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State – business bargaining, localisation and supply chain development in the South African auto industry

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Abstract

The automotive industry is one of South Africa's leading industrial sub-sectors and has attracted considerable state support. From a history of heavy protection, a series of auto plans, starting with the Motor industry Development Programme of 1995, have led to dramatic structural change. The sector has achieved considerable technological upgrading and export success. However, certain structural weaknesses remain.

Drawing on a critical assessment of previous auto policies, as well as the recently developed 2035 Masterplan, the paper focuses on two main inter-related issues. On the one hand, it reflects on constraints to localisation, by looking not only at structural impediments that hamper the process (i.e. market constraints, infrastructure, capital & skills availability etc.) but also power relations between state, business institutions, and firms, and the distribution of power along the value chain.

The second aspect that the paper analyses is the potential and limitations for further deepening the value chain, considering the current availability of resources, manufacturing infrastructure and productive capabilities. With regard to both questions, the paper also considers issues related to Black Economic Empowerment (BEE) and transformation within the industry.

The paper draws upon a rich set of data available thanks to the direct involvement of two of the authors in the formulation of current policy, including the 2035 Masterplan. The paper also draws on field research on localisation and supply chain development, conducted with business associations (NAAMSA and NAACAM), the government – funded agencies.

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1. Introduction

The automotive industry has been considered one of South Africa's most promising industrial sub-sectors and has attracted considerable state support. Through a series of auto plans, evolving from the initial protective strategies during the apartheid era to progressive liberalisation promoted through the Motor Industry Development Programme (MIDP) introduced in 1995 and the Automotive and Production and Development Programme (APDP) introduced in 2013, the sector was increasingly consolidated and achieved undeniable success, especially in terms of export orientation. Today, it can definitely count on a more mature productive structure, on more efficient technologies and on deeper integration into global markets. However, the expansion of the sector also entailed some costs, and structural weaknesses remain. The growth in export levels was not accompanied by increasing local content, investment levels have been modest, employment creation was not significant, and the development of the supply chain still reflects an historical concentration of capital and productive capabilities within large multinational firms. In addition, imports are still high and the industry continues to run a significant trade deficit. Overall, the SA auto industry never managed to become a real 'leading sector', nor a major hub.

Drawing on a study conducted for the SA Industrial Development Think Tank (IDTT)[4] this paper focuses on two main inter-related issues. On the one hand, it reflects on constraints to localisation, by looking not only at the structural impediments that hamper the process, but also at ownership and power relations between the state and multinational firms in particular, and at the distribution of power along the value chain. Secondly, the paper analyses the potential and limitations for further deepening the supply chain, considering the current availability of resources, manufacturing infrastructure and productive capabilities. With regard to both questions, the paper also considers issues related to Black Economic Empowerment (BEE) and transformation within the industry. Given apartheid induced disparities in ownership and management representation, this has become an important policy imperative.

Overall, the paper argues that the state – business bargaining dynamics, which have accompanied the liberalisation of the sector, negatively affected the development of the SA auto industry. Today, the governance along the supply chain is severely skewed in favour of the big MNC players, which dominate the industry and weigh on the formulation of policy targets. While increasing localisation, efforts to deepen the supply chain and a progressive transformation of the industry would allow for continued and more sustainable growth, the achievement of such goals will not be possible without a concerted commitment of all the stakeholders involved in the sector.[5]

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[4] Established in 2017, the IDTT is supported by the Department of Trade and Industry (DTI) and is housed in the Centre for Competition, Regulation and Economic Development (CCRED) in partnership with the SARChI Chair in Industrial Development at the University of Johannesburg.

[5] The paper draws on a rich set of data available thanks to the direct involvement of two of the authors in the formulation of previous and current auto plans, including the 2035 Masterplan. In addition, the work leans on additional field research on localisation and supply chain development, conducted with business associations (NAAMSA and NAACAM), the government – funded *Automotive Industry Development Centre* (AIDC, Gauteng), the *Automotive Supply Chain Competitiveness Initiative* (ASCCI, KwaZulu – Natal), and the *Durban Auto Cluster* (DAC, KwaZulu – Natal) for the IDTT, in February – March 2018.

2. The development of the South African auto industry

The early development of the South African auto industry was fundamentally shaped by protection. High tariffs were placed on built up vehicles, which when combined with a rapidly growing market, acted as a magnet to many (initially foreign) companies, which established assembly plants in the country, frequently in the form of joint ventures with local firms. These operations, although in many cases highly profitable, were very small in international terms with correspondingly high unit costs. Production was aimed solely at the domestic market (Black, 2009).

The first in a series of local content programmes was introduced in 1961. In later phases, the local content requirement (on a mass basis) was raised to 66%. In all these developments the main motivating factor for increasing local content remained the desire to save foreign exchange. By late 1986, there were seven assemblers producing over 20 basic model variants for a market of only 172,000 passenger cars. These low volumes meant that the industry was uncompetitive. Exports were minimal but there had been substantial development of a domestic supplier industry (Black, 1994; Duncan, 1997).

