



TRADE & INDUSTRIAL POLICY STRATEGIES

Manufacturing subsectors

Transport equipment

December 2017

Industrial policy aims to promote diversification and tailor interventions to the needs of individual manufacturing industries. To support evidence-based policymaking, TIPS has completed a series of notes on the main manufacturing subsectors in South Africa. These notes provide information on the contribution to the GDP, employment, profitability and assets, the market structure and dominant producers, major inputs and international trade. They bring together data from Statistics South Africa, Quantec and Who Owns Whom to provide a more detailed overview of each sector.

This note summarises key data and information on the transport equipment subsector as of December 2017. It will be updated as information becomes available.

Transport equipment is dominated by auto production, but also includes rail, air and sea transport. It encompasses the assembly of final vehicles as well as the production of components.

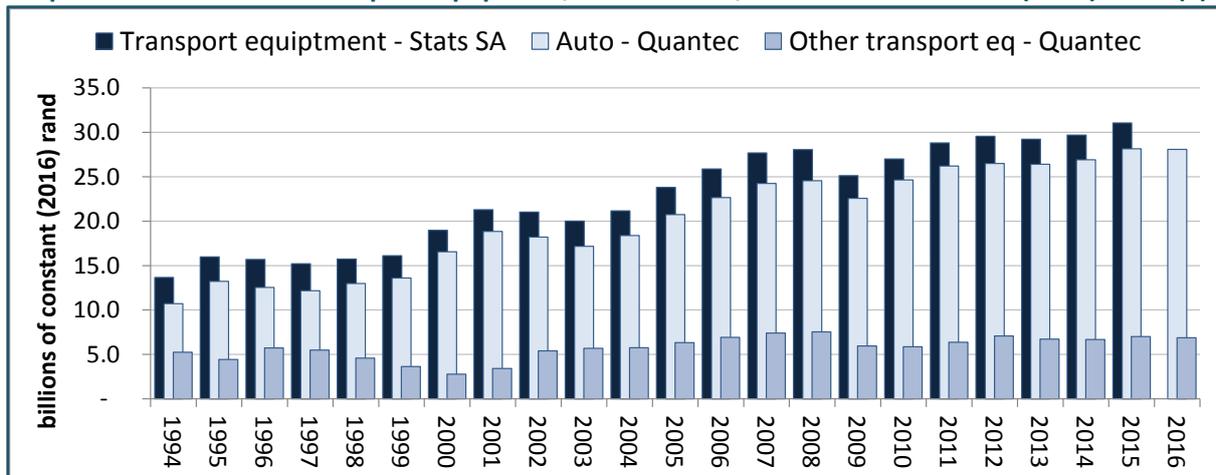
1 Contribution to GDP

Data for the contribution of manufacturing industries to the GDP (that is, for value add by industry) comes from two sources: the GDP data published by Statistics South Africa, and Quantec, which develops estimates based on the Statistics South Africa figures for sales, production and employment by industry and sub-industries. The figures are not identical, although they typically show the same trends. This note provides both.

Production of transport equipment is dominated by auto but also includes boatbuilding and railroad stock. According to Quantec estimates, the share of auto in the total peaked at 96% in 2002 but then fell to 80% in 2016.

The transport equipment industry grew rapidly before 2008, fell by around 10% during the global financial crisis in 2008/9, then recovered rapidly through 2010 before more or less levelling out, as Graph 1 shows. Both Quantec and Statistics South Africa find similar trends, but Quantec estimates consistently point to lower output than Statistics South Africa data. Both find annual growth of 5% or more from 2000 to 2008, and a recovery of 5,6% a year in 2009 to 2012 after the 2008/9 contraction. From 2008 to 2015, the industry expanded by just over 1,5% a year. Quantec estimates suggest that from 2012, only the auto industry grew, while other transport equipment stagnated.

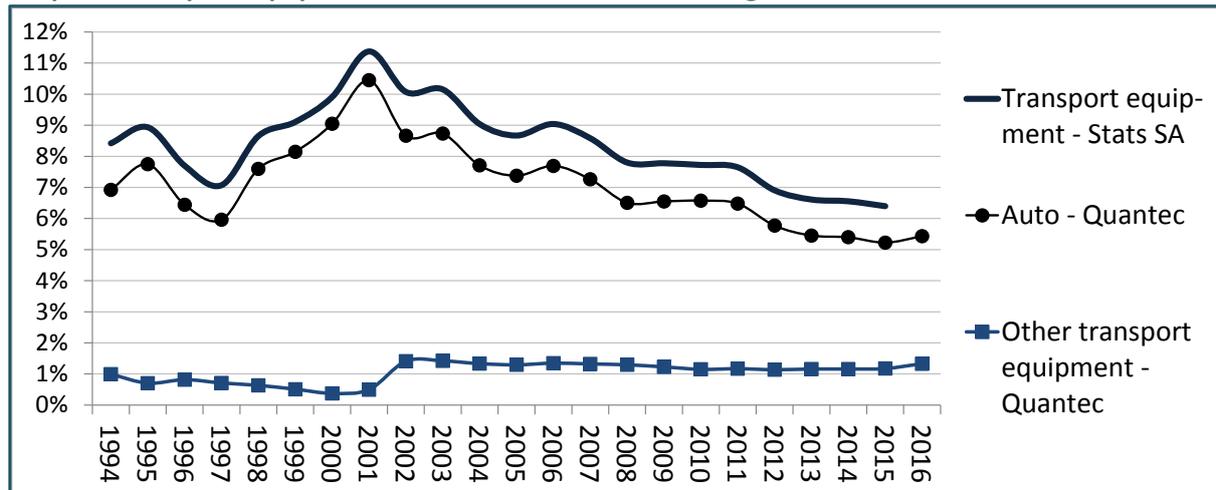
Graph 1. Value added in transport equipment, 1994 to 2016, in billions of constant (2016) rand. (a)



Note: (a) deflated by calculating the deflator from source figures in current and constant rand, rebased to 2016. Source: Statistics South Africa, GDP P0441. Annual quarter and regional revisions. Q4 2016. Excel spreadsheet. Series on manufacturing subsectors in current and constant rand. Downloaded from www.statssa.gov.za in September 2017; and Quantec EasyData. Standardised regional data. Database in electronic format. Series on value added in current and constant rand. Downloaded from www.quanis1.easydata.co.za in September 2017.

The share of transport equipment value added in manufacturing as a whole dropped from a high of around 11% in 2000 to under 7% in 2015, according to both Quantec and Statistics South Africa.

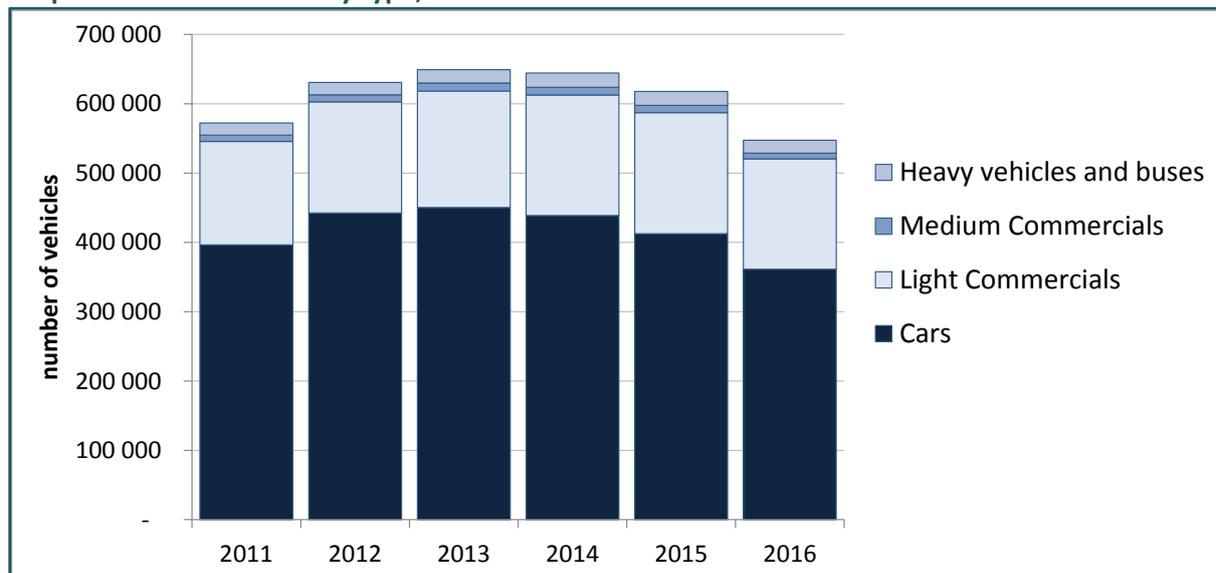
Graph 2. Transport equipment contribution to manufacturing value added



Source: Calculated from Statistics South Africa, GDP P0441. Annual quarter and regional revisions. Q4 2016. Excel spreadsheet. Series on manufacturing subsectors in current rand. Downloaded from www.statssa.gov.za in September 2017; and Quantec EasyData. Standardised regional data. Database in electronic format. Series on value added in current rand. Downloaded from www.quanis1.easydata.co.za in September 2017.

