



Identifying Attractive Export Opportunities for Automotive Components to China



Department of Commerce
Ministry of Commerce and Industry
Government of India

ACMA

Automotive Component Manufacturers Association of India



November 2014

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Foreword

The Automotive Component Manufacturers Association of India (ACMA) has emerged as one of the foremost organisations in furthering the cause of the manufacturers of automobile parts and accessories in India and simultaneously, been the bedrock that has enabled the Indian automobile industry take giant strides in producing vehicles of international repute.

In a world that is becoming flatter by the day with increasing globalisation, the general consensus among the members of ACMA is to look beyond India's geographic frontiers and seek opportunities in international markets. India's competitiveness in terms of the technical and design capabilities of the manufacturers of auto components and the availability of technically skilled manpower should help such players stand in good stead vis-a-vis other global manufacturers.

China in this context is a paradox. It is both an opportunity and a threat. On one hand, Indian component manufacturers have been competing with Chinese products in Indian and global markets. On the other hand, China with its vast auto industry presents an opportunity for Indian suppliers. Presently, a study with the help of Avalon Consulting was commissioned to understand the intricacies - the buying behaviour, the market characteristics, the general macro-economic conditions, competitiveness of the Chinese auto component manufacturers and the like – and thereby ascertain the feasibility of venturing into the Chinese market. The publication has given credence to the intuition that most of us in ACMA have had for some time now and should form the basis for venturing into hitherto uncharted territories. This could very well be the nascent steps of Indian auto component industry becoming truly global.

Ramesh Suri
President,
ACMA

Harish Lakshman
Immediate Past President, ACMA

Deep Kapuria
Chairman-Globalisation & Past
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Rajeev Kher, IAS



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Message

The Government of India has given a renewed thrust to manufacturing in the country, exemplified by the Prime Minister's "Make in India" clarion call. While this new impetus, along with increasing inflows of FDI, is bound to enhance the manufacturing output in the coming months, it is also expected to reduce our unfavourable trade imbalance with China. In fact, India's trade deficit with China in the auto component sector currently stands at USD 2.8 billion, although recent macro-economic trends like rising labour costs in China have somewhat reduced its competitive advantage over India.

Needless to say, it is a very opportune moment for the automotive industry and all other stakeholders to identify and target focus areas and products that could be leveraged to help in bridging the trade imbalance. The exercise would simultaneously open up new market opportunities for an industry that is only expected to grow and help in building lasting relationships with one of the world's largest automotive markets.

I would like to commend ACMA and Avalon Consulting for their efforts in preparing this publication, the findings of which, I am sure, will give a definite direction to industry.

New Delhi
November 19, 2014


(Rajeev Kher)
Commerce Secretary



Message

I am pleased that ACMA is bringing out this publication on "Identifying Attractive Export Opportunities for Automotive Components to China."

This is an opportune time for bringing out a report that identifies niches in the auto component space where India can supply to China. The successful high-level exchanges this year have provided fresh impetus to expanding the substantive economic engagement between India and China. The visit of President Xi Jinping to India in September helped to further deepen economic cooperation. The importance attached by Prime Minister Modi and President Xi to scaling up and diversifying the economic relationship in a mutually beneficial manner is an encouraging sign for business in India.

The trade relationship today is important to both countries. India has emerged as one of the key markets for China. However, while the India-China trade volume has grown rapidly in the last decade and more, it has not been accompanied by the desired diversification of our value-added exports. Growing trade has instead burdened us with a large trade deficit in excess of US\$ 35 billion for three consecutive years. This is also reflected in the auto components space. Both countries have acknowledged that such a trading pattern is neither sustainable nor desirable for increasing mutual engagement.

This report is a positive step in identifying concrete export opportunities that have potential to find a market in China after assessing our relative competitiveness. This is the kind of practical exercise we need to undertake in other areas as well and I hope other industry associations will emulate ACMA's example.

I am confident that the thorough implementation of the recommendations in this report would be of value to the Government in boosting exports to China and to Indian companies contemplating a strategy for breaking into the Chinese market.

I laud ACMA for their efforts in bringing about greater versatility in Indian exports to China, and wish them luck in their endeavour to increase auto-component exports to China. I assure them of the Embassy's wholehearted support in this endeavour.

Ashok K. Kantha
Ambassador of India to China
November 19, 2014

Preface

China, today, is the largest auto market in the world, garnering a share of 26 % by volume in an ever increasing market. To further put things into perspective, the number of car sales in China is 7 times that of India, while the automobile production overall has increased at a CAGR of 6% over the last five years to touch 50 million in 2013.

Increasing labour costs in China, coupled with improving design capabilities and value additions by Indian auto component manufacturers present a very favourable opportunity for Indian Auto Component Manufacturers to explore the Chinese market and subsequently, gain a firm foothold by becoming a preferred Tier-I supplier to Chinese OEMs.

Keeping this in mind, Avalon Consulting partnered with Auto Component Manufacturers' Association (ACMA) to identify target customers and components with potential for export keeping parameters like the capabilities of the Chinese suppliers, requirements of Chinese OEMs, market growth, product pricing, familiarity with Indian suppliers, among others. The outcome of the publication resonates with the general perception that there exists a tremendous opportunity for Indian suppliers, across a diverse product range, to establish themselves in the Chinese market.

The scripting of this publication involved a combination of in-depth interviews with auto component manufacturers in India, OEMs, Tier-I suppliers, other auto component manufacturers and raw material suppliers in China and a thorough analysis of trade data, annual reports and published secondary data.

Sridhar Venkiteswaran
Executive Director,
Avalon Consulting

Acknowledgement

Our special gratitude goes to Mr. Harish Lakshman, Immediate Past President, ACMA; Mr. Ramesh Suri, President, ACMA; and Mr. Deep Kapuria Chairman-Globalisation & Past President, ACMA who have been instrumental in initiating this study and have enriched it with their valuable feedback. We wish to thank the ACMA Past Presidents and other Members of the ACMA Executive Committee who have reviewed and commented on this report at various stages.

We wish to express our sincere thanks to H.E. Mr. Ashok K. Kantha, Ambassador of India to China and his team at the embassy who gave us all the support as needed. We also wish to thank Mr. Rajeev Kher, Secretary and Mr. A.K. Tripathy, Joint Secretary, Mr. Sanjeet Singh, Director, Department of Commerce, Ministry of Commerce & Industry, who have sponsored the study and guided us well.

We would like to acknowledge the numerous Chinese respondents who have responded positively to our endeavor – belonging to OEMs and component industries. We would also like to express our admiration for OEMs in India who have shared their insights about the relative competitiveness of the two countries. We would especially like to thank ACMA IPO forum members who have shared their views and also put us in touch with their counterparts in China to take this initiative forward.

We would like to thank all members of ACMA and the auto component fraternity who have shared their valuable insights during the course of the study.

Last but not the least, we wish to express our gratitude to the ACMA secretariat for their support at various stages.

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Executive Summary

There are several macro-economic changes underway in China. This includes a focus on rebalancing the economy towards domestic demand, a gradual appreciation of the Yuan, gradual strengthening of its banking system and diversifying export base. All this will change the dynamics of its engagement with India – India's relative competitiveness will improve and Chinese investment in India will increase significantly.

The Chinese auto industry is the largest in volume terms and akin to having USA as our neighbour. However it is not a homogenous market – having 2 clear segments: MNC JVs and Chinese OEMs. In our view, the decision in case of foreign JVs is often taken at the global headquarters and there is a need to involve the global parent. However, there is a robust set of Chinese players across automotive segments in China, many of whom may be open to sourcing from India. Even if specific OEMs can be targeted within the Chinese market, the opportunity can be quite large. However, China also has a large and thriving auto component industry which despite losing competitiveness in recent times will continue to be a formidable competitor in the domestic market, especially in 'built to print' components.

Looking at the trade data of the two countries and feedback from OEMs and IPOs having experience in both geographies, we have identified specific export opportunities across identified components and OEMs in China, estimated at \$20 bn in 2013. This has been assessed in terms of cost competitiveness, design capability and openness of the OEM to Indian suppliers and prioritized accordingly. Of this, Priority 1 and 2 are estimated at \$7.5 bn and an additional \$10 bn needs further exploration. An estimated \$3.3 bn may not be addressable for specific reasons.

The opportunities have been drilled down to identify specific component and OEM combinations which need to be pursued by Indian component players with specific OEMs / Tier 1s in China.

However, accessing these opportunities will require specific actions on the part of the auto component companies and support from the Indian Government.

The most critical issue for the Indian Industry would be to overcome the China mind-set which makes Indian companies look at China as a low cost source forgetting that it has a large and sophisticated auto industry. Indian industry needs to treat Chinese OEMs like global OEMS and invest in building relationships.




The Government of India also needs to play a key role to enable Indian suppliers to capitalize on this opportunity. Towards this end, events in China need to be planned to engage Chinese OEMs, Chinese OEMs need to be invited to India to visit and evaluate suppliers on "buying missions", select categories can be brought under MLPFS scheme.

1. Background of the Engagement

- India's trade deficit for auto components with China has grown substantially to USD 2.8 billion in 2013 and has hovered around this figure for the last three years
- There have been significant macro-economic developments in China and India which have narrowed the competitive advantages which China traditionally enjoyed over India – rising labour costs in China and the relative movements of the currencies of the two countries vs. the USD have been the key factors responsible for this
- Anecdotal evidence around Indian OEM buying components from China also confirms the fact that there has been a sharp reduction in the absolute quantum of imports from China. In specific components like 2-wheeler aluminum alloy wheels Chinese companies are now setting up capacities in India to serve the local market as exports from China are not competitive
- Hence this seems to be an appropriate opportunity for India to explore the possibility of increasing their exports of auto components to China possibly narrow the trade deficit
- The Automotive Component Manufacturers Association of India (ACMA) has taken this initiative and is looking at engaging China seriously to identify export opportunities for Indian auto components to China. As part of this effort, a delegation had visited China in March
- ACMA have engaged Avalon Consulting to undertake an independent exercise to evaluate the export opportunity for Indian auto component manufacturers in China. This involved an assessment of the Chinese automotive market, identifying target customers and components with potential for export and the need to be taken by the Government, ACMA and industry to realise the opportunity
- This document is the Executive Summary of the above evaluation. In addition we will also be presenting a detailed report and component specific reports which will be used to engage with specific Indian companies making those components to encourage them to explore the China opportunity

2. Methodology adopted:

Rigorous analysis of macro-economic and trade data was coupled with research in India and China to compile this report.

Secondary Data 	Interviews in India 	Interviews in China 
Trade Data	Auto Component Manufacturers	OEMs
Annual Reports	IPOs	Tier I
Macroeconomic Data		Other Auto Component Manufacturers
Other Published Secondary Sources		Raw Material suppliers

More than 25 meetings were held with Indian manufacturers, the prominent among which are-

S. No	Company	Products
1	Abilities India Pistons & Rings Ltd.	Cylinder Hardware
2	Anand NVH Products (P) Ltd.	Rubber Products
3	Bharat Forge Ltd.	Crank / Cam Shafts
4	Bony Polymers Pvt. Ltd.	Rubber Products
5	Cummins India	Engines
6	Escorts Ltd. (Auto Products Division)	Shock Absorbers
7	Getrag	Transmission
8	Hi-Tech Gears Ltd.	Transmission Products /Gears
9	Investment & Precision Castings Ltd.	Injectors, Valves, Inlet, Exhaust
10	Kar Mobiles Ltd.	Injectors, Valves, Inlet, Exhaust
11	Mark Exhaust Systems Ltd.	Mufflers & Exhaust
12	Lakshmi Precision Screws Ltd.	Fasteners
13	Lucas TVS	Starters Alternators
14	Meritor	Transmission Products
15	Nipman Fastener Industries Pvt. Ltd	Fasteners
16	Omax Autos	Sheet Metal Components
17	Pentair	OEM
18	Pricol	Sensors, Instrument Panels
19	Punjab Bevel Gears Ltd.	Transmission Systems
20	Ring Gear Aqua	Ring Gear
21	Rising Sun International	Transmission Systems
22	Sansera Engineering (P) Ltd.	Con Rod, Rocker Arm, Crank Shaft, Gear shift Forks , Balance shafts
23	Varroc Engineering Pvt. Ltd.	Electrical Lighting
24	Amtek Auto	Forged & Machined Products
25	Sundaram Fasteners Limited	Fasteners, Hot Forged Parts, Cold Extruded Parts

This was coupled with more than 50 interviews in China, with a plethora of companies-

S. No	Company	Products
1	2W OEM	Lifan Group
2	2W OEM	Loncin
3	2W OEM	DFSK
4	Passenger vehicle OEM	Anhui Jianghuai Automobile
5	Passenger vehicle OEM	Brilliance Auto
6	Passenger vehicle OEM	Greatwall Motor
7	Passenger vehicle OEM	Youngman
8	Passenger vehicle OEM	Zhejiang Geely Holding Group
9	Passenger vehicle OEM	SAIC GM
10	Passenger vehicle OEM	SAIC VW
11	Passenger vehicle OEM	Mufflers & Exhaust
12	CV OEM	Qingling Automobile (Group)

S. No	Company	Products
13	CV OEM	Dongfeng Passenger Vehicle
14	CV OEM	Faw Jilin Automobile
15	CV OEM	Zhengzhou Yutong Bus
16	CV OEM	Beiqi Foton Automobile
17	CV OEM	Chongqing Changan Auto
18	Auto Components	Shanghai Ganxiang Automobile Mirror Industry
19	Auto Components	Shanxi Fast
20	Auto Components	Sichuan Beiteer Rubber Technology
21	Auto Components	Tianjin Tiande Suspension Systems
22	Auto Components	Xiangyang Tongshen
23	Auto Components	Xinyi Brake Pad
24	Auto Components	Zhejiang Huadong Piston Ring
25	Auto Components	Zhongding Group
26	Auto Components	Zhonghang
27	Auto Components	Zhuzhou Gear
28	Auto Components	Anhui Weiwei Rubber Parts Group
29	Auto Components	Bingchuan
30	Auto Components	Bohai Piston
31	Auto Components	Changchun Hella Lighting
32	Auto Components	Chengdu Galaxy Power
33	Auto Components	Chongqing Qingshan Industrial
34	Auto Components	Dong'An Power
35	Auto Components	Fujian Guanlean Automotive Parts Industry
36	Auto Components	Hangzhou Qianjin Gear
37	Auto Components	Hebei Dongan Percision Manufacturing
38	Auto Components	Hebei Xingyue Braking Element
39	Auto Components	Jialaidun Piston
40	Auto Components	Jiangmen Shongli Rearview Mirror
41	Auto Components	Jiangmen Shongli Rearview Mirror – Lighting
42	Auto Components	Jinan Worldwide Auto-Accessory Limited
43	Auto Components	Ningjinxian Jinwantong Qichepeijian
44	Auto Components	Norstar Automotive Chassis Systems - Frictions Materials
45	Auto Components	Norstar Automotive Chassis Systems - Shock Absorbers
46	Auto Components	Qingdao Hilywill Advanced Materials Technology
47	Auto Components	Shandong Defang Hydraulic Machinery
48	Machinery	Bao Ji Machine Tool
49	Machinery	Cixi Aobo Welding Equipment
50	Machinery	Dalian Machine Tool Group
51	RM	BAW
52	RM	Campbell Chemical Technology

3. Macroeconomic changes in China

The China of the future will be different from that of the past – a gradual shift towards a more domestic focused economy will happen, driven by macro-economic challenges.

3.1 Macroeconomic Trends in China (2008-13):

- Growth in China has continued apace between 2008-13, still driven by investment and trade
- It has continued to be an important destination of intra-Asian FDI and has also continued to pursue an aggressive outbound FDI policy driven by its need for energy and other resources
- However, this growth has come at a cost – capital efficiency has touched an all-time low and debt to GDP is at an all-time high
- The urgency to move the economy away from an export and trade focus to a domestic consumption driven one has increased and measures in this direction are evident in recent years – this will increase costs and reduce competitiveness
- Challenges remain in making the above adjustment, but the China of the future will have different priorities relative to the past

However, the macro-economic trends have yet to impact the overall China India economic engagement model – it continues to be trade driven and FDI continues to be small but growing in recent times.

3.2 India-China Bilateral Investment and Trade (2008-13) - Key Trends:

- Chinese imports have continued to grow sharply relative to Indian exports resulting in a record deficit of ~\$35 bn in 2013 – coming down from > \$40 bn in 2012
- India has emerged as one of the key markets for China growing at a faster rate than most of the other key trading partners except Vietnam. India is as large a market for China as some of the key European countries
- India's export managed to grow despite a sharp decline in iron ore exports. Overall growth has been much lower than exports to RoW. Cotton and copper cathodes made up the bulk of the growth in exports
- Thus, India's imports from China continues to be dominated by high-skill and technology intensive manufactured products and exports by primary commodities though the share had come down
- FDI between India and China continues to be negligible relative to the total FDI in both countries, though the numbers have seen a sharp upturn from China in recent years

While China continues to have a cost and pricing advantage vs. India, the relative advantage has come down significantly in recent years. This can further erode in the future as interest rates and financial reforms happen in China.

