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The political economy of automotive industry development policy in middle income countries: A comparative analysis of Egypt, India, South Africa and Turkey

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Abstract

This paper examines the political economy of development policy through the prism of four country case studies (Egypt, India, South Africa and Turkey) of the automotive industry. The objective is not simply to examine the developmental impact of automotive policy, but to illustrate how the policy regime has been the outcome of a contested process. Early growth in the auto sector in the four case countries was enabled by rents from protected markets. The emergence of competitive firms is critically dependent on the nature of state–business relationships and the net outcome of the rent-seeking process in the sector. This hinges on the bargaining power of business, foreign or domestic, vis à vis the government. If firms capture subsidies in return for support to weak and vulnerable ruling coalitions, the auto sector in that country can become the classic case of an infant industry remaining stunted. Where the distribution of power is such that ruling coalitions are able to discipline firms in the auto sector, so that they become globally competitive, developmental outcomes have been positive.

Keywords: Automobile industry, protection, rents, developing countries, exports, state-business relationship, political economy.

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List of abbreviations

APDP	Automotive Production and Development Programme
CBU	Completely built up
CKD	Completely knocked down
COMESA	Common Market for Eastern and Southern Africa
CU	Customs union
FDI	Foreign direct investment
ECA	Egyptian Customs Authority
FYDP	Five-year development plan
HM	Hindustan Motors
HS	Harmonised commodity description and coding systems
IAMP	Indian Auto Mission Plan
ISI	Import substituting industrialisation
GAFTA	Greater Arab Free Trade Agreement
MFN	Most favoured nation
MIDP	Motor Industry Development Programme
MNC	Multinational corporation
NAACAM	National Association of Automotive Component and Allied Manufacturers
NAAMSA	National Association of Automobile Manufacturers of South Africa
NATRIP	National Automotive Testing and R&D Infrastructure Project
OEM	Original equipment manufacturer (vehicle producer)
OICA	International Organisation of Motor Vehicle Manufacturers
PC	Policies Committee
PCF	Politically connected firm
R&D	Research and development
WTO	World Trade Organisation

1. Introduction: The political economy of automotive industry development in developing countries

The automotive industry is one of the world's largest manufacturing sectors and has played a key role in national development in many countries. Apart from its size and associated economic impact, the industry comprises a variety of industrial processes and has many spin-offs for other sectors. It has frequently been seen as emblematic of industrial development and has been the recipient of significant state support. This paper examines the sectoral political economy, with special emphasis on historically informed country case studies that elucidate the state–business relations in the sector or, more specifically, the politically transacted interactions between governments and domestic and international firms.

The strategic importance of the sector, through its potential to attract high quality FDI and generate domestic employment, gave the state the latitude to provide subsidy-induced rents to large capitalists by providing high levels of protection in pre-WTO days. In many cases, however, governments had limited capacity to discipline the rents the sector received. In other words, the subsidies got captured, leading to huge X inefficiencies in the sector. This protectionist phase, which lasted from the 1960s to the 1980s, was then usually followed by significant opening to trade, mainly aimed at developing exports. More recently, and as a development related to liberalisation, state–business relations in the sector have moved from domestic political economy-determined to being determined by the relative bargaining power of international auto firms and domestic auto component manufacturers in the global value chain. What is clear, also, is that there is limited space for indigenous domestic auto firms to emerge – albeit with important exceptions, such as India and China.

The issues at stake here are domestic policy and the development of domestic capabilities. Related to this is the nature of state–business relationships or patron–client networks in the sector. This is closely linked to the distribution of power among the various stakeholders, including ruling political coalitions, domestic firms and multinational firms. Sometimes the outcomes of political networks and linkages can have a deep effect on industry composition and its potential for growth. For instance, lobbying by politically connected capitalists in a developing country could lead to high effective rates of protection for assembly, with negligible support for the component sector. This is likely to ensure that the country does not develop a components industry, but remains an assembly hub. Given that the bulk of value added within the sector lies with the production of components,¹ an assembly-only outcome severely constrains the prospects for the sector. A strong supplier industry is also a major factor in encouraging further assembly investments. But promoting the auto and auto component sectors at the same time can be tricky. The auto assembly sector would naturally prefer lower tariffs on components and the component sector would prefer higher tariffs on imported parts or local content requirements. The handful of developing countries that have developed successful indigenous auto industries have

¹ This varies according to the type of vehicle, but can be as high as 80 percent.

done so by developing both 'home-grown' auto and auto component firms. Of course, the success of this depends on historical institutionalist as well as political economy factors and this paper attempts to outline these for each of our case study countries.

The objective of this paper, therefore, is not simply to examine the developmental impact of automotive policy, but to illustrate how the policy regime has been the outcome of a contested and frequently conflicted process. We have chosen our case study countries – India, Turkey, South Africa and Egypt – based not just on the outcomes of the auto sectors in each country, but also in order to highlight how relatively similar policies of state-induced industrialisation and specific packages for the sector had differing outcomes. Our analysis points to the ability (or not) of ruling coalitions to discipline capitalists, who received the subsidies, to produce results, as well as the evolution of a credible domestic market, as reasons for these differing outcomes. Success in each of these criteria resulted in the development of a successful auto industry, the benchmark for which we hold as upgrading and improving their technological capabilities. This includes becoming competitive internationally and developing successful export markets. India achieved this through historic capability building from the 1980s, despite initial failures, even creating an auto sector based not just on FDI, but including 'homegrown' companies. Turkey's trade deal with the EU helped it 'bootstrap' via FDI as a destination for export-based manufacturing. South Africa had developed a relatively successful FDI-based auto industry, but the lack of import demand from the rest of the African market and the inability of domestic component makers to upgrade has led to stagnation relative to earlier growth. The underwhelming performance of the auto sector in Egypt was the result of capitalists with close links to the military capturing subsidies meant for the sector. Hence, as we outline later, despite extensive and sometimes similar state-backed policies, the evidence from each of our countries points to a critical link between the kinds of policies and the ability to implement them in their political economy contexts. Just 'getting the policies right' is not enough to ensure sectoral success, which depends also on the disciplining capabilities of ruling coalitions, the capabilities of entrepreneurs in the sector and the size of the domestic market.

For some developing countries, the impact of globalisation has been very positive with the auto sector being elevated to a new level as a regional production hub, characterised by growing investment, expanded production and exports and widespread industrial upgrading. Successful countries have emerged as global or regional hubs and include, for example, Mexico in North America and Thailand in south east Asia. In Europe there are a number of contenders. Slovakia has the highest per capita car production in the world. Turkey is also an important regional centre. Much less important, but of growing significance, is Morocco, which now hosts Africa's biggest car assembly plant (Benabedjil et al., 2015). But these countries compete with large incentives and attracting large investments may come at a high price. Lower wages with historically moderately high levels of capability development are also a factor. These positive outcomes may, however, be tempered by a decline in local ownership and the downgrading of capabilities at domestically owned firms. In other circumstances, national clusters comprising foreign and

domestically owned firms can be relegated to the periphery of regional and global automotive networks. In these circumstances, the industry may impose a costly burden to the country concerned and there are a number of cases of outright failure of the sector, for instance in Pakistan, Nigeria and Colombia.

Competitive advantages are, in part, a reflection of these investments, rather than the innate characteristics of these countries. For example, Thailand and Malaysia share many common features, but Thailand has emerged as the major producer in the region. The higher level of investments in Thailand is also the result of political economy factors like rent capture in Malaysia's auto industry which stymied the growth of an indigenous auto sector that could have developed via the state-owned Proton car company. The existence of a favoured indigenous firm in Malaysia also served to deter MNC investment.

Successful development policy in the auto sector requires three interconnected attributes (Humphrey and Oeter, 2000; Black, 2009). Firstly, it is essential to define a regional or national 'automotive space',² which needs to be protected – at least over the short to medium term. This implies a domestic or regional market which is large enough to achieve efficient scale economies for vehicle producers and their component manufacturers. Second, effective policy needs to ensure the domestic industry is competitive at the sector level. This refers to both specific automotive policies, for instance tariffs and other incentives, as well as the provision of key public goods, ranging from infrastructure to training and R&D. Thirdly, the firms themselves have to upgrade capabilities through appropriate investments in equipment, supplier development and the effective management of technology and advanced forms of work organisation.