As the following graph shows, vehicle sales have declined since 2014, falling to just over half a million in 2016. Total vehicle sales dropped by 15%, and sales of cars by 18%. Global vehicle production came to 95 million in the year to October 2016.

Graph 3. Sales of vehicles by type, 2011 to 2016



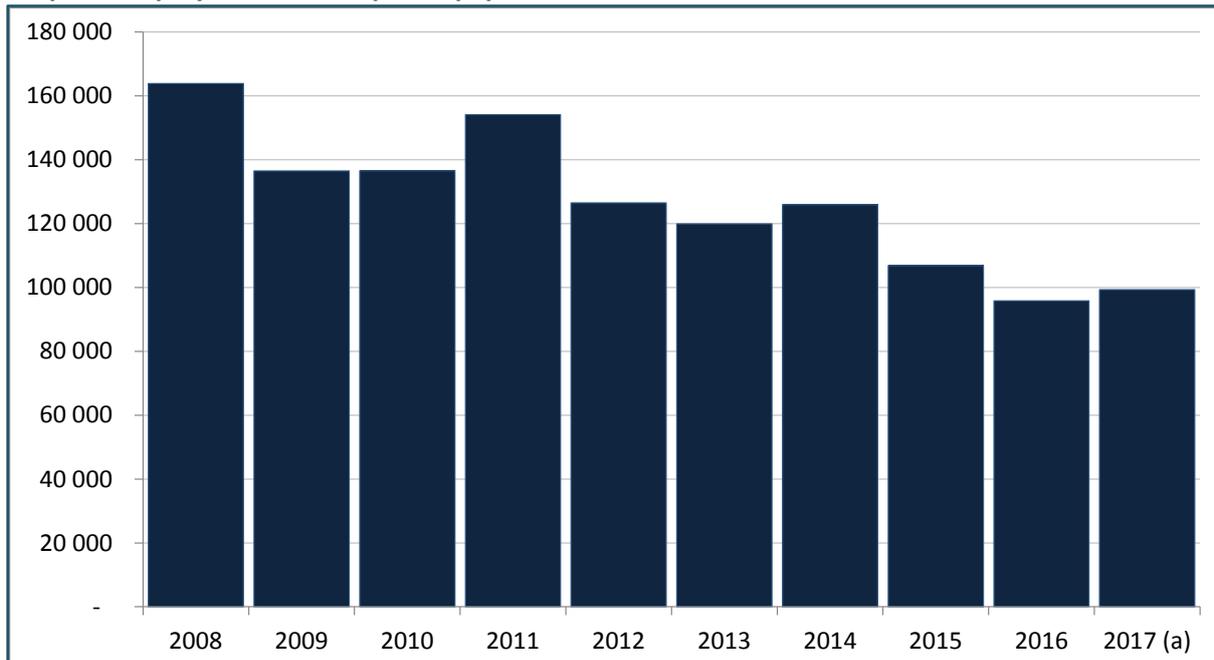
Source: Who Owns Whom. 2017. *The Motor Vehicle Industry*. June. Johannesburg. Page 10.

2 Employment

Employment data provided in this section draws on Statistics South Africa’s Quarterly Labour Force Survey, which was introduced in 2008. Its annual figures, in Labour Market Dynamics, are averages of the quarterly findings. This methodology is used to derive annual data for total employment by industry in 2016 and the year to the third quarter of 2017.

Employment in transport equipment fell from around 160 000 to 100 000 between 2008 and the year to the third quarter of 2017.

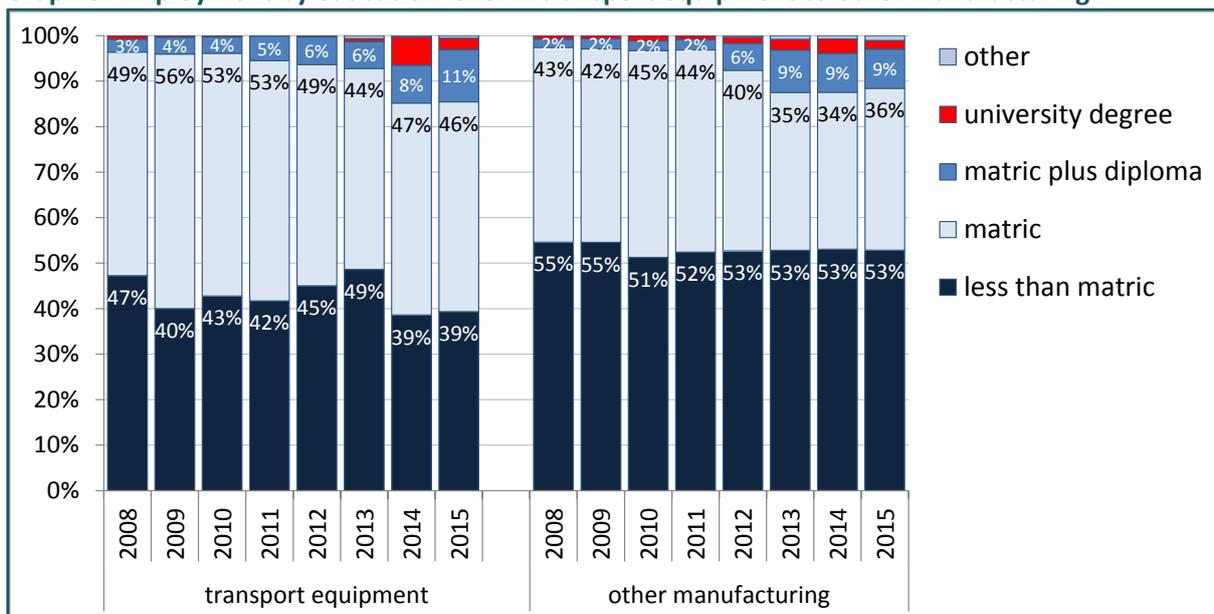
Graph 4. Employment in transport equipment



Note: (a) Calendar years except for 2017, which is the year to the third quarter. Source: Calculated from Statistics South Africa. Labour Market Dynamics. 2008 to 2015. Series on employment by industry. Electronic databases. Downloaded from www.statssa.gov.za Nesstar facility in September 2017; and Quarterly Labour Force Survey. Q1 2016 to Q3 2017. Series on employment by industry. Electronic databases. Downloaded from www.statssa.gov.za Nesstar facility in December 2017.

Education levels in transport equipment were higher than in the rest of manufacturing. In 2015, only 39% of workers in the industry did not have matric, compared to 53% in the rest of manufacturing. Some 14% of workers in the industry had a degree or a post-matric diploma, compared to 10% in the rest of manufacturing.

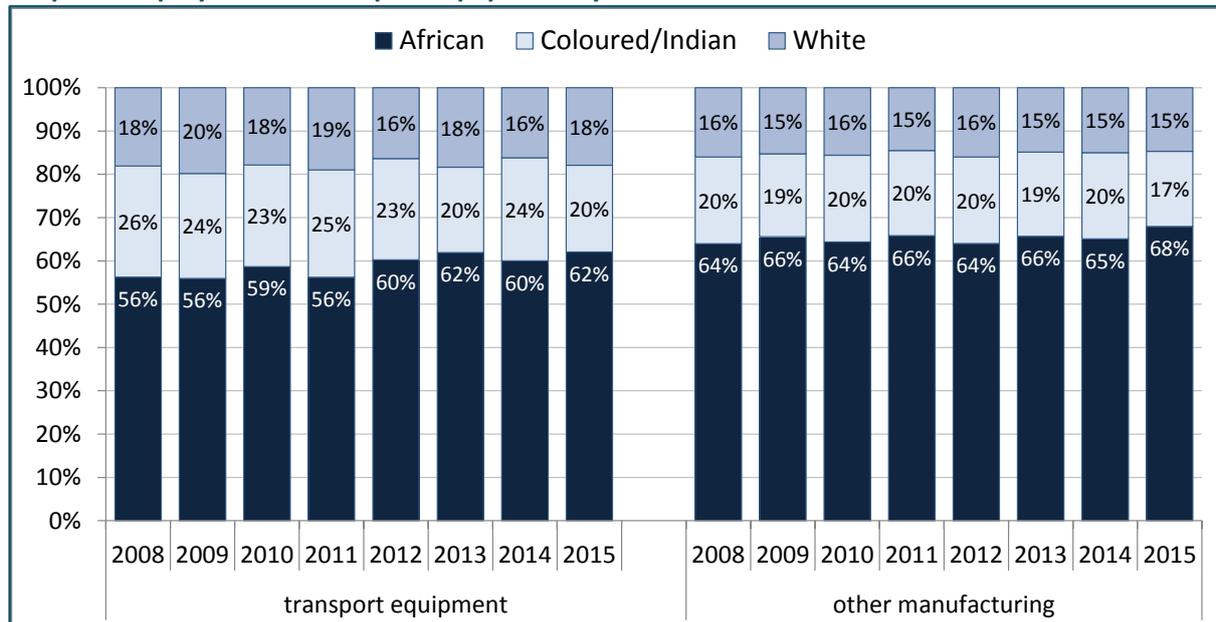
Graph 5. Employment by education level in transport equipment to other manufacturing



Source: Statistics South Africa. Labour Market Dynamics. Relevant years. Series on employment by industry and education. Electronic databases. Downloaded from www.statssa.gov.za Nesstar facility in September 2017.