The Phase VI local content programme, introduced in 1989, marked a significant change in direction by allowing exports to count as local content. Many component suppliers and all the assemblers instituted significant export drives. From an early stage, therefore, the vehicle producers played a key role in the export of components by providing access for suppliers into their global network. The level of protection on built up vehicles, however, remained prohibitive with nominal protection of 115% (100% ad valorem plus 15% surcharge). Phase VI came in for heavy criticism with frequent changes adding to the atmosphere of uncertainty (Black, 1994). There was also pressure from the component producer federation, NAACAM, who were concerned about rising import competition. For its part, government made it clear that tariffs had to be reduced in line with WTO obligations.

The advent of democracy in 1994 was followed by the introduction of the MIDP in 1995. The MIDP continued the direction taken by Phase VI and entrenched the principle of import-export complementation. However, it went a step further by abolishing local content requirements and introducing a tariff phase down at a steeper rate than required by the terms of South Africa's offer to the GATT. South Africa was opening to the world and tariffs were being liberalised across the board. In the auto sector, import-export complementation enabled assemblers to use import credits to source components at close to international prices. Declining nominal protection on vehicles was therefore largely compensated for by reduced protection for components, again as a result of strong pressure by vehicle producers, all of which were either foreign owned or with licence agreements with MNCs.

The MIDP was devised as a trade facilitating measure with very particular industry policy objectives. With the proliferation of makes and models being produced in low volumes in South Africa, component firms had in turn been required to produce at volumes below minimum efficient scale. A key objective of the MIDP was therefore to increase the volume and scale of production through a greater level of specialisation in terms of both vehicle models and components. This could be achieved by exports of locally produced, high volume vehicles which could earn import credits to be used to import additional models for sale in the domestic market.

Until the early 1990s, high protection resulted in very low volumes of vehicle imports. With the liberalisation that began in earnest with the introduction of the MIDP, total imports of vehicles and components grew at a faster rate than policy makers expected. The nominal tariff on light vehicles was still reasonably high and so could not, on its own, explain the rapid increase in automotive imports. The key factor was that the MIDP enabled firms to rebate import duties by exporting.

Vehicle producers were happy to accept reductions in tariffs from very high levels but initially registered growing concerns about proposed reductions below 40%. However, as they derived a growing proportion of their revenue from the importation of vehicles (and components), much of the strategic behaviour of firms became directed at optimising their duty position. This was reflected in their firm level strategies as well as interventions to influence government to ensure that the import credits they earned from exporting were only phased down very slowly. From 1996- 2011, the average level of duty paid by vehicle manufacturers was only 0.6% of the total value of their imports of vehicles and components over this period.

The growth of automotive exports has been one of the most striking features of the development of the automotive industry under the MIDP. Its incentive structure strongly favoured exports. But the very strong supply response to changes in the policy regime is also partly attributable to the nature of the automotive industry value chain. From 1994 there was a process of investment or reinvestment by MNCs with all seven light vehicle producers rapidly becoming 100% foreign owned (Table 1). One of the factors driving the takeover of domestically owned plants by licensees was the need to upgrade the South African plants in the face of growing competition. To achieve scale, exports were essential and this was unlikely to happen from licensed as opposed to wholly owned plants.

Table 1: Changes in South African OEM ownership since 1995

South African OEM	Ownership 1995	MNC ownership since the mid- 2000s
Toyota SA Motors	100% local (JSE listed, Wesco main shareholder)	Toyota
Volkswagen SA	Volkswagen AG	Volkswagen AG
BMW SA	BMW AG	BMW AG
Mercedes Benz SA	Joint venture: Daimler AG and Volkskas Bank	Mercedes Benz
Ford (Samcor)	100% Anglo American	Ford
Nissan (Automakers)	100% Sankorp	Nissan
General Motors (Delta)	100% local management	General Motors (Isuzu since January 2018)

Source: Adapted from Barnes et al (2016a)

The MNCs were able to rapidly facilitate exports either from their own South African operations or from South African based suppliers to their international operations. This enabled them to expand their exports and offset import duties on cars and parts.

While trade and industrial policy has provided significant support especially for exports, there have also been substantial improvements in productivity. However, South Africa still lags countries such as Thailand in terms of manufacturing costs. Part of the competitiveness deficit can be accounted for by the relatively low availability of skills, which is reflected in the high skills premium for technicians, artisans, professionals and managers (Barnes et al, 2017).

