



TRADE & INDUSTRIAL POLICY STRATEGIES

INDUSTRY STUDY

INTERNATIONAL TRADE IN SOUTH AFRICA'S AUTOMOTIVE INDUSTRY

MARCH 2024

TIPS industry studies aim to provide a comprehensive overview of key trends in leading industries in South Africa. For each industry covered, working papers will be published on basic economic trends, including value added, employment, investment and market structure; trade by major product and country; impact on the environment as well as threats and opportunities arising from the climate crisis; and the implications of emerging technologies. The studies aim to provide background for policymakers and researchers, and to strengthen our understanding of current challenges and opportunities in each industry as a basis for a more strategic response.

This report assesses the trade dynamics of South Africa's automotive products, identifying the top-performing automotive exports and imports, including component products. It also examines the key trading partners and regions and looks at FDI trends in South Africa's automotive industry.

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ABBREVIATIONS

AfCFTA	African Continental Free Trade Area
AGOA	African Growth and Opportunity Act
AIEC	Automotive Industry Export Council
APDP	Automotive Production and Development Programme
BAIC	Beijing Auto Industrial Corporation
BLNS	Botswana, Lesotho, Namibia, and eSwatini
CBAM	Carbon Border Adjustment Mechanism
CBU	Completely Built Unit
CKD	Completely Knocked Down
EGD	European Green Deal
FTA	Free Trade Agreement
EFTA	European Free Trade Association
EPA	Economic Partnership Agreement
EU	European Union
EV	Electric Vehicles
FDI	Foreign Direct Investment
GFCF	Gross Fixed Capital Formation
GSP	Generalised System of Preferences
ICE	Internal Combustion Engines
IDC	Industrial Development Corporation
IDZ	Industrial Development Zone
MBSA	Mercedes-Benz South Africa
NAFTA	North America Free Trade Agreement
OE	Original Equipment
OEMs	Original Equipment Manufacturers
PHEV	Plug-in Hybrid Electrical Vehicle
PP&E	Property Plant and Equipment
SACU	Southern African Customs Union
USMCA	United States-Mexico-Canada Agreement (previously North American Free Trade Agreement (NAFTA))
SADC	Southern African Development Community
SAAM	South African Automotive Masterplan
SEZ	Special Economic Zone
SKD	Semi-Knocked Down
VW	Volkswagen

INTRODUCTION

As outlined in the South African Automotive Masterplan (SAAM 2035), a key objective of the country's automotive industry is to increase domestic vehicle production to 1.4 million units by 2035, representing approximately 1% of global output (the dtic, 2018). Achieving this goal requires progress across several key industry goals, including increasing local content, employment, industry competitiveness, and driving transformation in the local industry (the dtic, 2018). Moreover, reaching this production target relies on several assumptions within both the South African and regional automotive contexts. Notably, it requires a considerable expansion in capturing a larger share of the domestic automotive market and increasing sales across the African region (the dtic, 2018). However, both the domestic and regional markets grapple with challenges. For South Africa, the local economy grapples with inflation, high interest rates and sluggish economic growth. In addition, accessing preferential market access to larger economies like Nigeria¹ and Kenya is important for South Africa's expansion into the broader African region outside of the Southern African Development Community (SADC), which serves as the leading African destination for South African automotive products. However, this also presents its own set of challenges.

To strengthen the local industry, the SAAM 2035 highlights the need to increase intra-regional trade and reduce vehicle imports, particularly of used vehicles, which decreases the demand for vehicles produced on the continent. Strengthening intra-trade with African economies has the potential to promote economies of scale, a crucial factor in supporting a competitive automotive manufacturing base and in expanding market size within the automotive sector. Being the continent's largest producer and exporter of vehicles, South Africa is well-positioned to benefit from a regional automotive value chain, which would also offer opportunities for smaller automotive economies in the region.

Despite the increasing demand for vehicles across Africa, the import of used vehicles is one of the leading challenges, posing a significant obstacle to increasing intra-trade within the automotive industry (Black, 2022). Overcoming this involves substantial changes in the South African automotive industry, including diversifying the types of vehicles produced, along with legislative reforms across African countries aimed at limiting imports of used vehicles. These efforts are key for the creation of a sustainable and competitive automotive sector in the region. However, it is unlikely that governments of other countries would support legislation to ban second-hand vehicle imports solely for the benefit of the South African industry. Thus, the intra-regional dynamics of the automotive industry remain complex and challenging, requiring a carefully crafted strategy, if it is to be viable in any way.

The elimination of trade barriers through trade agreements and regional integration across the continent holds the potential for increased opportunities for the industry. Trade agreements have the potential to optimise market access in the region, thereby effectively expanding opportunities for the automotive industry on the continent and across international markets. South Africa benefits from extensive access to global markets through its trade agreements with Europe, the United Kingdom, and duty-free entry into the United States market under the African Growth and Opportunity Act (AGOA) as well as the US Generalised System of Preferences (GSP) trade preference programme. South Africa is also a member of SADC and the Southern African Customs Union (SACU). In addition, South Africa² benefits from the SADC-European Union (EU) Economic Partnership Agreement (EPA). Within

¹ For example, according to Barnes et al., 2021, higher tariffs in Nigeria and Algeria have resulted in a substantial decline in Toyota South Africa's exports to the rest of the continent.

² The SADC-EU EPA group comprises the SACU countries – South Africa, Botswana, Lesotho, Namibia and Swaziland – and Mozambique.

the framework of the SACU, South Africa is included in a Free Trade Agreement (FTA) between the European Free Trade Association (EFTA) states.³ SACU also has a Preferential Trade Agreement with the Mercosur⁴ trade bloc, enhancing South Africa's trade relations with South America.

The African Continental Free Trade Area (AfCFTA) identifies the automotive industry as one of four priority industries offering opportunities to enhance intra-African trade (Signe and Munyati, 2023). The AfCFTA presents potential benefits for South Africa to access new markets within the region. It carries the potential of improving intra-African trade, supporting industrialisation and the growth of a regional automotive industry, thus establishing an integrated market and facilitating participation in regional and global value chains, which themselves are evolving due to climate legislation, technology, and changing consumer preferences. Products that meet the AfCFTA rules of origin criteria⁵ will receive preferential treatment within the AfCFTA, therefore facilitating trade and better regional integration. Forty-five tariff reduction schedules and 22 services schedules have been adopted under the AfCFTA, and rules of origin have been agreed, except for vehicles, and textiles and clothing.

This report delves into the trade dynamics of South Africa's automotive products, identifying the top-performing automotive exports and imports, including component products. It also examines South Africa's key trading partners and regions, analysing the destinations of these automotive products and tracking changes in the automotive industry's trade with Africa over time. The analysis is important not only for understanding the local automotive industry's trade patterns but also for assessing regional integration prospects. In addition, looking at trade patterns also provides insights into how South Africa's trade may be affected as its major trading partners transition to electric vehicles (EVs). In the context of the ongoing shift towards EVs, analysing trade trends will provide insights into the potential impacts on specific automotive components, particularly those associated with internal combustion engines (ICE) that are currently traded with the EU, United States, and Asian markets, given that these are the markets that are actively pursuing a shift towards EVs. The report also aims to highlight trends in Foreign Direct Investment (FDI) within the industry, identifying major investors and the types of projects being financed.

SECTION 1: INTERNATIONAL AND REGIONAL TRADE

Improving competitiveness of the local automotive industry remains a key objective for the local industry. The trade data reveal potential opportunities for South African automotive products, highlighting prospects for these goods in the region and other emerging markets, while also emphasising the key role of the EU and the United States markets. Increasing trade within Africa and enhancing regional integration is a strategic imperative for the SAAM 2035. In this analysis, trade data will be used to illustrate the progress in export activities to Africa.

Vehicle imports and exports

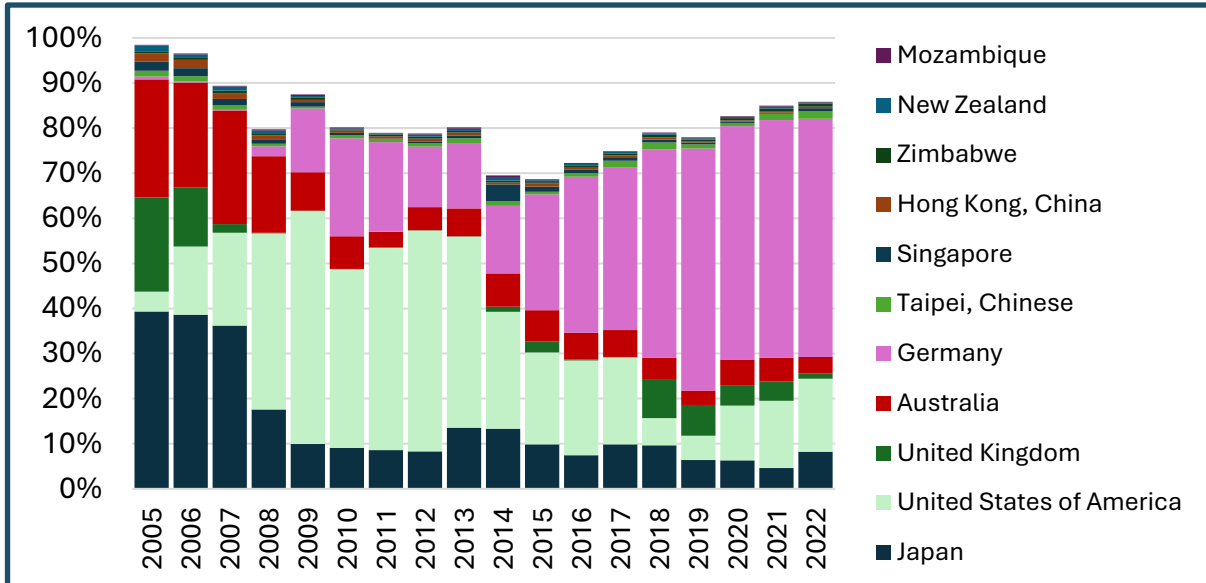
South Africa's automotive industry is predominately export-oriented, which has promoted a positive trade balance for the industry. Germany remains one of South Africa's significant trading partners, alongside the United States, United Kingdom, and Japan, see Figures 1 and 2.