In 2015, Africans constituted 62% of employment in transport equipment, compared to 68% in other manufacturing.

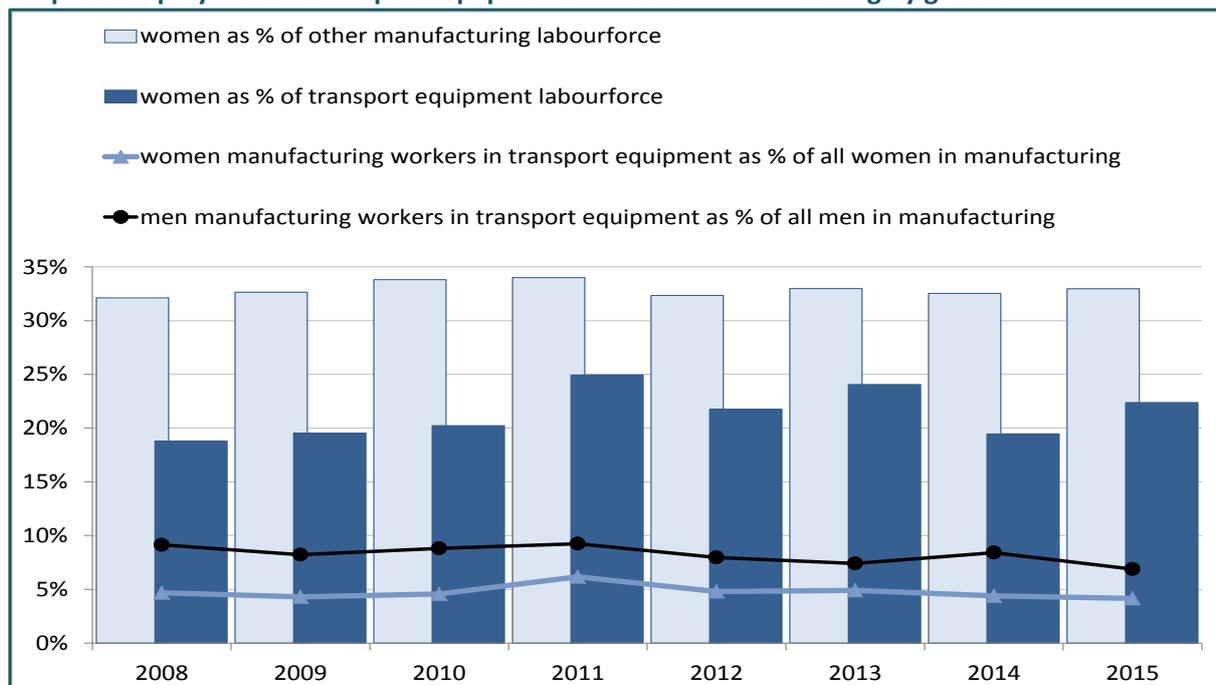
Graph 6. Employment in transport equipment by race



Source: Statistics South Africa. Labour Market Dynamics. Relevant years. Series on employment by industry and population group. Electronic databases. Downloaded from www.statssa.gov.za Nesstar facility in September 2017.

Women made up around 20% of the labour force in transport equipment, substantially lower than the 33% figure for the rest of manufacturing. Only 4% of women manufacturing workers were employed in transport equipment, compared to 7% for men.

Graph 7. Employment in transport equipment and other manufacturing by gender



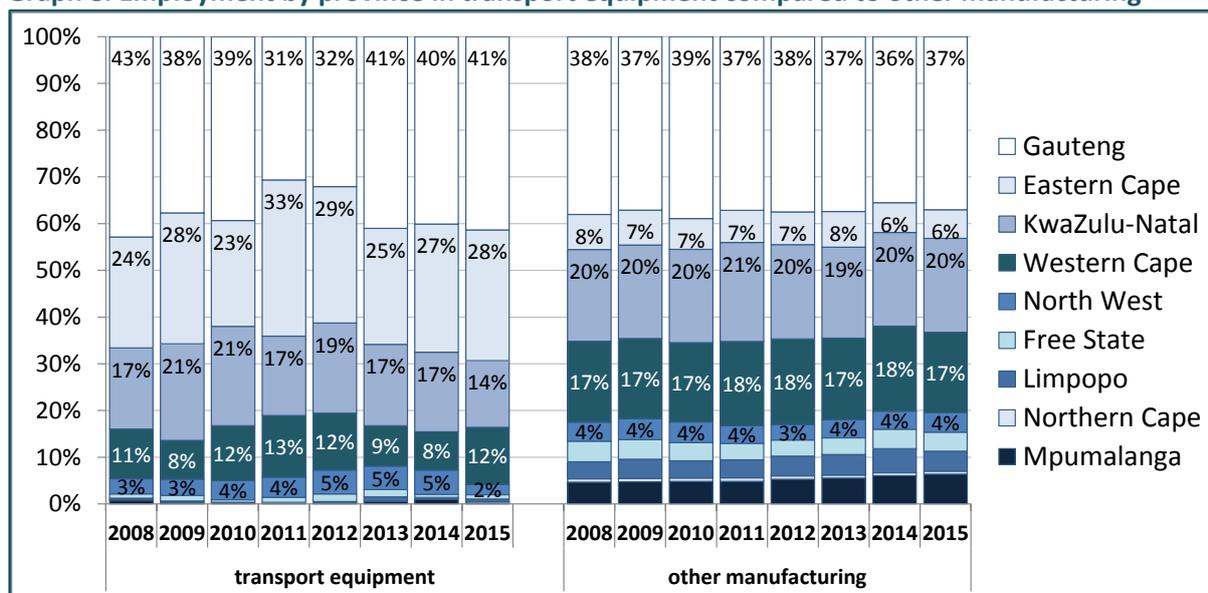
Source: Statistics South Africa. Labour Market Dynamics. Relevant years. Series on employment by industry and gender. Electronic databases. Downloaded from www.statssa.gov.za Nesstar facility in September 2017.

3 Location

Statistics South Africa provides information on employment by province. As the following graph shows, Gauteng and the Eastern Cape were the largest employers for transport equipment, followed by KwaZulu Natal and the Western Cape.

The Eastern Cape accounted for over a quarter of employment in the industry, making it far more important than for other manufacturing. Other provinces had little employment in transport equipment.

Graph 8. Employment by province in transport equipment compared to other manufacturing



Source: Statistics South Africa. Labour Market Dynamics. Relevant years. Series on employment by industry and province. Electronic databases. Downloaded from www.statssa.gov.za Nesstar facility in September 2017.

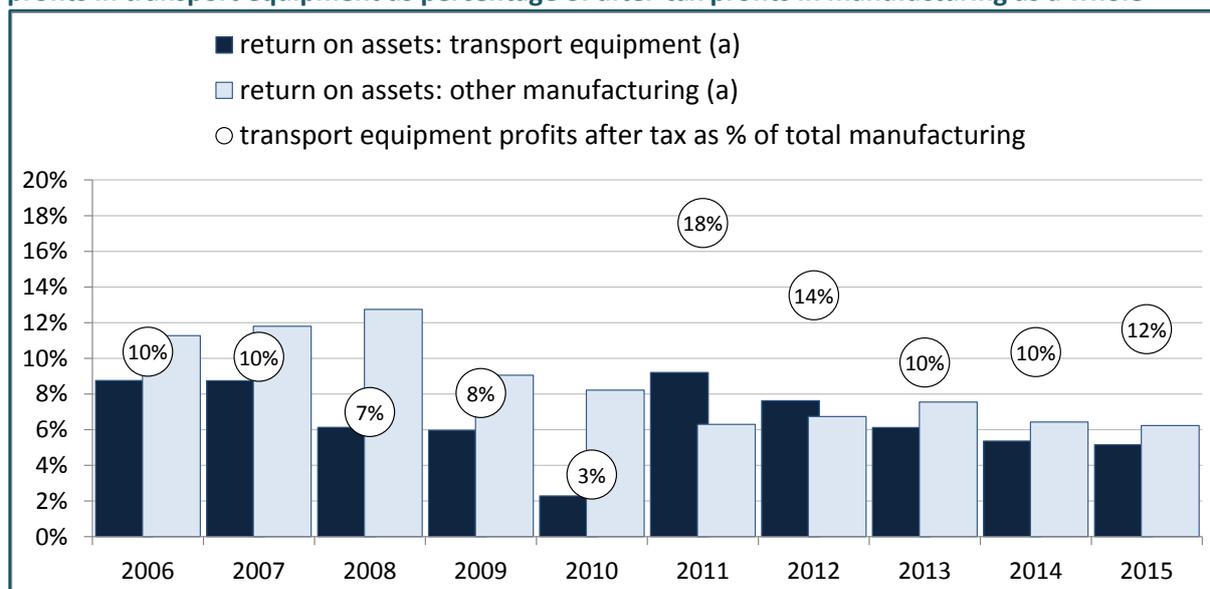
The location of manufacturing can also be understood in how it was embedded in apartheid geography. To this day, only a tenth of manufacturing employment is in the former so-called “homeland” regions, where around a quarter of the population lives.