Of these aforementioned attributes, the first two are closely linked to the enforcement capability of incumbent governments or the ability to discipline firms that are receiving subsidies to ensure that they 'grow up'. The third variable has a bearing only after competitive auto firms have developed, which are then subject to global competitive compulsions ensuring their profitability. The emergence of competitive firms is critically dependent on the nature of state–business relationships and the net outcome of the rent-seeking process in the sector. This hinges on the bargaining power of business, foreign or domestic, vis à vis the government. If firms capture subsidies in return for support to weak and vulnerable ruling coalitions, the auto sector in that country can become the classic case of an infant industry remaining stunted. Egypt is a case in point, as was India in the early years of the development of its auto sector. Even in the context of rent seeking, however, where the distribution of power is such that ruling coalitions are able to discipline firms in the auto sector so that they become globally competitive, developmental outcomes have been positive.

² See also Lung and van Tulder (2004), for what constitutes a viable automobile space.

The requirements of scale mean that auto firms either have to heavily capture subsidies or be globally competitive in order to survive. Given the global nature of the auto supply chain, subsidy-dependent auto sectors will ensure the country does not develop a successful domestic sector, though politically connected 'client' firms in such settings may well benefit. It is this variable of firms being able to develop their own competitive capabilities that provides the credible commitment required for a successful auto sector and also determines the successful developmental features of the sector. This has to be marked by low levels of rent capture.

It is important to note the positive role that rents have played in the sector, whether policy induced (like the customs union of the EU), or discretionary, like access to low-cost finance to the sector in China or relatively easy and cheap land acquisition in India. The rents themselves are not the issue. What is crucial though is the distribution of power with regard to the sector in each of our case study countries that have allowed these rents to be used for developmental outcomes and to enhance social welfare; and equally how this distribution of power did not lead to the desired developmental outcomes.

The format is as follows. Section 2 provides an overview of the auto industry in emerging markets, with some contextualisation of the four case study countries. Section 3 divides the trajectory of the auto sector in each of our case study countries based on the phases of protectionism and liberalisation. The nature of state–business relations in each of the cases provides the context for the eventual outcomes in the sectors. Section 4 concludes by extracting the key implications from the country cases.

2. The auto industry in Egypt, India, South Africa and Turkey: An overview

Our four case countries are extremely diverse. India is of course the largest producer among our comparator countries, followed by Turkey, South Africa and Egypt (Table 1). India and Turkey have shown large increases in production, while South Africa and Egypt have lagged. All countries have a long history in the sector and have attached significant importance to its development. Import substitution policies were pursued in all cases and included local content requirements, which were most stringently applied in India. Over the last 20 years, all countries have liberalised to some degree, although India still maintains a 100 percent tariff on imported cars. Applied average MFN tariffs for cars are 40 percent in Egypt, 25 percent in South Africa and 12.9 percent in Turkey (Table 2). Egypt maintains high average tariffs of 54.4 percent on commercial vehicles, but they are much lower in the other countries.

Another key indicator has been exports and imports. All countries except for Egypt are major exporters and have shown rapid export growth. Imports have grown rapidly in all countries, but only India runs a large trade surplus in the sector. In Turkey and South Africa, there is an approximate balance.

Table 1: Market size and production in comparator countries (2015)

	Egypt	India	South Africa	Turkey
Population (million)	92	1,311	54	79
GNI per capita (\$)	3,346	1,590	6,080	9,950
Total number of vehicles in operation (million)	5.1	28.0	11.7	14.4
Estimated ratio of people to vehicles	17.5	46.3	4.6	5.3
Passenger vehicle production	12,000	3,378,003	341,025	791,027
Passenger vehicle sales	258,400	2,772,745	412,670	725,596
Light commercial vehicle production	None	427,234	242,974	516,011
Truck and bus production	24,000	320,447	31,659	51,758
Commercial vehicle sales	73,700	652,591	204,978	285,598
Exports (\$ bn)	0.1	14.1	9.2	17.5
Imports (\$ bn)	6.3	4.9	7.2	17.5

Sources: UN; World Development Indicators; OICA, export-import figures based on trade in vehicles other than railways and tramways from UN Comtrade.

The development of the industry in Egypt has been characterised by a lack of clear long-term strategy, with policy frequently accommodating well connected local business interests, many of whom have lacked a long-term commitment to the development of the sector. Foreign ownership has been quite limited. Decades of protectionism in a small-scale industry have left the country's automotive sector under-developed and largely incapable of competing internationally. Domestic firms have worked hard to erect new non-tariff trade barriers to obstruct the implementation of Egypt's Euro Mediterranean Free Trade ('Euro-Med') Agreement with the EU, which obligates Egypt to remove its tariffs completely on automotive imports from Europe.

In India, the sector had a bleak start after independence in 1947, but the country has since emerged as the world's fifth largest producer of passenger cars and commercial vehicles. The sector is markedly different from the auto sector in other emerging economies (apart from China), in that while it has received investments

from large international OEMs, it also has large and profitable domestic auto makers in the passenger car, commercial vehicle and motor cycle sectors.

Table 2: Applied MFN tariffs in comparator countries, 2016

Product category	HS code	Applied MFN Tariffs			
		Average ad valorem duties			
CBU/assembly tariffs		Egypt	India	South Africa	Turkey
Buses	HS 8702	40.0	19.4	25.0	12.9
Cars	HS 8703	40.0	100.0	25.0	9.7
Commercial Vehicles	HS 8704	54.4	11.8	25.0	12.1
CKD tariffs	HS 8707	5.0	6.3	20.0	4.5
Motorcycles	HS 8711	20.0	100.0	0.0	6.7
Selected components					
Brake pads	HS 870830	10.0	35.0	14.5	4.0
Elec. Wipers	HS 851240	5.0	10.0	15.0	2.7
Tyres	HS 401110	20.0	20.0	30.0	4.5
Radiators	HS 870891	7.5	10.0	12.5	3.9
Windscreen	HS 700721	10.0	20.0	22.5	3.0

Note: Tariffs in South Africa can be offset with Production Rebate Credit Certificates (PRCCs).

Source: WTO Tariff Database, 2016.

South Africa also has a history of high tariffs and local content requirements. In the late 1980s, levels of foreign ownership were quite low, among both vehicle manufacturers and component producers. This changed following the democratic transition in 1994 and was also driven by rapid liberalisation, especially following the introduction of the Motor Industry Development Programme (MIDP) in 1995. This has led to much greater levels of international integration, with both exports and imports rising sharply.

Heavy protection in Turkey has been followed by quite rapid liberalisation through its customs union agreement with the EU. This has worked out well for the country, in the sense that a long history in auto production, a large and growing domestic market, together with a phased downscaling of protection, allowed it to integrate into global production networks on favourable terms. The industry is currently one of the largest manufacturing sectors in Turkey and the leading exporter. A number of assemblers operate as joint ventures between multinational and domestic firms.

3. The development of the auto industry in the case study countries

This section focuses on the two main phases in the development trajectory of the auto sector in each of our four countries. The first sub-section deals with the protectionist years. The second sub-section focuses on the opening up of the sector, whether through WTO-based liberalisation, integration into regional trade deals or a combination of the two. All our case study countries experienced a significant liberalisation of tariffs and varying degrees of integration shock. Even in this phase, two kinds of rents, both policy-induced and discretionary, continued to have a significant effect on the sector. Liberalisation has mostly resulted in the demise of the indigenous auto sector, except in the case of India, but has nonetheless resulted in some significant capability development in all the other cases, except for Egypt.

3.1. The protectionist years: Discretionary rents and varying levels of compulsion

As outlined earlier, the initial phase of development in the auto sector involved high levels of protection, mainly externally through high tariff barriers and sometimes even internally usually through providing sector permits to only a few politically well connected firms. While the tariffs created rents by providing a protected market, the discretionary rents, which provided either licences, access to land or cheap finance, were important in determining the success of the sector. Protection was usually demanded by these capitalists, or even from powerful factions from within governments, in the case of state-owned sectors. This ensured a high potential for rent capture. As a result, a significant number of developing countries were not able to 'enforce' the required discipline on the sector.