3.3 Manufacturing Competitiveness – India vs China

- China’s manufacturing cost competitiveness vis-a-vis India continues to endure although the magnitude of the advantage has declined significantly in recent years (from ~24% to ~15% along the steel value chain) driven by cost increases in basic raw materials, rising labour costs and relative movement of the currencies in opposite directions

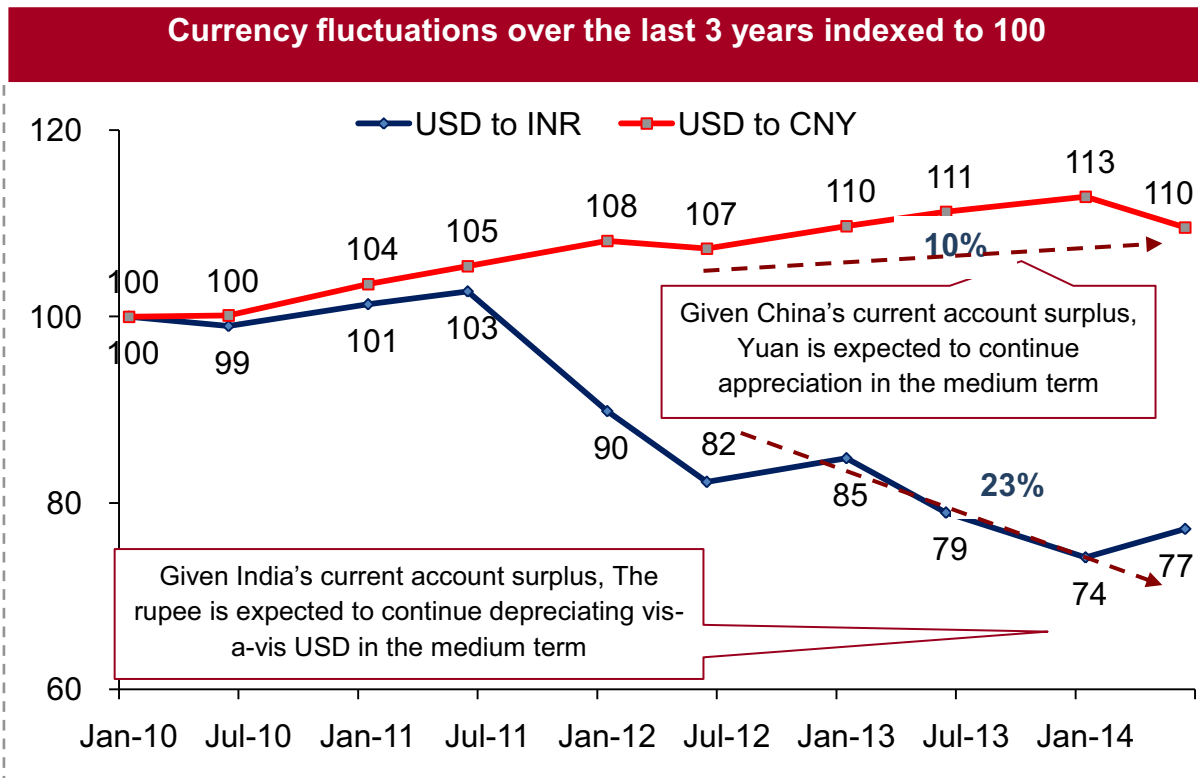


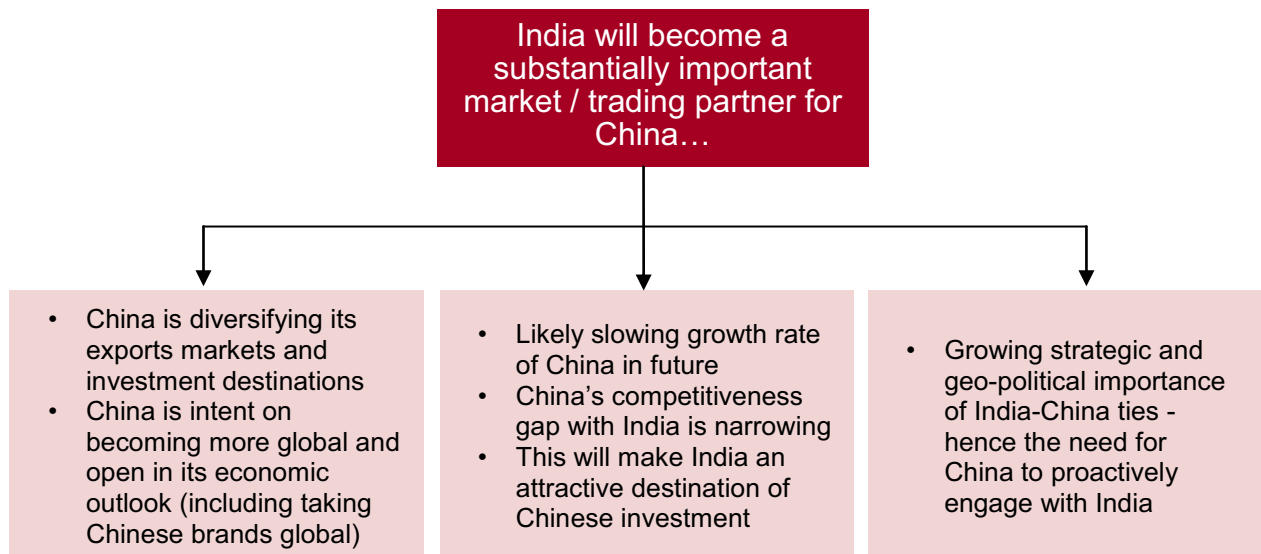
Exhibit 3.1

- Currency alone contributed to more than 30% change in relative competitiveness between 2009 and 2014
- A large part of the competitiveness is driven more by pricing power as you move up the value chain due to erosion of the raw material advantage for steel making
- Some of the other drivers of competitiveness are also likely to be erode in the years to come
 - Power tariffs are likely to rise as losses in SOE utilities continue to mount
 - Leeway in social security payments to manpower will be reduced as industries get more and more organised and streamlined with better systems and processes

- Low interest rate regime will likely fade away as deposit rates are liberalised and financial reforms deepen
- Tax subsidies introduced to encourage growth may not endure as most have now achieved significant scale

- The advantages related to logistics and higher productivity will sustain but the gap between India and China across primary industries will continue to reduce
- In the long run, due consideration will need to be given to safeguard the profitability and inherent value of these companies requiring them to compete on more equitable terms

India's importance for China will increase substantially in the context of China's slowing growth and competitiveness and its intent to further globalize its investments and trade.



4. The Auto Industry in China

China, today, is by far the largest auto market of the world in volume terms.

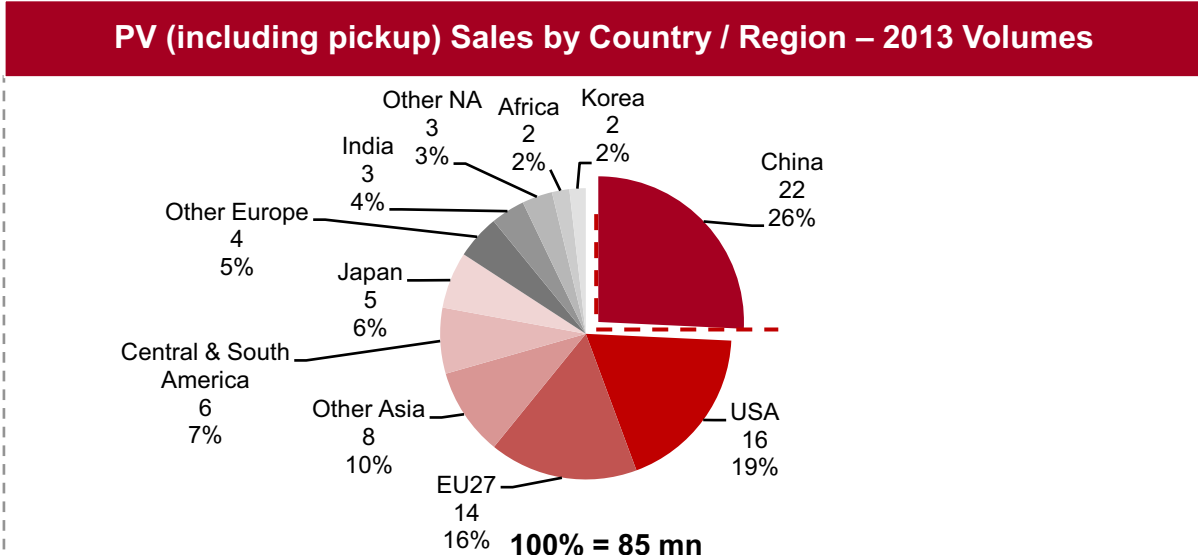


Exhibit 4.1

The auto industry has grown at a CAGR of ~6% over the past 4 years, with a dip in 2012. 2 wheelers have degrown while passenger cars have grown at a CAGR of ~23%. The market has 2 broad segments - Chinese companies and MNC JVs.

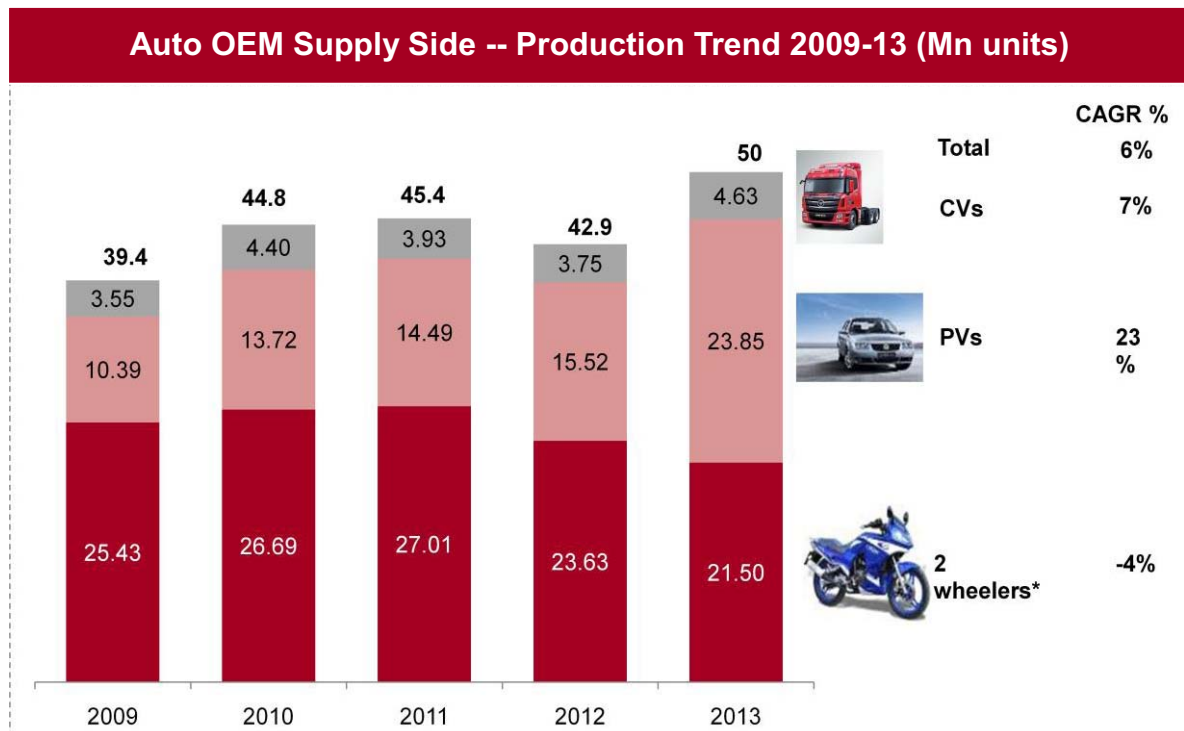


Exhibit 4.2

4.1 Geographic cluster of China’s auto market:

Traditionally, Chinese auto sales have been predominantly clustered around cities located along China’s eastern coast, notably Beijing, Shanghai, Hangzhou and Shandong province. However, recent developments like a saturation in the ownership of cars in the eastern cities, stricter curbs on pollution and price wars have prompted the rise of new hubs of auto production and sales. Chengdu, Wuhan and Chongqing, located away from the coast and more towards the vast hinterland have benefitted from the government’s “Go West” campaign and the corresponding investments in the development of infrastructure, increasing trade with Central Asia and availability of skilled workforce. These cities have evinced interest from a number of Western OEMs, who have already set up production bases there in partnerships with domestic OEM players.

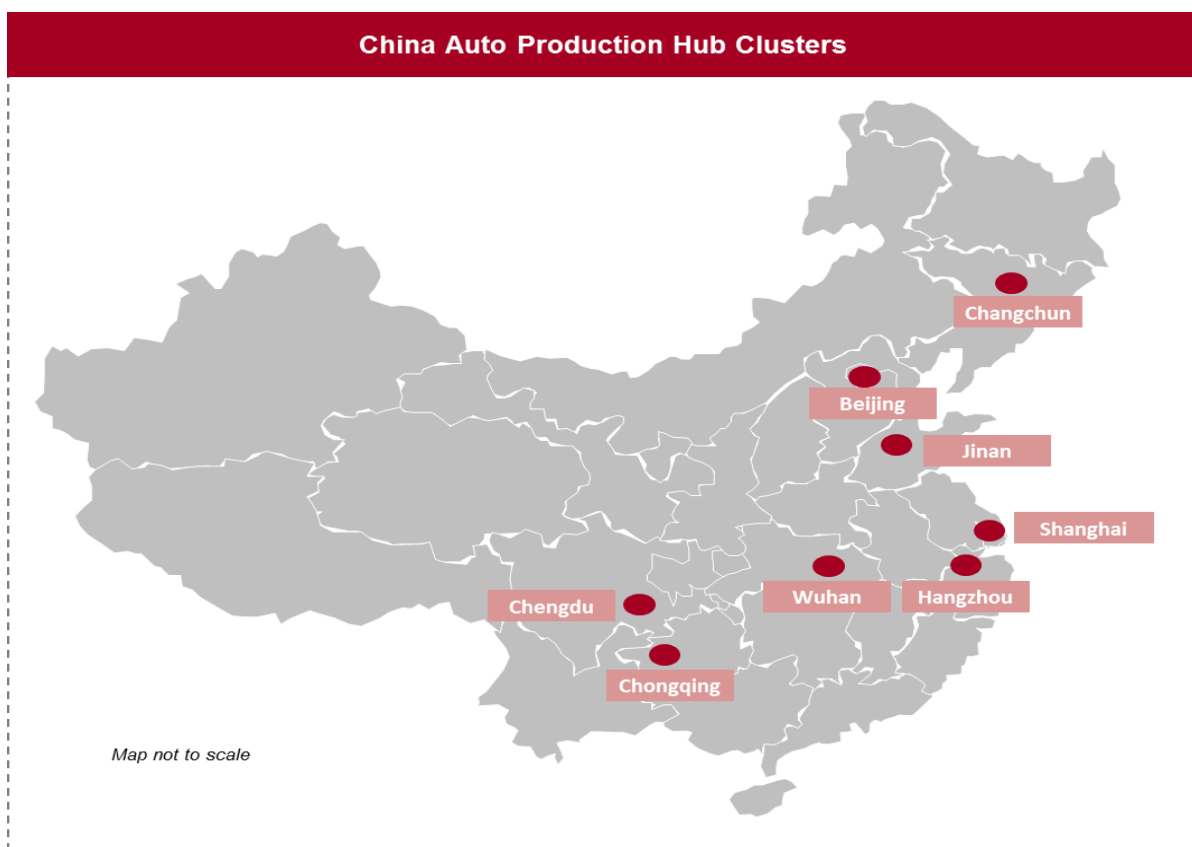


Exhibit 4.3

4.2 Possibility of Exporting Auto Components to MNC JVs in China

However, MNC JVs operating in China, in their current structure and ways of functioning, are unlikely to be target customers for Indian auto component exports.

- In MNC JVs, the decision to induct a new supplier is taken by either the OEM at a global level (for critical components) or by the JV locally, driven by the local partner

- Decisions at a global level are often driven by global relationships across platforms and may involve some transfer pricing. In any case, such requirements are driven by global HQ or India IPOs and not from China
- Local decisions are often driven by considerations like other businesses of the local partner, relationships, costs and capabilities, security clearances as the local partners are usually SOEs and heavily influenced by them within the JV
- JV volumes are high and need highly automated lines or are often different from India (eg. Buick models are very popular in the GM portfolio). Hence synergy with Indian operations are often minimal and scale economics will be a dis-advantage
- Thus, MNC JVs in China are unlikely to be target customers for exports. Smaller volume JVs like Ford have shown an interest and can be approached through India IPOs and Global HQs

4.3 Major Trends

Although it is expected that the 17 % CAGR of vehicle sales in China between 2005 and 2012 will not be as robust as we go into the future, the Chinese auto industry is still forecasted to grow at a healthy 6-8% CAGR till 2020.

Three distinct trends have been visible in the auto industry in China:

Chinese Players going Global

- SAIC bought Rover
- Dongfeng bought 30% stake in PSA
- Geely acquisition of Volvo



Focus on Chinese brands and in-China IP

- Extra incentives for Chinese brands by both Chinese enterprises and JVs
- BYD and Daimler have launched a joint brand Denza. Could extend to Dongfeng and Nissan launching a variation of Leaf



Focus on Green Technologies

- Major focus on green technologies – electric vehicles
- China hoping to leapfrog incumbents in greentech
- Subsidies for eVs and hybrids



As a result, many Chinese companies are looking for development partners who can help them develop their brand, create IP and service the global market.

4.4 Two Wheeler Segment

China is facing several challenges in both the domestic and export markets in the 2-3 wheeler segments with a number of OEMs losing money.