In the case of transport equipment, around 6% of total employment was in the former “homeland” regions from 2008 to 2015, substantially lower than that for manufacturing as a whole.

4 Profitability and assets

From 2008, the after-tax return on assets in transport equipment averaged 6% a year. That was a lower rate than in the rest of manufacturing, where returns averaged 8% a year. Transport equipment provided around 10% of all manufacturing profits.

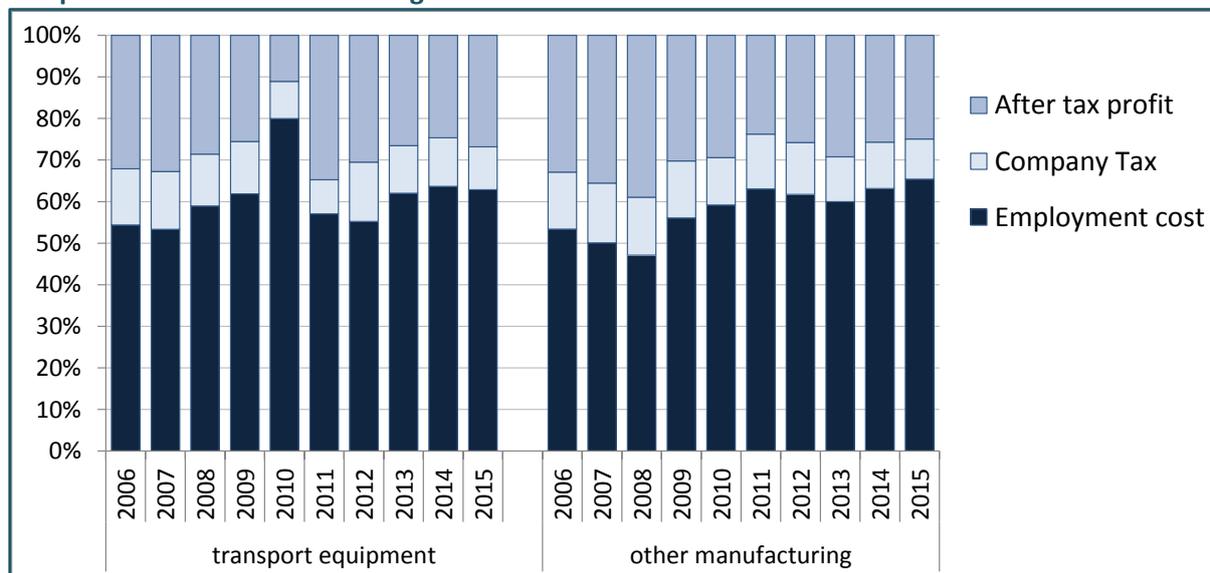
Graph 9. Return on assets (a) in transport equipment and other manufacturing, and after-tax profits in transport equipment as percentage of after-tax profits in manufacturing as a whole



Note: (a) Profits before taxes and dividends less company tax as percentage of total assets. Source: Calculated from Statistics South Africa. Annual Financial Statistics. Disaggregated Industry Statistics for relevant year. Excel spreadsheet. Downloaded from www.statssa.gov.za in September 2017.

Between 2008 and 2015, employment costs averaged 63% of income in transport equipment, compared to 59% in the rest of manufacturing. Company taxes accounted for an average of 11% of income in the industry, compared to 12% for the rest of manufacturing. After-tax profits in transport equipment came to 26% of income, and 28% for the rest of manufacturing (Graph 10).

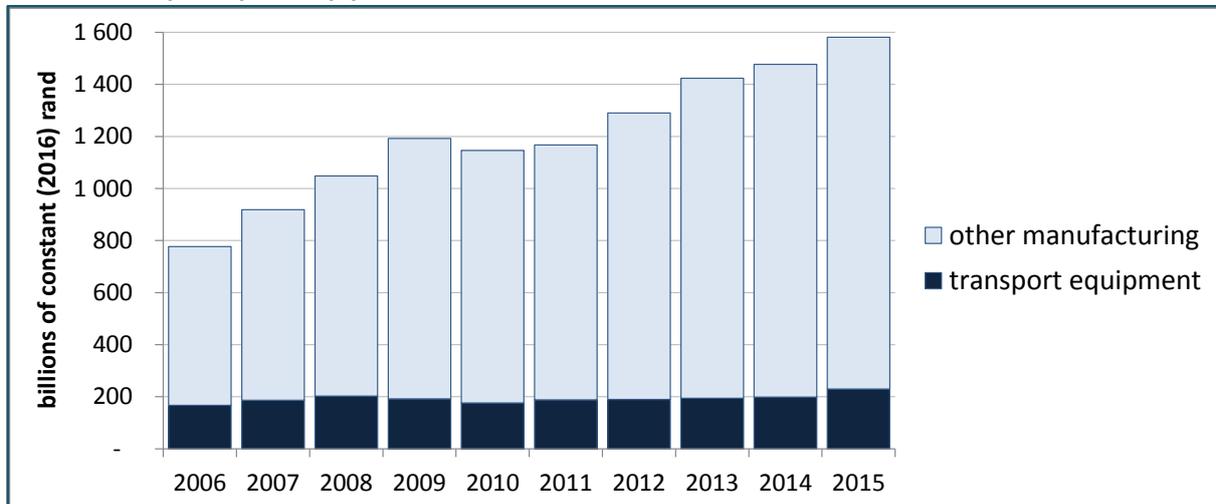
Graph 10. Share of remuneration, profits and taxation in income from transport equipment compared to other manufacturing



Source: Calculated from Statistics South Africa. Annual Financial Statistics. Disaggregated Industry Statistics for relevant year. Excel spreadsheet. Downloaded from www.statssa.gov.za in September 2017.

The value of assets in the transport equipment industry climbed by 13% from 2008 to 2015, while the assets in the rest of manufacturing rose 60%. As a result, the share of transport equipment in total manufacturing assets fell from 19% to 15% over this period.

Graph 11. Value of total assets in transport equipment and other manufacturing in billions of constant (2016) rand (a)

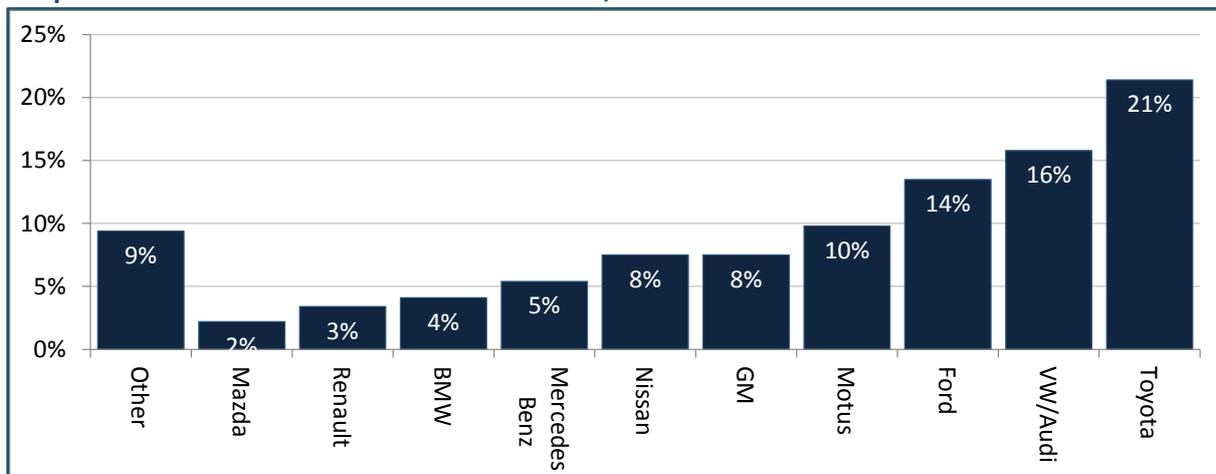


Notes: (a) Deflated with CPI. Source: Calculated from Statistics South Africa. Annual Financial Statistics. Disaggregated Industry Statistics for relevant year. Excel spreadsheet. Downloaded from www.statssa.gov.za in September 2017.