Egypt: State ownership and structural adjustment. The Egyptian industry has a history of protection. Beginning in 1961, all automotive sector production was monopolised by the state-run El Nasr Automotive Manufacturing Company (NASCO), as part of the import substitution industrialisation (ISI) policy adopted following the 1952 revolution. The policy sought self-sufficiency, producing enough vehicles to serve Egypt's small domestic market, but did not extend to developing exports. NASCO continued its operation during the early years of the Sadat era, remaining the sole vehicle assembler in Egypt between 1973 and 1977 (American Chamber of Commerce in Egypt, 2011).

The sector was able to insulate itself from successive waves of liberalisation in both the 1970s and 1990s, through the preservation of high tariffs on imports of completely built up (CBU) vehicles, local content requirements and the extension of licences for joint-venture operations between multinationals and domestic interests. During the 1970s, these policies were motivated by the state's desire to maintain control over key swathes of the manufacturing sector following Egypt's 1973 war with Israel and the expansion of the country's military-industrial complex. In the 1990s, protectionism served the interests of a small group of politically connected firms (PCFs) in the private sector that – following Egypt's 1980 peace treaty with Israel and

the marginalisation of the military from political life during the Mubarak years – had become more influential in both political and economic decision making.

Table 3: Summary of developments during the protectionist phase

	Policy measures undertaken	Political economy	Outcomes
Egypt	State ownership and heavy protection from early 1960s. Limited liberalisation, but auto sector retains protection. Some privatisation (1980s).	Nasser – state ownership and central planning. Sadat – open door policy and later structural adjustment.	Inefficient low volume assembly with local content maintained through protection.
India	High protection on vehicles and parts; licensing of assembly firms (1960 to 1980). Support for Maruti investment (1980s).	Central planning, indigenisation and import substitution. State overrides objections of existing firms, but insists on high local content in Maruti.	Small-scale production of low-quality expensive cars. High levels of local content develop domestic capabilities. Maruti Suzuki dominates domestic market and develops large-scale supply base.
South Africa	High protection and medium local content requirements. Liberalisation starts with introduction of MIDP.	Inward focus by apartheid government. Democratisation and trade liberalisation.	Low volume assembly of multiple models in small volumes. Industry under foreign ownership. Rapid international integration.
Turkey	Import substitution. (1970s) Shift to export-oriented growth from 1980, but little success in auto industry; more successful in labour-intensive industries, such as clothing and textiles.	Prospects of CU with EU. Successful macroeconomic stabilisation package.	Low but growing output, with significant role by joint ventures in assembly industry. Growing imports force car companies to invest.

Despite the lifting of bans on the direct import of foreign CBU vehicles, raw materials and spare parts in 1974, high tariffs on both vehicles and components ranged upwards of 135 percent. And so, despite Sadat's 'Open Door' Policy, ISI policies remained in place in a hybrid model of partial liberalisation (Waterbury 1983; African Development Bank, 2000; Loewe, 2013; El-Haddad, 2015). Local content requirements were set at 45 percent. Once this target was met, local assemblers enjoyed customs exemptions for imported components, which encouraged several foreign companies to enter the Egyptian market. As a result, after 1977 Egyptian assemblers that met local content requirements for locally produced components were granted custom exemptions on imported components and were allowed to establish joint ventures with foreign brands that could then be attracted to access the Egyptian market. Many of these domestic firms –in particular, GB Auto and the Mansour Automotive Company – were politically connected firms (PCFs) that possessed patronage ties to the Sadat government. As a result, during this initial phase of liberalisation, strong ties formed between Egyptian assemblers, components' firms and foreign brands.

Declining oil prices and economic mismanagement led to a gathering economic crisis by the late 1980s and forced the government into a second phase of liberalisation in the form of the IMF-imposed Economic Reform and Structural Adjustment Program (ERSAP). Starting in 1991, price, interest-rate and capital-transfer controls were eased or removed. PCFs in the industry continued to secure sustained implementation of high tariffs on imports of CBU vehicles, while expanding the right of foreign brands to procure joint venture licences to establish local assembly operations in partnership with domestic firms, thereby crowding out the influence of the state-run NASCO corporation. The latter was partially privatised following the passing of Law 203 in 1991.

Following Egypt's 1995 accession to the World Trade Organization (WTO), industry stakeholders and PCFs became increasingly fearful of a new wave of liberalisation threatening their position within the industry. Such apprehensions pressed Egyptian business interests to push for additional protection, such as Presidential Decree 429 enacted in 2000.³ The law applied additional customs duties on imported components for firms which failed to reach local content requirements.

After 2004, tax and customs tariffs were simplified and reduced. But whilst relatively significant trade policy shifts occurred, there were only minor modifications to pricing and subsidy policies in the automotive sector (El-Haddad et al., 2017; Loewe 2013). In line with Egypt's WTO commitments, tariffs were cut to 40 percent, except for vehicles with engines greater than 2000cc. Tariffs on trucks and components were also reduced. Nevertheless, effective rates of protection on assembly remained high. In 2004, there were no less than 29 assemblers of cars and commercial vehicles in Egypt. Given the modest size of the Egyptian market and very limited exports, this meant that volumes were extremely low, with no scope for the competitive

³ Which amended and supersedes previous presidential decrees 351/1986 and 304/1989.

manufacture of parts. However, the component industry continued to be protected by local content provisions, particularly Presidential Decree 429. However, a wave of cheap imports beginning in 2004 would undermine the position of the industry.

India: The early years and the launch of the Maruti 800. India had little capability in auto production at the time of independence in 1947. There were some joint venture initiatives with foreign companies in the passenger car segment, with Hindustan Motors (HM) producing cars in association with General Motors and Premier Ltd with Fiat. Neither of these survive in the contemporary Indian market.

By the mid-1950s, India had decided to adopt the model of a centrally planned economy based on indigenisation and import substitution. The Indian Tariff commission of 1957 discouraged auto and spare parts imports, by imposing very high duties. Production was also severely restricted with industrial licences being provided for production, usually to politically connected firms. Protectionist policies in this period proved to be a mixed bag, with some policies encouraging learning and others stymieing growth. Growth in the sector at this time, especially in the passenger car segment, was driven not by upgrading and learning, but by the capture of the licences and protection from international competition.

HM, which was owned by the business house of the Birlas, and Premier owned by industrialist Walchand Hirachand, were both close to different factions of the ruling Congress Party and the protection benefited them immensely. By the 1960s, India was producing 40,000 vehicles annually, but these were of very low quality and hugely expensive. The protected sector became an oligopolistic market, with very little pressure to improve productivity, as politically connected auto firms knew the duration of protection was likely to last a significant period. Despite this, however, the announcement of the 'progressive manufacturing obligation' in 1953 by the government to promote indigenisation in manufacturing in the sector did lead to indigenisation levels of 80 percent by 1970.

By the 1980s, the southern state of Tamil Nadu had also developed an auto components sector that managed to grow, despite these strictures. This was largely due to the presence of companies like the TVS Group and Rane, which were supplying to a large auto cluster producing tractors and commercial vehicles. These component companies developed due to a specific configuration of business–government relationships based on close political links between local entrepreneurs and key central ministers from the state in Delhi during the licence permit period (Roy, 2013). However, even by the mid-1970s, there was no indication that India would emerge as a global small car hub and leading vehicle manufacturer at the beginning of the 21st century. The domestic sector essentially consisted of one auto maker, Hindustan Motors (HM), which belonged to the politically connected Birla family. It required a significant break in the status quo of prevailing state–business relationships for this to happen.

The auto sector was targeted for modernisation by government policy in 1980 and this culminated in the formation of a joint venture between Maruti Udyog, a public sector company, and Suzuki from Japan, which was then mainly a motorcycle manufacturing company. A number of larger international auto players had been approached by the Indian government, but none accepted. Suzuki, however, sensed an opportunity in the ex-post rents that could be derived from the protected domestic market.

The initiative was also given complete support by the Indian government, because this was a 'pet' project of the then prime minister's younger son. This meant elite interests were summarily overlooked, despite the strong political connections of the local business families, who were the car manufacturers and the small engineering (auto components) lobby that was powerful locally in Delhi, where the plant was to be located.