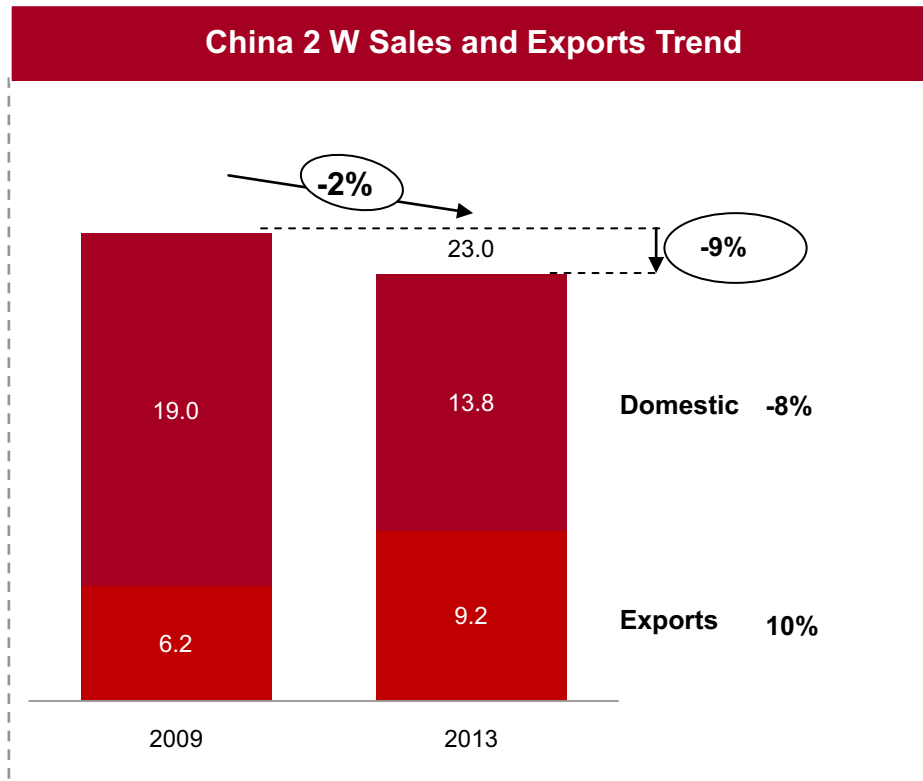


Exhibit 4.5

- Domestic market is declining due to:
 - Inner city congestion charges in some cities
 - Subsidies on e-bikes
 - A prospering population increasingly switching to cars
- High cc enthusiast bikes gaining in share, while low cc bikes declining rapidly. Scooters declining less rapidly and hence gaining share within the 2 wheeler market
- Although China has managed to grow exports in 2013 after a sharp decline since 2008, it is facing strong challenges from Japanese and Indian players in key export markets like Myanmar, Nigeria, Argentina, the Philippines, Mexico, Togo, Angola, Brazil, Colombia, Ecuador etc.
- Exports declined by ~39% in 2009 and only in 2013 have recovered to levels comparable to 2008
- As a net result, 29 of the 50+ manufacturers made losses in 2013
- The 2 wheeler market is consolidated with the top 9 players having over 90% share; Loncin is the market leader with 19% share

- While the market is large and larger players have volumes of 1.5-3 mn, there may be opportunities to supply if Indian players are competitive on price and can meet quality and service levels
- Smaller players may not have very developed supply chains and there may be opportunities but given their financial position, may not be prudent to target



Exhibit 4.6

4.5 Passenger Car Market

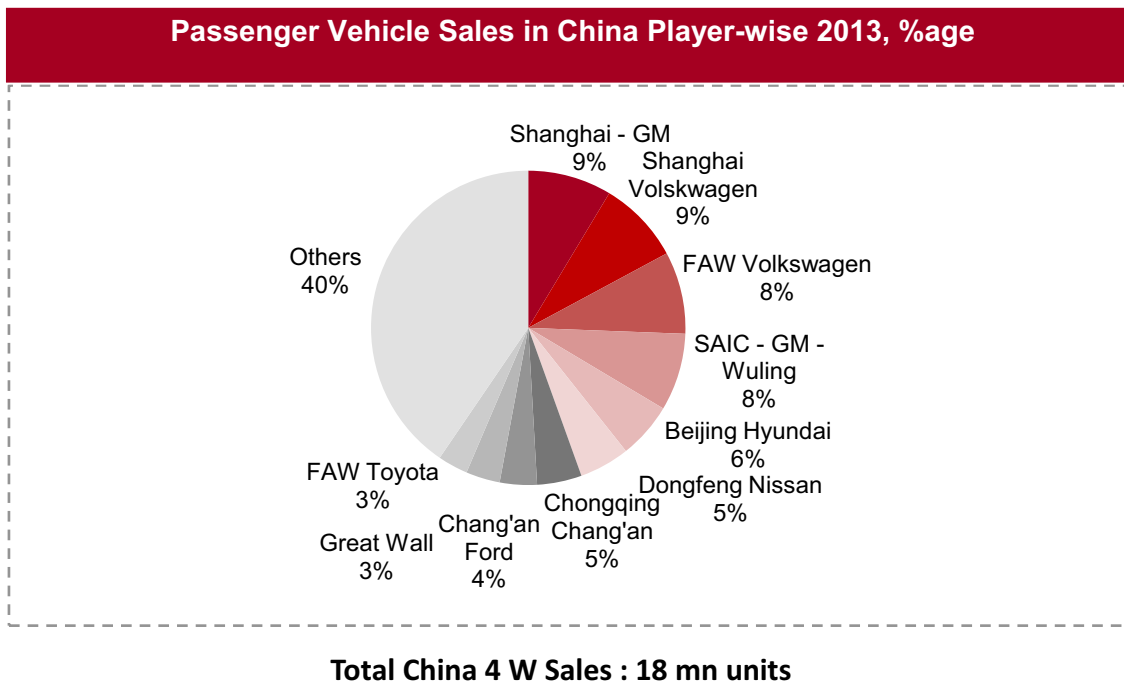


Exhibit 4.7

PV sales in China are fragmented with Shanghai Group (SAIC) being the market leader holding ~30% share in 2013 through 3 JVs and its own sales. Local automobile manufacturers represent 40% of domestic PV production; 60% is represented through JVs between Chinese players and global majors.

4.6 Commercial Vehicles Market



Exhibit 4.8

- The CV market is highly fragmented. Beiqi Foton leads the Commercial Vehicle market with 16% share
- China’s market is dominated by local players and not JVs and is typically technology and standards are similar to India
- Sweden’s Volvo group has agreed to pay ¥ 5.6bn (\$900m) for a 45 per cent stake in the commercial vehicle operations of Dongfeng Motor in 2013
- MAN has partnered with SinoTruck while Mercedes-Benz has a joint venture with Foton Motor.
- But unlike PV, local players remain dominant partners in CV industry

4.7 Target OEMs

Based on our analysis of the China auto market, we have identified a set of key Chinese OEMs who could be the target customer base for exports of auto components from India.

S. No	Company	Scope	Location	Capacity – Mn Units	Production – Mn Units	Revenues (USD bn)
1	Great Wall Motor	PV	Baoding, Tianjin	1.5	0.8	9.1
2	Zhejiang Geely	PV	Zhejiang	1.2	0.7	4.6
3	Brilliance Auto	PV	Shenyang	0.6	0.3	-
4	BYD Auto	PV	Shenzhen	0.7	0.5	8.5
5	Chery	PV	Wuhu	0.9	0.4	
6	Dongfeng Motor	PV,CV	Wuhu	PV – 2 CV – 0.7	PV - 1.6 CV – 0.7	19
7	Chongqing Chang'an	PV,CV	Chongqing		PV - 1.1 CV – 0.2	-
8	Anhui Jianghuai Automobile (JAC)	PV,CV	Hefei	0.7	0.6	-
9	Beiqi Foton	CV	Changping	-	0.9	5.8
10	FAW Jilin Automobile	CV	Jilin	-	0.4	-
11	Qingling Automobile	CV	Chongqing	0.2	0.1	.09
12	Zhengzhou Yutong Bus	CV	Zhengzhou	0.1	0.07	3.5
13	Shenyang Jinbei Automotive	CV	Shenyang	-	0.4	0.9
14	Loncin	2W	Chongqing		4.2	1.1
15	Lifan	2W	Chongqing	-	2.3	1.7
16	Qianjian	2W	Zhejiang		2.2	0.5
17	Chongqing Yinxiang Motorcycle Group	2W	Chongqing	-	2.6	-
18	Guangzhou DaYun Motorcycle	2W	Guangzhou	-	1.9	-
19	Chongqing Astronautic Bashan Motorcycle	2W	Chongqing	-	1.8	-
20	Anhui Ankai Futian Shuguang Axle	Tier 1 (Axle)	Hefei	0.06	0.05	-
21	FAW Jiefang Automotive Co.,Ltd. Wuxi Diesel Engine Works	Tier 1 (Engine)	Changchun	1.4	1.1	1.6
22	Weichai Power	Tier 1 (Engine)	Weifang	1.4	1.1	9.4
23	Yuchai	Tier 1 (Engine)	Yulin	-	0.5	-

Exhibit 4.9

5. The Auto Component Industry in China

The Chinese domestic auto component market is also large at \$365 bn in 2013 and has been growing rapidly in recent years.

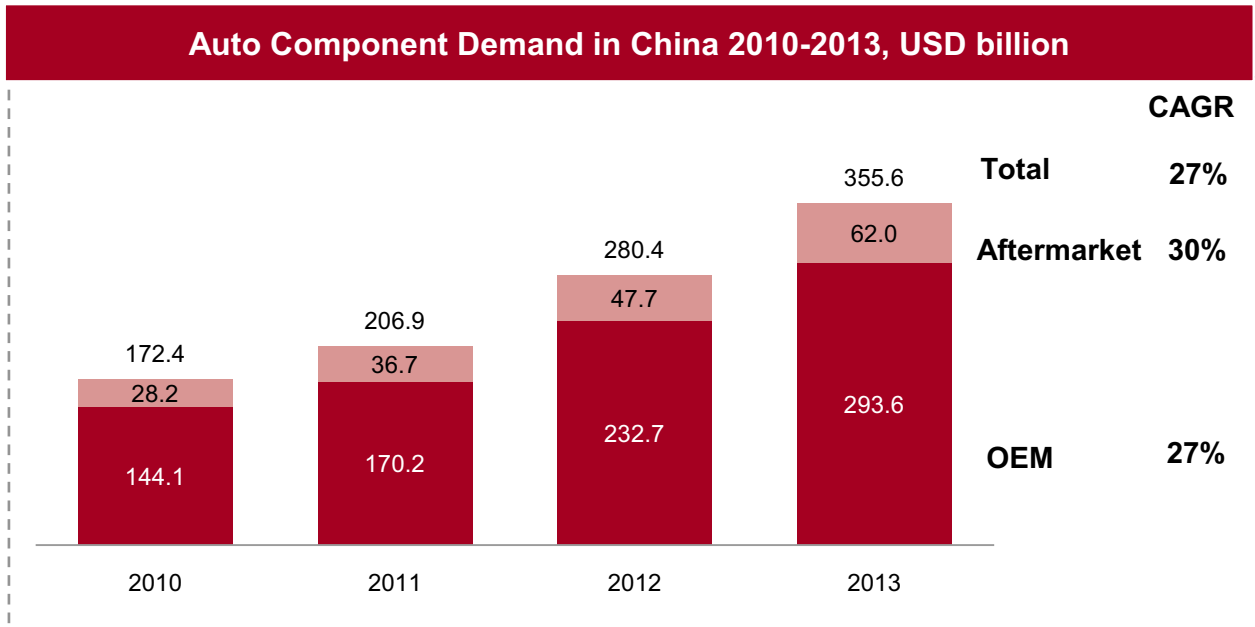


Exhibit 5.1

(Represents China's domestic market, does not include exports)

There is also significant global trade in auto components by China with a reasonable trade surplus emerging in recent years.

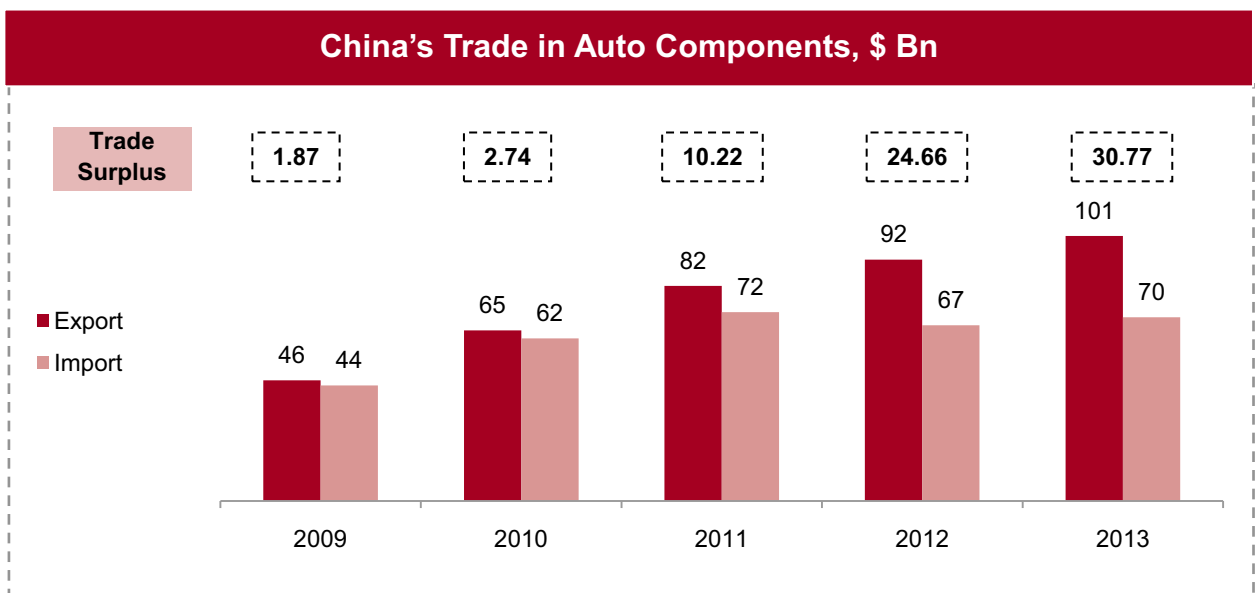


Exhibit 5.2

(There are significant exports to aftermarkets sin ASEAN, India, Brazil, Russia and EU, while imports are mainly from OEM home countries like Germany, USA, Japan and South Korea)

China has several auto component groups (some part of Chinese SOE OEM Groups) who have become large players of global scale but more focused on the domestic market. Chinese Tier 1s with good design capability are also emerging.

Company	Revenue 2012 (\$ mn)	Key Components
Wanxiang Group	12,000	Drive shafts & Universal Joints, Steering Columns, Half Shafts (CV Axles), Axle Shafts & Wheel Hubs, Taper Roller Bearings, Hub Units & Ball Bearings, Brake Series, Wheel Rims, Mufflers & Water Pump Series
Huayu Automotive Systems	9,300	Electronic Parts e.g. Roof, Window, Smart Key Hot Working Parts e.g. cylinder head, piston etc. New Energy Vehicle e.g. Power steering, Start-stop Metal Forming & Dies e.g. Structural Members Interior & Exterior Trims e.g. Seat, bumper assemblies Functional Parts e.g. Exhaust, braking, steering systems
Fawer	1,600	Environmental Control System, Steering & Transmission System, Engine Accessory System, Chassis Accessory System, Suspension & Running System, Brake System, Fasteners
Zenix	604	Tubeless Steel Wheels, Tube Steel Wheels, Construction Machinery Wheels
Yuchai	~8,000	Engines
Weichai	16,000	CV and stationary engines

Exhibit 5.3

Despite recent cost challenges, the Chinese domestic auto competitive industry continues to be competitive in the 'built to print' auto components

5.1 Competitiveness of the Chinese Auto Component Industry

- Like most manufacturing, the Chinese auto component industry has also been grappling with rapidly rising labour and raw material costs in recent times
- This has particularly affected many units operating in the Eastern region
- The larger groups are increasingly moving inland (near Chongqing and Wuhan, the 'Dongfeng belt') as a means to control costs – power costs here are reasonable (with access to the hydro power from the Three Gorges dams) and labour availability being better than the East coast
- Feedback from OEMs (MNCs operating in China, Indian OEMs sourcing from China and IPOs operating in India) indicate that exports from China is losing competitiveness due to various reasons like:

- Withdrawal of various export benefits
 - Rising costs
 - Appreciating currency
- However, in the domestic market, Chinese auto component players continue to remain highly competitive in auto components across several categories like casting and forgings, plastic components, gears, etc. where the key requirement from the OEM is 'built to print' and does not require significant design capabilities. Significant economies of scale and challenges faced in competing in the domestic market (relationships, non-tariff barriers, etc.) are key drivers for this continued strength in the domestic market
 - The larger Chinese auto component companies are also increasingly investing in automation to continue to remain competitive and meet the growing scale needs of OEMs

Supplying from India will mean a cost dis-advantage of ~13-17% mainly due to the import duty of 10%, making it difficult for India to compete in 'built to print' components.