5 Market structure and major companies

The auto industry internationally is dominated by original equipment manufacturers (OEMs), which are almost all subsidiaries of multinational corporations from the US, Europe and Asia. The OEMs, which include Toyota, Volkswagen, Ford and similar companies, have well-defined brands and proprietary technologies that enable them to produce and market cars globally on a huge scale – generally over two million units apiece, and in the case of Toyota and VW, over 10 million. In contrast, suppliers of inputs and components are also often foreign owned, but typically far smaller than the OEMs. They effectively depend on the OEMs for both their sales and, to a large extent, their technology.

Graph 12. OEMs' share in South African sales, 2016



Source: Who Owns Whom. 2017. The Auto Industry. June. Johannesburg. Page 19.

According to Statistics South Africa's Manufacturing Financial Statistics for 2014, the share in total income of the largest five companies in transport equipment as a whole was 57%. That was higher than in virtually any other major manufacturing industry other than basic chemicals and petroleum. In auto alone, the five largest companies got 75% of income.¹

In 2015, the Labour Market Dynamics Survey found around 2 500 formal enterprises (that is, employers and self-employed) in the production of transport equipment, compared to a total of around 60 000 in manufacturing as a whole, and 671 000 for the entire economy. There were virtually no producers in the informal sector. The figure for producers is too low to determine significant trends over time. Around 130 components producers belong to the industry association, National Association of Automobile Manufacturers of South Africa (NAAMSA).

The main companies producing transport equipment, including the local subsidiaries of OEMs, are described in Table 1 below.

Table 1. Market structure for major transport equipment products

Company	Employees	Activities
OEMs (wholly owned subsidiaries unless otherwise noted)		
Toyota SA	8 170	Manufactures, assembles and imports autos for SA and export markets.
VW of SA	4 748	Manufactures, assembles and imports motor vehicles and buses.
Mercedes-Benz SA	4 400	Manufactures, assembles and imports Mercedes-Benz C-Class cars, commercial vehicles, trucks and buses, for sale in SA and the US.
Ford SA	3 700	Manufactures, assembles, imports and retails motor vehicles.
BMW (SA)	3 500	Manufactures, assembles, imports and exports motor vehicles and motorcycles, components and accessories; 85% of 3 series production at Rosslyn plant exported to the US and Canada, Asia, Australia, New Zealand, and other parts of Africa.
Nissan (SA)	2 501	Manufactures, assembles and imports motor vehicles from a plant in Rosslyn.
General Motors SA	1 500	Manufactures, assembles and distributes motor vehicles and components at the manufacturing plant in Port Elizabeth; exported worldwide. Plans to end production at end 2017.
Bell Equipment Company S A	1 347	Manufactures, distributes and exports material handling machines (tractors, backhoes, etc.), both locally and internationally, supplying to the sugar, forestry, mining and construction industries.
Busmark 2000	990	Manufactures and repairs buses, including taxis and luxury buses and produces its own design on various chassis. Direct sales plus supply to manufacturing companies such as Toyota, Nissan, Volvo and Isuzu on an order basis. SA owned.
Volvo SA	900	Imports, manufactures, assembles and distributes medium and heavy commercial vehicles and parts under the brands Volvo Trucks, Renault Trucks and UD Trucks.
MAN Truck and Bus (SA)	850	Manufactures medium, heavy and extra-heavy trucks, commuter buses and luxury coaches. The company has an assembly plant in Pinetown and a bus manufacturing facility in Olifantsfontein.
Scania SA	600	Assembles and markets Scania trucks, buses, coaches and engines at Aeroton facility in SA and neighbouring countries.
Marcopolo SA	290	Imports, manufactures and assembles luxury buses and mini-buses.

¹ Calculated from Statistics South Africa. 2016. *Manufacturing Industry: Financial, 2014*. Pretoria. Table 9, p 33, ff.

Company	Employees	Activities
Denel	283 (group)	LMT Holdings (51% owned by Denel) designs, develops, manufactures and provides after sales support for complete systems, sub-systems and components of armoured vehicles. Exports to Middle East, Europe, Africa, America, China and Australia. Denel Vehicle Systems manufactures and upgrades military vehicles and defence vehicles, as well as transmissions and axles, including for SA Defence Force, SAPS, and governments of Italy, United Arab Emirates and Spain. Denel Aerostructures manufactures structures for aeroplanes.
FAW Vehicle Manufacturers SA	280	Imports and assembles commercial vehicles at its manufacturing plant in Isando. Also has a truck and passenger car production plant in the Coega Industrial Development Zone. 60% owned by Automobile Import and Export Corp and 40% by Mr R Leiter.
Tata (SA)	50 (head office)	Manufactures and sells 2 to 23 tonne trucks and 27 to 65 seat buses. Chassis are imported from Tata in India and Korea.
Auto components (producers whose main products are batteries and exhaust systems)		
Metair Investments	8 673 (6 780 in SA; rest in Romania and Turkey)	Subsidiaries (Smiths Manufacturing, Smiths Plastics, Automould, Supreme Spring, ATE, Lumotech, Unitrade and Hesto) manufacture and distribute batteries and other components to OEMs and retail. Smiths Manufacturing manufactures and assembles air-conditioning and climate control systems, air cleaners, radiators, wiper systems, engine control units, washer systems, charge air coolers and reserve tanks for OEMs in SA and exports some products to the UK. It has four manufacturing and assembly plants. Other automotive components supplied include coil and leaf springs, headlights, wiring harnesses and cable, shock absorbers, plastic injection mouldings and brake pads.
PG Group	4 000	Manufactures and distributes automotive and building glass for the domestic and international markets, including Shatterprufe and Armourplate glass.
KAP Automotive	3 500	Manufactures components for autos, among other products; a subsidiary, Feltex Automotive Trim, supplies automotive acoustic and trim components.
Hesto Harnesses	2 300	Manufactures automotive wiring harness for OEM vehicle manufacturers in SA.
G U D Holdings	1 800	Manufactures oil, fuel, air, and pollen filters, brake pads and lubricants for the automotive industry and assembly plants under the GUD and Fram brand names as well as private brands for contract and export customers.
MA Automotive Tool and Die	1 400	Manufactures and exports metal stampings, press dies, welding and measuring jigs, fixtures and assemblies, and offers allied engineering services for the local and international automotive industry. Clients include all major OEMs in SA. Company has eight plants.
Federal-Mogul of SA	1 103	Manufactures bearings, valves, powertrains, brakes and sealing systems at three manufacturing plants and one distribution plant. Half of the products are exports to Europe and the US and half are sold on the local aftermarket.
MAHLE Behr SA	915	Manufactures air-conditioning and engine cooling products for both passenger and commercial vehicles. Two factories.
Atlantis Foundries	900	Manufactures, exports and distributes automotive iron castings for commercial vehicle industries; machines cylinder blocks for automotive applications; and designs and manufactures its own jigs, fixtures and other tooling equipment for use in the plant. Exports to Germany and US.

Company	Employees	Activities
Auto Industrial Group	677	Manufactures motor car components such as brake drums, brake discs, wheel hubs, chassis, among others, supplying Toyota, Ford, Dena, Mercedes Benz, Renault-Nissan, BMW, Volkswagen and LUK. Exports to India and Germany.
Robert Bosch	650	Manufactures, sells, distributes and services fuel-injection technology for petrol and diesel vehicles, systems for active and passive motor vehicle safety, electrical components and mobile communication products. Has one plant in SA.
Alfred Teves Brake Systems	635	Manufactures and distributes brake systems and components as vehicle spares. Also designs, manufactures, markets and supplies heat-treated steel components, such as hot-formed coil springs to the local and international automotive market.
Pasdec Automotive Technologies	550	Produces cable harnesses for the local and international automotive OEM industry. The company operates from three plants in SA.
PFK Electronics Holdings	550	Designs and manufactures automotive security products including embedded microcontroller and radio frequency-based automotive security systems, keyless entry systems, GSM/GPS based tracking systems and CANBus-based vehicle security systems and alcohol breathalyser immobilisers – 70% of products manufactured are exported.
Schaeffler SA	550	Develops and manufactures, and also imports, products for engine, transmission and chassis applications based on internal combustion engines as well as for hybrid and electric vehicles.
Torre Parts and Components	507	Manufactures automotive components such as air brake systems, auto electrical parts and shock absorbers; also designs and supplies lifting and pulling equipment as well as parts for earthmoving equipment.
Lumotech	503	Designs, manufactures and supplies lighting systems, vehicle signalling and warning equipment, primarily for OEMs.
Autocast SA	500	Manufactures and supplies engine blocks, manifolds and other automotive parts to local and international OEMs. Focuses on grey iron but also manufactures aluminium cylinder heads.
Dana Spicer Axle SA	420	Manufactures automotive components, rear driving axles and corresponding gear sets for light and commercial vehicles, and propshafts for light delivery vehicles. Has one factory.
Tenneco Ride Control SA	395	Manufactures shock absorbers for passenger and commercial vehicles.
Borbet SA	363	Manufactures and supplies OEMs with aluminium wheels.
PFK Electronics	350	Develops and manufactures electronics for global automotive, transportation and defence markets. Products range from vehicle security systems to instrument clusters, body and drive train controllers and telematics. Manufactures electronic assemblies under licence from partners such as Siemens VDO, Lear, Temic and Valeo.
RGBrose Automotive Components	300	Imports and manufactures motor components including window regulators and door systems for OEMs, including VW, Mercedes Benz and Toyota.
Maxion Wheels SA	224	Manufactures aluminium alloy wheels for passenger vehicles and light trucks. Also manufactures aluminium die castings and tool and die designs under the NFD label.
ZF Lemforder SA	214	Assembles axle systems for the BMW 3 series for the local market as well for export to right-hand drive markets worldwide.
Valeo Systems SA	79	Manufactures and assembles, and also imports, automotive components for VW and Mercedes Benz.
SA Heavy Rim Importers	55	Manufactures off-road wheel and rim assemblies, specialising in haul trucks and loaders. Rims are imported from Canada.