³ The EFTA member states are Iceland, Liechtenstein, Norway and Switzerland.

⁴ Mercosur, also known as the Southern Common Market, includes Argentina, Brazil, Paraguay, and Uruguay.

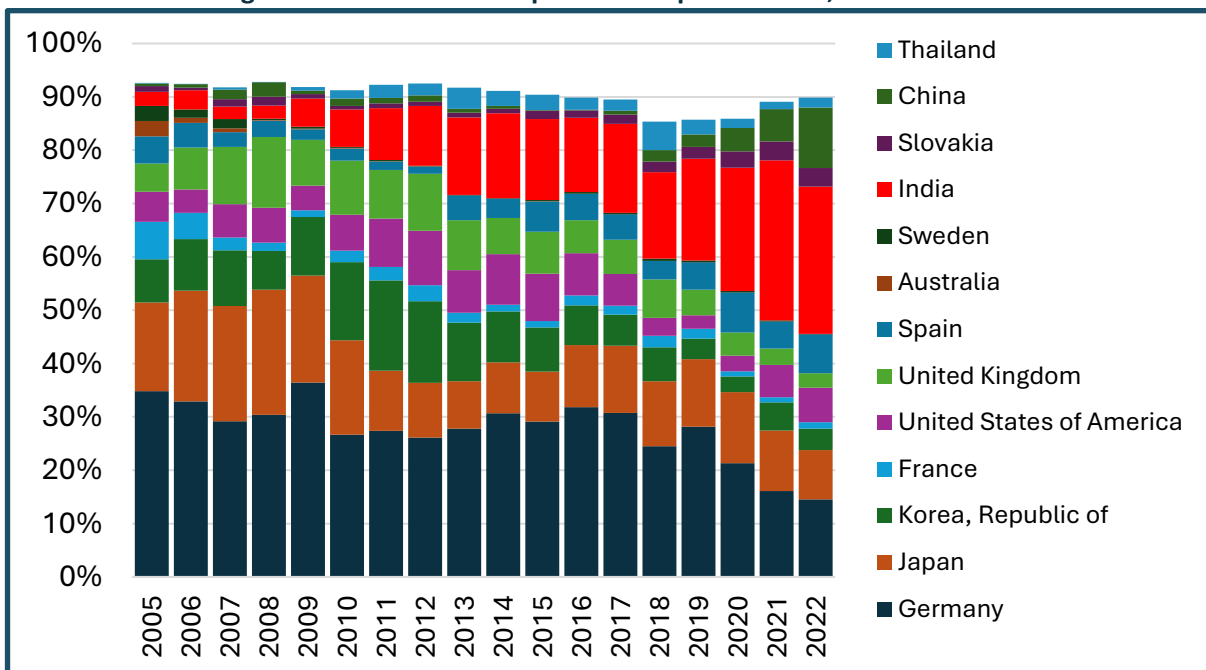
⁵ Rules of Origin (RoO) are the administrative rules and criteria used to determine the origin status of products that are traded across borders (Tralac, 2024).

Figure 1: South Africa's top vehicle export markets, 2005 to 2022



Source: Calculated from ITC Trade Map. Electronic database. Series on exports of autos. Downloaded from www.trademap.org in February 2023

Figure 2: South Africa's top vehicle import sources, 2005 to 2022



Source: Calculated from ITC Trade Map. Electronic database. Series on imports of autos. Downloaded from www.trademap.org in February 2023

Within the African continent, the data also revealed that exports to Africa from South Africa show a fluctuating trend. This is further explored in Figure 3, which offers a detailed view of South Africa's export share of vehicles to African markets. In terms of imports, Germany and India emerge as the primary sources of vehicles for South Africa. The percentage of imports from India rose from 11% in 2012 to 28% in 2022, marking the largest increase of vehicle imports during that period. India has become a key production hub for Asian vehicle manufacturers in producing small and affordable cars. In 2023, 42% of all passenger vehicles sold in South Africa were imported from India, according to statistics released by Toyota (Woosey, 2024; Venter, 2024). A recent article by Woosey (2024) shows that 11 out of the top 20 most popular passenger vehicles in South Africa originated from India. This

list includes models such as the Suzuki Swift, Toyota Starlet, Hyundai Grand i10, Nissan Magnite, Renault Kiger, Kia Sonet, and Renault Kwid, among others.

There is also a noticeable increase in the importation of vehicles from China, with EVs included. Of particular interest is the market penetration of Chery and Great Wall Motors (Haval), which has climbed to the ninth spot in the ranking of top-selling vehicle brands in South Africa for 2023, with sales reaching 5032 units. According to naamsa (2024c), light commercial vehicles from China increased from 11 085 units in 2019 to 37 018 units in 2023, an increase to 7.4% of the domestic market for light commercial vehicles. The growing footprint of Chinese vehicles in the South African market is largely due to their value proposition, offering competitive pricing without compromising on quality, an advantage in a country grappling with high inflation and stringent economic conditions. Over the period from 2010 to 2022, imports of Chinese vehicles rose from 1% to 11% of the market share, an average annual growth rate of 7.2%. This influx in foreign vehicle imports poses challenges to the SAAM 2035 goal of increasing domestic demand for locally manufactured vehicles. The local market consequently saw a decline in the share of South African-built cars.

South Africa's exports to Africa

Figure 3 shows that the share of South Africa's exports to Africa reached its peak at 34% in 2012, followed by 35% in 2013, and 32% in 2014. However, it is important to note that these figures come from a relatively low base, as trade statistics prior to 2013 did not include South Africa's trade with the BLNS countries (Botswana, Lesotho, Namibia, and eSwatini). The inclusion of trade data from BLNS countries could have initially led to possible anomalies around export volumes. Hence, following the peak years, during which trade data with the BLNS countries was incorporated, the share of exports to Africa began to decline, falling to 14% by 2019. This possibly indicates that the inclusion of SACU before 2010 might have resulted in an understatement of export volumes during that period, rather than an overstatement afterwards.

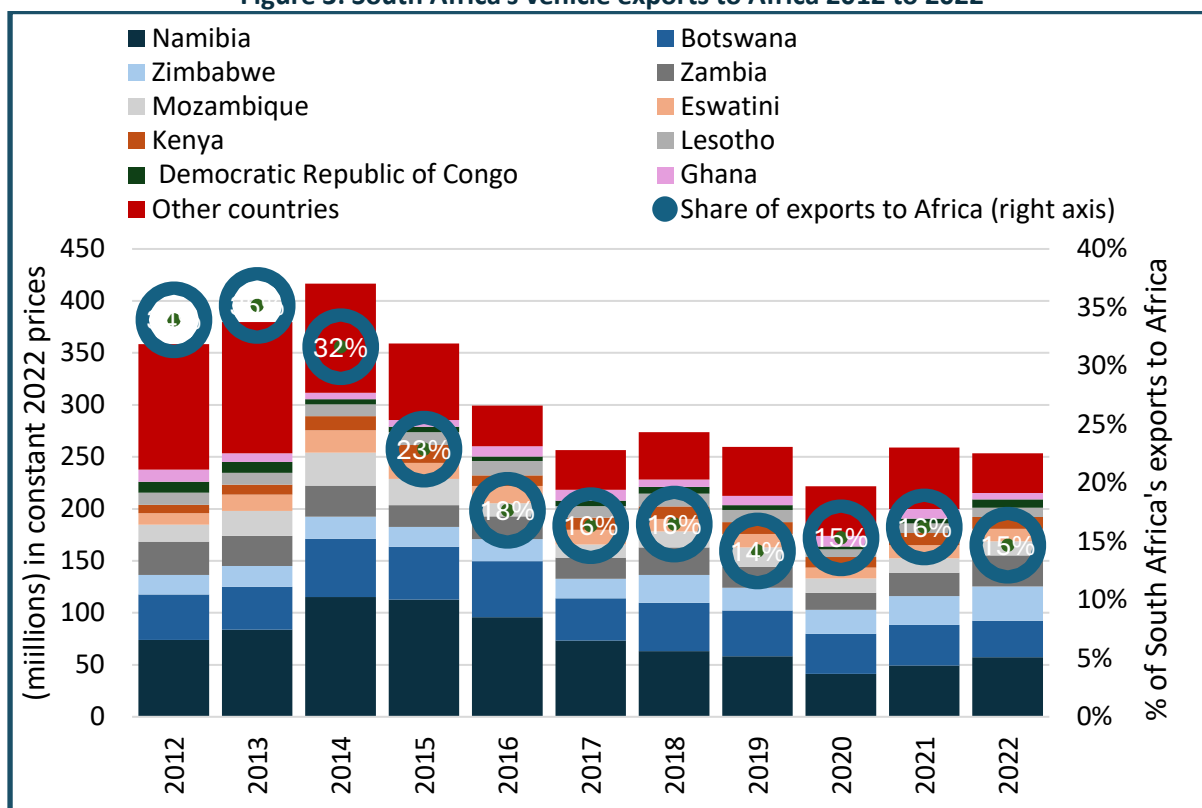
The post COVID-19 pandemic period saw a slight improvement in volumes, with the share increasing to 16%, yet it has since remained flat. South Africa's participation in both SACU and the SADC FTA facilitates easier access to neighbouring markets, thereby improving its trade relations within the region. As shown in Figure 3, the majority of intra-African trade for South Africa is with SADC countries. South African vehicle manufacturers have struggled to compete effectively in other regions primarily due to high import tariffs and related trade barriers. However, with the implementation of the AfCFTA, new opportunities emerge for South Africa to access additional regions across the continent. In addition to the high tariff barriers, South Africa is renowned for manufacturing luxury vehicles, but in the African market, only a small segment of the population can afford them. Therefore, the type of vehicles produced by South African-based vehicle manufacturers could be a hindrance, given that most cars driven on the continent are small cars, which most people can afford.