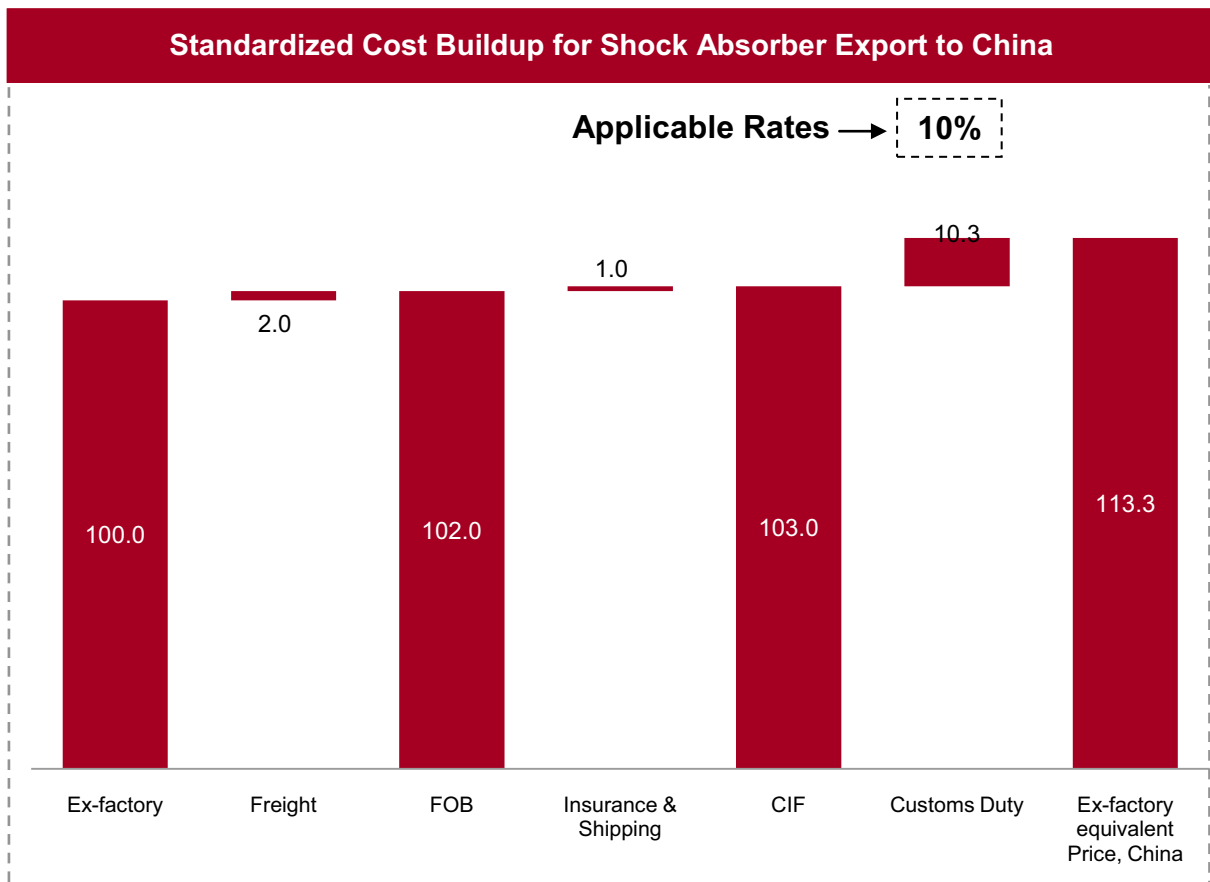


Exhibit 5.4
(Freight may vary depending on weight-price ratio)

However, despite this, the exports of auto components from India to China, has grown in recent years and the trade deficit has been stagnant.

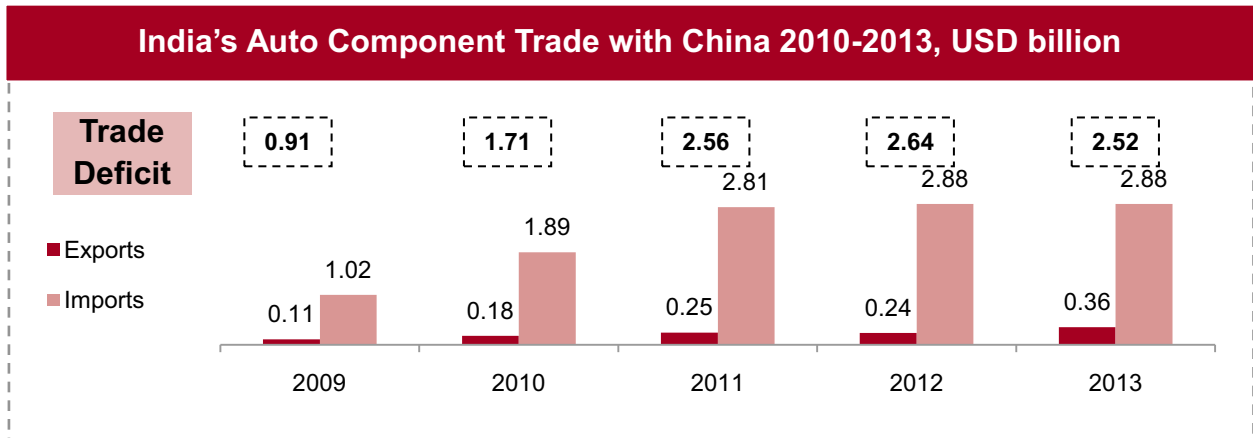


Exhibit 5.5

After landing in China, the goods are subject to VAT, surcharges as applicable, similar to products made in China. There may also be indirect taxes on facilities, contracts etc.

Corporate Income Tax	<ul style="list-style-type: none"> Corporate income tax is levied on income of LLCs derived from production, business operations, and other sources within and outside China. LLCs have to pay this tax quarterly Currently the applicable tax rate is at 25% 	
Business Tax	<ul style="list-style-type: none"> Business tax is a turnover tax paid on the revenue of certain services. Business tax is levied on gross turnover at rates between 3% and 20% Currently, most businesses pay between 3-5% business tax 	
Applicable for exporters	VAT	<ul style="list-style-type: none"> In 2012 several pilot programs were launched throughout China to replace business tax with a VAT system. By 2015 the replacement of business tax with VAT will be expanded to cover all of China and include additional service types. VAT is charged at a standard rate of 17% but necessity goods, such as agricultural items, water and gas, etc., are taxed at a reduced rate of 13%. VAT on imports is calculated as Tax Payable = VAT Rate x [Dutiable Value + Customs Duty + Consumption Tax]
	Educational Surcharge	<ul style="list-style-type: none"> Educational surcharge is imposed at 3% on the amount of China's indirect taxes (i.e. business tax, VAT, and consumption tax) payable by the taxpayer
	Urban Construction & Maintenance Tax	<ul style="list-style-type: none"> Based on China's indirect taxes (i.e. business tax, VAT, and consumption tax) It is charged at three different rates depending on the taxpayer's location, 7% for urban areas, 5% for county areas, and 1% for other areas.
	Stamp Tax	<ul style="list-style-type: none"> Contracts and related documents are subject to a stamp tax, ranging from 0.05% to 0.5% depending on which type of contract is being signed

Exhibit 5.6

Several tax and trade policies have been modified in the last few years to reduce some of the benefits available to Chinese industry.

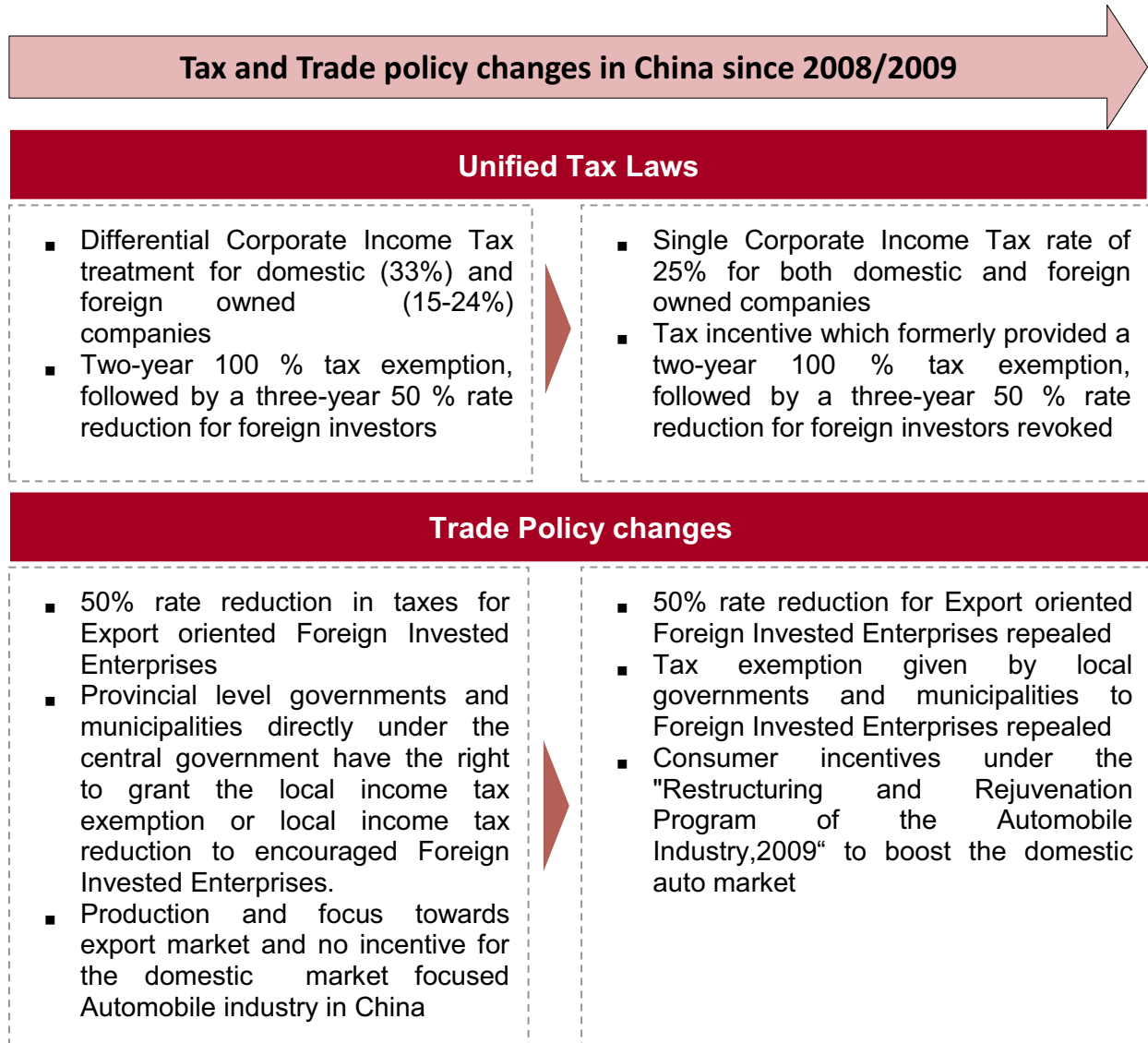


Exhibit 5.7

There are no major non-tariff barriers for auto components in general. However, in some hi-tech areas, there are some schemes protecting the local industry such as control systems, high speed precision bearings etc. Safety items need CCC certification which may require some time. Also, getting into relationships with government backed companies may require security clearances which can act as a barrier at times.

Schemes protecting Local Industry

- In 2011, the National Development and Reform Commission (NDRC) issued a “Guiding Catalogue of Industrial Structural Adjustment” that helps to guide the development of domestic auto investments, of which several sectors are likely to be supported by the government through various incentives and face stronger competition in the near future
- Domestic industries which will benefit include auto components, engine manufacturers, energy producers and auto electronic control manufacturers

Extra Costs due to Protectionism

- One example is the required CCC standard certification by the Chinese authorities for imported products. Important information has to be submitted and the factory has often to be inspected at the expense of the exporter. This is a lengthy and costly procedure that provides opportunity to put fake products on the Chinese market even before the real products can be sold

Intellectual Property Rights

- The Govt.’s failure to provide adequate protection of international company’s intellectual property rights (IPR) and alleged government-directed cyber security attacks against overseas companies has led to many company’s reluctance to shift their manufacturing or manufacturing into the Chinese market

Security Clearances

- Companies struggle in China to obtain security clearances before doing business with government-backed companies, which are some of the biggest corporations in China
- There are currently over 80 Fortune 500 Chinese companies, of which over 70 of them have over more than half of its shares affiliated to the Chinese government

Emission Standards

Emission standards in China are largely based on European standards with a few exceptions and are similar to India but up-gradation plans are more aggressive.

	India	China
Regulatory Authority	Guided by auto fuel policy of Government of India	Ministry of Environmental Protection (MEP) and the Standardization Administration of China (SAC), though MEP is in charge of developing, drafting, and approving the standards
Local Standards	No local standards	Environmental Standards may apply to industries that have an impact on the quality of the environment, and Local Standards may be issued by local governments
PV	BS IV in 13 cities B III elsewhere BS IV nationwide expected in FY17 BS V in FY 22	Euro IV equivalent for petrol engines and all engines in Beijing & Shanghai Diesel Euro IV expected 2015 Beijing Euro V from 2013, Shanghai by end 2014 nationwide by 2015
CV	BS IV in 13 cities B III elsewhere BS IV nationwide expected in FY17 BS V in FY 22	Euro IV equivalent for petrol engines and all engines in Guangzhou & Shanghai Diesel Euro IV expected nationwide in Jan 2015 Beijing Euro V from 2013, Shanghai by end 2014 nationwide by 2015
2 Wheeler	BS III	NA 2W banned in certain city limits
Off-road Engines	BS III	European Stage I/II emission standards Also covers small diesel engines, as per US Tier 1/2 non-road standards

Exhibit 5.8

5.2 China's 12th Five Year Plan's (2011-2015) focus on the Auto Industry:

Transportation and Logistics feature as one of the seven strategic investment areas highlighted in the 12th Plan. Two prominent focus areas of the 12th Plan are a shift from export oriented production to production to generate and meet domestic consumption, especially in China's western and hitherto less developed geography and an emphasis on the usage of clean energy, in an attempt to curb rising pollution.

The 12th Plan is expected to pave the future path of the Chinese auto industry – a consolidation brought about with an increase in the number of M&A's among domestic

players and more strategic alliances between foreign and domestic OEMs in the field of innovation, technology and knowledge management. All these would only move the Chinese auto industry higher up in the value chain, thereby increasing the demand for more design and price competitive components. Indian manufacturers of various auto components stand in good stead as India has considerable advantage in both these segments.

5.3 China's Trade Agreements and the future of India-China Trade:

China has emerged as India's biggest trading partner, with trade value rising to USD 65 bn in 2013, up from USD 38 bn in 2008, at a CAGR of 11.3 %. The trade balance, though, is skewed heavily in favour of China, largely owing to India's imports of heavy machinery.

However, a number of deliberations and joint feasibility studies have been made between the two countries to enter into mutually beneficial trade agreements, prominent among which is the Asia Pacific Trade Agreement (APTA). While there have been apprehensions from India about Chinese goods flooding the domestic Indian market, trade agreements between India and China would benefit Indian auto component manufacturers in entering into and gaining a foothold in the Chinese auto market. Our analysis has shown that a number of auto components manufactured by Indian suppliers could compete with Chinese products on the basis of design capability and price, with landed cost of Indian products being cheaper than many locally available Chinese components. With the fruition of bi-lateral trade agreements and the subsequent waiving off of duties/tariffs, Indian products are only expected to become more competitive.

The recent development of ASEAN Free Trade Area (AFTA) meetings, with both China and India being observers, as well as the proposal for a Regional Comprehensive Economic Partnership (RCEP) augurs well for trade between India and China.

The AFTA, which is a trade bloc agreement by the ASEAN countries, has helped in facilitating trade and creation of employment opportunities in the ASEAN member countries, consequently resulting in economic development of these nations. In the near future, it is expected that other countries from Asia would enter into similar agreements to create free trade zones, increasing, geographically, the size of the present free trade area. The roots of the RCEP lie in the fulfilment of this idea.

While it is likely that the overall terms of the RCEP will not specifically target the industries that would be most beneficial between the two countries as it has to take into consideration the trade relations of 16 different nations, it is expected that, in the long run, the RCEP would form the bedrock of future India-China trade agreements.

Needless to say, the initiatives taken by the governments in India and China are steps in the correct direction and hold much promise for the furthering of trade and commerce between the two Asian behemoths. Indian manufactures, including auto component manufacturers would do well to seize this opportunity and carve a niche for themselves in the promising Chinese market.

A glance at China's FTAs and trade agreements with other countries presents an optimistic picture for their future trade relations with India.

FTA/ Trade Agreements and Status	Status
Mainland and Hong kong Closer Economic Partnership Arrangement	Active
Mainland and Macau Closer Economic Partnership Agreement	Active
China – AESAN	Active
China – Chile	Active
China – Costa Rica	Active
China – Iceland	Active
China – New Zealand	Active
China – Pakistan	Active
China – Peru	Active
China – Singapore	Active
China – Switzerland	Active
China – Australia	Ongoing Negotiations
China – Norway	Ongoing Negotiations
China – South Korea	Ongoing Negotiations
China – South Korea and Japan	Ongoing Negotiations
China – GCC (Gulf Cooperation Council)	Ongoing Negotiations
Regional Comprehensive Economic Partnership (RCEP) (China, Japan, Korea, Australia, New Zealand, India and the 10 ASEAN countries)	Ongoing Negotiations
China – Colombia	Preliminary Discussions
China – India	Preliminary Discussions
APTA (Asia Pacific Trade Agreement)	Active

Exhibit 5.9

6. Identification of export opportunities

We have used a two-step approach to arrive at the potential list of auto components to be considered for potential export opportunities to China

1. Details Analysis of Auto Component Trade from India and China

Analysis of the import and export of China and India with each other and the world using a structured model to arrive shortlist of auto components worth considering

2. Discussing with Indian OEMs and component suppliers and preliminary competitiveness evaluation

Review of the short list and elimination based on:

- Feedback/ analysis of competitiveness of India (will the hurdle of ~15% cost disadvantage be overcome?)
- Nature of the component-more of a built to print type component with little design input or otherwise
- Type of Indian player working the component – OEM vs MNC vs Indian entity

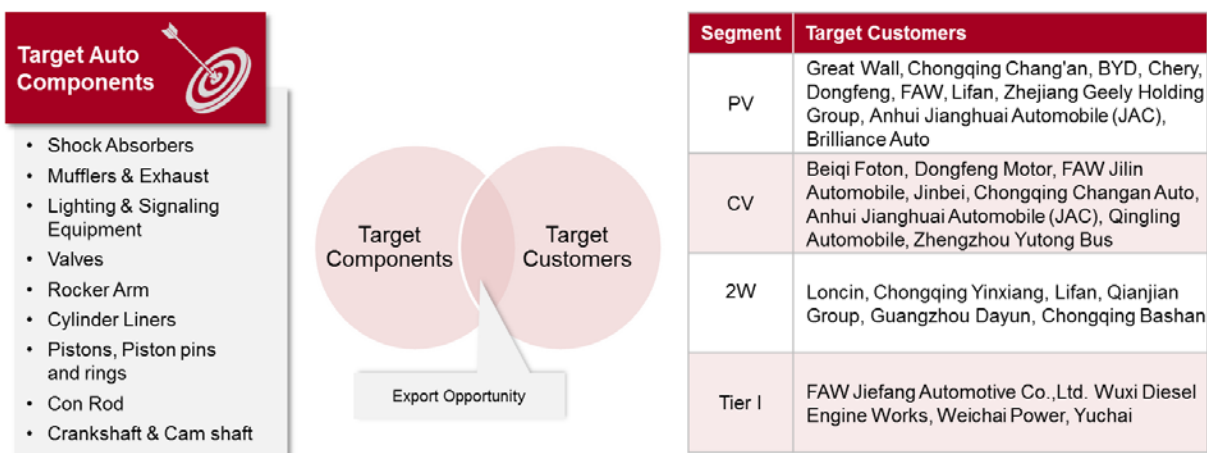
Based on this, we have explored the export opportunity for the following auto components in China-

Target Auto Components	Rationale
Suspension items (mainly shock absorbers)	Design capability in India, Significant value addition
Mufflers & Exhaust	Significant imports in China
Lighting & Signaling Equipment	Significant imports in China, India competitive in RM
Valves	Design capability in India, Significant value addition
Rocker Arm	Design capability in India, Significant value addition, Possible competitiveness on price
Cylinder Liners	Design capability in India, Significant value addition
Pistons, Piston pins and rings	Design capability in India, Significant value addition
Con Rod	Design capability in India, Significant value addition
Crankshaft & Cam shaft	Design capability in India, Significant value addition, Possible competitiveness on price

Some other auto components were also considered but not included in the final evaluation.