A highly contested issue in the development of the automotive sector both in South Africa and other developing countries has been the level of local content in domestically assembled vehicles. Government has been keen to promote greater depth of supply chain development by securing investment in first and second tier suppliers and this was one of the stated objectives of the APDP which replaced the MIDP in 2013. The bargaining power of the MNCs ensured that it remained relatively easy to import vehicles and parts into the South African market while offsetting almost all duties (Barnes et al, 2017). The recently developed 2035 Masterplan sets an objective of 60% local content, a substantial increase on the level of 38% currently achieved. It remains to be seen how this can be achieved in a policy environment, which provides little protection for the component sector.

Apart from the boom in 2005-2006, in real terms, there has only been a modest increase in investment in vehicle manufacturing. However, a major quite recent development has been the announcement by Beijing Automobile International Corporation (BAIC) that it will invest $800 million to build a new assembly plant at Coega in the Eastern Cape (Engineering News, 2016). The plant is currently under construction and BAIC has recently also announced the establishment of a R2 billion supplier park in the Coega IDZ. An interesting development is that South Africa's state owned Industrial Development Corporation (IDC) will have a significant share in the venture. This will make BAIC the only light vehicle producer with some local ownership. The reasons for this are not yet clear although it is probably seen by the investor as a way of ensuring government cooperation.

The conversion of the MIDP to the APDP in 2013 heralded a significant change in government policy, with its explicit export support reoriented to production support irrespective of market focus. This was embodied in the move to a Volume Assembly Allowance (VAA) for OEMs and a Production Incentive (PI) for OEMs and component manufacturers. Apart from the need to ensure the alignment of South African automotive policy with the rules of the World Trade Organisation, a further intention was to reduce the industry's export bias, which had resulted in major production distortions since the MIDP's inception. However, while the way industry benefits were to be earned shifted significantly from the MIDP to the APDP, the way benefits were to be monetised remained largely unchanged, with export linked duty rebates substituted with production linked duty rebates. The policy 'paradox' of rewarding local production with import rebates was therefore extended to 2020. The objective of policy was that OEMs would balance their production between domestic market supply and exports under the APDP, while simultaneously balancing their CBU import programmes with local production for the South African market. However, neither has happened: OEMs have preferred to grow both their exports and their import programmes into South Africa. This decision appears to have been driven by two factors: (1) the strategic decision making of OEMs, and (2) the level of rebates earned per unit of local production. As indicated in Table 2 the share of exports in light vehicle production is high and has tended to increase since the inception of the APDP. In respect of strategic choices, it would appear as if several OEMs identified the opportunity to increase

their CBU export programmes under the APDP as an alternative to deepening their local content. This appears to have been driven by international CBU export opportunities (and frustrations with local technology capabilities and competitiveness levels) and the ability of OEMs to inflate the level of rebates earned through the Volume Assembly Allowance (VAA). As the VAA is based on the sales value of CBU production, as opposed to local value addition, OEMs can earn substantial rebates by exporting high value CBUs comprising predominantly imported components.

Table 2: South African production profile for major vehicle categories

Product	Market	2011	2012	2013	2014	2015	2016*
Passenger vehicles	Domestic	124,736	120,417	113,364	122,571	112,566	115,000
	Exports	187,529	151,659	151,893	154,920	228,459	250,000
	Total	312,265	272,076	265,257	277,491	341,025	365,000
	Export %	60.1%	55.7%	57.3%	55.8%	67.0%	68.5%
LCVS	Domestic	108,704	121,638	127,188	137,044	140,310	142,000
	Exports	84,125	123,443	121,345	118,585	102,664	135,000
	Total	192,829	245,081	248,533	255,629	242,974	277,000
	Export %	43.6%	50.4%	48.8%	46.4%	42.3%	48.7%
M&HCVs	Domestic	26,656	27,841	30,924	31,558	30,535	30,200
	Exports	803	1,076	1,206	1,412	1,124	1,100
	Total	27,459	28,917	32,130	32,970	31,659	31,300
	Export %	2.9%	3.7%	3.8%	4.3%	3.6%	3.5%

*Projected

Source: Adapted from Barnes at al (2016c):32; AIEC, 2017

3. Structural change and productive transformation

Overall, the targeted industrial policies in the auto industry have yielded mixed results. The sector has undoubtedly achieved improved industrial performance. From 1994-2014 it was the second fastest growing major sector although it has slumped since in response to a weakening economy (Bell et al, 2018: 7). Technological upgrading, higher volumes and a rationalisation of productive platforms have been accompanied by significant improvements in productivity and rapidly rising exports. However, important structural weaknesses remain.

For example, the growth in exports was strongly incentivised by the import-export rebate mechanisms designed as part of the MIDP; and continued with vehicle exports under the APDP. These worked as an incentive for firms to raise export volumes, but also as a disincentive to reduce the level of imports, which increased rapidly. At the same time, the generous concessions allowed to exporting firms reinforced a balance of power in favour of OEMs, which progressively gained bargaining strength in relation to state institutions and an even more dominant position in the value chain. Overall, the growing power of multinational OEMs, together with the increasing foreign ownership of first tier suppliers mitigated against the deepening of the value chain. Local content has either remained stable or tended to decline with the contraction most manifest among second and third tier suppliers. This has had in turn led to stagnating employment. The successful transition to much greater export orientation has produced a much more technologically sophisticated industry. Quality and productivity have also improved significantly. Today, although the sector remains assisted, its structure is more robust, more competitive and more oriented to global markets.