An analysis of trade with individual countries shows that Namibia, Botswana, Zimbabwe, and Zambia play a significant role in South Africa's exports to the continent. Over time, South Africa has experienced a growth in its export volumes to Kenya and Ghana. In both Kenya and Ghana, there are small-scale vehicle assembly operations that rely on imported components. As noted by Black (2022), automotive programmes in these countries typically allow semi-knocked down (SKD) assembly.⁶ The Automotive Industry Export Council (AIEC) points out that vehicle exports often lead to potential opportunities to export spare parts needed for vehicle maintenance. Alongside the export of fully

⁶ CKD (Completely Knocked Down) is a complete assembly of parts, while SKD is a semi-assembly of parts, involving only the final production of semi-assembled vehicles with limited value add (Black, 2022). CKD and SKD are shipped as parts and assembled in the destination country.

assembled vehicles, there is a focus on the export of automotive parts, particularly aftermarket items such as tyres and filters, primarily targeting African countries outside of SADC (AIEC, 2021b).

Figure 3: South Africa’s vehicle exports to Africa 2012 to 2022



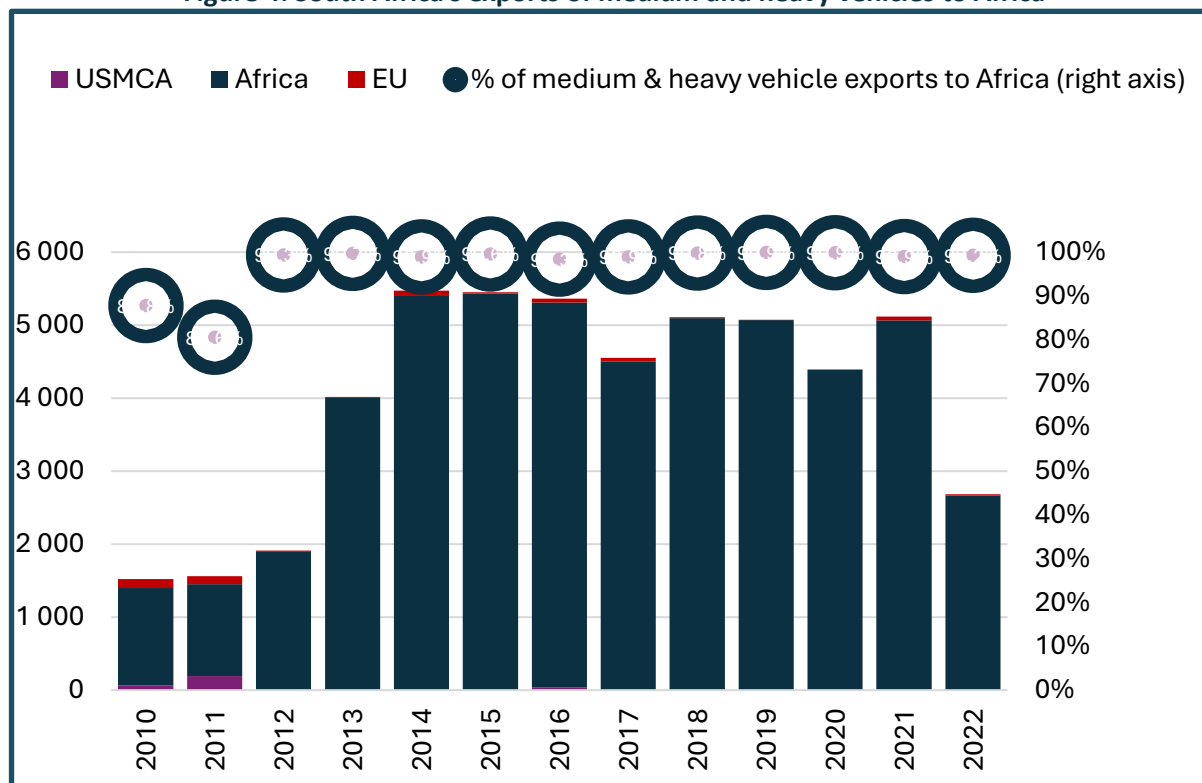
Source: Calculated from ITC Trade Map. Electronic database. Series on imports and exports of autos in rand. Downloaded from www.trademap.org in February 2023.

Exports of medium and heavy vehicles from South Africa to other African countries have significantly outpaced those under the United States-Mexico-Canada Agreement (USMCA, previously North America Free Trade Agreement (NAFTA))⁷ and EU regions. This dominance speaks to the African market’s crucial role for South Africa's medium and heavy vehicle producers. Over the past decade, there was a notable increase in these exports, with export volumes growing from 1333 vehicles in 2010 to 2665 vehicles by 2022, as shown in Figure 4. The SADC region as the primary destination for South Africa’s exports of trucks and buses, with Zimbabwe, Zambia, Mozambique, and Malawi emerging as the top importing countries, collectively making up 95% of the total export volume.

Leveraging the AfCFTA is expected to create considerable new opportunities for exports in the vehicle industry, including commercial and medium to heavy vehicles. However, regional integration is just one of several key factors that will shape the future of the automotive sector in Africa. The advancement of this sector will also depend on improved infrastructure, the implementation of supportive policies and programmes across the continent.

⁷Agreement between the United States, the United Mexican States, and Canada which replaced the 1994 North American Free Trade Agreement (NAFTA).

Figure 4: South Africa's exports of medium and heavy vehicles to Africa



Source: Compiled from AIEC, 2014-2023.

Used vehicle imports in Africa

Trade liberalisation and Africa's late industrialisation, compared to other regions, has led to Africa's manufacturing sector facing overseas competition from low-cost producers in several industries, such as vehicle manufacturing, clothing and textiles, and consumer electronics (Agarwal et al., 2022). Approximately 70% of exported used light commercial vehicles target developing countries, with 40% destined for Africa, and making up 60% of new vehicle registrations across the continent.

One major challenge that constrains achieving economies of scale and boosting intra-continental trade, particularly in the vehicle industry, is the prevalence of the used car market. Africa is the leading global market for imported used vehicles, receiving an estimated US\$19 billion worth of used vehicle exports in 2019, according to Agarwal et al., (2022). Among African countries, only South Africa, Egypt, Tunisia, Algeria, and Morocco⁸ have legislated bans on the import of second-hand vehicles, while some countries impose no restrictions, and others have age limits for imported used vehicles (Agarwal et al., 2022).

East Africa predominantly imports used vehicles from Japan, while West Africa imports from North America, with Nigeria leading as the main market for these imports accounting for 16% of total African used vehicle imports, followed by Libya (11%), Tanzania (9%), Guinea (6%), and Ghana (5%). The affordability of used cars, due to lower disposable incomes, limited credit and vehicle finance access, and the higher cost of new vehicles, makes them a favourable option for African consumers. For example, while a new vehicle from the United States might cost around US\$24 000 on average, a second-hand vehicle can be bought for just US\$11 000 (Agarwal et al., 2022). Consequently, any attempt to impose import restrictions could be met with significant resistance by middle-and upper-

⁸ These countries are among the top leading vehicle manufacturing countries in Africa.

class consumers, who have significant political influence. In addition, national governments may experience a decrease in revenue from import duties due to a reduction in the number of used vehicles being imported into their markets. That said, some observers argue that many imported used vehicles fail safety tests, are unroadworthy, and pose environmental risks (Black, 2022; UNEP, 2020; Barnes et al., 2021). Another significant challenge is that consumers are reluctant to pay higher prices for cars, particularly when less expensive options exist, and they perceive no advantage in supporting South African vehicle production.

Imposing restrictions on the import of used vehicles could arguably promote the necessary demand for vehicles assembled locally or in the region. However, this remains a complex challenge, involving a policy shift that aligns both national policies and regional strategies among African countries. Achieving such alignment is particularly challenging for countries without existing automotive manufacturing infrastructure and existing capabilities.

For SAAM 2035, enhancing intra-Africa trade and regional integration is critically important, but there is no simple solution and enforcement has proven difficult. The market for new cars in Africa is relatively small, with a strong consumer preference for small and used vehicles. This presents a challenge for South Africa, as competing in this market segment would require manufacturers to produce smaller vehicles that meet regional needs while also needing to develop strategies to improve their price competitiveness.

South Africa will need to navigate trade-offs related to assembly and component manufacturing. Nevertheless, there are alternative strategies worth exploring in the medium term, such as supporting automotive production in neighbouring SADC countries – which is already happening in Botswana and Namibia. For example, Botswana has become a supplier of batteries and ignition wiring sets for South Africa’s automotive industry. In 2008, South Africa predominantly imported ignition wiring sets from Thailand, the United States, Romania, Philippines, and Germany. By 2009, Botswana began supplying these components to the South African market, eventually capturing half of its ignition wiring set imports (Botswana Investment & Trade Centre, n.d.).

Exports by vehicle manufacturers

In 2023, AIEC reported a significant rise in vehicle exports from the automotive sector, reaching 396 290 units (AIEC, 2023). This represents a 12% increase from the previous year and surpasses the 2019 export record of 387 092 vehicles by 2.4%, despite geopolitical tensions and the slowdown in global economic growth. Foreign vehicle assembly firms active in South Africa have adopted a strong export-oriented approach, primarily aiming for economies of scale and profitability. This inclination towards exports could also be a strategic move to penetrate different global market segments where their brands have high demand and a competitive advantage.