Other Potential Components	Remarks
Transmission and Transmission Components	<ul style="list-style-type: none"> The overall transmission market of China is estimated at ~\$90 Billion of which ~\$10 Billion are imported. Our focus OEMs account for ~\$40 Bn of this market In China the transmission suppliers are either: <ul style="list-style-type: none"> Group Companies (e.g. Geely, FAW Jilin) Chinese gearbox assemblers like Chongqing Qingshan, Shanxi Fast, Zhuzhou Gear many of whom are investing heavily in R&D. Global Tier I like Getrag, Eaton, ZF or Allison. These are unlikely to be replaced by Indian players In India, transmission assembly is done mostly by either OEMs or global Tier Is. Hence there is a lack of suppliers who can displace incumbents There may be opportunity to supply gears and shafts to Chinese OEMs and independent assemblers but such players mostly are backward integrated
Rubber Gaskets	<ul style="list-style-type: none"> Overall market is estimated at ~\$8 Bn High end gaskets are mostly imported or sourced from MNCs locally. India is considered to be competitive in RM and hence, can target the lower end
Engine Mounts	<ul style="list-style-type: none"> Overall market is estimated at ~\$2 Bn India is considered to be competitive in RM and hence, can target the lower end
Friction Material and its assemblies	<ul style="list-style-type: none"> Brake discs and drums are estimated at \$6-7 Bn Japanese imports (mostly ceramic) account for ~10-20% of volume India is considered to be competitive in RM and hence, can target the lower end

The overall export opportunity is defined in terms of the target auto components and target customers in China.



6.1 Target Opportunity by Segment, Component and Customer Group

This opportunity in China is estimated at ~USD 20 Bn in 2013 and is driven largely by PVs and CVs-

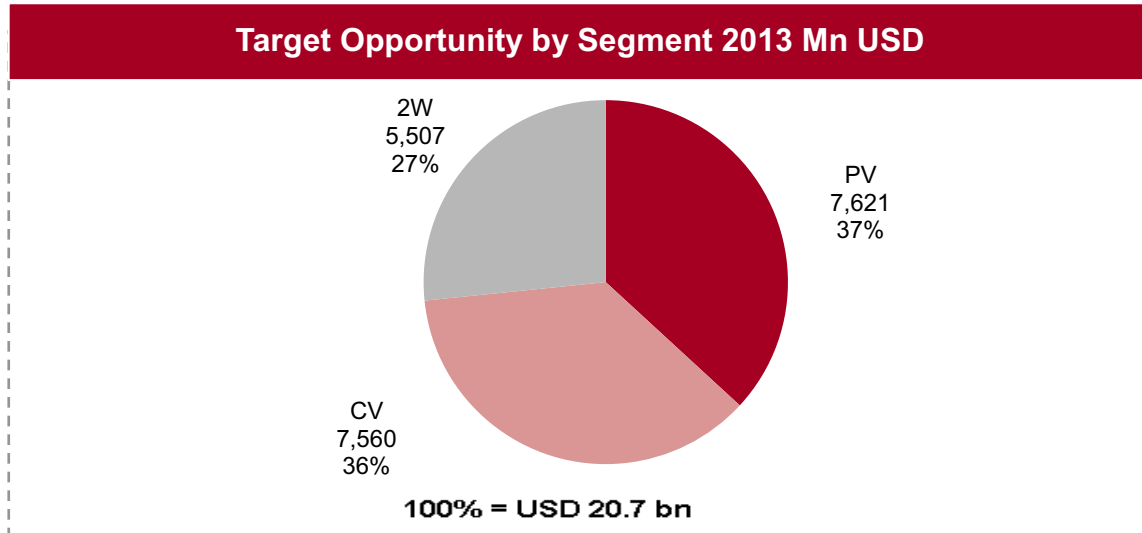


Exhibit 6.1

- Our target customers account for ~22% of the PV market, ~56% of the CV market and ~70% of the 2W market
- The target opportunity of ~\$20 Bn is estimated to be ~6% of the total auto component market in China

Engine components represent the largest opportunity within the target customer base in China.

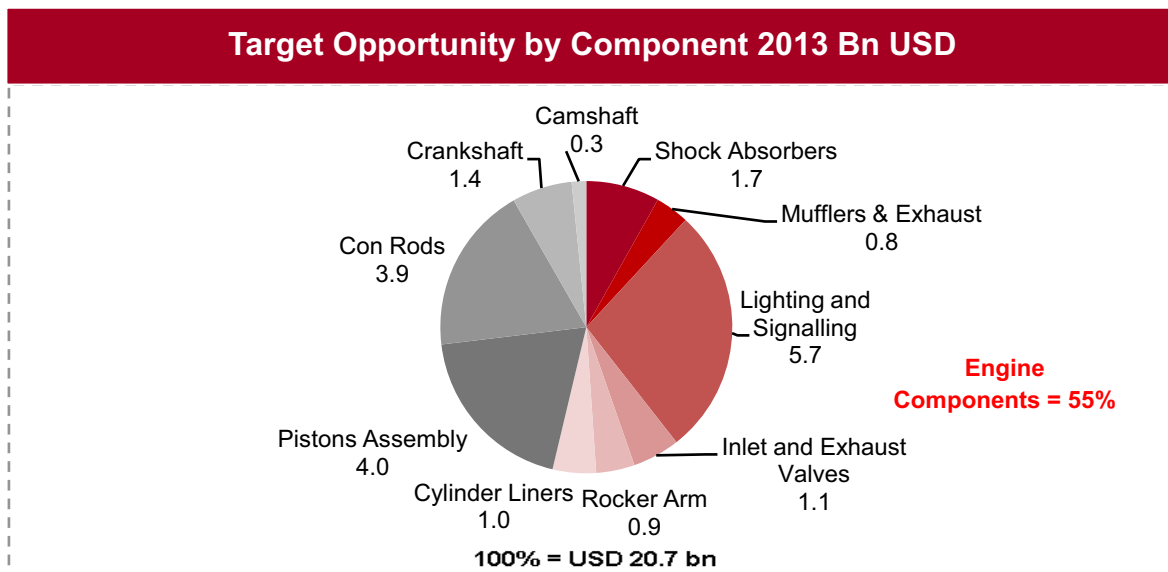


Exhibit 6.2

Chang'an, Dongfeng, FAW, Loncin, Foton, Great Wall and Lifan emerge as the key target customers accounting for ~50% of the target market between them.

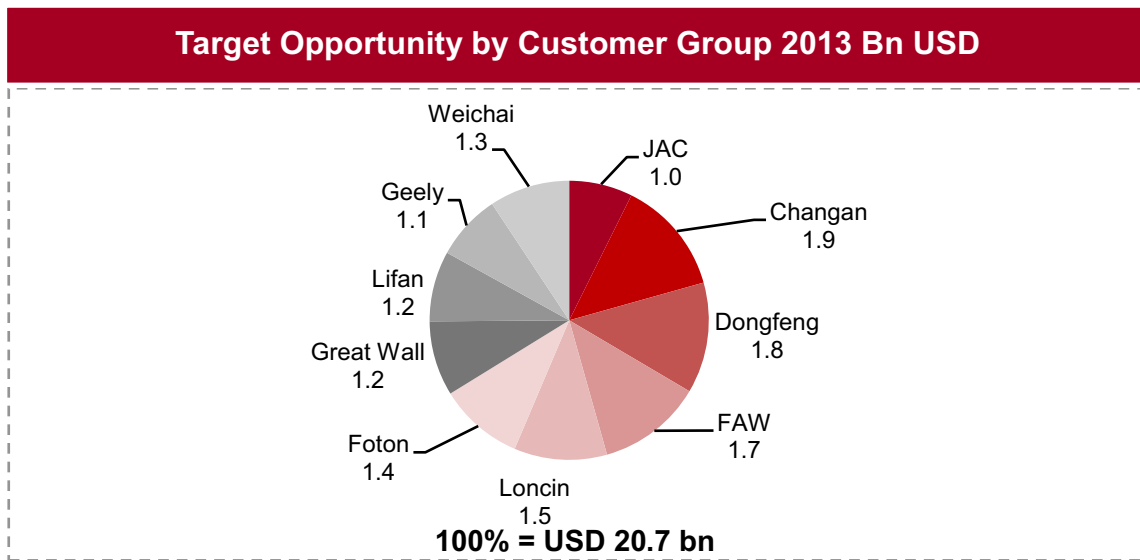
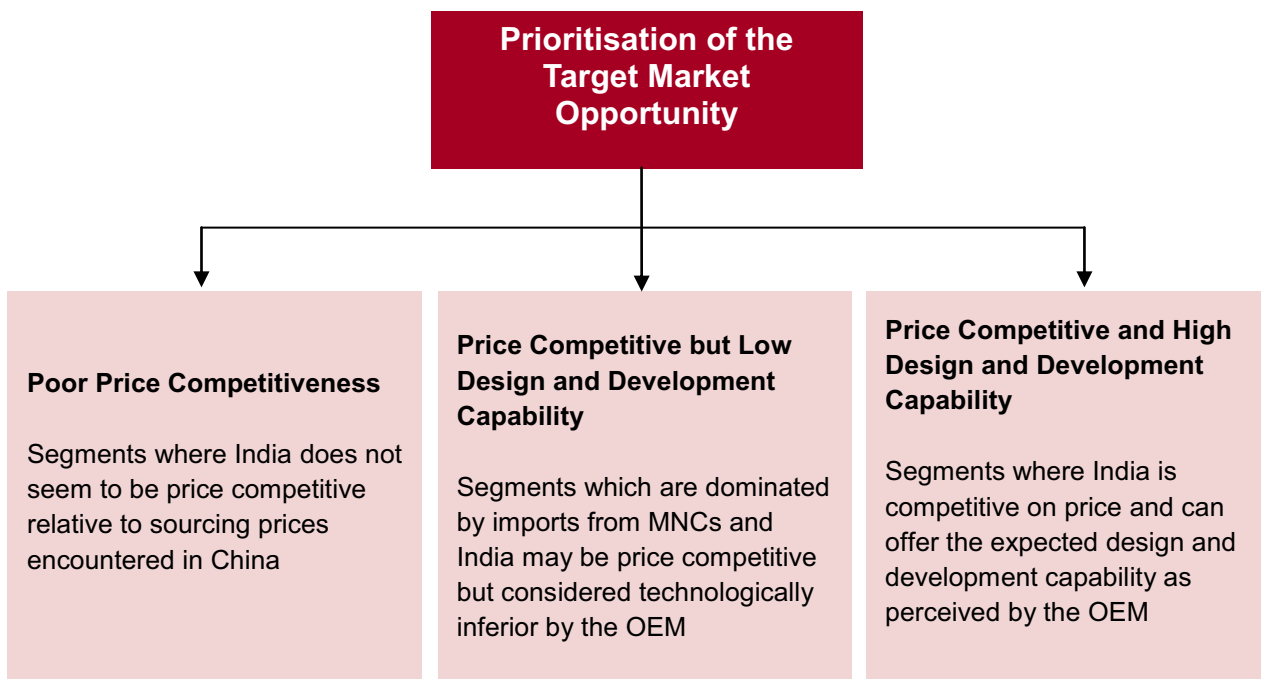


Exhibit 6.3

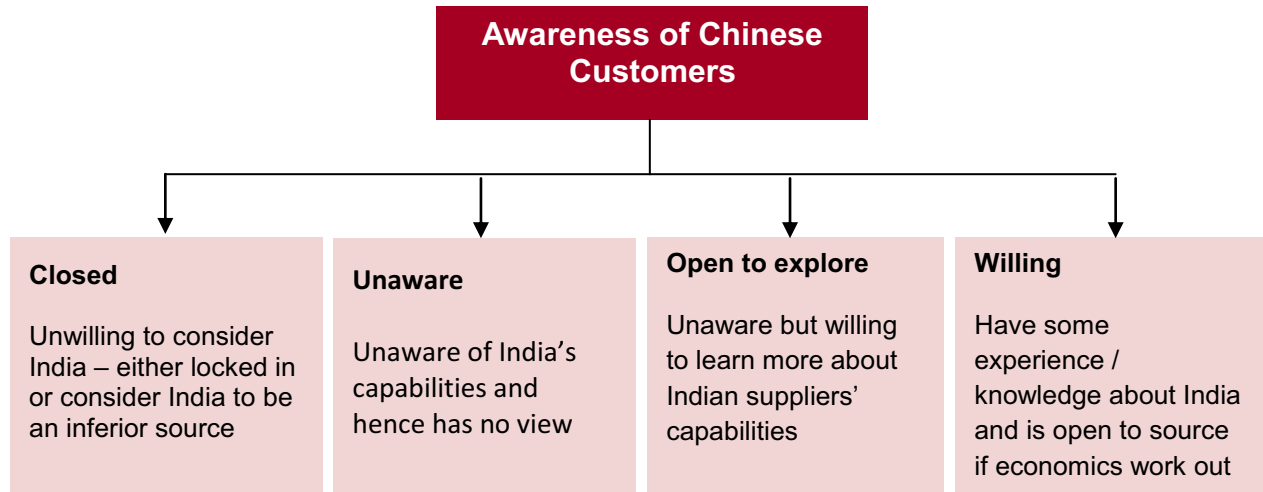
Thus, engine components and lighting within large CV and PV makers like Changan, Dongfeng, Foton, FAW and engine assemblers like Weichai are the largest export opportunities which can be targeted.

6.2 Prioritisation of the Target Market Opportunity

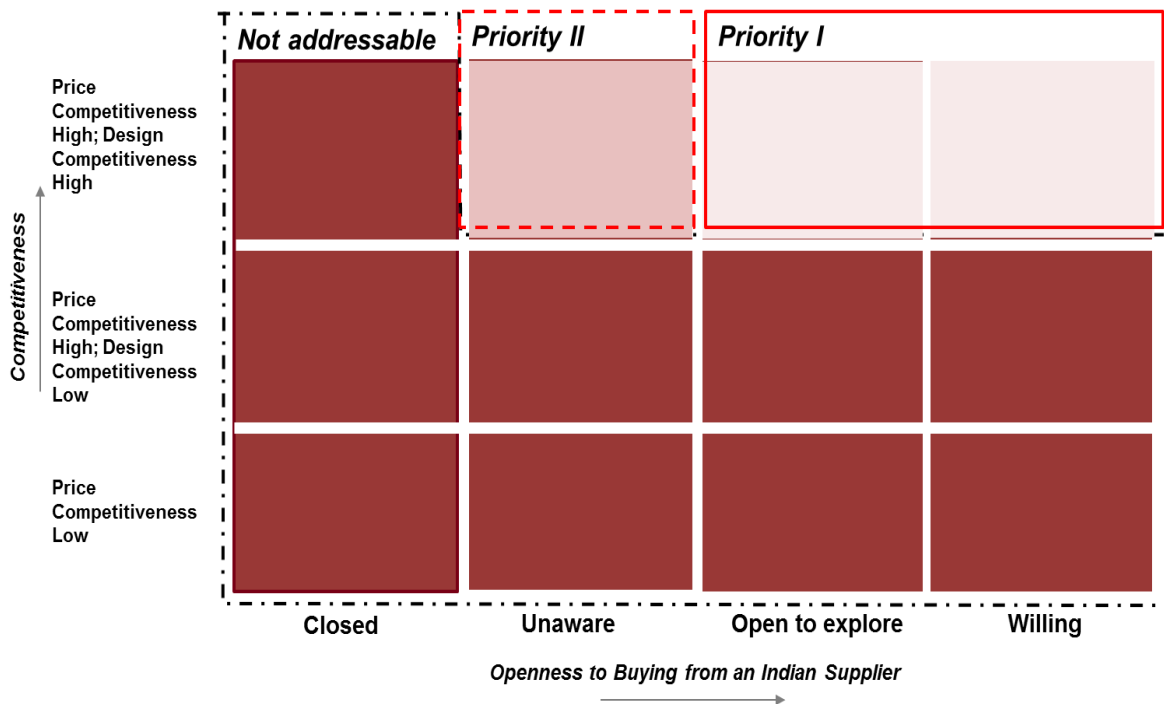
We have further broken down this market opportunity based on our analysis of the price competitiveness and design and development capabilities of Indian players vs. competitors serving the target customers.



This prioritisation was assessed based on interviews with Chinese OEMs and discussions with Indian auto component companies and analysis / knowledge of estimated Indian prices in China. This has been complemented with the perceptions of the target Chinese customers about Indian component suppliers.