Equally, the foreign investor was compelled to be productive, as it had no links with the domestic political economy and therefore had to deliver results. According to Khan (2011), this combination led to an 'incentive compatible' financing arrangement that did not require the strong centralised bureaucracies needed to monitor and enforce industrial policy subsidies. Given the relatively weak enforcement capacities of the Indian state, the fact that both the incentive and compulsion to upgrade and be profitable were organically part of the financing arrangement, rather than requiring state intervention, ensured its success.

An example of how successful this arrangement was, can be gauged by the fact that the government had asked Suzuki to ensure 70 percent non-company value addition, of which 60 percent had to be locally sourced. In response, the Japanese company trained local auto component manufacturers to come up to speed with its own quality requirements for components. By the 1990s, Suzuki had captured 70 percent of the domestic market in India, effectively side-lining the hoary Ambassador car that was the mainstay of Indian roads. The company (now called Maruti Suzuki) had also helped foster a significant supply cluster in the region around Delhi.

South Africa: The protection phase and the Motor Industry Development Programme. The early development of the South African 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 a large number of (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.

In line with prevailing import substitution policies, the first in a series of local content programmes was introduced in 1961. Net local content rose rapidly, reaching approximately 52 percent by mass by 1971, which marked the end of Phase II of the programme. In later phases, the local content requirement (on a mass basis) was

raised to 66 percent. 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.

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 percent (100 percent ad valorem plus 15 percent surcharge).

Phase VI came in for heavy criticism, with frequent changes adding to the atmosphere of uncertainty (Black, 1994). In particular, there was 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. While all stakeholders were able to agree on the basic architecture, there were protracted and sometimes acrimonious discussions on the actual levels of these policy parameters, such as the extent of the duty phase down for vehicles and components. The most contentious issue was whether to introduce specific industrial policy measures to encourage higher model volumes. Due to intense lobbying pressure from the assemblers, this was not accepted by government.

The first democratic elections in 1994 were followed by the introduction of the Motor Industry Development Programme (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 up to the world and tariffs were being liberalised across the board. In the auto sector, import-export complementation enabled assemblers to use credits earned by exporting to offset duties on imported components. Thus, declining nominal protection on vehicles was to a large extent being 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 way below minimum efficient scale. So a key objective of the MIDP was to increase the volume and scale of production, through a greater level of specialisation in terms of both vehicle models and components. This was partly successful, but nevertheless

levels of local content in domestically assembled vehicles declined slightly, as a result of the effective decline in protection on the component sector.

Turkey: ISI and the shift to export-oriented policies in the 1980s. The automotive industry has been a showcase of import-substituting policies in Turkey since the late 1960s. It was identified as an engine for growth and strongly promoted in the First Five Year Development Plan (FYDP) from 1963 to 1967 (Yucel, 2015). The government wanted to ensure that firms, which were mainly assembling vehicles from imported parts, would increase domestic content. This was a key objective of the Assembly Industry Order of April 1964. Turkish automotive companies were jointly owned and managed by domestic investors and MNCs and produced poor quality products with outdated technology.

Industrialists as an interest group have heavily influenced the trade and industrial policymaking process in Turkey since the 1970s. Even after the country decided to move from an import-substituting strategy towards an export-oriented growth strategy in 1980, key import-competing sectors were able to slow down the trade liberalisation process using their influence on policymakers.

In January 1980, the Demirel government announced a new macroeconomic stabilisation package. Turkey finally decided to take the route that had been suggested by the IMF and the World Bank in the late 1970s and abandoned failed import-substituting policies, replacing them with an export-oriented growth strategy. The prevailing political atmosphere impeded implementation of the macroeconomic stabilisation package, but in September 1980, the military overthrew the elected government and took power. They supported the economic policies of the Demirel government and these developments ensured not only the implementation of the macroeconomic stabilisation package, but also the new export-oriented growth strategy. The strategy had two main pillars. The first was export subsidies; the second was to gradually liberalise imports (Togan 1994).

The increase in automotive imports in the first half of the 1990s forced the automotive manufacturers to undertake new investments and transfer production technology. Quality improvements helped exports of domestically produced cars, light commercials and parts approach the \$1 billion mark by 1996. Despite this increase, the trade deficit for the industry reached an all-time high of \$1.6 billion in the same year.

Along with the steadily increasing imports, total output increased from 146,000 units in 1989 to 453,000 in 1993. Even though the 1994 crisis took a heavy toll on output, the industry was able to attract FDI, perhaps thanks to the Turkish aspirations to become a member of the EU and the finalisation of the CU agreement. Interestingly, the presence of a bureaucracy biased towards the protection of domestic firms worked as a level of informal compulsion in the Turkish auto sector.

At the time of the CU agreement, the Turkish investment environment was not a level playing field for all investors. Foreign investors found it quite difficult to effectively operate within the bureaucracy, which was at least covertly nationalistic, as well as capable. Politically connected domestic firms could provide the 'protection' that MNCs needed in their interaction with the local bureaucracy. This led multinationals to take a domestic partner which could assist in minimising bureaucratic barriers to entry. All automotive firms that were in operation in 1996 were joint ventures of foreign MNCs with domestic partners.

Comparative assessment. This first phase of policies to foster the auto sector was protectionist across all our comparator countries. Also notable were the levels of discretion provided to large capitalists or factions within the ruling coalitions that were in charge of the state-owned auto companies. As mentioned previously, discretionary rents can also be formal and legal. However, they are usually granted to those with strong political links. This is true especially of the Indian and Egyptian cases. The closer and more collusive the connection (for instance, political support or funding in return for discretionary rents), the greater was the discretion. For instance, in Egypt's case, NASCO was an important source of rents for the military in the later protectionist period.

The net outcome of such rents is not always negative. At least in the case of South Africa, India and Turkey, these policy rents led to levels of capability development that allowed their respective auto sectors to withstand the global integration during the later liberalisation phase. This was linked directly to the level of compulsion that ruling coalitions were able to enforce on the auto firms, as well as the technological capability of the entrepreneurs.

Most of the auto firms in our case study countries had moderate levels of capability alongside maintaining close links to powerful factions within ruling coalitions. As a result, with the exception of Egypt, they were able to develop at least second generation capabilities in the sector, though there was little innovation in design and development. The compulsion to innovate that was apparent in the benchmark developmental state model best exemplified by South Korea and Taiwan was absent, given the weakness of the ruling coalitions in our case study countries when compared to the former group. This limited the development of the sector, but nonetheless allowed for moderate capability development, with Egypt lagging the most in this respect.

With regard to capability development in each of the phases, the Turkish auto industry was most successful, in large part helped by the compulsions of decreased protection, due to the customs union. The players who were more serious upgraded their capabilities in order to stay competitive, even though post the customs union most of the Turkish players operated as joint ventures. In the South African case, apartheid turned out to be the explanatory variable for the downturn in the productivity growth of the industry. However, policies to encourage FDI in the post-

apartheid years were successful, as they built on the existing capabilities of the sector.

In the case of both India and Egypt, the collusive state–business relations did not set up the industry for capability development. There was no attempt at disciplining and the competitive compulsion in the Indian auto sector only emerged after the Suzuki joint venture was set up. However, the initial years of protection had led to the development of some capability in the sector that Suzuki could make use of. The counterfactual in the Egyptian case is what the trajectory of the sector could have been if some exogenous variable (like becoming part of a customs union or the entry of a significant and capable player like Suzuki in a protected market) had been a contributory factor. The impending future opening up of the sector comes at a time when the country will be unable to protect its (uncompetitive) domestic industry, unlike in the case of India, where the auto sector was able to move towards the competitiveness frontier before it joined the WTO.

3.2. The liberalisation years: Discretionary rents gradually replaced by formal lobbying

The liberalisation phase started in some countries in the 1980s and in others in the 1990s. A more open international trade architecture was spurring auto companies from developed countries to expand manufacturing bases in developing countries to service increasing demand and make use of lowercost labour. Countries which had been able to develop a moderate level of capabilities in the sector managed to attract FDI and develop exports. The development of indigenous auto industries, however, remained elusive in most cases.

State–business relations were still very important in this phase, as there was significant opposition to opening up by some firms, like HM in India. In the case of Egypt, liberalisation in the sector took place while making sure NASCO remained unaffected. However, pressure from a few politically connected non-productive firms was never going to be enough in the changing international political economic environment, which was increasingly being dominated by the WTO’s multilateralism or by regional trade agreements.