Table 1 shows the shift in the rankings of South Africa’s top vehicle exporters from 2010. Volkswagen (VW) and Mercedes-Benz South Africa (MBSA) are shown as constant key exporters, alongside other major players like Toyota, BMW, and Ford. Toyota emerged as the leading exporter between 2011 to 2014, indicative of its strong global presence and manufacturing capabilities.

The rise of MBSA from 2015 to 2018 disrupted the traditional hierarchy, challenging the established order dominated by Toyota and VW in previous years. This was primarily attributed to the export of the C-Class. In 2016, MBSA imported over 10 000 new C-Class units, and by 2018, it had started producing the C-Class plug-in hybrid electric vehicle (PHEV), exclusively for the export market. MBSA exports at least 90% of its production, with over 80 000 C-Class units exported in 2023. Luxury vehicle manufacturers Mercedes and BMW have a high percentage of exports, signalling their use of local

production facilities as global export hubs. BMW and MBSA are major exporters to the United States, and their exports are significantly supported by AGOA.

The data indicates a change in the ranking of exporters over the years, but VW consistently maintained a high-ranking position as the leading exporter from 2019 to 2022, mainly by exporting the VW Polo. Meanwhile, Toyota, which held the top spot in 2010 to 2014, experienced a decline in its ranking, falling to fifth position since 2015. Despite Toyota having lower export figures compared to its domestic sales, it still stands out as a leading manufacturer and key player in the local market, as detailed in Table 2. This might indicate a strong alignment with domestic market preferences, as evidenced by its continued dominance in local sales. Similarly, Nissan and Isuzu place more emphasis on serving the local market, dedicating a smaller share of their production to exports. VW presents a more balanced profile, holding a nearly equal presence in terms of local sales and exports. This difference in strategy is significant and notable.

Each brand tailors its strategy based on its alignment with market demands, cost-effective strategies, and its ability to balance meeting the needs of local consumers while also capitalising on opportunities in the global marketplace.

Table 1: Top vehicle OEM exporters for passenger vehicles and light commercial vehicles

Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Ranking of Exporters Number 1 to Number 5	VW	Toyota	Toyota	Toyota	Toyota	MBSA	MBSA	MBSA	MBSA	VW	VW	VW	VW	VW
	Toyota	VW	VW	BMW	BMW	VW	VW	VW	VW	MBSA	MBSA	Ford	MBSA	MBSA
	MBSA	BMW	MBSA	VW	VW	BMW	BMW	Ford	Ford	BMW	BMW	Toyota	Ford	Toyota
	BMW	MBSA	BMW	MBSA	Ford	Ford	Ford	BMW	Toyota	Ford	Ford	BMW	BMW	BMW
	Ford	Nissan	Ford	Ford	MBSA	Toyota	Toyota	Toyota	BMW	Toyota	Toyota	MBSA	Toyota	Ford

Source: Compiled from AIEC, 2010-2022; naamsa,2024c.

Table 2: Export vs local sales volumes by vehicle manufactures

2020					2021				
OEM	Local sales	Exports	Total production	Share of Exports (%)	OEM	Local sales	Exports	Total production	Share of Exports (%)
VW	57343	74657	132000	57	Toyota	117659	55190	172849	32
Toyota	79968	38873	118841	33	VW	71577	69056	140633	49
Ford	31758	44626	76384	58	Ford	31127	62541	93668	67
Mercedes	14454	44749	59203	76	BMW	11505	55587	67092	83
BMW	8337	34047	42384	80	Mercedes	8490	39275	47765	82
Nissan	23891	2975	26866	11	Nissan	30172	4467	34639	13
Izuzu	14192	2962	17154	17	Izuzu	19891	4619	24510	19
2022					2023				
OEM	Local sales	Exports	Total production	Share of Exports (%)	OEM	Local sales	Exports	Total production	Share of Exports (%)
Toyota	132035	45123	177158	25	Toyota	142612	74506	217118	34
VW	69801	98301	168102	58	VW	67453	101468	168921	60
Ford	26335	69368	95703	72	Ford	30710	64872	95582	68
Mercedes	10605	84650	95255	89	Mercedes	8324	75287	83611	90
BMW	13250	57067	70317	81	BMW	13679	55024	68703	80
Nissan	30487	5538	36025	15	Nissan	29158	4155	33313	12
Izuzu	21274	5033	26307	19	Izuzu	21479	5971	27450	22

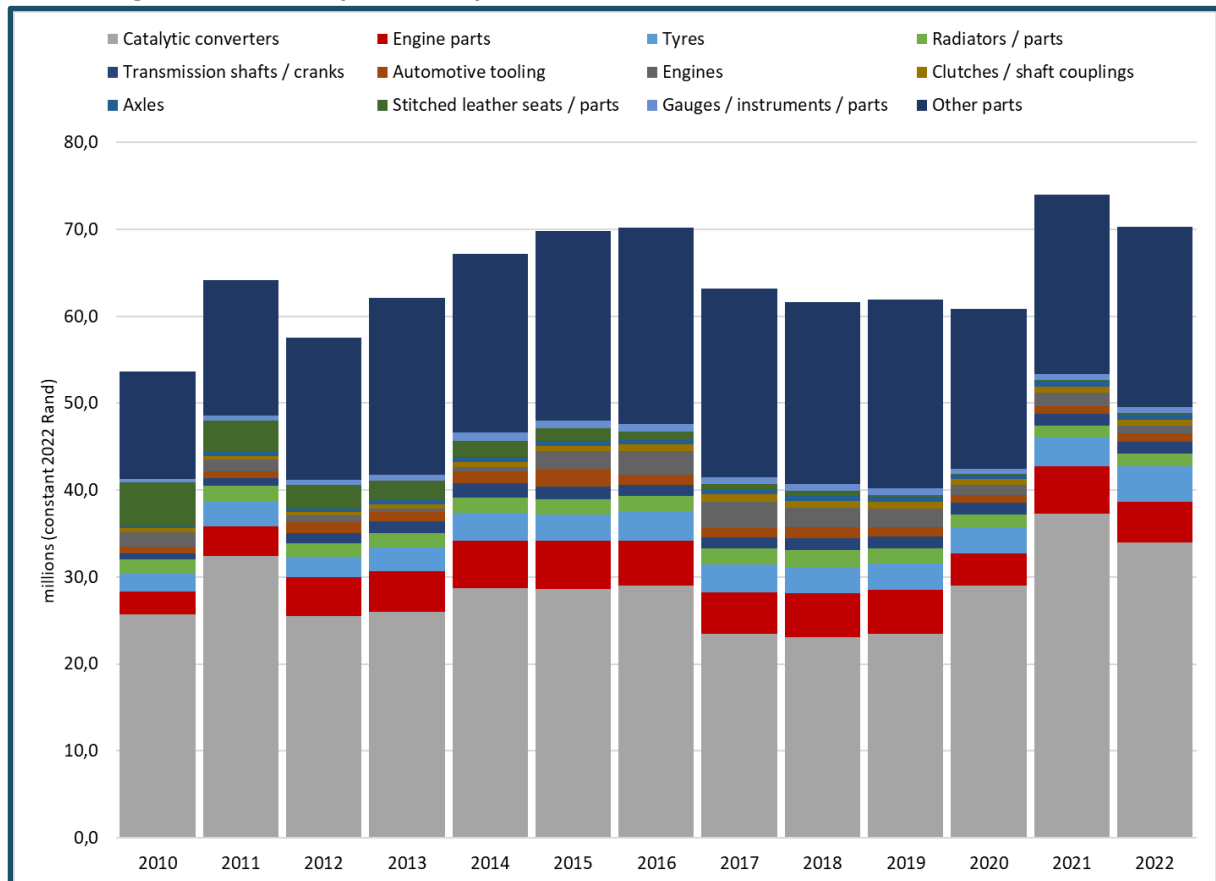
Source: naamsa monthly flash reports 2020-February 2024, annualised.

Component exports and imports

The local components industry often operates at a trade deficit, primarily because vehicle manufacturers import knowledge-intensive components such as engines, gearboxes, telematics, and interior electronic components from major global suppliers. In contrast, less complex items such as tyres, wiring harnesses, tooling, and glass are sourced domestically or from SACU partners. Despite

this, South Africa has shown advanced manufacturing capabilities through the export of catalytic converters, engines, and engine parts, which benefit from the Automotive Production and Development Programme (APDP) export incentives. However, there is potential for growth in manufacturing more complex components for both ICE vehicles and EVs. The deepening of the local component supply chain has many advantages, including mitigating risks associated with currency fluctuations, logistical expenses, and opportunities for attracting further FDI (AIEC, 2023).

Figure 5: Total components exported⁹ in millions of constant 2022 rand 2010-2022



Source AIEC, 2014-2023.

Catalytic converters remain South Africa's largest component export, both by value and volume. Catalytic converters and tyres together accounted for a significant portion of total exports, underlining their importance in the automotive export market. The total export value of automotive components maintained relative stability, reaching a peak of R69.8 billion in 2015, with some fluctuations over the years. Despite the challenges posed by the pandemic, the component sector showed strong recovery, with exports nearly returning to their peak at R69.2 billion in 2022.

By 2022, catalytic converters represented a substantial share of total exports, with their value increasing by approximately 32.4% from R25.7 billion in 2010 to R34 billion in 2022, or 48.3% of the R70.3 billion export value in 2022. Tyre exports also showed growth, doubling from R2 billion to R4.1 billion over the 12-year period. The leading tyre manufacturers in South Africa include Bridgestone, Continental, Goodyear, and Sumitomo. Engine exports experienced the most fluctuation, starting at R1.7 billion in 2010, then increasing to R3.1 billion in 2017 – before declining in subsequent years.

⁹ The components trade data is based on eligible APDP products.

