose to continue training during these periods without government. Ironically, then, it was the firms who were in a relatively better financial position during the crisis (such as BMW) that could make the necessary commitments and thus access funding.
- The guidelines for merSETA's RAP programme were unclear, and particularly smaller companies did not have the resources necessary to devote to accessing support in a time of crisis.

[106] The IDC indicates that of the R6.1 billion available for the crisis over two years, R500 million was allocated in 2008/9 and R800 million had been allocated by December 2009 with another R2 billion in the pipeline that may or may not be allocated. By value, the largest proportion has gone to the mining, early metals beneficiation and transport sector, while by number the largest proportion has gone to the automotive components sector.

- The institutional capacity of the CCMA is generally considered insufficient to have supported the successful implementation of the training layoff scheme.

Even with these issues acting as a general disincentive for access, both industry and labour state that the programmes would have been considerably more effective if they had been made available in the second quarter of 2009 rather than in the fourth quarter, when industry had virtually stabilised.

Other forms of support, such as that available through the AIDC as well as through a couple of the provincial government departments, are considered to be somewhat more focused and applicable, but also as having come too late to be of any real crisis assistance and thus – to a large degree – irrelevant.

Government-level stakeholders point to the fact that almost no-one in key state positions had ever had to deal with such a crisis before and that as a whole they lacked the experience to realise that 'decision-making-as-usual' – the process of commissioning research, gathering stakeholders and devising a consensus plan to address challenges – would be largely inappropriate. Government-level stakeholders also acknowledge that the absence of databases at national level to support crisis decision making contributed to the problem. From industry's side, despite some appreciation of the fact that government's current commitment to the various large infrastructure projects meant it had limited resources to make available for crisis support, the overall opinion is that crisis support was 'too little too late'.

4.7 merSETA CAN DO MORE TO HELP

A final theme emerging from the key stakeholder interviews was that merSETA could do a lot more to support sustainable industry growth into the future by focusing on its primary mandate: skills development for the automotive, metals and plastics sectors.

The importance of having a solid skills base for future growth in the SA manufacturing sector was mentioned again and again – manufacturing success among Asian countries is largely attributed to their considerably stronger skills bases and higher levels of labour productivity. While many bemoaned the fact that industry-level training in SA is being used to rectify inadequate school-level education, others pointed out that even if the school system were to improve dramatically in the short term, there would be a considerable time lag before the benefits were available to industry. Thus, at least in the medium term, merSETA will have to continue to play a key role in facilitating basic levels of training.

In line with the above, key stakeholders raised a number of current challenges in respect of merSETA support of industry-level training. These include:

- Accreditation of training takes time, both with the South African Qualifications Authority (SAQA), as well as with merSETA. Until training is accredited, firms cannot access rebates from their skills development levies, despite the training being recognised and critical at industry level. For instance, the motor retail subsector generally struggles to get support for necessary staff training on the newest products, while the National Tooling Initiative is forced to raise funds from other quarters, despite MerSETA being fully aware of the critical nature of the training the Initiative is facilitating.
- Training involves both high direct and indirect costs for firms. These are particularly high for small- and medium-sized firms that do not have spare and dedicated resources to devote to train-

ing. Thus the majority of firms can little afford merSETA's delays in payment for training milestones reached.

- The training environment for industry-level training is considered to be difficult – a lot more difficult than it needs to be. There are delays and challenges in getting apprentices and learners registered, in accessing theoretical training, and in getting them assessed as competent.
- merSETA's administration systems and related staff training are considered to be sub-optimal – it is unacceptable that learner and apprentice contracts get lost, and that staff are not able to adequately answer industry questions or to assist when requested.
- merSETA's focus thus far has been predominantly on lower-level- and basic skills while industry has continued on a high-skills trajectory. This has resulted in inadequate support for critical high-level training and staff development initiatives.

While these issues deserve attention, it must be noted that industry on the whole considers merSETA to be among the most efficient of the SETAs and valuable in respect of training support. Finally, industry on the whole also appears to be relatively positive about the new Department of Higher Education and Training and about the possibility that this departmental restructuring represents to achieve a better alignment between the outputs of particularly the higher education system and industry needs.

5 FUTURE EMPLOYMENT, SKILLS AND WAGE TRENDS

As indicated in the study methodology (Section 1.2), this study included an independent econometric analysis aimed at generating quantitative data and, in particular, at generating some reliable projections for the merSETA in terms of growth and employment. Owing to the unavailability of national economic data according to merSETA's five-chamber classification, the analysis was based on available data for a group of seven sectors according to their two-digit SIC codes. These sectors include: rubber products manufacturing; plastic products manufacturing; basic iron and steel manufacturing; basic non-ferrous metals manufacturing; machinery and equipment manufacturing; motor vehicle, parts and accessories manufacturing; and sales and repair of vehicles and fuel station operations. This grouping of sectors are referred to in this chapter as the "merSETA sectors cluster".

Variables analysed include imports, exports, gross fixed capital formation (GFCF), fixed capital stock, real output, real gross value added, employment, real labour remuneration and skills demand. The time frame considered in the trend analysis spans 1970 to 2008, with an average annual growth projection undertaken for each variable for the period 2009 to 2014[107]. (The full details of this analysis, which support the qualitative findings outlined in earlier chapters, are provided in Appendix 2 of this report.) This chapter presents extracts from the econometric analysis and discusses the data of most relevance to merSETA – the impact of the global economic crisis on employment, skills and remuneration.

5.1 TOTAL EMPLOYMENT

In 2008, most people (around 285 000 or 43%) in merSETA's sectors cluster were employed in the sales and repair of vehicles and fuel stations sector (Figure 5-1). The parts and accessories manufacturing sector and the machinery and equipment sector – the sectors with the next highest numbers of employees – had less than half this number each, with around 119 000 and 130 000 respectively.

[107] A standard econometric macro model was used as the basis of the calculations. Important in this model is in inclusion of a range of economic drivers. Necessary assumptions have been based on international data obtained from The Economist Intelligence Unit. The macro model generated outputs that were then used to populate an input-output model, from which projections for a five-year period were generated.

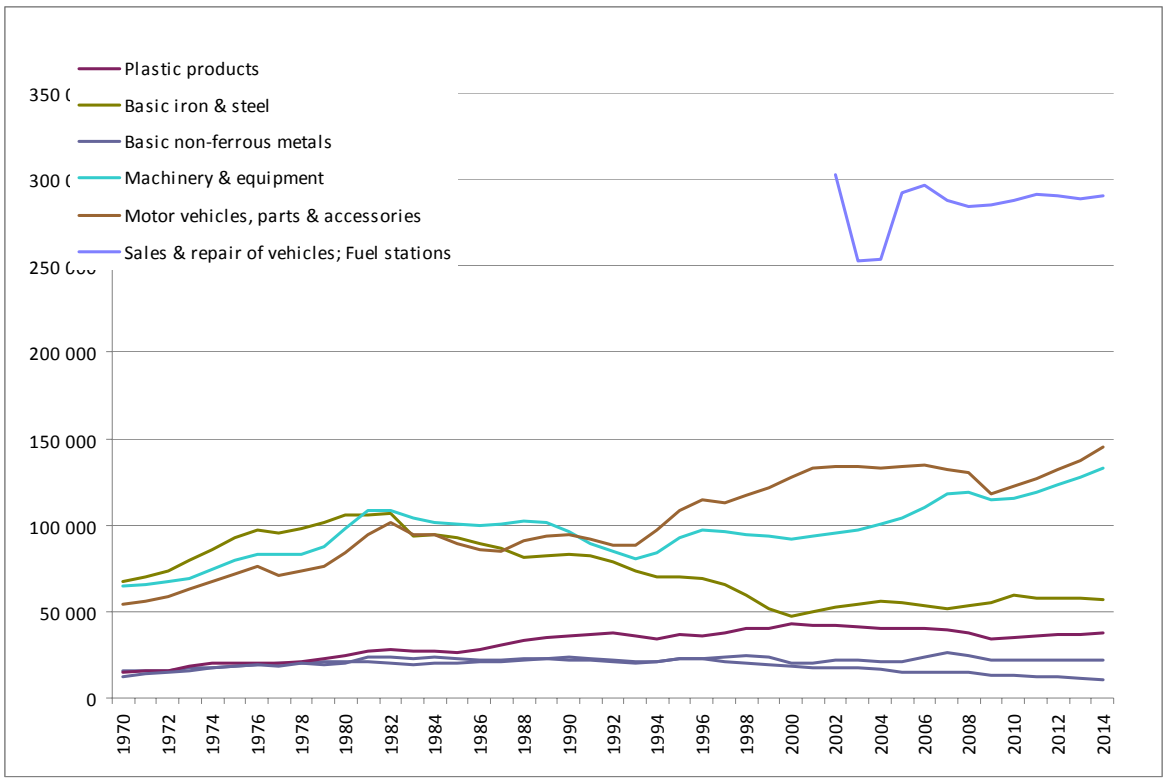

Figure 5-1

Total employment: 1970 -2014

During the period 2005-2008, the sectors belonging to the merSETA cluster were responsible for 5.4% of all formal employment in the country. Of the total employment figure for the MerSETA sectors cluster in 2008 (around 664 000) only about 5 600 people were informally employed, with informal employees recorded in three of the sectors: machinery and equipment, plastic products and basic non-ferrous metals. This figure represents only 0.25% of SA's informally employed workforce, reinforcing the high social value of employment in the sector.

In terms of employment growth over this period, only two of the sectors increased their levels of employment and at the same time outperformed the overall rate of employment growth in the economy: the basic non-ferrous metals production sector (5% p.a.) and the machinery and equipment manufacturing sector (4.5% p.a.). All other sectors experienced on average negative employment growth over this period, with the result that the merSETA sectors cluster's contribution to total national employment dropped slightly between 2005 and 2008.

During the forecast period 2009-2014 (Figure 5-2), average employment growth is anticipated to be the highest in the vehicles, parts and accessories manufacturing sector (4.2% p.a.), followed by the machinery and equipment manufacturing sector (3.0% p.a.), and the plastic products sector (2.0% p.a.). The other sectors are all likely to underperform the total employment growth in the economy, with further job shedding likely in the rubber products manufacturing sector (-4.3% p.a.).

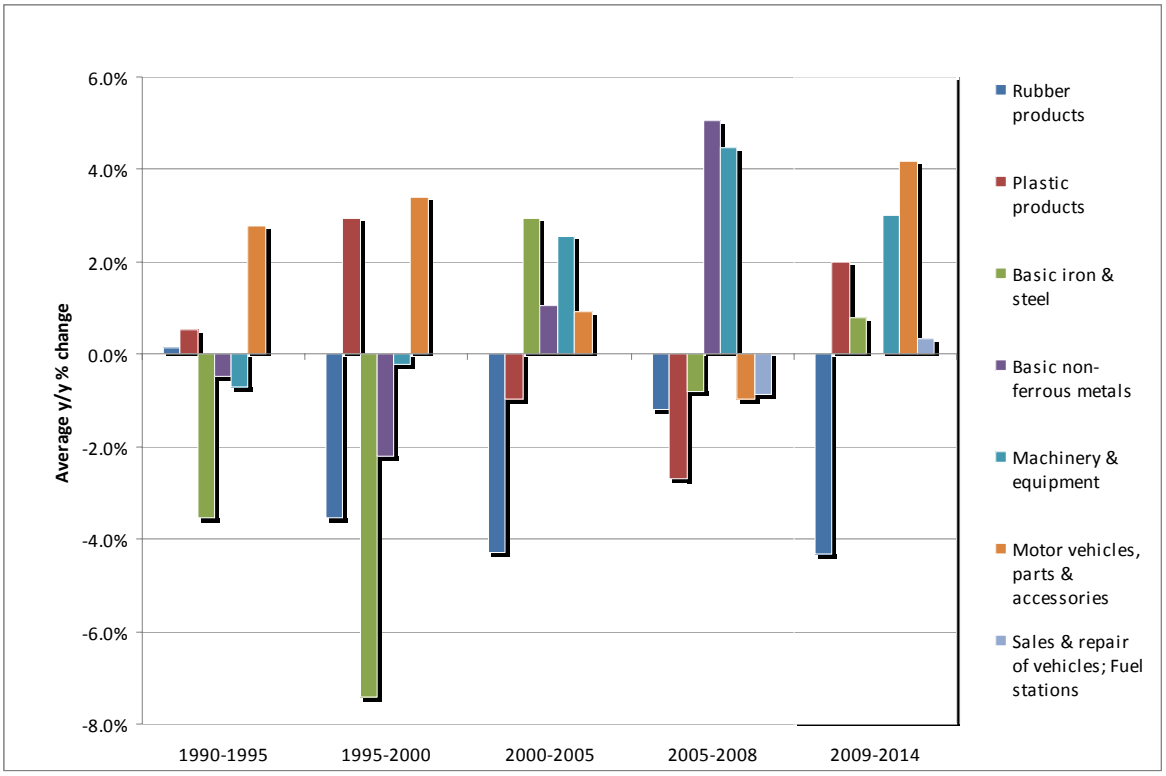

Figure 5-2

Growth of total employment: 1990 - 2014

Average annual projections for growth in informal employment is highest in the basic non-ferrous metals sector (8.4% p.a.), followed by plastic products (6.6% p.a.) and machinery and equipment manufacturing sectors (5.4% p.a.). Notably all these projections are considerably higher than the projections for formal employment growth in these sectors, underscoring key stakeholder views that the costs and risks involved in formal employment, particularly in uncertain economic times, increase the appeal of atypical forms of employment where these are available.

5.2 EMPLOYMENT BY SKILL LEVEL

With the exception of the basic non-ferrous metals manufacturing sector and the basic iron and steel manufacturing sector, all other sectors of the merSETA cluster have displayed a declining proportion of semi- and unskilled workers since 1970 (Figure 5-3). Conversely, in the majority of sectors the ratio of skilled and highly skilled employment has been rising. The highest proportion of skilled and highly skilled employment is in the motor vehicles, parts and accessories manufacturing sector followed by the machinery and equipment manufacturing sector. These are both anticipated to continue on their high skills trajectory, increasing the gap in the demand for these skills between these sectors and the general economy. Trends of increasing demand for skilled and highly skilled workers in the plastic and rubber projects sectors are expected to accelerate over the period 2009-2014.

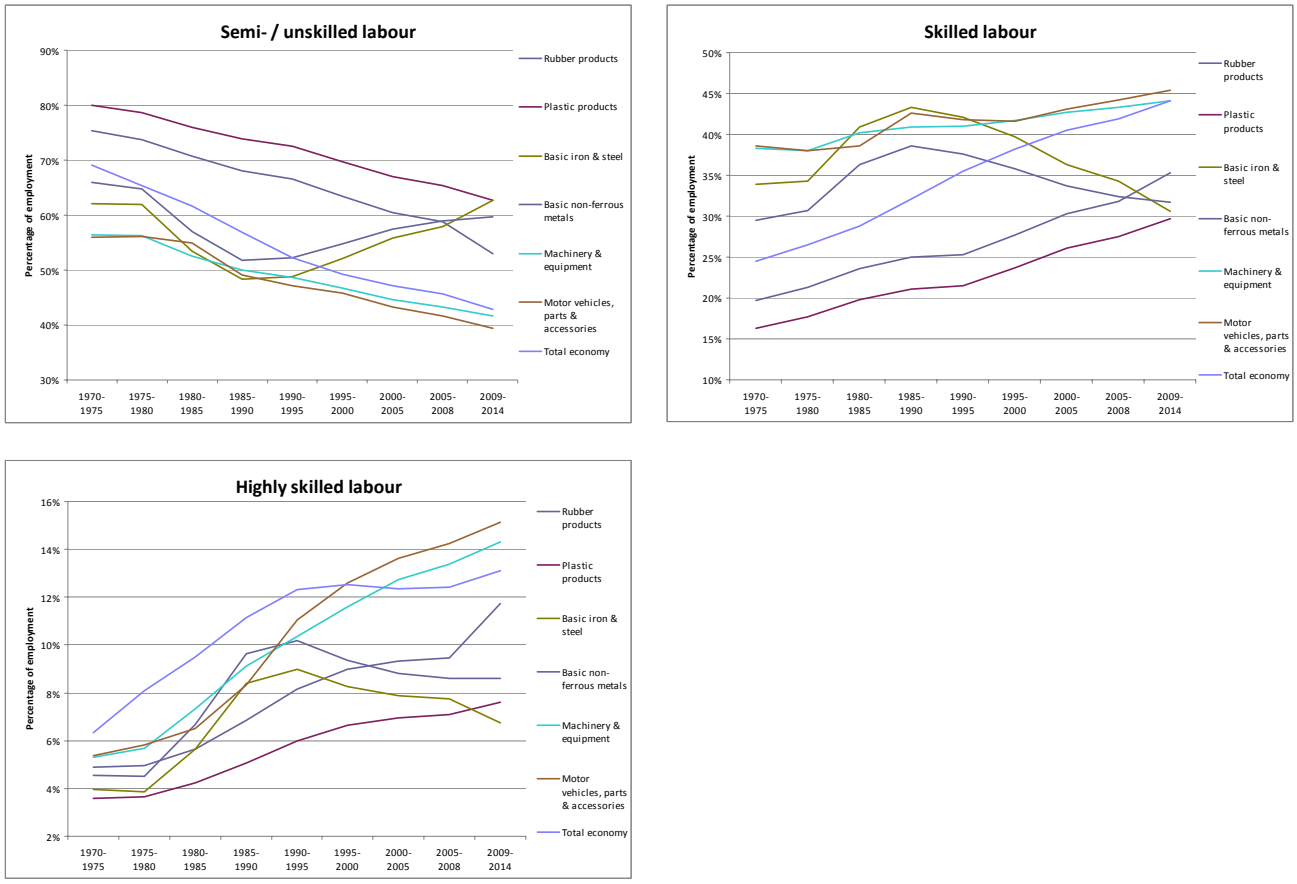

Figure 5-3

Labour intensity per skill level and per sector

5.3 REAL LABOUR REMUNERATION

Compensation for labour, capital expenditure, intermediate consumption, interest charges and taxes are usually the most important cost items for any business. For merSETA, real labour remuneration levels in

the sector also determine the level of organisational income as operating funds are raised via the mandatory skills development levy of 1% of company wage remuneration.