Company	Employees	Activities
Seats and leather		
Adient SA	1 400	Develops and produces interior systems and components for light vehicles including passenger cars and light trucks for various car manufacturers countrywide and abroad. Seats are constructed on metal frames, using imported textile fabrics and leather supplied locally.
Bader SA	1 000	Manufactures leather cut kits for the automotive leather industry. Covers are made from leather and vinyl for Toyota, BMW and Daimler Chrysler.
Lear Sewing	500	Manufactures and supplies leather seat covers and seat assemblies for the automotive industry for Ford at three plants in the Eastern Cape.
Faurecia Interior Systems Pretoria	330	Manufactures automotive interiors including for Daimler Chrysler SA, BMW, Nissan and Ford.
Batteries		
Metindustrial	1 459	Subsidiaries manufacture industrial batteries for fork-truck OEMs (BT, Clarke, Crown, Daewoo, Jungheinrich, Komatsu, Linde, TCM, Toyota and Yale), with four battery manufacturing plants.
AutoX	500	Manufactures automotive batteries on licence to Sabat, Willard and Hi-Face.
Catalytic converters and exhaust systems		
Eberspacher SA	8 385 (group)	Assembles catalytic converters and silencers for OEMs and retail including for Volkswagen, Nissan, Audi, Daimler Chrysler, Ford, Renault, Alfa, Isuzu, Landrover and Skoda. Assembles and exports entire exhaust systems including catalytic converters for various companies, among others in Europe, India and the US. A small share is distributed in SA.
Benteler SA	700	Manufactures automotive components, including sub-frames, axles, catalytic converters and exhaust pipes for the motor industry.
Faurecia Emissions Control Techs	598	Manufactures catalytic converters and exhaust systems for OEMs, for light and commercial vehicles. Major clients include Daimler Chrysler, Volvo, GM, Ford, Jaguar and Renault; 57% owned by Peugeot.
Formex Industries	563	Develops, manufactures and supplies pressed, tubular and exhaust-related components, such as exhaust manifolds, catalytic converters cones and silencers, including for OEMs.
Bosal Afrika	448	Develops and manufactures automotive components including sub-assemblies, exhaust systems, catalytic converters and towbars as well as industrial products such as irrigation equipment and tubing. Has two manufacturing plants.
Tenneco Emission Control	430	Assembles exhaust systems, including catalytic converters for OEMs, including Ford, Peugeot, General Motors, Daimler Chrysler and Volkswagen. Exports 97% of products to North America and Eastern Europe, 2% to Australia, and sells 1% on local markets.
Johnson Matthey	400	Manufactures automotive parts, including auto catalysts, diesel catalysts and pollution control systems, catalysts and components for fuel cells, catalysts and technologies for chemical processes, fine chemicals and chemical catalysts.
Umicore Catalyst SA	260	Manufactures catalytic converters. Is 35% owned by the Industrial Development Corporation (IDC), 65% by Umicore Finance.
Faurecia Exhaust Systems SA	243	Manufactures exhaust systems. A subsidiary manufacturers and supplies motor trim components for car interiors. Is 57% owned by Peugeot.
Canopies, tankers, trailers, etc.		

Company	Employees	Activities
Route Holdings	3 000 (group)	Subsidiaries (SA Truck Bodies, Fruehauf, Road Tankers and others) manufacture and repair trailers, axles, suspensions and trailer parts. Group has three trailer manufacturing operations in Wadeville, Bloemfontein and Cape Town; also manufactures tanks and components, including trailers, axles and suspensions.
Welfit Oddy	1 040	Designs, manufactures and sells tank containers and bulk liquid shipping containers and transport containers for international chemical and food grade logistics market.
Afrit	920	Manufactures and repairs trailers, semi-trailers and trucks.
Top Trailers	800	Designs and manufactures specialised tippers, trailers and carriers for the SA market.
Jurgens CI	680	Manufactures caravans and motorhomes. Fabricates fibre tech parts for caravans in Rosslyn.
GRW Engineering	600	Manufactures and refurbishes road tankers on chassis; manufactures stainless steel tank containers for export.
Beekman Super Canopies	490	Manufactures fibreglass canopies for bakkies.
F and R Catai Transport Solutions	288	In addition to core business of fleet support, manufactures trailers and security vehicles for Fidelity and Armscor and rail road vehicles for Transnet.
TFM Industries	287	Designs, manufactures, assembles, converts and imports specialist truck bodies as well as armoured vehicles and components for the automotive and engineering industries and trailers.
Serco Industries	150	Designs and manufactures insulated and dry freight fibreglass truck bodies and trailers.
Tank Clinic	150	Manufactures and supplies new road tankers to the oil and chemical industry. Has two manufacturing facilities.
Cabworld	147	Builds passenger busses, mobile clinics and ambulances and undertakes custom-made vehicle body conversions. Also manufactures security, mortuary, people-transport and Telkom canopies. Provides tow bars, benches, medical and similar equipment.
Rail and earthmoving		
ABB SA	1 472	Products include systems and services for rolling stock including traction transformers, converters, motors and many other components for different types of rail application: freight, high-speed, suburban railways, metros and tramways.
Siemens	1 410	A subsidiary supplies and services rail vehicles, rail automation systems, rail electrification systems, road traffic technology and IT solutions.
DCD Group	1 000	Supplies locomotive wagons, bogies and related goods to national railways, mining and industrial users; manufactures seamless forged and other products for the rail and other industries; designs, develops and manufactures railway brake blocks. A subsidiary in Cape Town undertakes ship repairs.
Ikusaka Rail	550	Owns Grindrod Rail Construction Company, a contract provider of rail, rail electrification and manufacturing engineering services throughout Africa. Construction of gantries and cranes for ports and rail as well as electrical overhead track equipment. Owned by WBHO.
Alstom Ubunye	450	Designs and manufactures railway rolling stock and spare parts for Metro Rail, Transnet and PRASA.
Gibela Rail Transport Consortium (RF)	400	Manufactures and imports rolling stock on contract to Prasa. Alstom (France) owns 61%.
SAFreight Logistics	300	Repairs, upgrades and refurbishes various makes and types of locomotives and rail wagons at its main workshop in Modderfontein. Also provides rail logistics and repair services across southern Africa.