Overall, despite some positive changes in the productive structure of the sector, an issue that still remains crucial for SA is the scale of its production. The industry has made considerable progress in achieving a reasonable level of scale with current average model volumes in the region of 65,000 units per annum, representing a huge improvement. Most OEMs could now be classified as having reached the 'full manufacturing stage' indicated in table 3.[6] However, higher model volumes in the assembly sector have not been accompanied by higher local content, despite the component industry becoming more competitive.

Table 3: Stages in the Development of Vehicle Production in South Africa

Criteria	CKD assembly	Transition	Full manufacturing
Target Market	Domestic	Domestic and export	Domestic and export
Level of integration with parent company	Low; import of CKD packs	Medium	High
Model line up	Many models	One or two	One or two
Derivatives	Limited to reduce costs	Full range to supply export market	Full range to supply export market
Local content	Generally low but may be quite high due to local content requirements	Moderate based primarily on cost factors	Medium to high
Quality	Below source plant	Equal to source plant	Equal to source plant
Production cost	High	Medium; penalties incurred by high logistics costs	Low
Domestic design	Local adaptations	None	None - may do global R&D in niche areas

Source: Black (2009)

Policy has also produced distortions, encouraged uneconomic investments and led to unforeseen side effects. As mentioned above, one of the most striking changes has been the rapid growth in exports and imports. The level of export assistance has been far too high, especially at the start of the MIDP. The orientation of the industry changed fundamentally away from its focus on the small domestic market; becoming 'ultra-export oriented' (Black, 2007). Growing exports facilitated specialisation and the achievement of economies of scale. But this has had no substantive effect on increasing 'economic' local content. More evident, especially in the early stages, was the export expansion of 'peripheral' components such as automotive leather and catalytic converters. The result was the growth of a large component export sector, which was not integrated with the low volume, low local content assembly industry supplying the domestic market. In turn, this led to the increasing ability to rebate import duties, which added significantly to import pressure on the industry.

Another significant change has occurred in relation to ownership. As mentioned previously, the assembly sector is now completely foreign owned as is a large portion of the component sector, especially at the critical first tier level. Foreign ownership has facilitated access to global networks. With few exceptions, domestically owned component firms neither possessed the technological capability to become independent first tier suppliers nor had

[6] The exceptions are Nissan and Isuzu which have so far failed to land major export programmes, which would enable them to achieve large volumes per model.

ambitions in this direction. Many have been forced to reposition themselves as second tier suppliers, although they may have gained from being reintegrated into the global supply chains with much higher volumes. Considered as a whole, the supply chain remains underdeveloped and heavily reliant on imports.

Overall, the desired process of productive transformation is still incomplete and, if structural weaknesses are not overcome and the balance of power not moderated, the future scenario is not promising**.**

4. Policy, incentives, and state – business bargaining

The transformation of the South African auto industry from its protection during apartheid to the post-apartheid globalisation era can only be understood if embedded within the political economic context in which it occurred. Indeed, its current configuration can be interpreted as the outcome of specific policy choices, the product of international competitive pressure, and a balance of power between state institutions, MNCs, domestic firms, and organised labour. This balance of power, and the institutional setting that accompanied it, were of course a direct product of the historical trajectory the country followed.

Overall, South Africa's industrial development path has been highly conditioned by its apartheid legacy, and the way the globalisation of its economy was negotiated also depended on this inheritance. The auto industry, in this sense, followed a rather peculiar path. First, it benefited from significant financial support received in the form of incentives – which other industrial sectors were not granted. Second, its development was also influenced by global integration being delayed by the sanctions period, although the eventual integration into international markets was quite rapid. Finally, the sector, being one of the most globalised, was also one of the most exposed to the demands of multinational firms, and to power bargaining dynamics between local institutions and foreign firms. Overall, both state–business bargaining and changing ownership strongly affected the policy space in the industry.

Since the end of apartheid, and of the white nationalist project that found its expression in the protection of infant industries, the South African state was caught between forces pushing in different directions. On one side, the need to transform the socio-political-economic structure in a democratic sense, called for a developmental project addressing the basic needs of a long-neglected majority population. On the other, the wish to catch up with the rest of the world, to compensate for 'wasted' time, resulted in an attempt to accelerate global integration. All this affected the direction taken by the industrialisation process, and the bargaining relationship between the State and multinational firms.