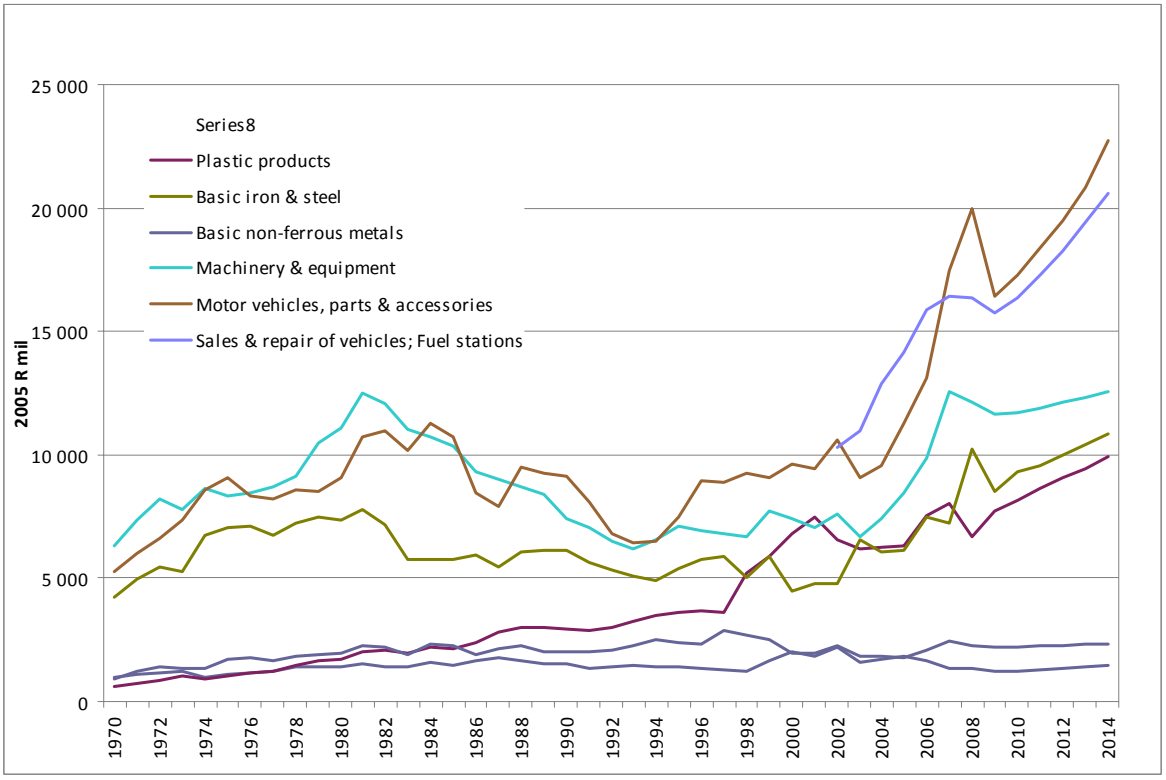

Figure 5-4

Real labour remuneration: 1970 - 2014

In the merSETA sectors cluster, the vehicles, parts and accessories manufacturing sector paid out the highest amount (R20 bn at constant 2005 prices) to labour remuneration in 2008 (Figure 5-4). The sales and repairs of vehicles and operation of fuel stations sector paid the second largest amount of total remuneration (R16.4 bn at constant 2005 prices), reinforcing the relative importance of the motor industry within merSETA's total employment. During 2005-2008, the seven sectors in the cluster under review paid out on average R60.6 bn as remuneration to labour. This represented 7.9% of total remuneration paid in the economy, a figure higher than the cluster's proportional contribution to total national employment.

During the period 2000-2005, three sectors recorded declines in labour-remuneration amounts, with the biggest contraction (-1.9% p.a.) occurring in the rubber products manufacturing sector and the highest growth being recorded in the basic iron and steel sector (6.4% p.a.) (Figure 5-5). The period 2005-2008 showed even greater divergence in real labour-remuneration growth, with the rubber products manufacturing sector declining by 9.6% p.a. and the vehicles, parts and accessories manufacturing sector rising by 21.1% p.a.

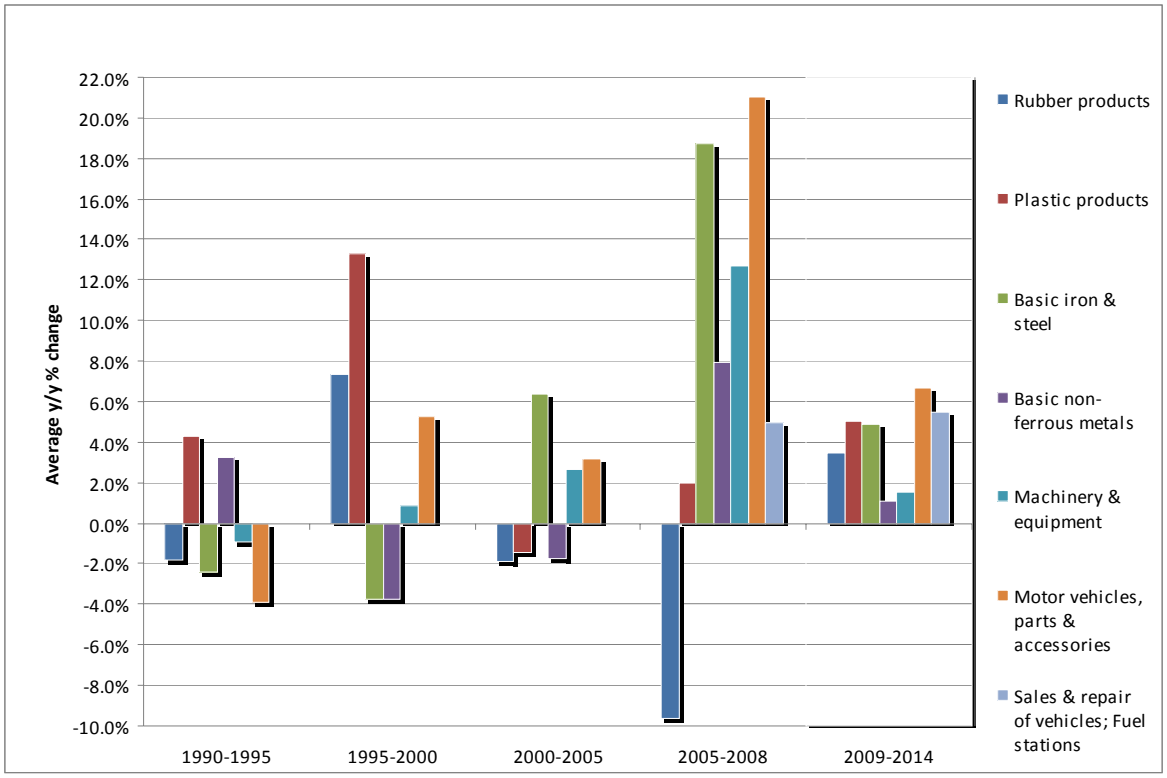

Figure 5-5

Growth of real labour remuneration: 1990 - 2014

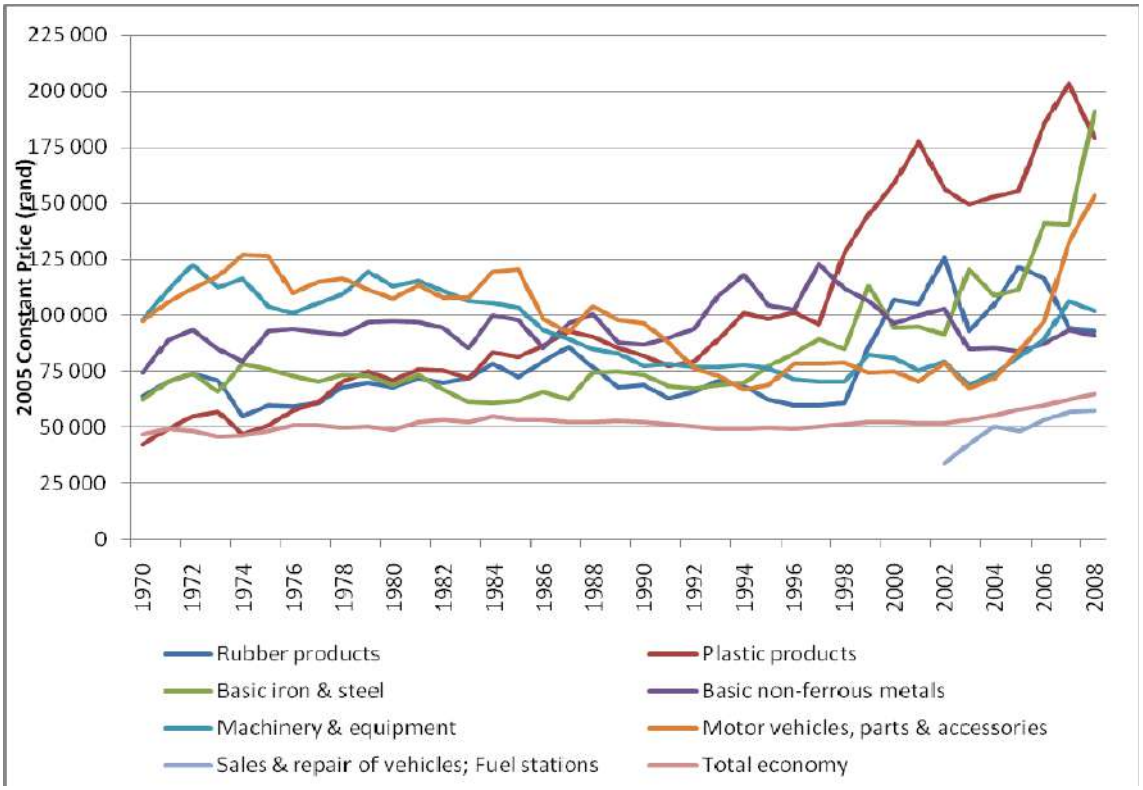

Figure 5-6

Average annual remuneration per employee: 1970 - 2008

When considering the data in terms of real remuneration per employee (Figure 5-6), the past five years (2003-2008) have seen the biggest increase occurring in the vehicles, parts and accessories manufacturing sector, with an average annual increase of 17.8% p.a. over this period. Real remuneration per employee in the rubber products manufacturing sector showed no real increase during this time. The average level of remuneration per employee in all of the sectors in the merSETA cluster, with the exception of the sales and repairs of vehicles and operation of fuel stations sector, was higher during the past four decades than the average remuneration level per employee for the economy as a whole.

Real remuneration growth over the forecast period 2009-2014 is anticipated to be highest in the vehicles parts and accessories sector, while the lowest rate of growth in real remuneration is expected in the basic non-ferrous metals manufacturing sector.

Taken together this data suggests that a portion of the increase in real remuneration per employee will be driven by the higher wages of increasing numbers of skilled and high-skilled workers. However, forecasts for real remuneration growth also add weight to the motor industry's complaints that scarcity of the necessary high-level skills is pushing remuneration to disproportionately high levels, with the result that SA labour is expensive relative to labour in competitor countries.

5.4 SECTOR EMPLOYMENT GROWTH UNDER DIFFERENT GROWTH SCENARIOS

Finally, the econometric analysis included an attempt to achieve a sense of the magnitude of employment changes under different growth scenarios.[108] Using a base-case scenario of 2.9% p.a. average growth in GDP over the period 2009-2014, the low-case scenario dropped this figure to only 1.4%, while the high-case scenario raised it to 3.9%.

Table 5-1 considers the various scenarios according to changes in Gross Value Added (GVA) for each of the merSETA sectors.

For the low-growth scenario, the sector that fared the best – i.e. showed the smallest drop in GVA over the period – was the plastic products manufacturing sector. This sector's growth rate emerged at 4.8% over the period, which was 1.5% lower than its GVA growth in the base-case scenario. The sector that was worst affected by the assumption of a low-growth rate was the basic iron and steel manufacturing sector, with a GVA growth of -6.3% p.a. or 7.8% below the expected growth for the sector under the base-case scenario.

The biggest positive differential between the high-case- and base-case GDP growth scenarios occurred in the basic iron and steel manufacturing sector (+5.6% p.a.) and the motor vehicles parts and accessories equipment manufacturing sector (also +5.6% p.a.). These two sectors showed growth of 7.1% p.a. and 8.6% p.a. respectively in the high-growth scenario, as opposed to growth of 1.5% p.a. and 3% p.a. respectively in the base-case scenario. The smallest difference between the base-case- and high-growth

[108] Regression analyses were performed for each of the sectors in the merSETA cluster, for both economic and employment growth, relative to the national economy over the period 1970-2008. On the whole, correlation co-efficients were low (below 0.5), indicating relatively weak relationships, although the 'fit' between national and sectoral employment trends was better than for economic growth trends. This is important to remember when considering the data presented in this section.

scenarios occurred in the plastics sector, where high-case growth reached 7.4% p.a. as opposed to growth of 6.3% p.a. in the base-case scenario.

Table 5-1

The various scenarios according to changes in Gross Value Added (GVA) for each merSETA sector

GVA growth scenarios								
Low growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	**Base - Low**
Rubber products	-3.9%	-0.3%	0.8%	1.0%	1.2%	1.3%	0.0%	-1.7%
Plastic products	14.2%	4.2%	3.5%	2.6%	2.4%	2.3%	4.8%	-1.5%
Basic iron & steel	-26.6%	-6.6%	-1.7%	-0.7%	0.2%	0.7%	-6.3%	-7.8%
Basic non-ferrous metals	-1.3%	1.3%	1.8%	1.7%	1.9%	1.8%	1.2%	-2.6%
Machinery & equipment	-12.3%	-5.1%	-2.6%	-2.4%	-2.2%	-2.4%	-4.6%	-5.6%
Motor vehicles, parts & accessories	-22.7%	-5.6%	-0.7%	0.3%	1.3%	1.8%	-4.7%	-7.7%
Sales & repair of vehicles; Fuel stations	-4.7%	2.3%	7.2%	4.6%	3.2%	4.4%	2.8%	-3.0%
Total economy	-1.7%	1.0%	2.0%	2.2%	2.4%	2.5%	1.4%	-1.5%
Base case growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	
Rubber products	-3.7%	2.2%	3.1%	2.9%	2.9%	3.0%	1.7%	
Plastic products	14.2%	5.1%	5.5%	4.6%	4.5%	4.5%	6.3%	
Basic iron & steel	-27.7%	18.4%	4.4%	7.6%	7.0%	6.2%	1.5%	
Basic non-ferrous metals	-1.2%	6.3%	4.3%	4.5%	4.4%	4.3%	3.8%	
Machinery & equipment	-12.0%	0.8%	3.8%	4.5%	4.9%	5.3%	1.0%	
Motor vehicles, parts & accessories	-22.0%	7.4%	8.4%	8.3%	9.0%	11.3%	3.0%	
Sales & repair of vehicles; Fuel stations	-4.7%	4.7%	12.3%	8.7%	6.3%	8.1%	5.8%	
Total economy	-1.7%	2.0%	4.0%	4.2%	4.5%	4.6%	2.9%	
High case growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	**High - base**
Rubber products	-2.6%	2.5%	3.7%	4.5%	5.0%	5.5%	3.1%	1.4%
Plastic products	14.2%	5.7%	6.3%	5.9%	6.0%	6.3%	7.4%	1.0%
Basic iron & steel	-22.2%	20.7%	11.9%	12.4%	12.8%	13.2%	7.1%	5.6%
Basic non-ferrous metals	-1.3%	6.5%	8.3%	8.9%	9.3%	9.7%	6.8%	3.1%
Machinery & equipment	-11.1%	1.1%	6.3%	8.2%	9.6%	10.9%	3.9%	2.9%
Motor vehicles, parts & accessories	-21.7%	9.8%	13.1%	16.5%	19.0%	21.4%	8.6%	5.6%
Sales & repair of vehicles; Fuel stations	-4.7%	6.2%	14.7%	11.6%	9.4%	11.9%	8.0%	2.2%
Total economy	-1.7%	2.5%	4.8%	5.5%	6.0%	6.5%	3.9%	1.0%

Table 5-2

The various scenarios according to changes in employment levels for each merSETA sector

Employment scenarios								
Low growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	**Base - Low**
Rubber products	-4.1%	-0.3%	0.8%	1.1%	1.3%	1.4%	0.0%	-1.8%
Plastic products	5.9%	1.7%	1.5%	1.1%	1.0%	1.0%	2.0%	-0.6%
Basic iron & steel	-4.0%	-1.0%	-0.3%	-0.1%	0.0%	0.1%	-0.9%	-1.2%
Basic non-ferrous metals	-1.4%	1.4%	1.9%	1.8%	2.0%	1.9%	1.3%	-2.7%
Machinery & equipment	-5.8%	-2.4%	-1.2%	-1.1%	-1.1%	-1.1%	-2.1%	-2.7%
Motor vehicles, parts & accessories	-1.0%	-0.2%	0.0%	0.0%	0.1%	0.1%	-0.2%	-0.4%
Sales & repair of vehicles; Fuel stations	-0.2%	0.1%	0.3%	0.2%	0.1%	0.2%	0.1%	-0.1%
Total economy	-2.1%	0.2%	0.4%	0.5%	0.5%	0.6%	0.0%	-0.6%
Base case growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	
Rubber products	-3.9%	2.4%	3.3%	3.1%	3.1%	3.2%	1.8%	
Plastic products	5.9%	2.1%	2.3%	1.9%	1.9%	1.9%	2.6%	
Basic iron & steel	-4.1%	2.7%	0.7%	1.1%	1.0%	0.9%	0.4%	
Basic non-ferrous metals	-1.3%	6.7%	4.6%	4.8%	4.7%	4.6%	4.0%	
Machinery & equipment	-5.6%	0.4%	1.8%	2.1%	2.3%	2.5%	0.5%	
Motor vehicles, parts & accessories	-1.0%	0.3%	0.4%	0.4%	0.4%	0.5%	0.2%	
Sales & repair of vehicles; Fuel stations	-0.2%	0.2%	0.5%	0.4%	0.3%	0.3%	0.2%	
Total economy	-2.1%	1.3%	1.1%	1.2%	1.3%	1.1%	0.6%	
High case growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	**High - base**
Rubber products	-2.7%	2.7%	4.0%	4.8%	5.3%	5.9%	3.3%	1.5%
Plastic products	5.9%	2.4%	2.6%	2.4%	2.5%	2.6%	3.1%	0.4%
Basic iron & steel	-3.3%	3.1%	1.8%	1.8%	1.9%	2.0%	1.2%	0.8%
Basic non-ferrous metals	-1.4%	6.9%	8.9%	9.5%	9.9%	10.3%	7.3%	3.3%
Machinery & equipment	-5.2%	0.5%	3.0%	3.9%	4.5%	5.2%	1.9%	1.4%
Motor vehicles, parts & accessories	-1.0%	0.4%	0.6%	0.7%	0.8%	1.0%	0.4%	0.3%
Sales & repair of vehicles; Fuel stations	-0.2%	0.3%	0.6%	0.5%	0.4%	0.5%	0.3%	0.1%
Total economy	-2.1%	1.4%	1.9%	1.9%	1.9%	2.0%	1.1%	0.5%

Table 5-2 presents the various scenarios according to changes in employment levels for each merSETA sector.

For the low-growth scenario over the period 2009-2014, the average drop in employment from the base-case scenario was 1.4% for the sectors under review. In other words, whereas average employment growth in the sectors was forecast at 1.4% p.a. in the base-case scenario, in the low-case scenario the average growth in employment is 0.0%.