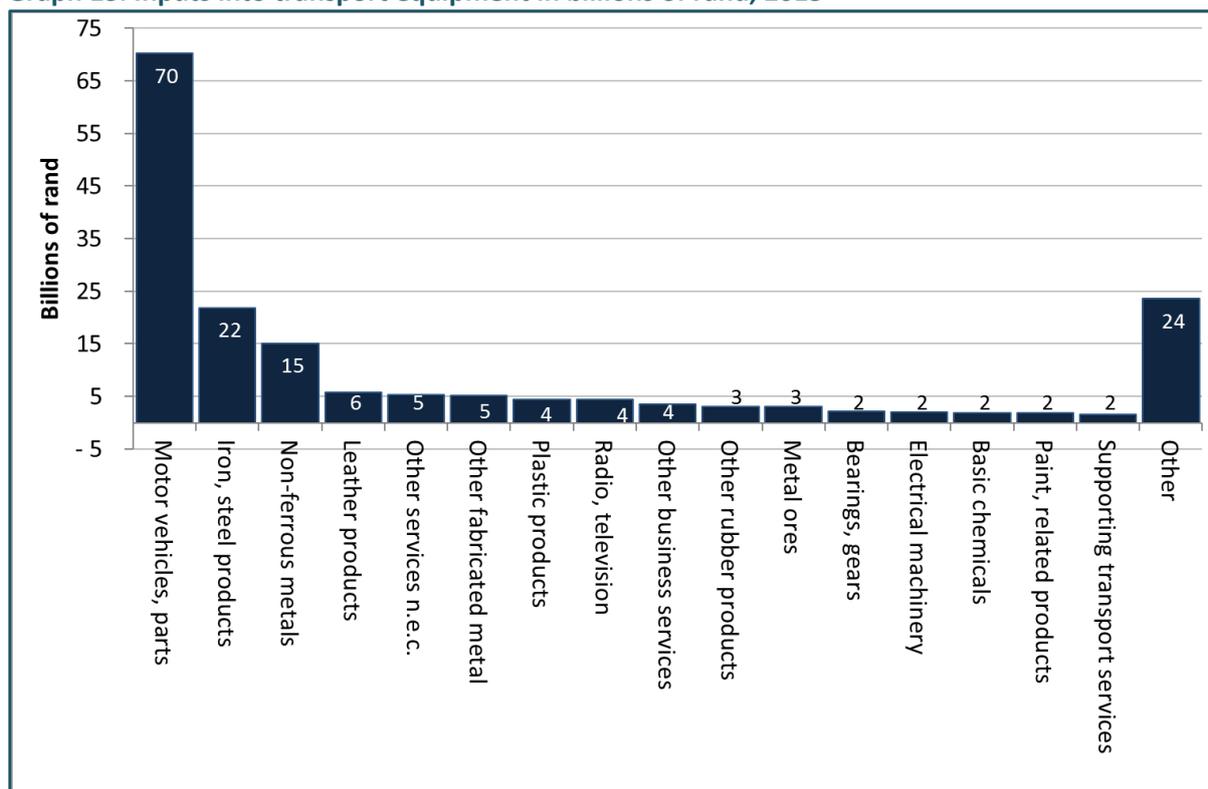
Company	Employees	Activities
Wictra Holdings	270	Repairs and refurbishes train coaches including for Metro Rail and PRASA.
Mehleketo Resourcing	267	Turnkey railway construction company and undertakes maintenance. Also provides signalling, information and communication technology.
Ansys	243	Designs and develops engineering solutions including complex rail solutions, on-board train cab control, monitoring and communication systems, trackside measurement and integrated train conditioning monitoring systems.
African Rail and Traction Services	201	Services train locomotives, for among others Transnet, Iscor and Rustenburg Platinum.
Bradken Resources SA	16	A subsidiary, Transport and Industrial Products, designs, manufactures and supplies freight rolling stock for the iron ore, coal, bulk and intermodal sectors.
Boat builders		
Dormac Marine and Engineering	3 000 (Southey group)	Contracted repairs in drydock and afloat in any facility on the southern African coastline, and deploys repair parties worldwide as required. Operates its own dry docks in SA.
Southern African Shipyards	420	Commercial and naval ship builder and undertakes ship repairs.
Southern Wind Shipyards	400	Builds yachts.
Robertson and Caine	1 350	Builds catamarans to order from imported parts, for export worldwide.
Nautic Africa	294	Designs and manufactures customised ships for oil and gas, harbour, working boats and passenger vessels, including for export.
Vee Craft Marine	71	Manufactures, repairs and provides maintenance for work boats, harbour vessels, patrol boats and ferries, crew and supply vessels. Contract work for National Ports Authority and the South African Navy, as well as international clients.

Source: *Who Owns Whom. Report Generator. Electronic database. Downloaded from www.woweb.co.za in November 2017.*

6 Major inputs

The main inputs into transport equipment are parts, iron and steel products, non-ferrous metals and leather. In constant rand, the value of inputs remained almost unchanged from 2012 to 2015. Motor vehicles, parts, iron, steel products, non-ferrous metals and leather products constituted 65% of all inputs.

Graph 13. Inputs into transport equipment in billions of rand, 2015



Source: Calculated from Statistics South Africa. Statistics South Africa, GDP data in excel format, Fourth Quarter 2017. Use Tables. Downloaded from www.statssa.gov.za in October 2017.

7 Trade

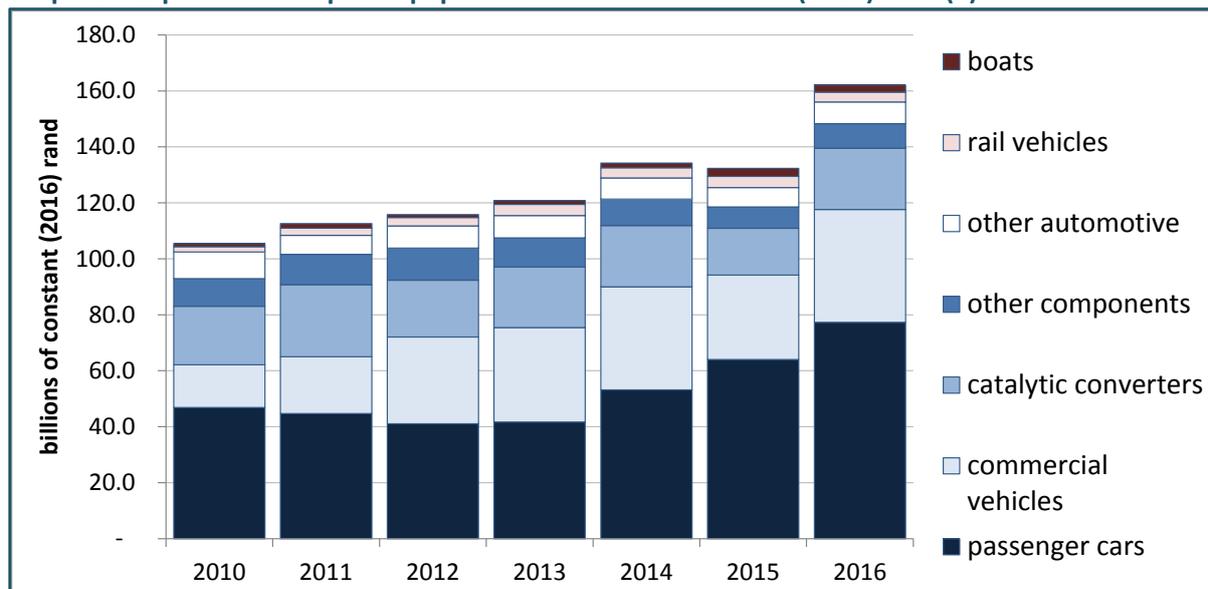
Autos and their components, mostly catalytic converters, have been South Africa's only large-scale advanced export. In 2016, they were the largest single export good, contributing around a seventh of total foreign sales, up from around a tenth in 2010. South Africa's other exports on a similar scale were all mining products — metals, ores or coal.

Total automotive exports climbed 7,3% a year in constant rand from 2010 to 2016. In part, the increase reflected depreciation, with significantly smaller growth in dollar terms. In current dollars, exports almost doubled from 2009 to 2011, as the industry recovered from the 2008/9 downturn, but then fluctuated around US\$8,9 billion through 2016.

In 2016, 50% of all vehicle export revenue came from passenger cars, while a further 25% was commercial vehicles and 14% was catalytic converters. Other automotive products accounted for most of the rest.

Exports of railroad stock consisted mostly of containers; exports of boats were mostly yachts.

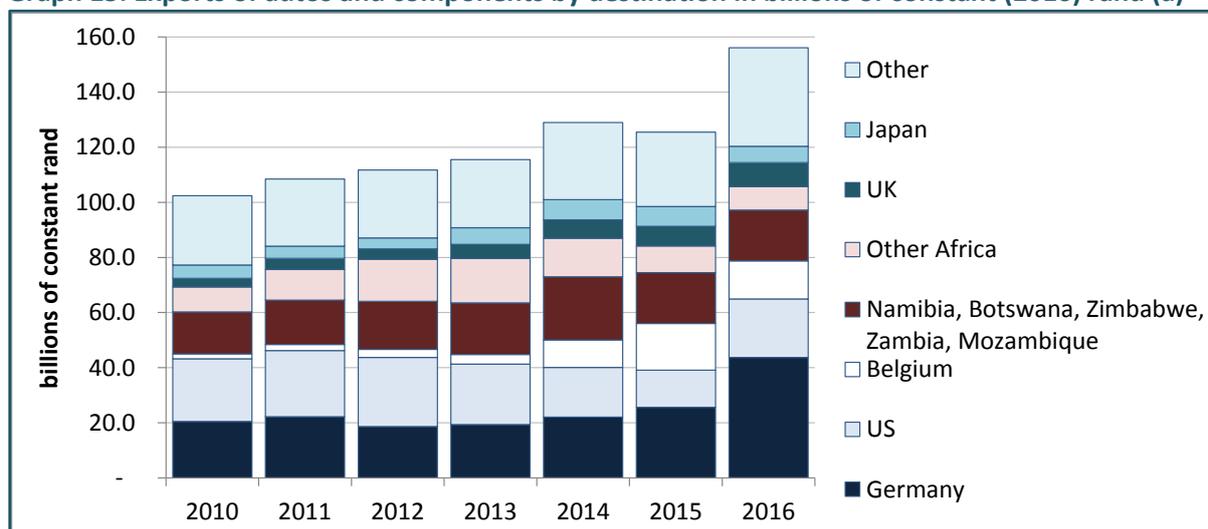
Graph 14. Exports of transport equipment in billions of constant (2016) rand (a)



Note: (a) Deflated with CPI. Source: Calculated from ITC. TradeMap. Electronic database. Series on exports of vehicles, boats and railroad stock in rand. Downloaded from www.trademap.org in November 2017.