Thus, the target market opportunity has been prioritised based on the following framework driven by the two dimensions-



6.3 Price Competitiveness of Indian Auto Components

6.3.1 Connecting Rods:

Con Rod pricing seems to be attractive for Indian suppliers, even after taking duties and logistics into consideration – landed price from India is ~7-40% lower than China ex-factory price

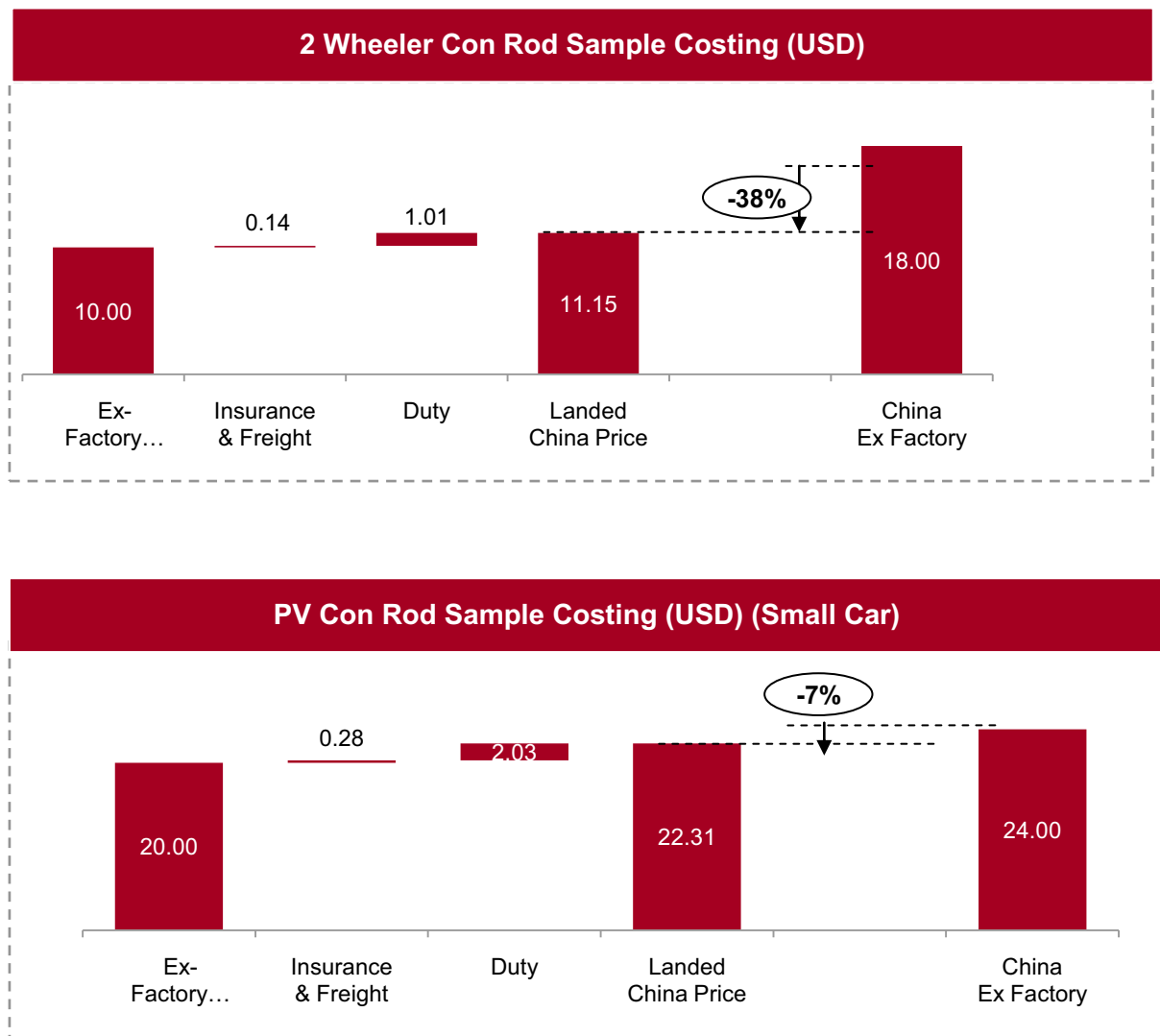


Exhibit 6.4

6.3.2 Pistons:

Piston pricing seems to be attractive for Indian suppliers, even after taking duties and logistics into consideration – landed price from India is more than 30% lower than China ex-factory price

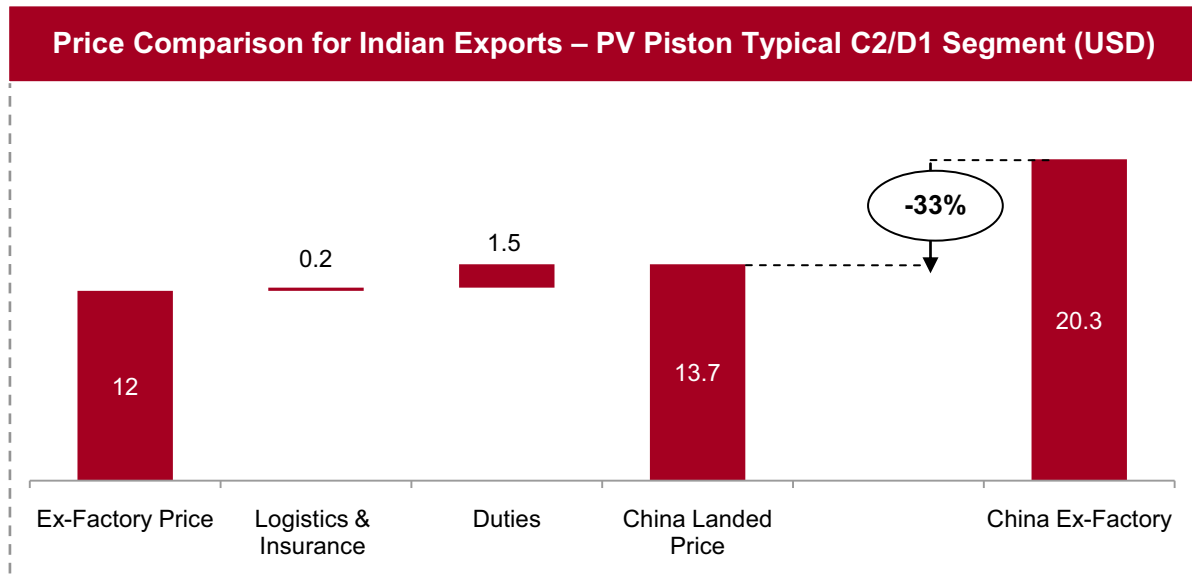


Exhibit 6.5

6.3.3 Lighting:

The pricing for PV lighting set seems to be attractive for Indian suppliers, even after taking duties and logistics into consideration – landed price from India is almost 14% lower than China ex-factory price

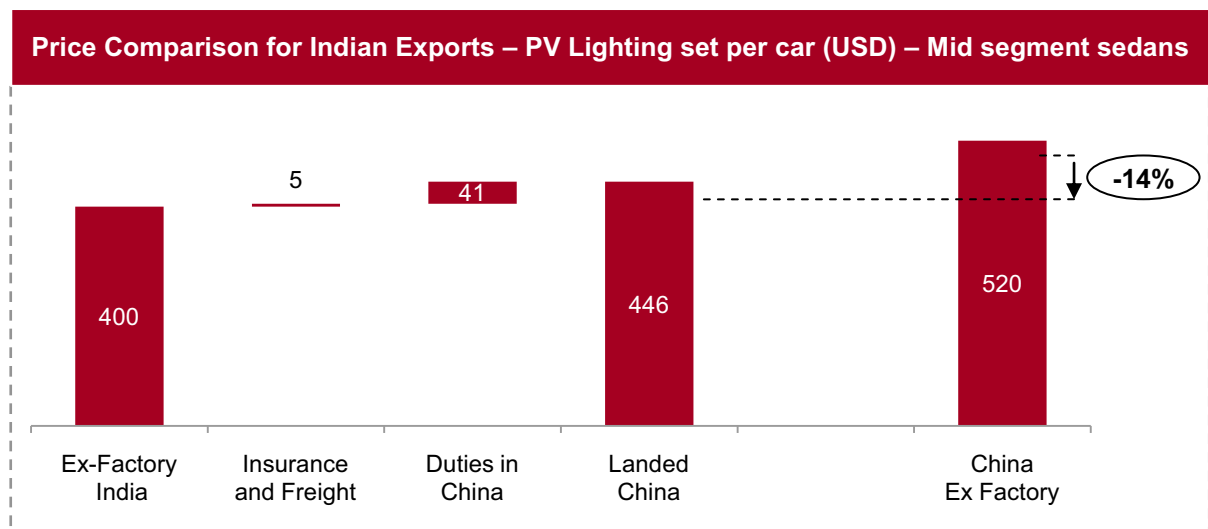


Exhibit 6.6

6.3.4 Muffler and Exhaust Systems:

Muffler pricing does not seem to be attractive for Indian suppliers after taking duties and logistics into consideration – landed price from India is comparable to China ex-factory price

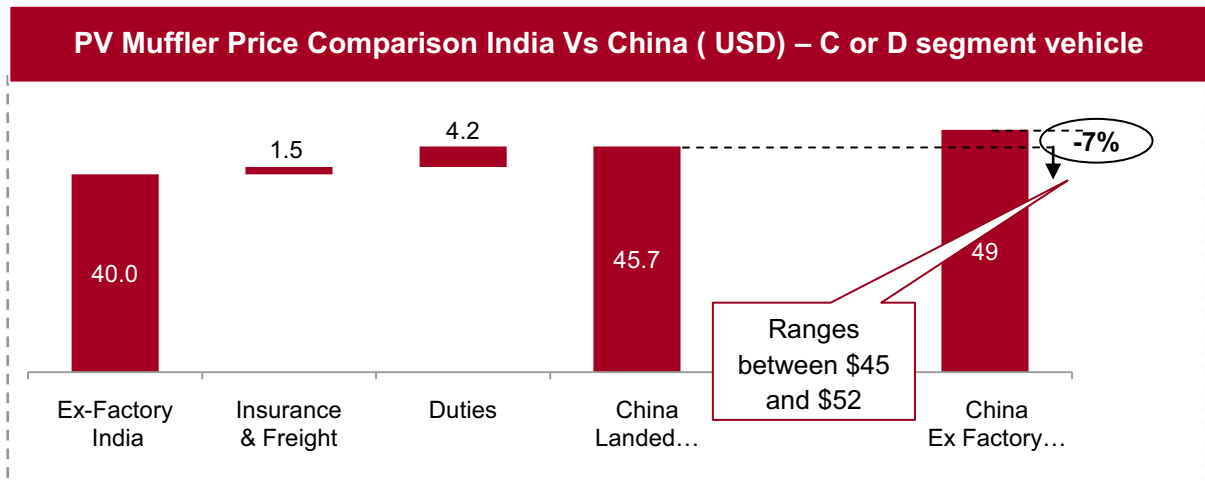


Exhibit 6.7

6.3.5 Shock Absorbers:

2W shock absorber pricing seems to be attractive for Indian suppliers, even after taking duties and logistics into consideration – landed price from India is ~25% lower than China ex-factory price

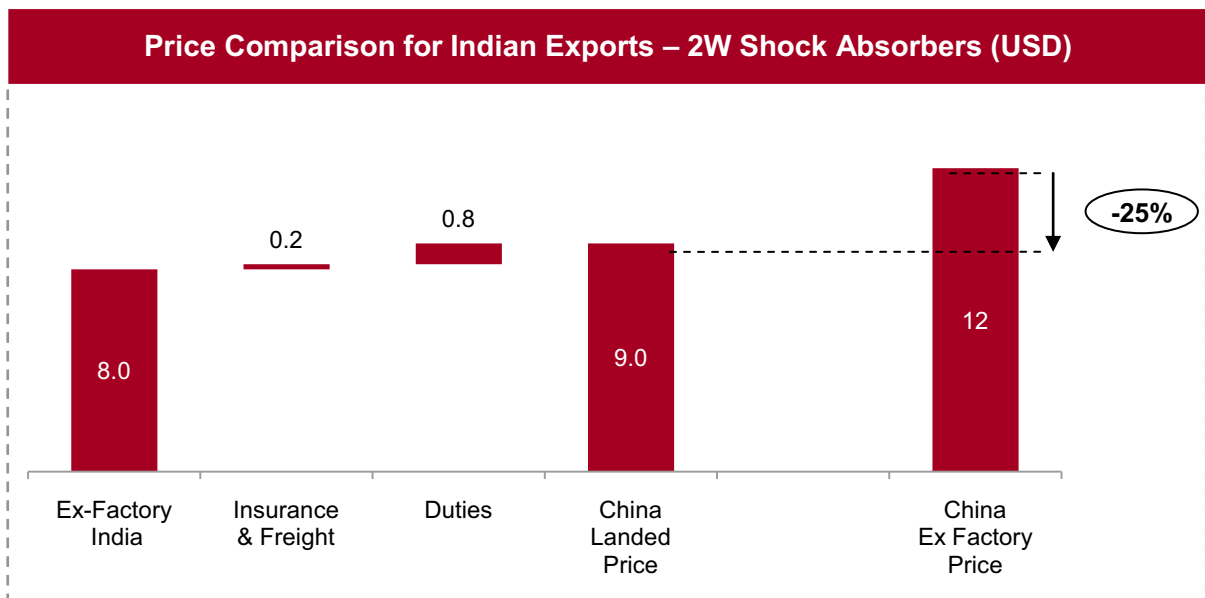


Exhibit 6.8

However, 4W shock absorber pricing is not attractive for Indian suppliers after taking duties and logistics into consideration – landed price from India is almost 16% higher than China ex-factory price

Price Comparison for Indian Exports – 4W Shock Absorbers Entry Level Sedans (USD)

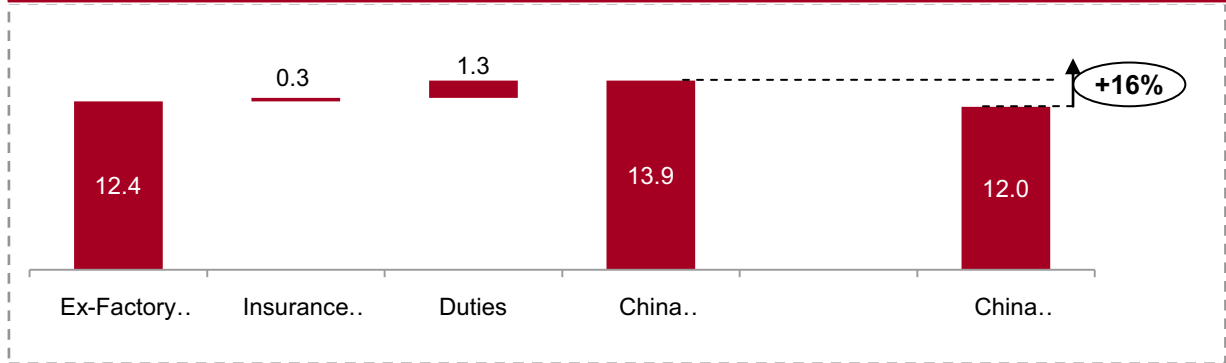


Exhibit 6.9

6.3.6 Crankshafts:

Crankshaft pricing from India seems to have a marginal advantage after taking duties and logistics into consideration – landed price from India is ~6% lower than China ex-factory price.

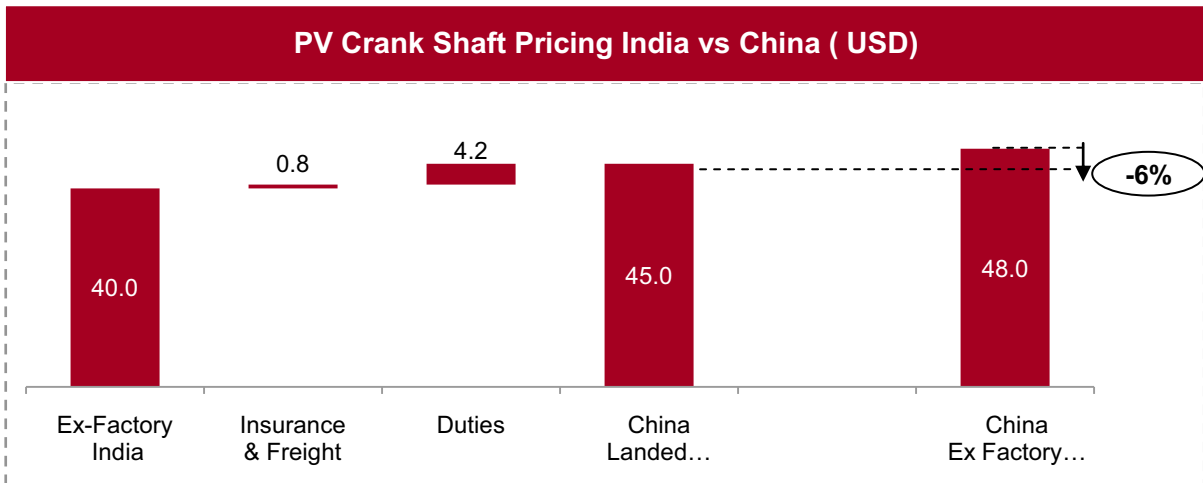
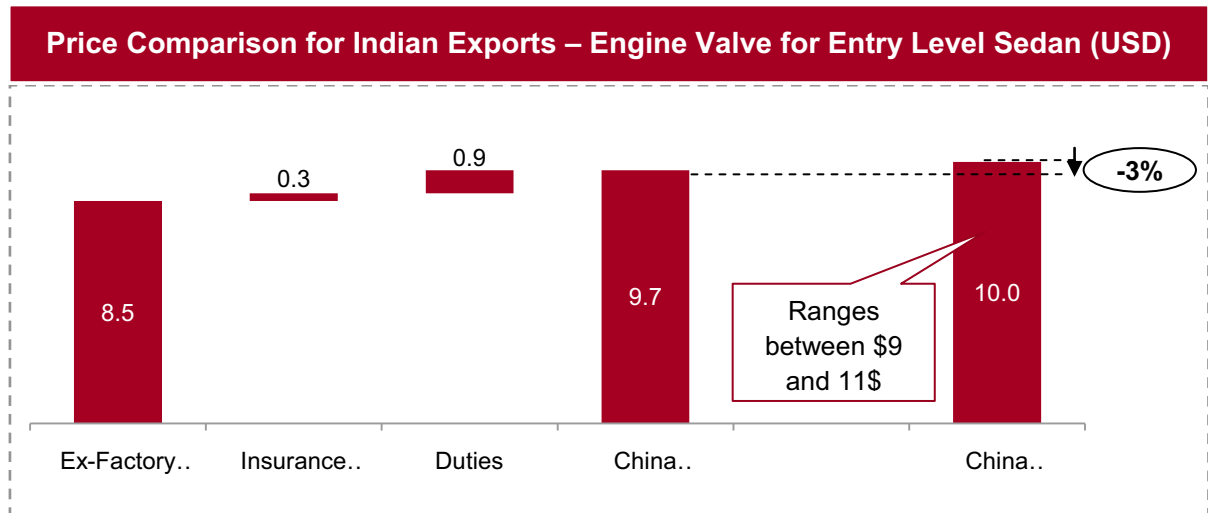