The biggest differences between the base-case and low-case employment-growth scenarios are for the basic non-ferrous metals manufacturing sector (-2.7% p.a.) and the machinery and equipment manufacturing sector (also -2.7% p.a.). The smallest difference in employment growth relative to the base case emerged for the sales and repairs of vehicles and operation of fuel stations sector (-0.1% p.a.).

Between the high-case- and base-case employment-growth scenarios, the largest differential is also evident in the basic non-ferrous metals manufacturing sector (+3.3%) and the machinery and equipment manufacturing sector (+1.4%). The smallest difference in employment growth relative to the base case again appears in the sales and repairs of vehicles and operation of fuel stations sector (+0.1%).

5.5 SUMMARY

The econometric data presented in this section supports the qualitative information obtained through the literature review and the key stakeholder interviews. The negative employment growth evident between 2005 and 2008 for five of the seven sectors that make up the merSETA sectors cluster underscores the range of challenges faced by the manufacturing sector, as well as the domestic motor vehicle sales sector, in the years directly preceding the 2008/09 global economic crisis. Furthermore, the data supports industry's assertions that drives to improve efficiencies and reduce fixed costs, including wage bills, were already in place in many firms at the onset of the recent recession.

Again supporting industry's view, the forecast data suggests that while employment can be expected to rise again into the future, this will be slow and will considerably lag behind growth in GVA for all the various growth scenarios analysed. At the same time, the majority of the sectors in the merSETA cluster have been, and are set to continue, on a high skills trajectory with the proportion of skilled and highly skilled workers rising in comparison to unskilled and semi-skilled workers.

Rises in real labour remuneration are anticipated for the majority of merSETA's sectors. This is in relation to the overall sectoral wage bill as well as in relation to remuneration per employee. The latter, which represents an increasing cost burden to firms, is likely to be related in part to the increasing proportion of skilled and highly skilled employees, but also in part to the premium salaries paid to these workers because of skills gaps and shortages. Overall the data presented in this chapter highlights the impacts of the recent economic crisis on employment within the cluster of merSETA sectors, and magnifies the cost burden it will carry into the future in relation to generally increasing demands for scarce-skilled and highly skilled workers. In this light the importance of merSETA for the cluster's future becomes even starker.

6 CONCLUSION AND RECOMMENDATIONS

Media and industry-level publications clearly reveal the extremely negative impact of the recent global and local economic recessions on the metals and plastics manufacturing sectors, and even more starkly on the domestic automotive industry. Dropping demand for new vehicles and homes in particular, together with sustained Rand strength and increasingly limited access to credit for both firms and customers resulted in substantial manufacturing capacity standing idle, and firms grappling with survival in the face of rapidly dropping turnover, increasing relative fixed costs, and eroding profit margins.

Survival for the majority of companies meant greater or lesser reductions in employment, as cutting wage bills formed a critical part of complex fixed-cost reduction drives. The outcome of the recession on the merSETA sector is clearly evident in the data: Between July 2008 and September 2009 the automotive assembly subsector reduced employment just over 5 000 jobs while the components manufacturing subsector, which has suffered the largest proportion of firm closures, shed roughly 18 000 jobs between 2007 and the end of 2009. The new tyre subsector has seen the loss of about 700 jobs over the last four years, with the recent recession contributing to downward employment trends. The retail motor subsector reported the closure of about 300 dealerships in the 12 months prior to February 2009. The plastics sector lost in the region of 2 000 jobs directly as a result of the recession, while the metals sector shed a substantial 75 000 jobs.

Government crisis support for the merSETA sector was part of the National Framework Agreement reached through engagement of the Nedlac partners, and formally announced in August 2009. Most critical for manufacturing were the funds set aside by the IDC for high-risk loans to firms in distressed sectors struggling to access credit; the training layoff scheme administered via the CCMA and aimed at assisting firms to avoid retrenchments; and the regulatory amendments and automotive investment scheme components of the APDP that were brought forward and due to begin in June 2009. In addition to these programmes, merSETA developed its Retrenchment Assistance Programme, focusing on assisting retrenched workers to be re-skilled for the sector and to become economically active.

Interviews with key stakeholders, intended to unpack in more detail the impact of the current economic crisis on merSETA sectors, brought to light seven major themes that add to and nuance the evidence from the literature review:

First, it was reiterated again and again that the impact of the crisis cannot be separated from the negative effects of the range of challenges that have faced SA manufacturers in recent years. In respect of credit availability, the National Credit Act of 2007 limited customer access to credit and dampened demand for new vehicle sales. The NCA was further used by banks during the crisis to limit loans and call in credit lines to firms in ‘risky’ manufacturing sectors. In addition to this, profitable and sustainable exporting has been undermined by currency volatility prior to and at the start of the crisis, and by sustained Rand strength since then; while diseconomies of scale have been created by increasing customer demands for a wider range of cheaper products that are of a higher quality and utilise greener and more sophisticated technologies.

Increasing pressure on the manufacturing sector has also come through high and escalating administered and logistics costs (including port tariffs, electricity, water and municipal rates) for generally poor levels of service; from the high costs of local raw materials that are determined by monopolistic upstream suppliers according to import parity models; and from the premium that firms pay for scarce and critical skills. Together these factors have resulted in high levels of fair and unfair competition for local producers and a relative contraction of manufacturing contribution to national GDP.

Second, firm-level interviews revealed that within the overall negative impact of the crisis on SA manufacturing its effect on sectors – and even on individual firms within sectors and subsectors – was uneven. This is unsurprising given the range of pressures preceding the crisis. Within this uneven picture, however, some trends emerge: generally, smaller and locally owned firms, firms with a predominant export orientation, and firms with a narrow customer base or product range were among the hardest hit. From a sector perspective, the automotive industry suffered the most, and within this the components manufacturing subsector. While the metals sector was slightly less affected and the plastics manufacturing sector the least affected overall, firms within these sectors supplying the automotive and construction sectors were disproportionately impacted, as were metals producers focusing on the export market.

Third, workforce downsizing was generally part of complex fixed-cost reduction drives. Dropping production volumes were initially managed through shift consolidation and reduction, following which contracts with labour brokers were ended. As the crisis progressed, measures that in many firms preceded the crisis, such as hire freezes, and voluntary-separation and early-retirement packages, were instituted or scaled up in order to reduce permanent employment numbers. At the same time the majority of firms were forced to institute short time, layoffs and extended shut downs to reduce the wage burden of permanent staff. The final step of formal retrenchments was reached reluctantly for most companies; however, the data on sectoral job losses suggest that for many this final step was unavoidable. And while retrenchments were generally selective and efforts were made to retain scarce and critical skills, in the case of firm closures, these were wholesale.

Fourth, because of the magnitude of skills shortage preceding the crisis, and firm's efforts to retain their scarce and critical skills, the skills crisis remains a problem for SA manufacturing growth and sustainability going forward. This is particularly the case for the automotive industry in light of the high-skills trajectory that the sector is following. Only to a very small degree has the current crisis 'eased' skills shortages in that the lead-times required by companies to find people to fill key positions are reported to have dropped slightly.

Fifth, firm-level training has been negatively affected by the crisis, although also to a variable extent. Cash flow problems resulted in widespread freezing of training budgets at the beginning of the crisis, with small- and medium-sized firms unlikely to have continued training activities at all. In larger firms, however, there was more variation. Training in management at NQF levels 6 and upwards and employee enrolment in skills programmes was either stopped or considerably scaled back, while legislated training (such as safety, health and environment), artisan training and operator-level training in support of new vehicle model launches and new plant establishment generally continued. And although most firms continued to fill new artisan learnership positions as these opened up, many were not able to indenture learners who had completed the theoretical part of their training and released them into the labour market instead.

Sixth, industry consensus is that government demonstrated a distinct lack of leadership around the crisis: What should have been simple programmes aimed at saving jobs instead became complex, cumbersome and restrictive. Labour and industry agree that support offered to the manufacturing sector in response to the global and local economic recessions was 'too little too late'.

Finally, while merSETA is considered to be among the most efficient of the Setas and valuable in respect of training support, stakeholders feel that merSETA can do a lot more to support sustainable industry growth into the future by focusing on its primary mandate: actively supporting skills development initiatives in and for the automotive, metals and plastics sectors. This will entail merSETA addressing a range of challenges around support policies, internal operations and staff training.

The econometric data analysed supports the qualitative information obtained through the literature review and the key stakeholder interviews: The negative employment growth evident between 2005 and 2008 for five of the seven sectors that make up the merSETA sectors cluster underscores the range of challenges faced by manufacturing firms, as well as the domestic motor vehicle sales subsector, in the years directly preceding the 2008/09 global and local economic recessions. Furthermore it supports industry's assertions that drives to improve efficiencies and reduce fixed costs, including wage bills, were already in place at many firms at the onset of the crisis.

Again supporting industry views, the forecast data suggests that while employment can be expected to rise again in the future, this will be slow and will considerably lag behind growth in gross value added for all the various growth scenarios analysed. At the same time, the majority of the sectors in the merSETA cluster have been, and are set to continue, on a high-skills trajectory with the proportion of skilled and highly skilled workers rising in comparison to unskilled and semi-skilled workers.

Rises in real labour remuneration are anticipated for the majority of merSETA's sectors. This is in relation to the overall sectoral wage bill, as well as in relation to remuneration per employee. The latter, which represents an increasing cost burden to firms, is likely to be related in part to the increasing proportion of skilled and highly skilled employees and also in part to the premium salaries paid to these workers due to skills gaps and shortages. Overall, the econometric data analysed highlights the negative impact of the recent economic crisis on employment within the merSETA sectors cluster, and magnifies the cost burden that manufacturing will carry into the future in relation to generally increasing demands for scarce skilled and highly skilled workers.

The findings from this research study lead directly to a range of recommendations for merSETA:

- The largely negative impact of the crisis on merSETA's sectors has impacted both the total number of firms as well as the number of employees. Together these factors will impact on the skills development levies paid. **merSETA will have to consider this factor in its planning for the way forward.**
- The study uncovered examples of critical firm- and industry-level training that merSETA is not financially supporting due to issues related to local qualification registration. **merSETA needs to consider new and more flexible ways to provide financial support for training so as to include such initiatives.**

- The combination of high direct and indirect training costs, together with continued cash constraints, means that small- and even medium-sized companies are likely to have lower levels of training activities in the short-term future than in the pre-crisis past. merSETA's training voucher scheme for small companies was applauded as a very positive development at industry level. **merSETA should consider increasing the size of companies qualifying for the training voucher scheme from 50 employees to 150 employees to promote continued and increased training in the current economic environment.**

- Cash-constrained firms will be even less inclined to train if they cannot be guaranteed of timely merSETA payments for training milestones reached, and if the challenges related to learner registrations and accessing theoretical training and assessments are not addressed. **It is critical that merSETA review and improve its internal administration systems in support of timely firm payments and more efficient learner registration and assessment.**

- The shortage of artisans in merSETA sectors remains a major problem. This is evident in firms' general commitment to continue artisan training even during the economic crisis. In the same way **merSETA should continue, and even increase, its focus on this critical area of skills shortages by considering new and innovative ways to provide appropriate training incentives to companies across the board.**

- It is understood at industry level that merSETA's mandates are laid out by the National Skills Development Strategy 2005-2010, which provides quantitative goals for learner registrations, and that achieving this has generally only been possible through a focus on developing lower-level-generic and sector-specific skills. Despite this, industry has continued on a high-skills growth path, one that demands quality in qualifications rather than just an increased quantity of these within the labour market. **merSETA needs to consider ways in which it can meet its mandate for quantity, but at the same time align its activities towards real sector needs. In particular, merSETA should consider increased and more flexible means to support high level and even extremely firm-specific training.**

- Large firms with dedicated training facilities and staff indicated that they often have spare training capacity. **merSETA should develop appropriate processes and incentives whereby sectors can cost effectively benefit from the full utilisation of all their training capacity.**

- Finally, the economic crisis merely exacerbated existing challenges that were facing the sector – many as a result of, or as a result of the lack of, national government policies. Industry is banking on the dti's new Industrial Policy Action Plan to provide clear strategies on the way in which government intends to address these challenges. Despite the fact that these issues generally fall outside of merSETA's jurisdiction, they are of interest to the institution as they impact the viability and sustainability of the sectors it supports. **merSETA should consider passing this research on to the departments of trade and industry and higher education and training, as the findings are also relevant to the higher-level policy decisions taken by these departments.**

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APPENDIX A: KEY STAKEHOLDER INTERVIEWS

Focus Area	Company / Organisation	Name(s)	Designation/Title: Primary Interviewee
Labour	NUMSA	Thengo Thengela	Research Coordinator
Government	the dti - Autos	Mzwake Mbatha	Deputy Director Autos
	the dti - Plastics	Thokozani Masilela	Chief Director Plastics
	the dti - Metals	Gerhard Niklaas & Freddie Herselman	Deputy Director Autos
Industry Support	MerSETA Board	Juanne Esterhuizen	Chair of Board
	AIDC	Barlow Manilal	Chief Executive Officer
	Benchmarking and Manufacturing Analysts	Justin Barnes	Managing Director
	IDC	Shakeel Meer	Division Executive Industrial Sectors
Motor Chamber	RMI	Jeff Osborne	Chief Executive Officer
	Naacam	Roger Pitot	Executive Director
	Mc Carthy	Brand Pretorius	Chief Executive Officer
	PG Group	Mike Sikhakhane	HR Manager
	Kolbenco	Colin Eddey	Ex-Managing Director
	Behr SA	Toni Acton	HR Manager
Auto Chamber	Naamsa	Nico Vermeulen	Executive Director
	Toyota	Tshepe Molapo	Deputy HR Manager
	BMW	Ulrich Sanne	HR and Finance Director
	VWSA	David Powels	Chief Executive Officer
	Ford	Charles Kemp	HR Manager
Metals Chamber	Columbus Stainless	Willy Matthiae	Skills development facilitator
	ArcelorMittal	Adriaan Jansen van Vuuren	Training Manager: Management Training
		Johan Riekert & Andre Gouws	Training Manager: Basic Training
	Capegate	Jannie van den Berg	Senior HRD Consultant
	Seifsa	Janet Lopes & Lucho Trentini	Skills Development Director
	Bell Equipment	Guy Harris	Strategic Director
New Tyre Chamber	SATMC	Ettiene Human	CEO
	Apollo tyres	John Wilson	HR Manager
Plastic Chamber	Safripol	Joachim Schoch	Chief Executive Officer
	Polyoak	Jeremy Mackintosh	Managing Director
	DPI Plastics	Japie Bester	Managing Director
	Plasfed	Anton Hanekom	Director

Focus Area	Company / Organisation	Name(s)	Designation/Title: Primary Interviewee
	Smiths Plastics	Sbu Ncgobo	HR Director
Other	National Tooling Initiative	Dirk van Dyk	Programme Manager
TOTAL			

APPENDIX B: NOTES ON THE TRENDS AND OUTLOOK OF THE merSETA SECTORS CLUSTER

1. METHODOLOGY

The manufacturing, engineering and related services SETA (merSETA) consists of the following chambers:

- Metal and engineering
- Auto manufacturing
- Motor retail and component manufacturing
- Tyre manufacturing
- Plastics industries

However, this classification is not aligned with the economic grouping or classification of sectors according to the Standard Industrial Classification (SIC) system. Matching of relevant sectors, according to SIC (two-digit level) for which data are available, was therefore performed and forecasts generated for a five-year period.

The following seven sectors were identified, which represented the closest match with the MerSETA chambers:

- Rubber products manufacturing
- Plastic products manufacturing
- Basic iron & steel manufacturing
- Basic non-ferrous metals manufacturing
- Machinery & equipment manufacturing
- Motor vehicles, parts & accessories manufacturing
- Sales and repair of vehicles and fuel stations operation

Throughout this document, these six or seven sectors (depending on which data variable is discussed) will be referred to as “the merSETA sectors cluster” or “the sector cluster under review”.

A macro econometric model and an input-output model (for more details on these models contact EE Research Focus, using the details provided at the front of this report) were used to generate forecasts for the most important economic dimensions of the sectors listed above. The last sector in the list – the sales and repairs of vehicles and fuel stations – is a services sector for which insufficient data was available in order for it to be included in the input-output model process. Single equation linear regression techniques were used to obtain forecasts for some of the macro magnitudes pertaining to this sector.

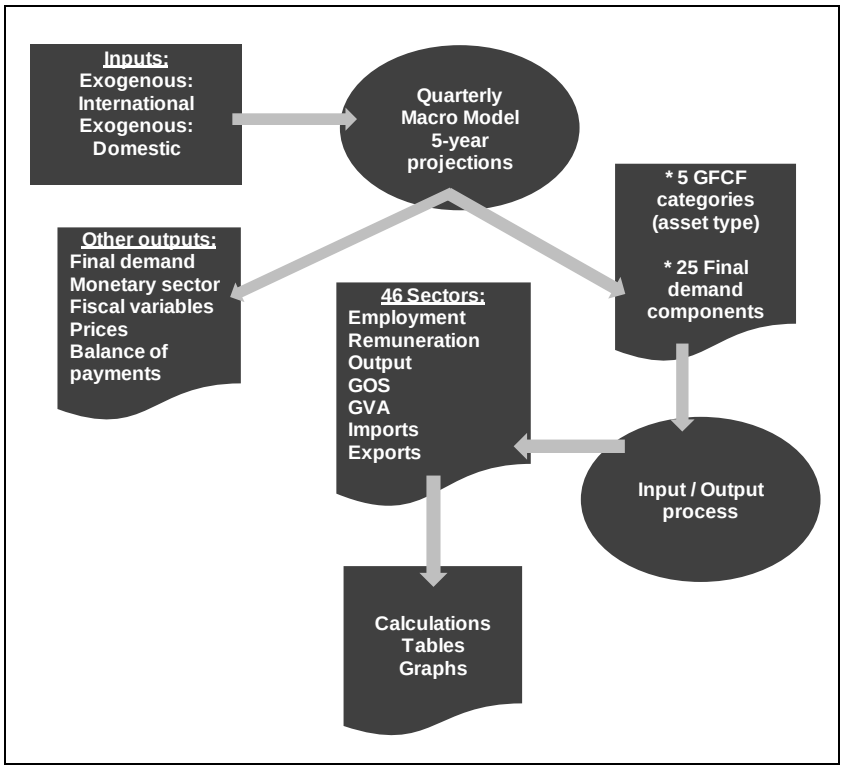


Figure B-1:

Process overview of sector indicators and forecasts

Figure B-1 shows the process employed in arriving at trends and forecasts, while Table B-1 shows the analysis that was performed on the sectors and which will be presented in sections 2 to 10 of this appendix.