Other components such as transmission shafts, axles, and radiator parts, while not making up the largest export shares, do still form part of South Africa's component export basket. The 'Other Parts' category represents other components including filters, automotive glass, wiring harnesses and brakes, among others. Considering the shift towards EVs, it is evident that South Africa's top exports include components unaffected by this transition, such as tyres, tooling, and leather seats, which are common to all types of vehicles.

Figure 6 shows the vulnerability of South Africa's ICE component exports as the result of the automotive industry's transition to EVs, showing the risk these exports could potentially face in markets moving towards EV adoption. The data presented is for the year 2022, showing the share of ICE-specific exports from South Africa to the EU, Africa, and the USMCA. Table 3, detailed in Appendix 1, provides export data of these components from 2010 to 2022. The EU is the main destination for several South African automotive components, including catalytic converters, radiators/parts, and clutches/shaft couplings. Catalytic converters, which previously held an export share exceeding 80% in the EU market, have seen a fall to 68% (see Figure 6). Germany, the Czech Republic, and Spain emerge as the top three importing countries of South African catalytic converters. The data indicates a decline in the export shares of ICE-related automotive components from South Africa. Transmission shares dropped from 38% to 14%, ignition equipment from 43% to 9%, and silencer/exhaust parts from a high of 84% to 46% by 2022.

The EU and United Kingdom are key trading partners for South African automotive products. However, the introduction of the European Green Deal (EGD), aimed at achieving carbon neutrality by 2050, puts South Africa's automotive sector at a significant risk of losing market share. This is particularly due to the EGD's Carbon Border Adjustment Mechanism (CBAM), which is designed to price carbon emissions of imports to reflect the EU's carbon pricing (Monaisa, 2021). There is growing concern within South Africa and the broader African continent about the effects of the EU's CBAM. This move by the EU has sparked concerns in South Africa and across Africa about the CBAM's implications for the region. The additional costs imposed by the CBAM are expected to motivate companies to invest in greener production and supply chains (Monaisa, 2021). The implementation of the CBAM puts catalytic converters in a vulnerable position because of industry changes. Cameron et al., (2021) highlight that while stricter pollution regulations might initially increase the demand for catalytic converters, technology changes and the shift to EVs are expected to lead to a substantial decline in exports.

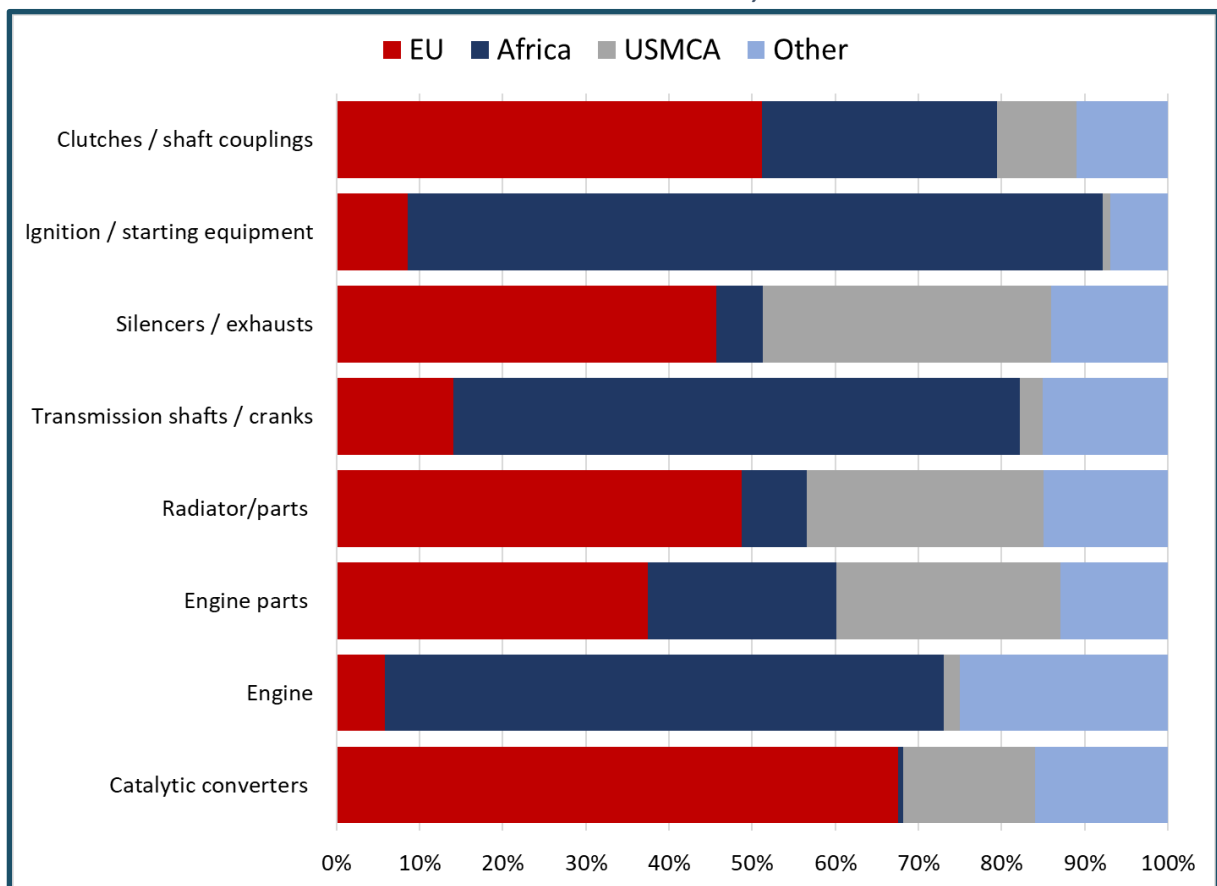
The USMCA region saw an increase in imports of silencers/exhausts and engine parts from South Africa. Between 2010 and 2022, there was a notable rise in the export of silencers and exhausts to the USMCA, from 11% to 35%, led by Mexico. These were most likely intended for incorporation into their vehicle assembly, which primarily export to the United States. In addition, exports of radiator parts to this region have also seen a consistent increase, from 15% to 29%, as a result of growing demand from the United States.

Africa, despite receiving a smaller share of most components, has emerged as the leading destination for engine exports from South Africa, with its share increasing from 10% in 2010 to 67% in 2022, predominantly driven by Mozambique, Zambia, the Democratic Republic of the Congo, and Namibia. The top five importers of engines from South Africa were all African countries, with India being the only exception. This reflects the growing significance of automotive component exports to the continent. Notably, exports of ignition/starter components increased during this period, with Namibia, Botswana, and Zambia being the leading importers. The AIEC 2022 report indicates that Africa's demand for vehicles, automotive parts, and accessories is expanding at an annual rate of 11%, reaching an estimated value of US\$15.3 billion in 2020. Consequently, the continent is emerging as a key market

for global manufacturers of aftermarket components and engine parts like bearings, brake pads, spark plugs, and filters. Leading this demand are countries such as Nigeria, Ghana, South Africa, Kenya, Ethiopia, Tanzania, and Uganda.

In 2022, exports of vehicle components from South Africa to Other regions were mainly engines and radiator parts. Engines represented a notable 25% of the export share, primarily to India, although India’s proportion of engine imports from South Africa decreased from 59% in 2018 to just 14% by 2022. Radiator parts also maintained a significant presence, accounting for a 15% share and mainly going to the Czech Republic. These figures highlight the crucial role of these components in South Africa’s global export strategy within the automotive sector. They also reveal the country’s key strategic export components and partners, while also identifying potential areas for growth, particularly considering the automotive industry’s evolving dynamics.

Figure 6: Regional distribution of South Africa’s ICE component exports at risk as a result of the EV transition, 2022



Source: Calculated from AIEC, 2014-2023.

Imports of components

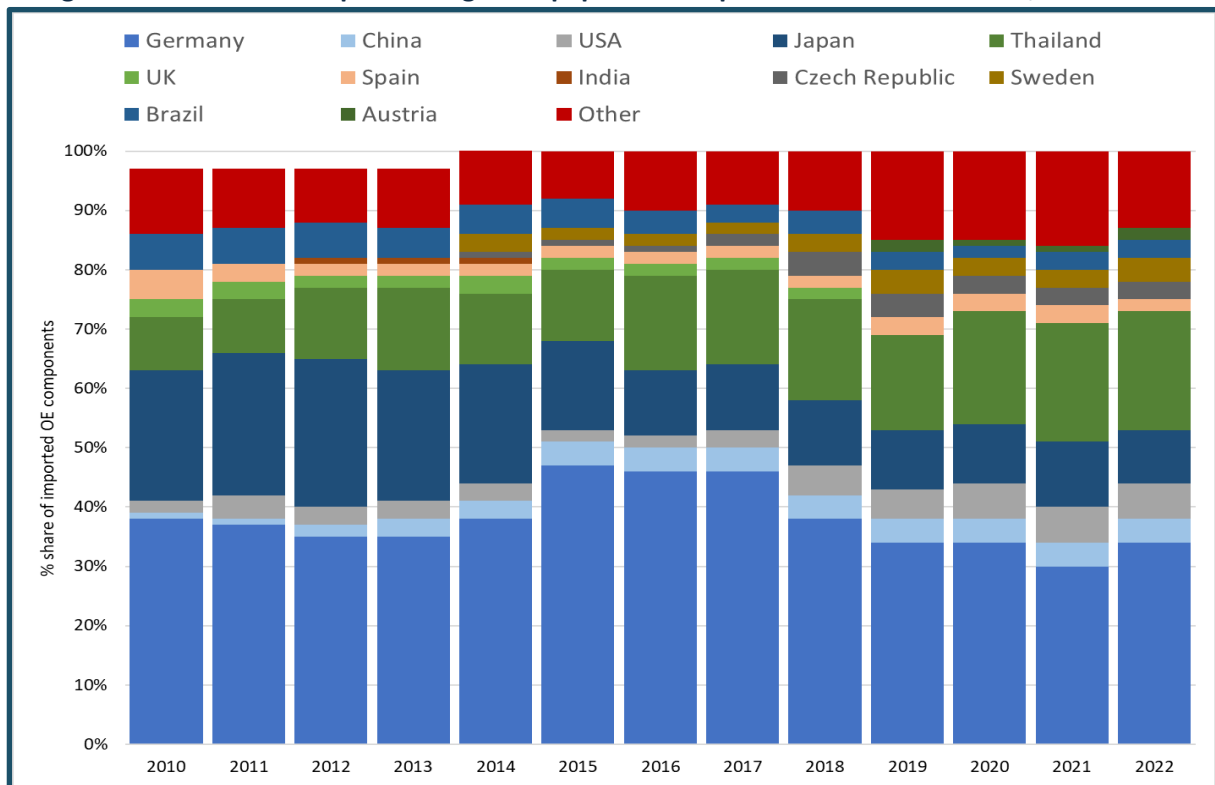
According to naamsa (AIEC, 2023), vehicle manufacturing industry adheres to global sourcing principles, where original equipment (OE) components are imported, if not produced domestically. OE components refer to component parts or systems that are provided directly to national or international vehicle manufactures by global component suppliers. OE components are parts produced by the vehicle manufacturers, covering both basic parts like doors and bumpers and mechanical parts such as gearboxes, pistons, and drive-shafts. OE parts are marketed as the manufacturer’s official products,