Exhibit 6.10

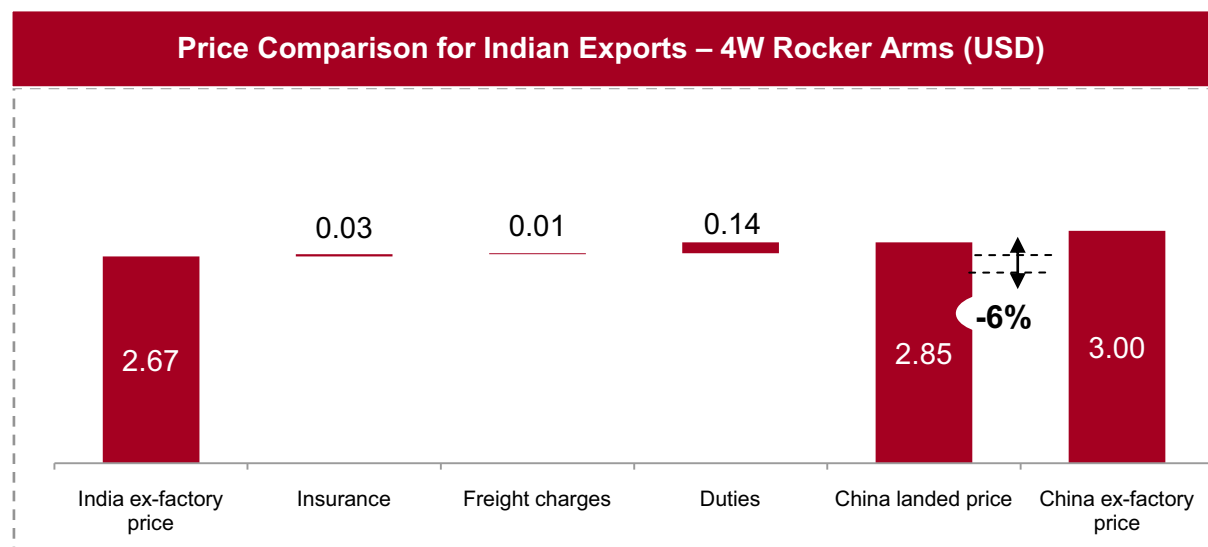
6.3.7 Engine Valves:

Engine valve pricing does not seem attractive for Indian suppliers, after taking duties and logistics into consideration – landed price from India is only ~3% lower than China ex-factory price



6.3.8 Rocker Arms:

Export of Rocker Arms to China seems to be attractive for Indian suppliers as, even after taking duties and logistics into consideration – landed price from India is almost 6% lower than China ex-factory price.



6.3.9 Cylinder Liners:

The pricing of Cylinder Liners seems to be attractive for Indian suppliers. Even after taking duties and logistics into consideration, landed price from India is 5% lower than the ex-factory price in China.

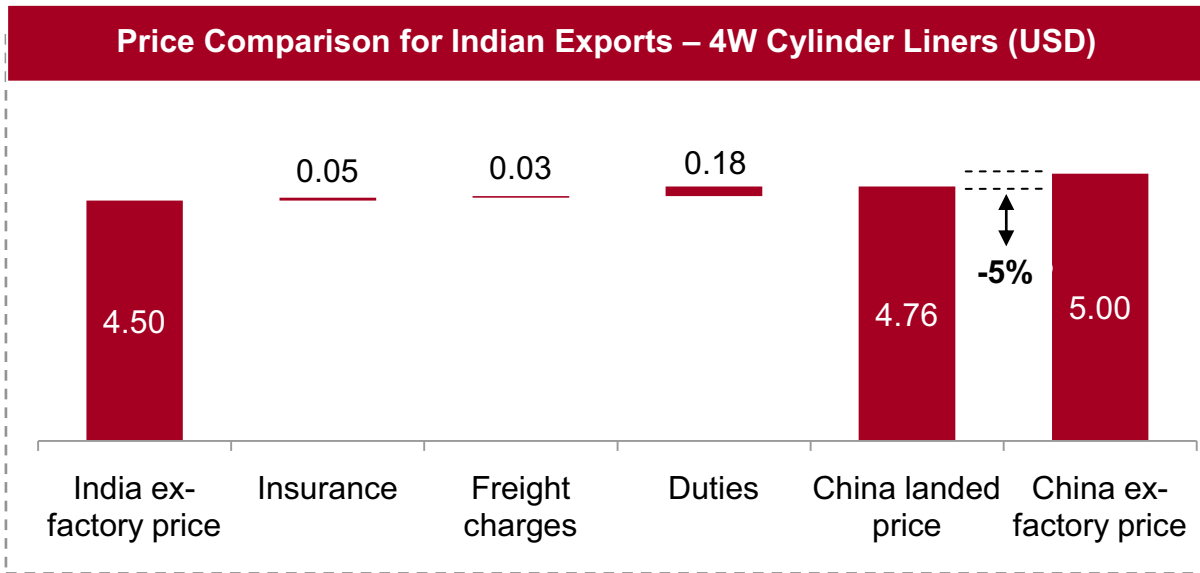


Exhibit 6.13

6.4 Design competitiveness of Indian Auto Components

Design competitiveness of Indian auto components varies across the components shortlisted – key engine components show strong design capability while others like mufflers and engine valves show relatively lower capability.

Component	Major Indian suppliers	Design capability
Cylinder hardware (piston assembly)	Abilities Pistons, Sriram Pistons, India Pistons	High
Connecting rods & rocker arms	Amtek Auto, Amul Industries, Sansera	Medium-High
Crankshafts and Camshafts	Bharat Forge, Kalyani Forge, Amtek Auto, Sansera	High
Lighting & Signalling Equipments	Minda, Lumax Auto, Varroc Industries	Medium
Engine valves	Varroc, Alicon, Rane Engine Valves	Low
Shock absorbers	Gabriel, G.S. Auto, Munjal Showa	Medium
Muffler & Exhaust Systems	Sharada Motor, SM Auto Engineering, Ecocat	Negligible

Design capability → High Medium-High Medium Low Negligible

Exhibit 6.14

7. Prioritisation of Export Opportunities

The Priority I opportunity is estimated at \$3.0 Bn while Priority II opportunity is estimated at \$4.5 Bn. The overall opportunity could potentially reduce to \$17.3 Bn as certain product segments are not addressable.

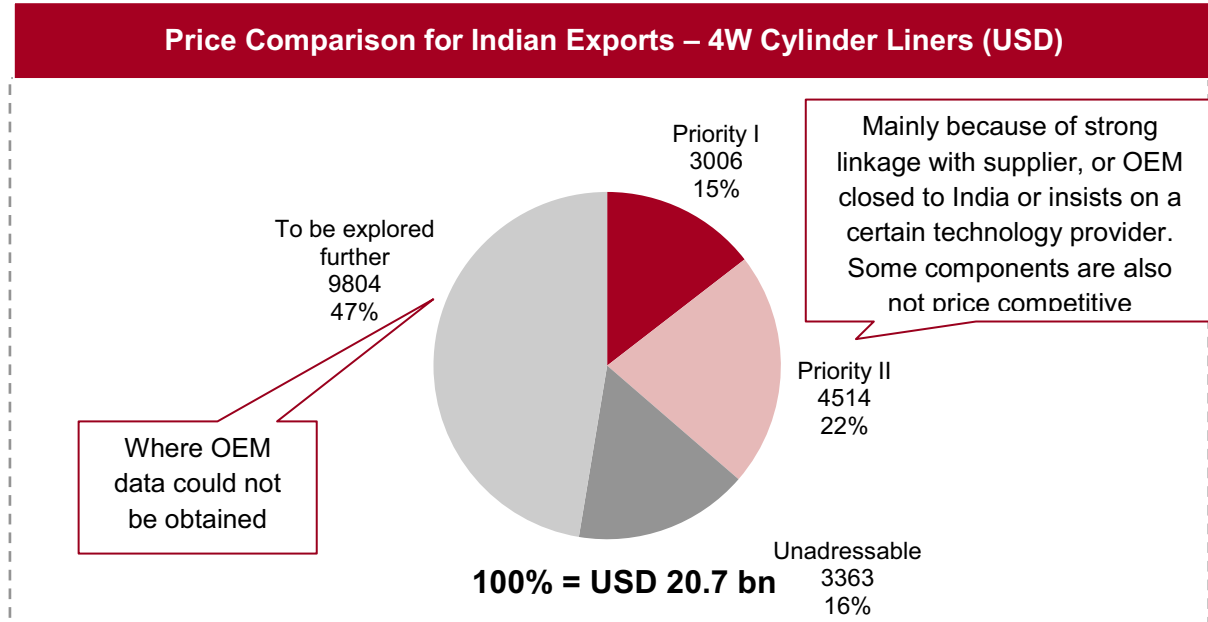


Exhibit 7.1

Within Priority I, Beiqi Foton, Geely, Weichai and Lifan are the key OEMs while engine hardware and lighting are key components.

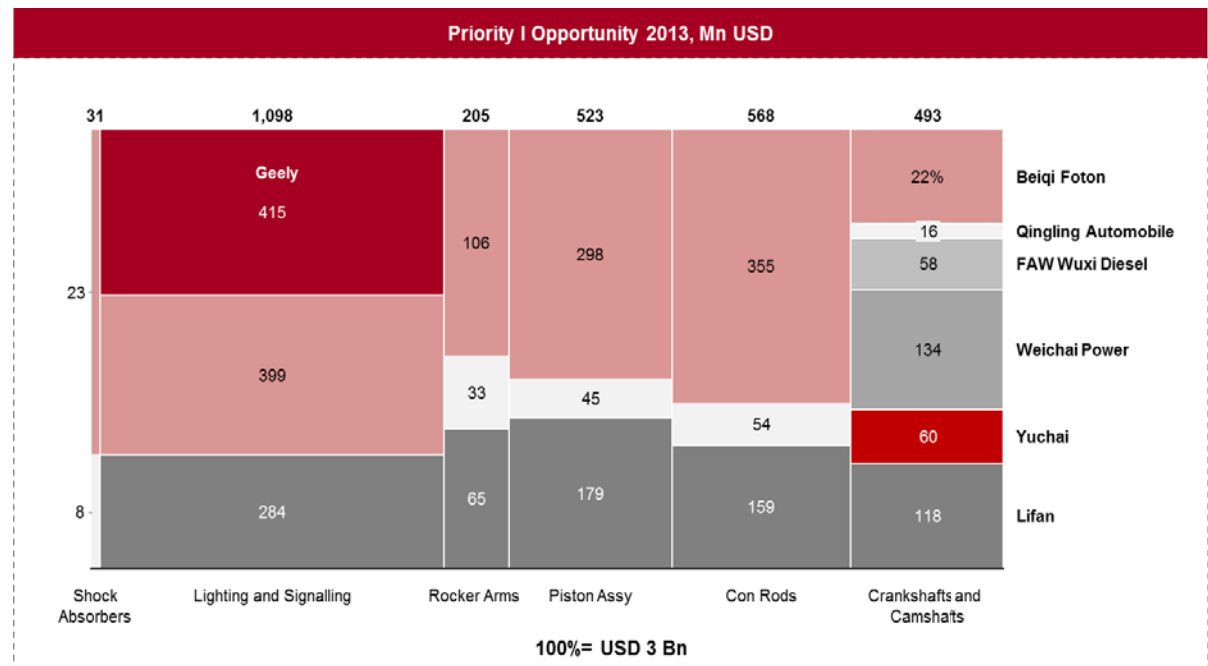


Exhibit 7.2

Within Priority II, engine components and lighting remain the major components while Great Wall, Dongfeng, Weichai, Yuchai and Chongqing Chang'an are the key OEMs.

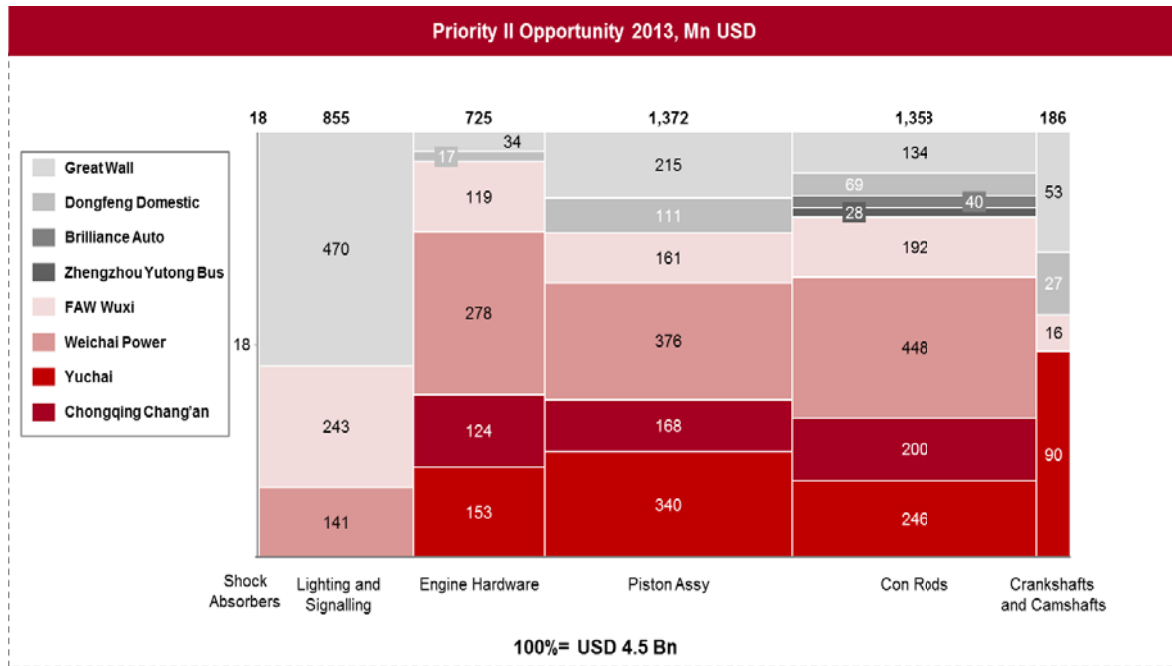


Exhibit 7.3

There are certain opportunities that do not appear to be addressable due to specific reasons.

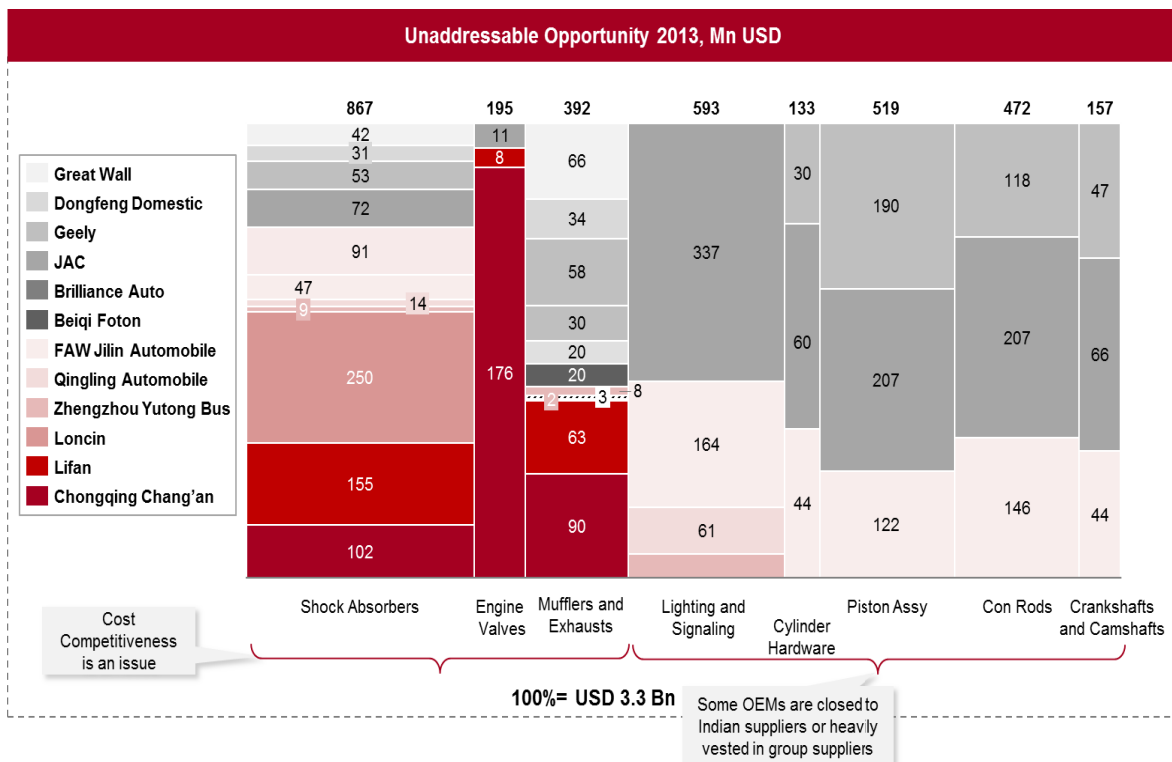


Exhibit 7.4

There are some opportunities that need further exploration.