Importantly, too, given the increased technological capability of other firms in the sector and the consequent productivity-led compulsions, many firms welcomed liberalisation. These firms, close to the competitiveness frontier, mostly existed as successful joint ventures, as in Turkey, or merged with foreign auto makers. In India, a parallel trend of successful indigenous auto firms, both in passenger cars and in commercial vehicles, was beginning to take shape. In all of these developments, industry associations played a key role in lobbying respective governments and this marked the move towards a formalisation of business–government relations in the sector. In South Africa, for example, the National Association of Automobile Manufacturers of South Africa (NAAMSA), as a well established and powerful

federation, through its formal participation in policy processes remained influential within an overall trajectory of greater liberalisation.

More recently, greater technological complexity and maturity have also led to significant changes in state–business relations and have meant that a level playing field is in the interest of all players. This is consistent with the fact that, as sectors mature in terms of technology and gain competitiveness, profits are made from

Table 4: Summary of developments during the liberalisation phase

	Policy measures undertaken	Political economy	Outcomes
Egypt	Some liberalisation, but also lack of long-term strategy. Attempts to restore protection in face of Euromed agreement.	More influential role by elite business leaders. Egypt joins WTO in 1995. Rearguard action by domestic interests.	Failure to develop significant exports and limited FDI. Industry in weak position to compete with growing import competition.
India	High protection maintained, together with export support.	Powerful domestic players emerge.	Development of strong cluster with large-scale domestic and export production.
South Africa	Gradual phase down of tariffs, together with production and investment subsidies.	Strong influence by NAAMSA, but within formal policy process parameters.	High level of international integration and growing imports. Low levels of local content.
Turkey	Customs union with EU.	Growing influence of MNCs.	Integration into EU on favourable terms.

participating in global or at least globally integrated markets. At low levels of technological capability, firms in emerging sectors require more discretionary rents to survive. As outlined earlier, the key is how much of this is used for productive purposes, even in situations where rent capture does take place. In essence, the total outcome is the significant statistic, not the magnitude of the rent or rent-seeking costs (Khan 2011).

Hence state–business relations are still very significant, but have evolved into formal industry lobbying as the nature of the sector has changed in developing countries. Given that MNCs are also now part of the sectoral political economy in developing economies, the role of discretion is limited.

Egypt: The liberalisation phase and attempts to restore protection. The opening up of the Egyptian economy to imports beginning after the turn of the century

coincided with a significant shift in Egypt's political economy landscape, in which the private sector began to exert increased influence on the country's political system. By the early 2000s, informal relationships between holders of political and economic power initially established in the 1970s under Sadat's policy of economic liberalisation began to evolve and take the form of a more rules-based system, as a number of the country's elite business leaders began to take on positions in Egypt's political institutions. This transition to a system based on formalised relationships between business and politicians was led primarily by Gamal Mubarak, the son of the former president. In 2002, a new body within the ruling National Democratic Party (NDP), known as the Policies Committee (PC), was established, whose purpose was to manage and direct a new wave of fiscal and economic liberalisation reforms (Kandil, 2012). Most members of the PC rhetorically favoured economic liberalisation reforms.

In 2004, Egypt also entered into the Euro Mediterranean Agreement (Euro-Med), a free trade agreement with the EU. The agreement stipulated gradual annual reductions in customs duties across a number of sectors. Customs duties on commercial and passenger vehicles being imported from the EU were scheduled to decline to zero by 2019. The agreement posed a clear threat to domestic assembly and would also undercut the sales of assemblers of non-European brand vehicles, including GB Auto, the Mansour Automotive Company and others.

Foreseeing the threat of imported vehicles from drastic liberalisation, the government provided export subsidies via the Export Promotion Fund, starting in 2010. In 2014, the total export subsidy for car components was \$19.6 million on exports of \$270 million, which accounted for 29 percent of total engineering sector export subsidies.⁴ Support was also provided for worker training⁵ and supplier development. Exports grew, but only to a small share of total output.

With the rapid reduction in tariffs, imports have risen rapidly. In 2004, 62 percent of the US\$1,750 million worth of vehicles sold in the domestic market were imported, an increase from 52 percent just two years earlier. By 2013, and assisted by the appreciation of the Egyptian pound, imports reached 70 percent of all domestic sales.

The prospect of zero tariffs by 2019 under the Euro-Med agreement posed a formidable challenge for Egypt. While many assemblers could reconstitute themselves as distributors in such a scenario, doing so would make them less profitable and would remove any remaining hope for the survival of the industry. In May 2015, Daimler, which produced Mercedes passenger vehicles, announced the withdrawal of its 26 percent stake in its local assembler, the Egyptian German

⁴ Authors' calculations, based on unpublished Engineering Export Council of Egypt (EEC-EG) data.

⁵ Support was provided through the Industrial Modernisation Centre within the Ministry of Industry and Trade, which is responsible for Egypt's Industrial Development Strategy (Loewe, 2013).

Automotive Company (EGAC), thereafter ceasing all local assembly operations in Egypt.⁶ Industry experts warn that other domestic assemblers could follow

At the same time, an industry advocacy group known as the Egyptian Automotive Council, chaired by Chairman of the Bavarian Auto Group, Farid Al-Tobgi, was created to address the threat of reduced protection (Al-Boursa, 2015). Membership in the organisation includes many prominent assemblers and component suppliers. Among the proposals put forward by the industry was a new 30 percent tax on all imported vehicles, in addition to increasing lower-bound local content requirements for vehicles assembled domestically from 40 percent to 58 percent (Al-Ahram, 2015). This was finalised in the form of a new draft law submitted to the Ministry of Finance in September 2015. A further indication of this trend is that in 2014, Egypt did not implement the mandated 10 percent reduction in tariffs on vehicles imported from the European Union, following negotiations between the ministry and their EU counterparts.⁷ If the draft law is approved, it will create a series of new non-tariff trade barriers that would protect domestic Egyptian stakeholders against imports, undoing the effects of the tariff reductions implemented after 2004 and negating Egypt's obligations in terms of the Euro-Med agreement.

Another powerful non-tariff trade barrier introduced recently to protect the industry has been a policy of 'indicative pricing' – or, in simpler terms, arbitrary pricing – adopted by the Egyptian Customs Authority (ECA) in September 2014, and imposed on CBU vehicles imported specifically by German brands operating in Egypt. In the case of Egypt's automotive sector, 'indicative pricing' has come to refer to instances in which the ECA has forced licensed Egyptian vehicle importers of CBUs to pay additional duties on vehicles being imported through customs. Victims of indicative pricing believe the policy is a means to offset the effects of the Euro-Med agreement, which, if implemented, would make CBU imports of German brands significantly more competitive and threaten the market share of a number of powerful domestic stakeholders, in particular local assemblers of both German vehicles and other foreign brands – such as the Korean Hyundai and American Chevrolet brands assembled and distributed by GB Auto and the Mansour Automotive company.

Since 2004, Nissan has been the only fully foreign-owned automotive venture in Egypt. The limited amount of FDI has been aimed at meeting domestic demand, rather than using the country as a regional hub. This is the case despite the fact that Egypt is party to two other regional free-trade agreements in addition to the Euro-Med agreement, namely the Greater Arab Free Trade Agreement (GAFTA), joined in 1997, and the Common Market for Eastern and Southern Africa (COMESA), joined in 2000.

⁶ Egypt Independent, 25 April 2015.

⁷ Interview material, 31 October 2015. Ahmed Fekry Abdel Wahab, chairman and managing director of the FAW Industrial Group; board of directors, Engineering Export Council of Egypt.

India: Liberalisation of licensing requirements and the maturation of the sector.

Between 1991 and 1993, the Indian government delicensed all automotive segments in the country and today the sector is open to 100 percent foreign ownership. By this time, Maruti had long overtaken HM and Premier and established itself as the leading vehicle manufacturer in the country. Maruti's presence was key to ensuring India's success in the sector post liberalisation. In addition, large-scale investments by Hyundai mirrored some of Maruti's strategies related to its supplier base. This in turn was driven by India's large and rapidly growing market, combined with high effective tariff rates and localisation policies. Importantly also, the years of protection had led to the emergence of technologically capable firms like Tata Motors, Mahindra and Mahindra, Bajaj, Eicher, TVS and Ashok Leyland.