Tangri and Southall (2008) highlight how the co-existence of contrasting goals generated a tension often difficult to manage. In this sense, the post 1994 ANC governments all clumsily steered between declared aims to pursue economic equity and redistribute wealth, and express advocacy of actions targeting rapid economic growth by attracting corporate investment. Hamann, Khagram and Rohan (2008) discuss how the apparent attempt to establish a form of 'collaborative governance' between state and business paradoxically entailed an active intervention of the state to limit its own powers. In their view, any move to

regulate firms' behaviour was always constrained by the need to operate within a framework that worked for them. In practice, what lay behind the negotiation of a governance space was always the condition for business to keep a hegemonic position. This was particularly evident in the auto industry, where global companies not only asserted their voice in relation to investment and productive strategies, but also defended a dominant role within the supply chain (Barnes et al, 2017).

With parallels to the Slovakian case described by Pavlinek (2016), in the development of the South African auto sector, the state played a crucial role in accommodating the strategic needs of foreign capital, to a point where the industry became overwhelmingly dependent on the directions taken by global investors (Hamann, Khagram and Rohan, 2008). Analysing an FDI-driven, export-oriented strategy comparable to the one pursued by the South African auto industry in the post-apartheid era, Pavlinek (2016) usefully warns against dynamics typical of a 'dependent market economy', where the state actively sets the rules of the game to attract investors, but eventually sees its bargaining power significantly reduced. In this regard, while broadly compensating for the lack of domestic capital, strategies relying on foreign capital as a primary vehicle to promote national competitiveness and industrial restructuring can end up dramatically limiting the internal policy space. At the sectoral level, such strategies will be successful only if the shape taken by the targeted industry is in line with the investment strategies of the hosted MNCs. Overall, while possibly conducive to faster integration and more efficient restructuring, such policies can also be less sustainable as they are extremely reliant on state incentives and can lead to patterns of uneven development. For example, as in the South African case, they can lead to the progressive erosion of local capabilities, whereby "*export-oriented foreign-owned factories often assemble high-tech, high quality goods with a relatively high value-added from components that are either imported or produced locally by other foreign firms*" (Pavlinek, 2016:575). The outcome of such strategies can be rapid industrial growth, but with the possible downside of truncated supply chains, foreign capital control and reduced state bargaining power.

In the South African auto industry, the will of the state to compensate for the delayed industrial development, and the consequent attempt to accommodate foreign companies in order to attract investment and technology, reflected in the incentive mechanisms and in the generous concessions made to the OEMs. As a result, the industry today is 'captured' under the strategic direction set by the multinational assemblers, whose lobbying power strongly influences policy decisions, and the distribution of capital, power and resources in the supply chain is severely concentrated around them. In this sense, only the re-balancing of the governance mechanisms of the supply chain will allow for more sustainable structural transformation.

5. Changing ownership and supply chain development

In South Africa, state-business bargaining dynamics negatively impacted the development of the auto sector: while foreign investment promoted industrial upgrading and international integration, local ownership and capabilities simultaneously declined (Barnes et al, 2017).

As indicated previously, in the early 1990s levels of foreign ownership were quite low both among vehicle manufacturers and component producers. This changed in 1994 with the

country's reacceptance back into the international community. The globalisation of the industry manifested in growing exports and imports had major implications for ownership. It became increasingly important for local firms to have links to global networks as a way of facilitating access to international markets. In South Africa, and indeed in other emerging markets, foreign owned assemblers increasingly preferred to source components from joint ventures and wholly owned subsidiaries rather than domestically owned firms. The result for many South African firms was that they either needed to seek out an international partner or faced the prospect of being confined to the aftermarket (Barnes and Kaplinsky, 2000).

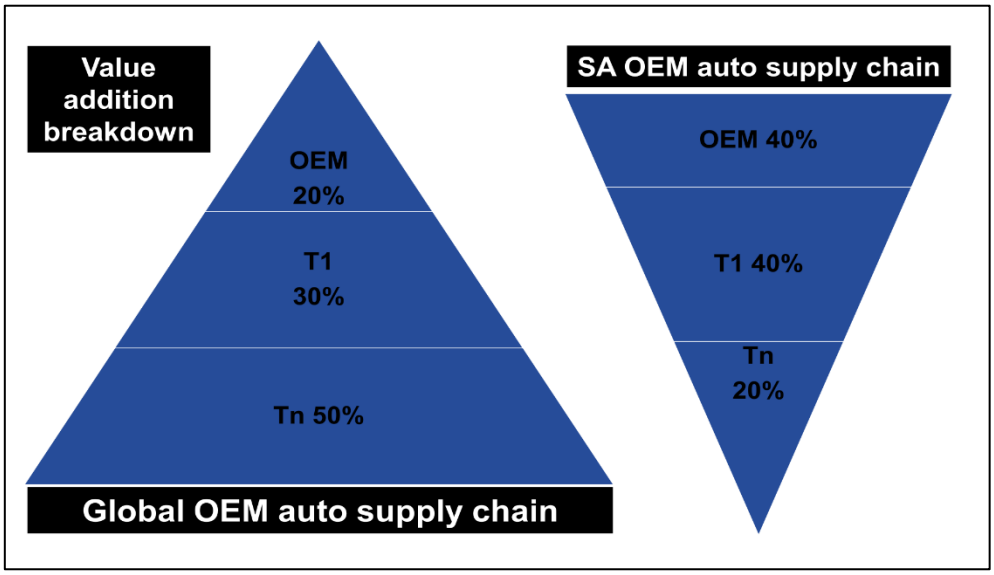
With growing foreign ownership, the main conduits for technological upgrading were through transfers from foreign sources rather than an increase in domestic R&D. Domestic firms, under pressure to upgrade their technological and production capacities, turned to foreign sources through the establishment of joint ventures, for example. There is plenty of evidence that when local firms have come under the control of transnationals, existing R&D establishments are downsized or shut down (Black, 2011). It does not follow, however, that these firms downgrade technologically because the shutting down of formal R&D facilities can be accompanied by the introduction of new specialised product and process technologies which bring host firms closer to the world frontier.