often arriving in packaging branded by the vehicle manufacturer¹⁰ (ISM, 2023). Imports of OE components by the seven OEMs in South Africa increased by R9.5 billion, or 8.6%, to R119.6 billion in 2022, from the R110.1 billion in 2021. OE components are imported under Chapter 98 for CKD vehicle manufacturing in South Africa (AIEC, 2023).

Figure 7 presents data on South Africa’s imports of OE components from 2010 to 2022. Germany, a key OE exporter to South Africa, experienced a decline in its export share from 47% in 2015 to 34% in 2022. In contrast, Thailand’s exports to South Africa have notably risen, increasing from 9% in 2010 to 20% in 2022. Japan, the United States, the UK and Sweden also contribute to the imports of OE components into South Africa.

China’s share grew from 1% in 2010 to 4% in 2022. Although this is a small change, it could suggest an expanding role for China in the South African market for equipment components. Overall, South Africa’s import patterns of OE components show a balance between the dominance of European partners and emerging markets. The collective share of imports from the Other category has also increased, rising from 9% in 2010 to a peak of 16% in 2021, before slightly declining to 13% in 2022.

Figure 7: The share of imported original equipment components into South Africa, 2010-2022



Source: Calculated from AIEC, 2014-2023.

¹⁰ For example, BMW parts in BMW branded packaging. These parts are distributed through authorised dealerships. Aftermarket parts are produced by companies not associated with the OEMs, and typically made by independent third-party suppliers. These parts generally come at a significantly lower price compared to OE and OEM parts (Autohaus Arizon, 2024)

SECTION 2: FOREIGN DIRECT INVESTMENT

The importance of FDI to South Africa's automotive industry is supported by the strategic establishment of Special Economic Zones (SEZs) and Industrial Development Zones (IDZs) across the country. These areas are designed to promote economic development, export promotion, stimulate employment, facilitate technology transfers, and encourage industrial growth by offering tax incentives and benefits to both international and local investors, with a focus on vehicle assembly and component production, among other sectors (Nyakabawo, 2014). Key locations for automotive manufacturing in South Africa are strategically located in the Dube Trade Port (Kwa-Zulu Natal), Coega IDZ and East London IDZ (Eastern Cape), and the Tshwane Automotive SEZ (TASEZ) (Gauteng).

Companies operating within these SEZs and IDZs benefit from a range of privileges, including a preferential corporate tax rate of 15%, employment incentives, access to customs-controlled areas, and allowances for business and employment, all designed to attract significant investment into South Africa's manufacturing sector (Nyakabawo, 2014; the dtic, 2024). The APDP remains a key factor in driving long-term investments in the local automotive industry through its extensive policy provisions and support.

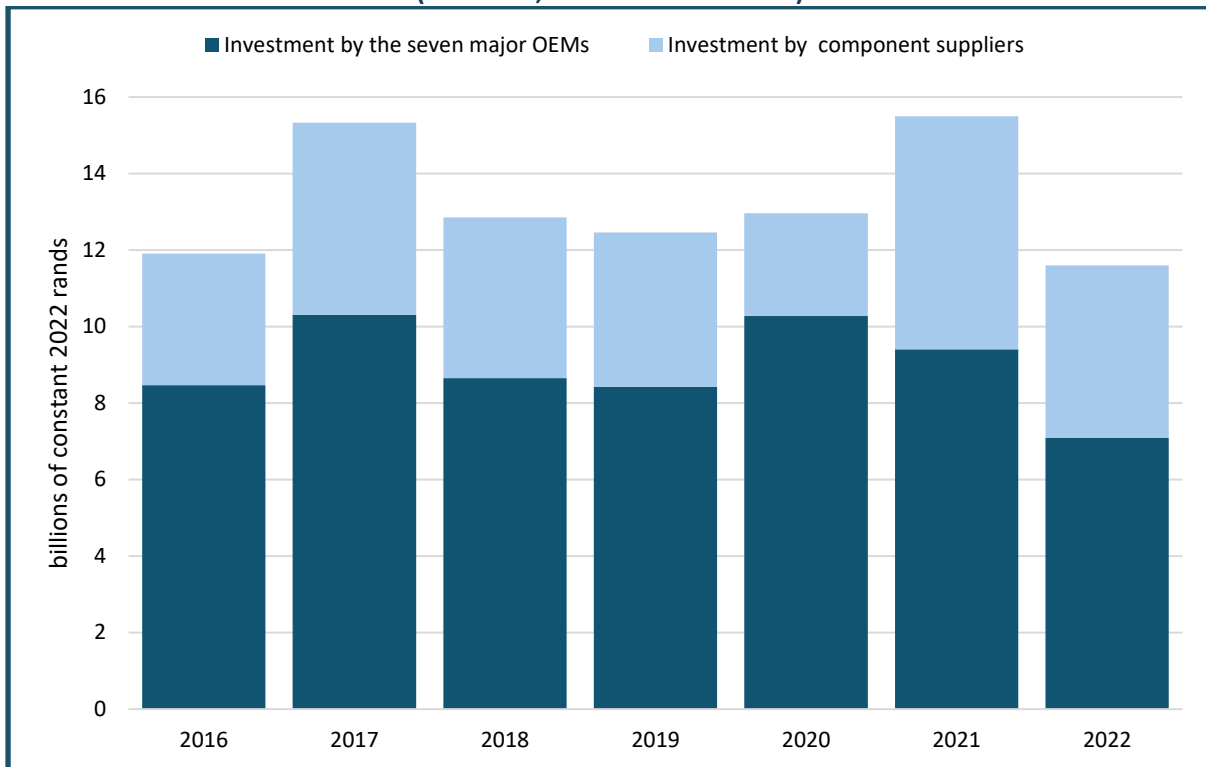
FDI in vehicle and component manufacturing

The automotive industry experienced a gradual increase in total FDI between 2013 to 2022, with OEMs consistently investing more than component suppliers. However, Gross Fixed Capital Formation (GFCF) data show there has been a downward trend in investment within the automotive industry starting in 2016, with a particularly sharp decrease from 2019 to 2021, presumably largely due to the COVID-19 pandemic (Quantec, 2023). In a scenario where GFCF is constant, it could imply that investment efforts are primarily geared towards maintaining existing production capacity rather than expansion. According to Figure 9, a significant portion of the capital expenditures in the automotive industry is allocated to Property Plant and Equipment (PP&E), with minimal investment in the expansion of vehicle production capacities.

In 2021, total investment reached its highest point at R15.5 billion in constant rand. However, a decrease in FDI is observed from 2017 to 2018 in both OEMs and component suppliers. Remarkably, despite the global challenges posed by the COVID-19 pandemic, 2021 stands out as there was an increase in investment by component suppliers, increasing their investment from R2.7 billion in 2020 to R6.1 billion in 2021, while OEMs saw a slight decrease in investment from 10.3 billion in 2020, which was the biggest investment over the years, to R9.4 billion in 2021.

In 2022, total investment largely decreased to R11.6 billion compared to R15.5 billion from 2021. This can be attributed to a convergence of factors, such as a decrease in business confidence due to policy uncertainty, logistical and loadshedding challenges. These challenges likely infused investors' perceptions, promoting a more cautious approach in investment.