Table B-1: Available data for sectors of the merSETA cluster

	SIC Code (3-digit)	Imports	Exports	Output	GVA	GFCF	Capital stock	GOS	Labour remuneration	Formal Employment				Informal employment
										Highly skilled	Skilled	Semi- & Unskilled	Total	
Basic iron & steel, non-ferrous metals, metal products manufacturing	351-355	x	x	x	x	x	x	x	x	x	x	x	x	x
Machinery manufacturing	356-357	x	x	x	x	x	x	x	x	x	x	x	x	x
Rubber products manufacturing	337	x	x	x	x	x	x	x	x	x	x	x	x	x
Plastic products manufacturing	338	x	x	x	x	x	x	x	x	x	x	x	x	x
Motor vehicles, parts & accessories manufacturing	381-383	x	x	x	x	x	x	x	x	x	x	x	x	x
Sale, maintenance and repair of motor vehicles; petrol stations	631-635			x	x			x	x				x	

Abbreviations:

SIC = Standard Industrial Classification
GFCF = Gross fixed capital formation
GVA = Gross value added
GOS = Gross operating surplus

2. IMPORTS

Most imports by the sectors under review were destined for the motor vehicles parts and accessories sector. However, this sector only became an important importer in the late 1990s as, before this time, the basic iron and steel manufacturing industry was responsible for most of the imports by this sector cluster.

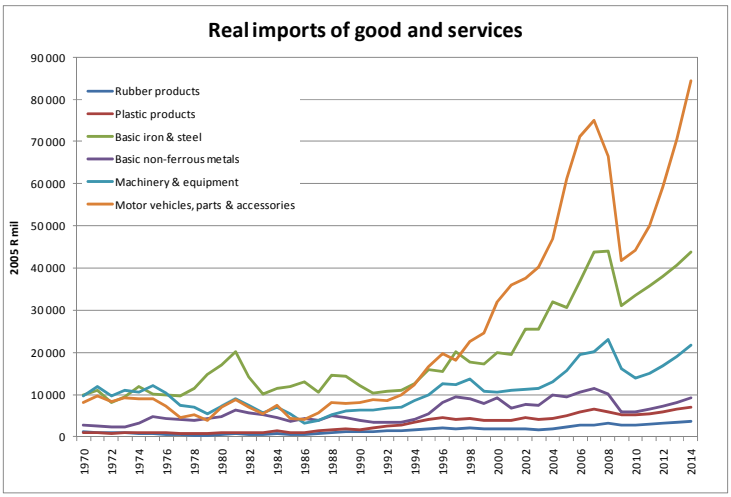
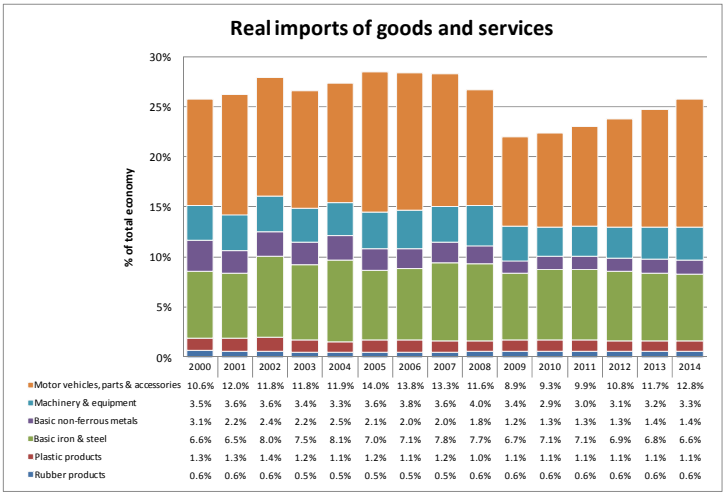


Figure B-2

Real imports of goods and services: 1970 to 2014



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Motor vehicles, parts & accessories	10.6%	12.0%	11.8%	11.8%	11.9%	14.0%	13.8%	13.3%	11.6%	8.9%	9.3%	9.9%	10.8%	11.7%	12.8%
Machinery & equipment	3.5%	3.6%	3.6%	3.4%	3.3%	3.6%	3.8%	3.6%	4.0%	3.4%	2.9%	3.0%	3.1%	3.2%	3.3%
Basic non-ferrous metals	3.1%	2.2%	2.4%	2.2%	2.5%	2.1%	2.0%	2.0%	1.8%	1.2%	1.3%	1.3%	1.3%	1.4%	1.4%
Basic iron & steel	6.6%	6.5%	8.0%	7.5%	8.1%	7.0%	7.1%	7.8%	7.7%	6.7%	7.1%	7.1%	6.9%	6.8%	6.6%
Plastic products	1.3%	1.3%	1.4%	1.2%	1.1%	1.2%	1.1%	1.2%	1.0%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Rubber products	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%

Figure B-3

Real imports of goods and services: 2000 - 2014

Imports by the MerSETA sectors cluster amounted to R152.9 bn (constant 2005 prices) in 2008 which represented 26.7% of total SA imports. In 1987, the comparable ratio was only 17.6%. During the period 2005-2008, the motor vehicles parts and accessories sector was responsible for 13.2% of all SA's imports, followed by the basic iron and steel sector (7.4%) and the machinery and equipment sector.

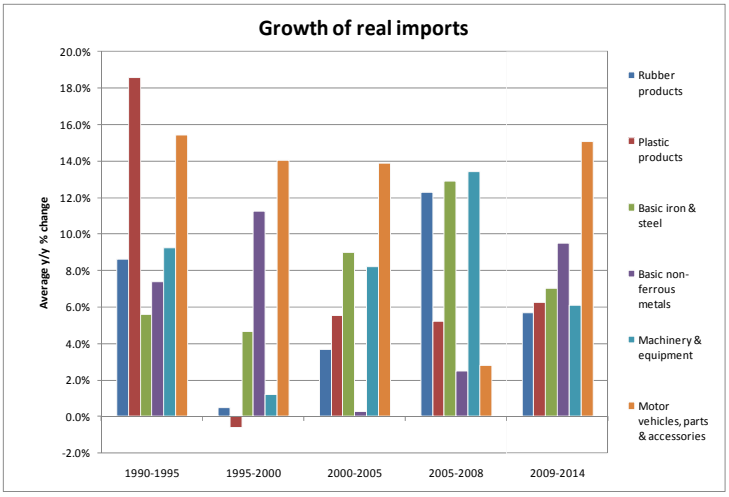


Figure B-4

Growth in real imports: 1990 - 2014

Growth in the real imports by the plastic products sector amounted to 18.6% p.a. on average during the period 1990-95, but real import growth by this sector was subsided in the ensuing years. Except for the period 2005-2008 when real import growth by the motor vehicles, parts and accessories sector amounted to only 2.8% p.a., imports by this sector grew, on average, by more than 14% p.a. in real terms since 1990.

Forecasts for real import growth by this sector cluster range between 5.7% p.a. (for rubber products) and (15.1% for the manufacturing of motor vehicles, parts and accessories sector) during the period 2009 to 2014.

3. EXPORTS

The basic iron and steel manufacturing sector exported R57 bn worth of goods (measured in constant 2005 prices) in 2008, and the motor vehicles, parts and accessories sector R52 bn. During the period 2005-2008, the combined export value of the sector cluster under review, constituted 27.9% of SA's total exports.

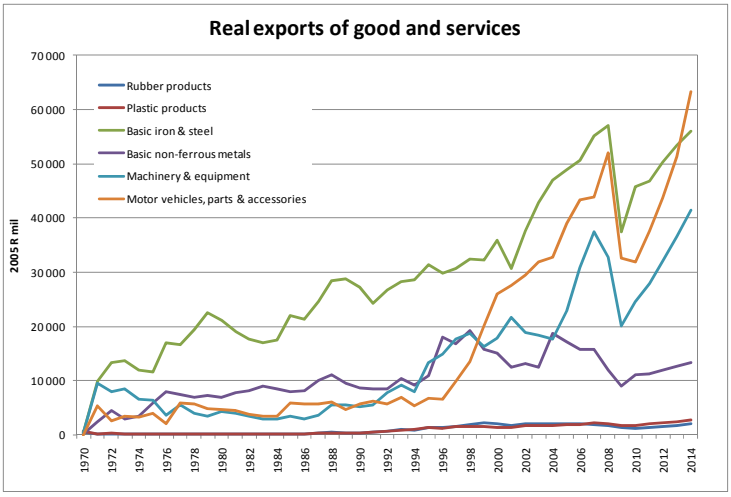


Figure B-5

Real exports of goods and services: 1970 - 2014

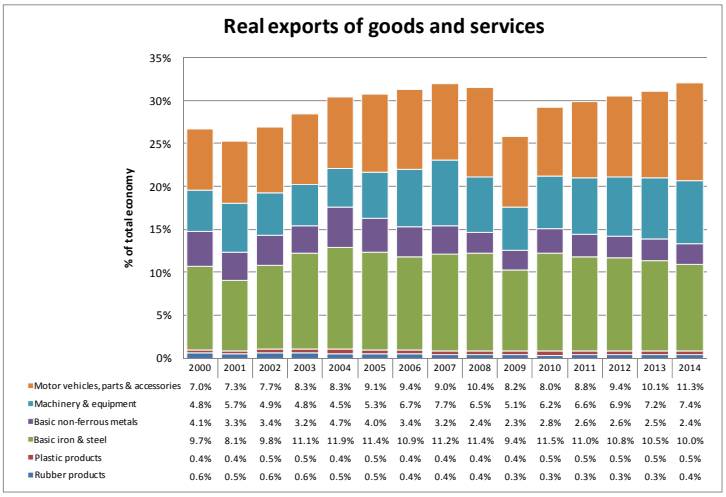


Figure B-6

Real exports of merSETA sectors cluster as percentage of total SA exports: 2000-2014

Strong real export growth of 30.8% p.a. was recorded, on average, by the motor vehicles parts and accessories sector during 1995-2000, but this growth slackened off in ensuing years, amounting to 10% p.a. during 2005-2008. During this latter period, the strongest real export was recorded by the machinery and equipment manufacturing sector, while goods produced by the rubber products- and basic non-ferrous metals sectors declined.

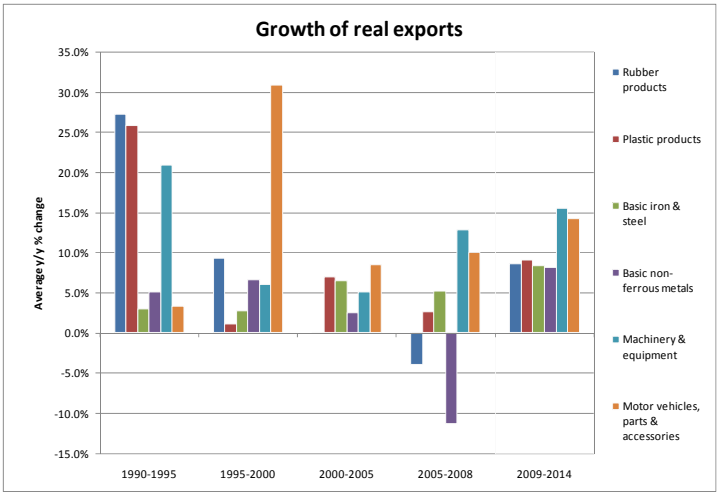


Figure B-7

Growth in real exports of goods and services: 1990 - 2014

Forecasts for real export growth by this sector cluster range between 8.2% p.a. (for basic non-ferrous metals products) and 15.5% (for the manufacturing of machinery and equipment manufacturing sector) during the period 2009 to 2014.

4. GROSS FIXED CAPITAL FORMATION

Gross fixed capital formation (GFCF) measures the value of additions to fixed assets purchased by businesses, the government and households less disposals (but excluding depreciation) of fixed assets during a particular period. Fixed assets consist of buildings, land, machinery and equipment utilised in the production process of goods and services. GFCF is a component of the expenditure on gross domestic product (GDP).

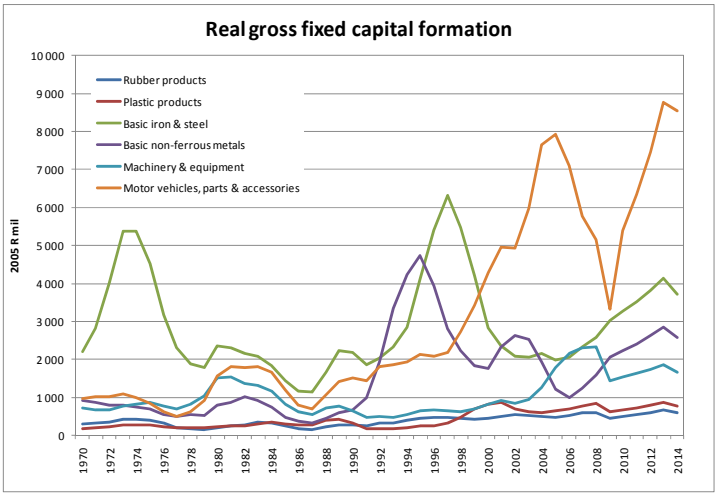


Figure B-8

Real gross fixed capital formation: 1970 - 2014

Although this sector cluster has been quite prominent as far as SA's imports and exports are concerned, the cluster is much less of a factor in its contribution to GFCF. In 2008, total capital formation by six sectors of the cluster amounted to R13 bn (in 2005 constant prices), while total GFCF in the economy amounted to R377 bn.

During 2005-2008, the cluster was responsible for 4.3% of fixed capital formation in the economy, with nearly half of the capital formation (2.1% of total GFCF) coming from the motor vehicles parts and accessories sector.

During 1990-1995, significant investment growth occurred in the basic non-ferrous metals manufacturing sector and the average real GFCF growth amounted to nearly 48% p.a. in this sector. However, during the ensuing 10-year period, real GFCF growth in this sector was negative.

During the period 2005-2008 real GFCF growth in five of the sectors averaged between 8.5% and 9.4% p.a., with the exception of the motor vehicles parts and accessories sector where real GFCF growth declined by 13.3% p.a.

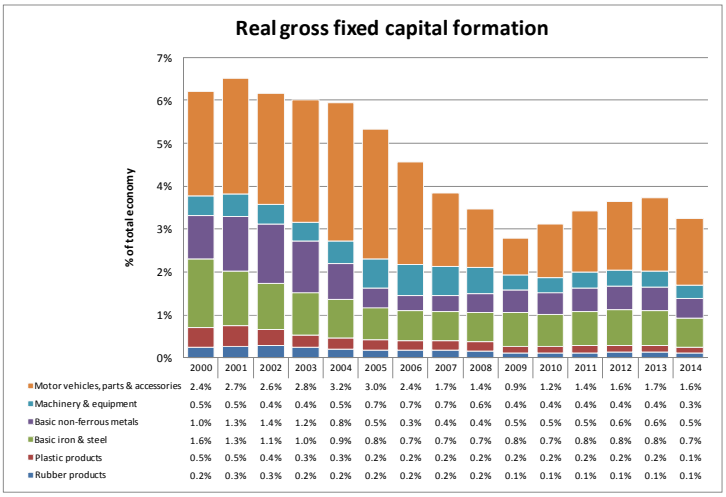


Figure B-9

Real gross fixed capital formation of merSETA sectors cluster as percentage of real gross capital formation of the SA economy: 2000 - 2014

According to our macro and sectoral models, real GFCF growth by the motor vehicles parts and accessories sector will be the highest by far, and could amount to around 20% p.a. over the period 2008-2014. Real GFCF growth by the other sectors is expected to range between 2.8% and 5.4% p.a.

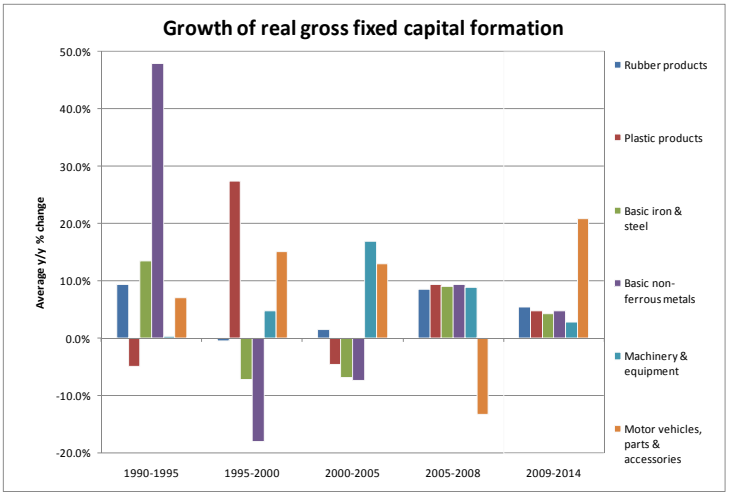


Figure B-10

Growth of real gross fixed capital formation: 1990 - 2014

5. FIXED CAPITAL STOCK

The country's fixed capital stock is the cumulative value of all gross fixed capital formation (GFCF) measured at the end of an accounting period, less depreciation allowances on the capital stock. As is the case with gross fixed capital formation, the fixed capital stock also consist of buildings, land, machinery and equipment utilised in the production process of goods and services. Whereas GFCF is a flow concept, the capital stock is a stock concept.

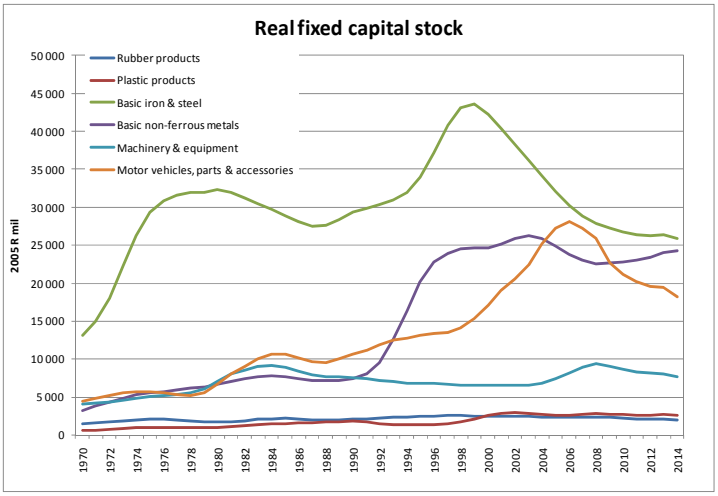


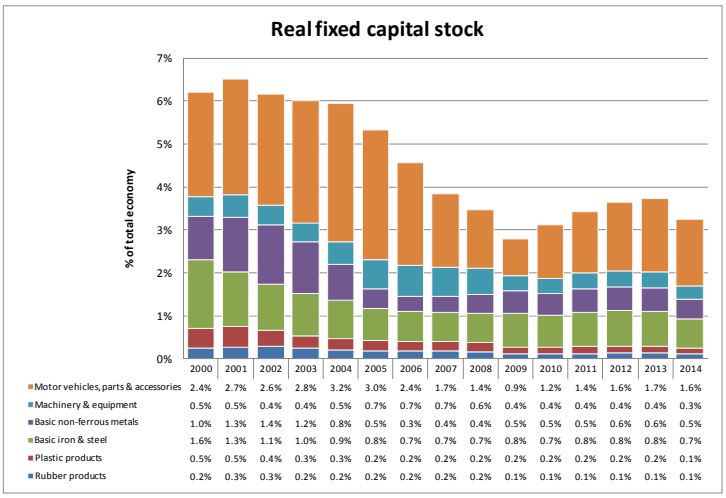
Figure B-11

Real fixed capital stock: 1970 - 2014

Considering the relatively low level of capital formation that emanated from this sector cluster over the years, it is not surprising to note that the cluster also has a very small percentage of accumulated capital stock. In 2008, the total capital stock by the six sectors under review amounted to R91 bn (in 2005 constant prices) compared with a total capital stock for the economy as a whole of R3 289 bn.