Car-makers have actively sought out component suppliers who are able to export and to supply components which meet the exacting standards of their own increasingly export oriented assembly operations. Multinational car firms have therefore played a major role as conduits between domestic component firms and the international market by arranging export contracts for component suppliers by facilitating access to their global networks, brokering new investment, bringing in new technology and accelerating the transfer of industry best practices in production organisation to their suppliers.

There is no doubt that foreign ownership, as opposed to licensing arrangements, has in many cases been critical for vehicle producers to obtain major export contracts but the question is more complicated for component producers. A number of foreign owned suppliers have established facilities in South Africa with the sole purpose of supplying component subsystems to domestic assemblers. A striking difference between foreign owned and domestically owned firms has been that the former import a significantly larger share of their requirements. The main explanation is that many foreign component firms are 'systems integrators', supplying entire sub-assemblies to the vehicle manufacturer. This is more of an assembly than a manufacturing activity. Foreign firms are also clearly less embedded in the domestic economy although this may change over time as firms develop domestic linkages (Black, 2011).

As a consequence of such processes, the South African automotive value chain is now underdeveloped relative to leading international competitors (Figure 1), with this evident in the low and deteriorating local content levels in South African assembled vehicles, and the substantial volume of components imported by the domestic industry. Table 4 indicates the extent of this trend over the period of the APDP. While South Africa increased the value of its vehicle assembly activities significantly over the period 2012 to 2015 (from R75 billion in manufacturing sales to R137 billion), this increase was accompanied by a R44 billion surge in automotive component imports over the same period, largely nullifying the large assembly gains made.

Figure 1: Value addition breakdown of global and South African automotive supply chains



Source: Barnes (2014)

Table 4: South African OEM manufacturing sales and associated import and local content values (Rand billions)

Year	Vehicles	Local content	Imported content	Local content (%)
2012	R 75.3	R 35.2	R 40.1	46.6%
2013	R 92.5	R 37.9	R 54.6	40.9%
2014	R 113.5	R 47.1	R 66.4	41.5%
2015	R 136.7	R 52.9	R 83.8	38.7%
2012-15 % change	***81.5%***	***50.3%***	***109%***	***-17.0%***

Source: SARS (2012-2015)

As indicated in Table 5, component exports have expanded dramatically. From a low base of R3.3 billion in 1995, component exports increased to R23 billion in 2005 and R49.6 billion by 2015. A key objective of the import-export complementation scheme under the MIDP was to assist component suppliers to generate high volumes which would make them more efficient, and able to compete in the domestic market against imports. A linked objective is that reduced production costs would have the added benefit of providing lower cost inputs into the assembly industry. The objective of higher component volumes has certainly been achieved at least in the sense that export development has usually been accompanied by higher volumes and specialisation. Many component producers have rationalised their product lines.

Table 5: Major component export categories, 1995-2015 (R million)

	1995	2005	2012	2015	% 2015 total
Total	***3,316***	***23,000***	***36,867***	***49,641***	***100.0***
Catalytic converters	389	9,935	16,347	20,326	40.9
Engine parts	102	1,000	2,875	3,941	7.9
Tyres	213	1,183	1,522	2,193	4.4
Automotive tooling	153	332	782	1,459	2.9
Engines	9	781	559	1,448	2.9
Radiators and parts	66	220	945	1,190	2.4
Transmission shafts/cranks	55	553	771	1,060	2.1
Stitched leather seat parts	1,019	2,693	1,719	993	2.0
Other	1,077	5,073	9,151	17,031	34.3

Source: AIEC (various years)