This reflects the fact that once a sector reaches relative maturity – and this is defined in terms of domestic competitiveness due to FDI or presence in the export market – competition becomes both compulsion and incentive (Roy 2013). The leading companies in the motorcycle (Hero) and commercial vehicle (Tata and Mahindra) markets are indigenous firms. The passenger car market is dominated by FDI, although the two Indian firms (Mahindra and Tata) rank third and fifth in market share. In the case of foreign manufacturers, auto makers like Nissan, Volkswagen, General Motors and Ford are using India's relatively highly skilled but low-wage workers to produce small cars for export.

Some of this is, of course, to do with the high duty structure on vehicles and lower component tariffs. The current tariff structure is skewed towards the OEM sector, though the employment generation possibilities of the auto component sector are high too. Indian firms in the auto component industry, like TVS, Sona, Rane, Bharat Forge and Motherson Sumi, were helped by the fact that India had significant local component requirements in the first few years after liberalisation. These first tier suppliers were able to make use of the protected markets and technology transfer from Korea and Japan, while also investing in their own capability development (Tewari, 2001; Aya and Siddharthan, 2007). For instance, by 2007, Hyundai was already sourcing 70 percent of its components from local suppliers in Tamil Nadu.

Politicians from Tamil Nadu played a key role in attracting Hyundai, one of India's biggest auto investments, to the state. By the time Hyundai was investing in India in the late 1990s, the Congress party that was responsible for the Suzuki investment was in opposition. An industry minister hailing from Tamil Nadu and part of the new coalition government was instrumental in attracting Hyundai, an arch rival of Suzuki in the small car (800 to 1000 cc) market.

The minister saw Suzuki as a beneficiary of Congress largesse and therefore used the opportunity to provide Hyundai with incentives that would ensure it invested in Tamil Nadu. It certainly helped that the state already had a developed auto and auto components sector. Training and upskilling were other key reasons why the Indian auto and auto component industry were successful in attracting FDI and in this,

industry associations, especially the Confederation of Indian Industry, played a critical role.

More recent policies introduced by governments recognise the technological complexity of the sector globally. The first national-level policy package for the sector was announced in 2002. In 2006, the then Indian government launched the Indian Auto Mission Plan (IAMP), under which it launched programmes like the National Automotive Testing and R&D Infrastructure Project (NATRIP) to support the auto industry in making India a global hub for the sector. NATRIP provides international standard testing and homologation facilities for the Indian automobile industry.

The current government has also provided a slew of incentives for 'green' cars, though the market is as yet very limited in India. NATRIP could prove to be exactly the sort of policy measure the sector now needs at the higher end of the auto value chain. At the other end, however, India's auto component makers are now finding it very difficult to achieve cost efficiencies, because of the lack of skills among second- and third-tier suppliers. Given that most firms in this segment are in the highly fragmented unorganised sector, their bargaining power with ruling coalitions is lower than that of the large auto firms. As a result, their ability to politically bargain for productivity enhancing rents is limited.

The auto sector has a mix of both MNCs and local producers and there is a fairly high level of export competitiveness among both foreign and local players. As a result, the auto sector is now one of India's 'sunrise' industries and has evolved into a formal rule following sector in the conventional sense.

South Africa: Growing international integration and problems of supply chain development. 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 have grown at a more rapid rate than policy makers expected, rising from \$4.5 billion in 1995 to \$11.9 in 2015 (AIEC, 2016). The nominal tariff on light vehicles, at 25 percent, was still reasonably high and does 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 percent. But they derived a growing proportion of their revenue from the importation of vehicles (and components) and much of the strategic behaviour of firms was, therefore, directed at optimising their duty position. This was reflected in their firm-level strategies, as well as interventions to influence government, where they sought to ensure that mechanisms which allowed them to rebate duties based on exporting were only phased down very slowly. From 1996 to 2011, the average level of duty

paid by vehicle manufacturers was only 0.6 percent of the total value of their imports of vehicles and components over this period.⁸

The growth of automotive exports has been one of the most striking features of the development of the automotive industry under the MIDP. At the inception of the MIDP in 1995, they amounted to \$1.2 billion and by 2015 had reached \$12.4 billion. It is clear that the MIDP's 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. Since 1994, there was a process of investment or reinvestment by MNCs and all seven light vehicle producers⁹ are now 100 percent foreign owned. At least 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.

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 in turn not only to expand their own exports, but also to offset import duties on cars and parts. While trade and industrial policy have provided significant support, especially for exports, there have also been substantial improvements in productivity. However, this still lags behind countries such as Thailand in terms of manufacturing costs (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 Automotive Production and Development Programme (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., 2014). The recently developed 2035 Masterplan sets the ambitious objective of 60 percent local content, a substantial increase on current level of under 40 percent. It remains to be seen how this can be achieved in a policy environment which provides little protection for the component sector.

In real terms, there has only been a modest increase in investment in vehicle manufacture, apart from the boom in 2005-2006. However, a potentially significant development has been the investment by Beijing Automobile International Corporation (BAIC) building a new assembly plant in the Eastern Cape.¹⁰ An interesting aspect 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

⁸ Calculated from unpublished customs data.

⁹ These are Toyota, Nissan, VW, Mercedes, BMW, Ford and GM. The latter has recently sold its plant to Isuzu.

¹⁰ See Arnoli (2018).

not yet clear, although it is probably seen by the investor as a way of ensuring government cooperation. The South African government has increasingly been pressing for (local) black ownership in the sector, in terms of its Broad Based Black Economic Empowerment (BBBEE) policy. This has so far been strongly resisted by multinational vehicle producers, which have suggested alternative measures, including black ownership in the supply chain.

Turkey: The customs union with the EU and its impact. The customs union (CU) agreement between Turkey and the EU that went into effect in 1996 was a critical turning point in the Turkish policymaking process (Togan, 2000). The agreement limited the power of domestic interest groups to influence the trade policy and forced domestic vehicle producers to fully integrate their production units with global automotive supply chains.

There was of course significant opposition to the implementation of the CU. Labour unions claimed it would lead to job losses in many sectors, but their political power had been weakened by the labour laws that were enacted after the 1980 coup. The automotive industry lobbied strongly against it, but once they realised that there was no way they could block the agreement, they argued that the tariff phase down should be phased. The industry was, therefore, listed as a 'sensitive' sector, subject to a five-year transition period, during which the tariffs on imports from third countries would be significantly higher than the EU average customs tariffs on cars imported from third countries (which was fixed at 10 percent). In addition, and perhaps more importantly, the Turkish government secured the agreement with the EU to block imports of used cars from the EU for 10 years.

Nevertheless, it was clear that the models introduced in the first half of 1990s would not be able to compete with high quality cars imported with very low tariffs. The vehicle producers responded by increasing investment, which rose from \$220 million in 1996 to \$650 million in 2001 and \$1370 million in 2014. Installed capacity increased steadily, from 300,000 units in 1984 to nearly 1.8 million units in 2015, with production reaching 1.4 million units in that year.

In the mid-1990s, with the imminent prospect of the CU agreement with the EU, Japanese and Korean companies (Honda, Hyundai, and Toyota) started investing in Turkey in joint ventures with Turkish industrialists or, as in the case of Isuzu, expanding existing joint ventures.¹¹ Currently, six passenger car producers have foreign participation, four of which are majority foreign-owned.¹² There are eight other companies (two of them foreign-owned) producing trucks, pickups, buses, minibuses and tractors. Thus, the automotive industry has become dominated by subsidiaries of multinational corporations. The sector has also benefited from the existence of a strong domestic industrial and supplier base (Wasti et al., 2006). The component industry remains dominated by smaller domestic firms, and the majority of these

¹¹ Of these four MNCs, Toyota and Honda decided to become the sole owners of their production units (and Hyundai increased its share to 70 percent) once they decided to target their production towards the European market rather than the domestic market.

¹² Home countries: EU (2), Japan (2), United States (1), and Korea (1).

have not been integrated into global value chains. But there has also been substantial inward investment, mainly taking the form of joint ventures, by major component MNCs such as Robert Bosch, Valeo, Delphi Packard, and Mannesmann Sachs.