Most vehicle exports went to Europe and the US, reflecting OEM sales strategies. Exports to Germany of cars, catalytic converters and components doubled in constant rand from 2014 to 2016, and to the rest of the EU climbed over a third. In contrast, exports to the US increased only around 15%, and they remained almost unchanged to the UK and Japan. In contrast to other manufacturing industries, Africa accounted for only around a fifth of total exports. The value of sales to other African countries fell 20% in value in constant rand from 2014.

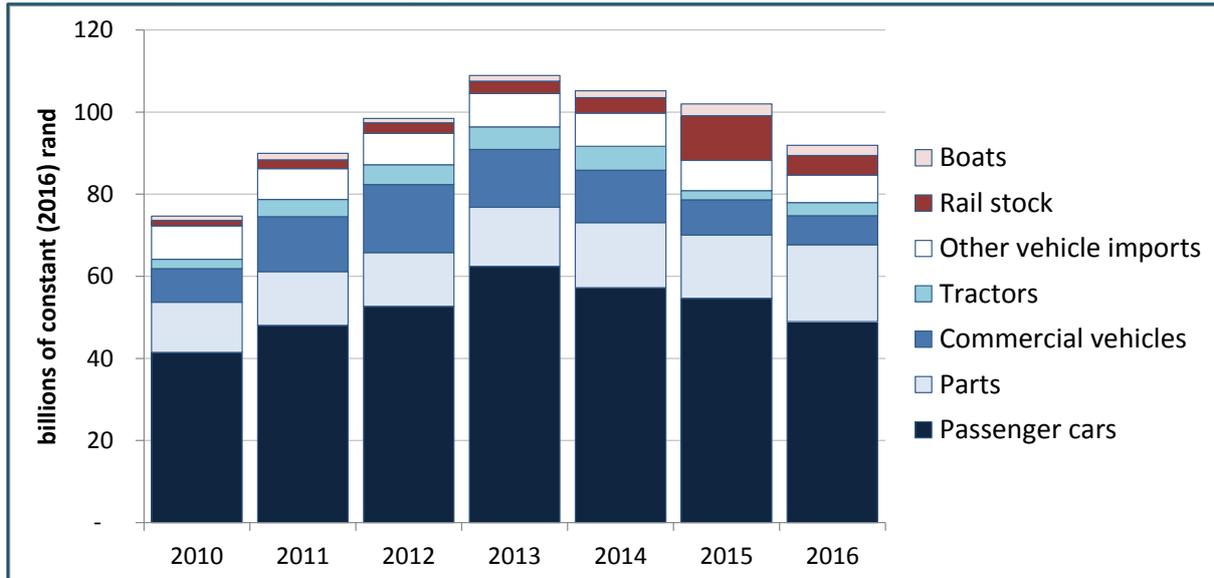
Graph 15. Exports of autos and components by destination in billions of constant (2016) rand (a)



Note: (a) Deflated with CPI. Source: Calculated from ITC. TradeMap. Electronic database. Series on exports of vehicles in rand. Downloaded from www.trademap.org in November 2017.

Imports of transport equipment in constant rand were lower than exports in 2016, in part because they fell from 2013 while exports climbed. The decline reflects the economic slowdown and depreciation of the rand, both which followed the end of the commodity boom in 2011/12.

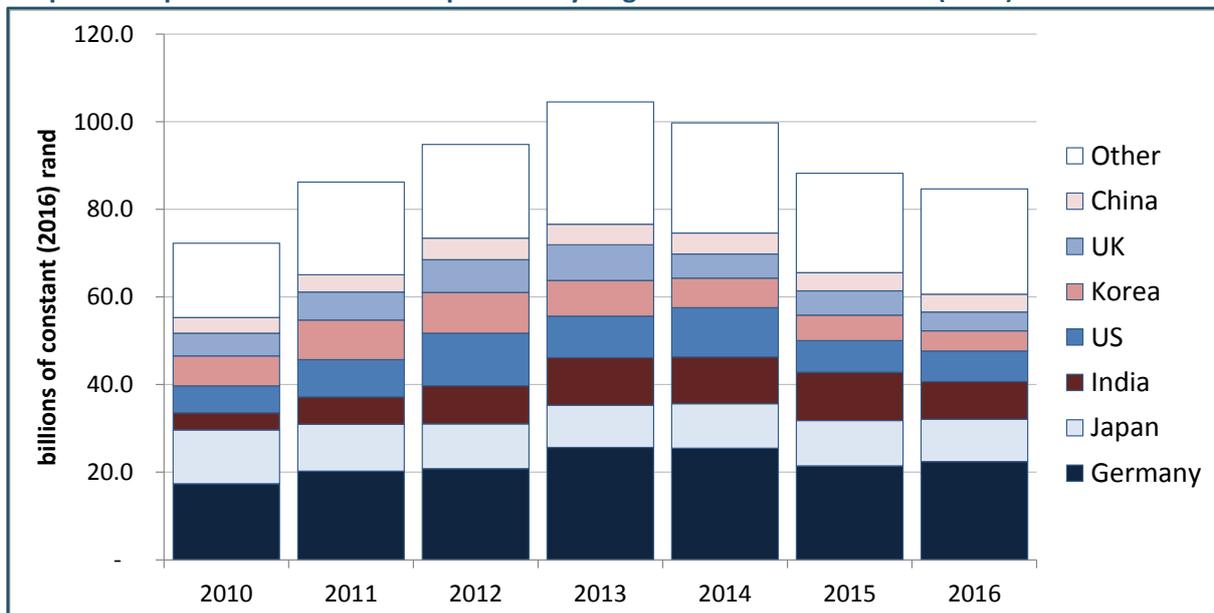
Graph 16. Imports of transport equipment in billions of constant (2016) rand



Note: (a) Deflated with CPI. Source: Calculated from ITC. TradeMap. Electronic database. Series on imports of vehicles, boats and railroad stock in rand. Downloaded from www.trademap.org in November 2017.

Car imports were linked to the main OEMs. Germany accounted for a quarter of all auto imports by value. India saw the most rapid increase in market share, while Korea and the US accounted for a shrinking proportion of imported vehicles and parts.

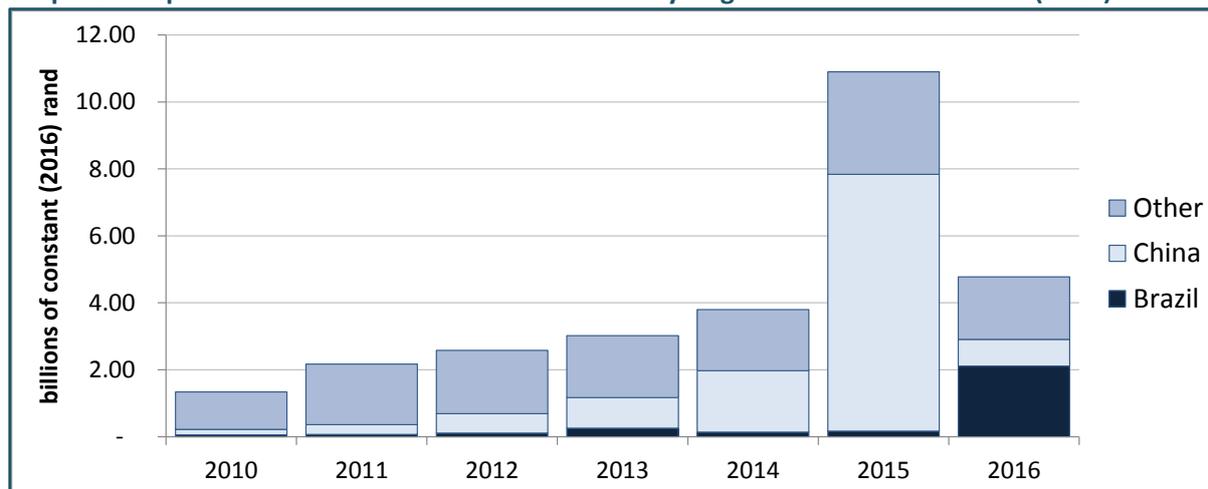
Graph 17. Imports of autos and components by origin in billions of constant (2016) rand



Note: (a) Deflated with CPI. Source: Calculated from ITC. TradeMap. Electronic database. Series on imports of vehicles in rand. Downloaded from www.trademap.org in November 2017.

Rail imports were lumpy compared to auto, reflecting large-scale procurement by state agencies – that is, Transnet and Prasa. As the following graph shows, the bulk of railroad stock was purchased from Brazil and China. In 2016, other major suppliers came from the US, Italy and Germany.

Graph 18. Imports of railroad stock and locomotives by origin in billions of constant (2016) rand



Note: (a) Deflated with CPI. Source: Calculated from ITC. TradeMap. Electronic database. Series on imports of railroad stock in rand. Downloaded from www.trademap.org in November 2017.

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