Figure 8: Total investment: comparison between OEM and component suppliers (2013 – 2022)
(R billions, constant 2022 rands)



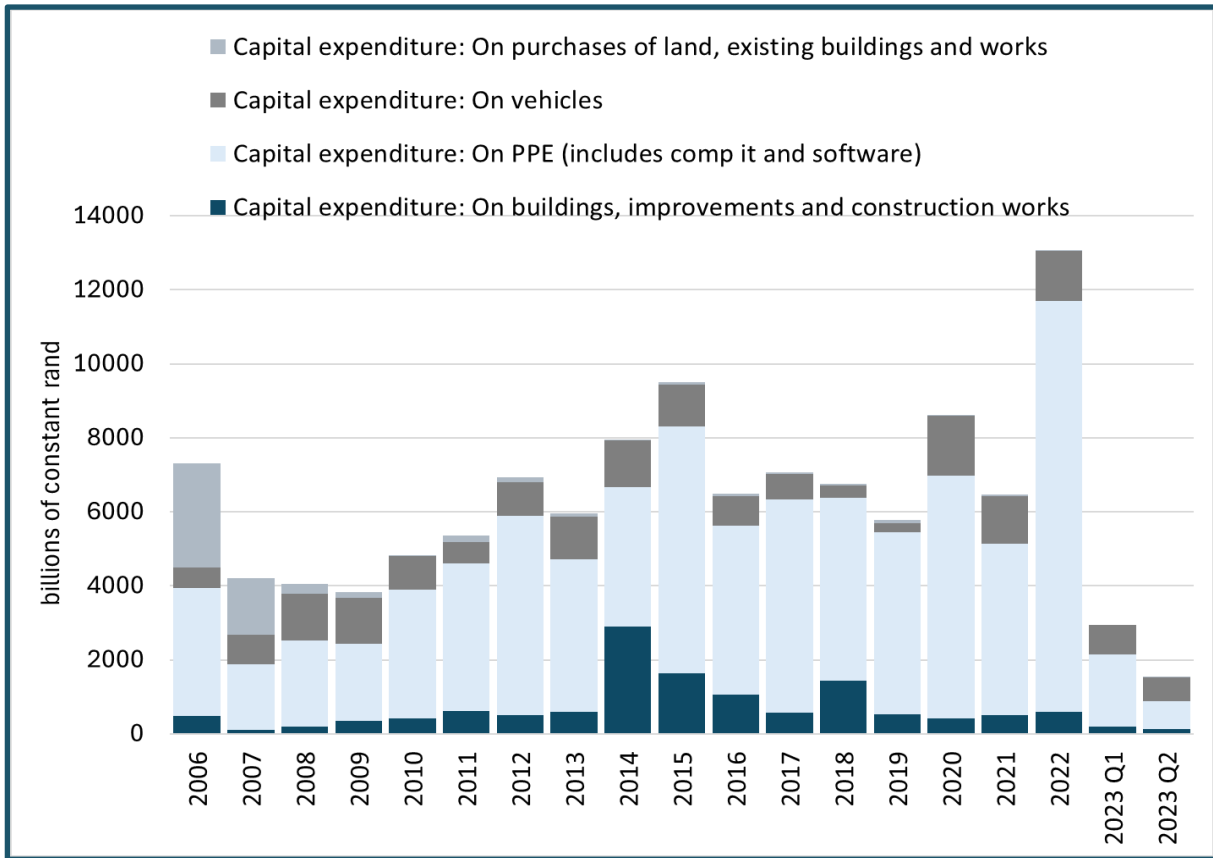
Source: AIEC, 2014-2023.

Capital expenditure in the automotive industry

In most cases, both OEM and component suppliers over the years have dedicated their investments towards improving plant capacity and expanding production, for both local and international consumption. Figure 9 illustrates the investment expenditure for motor vehicles, trailers, and parts¹¹ over the years, displaying a moderate growth with spikes in 2015 and 2022. During these peak years, there was a rise in PP&E (inclusive of computer and software) accounting for R6.6 billion and R11.1 billion, respectively. Expenditure on building and improvements and works exhibited slight growth with a notable peak in 2014 reaching R2.9 billion. Conversely, expenditure on purchasing land and buildings remained relatively low over the years. Capital expenditure on vehicles exhibited minimal growth with a small increase during the years 2007-2009 and 2012-2014, both averaging the amount of R1.1 billion with a rise occurring in 2020 accounting for R1.6 billion. Regarding investment on vehicles, most investment was directed towards producing completely built units (CBUs) of internal combustion engine (ICE) vehicles and a smaller portion allocated to SKD kits. In addition, as mentioned, investments are being made in the production of hybrid vehicles. For component suppliers, the primary investment targets include the development of plants and the production of tyres, chassis, and plastic automotive components.

¹¹ SIC code: 381-383

Figure 9: Capital expenditure for motor vehicles, trailers, and parts (2006 – 2023 Q2)
(R billions, constant 2023 rands)



Source: Calculated from Statistics South Africa. Quarterly Financial Statistics (QFS). Data accessed via Quantec. EasyData. Interactive dataset. Macroeconomic service. Accessed at www.quantec.co.za in January 2024.

Key manufacturers investing in South Africa's automotive industry

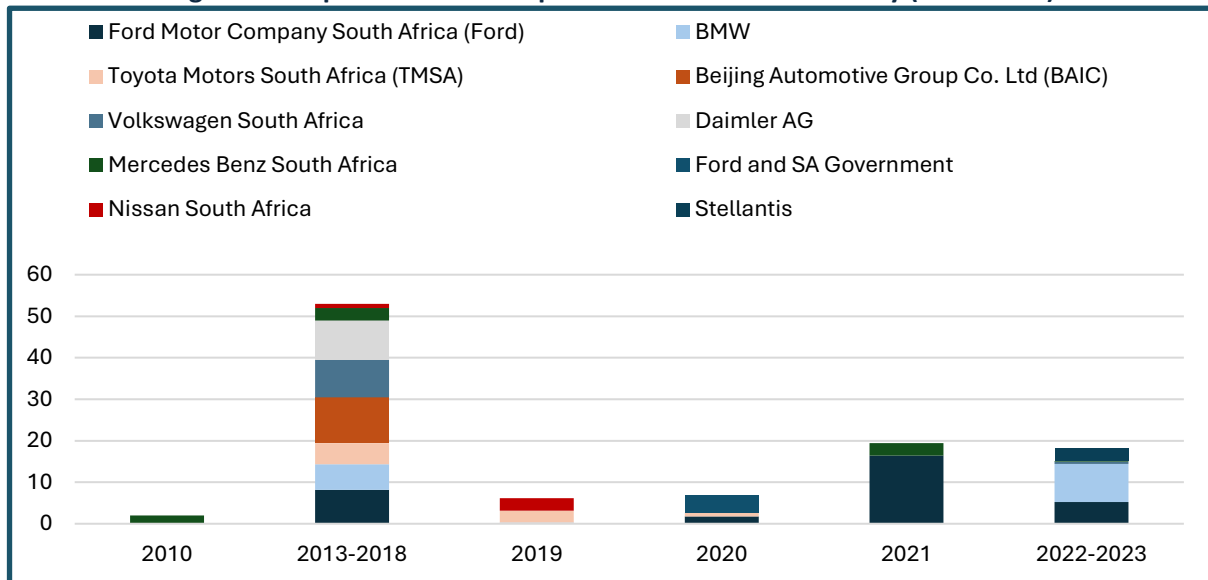
Figure 10 illustrates a view of the top 10 leading automotive investors from 2010 to 2023, with Ford, BMW, and Toyota making the largest contributions. Ford stands out as the top investor in South Africa's automotive sector, having committed R15.8 billion in 2021 to boost production of the Ford Ranger, and introduce new technologies, including advanced robotics and a new stamping facility. In April 2023, the Ranger became South Africa's top-selling vehicle (Bubear, 2023). In November 2023, Ford announced a R5.2 billion investment in its Silverton plant to produce the Ranger PHEV and build a battery assembly line for the PHEV. The new PHEV Ranger will be exported to Europe, Australia, and New Zealand (ITWeb, 2023). Nissan's R3 billion investment aims to significantly increase Navara production in Pretoria, while in 2016 Toyota injected R6.1 billion into its Durban plant for Hilux and Fortuner models (Reuters, 2019; Venter, 2016). In 2021, Toyota invested R2.6 billion towards the production of the Corolla Cross hybrid vehicle manufacturing line. Volkswagen is dedicating R4.5 billion to its Uitenhage plant for new models, infrastructure, and local supplier capacity development. In addition, BMW made a R4.2 billion investment towards the next-generation X3, including EV variants, starting in 2024. Lastly, in 2016, the Chinese company Beijing Auto Industrial Corporation (BAIC), in partnership with the Industrial Development Corporation (IDC), signed a R12 billion investment agreement to establish a new plant in the Coega IDZ (IDC, 2023). In June 2023, the BAIC SA factory finished construction with three major processes integrated – welding, painting, and final assembly. In 2024, production begun at the BAIC plant in Nelson Mandela Bay where BAIC is producing CKD

vehicles, eight years after it was first opened (BAIC, 2024). The Beijing X55 is currently in full production, and the X25 SUV manufacture is scheduled to begin in 2024 (Nkosi, 2024).

In 2023, MBSA announced an investment of R40 million to expand the local charging infrastructure for EVs by installing more than 120 charging stations throughout South Africa. The initial phase of the MBSA investment is R15 million, with a further R25 million allocated for the expansion in the project's second phase (De Villiers, 2023). Despite not being a local manufacturing OEM, Audi has invested approximately R45 million in the last two years into cutting-edge charging technology.

All investments in EV production (primarily plug-ins and hybrids) and the supporting charging infrastructure have been made in the absence of a specific EV policy and before the announcement of the EV White Paper in November 2023. This could possibly indicate that the introduction of policy certainty and the investment allowance for EV production, announced by the Minister of Finance in 2024, could potentially lead to an increase in EV production investments, as the previous lack of policy certainty was identified by vehicle manufacturers as a major obstacle in local EV investment.

Figure 10: Top 10 investor companies in automotive industry (2010-2023)



Source: TIPS FDI Tracker 2016-2023; AIEC, 2011-2023; NAACAM, 2022.

Note: Between 2013 and 2021, the automotive industry was governed by APDP Phase 1, which replaced the Motor Industry Development Programme (1998-2012) on January 1, 2013. Subsequently, APDP Phase 2 took over from Phase 1 on July 1, 2021. The years 2019 to 2021 mark the COVID-19 period, while 2022 to 2023 represent the post-COVID recovery phase.

Investment in sustainable manufacturing

Loadshedding adversely affects South Africa's economy, including the automotive industry. Despite considerable investment in the industry, renewable energy initiatives remain limited. However, embracing renewable energy is crucial for both mitigating loadshedding and supporting global industry's efforts towards sustainable and clean energy production. This is also essential to sustain significant export markets (EU, US) over the long term, particularly with the shift towards border carbon taxes, and for the industry's move towards decarbonisation and addressing climate change concerns.