However, the nature of the component industry's export expansion also raises concerns. Firstly, the bulk of export was constituted by catalytic converters and automotive leather. With regard to catalytic converters, their export growth was certainly affected by the high subsidies the sector received. In this sense, large export contracts were arranged by OEMs seeking to offset import duties on parts (and vehicle) imports through the rebate mechanism. So instead of promoting exports of parts in order to achieve economies of scale in the components which they were purchasing for their own assembly operations, the OEMs in many cases preferred to establish large scale component export programmes of products, such as catalytic converters. These were for the most part disconnected from their own assembly operations. Another sub-sector that emerged in the early days of the MIDP was automotive leather. This labour-intensive, export based sector eventually went into decline with supply contracts being moved to Central Europe, and two large factories relocating to Lesotho. Such shifts were influenced by decreasing policy support to highly export oriented sectors under the APDP and lower labour costs in neighbouring countries (i.e. Lesotho). Overall, the expansion of component exports was accompanied by a very low level of integration into the domestic industry, both in terms of supply to domestically assembled vehicles and in terms of local sourcing of sub-components.

6. Localisation, transformation and supply chain development

Given the current structure of the South African auto chain, any attempt to secure a sustainable growth of the industry will have to be linked to two main challenges: increasing the level of localisation, and deepening the lower tiers of the chain. Indeed, this will also require a strong intervention to address the balance of power between big and small players; multinational lead firms and component suppliers; and foreign and local firms. At the same time, any strategy to raise local content and develop local suppliers will also have to be connected to initiatives aimed at developing local ownership and increasing black participation in the industry. In this sense, transformation intended as broad-based black economic empowerment (BBBEE) must be embraced as a transversal objective, permeating all other policy targets.

The localisation challenge is particularly pressing. At only 38.7% local content in South African assembled vehicles in 2015, the ability of the South African automotive industry to realise its growth potential is likely to be severely compromised. As a second-tier automotive producer, the domestic automotive industry has the potential to grow its local content to at least 60%. This is based on the recognition that core drivetrain, powertrain, safety and telematics technology is unlikely to be domestically sourced soon, but that there is substantial opportunity to increase local content in South African vehicles – as evidenced through the experiences of other second tier automotive economies, such as Turkey, Thailand and Brazil.

However, localisation is a multi-dimensional challenge requiring a multifaceted response. At the most basic level it is associated with improving South Africa's factor cost profile (overheads, labour, and materials costs), along with the economy's ability to ensure technology and skills availability ahead of industry demand. Nonetheless, improvements across these factors represent a necessary, but insufficient condition for the deepening of local content within the South African automotive industry. Research completed for the South African Automotive Masterplan in 2016 emphasised the debilitating impact of exorbitant logistics costs, government-administered service price increases (electricity, water, waste removal, rates, etc.) on the operating costs of firms. As firms have shifted their business models to accommodate these increasing costs, critical local content has been lost, along with associated technologies and skills. Reversing this trend requires the stabilisation of government-administered service costs, and the development of technology and associated skills as firms look to deepen their own value addition, or to source components/materials locally, instead of from competitive foreign sources. This base capability building should improve the general position of the South African automotive value chain and create the preconditions that are likely to encourage the deepening of local content.

Additional key elements relate to the creation of targeted specialisation within the automotive value chain, and the potential to strategically link South Africa's materials base with automotive opportunities. Dealing with specialisation first; unless firms can secure economies of scale within the domestic automotive industry, they are unlikely to be sufficiently competitive to deepen value addition. Key then is identifying opportunities to secure improved economies of scale in the context of South Africa's comparatively small production volumes. This is partly a policy issue, but it also requires industry coordination and programmatic interventions. The South African automotive industry, working in partnership with national government, has established the Automotive Supply Chain Competitiveness Initiative (ASCCI) as the vehicle for identifying and responding to localisation opportunities, and it is critical that the industry and government collaborate on specific agreed-upon opportunities, especially where local materials availability provides the scope for substantially improving local content through South African automotive supply chains, and establishing potential areas of specialisation for the domestic industry within complex Global Value Chains (GVCs).

As mentioned above, the objective of increasing local content is deeply intertwined with the challenge of promoting the transformation of the industry. Part of a broader ambition to strengthen local ownership of the country's productive assets, and to promote the participation of black industrialists in the development of a national industry, such goals have received increasing attention. The transformation of the sector is consequently included

amongst the top priorities of firms looking to continue securing government support, and to access available incentives. However, the process appears very slow; transformation targets have been achieved to a very limited extent, and policies in place, already under revision, have revealed significant weaknesses.

The idea of economic transformation, aimed at expanding the role of black ownership and control of the economy, has been part of the post-apartheid political project from the outset. However, the BEE policies of the first 10 years of the post-apartheid era were, at best, considered ineffective, leading to only cosmetic adjustments of pre-1994 inequalities and economic imbalances. Early BEE policies were also strongly criticised, for resulting in the formation of a black industrial élite, without concretely addressing South Africa's much deeper structural disparities. Makgetla (2004), for example, highlights how economic restructuring post-1994 created very limited opportunities for black entrepreneurs, while the extreme concentration of ownership remained largely unchanged. Only a minority of well-educated black individuals managed to penetrate industrial élites by accessing the incentives offered by the state. At a firm level, 'black economic empowerment' seems to have meant increasing support to medium/large black companies, rather than an actual challenge to existing monopolies and to the extreme concentration of economic power. To some extent, especially in the first phase of BEE policies, foreign capital was largely exempted from following BEE rules (Freund, 2007).