Turkey has offered significant incentives for R&D and the automotive industry has been one of the leading industries in responding to these incentives. While initially their R&D efforts mostly focused on simple development activities, over time, as engineers gained more experience, many automotive firms moved part of their international design activities to Turkey. By 2014, the automotive industry accounted for 18.9 percent of total R&D expenditures undertaken by the Turkish private sector. Two leading automotive manufacturing companies, Ford Otomotiv and Tofas, employed 1,512 and 700 employees, respectively, in their R&D centres.

Comparative analysis. An analysis of the liberalisation phase of the auto industry in our case study countries suggests that, for the most part, the industry was able to weather trade integration, but at the cost of giving up on creating an indigenous auto sector. India remained an exception, largely because the sector liberalised much later than the others, allowing for significant scope for learning under protection. Its very large domestic market was also a contributing factor.

In the case of the other countries, liberalisation wrought significant changes too. In Turkey, joint ventures between well connected and productive local players and globally powerful MNCs were the response to the CU. In South Africa, the domestic industry became completely dominated by MNCs. In Egypt, however, the sector, despite protection even in a liberalised regime, was marked by stagnating productivity, largely as a result of adverse state–business relationships in the sector, together with economic and political instability. Decades of protectionism, which has been neither performance-based nor finite, have left the country’s automotive sector under-developed and largely incapable of competing internationally. The recent success of Morocco in establishing a large export-oriented auto industry in north Africa provides a telling contrast.

What the analysis in this section clearly outlines is how, despite having similar protectionist policies, the trajectories of the auto sectors in each of the case study countries have varied greatly. India and Turkey have performed better than South Africa and Egypt in this regard, with India perhaps the most successful of the four, given that it has a sizeable and successful indigenous auto sector. Success in the contemporary phase is partly contingent on how rents were disciplined in the first phase, rather than simply on the policies of protection themselves.

What seems significant is the presence of a strong productive domestic lobby, in the case of both Turkey and India, which mobilised for protection in order to upgrade their technological capabilities. In Egypt so far, evidence seems to suggest that domestic players have mobilised often to protect their interests, but have not used this opportunity to improve competitiveness. The South African case seems to fall somewhere in between. MNCs had lobbied in their interests, for instance to limit any

need to raise local content. Turkey asked for and got substantial protection from the government in terms of imports of second hand cars and a 'holiday' in terms of lowering tariffs before joining the CU. The Indian government still does not allow import of used cars and duties on vehicles remain high.

4. Conclusion

The common thread running through all our comparator countries is a history of protection followed by greater openness to investment and imports. All countries had accorded priority status to the sector and have therefore tried to maintain some protection and at the same time develop exports. This paper, therefore, represents a comparative study of the management and enforcement of rents and how this process helped, or hindered, the process of integrating into the highly globalised contemporary auto sector.

The development of indigenous capability is, in large part, a result of the initial rent management capabilities of the ruling coalition. Where the distribution of power between the ruling coalition and capitalists was such that the rents were used for learning and developing capability, for instance in Turkey, India and South Africa in varying degrees, local industry developed. In Egypt's case, the sector was characterised by capture, where, despite long periods of protection, the sector has not become globally competitive. And the Euro-Med free trade agreement is unlikely to bring any benefits to the sector, given that further integration will make survival difficult for many firms.

In all our cases, firms were producing at well below optimal scale and using outdated technology to manufacture inferior products. Because optimal scale is nearly always large in comparison to domestic market size, exports have been absolutely critical. And once domestic industries had accumulated skills and capabilities, they required significant foreign investments in competition with other locations. The state has had to balance the interests of vehicle assemblers and component suppliers, for instance by seeking to maximise local content, but at the same time ensure access by assemblers to components at world prices. Maintaining policy stability and certainty has been important, as has the maintenance of a suitable investment climate, including skills and infrastructure.

Of course, country-specific conditions and market size are important factors. India's large and dynamic market virtually ensures large-scale inward investment and has also allowed it to maintain relatively high levels of tariff protection, while developing a competitive industry. Turkey's physical location adjacent to the EU and sizeable market has made it an attractive location for investment. South Africa has the disadvantage of being remote from major markets and Egypt's small domestic market is not particularly attractive to MNCs.

However, the size of the market assumes critical importance only after local capability and competitiveness have developed enough for foreign firms to enter. And

even if the size of the market is small, countries can still access foreign markets. South Korea had a small domestic market, but used disciplining to achieve competitiveness in foreign markets. Nothing changed in the size of India's domestic market in 1980, when Suzuki invested in India. And even in the liberalisation phase of the 1990s, India's per capita income and the size of the middle class population were not high enough to warrant high levels of FDI in the sector. But, given that a competitive industry had developed thanks to capability development in the protectionist years (auto components in Tamil Nadu, etc.), and later Maruti Suzuki, the sector became competitive enough to produce at low costs with competitive quality.

The development of a home sector in the initial protectionist phase becomes even more critical if we are to take the case of an indigenous auto sector as a benchmark of success in the sector. Only India and China (among late developers) have so far managed this, though India's import intensity is higher in the sector. Mexico, Brazil, Turkey and Thailand have successful auto sectors, but with almost no input from local OEMs, though in Turkey powerful local firms have joint ventures with MNCs. This has to do with the particular political settlements (enforcement capability) in each country, which allowed rents to be disciplined in very different ways or not. Malaysia might have succeeded with the Proton, but Mahathir's rent management capabilities were weak and the project never became competitive.

Of course, markets matter for a small country and it can be difficult to develop an auto sector with a small market. However, Slovakia, Morocco and Poland buck that trend, as they are adjacent to major markets. But, equally, historical disciplining mattered for capability development too. Hence markets become key in order to grow the sector, once initial capability has been established. In fact the trajectory then becomes self-fulfilling.

Of all our case studies, Egypt was least able to develop such capabilities. The automotive industry in Egypt has a long history of protection, but was unable to establish significant scale or a strong supplier industry. Liberalisation took place without any coherent policy to promote exports and in a market which, while growing rapidly, remained small in international terms. Not surprisingly, assemblers and component and suppliers are seeking protection for themselves, in the form of more stringent local content requirements and additional import taxes on CBU vehicles. Protection might buy the domestic sector time to upgrade the quality of their products. However, the domination of the industry by a few powerful individual firms with extensive political connections has meant that there is little compulsion to develop into a competitive industry.

India was an unlikely candidate to be successful in auto making, given the disastrous early history of the sector. Learning rents were captured by politically powerful firms and the infant industry did not grow up. Despite this, pockets of capability were developed in this period of *dirigiste* growth which could be leveraged by indigenous firms as the sector gradually liberalised. Technology transfer from Japanese (and

later Korean) firms played a big role in developing the sector. However, the structure of the rents in the later period was such that they did not make demands on the enforcement capability of the state. Firms, especially indigenous ones, had become competitive enough to use them to close the competitiveness gap with the frontier, rather than capture them. Challenges still exist for the sector, as the next growth spurt has to be delivered from the high value added segment of R&D and the labour-intensive, but equally critical, segment of second- and third-tier component manufacturers.

South Africa has been only partially successful in restructuring its automotive industry in terms of its own national objectives. Economic theory would attribute growing exports by multinational corporations from a developing economy, such as South Africa, to efficiency-seeking FDI targeted at taking advantage of the comparatively low-cost structure of the developing economy. Yet this was patently not the case and the boom in exports evident over the period of the MIDP was largely driven by the import-export complementation scheme, and hence by the strategic intent of exporting firms to earn sufficient import credits to offset their duty exposure in the domestic market. This does not mean that the South African automotive industry did not improve its competitiveness under the MIDP. The evidence is unequivocal in this regard. However, modest rates of investment and relatively low local content are revealing about the long-term strategy of firms and indicate that the country has not fully established itself as a competitive regional production hub.

The development of the Turkish economy since the early 1990s shows that, despite the macroeconomic policies and conditions inhibiting investment and growth, certain industries like auto have performed very well. This is largely because the country has had a long experience of production in the automotive industry and this helped develop a strong supplier base during the import-substituting industrialisation era of the 1960s and 1970s. It also seized the opportunities opened up by the CU, by investing in new product and process technology. Both the final product and supplier segments of the industry are well organised, and have established a shared vision of the future through organised dialogue within the industry and with the public sector as well.