Ford, Toyota and MBSA stand out so far as the three OEMs investing in renewable energy aiming to lessen the industry's dependence on coal-generated electricity and contribute to greener production processes. Ford's Project Blue Oval, in partnership with SolarAfrica, highlights a move towards this

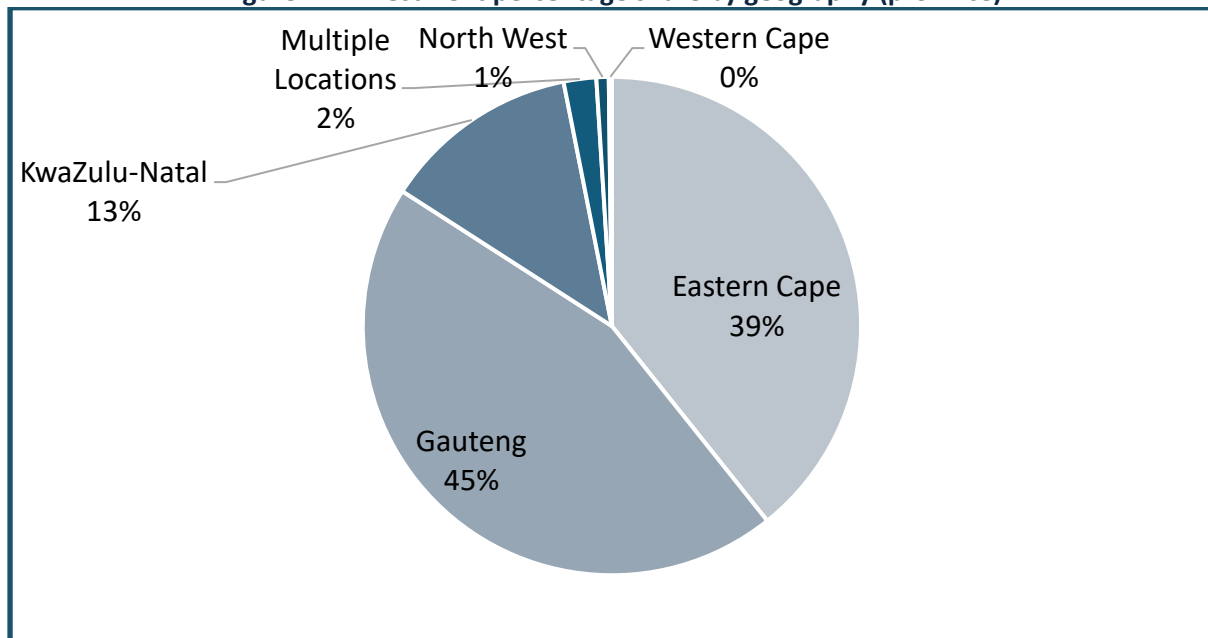
goal, generating 13.5MW of solar power for its plant, and allowing 35% of its electricity needs to be met by renewable energy (Ford, 2022). This initiative aligns with Ford’s global goals of using 100% carbon-free electricity by 2035 and achieving carbon neutrality by 2050 (Ford, 2022). Similarly, MBSA has invested R100 million in installing 22 847 solar panels at its East London plant, aiming to fulfil over 70% of its production energy needs with renewable energy as part of its Ambition 2039 strategy. These efforts reflect the industry’s commitment to sustainability and reducing its carbon footprint.

Toyota plans to transition towards fully to renewable energy by 2028. To achieve this, the vehicle manufacturer plans to generate 34 MegaWatt-Peak (MWp) of renewable energy, allocating an investment of R743 million in renewable energy, along with further investment in flood proofing measures. As of 2023, Toyota has successfully reached 11.2MWp of this goal with an investment of R239 million.

FDI by geography

Figure 11 depicts an overview of FDI in the automotive sector across the different regions in South Africa. Gauteng province is a focal point for investment including of major players such as BMW, Ford and Nissan, contributing approximately 44.8% to total investment. The Eastern Cape Province, which is home to other major players such as MBSA, VW and Isuzu, follows closely, with 39.3% of total investment. Notably, these regions possess the largest concentration of vehicle manufacturers and over 200 of the South African automotive component suppliers. Moreover, a strategic alignment of these OEMs and component suppliers are in surrounding areas of the East London IDZ, and the Coega and Tshwane Automotive SEZs. This underscores a deliberate effort to support and strengthen the automotive ecosystem in these provinces. Conversely, North West and Western Cape exhibit a smaller share of investment at 0.8% and 0.2%, respectively. In addition, a modest share of investment, accounting for 2.1% of the total FDIs, is dispersed across multiple locations.

Figure 11: Investment percentage share by geography (province)



Source: TIPS FDI Tracker (2016-2023); AIEC, 2011-2023); NAACAM, 2022.

SECTION 3: SUMMARY

This trade analysis set out to assess trade dynamics and trends in the FDI in South Africa's automotive industry. According to the SAAM 2035, increasing regional trade and maintaining key international trade markets remain critical for the growth and sustainability of South African's automotive industry.

The report identifies the importation of used vehicles as a significant barrier to fostering intra-African automotive trade. Addressing this requires diversified vehicle production and legislative reforms across the continent to limit used vehicle imports. However, this does not guarantee success because it is a highly complex issue that requires further attention. That being said, for South Africa and countries benefiting from a well-established auto industry on the continent, the crucial aspect is sustaining the South African local industry and finding ways to keep it vibrant and a success. This will require an active strategy that acknowledges trade-offs for the industry and focuses on strengthening the existing intra-trade within SACU and emerging auto producers and markets on the continent.

Moreover, trade agreements and regional integration are pivotal for enhancing the automotive industry's prospects across Africa. Despite this, South Africa has demonstrated advanced manufacturing capabilities, particularly in component exports such as catalytic converters, engines and tyres. However, the industry faces significant shifts with the ongoing transition towards EVs and decarbonisation, which is impacting trade dynamics and underscores the need for policy support for the strategic manufacturing and adaptation of EVs.

FDI is crucial for facilitating access to international market technology transfers, employment creation, and the growth in South Africa's domestic economy. Despite attracting FDI in the past, there has been a downward trend since 2016, with a particularly sharp decrease from 2019 to 2021. Nonetheless, South Africa remains an attractive destination for FDI, with most investments being dedicated towards producing CBUs of ICE vehicles and EVs and improving plant capacity along with expanding production.

In conclusion, the report highlights the automotive industry's role in South Africa's trade and investment landscape. It calls for strategic policy alignment, enhanced regional integration, and sustained investment in technology and sustainable manufacturing to ensure the industry's long-term competitiveness and growth.

APPENDIX 1

Table 3: The share of South Africa's at-risk exports to Africa, EU and the USMCA from 2010 to 2022

EU		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Catalytic converters	81%	82%	76%	75%	72%	68%	68%	74%	74%	74%	72%	73%	68%
	Engine	2%	1%	3%	3%	3%	5%	4%	3%	3%	2%	4%	11%	6%
	Engine parts	48%	36%	29%	32%	37%	28%	25%	25%	29%	31%	24%	32%	38%
	Radiator/parts	51%	57%	61%	60%	59%	58%	58%	58%	58%	55%	58%	56%	49%
	Transmission shafts / cranks	38%	41%	32%	23%	26%	18%	14%	16%	14%	13%	11%	11%	14%
	Silencers / exhausts	83%	84%	77%	69%	43%	44%	50%	57%	60%	52%	40%	45%	46%
	Ignition / starting equipment	43%	22%	14%	12%	14%	8%	15%	9%	15%	12%	10%	7%	9%
	Clutches / shaft couplings	73%	61%	62%	55%	51%	52%	50%	59%	61%	57%	59%	60%	51%
Africa		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Catalytic converters	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	1%
	Engine	10%	13%	35%	91%	88%	31%	23%	26%	32%	29%	40%	33%	67%
	Engine parts	12%	9%	12%	18%	20%	20%	21%	22%	22%	20%	24%	18%	23%
	Radiator/parts	2%	2%	3%	5%	5%	6%	6%	7%	7%	7%	9%	8%	8%
	Transmission shafts / cranks	42%	39%	35%	48%	52%	51%	57%	57%	59%	54%	60%	63%	68%
	Silencers / exhausts	0%	0%	1%	1%	3%	3%	2%	3%	4%	4%	5%	4%	6%
	Ignition / starting equipment	45%	59%	67%	74%	75%	81%	73%	82%	77%	80%	86%	86%	84%
	Clutches / shaft couplings	6%	9%	14%	23%	22%	22%	20%	18%	21%	23%	25%	24%	28%
USMCA		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Catalytic converters	12%	12%	15%	14%	17%	21%	21%	13%	12%	14%	15%	13%	16%
	Engine	0%	5%	2%	2%	1%	1%	1%	2%	1%	1%	2%	0%	2%
	Engine parts	25%	39%	28%	21%	22%	23%	19%	24%	24%	27%	26%	22%	27%
	Radiator/parts	15%	18%	17%	17%	21%	25%	22%	20%	22%	23%	19%	21%	29%
	Transmission shafts / cranks	2%	4%	4%	1%	2%	2%	4%	4%	3%	5%	2%	3%	3%
	Silencers / exhausts	11%	10%	15%	21%	33%	34%	29%	21%	16%	21%	29%	30%	35%
	Ignition / starting equipment	4%	3%	9%	2%	2%	2%	2%	1%	1%	1%	1%	2%	1%
	Clutches / shaft couplings	4%	6%	9%	8%	9%	8%	8%	6%	5%	4%	7%	7%	10%

Source: Calculated from AIEC, 2014-2023.

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