During 2005-2008, 3.1% of the economy's fixed capital stock was allocated to the six sectors under review. The motor vehicles parts and accessories sector had the highest capital stock penetration of the individual sectors of 0.9%, followed by the basic non-ferrous metals sector at 0.8%.

During consecutive five-year periods since 1990, there have been considerable differences in the real capital growth of the various sectors under review. During the period 1990-1995, the basic non-ferrous metals manufacturing sector showed very high real capital stock accumulation of 22% p.a. During the period 1995-2000, the plastic products sector had the highest real capital stock growth rate, whereafter the motor vehicles parts and accessories sector experienced the highest accumulation during 2000-2005, and the machinery and equipment manufacturing sector during 2005-2008.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Motor vehicles, parts & accessories	2.4%	2.7%	2.6%	2.8%	3.2%	3.0%	2.4%	1.7%	1.4%	0.9%	1.2%	1.4%	1.6%	1.7%	1.6%
Machinery & equipment	0.5%	0.5%	0.4%	0.4%	0.5%	0.7%	0.7%	0.7%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.3%
Basic non-ferrous metals	1.0%	1.3%	1.4%	1.2%	0.8%	0.5%	0.3%	0.4%	0.4%	0.5%	0.5%	0.5%	0.6%	0.6%	0.5%
Basic iron & steel	1.6%	1.3%	1.1%	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	0.8%	0.7%	0.8%	0.8%	0.8%	0.7%
Plastic products	0.5%	0.5%	0.4%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%
Rubber products	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Figure B-12

Real fixed capital stock of merSETA sectors cluster as percentage of real fixed capital stock of the SA economy: 2000 - 2014

During the forecast period 2009-2014, real growth in the fixed capital stock of the sector cluster is likely to be mostly negative, with only the basic non-ferrous metals sector expected to show a slight positive increase.

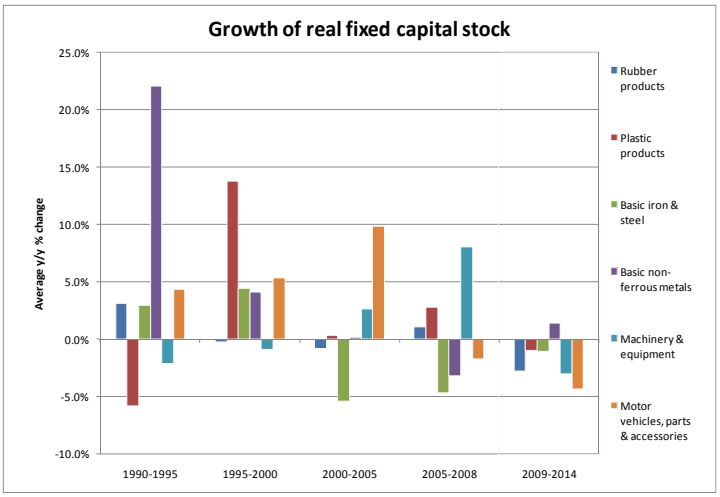


Figure B-13

Growth of real fixed capital stock: 1990 - 2014

5.1 Capital-output ratios

Capital-output ratios are useful in determining how capital intensive a sector is. A low capital-output ratio means that the sector is achieving a relatively high level of output with a small capital stock. A declining trend in this ratio may indicate that a sector is utilising its capital more efficiently, but it may also mean that its capital stock is being depleted, which will not be conducive for long-term growth and expansion.

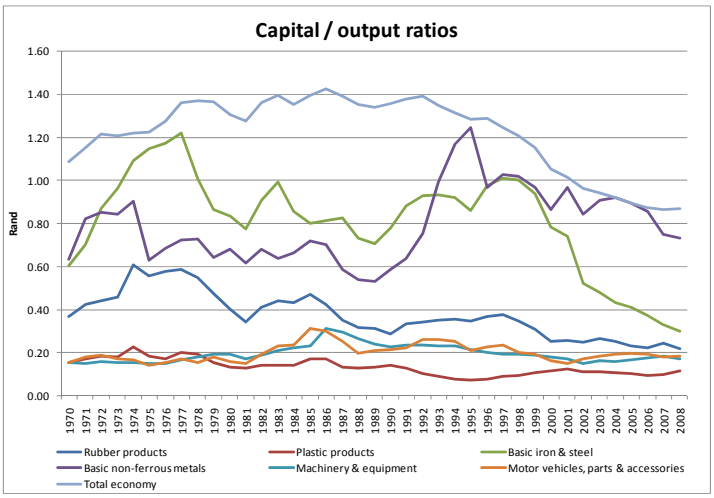


Figure B-14

Capital/output ratios: 1970 - 2008

Figure 14 shows that all of the sectors in the merSETA cluster have consistently had lower capital-output ratios than the total economy during the past four decades. In 2008, the plastics-products sector had the lowest capital-output ratio of only 0.12, meaning that it applied only 12 cents' worth of capital to produce R1's worth of output. Put differently, this sector generated output of R8.33 for every R1 of capital employed.

The sector with the highest capital-output ratio in 2008 was the basic non-ferrous metals manufacturing sector, which needed 73c worth of capital to generate R1 worth of output.

6. REAL OUTPUT

Output is the total value of all goods and services produced by an entity, sector or economy (national or regional) during a period of time. It is therefore a more encompassing measure than gross domestic product, which measures only the value added by sectors or the economy. However, the output measure may include some double counting since the intermediate outputs of some sectors could again be included in the output figures of other sectors that use these intermediate inputs in their production processes.

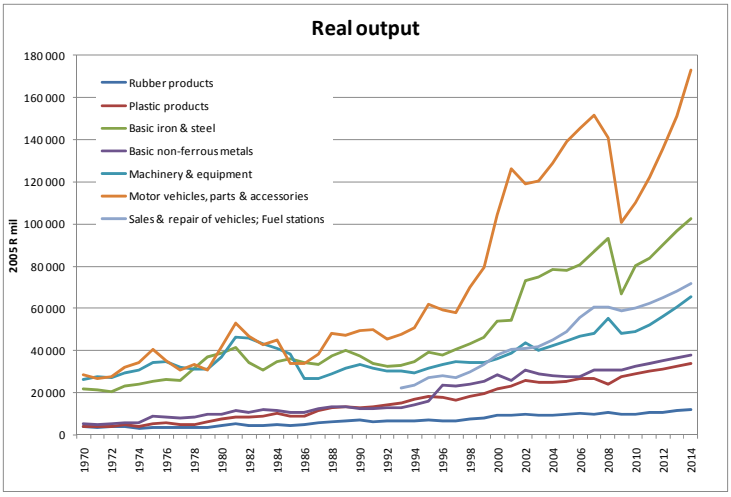


Figure B-15

Real output: 1070 - 2014

Measured by output, the biggest sector by far in the cluster under review is the motor vehicles parts and accessories sector. However, during the period 1970-1985 this sector was basically on a par with the basic iron and steel manufacturing sector and the machinery and equipment manufacturing sector. Some strong growth during the period 1998-2007 caused the real output by this sector to increase from R60 bn to more than R150 bn. In 2008, the total real output of the seven sectors under review in this cluster amounted to R416 bn (measured in 2005 constant prices) compared with the total output level of the economy of R3 786 bn.

During 2005-2008, 11% of the economy's output was generated by the seven sectors under review. The motor vehicles parts and accessories sector had the highest output share in relation to the total economy amongst the individual sectors under review of 3.7%, followed by the basic iron and steel manufacturing sector with a 2.4% share.

The effect of the recession on the merSETA sectors cluster is quite visible from the graphs, especially as far as foreign trade, output and value added are concerned. Real output growth by this cluster amounted to only 0.3% in 2008, compared with growth of 4.2% for the economy as a whole.

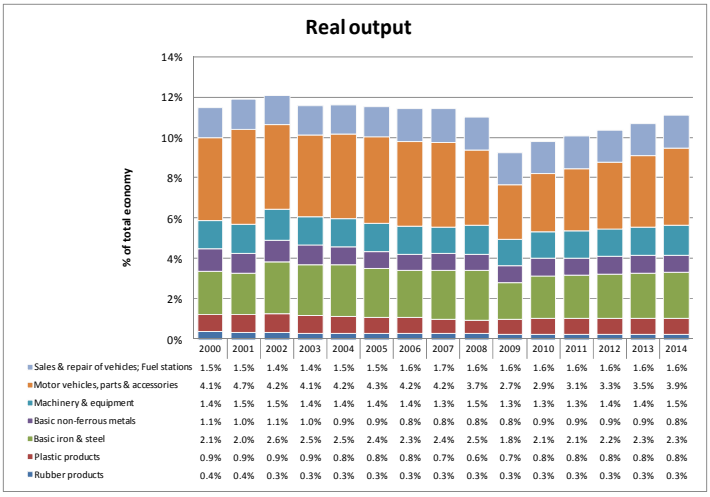


Figure B-16

merSETA sector cluster's contribution to total output in SA: 2000 - 2014

During the forecast period 2009-2014, real output growth is anticipated to be highest in the vehicles parts and accessories sector and the basic iron and steel manufacturing sector.

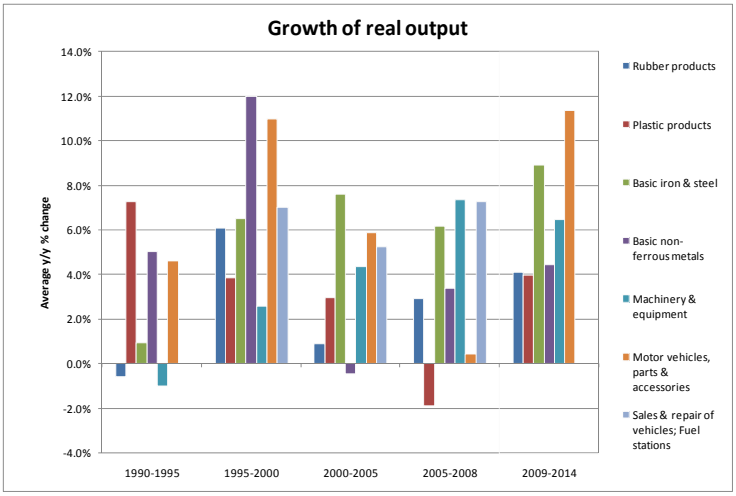


Figure B-17

Growth in real output: 1990 - 2014

7. REAL GROSS VALUE ADDED

Gross value added at basic prices (normally used in relation to a sector) or gross domestic product (normally used in relation to a national economy) is defined as output less intermediate consumption. GVA (or GDP) is usually considered to be the best measurement of the activity within and performance of a sector (or economy).

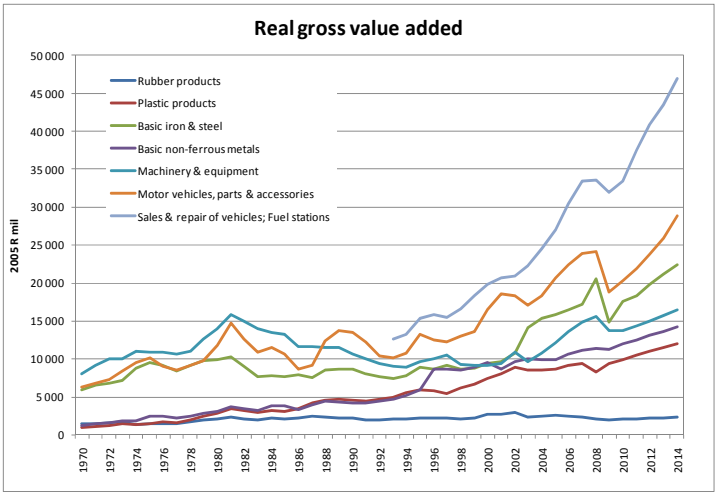


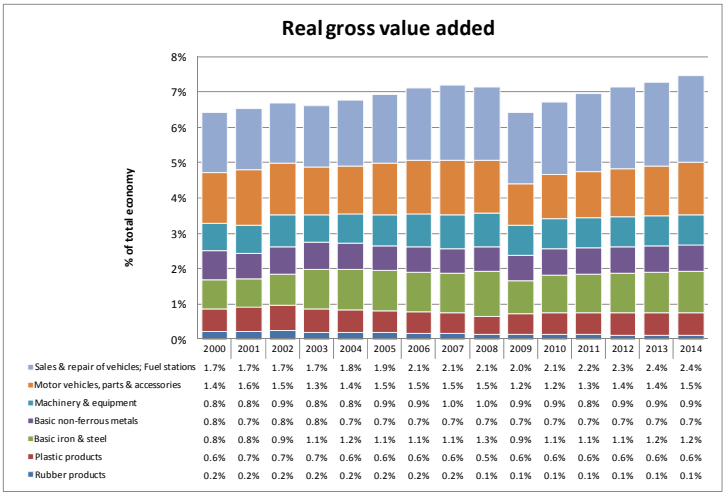
Figure B-18

Real gross value added: 1970 - 2014

Whereas the output measure showed the motor vehicles parts and accessories sector to be the largest sector in the merSETA sectors cluster, the sales and repair of vehicles and operation of fuel stations sector is much bigger if measured by GVA. The reason is that the intermediate consumption of the motor vehicles parts and accessories sector is very large, with many vehicle components that are imported and used in the production process. In contrast, the sales and repair of vehicles and operation of fuel stations sector uses very little intermediate goods and relies mostly on labour to deliver a service.

In 2008, the merSETA sectors cluster's combined real gross value added came to R116 bn (2005 constant prices), compared with the R1 620 bn for the total economy. The sales and repair of vehicles and operation of fuel stations sector was responsible for R33.5 bn or 29% of the sector cluster's GVA, followed by the motor vehicles parts and accessories sector at 21%.

The merSETA sectors cluster has shown a steady increase in its relative importance since 1995, with the seven sectors' combined GVA amounting to 6.1% of total GDP in 1995-2000; rising to 6.6% in 2000-2005 and to 7.1% during 2005-2008. However, the 2008/09 recession affected the cluster more than the total economy was affected, and the forecast for the relative contribution of this sector cluster to total GDP is 7% for the period 2009-2014.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sales & repair of vehicles; Fuel stations	1.7%	1.7%	1.7%	1.7%	1.8%	1.9%	2.1%	2.1%	2.1%	2.0%	2.1%	2.2%	2.3%	2.4%	2.4%
Motor vehicles, parts & accessories	1.4%	1.6%	1.5%	1.3%	1.4%	1.5%	1.5%	1.5%	1.5%	1.2%	1.2%	1.3%	1.4%	1.4%	1.5%
Machinery & equipment	0.8%	0.8%	0.9%	0.8%	0.8%	0.9%	0.9%	1.0%	1.0%	0.9%	0.9%	0.8%	0.9%	0.9%	0.9%
Basic non-ferrous metals	0.8%	0.7%	0.8%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Basic iron & steel	0.8%	0.8%	0.9%	1.1%	1.2%	1.1%	1.1%	1.1%	1.3%	0.9%	1.1%	1.1%	1.1%	1.2%	1.2%
Plastic products	0.6%	0.7%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.5%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Rubber products	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Figure B-19

merSETA sectors cluster's contribution to GDP: 2000 - 2014

During 2000-2005, four of the seven sectors in the merSETA sectors cluster outperformed the total economy as far as real GVA growth is concerned, with three sectors performing worse than the overall economy. The rubber products manufacturing sector was the worst performing sector during this period, declining by 0.2% p.a. on average. The best performing sector over this five-year period was the basic iron and steel manufacturing sector which grew by 11% p.a. in real terms, followed by the sales and repair of vehicles and operation of fuel stations sector, which recorded average annual real growth of 6.4% over this period.

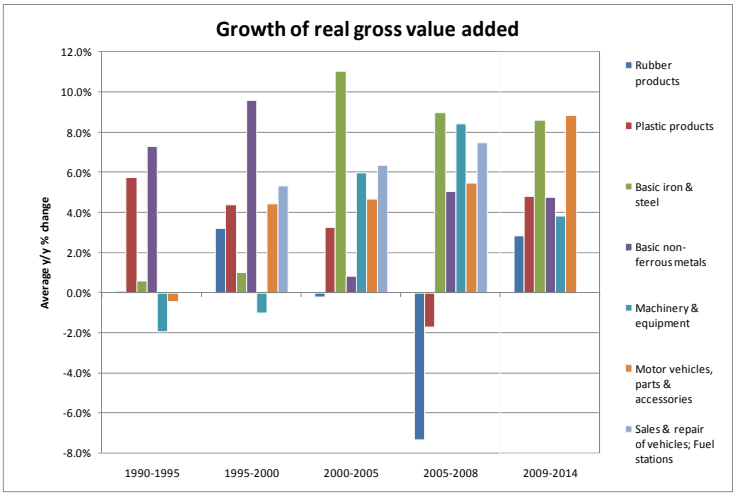


Figure B-20

Growth of real gross value added: 1990 - 2014

The most recent three-year period (2005-2008) again saw four sectors in the merSETA cluster outperforming the total economy as far as economic growth is concerned, although the average growth rate of the top performing sector (once again the basic iron and steel manufacturing sector) declined somewhat to 9% p.a. The rubber products manufacturing sector was again at the bottom of the league, this time by a hefty -7.3% p.a., and was joined by another sector with a negative growth performance – the plastic products manufacturing sector – which registered -1.7% p.a. over the period.

During the forecast period 2009-2014, real GVA growth is anticipated to be highest in the vehicles parts and accessories sector and the basic iron and steel manufacturing sector, while the negatively performing sectors of the past number of years should also show an improvement. It is anticipated that all but one of the merSETA cluster's sectors will either match or outstrip the overall economic growth rate over the next five years.

7.1 Volatility and correlation estimates of sector growth rates

To estimate the effect that overall economic growth has had over the long term on the sectors contained in the merSETA sectors cluster, linear regression was used to estimate coefficients and obtain statistical "goodness of fit" measurements for each of the sectors.

Graphs contained in Figure B-21 show the historical trend of sectoral growth plotted against the total economy's growth for the period 1970 to 2008 (and a shorter period for the sales and repair of vehicles and operation of fuel stations sector growth). In the graphs contained in Figure B-22, the same information is shown in a different format – as scatter plots. The linear equations (of the form $y = mx + c$) are also shown in the graphs and are summarised in Table B-2.