Early growth in the auto sector in our four case countries was enabled by a specific configuration of mostly discretionary business–government relationships that were characterised by rents from protected markets. However, where these rents were used for productive purposes and the sector became globally competitive, MNCs were attracted to them, both for markets and in the search for competitive suppliers. As this evolution took place, the sector started becoming characterised more by rule following behaviour and formal state–business relationships manifested through industry associations and lobbying for sectoral incentives, as opposed to firm-specific ones. Even here, the push for more or less openness has been driven by the composition of the auto sector. In the case of Turkey and India, domestic firms still have enough leverage to dictate some of the terms in the sector. However, given the current architecture under the WTO, and the already mature and complex technology

of the sector, breaking into the increasingly concentrated industry is becoming more difficult for newly emerging producer countries.

References

- African Development Bank (2000)., *Egypt: Economic Reform and Structural Adjustment Programme, Project Performance Evaluation Report (PPER)*. Operations Evaluation Department (OPEV), 15 May.
- Al-Ahram (2015). مصر في المستهلكين السيارات بسعر مناسب لا: الهندسية الصناعات غرفة رئيس , 29 June. Available at: <http://gate.ahram.org.eg/News/688188.aspx>. (accessed June 2015).
- Al-Boursa (Arabic) (2015). "محاولة " : الطوبجي و .. للسيارات المصري المجلس" ندشن السوق قيادات "الشمس", 23 May. Available at: <http://www.alborsanews.com/2015/05/23/%D9%82%D9%8A%D8%A7%D8%AF%D8%A7%D8%AA-%D8%A7%D9%84%D8%B3%D9%88%D9%82-%D8%AA%D8%AF%D8%B4%D9%86-%D8%A7%D9%84%D9%85%D8%AC%D9%84%D8%B3-%D8%A7%D9%84%D9%85%D8%B5%D8%B1%D9%8A-%D9%84%D9%84%D8%B3%D9%8A%D8%A7/> (accessed June 2015).
- American Chamber of Commerce in Egypt (2011). *The Automotive Industry in Egypt – February 2011*. Cairo: AmCham Egypt Business Studies and Analysis Centre, Available at: <https://www.amcham.org.eg/publications/business-study/79/the-automotive-industry-in-egypt-february-2011>. (accessed June 2015).
- Arnoli, M. (2018). 'BAIC SA opens vehicle assembly plant at Coega IDZ' *Engineering News*, 24 July. Available online: https://www.engineeringnews.co.za/article/baic-sa-opens-vehicle-assembly-plant-at-coega-idz-2018-07-24/rep_id:4136 (accessed 14 May 2020).
- Automotive Industry Export Council. (2016). *Automotive Export Manual 2012*. Pretoria: AIEC.
- Aya, O. and Siddharthan, N. S. (2007). 'Industrial clusters in India: Evidence from automobile clusters in Chennai and the national capital region'. Discussion Papers. Chiba, Japan: Institute of Developing Economies-Japan External Trade Organization.
- Barnes, J., Black, A. and Duxbury, A. (2014). 'The Motor Industry Development Programme: What have we learned?' Paper presented at the International Conference on Manufacturing-led Growth for Employment and Equality, 20-21 May, Johannesburg.
- Barnes, J., Black, A. and Tekachanont, K. (2017). 'Industrial policy, multinational strategy, and domestic capability: A comparative analysis of the development of South Africa's and Thailand's automotive industry'. *European Journal of Development Research*. 29(1): 37-53.
- Benabedjil, N., Bounya, N., Layan, J.-P., Lung, Y. and Piveteau, A. (2015). 'Renault in Northern Morocco: The emergence of an automotive cluster in Tangier'. Paper presented at the 23rd International Colloquium of Gerpisa, 10-15 June, Paris.
- Black, A. (1994). *An Industrial Strategy for the Motor Vehicle and Component Sector*. Cape Town: University of Cape Town Press.

- Black, A. (2009). 'Location, automotive policy and multinational strategy: The position of South Africa in the global automotive industry since 1995'. *Growth and Change* 40(3).
- El-Haddad, A., Hodge, J. and Manek, N. (2017). 'The political economy of a sector in crisis: Industrial policy and political connections in the Egyptian automotive industry'. ERF Working Paper Series, No. 1112, Cairo: Economic Research Forum. Available: <http://erf.org.eg/publications/the-political-economy-of-a-sector-in-crisis-industrial-policy-and-political-connections-in-the-egyptian-automotive-industry/> (accessed 9 March 2020).
- El-Haddad, A. (2015). 'Breaking the shackles: The structural challenge of growth and transformation for Egypt's industrial sector', in FEMISA, *Structural Transformation and Industrial Policy: A Comparative Analysis of Egypt, Morocco, Tunisia and Turkey, Vol. 2 & 3*. European Investment Bank, pp 69-107. Available online: <http://www.eib.org/infocentre/publications/all/femip-study-structural-transformation-and-industrial-policy.htm> (accessed 6 March 2020).
- Humphrey, J. and Oeter, A. (2000). 'Motor industry policies in emerging markets: Globalisation and the promotion of domestic industry'. In J. Humphrey, Y. Lecler and M. Salerno (eds.), *Global Strategies and Local Realities: The Auto Industry in Emerging Markets*. London: Macmillan.
- Khan, M. H. (2011). *India's Evolving Political Settlement and the Challenges of Sustaining Development*. Mimeo. London: SOAS University of London. Available online: <http://eprints.soas.ac.uk/12844/> (accessed 6 March 2020).
- Kandil, H. (2020). *Soldiers, Spies and Statesmen: Egypt's Road to Revolt*. New York: Verso Press.
- Loewe, M. (2013). 'Industrial policy in Egypt'. Discussion Paper 13. Bonn: German Development Institute.
- Lung, Y. and van Tulder, R. (2004). 'Introduction: In search of a viable automotive space', in J. Carrillo, Y. Lung and R. van Tulder (eds.), *Cars, Carriers of Regionalism?* Basingstoke: Palgrave Macmillan.
- Roy, P. (2013). *The Political Economy of Growth under Clientelism: An Analysis of Gujarat, Tamil Nadu and Pakistan*. PhD dissertation, PhD Thesis, London: Department of Economics, SOAS.
- Tewari, M. (2001). 'Engaging the new global interlocutors: Foreign direct investment and the transformation of Tamil Nadu's automotive supply base'. Paper prepared for the Government of Tamil Nadu as part of the Center for International Development, Harvard University's Research and Advisory Project for the Tamil Nadu Government. Cambridge, MA: Centre for International Development, Harvard University.
- Togan, S. (1994). *Foreign Trade Regime and Trade Liberalisation in Turkey During the 1980s*. Avebury, UK: Ashgate Publishers.
- Togan, S. (2000). 'Effects of a Turkey–European Union customs union and prospects for the future', *Russian & East European Finance and Trade* 36(4): 5-25.

- Wasti, S. N., Kozan, M. K. and Kuman, A. (2006). 'Buyer–supplier relationships in the Turkish automotive industry'. *International Journal of Operations and Production Management*, 26: 947-970.
- Waterbury, J. (1983). *The Egypt of Nasser and Sadat: The Political Economy of Two Regimes*. Princeton, NJ: Princeton University Press.
- Yücel, F. (2015). *Cumhuriyet Türkiye'sinin Sanayileşme Öyküsü* (Industrialisation Story of the Republican Turkey). Ankara: Turkish Foundation for Technological Development Publication.

Appendix 1: Exchange rates with US dollar 2000-2016

	Official exchange rate per US\$, annual average			
	Egyptian pound	Indian rupee	South African rand	Turkish lira
2000	3.47	44.94	6.94	0.63
2001	3.97	47.19	8.61	1.23
2002	4.50	48.61	10.54	1.51
2003	5.85	46.58	7.56	1.50
2004	6.20	45.32	6.46	1.43
2005	5.78	44.10	6.36	1.34
2006	5.73	45.31	6.77	1.43
2007	5.64	41.35	7.05	1.30
2008	5.43	43.51	8.26	1.30
2009	5.54	48.41	8.47	1.55
2010	5.62	45.73	7.32	1.50
2011	5.93	46.67	7.26	1.67
2012	6.06	53.44	8.21	1.80
2013	6.87	58.60	9.66	1.90
2014	7.08	61.03	10.84	2.19
2015	7.69	64.15	12.75	2.72
2016	10.03	67.20	14.71	3.02

Source: World Development Indicators.

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