The perception of limited policy reach (Ponte, Roberts, van Sittert, 2007) led the South African state to reconsider the first package of BEE policies, in favour of an enlarged set of conditions for transformation. The 2000s thus saw the introduction of a 'broad-based black economic empowerment' (BBBEE) formula, which went beyond simple corporate ownership. The widened package entailed a long list of criteria, seen as crucial indicators of deeper transformation. These included ownership, management representation, employment equity, skills development, preferential procurement, enterprise development and corporate social investment (Ponte, Roberts, van Sittert, 2007). The objective was to promote more inclusive transformation, and to target a larger pool of potential beneficiaries. However, despite the revision of the original agenda, and the ambition to extend its reach, the implementation of BBBEE policies remains limited, and the transformation of South African industry remains slow. Several weaknesses have been identified. Ponte, Roberts and van Sittert (2007) warned against the managerialisation of the BEE agenda, which progressively shifted towards technical compliance, moving away from its initial focus on redistribution. Ultimately, such processes also transferred responsibilities from the state to the firms; with firms competing to tick boxes on their scorecards to win incentives. Overall, the reduction of the BEE agenda to a technical exercise eroded the developmental role of the state. Despite critiques of its implementation and limited achievements, the idea of black economic empowerment remains crucial for the transformation of SA's post-apartheid industry. In this sense, even for the future of the auto sector, transformation and localisation are clearly complementary priorities.

Existing initiatives to promote development of the supply chain

The pressures to achieve transformation, localisation and supply chain development are increasing but much still needs to be done. Many initiatives have emerged, but the coordination between them needs to be significantly improved. Presently, all major

stakeholders operating in the industry are exploring localisation opportunities and have transformation programmes in place. The National Association of Automobile Manufacturers of South Africa (NAAMSA) is currently running consultations on potential opportunities through the OEM Purchasing Council, and is testing the adoption of a black industrialists fund, and a transformation fund. The National Association of Automotive Component and Allied Manufacturers (NAACAM) has recently concluded a survey of BBBEE compliance amongst auto component suppliers, and is actively engaged in 'best practice education' via a black supplier development programme that is run jointly with the Automotive Supply Chain Competitiveness Initiative (ASCCI). NAACAM is also providing legal assistance to its members to assist in achieving compliance with the BBBEE scorecard. The ASCCI is endeavouring to target interventions aimed at building supplier capabilities, driving localisation and developing strategic insights into future opportunities for the value chain. All of these elements have transformation objectives. In Gauteng, the Automotive Industry Development Centre (AIDC) is promoting Automotive Incubation Centres linked to individual OEMs (the most advanced project being at Ford) and is also running a supplier development programme. In the province of KwaZulu – Natal, the Durban Automotive Cluster (DAC) is currently testing a supplier development model based on the formation of joint-ventures between established component manufacturers and emerging black suppliers.

Overall, numerous initiatives are in place, but they are not necessarily coordinated, and they face several challenges. These are mainly related to the financial feasibility of identified localisation opportunities and to technical barriers to localisation (inclusive of volumes, technology, global supply agreements, cost of testing, etc.). In addition, the uneven leverage of different stakeholders, pursuing diverse business strategies, does not facilitate the process, and further complicates the development of a common strategy for transformation.

7. Looking ahead: targets and constraints

Since the end of the apartheid era, the South African automotive industry has undeniably achieved significant structural transformation, consolidating its manufacturing capacity, increasing its productivity, and progressively integrating on world markets. However, its internationalisation has occurred at the expense of a local policy space, with the state increasingly constrained by dominant multinationals. Increasing foreign ownership and an unfavourable state-business bargaining relationship have also affected the development of the industry, leading to a supply chain heavily concentrated around OEMs and Tier 1, mainly multinational, suppliers. The second and third tiers of the supply chain are severely underdeveloped.

Localisation, transformation and supply chain development thus emerge as key priorities for the future of the South African auto industry. In this regard, the 2035 Masterplan sets targets that could potentially be achieved, but that will also certainly require a significant effort on behalf of all stakeholders to align business strategies with policy objectives. For localisation to be linked to supply chain development and transformation, support for skills development and the technological upgrading of local, black suppliers will be essential. In relation to black supplier development, ownership transactions, encouraging outsourcing to smaller suppliers and the establishment of joint-venture projects are all options worthy of further exploration. In

respect of government, the viability of stricter compliance criteria will have to be weighed against the industry's current multinational-dominated status. More effort to secure aligned policy implementation will also be required.

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