The r-squared values (shown as R2 in Table B-2) are generally indicative of how good a fit is. In this instance, this statistic gives an indication of how well correlated the growth rate of a particular sector has been with the growth rate of the total economy. From the results it is clear that the R2 (also called correlation coefficient) values are generally quite low, indicating weak correlations of sector growth with total economic growth. The sectors that were best correlated with the total economy during 1970-2008 were the machinery and equipment manufacturing sector (R2=0.4498) and the motor vehicles parts and accessories manufacturing sector (R2=0.4913).

Sectoral growth rates were also regressed on GDP growth lagged by one year but, generally speaking, correlation coefficients deteriorated further.

Another statistic obtained from the linear regression equations is the beta-values, or m-values in the equation $y = mx + c$ (with y being the sectoral growth rates and x being the total economy's growth rates). The beta-values estimate the percentage change in GVA that could be expected to occur in a sector for a one percentage point change in overall economic growth. This would mean that the vehicles, parts and accessories manufacturing sector had the biggest variability over the business cycle, growing by around 4% for every 1% growth recorded in the total economy. In contrast, the rubber products manufacturing sector would be likely to grow by only 0.9% for every 1% growth recorded in the total economy. However, as pointed out earlier, the correlation for the rubber products sector has been particularly weak.

Table B-2

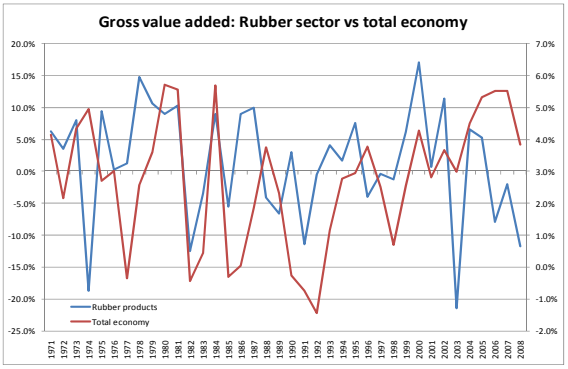
Linear regression results of sector GVA growth vs total GDP growth

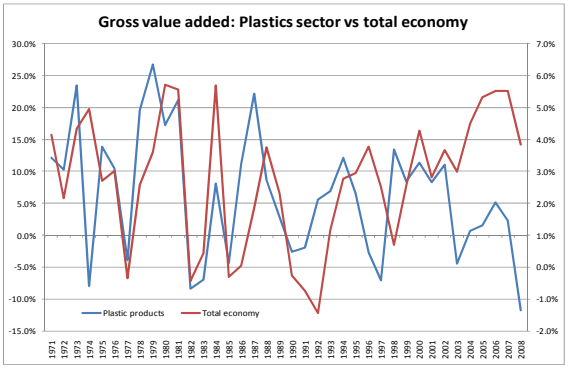
GDP: Coincide

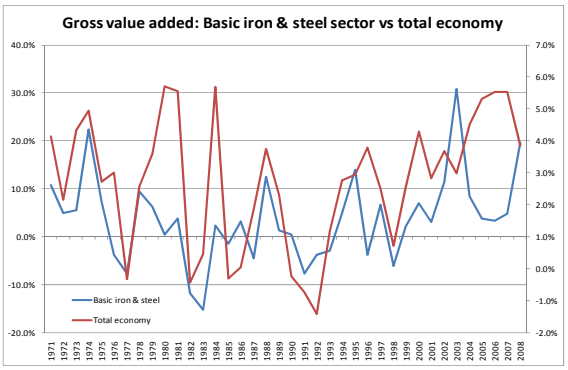
	Rubber products		Plastic products		Basic iron & steel		Basic non-ferrous metals		Machinery & equipment		Motor vehicles, parts & acc		Sales & repairs; Fuel stations	
Coef (y = mx + c)	0.8632	-0.0097	1.3228	0.0267	2.2669	-0.0250	2.4889	-0.0023	2.7008	-0.0535	3.9710	-0.0660	1.1039	0.0286
SE	0.7112	0.0242	0.7627	0.0260	0.6304	0.0215	0.8119	0.0277	0.4580	0.0156	0.7320	0.0249	0.9943	0.0378
R2	0.0393	0.0886	0.0771	0.0950	0.2642	0.0786	0.2070	0.1012	0.4913	0.0571	0.4498	0.0912	0.0866	0.0492
F	1.4731	36.0000	3.0081	36.0000	12.9294	36.0000	9.3969	36.0000	34.7751	36.0000	29.4293	36.0000	1.2327	13.0000
ss_reg	0.0116	0.2827	0.0272	0.3251	0.0798	0.2222	0.0962	0.3685	0.1133	0.1172	0.2448	0.2995	0.0030	0.0314

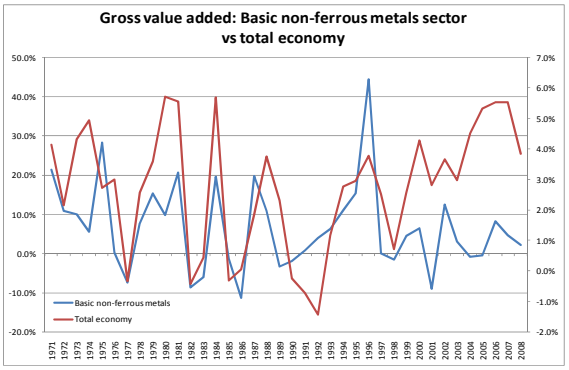
GDP: Lagged 1 year

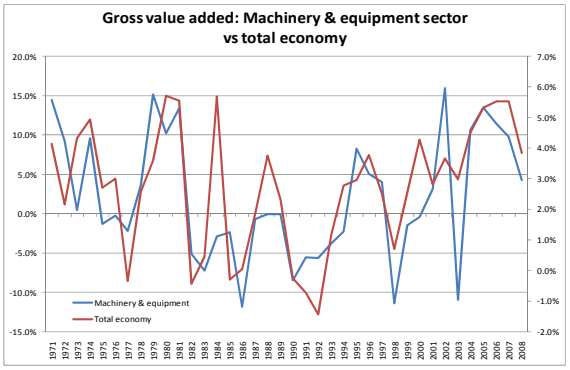
	Rubber products		Plastic products		Basic iron & steel		Basic non-ferrous metals		Machinery & equipment		Motor vehicles, parts & acc		Sales & repairs; Fuel stations	
Coef (y = mx + c)	-1.3085	0.0481	-1.2004	0.0939	1.2915	0.0002	0.0862	0.0596	1.7397	-0.0299	1.6330	-0.0024	-0.4980	0.0873
SE	0.7017	0.0238	0.7784	0.0264	0.7093	0.0241	0.9056	0.0307	0.5586	0.0190	0.9648	0.0327	1.0681	0.0406
R2	0.0904	0.0871	0.0636	0.0966	0.0865	0.0880	0.0003	0.1124	0.2170	0.0693	0.0757	0.1197	0.0178	0.0527
F	3.4773	35.0000	2.3784	35.0000	3.3155	35.0000	0.0091	35.0000	9.7010	35.0000	2.8650	35.0000	0.2174	12.0000
ss_reg	0.0264	0.2654	0.0222	0.3266	0.0257	0.2712	0.0001	0.4421	0.0466	0.1682	0.0411	0.5017	0.0006	0.0334

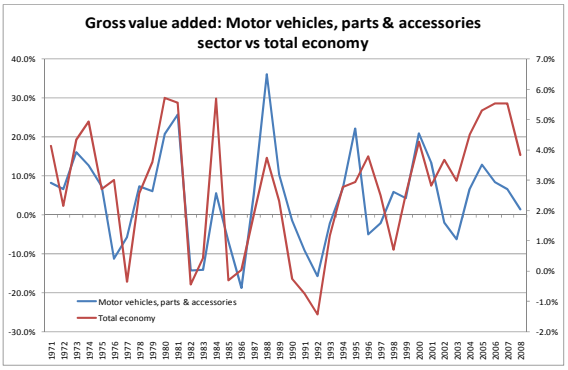












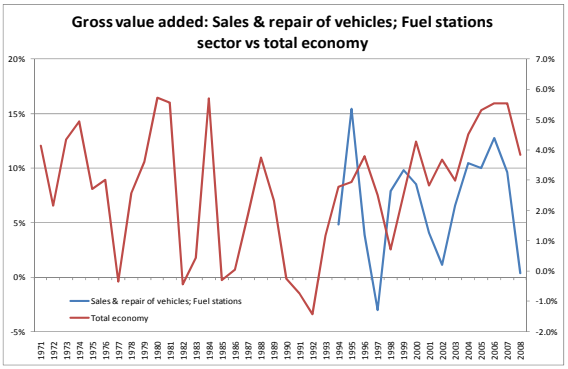
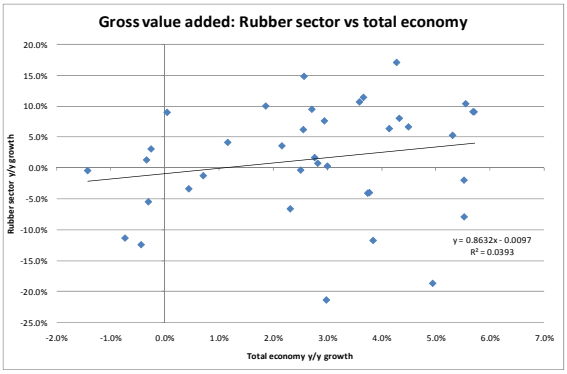
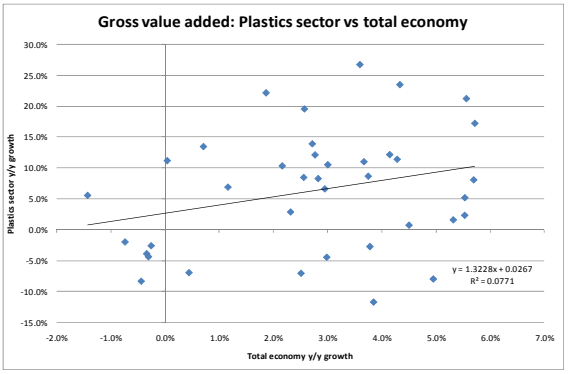
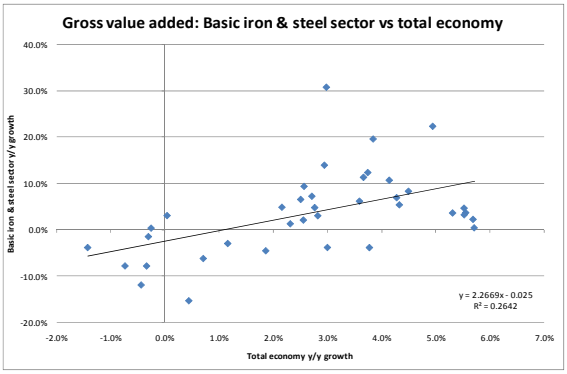


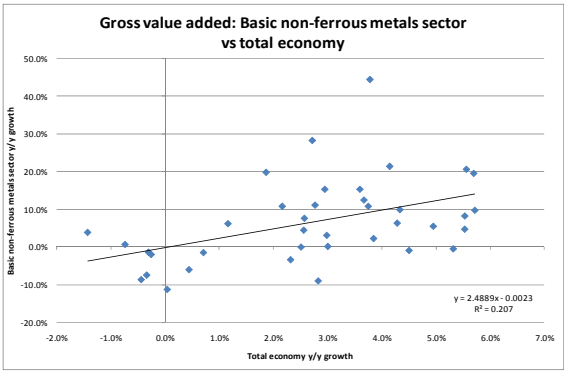
Figure B-21

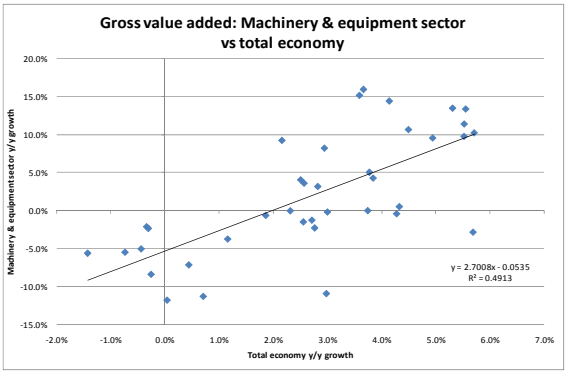
Time series comparisons of sector GVA growth versus overall GDP growth

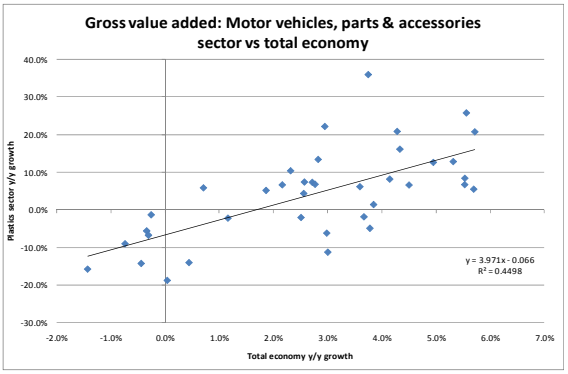












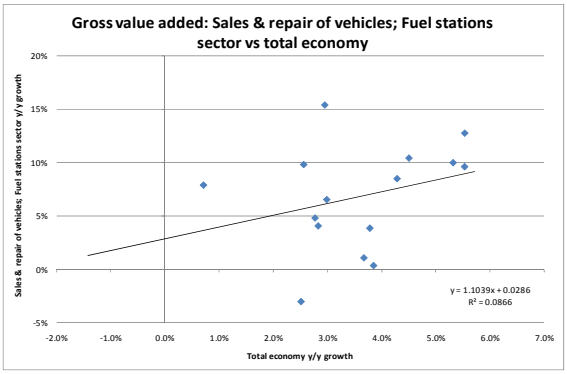


Figure B-22

Cross-section linear regression graphs of sector GVA growth versus overall GDP growth

8. REAL GROSS OPERATING SURPLUS

The gross operating surplus (GOS) for a sector or the economy is obtained by deducting intermediate consumption from output (to obtain GVA), and then deducting labour remuneration from this result. GOS is a measure of sector profitability, although no allowance is yet made for depreciation (capital consumption) charges.

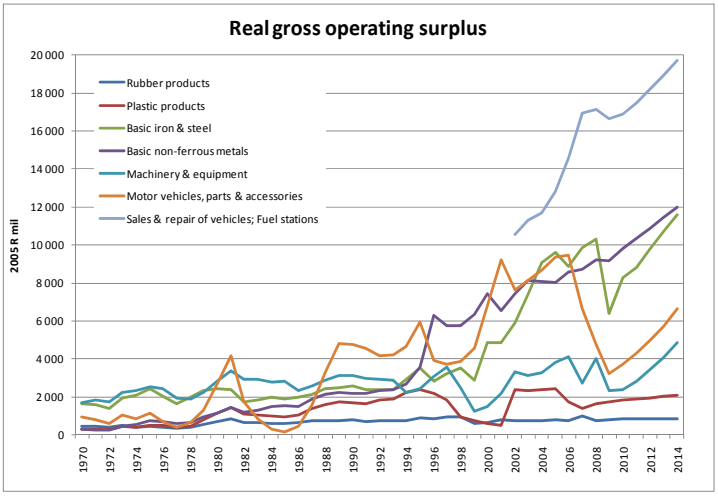
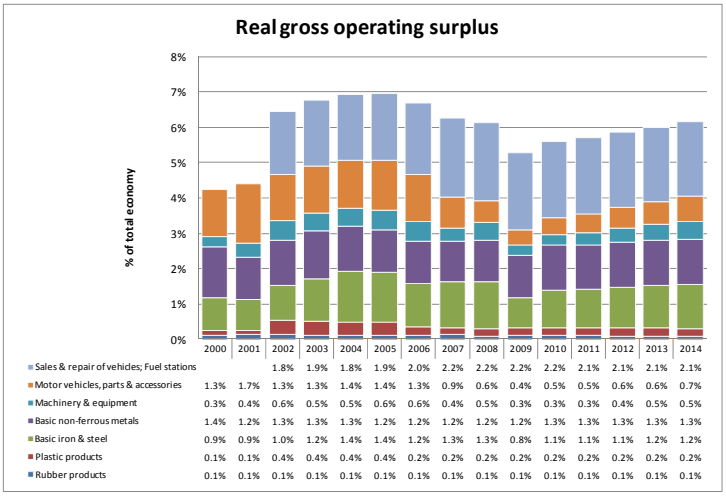


Figure B-23

Real gross operating surplus: 1970 - 2014

The GOS generated by the sales and repair of vehicles and operation of fuel stations sector has increased significantly since 2001, while this sector also had the highest absolute figure of GOS generated. In 2008 this sector's GOS amounted to R15,4 bn compared with the R9.7bn of the second highest sector, the basic iron and steel manufacturing sector. The rubber products sector recorded a GOS of only R0.8 bn in 2008.

During 2005-2008, 6.5% of the economy's output was generated by the seven sectors in the cluster under review. The sales and repair of vehicles and operation of fuel stations sector had the highest output share of 2.1%, in relation to the total economy amongst the individual sectors under review, followed by the basic iron and steel manufacturing sector with a 1.3% share.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sales & repair of vehicles; Fuel stations			1.8%	1.9%	1.8%	1.9%	2.0%	2.2%	2.2%	2.2%	2.2%	2.1%	2.1%	2.1%	2.1%
Motor vehicles, parts & accessories	1.3%	1.7%	1.3%	1.3%	1.4%	1.4%	1.3%	0.9%	0.6%	0.4%	0.5%	0.5%	0.6%	0.6%	0.7%
Machinery & equipment	0.3%	0.4%	0.6%	0.5%	0.5%	0.6%	0.6%	0.4%	0.5%	0.3%	0.3%	0.3%	0.4%	0.5%	0.5%
Basic non-ferrous metals	1.4%	1.2%	1.3%	1.3%	1.3%	1.2%	1.2%	1.2%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%	1.3%
Basic iron & steel	0.9%	0.9%	1.0%	1.2%	1.4%	1.4%	1.2%	1.3%	1.3%	0.8%	1.1%	1.1%	1.1%	1.2%	1.2%
Plastic products	0.1%	0.1%	0.4%	0.4%	0.4%	0.4%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Rubber products	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Figure B-24

Real gross operating surplus of the merSETA sectors cluster as percentage of GOS of the SA economy

During the forecast period 2009-2014, real GOS growth is anticipated to exceed 15% p.a. in both the machinery and equipment manufacturing sector and the motor vehicles parts and accessories manufacturing sector. Very low growth (les than 1% p.a.) is forecast for the rubber products manufacturing sector.

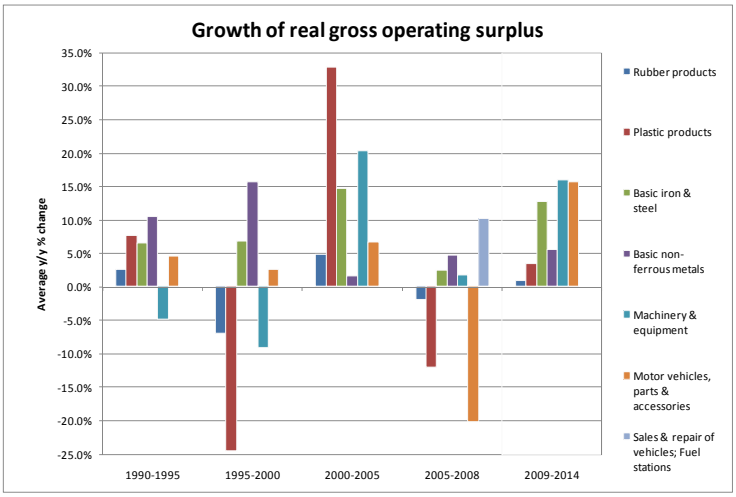


Figure B-25

Growth in real gross operating surplus: 1990 to 2014

Regression analysis was also performed on the sectors as discussed in Section 7.1. But as was the case with GVA, GOS of the sectors also turned out to be very weakly correlated with the overall GOS in the economy. From Table B-3 it can be seen that the strongest correlation once again existed between the GOS growth of the sales and repairs of vehicles and operation of fuel stations sector and the total economy's GOS growth (R^2 = 0.4788).

Table B-3

Linear regression results of sector GOS growth vs total economy GOS growth														
GOS: Coincide														
	Rubber products		**Plastic products**		**Basic iron & steel**		**Basic non-ferrous metals**		**Machinery & equipment**		**Motor vehicles, parts & acc**		**Sales & repairs; Fuel stations**	
Coef (y = mx + c)	1.5154	-0.0244	3.4670	0.0124	2.1067	-0.0062	2.6270	0.0285	2.0568	-0.0223	3.1587	0.0891	2.7187	-0.0466
SE	0.5394	0.0297	2.3923	0.1318	0.5726	0.0315	0.7619	0.0420	0.7211	0.0397	2.5024	0.1378	1.4183	0.0714
R2	0.1798	0.1463	0.0551	0.6487	0.2732	0.1553	0.2483	0.2066	0.1843	0.1955	0.0424	0.6786	0.4788	0.0467
F	7.8918	36.0000	2.1003	36.0000	13.5346	36.0000	11.8891	36.0000	8.1361	36.0000	1.5933	36.0000	3.6743	4.0000
ss_reg	0.1689	0.7703	0.8839	15.1496	0.3264	0.8681	0.5075	1.5366	0.3111	1.3764	0.7336	16.5765	0.0080	0.0087
GOS: Lagged 1 year														
	Rubber products		**Plastic products**		**Basic iron & steel**		**Basic non-ferrous metals**		**Machinery & equipment**		**Motor vehicles, parts & acc**		**Sales & repairs; Fuel stations**	
Coef (y = mx + c)	1.0417	-0.0062	2.5745	0.0461	1.0962	0.0302	1.2483	0.0809	1.9114	-0.0181	0.7273	0.1794	1.8605	-0.0165
SE	0.5749	0.0319	2.4560	0.1364	0.6522	0.0362	0.8515	0.0473	0.7423	0.0412	2.5808	0.1433	1.6606	0.0937
R2	0.0858	0.1559	0.0304	0.6660	0.0747	0.1768	0.0579	0.2309	0.1593	0.2013	0.0023	0.6998	0.2389	0.0565
F	3.2836	35.0000	1.0988	35.0000	2.8252	35.0000	2.1491	35.0000	6.6301	35.0000	0.0794	35.0000	1.2553	4.0000
ss_reg	0.0798	0.8506	0.4873	15.5235	0.0884	1.0945	0.1146	1.8659	0.2686	1.4182	0.0389	17.1409	0.0040	0.0128

9. REAL LABOUR REMUNERATION

Compensation for labour, capital expenditure, intermediate consumption, interest charges and taxes are usually the most important cost items for any business.

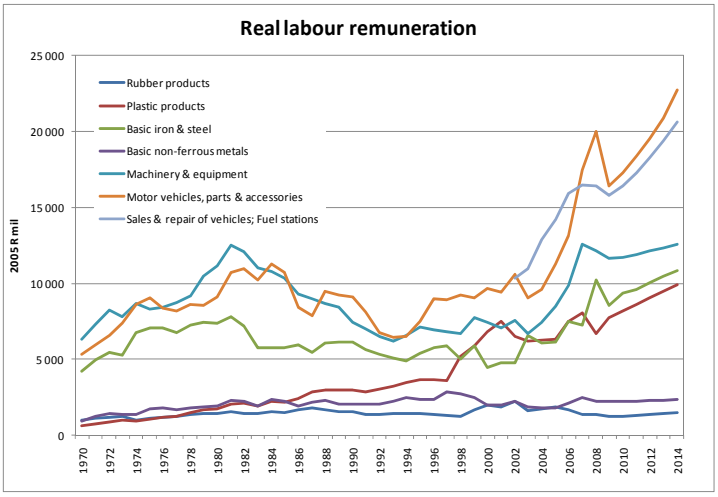
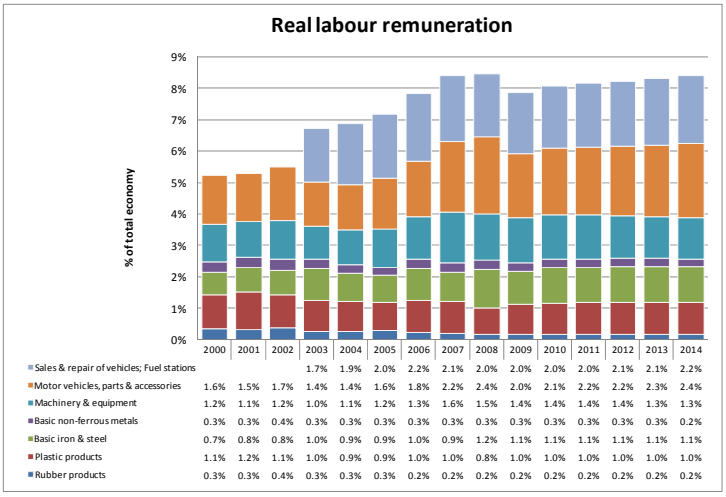


Figure B-26

Real labour remuneration: 1970 - 2014

In the merSETA sectors cluster, the vehicles, parts and accessories manufacturing sector paid out the highest amount (R20 bn at constant 2005 prices) to labour remuneration in 2008. The sales and repairs of vehicles and operation of fuel stations sector paid the second largest amount of total remuneration (R16.4 bn at constant 2005 prices).



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sales & repair of vehicles; Fuel stations				1.7%	1.9%	2.0%	2.2%	2.1%	2.0%	2.0%	2.0%	2.0%	2.1%	2.1%	2.2%
Motor vehicles, parts & accessories	1.6%	1.5%	1.7%	1.4%	1.4%	1.6%	1.8%	2.2%	2.4%	2.0%	2.1%	2.2%	2.2%	2.3%	2.4%
Machinery & equipment	1.2%	1.1%	1.2%	1.0%	1.1%	1.2%	1.3%	1.6%	1.5%	1.4%	1.4%	1.4%	1.4%	1.3%	1.3%
Basic non-ferrous metals	0.3%	0.3%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%
Basic iron & steel	0.7%	0.8%	0.8%	1.0%	0.9%	0.9%	1.0%	0.9%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Plastic products	1.1%	1.2%	1.1%	1.0%	0.9%	0.9%	1.0%	1.0%	0.8%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Rubber products	0.3%	0.3%	0.4%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%

Figure B-27

Real labour remuneration of merSETA sectors as percentage of total real remuneration in SA: 2000 - 2014

During 2005-2008, the seven sectors in the cluster under review paid out on average R60.6 bn as remuneration to labour, which represented 7.9% of total remuneration paid in the economy.

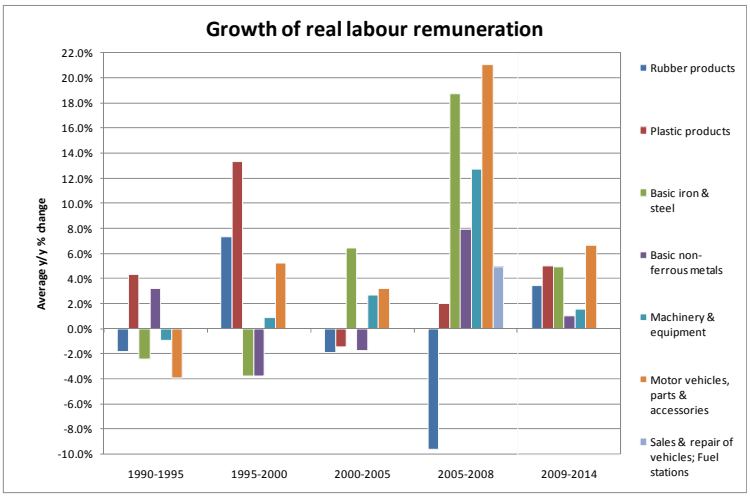


Figure B-28

Growth of real labour remuneration: 1990 - 2014

During the period 2000-2005, three sectors recorded declines in labour-remuneration amounts, with the biggest contraction (-1.9% p.a.) occurring in the rubber products manufacturing sector and the highest growth being recorded in the basic iron and steel sector (6.4% p.a.). The period 2005-2008 showed even greater divergence in real labour-remuneration growth, with the rubber products manufacturing sector declining by 9.6% p.a. and the vehicles, parts and accessories manufacturing sector rising by 21.1% p.a.

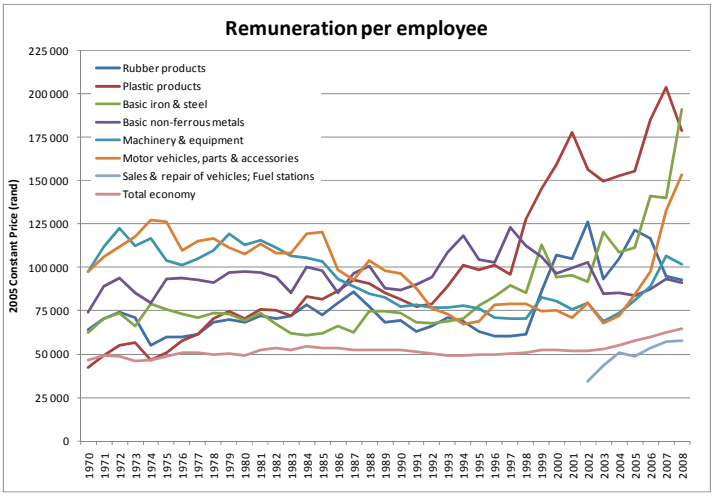


Figure B-29

Remuneration per employee: 1970 - 2008

The past five years (2003-2008) saw the largest increase in real remuneration per employee occurring in the vehicles, parts and accessories manufacturing sector with an average annual increase of 17.8% p.a. over this period. Real remuneration per employee in the rubber products manufacturing sector showed no real increase during this time. The average level of remuneration per employee in all of the sectors in the merSETA cluster, with the exception of the sales and repairs of vehicles and operation of fuel stations sector, was higher during the past four decades than the average remuneration level per employee for the economy as a whole.

Over the forecast period 2009-2014, real remuneration growth is anticipated to be highest in the vehicles parts and accessories sector, while the lowest rate of growth in real remuneration is expected in the basic non-ferrous metals manufacturing sector.

10. EMPLOYMENT

In 2008, most people (around 285 000 or 43%) in the merSETA sectors cluster were employed in the vehicles, parts and accessories manufacturing sector.

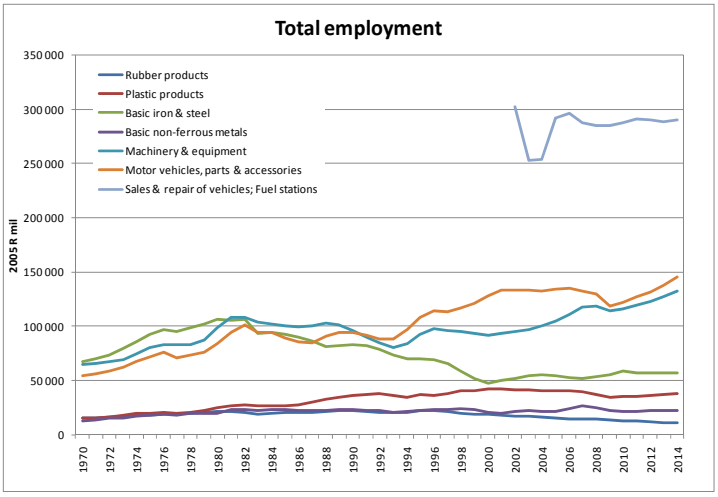


Figure B-30

Total employment: 1970 - 2014

Only around 5 600 people were informally employed in the merSETA sectors cluster in 2008. Informal employees were recorded in three of the sectors.

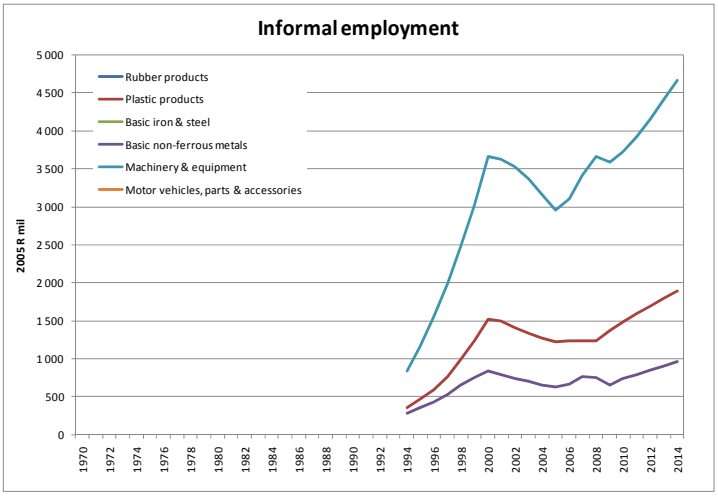
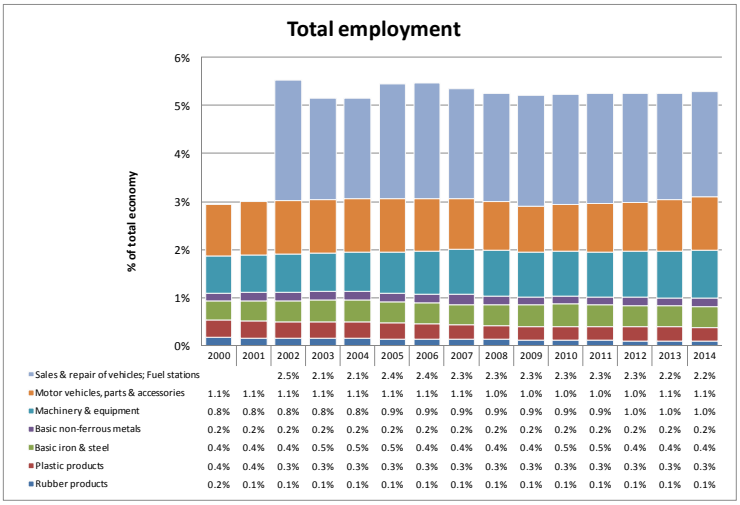


Figure B-31

Informal employment: 1994 - 2014

During the period 2005-2008, the sectors belonging to the merSETA cluster were responsible for 5.4% of all formal employment in the country. In terms of employment growth over this period, only two of the sectors increased their levels of employment and at the same time outperformed the overall rate of employment growth in the economy: the basic non-ferrous metals production sector (5% p.a.) and the machinery and equipment manufacturing sector (4.5%). All other sectors experienced negative employment growth, on average, over this period.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sales & repair of vehicles; Fuel stations			2.5%	2.1%	2.1%	2.4%	2.4%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.2%	2.2%
Motor vehicles, parts & accessories	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.1%	1.1%
Machinery & equipment	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%
Basic non-ferrous metals	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Basic iron & steel	0.4%	0.4%	0.4%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%	0.4%	0.4%	0.4%
Plastic products	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Rubber products	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Figure B-32

Employment in the merSETA sectors cluster as percentage of employment in SA: 2000 - 2014

During the forecast period 2009-2014, employment growth is anticipated to be the highest in the vehicles, parts and accessories manufacturing sector (4.2% p.a.), followed by the machinery and equipment manufacturing sector (3% p.a.) and the plastic products sector (2% p.a.). The other sectors are all likely to underperform the total employment growth in the economy, with further job shedding likely in the rubber products manufacturing sector (-4.3%).

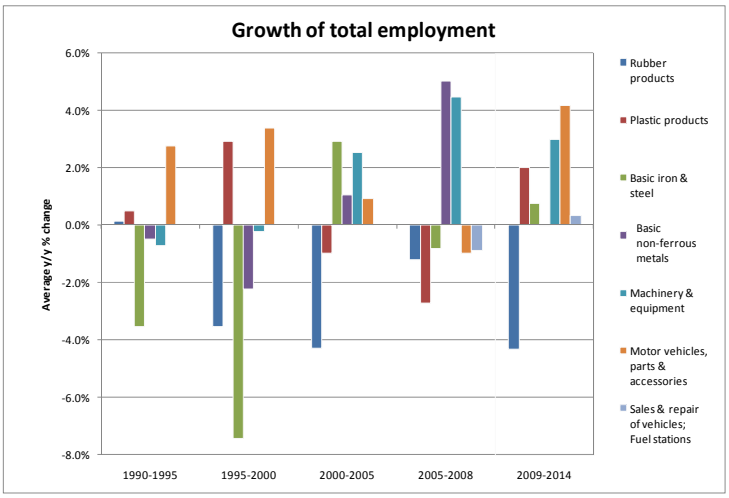


Figure B-33

Growth of total employment: 1990 - 2014

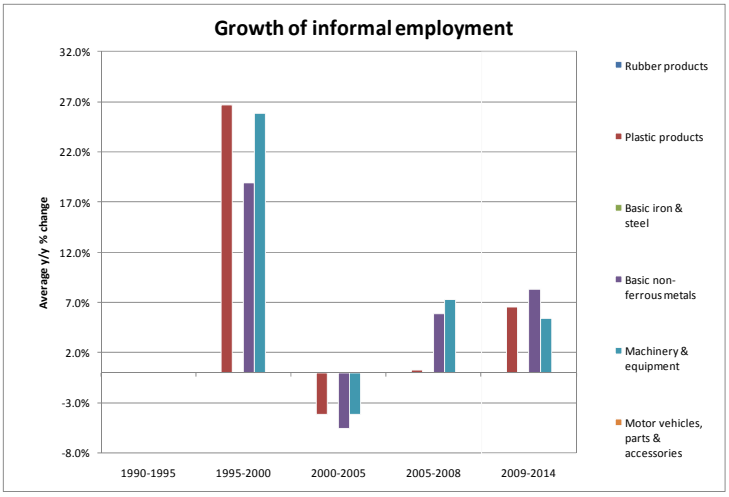
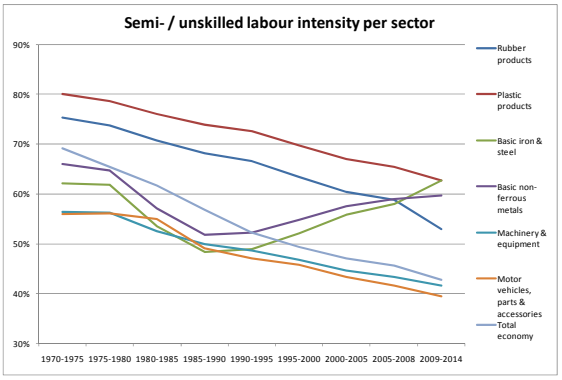
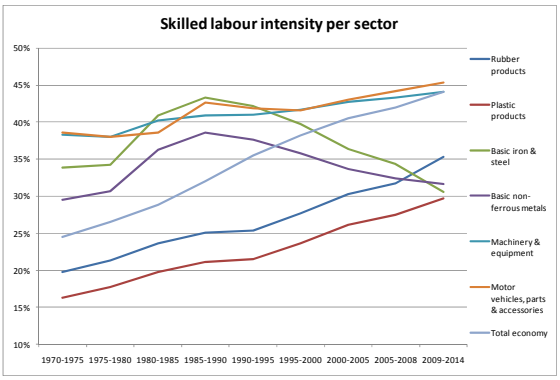


Figure B-34

Growth of informal employment: 1995 - 2014

10.1 Employment by skill level





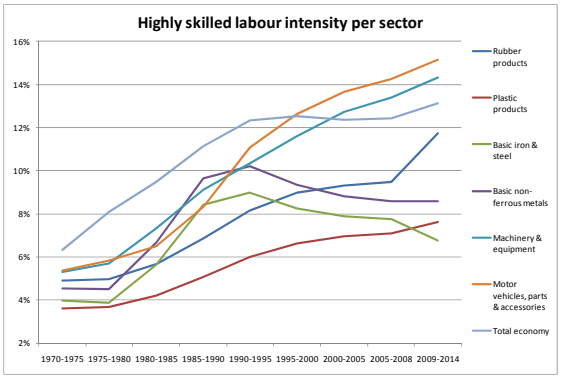


Figure B-35

Percentage employment per skill level:1970 - 2014

In most of the sectors of the merSETA cluster, the ratio of employment of semi- and unskilled workers has been declining since 1970, while the ratio of skilled and highly skilled employment has been rising. The exceptions in this regard are the basic non-ferrous metals manufacturing sector and the basic iron and steel manufacturing sector. In these two sectors the trend has reversed since the early 1990s and more semi- and unskilled workers have been employed.

10.2 Volatility and correlation estimates of sector employment growth rates

Regression analysis was also performed on the employment growth data of the sectors as discussed in section 7.1. Employment growth of the sectors was much more strongly correlated with the overall change in employment in the economy than was the case with either GVA or GOS data. However, correlation coefficients were still all below 0.5. According to Table 4, the strongest correlation existed between employment growth of the machinery and equipment manufacturing sector and the total economy's employment growth (R^2 = 0.4195). Lagging the total employment growth further reduced the correlation coefficients.

Table B-4

Linear regression results of sector employment growth vs total economy employment growth

Employment: Coincide

	Rubber products		Plastic products		Basic iron & steel		Basic non-ferrous metals		Machinery & equipment		Motor vehicles, parts & acc		Sales & repairs; Fuel stations	
Coef (y = mx + c)	2.3035	-0.0340	2.4073	-0.0094	2.8093	-0.0452	3.2775	-0.0272	2.6784	-0.0213	2.4593	-0.0110	2.2150	-0.0247
SE	0.4530	0.0082	0.5766	0.0104	0.6653	0.0120	0.7782	0.0140	0.5251	0.0095	0.6196	0.0112	8.0558	0.0825
R2	0.4180	0.0302	0.3263	0.0385	0.3312	0.0444	0.3301	0.0519	0.4195	0.0350	0.3044	0.0413	0.0186	0.1115
F	25.8579	36.0000	17.4340	36.0000	17.8305	36.0000	17.7375	36.0000	26.0187	36.0000	15.7567	36.0000	0.0756	4.0000
ss_reg	0.0236	0.0329	0.0258	0.0532	0.0351	0.0709	0.0478	0.0970	0.0319	0.0442	0.0269	0.0615	0.0009	0.0498

Employment: Lagged 1 year

	Rubber products		Plastic products		Basic iron & steel		Basic non-ferrous metals		Machinery & equipment		Motor vehicles, parts & acc		Sales & repairs; Fuel stations	
Coef (y = mx + c)	1.5915	-0.0246	1.6674	0.0010	2.0924	-0.0364	2.2032	-0.0145	1.5958	-0.0061	1.5061	0.0021	-7.7839	0.0618
SE	0.5388	0.0098	0.6578	0.0120	0.7408	0.0135	0.8647	0.0157	0.6483	0.0118	0.7121	0.0130	7.1415	0.0740
R2	0.1995	0.0358	0.1551	0.0437	0.1856	0.0492	0.1565	0.0574	0.1476	0.0430	0.1133	0.0473	0.2290	0.0989
F	8.7246	35.0000	6.4253	35.0000	7.9780	35.0000	6.4919	35.0000	6.0597	35.0000	4.4726	35.0000	1.1880	4.0000
ss_reg	0.0112	0.0448	0.0123	0.0668	0.0193	0.0847	0.0214	0.1154	0.0112	0.0648	0.0100	0.0782	0.0116	0.0391

11. GROWTH SCENARIOS

11.1 Sector employment growth under different growth scenarios

As mentioned before, correlating sector employment growth with total employment growth in the economy did not really yield statistically satisfactory results. It was nevertheless attempted to get a sense of the magnitude of changes in employment numbers that could be expected by using an unrestricted VAR (vector autoregression) method with overall employment growth as the endogenous variable. The results for the base-case-, high-growth- and low-growth scenarios are depicted in the graphs (Figure 36).

For the low-growth scenario (GDP growth of 1.4% p.a. instead of 2.9% p.a.) over the period 2009-2014, the average drop in employment from the base-case scenario for the sectors under review was 1.4%. In other words, whereas average employment growth in the sectors was forecast at 1.4% p.a. in the base-case scenario, in the low-case scenario the average growth in employment was 0%.

Table B-5

Employment scenarios								
Low growth	2009	2010	2011	2012	2013	2014	Average	Base - Low
Rubber products	-4.1%	-0.3%	0.8%	1.1%	1.3%	1.4%	0.0%	-1.8%
Plastic products	5.9%	1.7%	1.5%	1.1%	1.0%	1.0%	2.0%	-0.6%
Basic iron & steel	-4.0%	-1.0%	-0.3%	-0.1%	0.0%	0.1%	-0.9%	-1.2%
Basic non-ferrous metals	-1.4%	1.4%	1.9%	1.8%	2.0%	1.9%	1.3%	-2.7%
Machinery & equipment	-5.8%	-2.4%	-1.2%	-1.1%	-1.1%	-1.1%	-2.1%	-2.7%
Motor vehicles, parts & accessories	-1.0%	-0.2%	0.0%	0.0%	0.1%	0.1%	-0.2%	-0.4%
Sales & repair of vehicles; Fuel stations	-0.2%	0.1%	0.3%	0.2%	0.1%	0.2%	0.1%	-0.1%
Total economy	-2.1%	0.2%	0.4%	0.5%	0.5%	0.6%	0.0%	-0.6%
Base case growth	2009	2010	2011	2012	2013	2014	Average	
Rubber products	-3.9%	2.4%	3.3%	3.1%	3.1%	3.2%	1.8%	
Plastic products	5.9%	2.1%	2.3%	1.9%	1.9%	1.9%	2.6%	
Basic iron & steel	-4.1%	2.7%	0.7%	1.1%	1.0%	0.9%	0.4%	
Basic non-ferrous metals	-1.3%	6.7%	4.6%	4.8%	4.7%	4.6%	4.0%	
Machinery & equipment	-5.6%	0.4%	1.8%	2.1%	2.3%	2.5%	0.5%	
Motor vehicles, parts & accessories	-1.0%	0.3%	0.4%	0.4%	0.4%	0.5%	0.2%	
Sales & repair of vehicles; Fuel stations	-0.2%	0.2%	0.5%	0.4%	0.3%	0.3%	0.2%	
Total economy	-2.1%	1.3%	1.1%	1.2%	1.3%	1.1%	0.6%	
High case growth	2009	2010	2011	2012	2013	2014	Average	High - base
Rubber products	-2.7%	2.7%	4.0%	4.8%	5.3%	5.9%	3.3%	1.5%
Plastic products	5.9%	2.4%	2.6%	2.4%	2.5%	2.6%	3.1%	0.4%
Basic iron & steel	-3.3%	3.1%	1.8%	1.8%	1.9%	2.0%	1.2%	0.8%
Basic non-ferrous metals	-1.4%	6.9%	8.9%	9.5%	9.9%	10.3%	7.3%	3.3%
Machinery & equipment	-5.2%	0.5%	3.0%	3.9%	4.5%	5.2%	1.9%	1.4%
Motor vehicles, parts & accessories	-1.0%	0.4%	0.6%	0.7%	0.8%	1.0%	0.4%	0.3%
Sales & repair of vehicles; Fuel stations	-0.2%	0.3%	0.6%	0.5%	0.4%	0.5%	0.3%	0.1%
Total economy	-2.1%	1.4%	1.9%	1.9%	1.9%	2.0%	1.1%	0.5%

The biggest differential between the base-case- and low-case employment-growth scenarios occurred in the basic non-ferrous metals manufacturing sector (-2.7% p.a.) and the machinery and equipment manufacturing sector (also -2.7% p.a.). The smallest difference in employment growth relative to the base case occurred in the sales and repairs of vehicles and operation of fuel stations sector (-0.1% p.a.).

The biggest differential between the high-case- and base-case employment-growth scenarios occurred also in the basic non-ferrous metals manufacturing sector (+3.3%) and the machinery and equipment manufacturing sector (+1.4%). The smallest difference in employment growth relative to the base case occurred in the sales and repairs of vehicles and operation of fuel stations sector (+0.1%).

11.2 Sector GVA growth under different growth scenarios

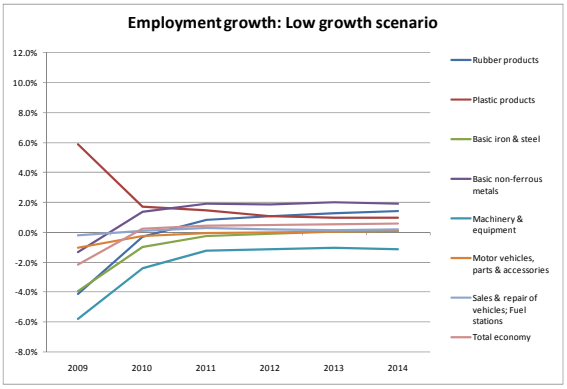
In the base-case scenario, the forecast for GDP growth was 2.9% p.a. for the period 2009-2014. In the low-growth scenario, GDP was assumed to average 1.4% p.a. over the period, while GDP growth in the high-growth scenario was assumed to average 3.9% over the period.

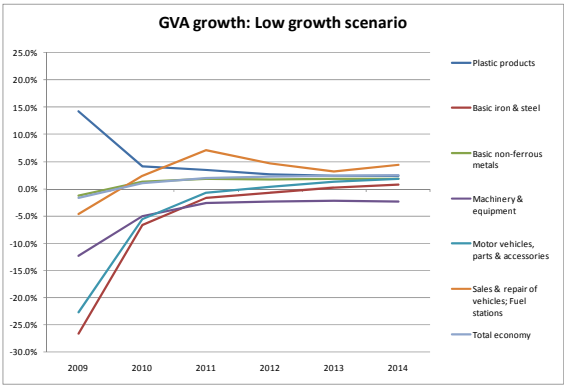
For the low-growth scenario, the sector that fared the best, i.e. showed the smallest drop in GVA over the period, was the plastic products manufacturing sector. This sector's growth rate came out at 4.8% over the period, which was 1.5% lower than its GVA growth in the base-case scenario. The sector which was the worst affected by the assumption of a low-growth rate was the basic iron and steel manufacturing sector, which showed GVA growth of -6.3% p.a. or 7.8% below the expected growth for the sector under the base-case scenario.

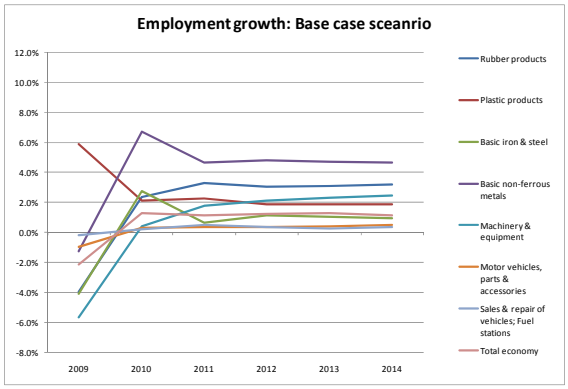
The biggest positive differential between the high-case- and base-case GDP growth scenarios, occurred in the basic iron and steel manufacturing sector (+5.6% p.a.) and the motor vehicles parts and accessories equipment manufacturing sector (also +5.6% p.a.). These two sectors showed growth of respectively 7.1% p.a. and 8.6% p.a. in the high-growth scenario, as opposed to growth of respectively 1.5% p.a. and 3% p.a. in the base-case scenario. The smallest difference between the base-case and high-growth scenarios occurred in the plastics sector where high-case growth amounted to 7.4% p.a., as opposed to growth of 6.3% p.a. in the base-case scenario.

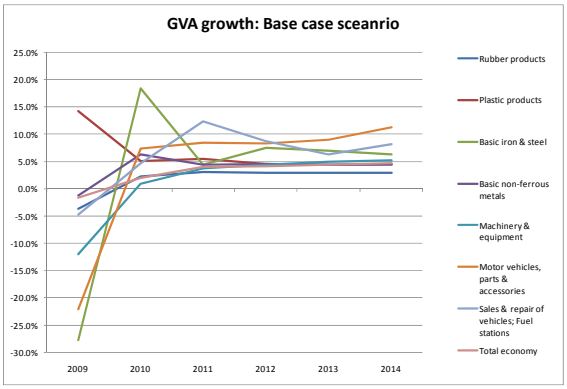
Table B-6

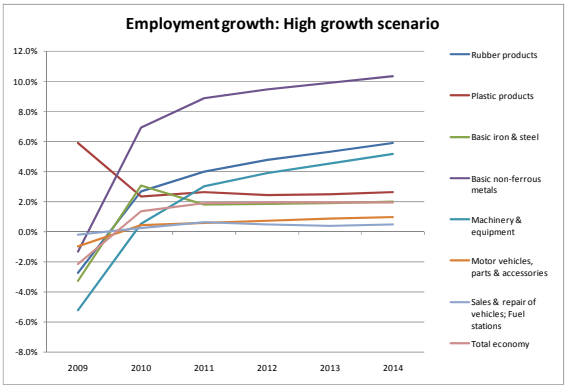
GVA growth scenarios								
Low growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	**Base - Low**
Rubber products	-3.9%	-0.3%	0.8%	1.0%	1.2%	1.3%	0.0%	-1.7%
Plastic products	14.2%	4.2%	3.5%	2.6%	2.4%	2.3%	4.8%	-1.5%
Basic iron & steel	-26.6%	-6.6%	-1.7%	-0.7%	0.2%	0.7%	-6.3%	-7.8%
Basic non-ferrous metals	-1.3%	1.3%	1.8%	1.7%	1.9%	1.8%	1.2%	-2.6%
Machinery & equipment	-12.3%	-5.1%	-2.6%	-2.4%	-2.2%	-2.4%	-4.6%	-5.6%
Motor vehicles, parts & accessories	-22.7%	-5.6%	-0.7%	0.3%	1.3%	1.8%	-4.7%	-7.7%
Sales & repair of vehicles; Fuel stations	-4.7%	2.3%	7.2%	4.6%	3.2%	4.4%	2.8%	-3.0%
Total economy	-1.7%	1.0%	2.0%	2.2%	2.4%	2.5%	1.4%	-1.5%
Base case growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	
Rubber products	-3.7%	2.2%	3.1%	2.9%	2.9%	3.0%	1.7%	
Plastic products	14.2%	5.1%	5.5%	4.6%	4.5%	4.5%	6.3%	
Basic iron & steel	-27.7%	18.4%	4.4%	7.6%	7.0%	6.2%	1.5%	
Basic non-ferrous metals	-1.2%	6.3%	4.3%	4.5%	4.4%	4.3%	3.8%	
Machinery & equipment	-12.0%	0.8%	3.8%	4.5%	4.9%	5.3%	1.0%	
Motor vehicles, parts & accessories	-22.0%	7.4%	8.4%	8.3%	9.0%	11.3%	3.0%	
Sales & repair of vehicles; Fuel stations	-4.7%	4.7%	12.3%	8.7%	6.3%	8.1%	5.8%	
Total economy	-1.7%	2.0%	4.0%	4.2%	4.5%	4.6%	2.9%	
High case growth	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Average**	**High - base**
Rubber products	-2.6%	2.5%	3.7%	4.5%	5.0%	5.5%	3.1%	1.4%
Plastic products	14.2%	5.7%	6.3%	5.9%	6.0%	6.3%	7.4%	1.0%
Basic iron & steel	-22.2%	20.7%	11.9%	12.4%	12.8%	13.2%	7.1%	5.6%
Basic non-ferrous metals	-1.3%	6.5%	8.3%	8.9%	9.3%	9.7%	6.8%	3.1%
Machinery & equipment	-11.1%	1.1%	6.3%	8.2%	9.6%	10.9%	3.9%	2.9%
Motor vehicles, parts & accessories	-21.7%	9.8%	13.1%	16.5%	19.0%	21.4%	8.6%	5.6%
Sales & repair of vehicles; Fuel stations	-4.7%	6.2%	14.7%	11.6%	9.4%	11.9%	8.0%	2.2%
Total economy	-1.7%	2.5%	4.8%	5.5%	6.0%	6.5%	3.9%	1.0%











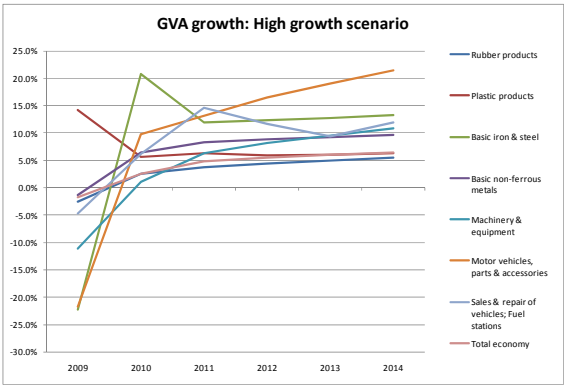


Figure B-36

Employment growth scenarios: 2009 - 2014