Component	Unexplored Opportunity (\$ Mn)	Key OEMs to be explored for the component	Remarks
Valve	852	Chery, JAC, Chongqing Yinxiang Guangzhou Daiyun, Chongqing Bashan	Unlikely to be price competitive
Cylinder hardware	1,920	Chery, Chongqing Yinxiang Guangzhou Daiyun, Chongqing Bashan	OEMs did not respond
Con rod and rocker arm	1,902	Chery, Chongqing Yinxiang Guangzhou Daiyun, Chongqing Bashan	OEMs did not respond
Shaft	865	Chery, Chongqing Yinxiang Guangzhou Daiyun, Chongqing Bashan	OEMs did not respond
Lighting and Signalling Equipment	3,109	Chongqing Yinxiang Guangzhou Daiyun, Chongqing Chang'an	OEMs did not respond
Muffler	383	Chery, JAC, Chongqing Yinxiang Guangzhou Daiyun, Chongqing Bashan	Unlikely to be price competitive
Shock Absorber	773	Chery, JAC, Chongqing Yinxiang Guangzhou Daiyun, Anhui Ankai Futian Shuguang Axle	Cost competitiveness borderline
Total	9,804		

Exhibit 7.5





Thus, to summarise, there are some distinct opportunities which require to be pursued by Indian component players with specific OEMs / Tier 1s in China-

Component	Size of Opportunity (USD mn)			Key OEMs / Tier 1s in China	Examples of Indian Auto Component Companies
	Priority 1	Priority 2	To be Explored		
Shock Absorbers	26	18	773	Beiqi Foton, Great Wall	Gabriel, Escorts, Munjal Showa
Mufflers			383	NA	Mark Exhaust, SKH Metals
Lighting	1,140	855	3,109	Lifan, Geely, Foton, Dongfeng, Great Wall, Brilliance	Varroc, Lumax, NK Minda Group,
Valves			852	NA	Rane, Durovalves, Automotive Valves,
Cylinder Hardware (incl piston)	691	1740	1920	Lifan, Foton, Dongfeng, Cummins Weichai Yuchai	Abilities India, India Pistons, Shriram Pistons, Menon
Con Rod	582	1,358	1,439	Lifan, Foton, Dongfeng, Cummins Weichai Yuchai	Sansera, Kalyani Forge
Rocker Arm	62	357	462	Lifan, Foton, Dongfeng, Cummins, Weichai, Yuchai	Sansera, Kalyani Forge, Dynamatic
Shafts	505	185	865	Lifan, Foton, Dongfeng, Cummins, Weichai, Yuchai	Bharat Forge, Amforge
Total	3,006	4514	9,804		

Exhibit 7.6

8. Conclusion

While the opportunity for exporting auto components to China looks promising, accessing these opportunities will require specific actions on the part of the auto component companies. The most critical issues would be to overcome the China mind-set which makes Indian companies look at China as a low cost source forgetting that it has a large and sophisticated auto industry. Indian industry needs to treat Chinese OEMs like global OEMs and invest in building relationships.

 <p>Overcoming the China Mindset</p>	<p>Indian manufacturing industry is used to being swamped by the Chinese exporters supplying to India at seemingly absurd prices. This trend has begun to change and reverse in favour of India in specific types of manufacturing verticals. There is an urgent need to overcome the past mindsets and rapidly reverse the thinking by viewing China as an opportunity rather than a threat</p>
 <p>Approaching Chinese OEMs like Indian / Global OEMs</p>	<p>Chinese OEMs will behave similar to Indian and Global OEMs – hesitant to add vendor codes unless there is a clear value proposition. Breaking into the OEM will be a long drawn affair and will require perseverance and responding to multiple RFQs – similar to Indian or Global OEM. If possible, approaching them through any global business (outside India) in the portfolio may make the opening quicker (given India perceptions)</p>
 <p>Investing in Building the Relationship and Business</p>	<p>Breaking into the OEMs / Tier 1s will require significant investment in R&D and designing – this is the key value proposition which Chinese OEMs will look for over their local Chinese supply base – similar to Indian / Global OEMs. In addition, building a relationship with the OEM is particularly important in China – this will require multiple visits and interactions to show the commitment to the customer</p>
 <p>Exports as a Stepping Stone to Investment</p>	<p>The Chinese opportunity is large with their auto industry several times the Indian industry in most vehicle categories (except 2W). Once a breakthrough is achieved, servicing the volumes likely in the medium term may envisage local manufacturing selectively (either through a JV / acquisition) or Greenfield investment. Hence, exports may need to be followed with manufacturing either in China or an ASEAN country</p>

At the same time, the Government of India also needs to play a key role to enable Indian suppliers to capitalize on this opportunity. Towards this end, events in China need to be planned to engage Chinese OEMs, Chinese OEMs need to be invited to India to visit and evaluate suppliers on “buying missions”, select categories can be brought under MLPFS scheme.



Generating Awareness about India

Many China OEMs have a poor awareness of Indian manufacturing capability. A strong effort to increase awareness and encourage dialogue with key stakeholders in the auto component value chain of China is essential to make inroads in exports. This will require Government to push for joint events with the Chinese counterparts and get the Chinese industry co-opted – ACMA can lead the effort in organizing such events in India and China



Helping hold Buying Missions

China usually addresses large trade deficits with countries by mounting Buying Missions to source from the target country, provided there is a value proposition to China. Indian Government should pro-actively push for such Missions (especially since some of the target customers are SOEs) to specific companies around the targeted components. Similarly such events should be supported in China in specific regions / locations> If possible, import duty reductions should be explored as part of such Missions



Export Benefits

For exports of select categories to China the Government can explore giving incentive in line with MLFPS scheme. This can be to the tune of ~5-10% to offset the import duty and Chinese cost advantage



Supporting ACMA in it's efforts in China

China needs to be a key target country for ACMA from a market development standpoint. This will involve multiple initiatives related to China – delegations, Buyer-Seller meets, participation in key Exhibitions, undertaking studies of various kinds to help industry understand China better, etc. Government support for such initiatives will be critical as these will need to be sustained over a period of time

9. Annexures

Emission standard norms for different classes and types of vehicles are listed below.

9.1 Emission Standards for Vehicles with Positive Ignition Engines in China

Stage	Category	Class	CO	HC	NMHC	NOx	PM	PN
			g/km					
China 3	Type 1		2.3	0.2	-	0.15	-	
	Type 2	I	2.3	0.2	-	0.15	-	
		II	4.17	0.25	-	0.18	-	
		III	5.22	0.29	-	0.21	-	
China 4	Type 1		1	0.1	-	0.08	-	
	Type 2	I	1	0.1	-	0.08	-	
		II	1.81	0.13	-	0.1	-	
		III	2.27	0.16	-	0.11	-	
China 5	Type 1		1	0.1	0.068	0.06	0.0045a	
	Type 2	I	1	0.1	0.068	0.06	0.0045a	
		II	1.81	0.13	0.068	0.075	0.0045a	
		III	2.27	0.16	0.068	0.082	0.0045a	

a - applies only to direct injection positive ignition engines

Source- Dieselnets

9.2 Emission Standards for Vehicles with Compression Ignition Engines in China

Stage	Category	Class	CO	HC+NOx	NOx	PM	PN
			g/km				
China 3	Type 1		0.64	0.56	0.5	0.05	
	Type 2	I	0.64	0.56	0.5	0.05	
		II	0.8	0.72	0.65	0.07	
		III	0.95	0.86	0.78	0.1	
China 4	Type 1		0.5	0.3	0.25	0.025	
	Type 2	I	0.5	0.3	0.25	0.025	
		II	0.63	0.39	0.33	0.04	
		III	0.74	0.46	0.39	0.06	
China 5	Type 1		0.5	0.23	0.18	0.0045	6×10 ¹¹
	Type 2	I	0.5	0.23	0.18	0.0045	6×10 ¹¹
		II	0.63	0.295	0.235	0.0045	6×10 ¹¹
		III	0.74	0.35	0.28	0.0045	6×10 ¹¹

Source- Dieselnets

9.3 Emission Standards for Heavy-Duty Engines in China

Stage	CO	HC	NMHC	CH ₄ ^a	NO _x	PM	Smoke
	g/km						#/km
China III	2.1	0.66	-		5	0.10/0.13†	0.8
	5.45	-	0.78		5	0.16/0.21†	-
China IV	1.5	0.46	-		3.5	0.02	0.5
	4	-	0.55		3.5	0.03	-
China V	1.5	0.46	-		2	0.02	0.5
	4	-	0.55		2	0.03	-
China VI	1.5	-	0.13	-	0.4	0.01b	
	4	-	0.16	0.5	0.46	0.01b	

Source- Dieselnet

9.4 Emission Standards for Non-road Diesel Engines in China, g/kWh

Max Power (P), kW	CO	HC	NO _x	HC+NO _x	PM
Stage I†					
130 ≤ P ≤ 560	5	1.3	9.2	-	0.54
75 ≤ P < 130	5	1.3	9.2	-	0.7
37 ≤ P < 75	6.5	1.3	9.2	-	0.85
18 ≤ P < 37	8.4	2.1	10.8	-	1
8 ≤ P < 18	8.4	-	-	12.9	-
0 < P < 8	12.3	-	-	18.4	-
Stage II					
130 ≤ P ≤ 560	3.5	1	6	-	0.2
75 ≤ P < 130	5	1	6	-	0.3
37 ≤ P < 75	5	1.3	7	-	0.4
18 ≤ P < 37	5.5	1.5	8	-	0.8
8 ≤ P < 18	6.6	-	-	9.5	0.8
0 < P < 8	8	-	-	10.5	1

† Stage I limits shall be achieved before any exhaust after treatment device.

Source- Dieselnet

9.5 Import Duties Applicable on Select Auto Components of Priority I and II

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
87088010	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Suspension systems and parts thereof (including shock-absorbers): Of the vehicles of heading No.87.03	Preferential tariff for APTA countries	10	9
87088090	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Suspension systems and parts thereof (including shock-absorbers): Other	Preferential tariff for APTA countries	10	9
87089200	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Silencers (mufflers) and exhaust pipes; parts thereof	MFN duties (Applied)	10	5
87081000	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Bumpers and parts thereof	Preferential tariff for APTA countries	10	9.6
87084010	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Of the vehicles of heading No.87.01	MFN duties (Applied)	6	5
87084020	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Of the vehicles of subheading No.8702.1091 or 8702.9010	MFN duties (Applied)	7.3	7.3
87084030	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Of the vehicles of subheading No. 8704.1030 or 8704.1090	MFN duties (Applied)	6	5
87084040	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Of the vehicles of subheading No. 8704.2100, 8704.2230, 8704.3100 or 8704.3230	MFN duties (Applied)	7.3	7.3
87084050	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Of the vehicles of subheading No. 8704.2240, 8704.2300 or 8704.3240	MFN duties (Applied)	7.3	7.3
87084060	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Of the vehicles of heading No.87.05	MFN duties (Applied)	10	5
87084091	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Other: Automatic gearshift for saloon cars	MFN duties (Applied)	7.3	7.3

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
87084099	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Gear boxes and parts thereof: Other: Other	MFN duties (Applied)	7.3	7.3
87085071	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Drive-axles with differential, whether or not provided with other transmission components, parts thereof: Of the vehicles of heading No.87.01	Preferential tariff for APTA countries	9.2	8
87085072	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Drive-axles with differential, whether or not provided with other transmission components, parts thereof: Of the vehicles of subheading No. 8702.1091 or 8702.9010	Preferential tariff for APTA countries	9.2	8
87085073	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Drive-axles with differential, whether or not provided with other transmission components, parts thereof: Of the vehicles of subheading No. 8704.1030 or 8704.1090	Preferential tariff for APTA countries	9.2	8
87085074	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Drive-axles with differential, whether or not provided with other transmission components, parts thereof: Of the vehicles of subheading No. 8704.2100, 8704.2230, 8704.3100 or 8704.3230	Preferential tariff for APTA countries	9.2	8
87085075	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Drive-axles with differential, whether or not provided with other transmission components, parts thereof: Of the vehicles of subheading No. 8704.2240, 8704.2300 or 8704.3240	Preferential tariff for APTA countries	9.2	8

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
87085076	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Drive-axles with differential, whether or not provided with other transmission components, parts thereof: Of the vehicles of heading No.87.05	Preferential tariff for APTA countries	9.2	8
87085079	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Drive-axles with differential, whether or not provided with other transmission components, parts thereof: Other	Preferential tariff for APTA countries	9.2	8
87085081	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Non-driving axles and parts thereof: Of the vehicles of heading No.87.01	MFN duties (Applied)	6	5
87085082	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Non-driving axles and parts thereof: Of the vehicles of subheading No. 8702.1091 or 8702.9010	MFN duties (Applied)	15	9.7
87085083	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Non-driving axles and parts thereof: Of the vehicles of subheading No. 8704.1030 or 8704.1090	MFN duties (Applied)	6	5
87085084	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Non-driving axles and parts thereof: Of the vehicles of subheading No. 8704.2100, 8704.2230, 8704.3100 or 8704.3230	MFN duties (Applied)	10	5
87085085	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Non-driving axles and parts thereof: Of the vehicles of subheading No.8704.2240, 8704.2300 or 8704.3240	MFN duties (Applied)	10	5

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
87085086	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Non-driving axles and parts thereof: Of the vehicles of heading No.87.05	MFN duties (Applied)	10	5
87085089	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Drive-axles with differential, whether or not provided with other transmission components, and non-driving axles; parts thereof: Non-driving axles and parts thereof: Other	MFN duties (Applied)	10	5
87089310	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Clutches and parts thereof: Of the vehicles of heading No.87.01	MFN duties (Applied)	6	5
87089320	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Clutches and parts thereof: Of the vehicles of subheading No. 8702.1091 or 8702.9010	MFN duties (Applied)	10	5
87089330	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Clutches and parts thereof: Of the vehicles of subheading No.8704.1030 or 8704.1090	MFN duties (Applied)	6	5
87089340	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Clutches and parts thereof: Of the vehicles of subheading No.8704.2100, 8704.2230, 8704.3100 or 8704.3230	MFN duties (Applied)	10	5
87089350	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Clutches and parts thereof: Of the vehicles of subheading No.8704.2240, 8704.2300 or 8704.3240	MFN duties (Applied)	10	5
87089360	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Clutches and parts thereof: Of the vehicles of heading No.87.05	MFN duties (Applied)	10	5
87089390	Parts and accessories of the motor vehicles of headings 87.01 to 87.05: Other parts and accessories: Clutches and parts thereof: Other	MFN duties (Applied)	10	5

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
84834010	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Gears and gearing, other than toothed wheels, chain sprockets and other transmission elements presented separately; ball or roller screws; gear boxes and other speed changers, including torque converters: Roller Screws	Preferential tariff for APTA countries	8	5.60
84834020	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Gears and gearing, other than toothed wheels, chain sprockets and other transmission elements presented separately; ball or roller screws; gear boxes and other speed changers, including torque converters: Planet decelerators	Preferential tariff for APTA countries	8	5.60
84834090	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Gears and gearing, other than toothed wheels, chain sprockets and other transmission elements presented separately; ball or roller screws; gear boxes and other speed changers, including torque converters: Other	Preferential tariff for APTA countries	8	5.60
84835000	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Flywheels and pulleys, including pulley blocks	MFN duties (Applied)	8	5
84839000	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Toothed wheels, chain sprockets and other transmission elements presented separately; parts	MFN duties (Applied)	8	5

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
84099110	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08: Other: Suitable for use solely or principally with spark-ignition internal combustion piston engines: For marine propulsion engines	Preferential tariff for APTA countries	4	4.20
84099191	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08: Other: Suitable for use solely or principally with spark-ignition internal combustion piston engines: Other: Electric fuel injection devices	MFN duties (Applied)	5	3.50
84099199	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08: Other: Suitable for use solely or principally with spark-ignition internal combustion piston engines: Other: Other	Preferential tariff for APTA countries	5	3.50
84099910	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08: Other: Other: For marine propulsion engines	Preferential tariff for APTA countries	5	3.50
84099920	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08: Other: Other: For locomotive engines	Preferential tariff for APTA countries	2	1.50
84099991	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08: Other: Other: Other: For engines with an output of 132.39KW (180H.P.) or more	Preferential tariff for APTA countries	2	1.50
84099999	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08: Other: Other: Other: Other	Preferential tariff for APTA countries	8.4	8
84831011	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Transmission shafts (including cam shafts and crank shafts) and cranks: Transmission shafts for ships: Diesel engine crankshaft	Preferential tariff for APTA countries	6	5
84831019	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Transmission shafts (including cam shafts and crank shafts) and cranks: Transmission shafts for ships: Other	Preferential tariff for APTA countries	6	5

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
84831090	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Transmission shafts (including cam shafts and crank shafts) and cranks: Other	MFN duties (Applied)	6	5
84835000	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Flywheels and pulleys, including pulley blocks	MFN duties (Applied)	8	5
84836000	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including: Clutches and shaft couplings (including universal joints)	MFN duties (Applied)	8	5
85122010	Electrical lighting or signalling equipment (excluding articles of heading 85.39), windscreen wipers, defrosters and demisters, of a kind used for cycles or motor vehicles: Other lighting or visual signalling equipment: Lighting equipment of a kind used for motor vehicles	MFN duties (Applied)	10	NA
85122090	Electrical lighting or signalling equipment (excluding articles of heading 85.39), windscreen wipers, defrosters and demisters, of a kind used for cycles or motor vehicles: Other lighting or visual signalling equipment: Other	MFN duties (Applied)	10	NA
85391000	Electric filament or discharge lamps, including sealed beam lamp units and ultra-violet or infra-red lamps; arc-lamps: Sealed beam lamp units	MFN duties (Applied)	10	5
70091000	Glass mirrors, whether or not framed, including rear-view mirrors: Rear-view mirrors for vehicles	MFN duties (Applied)	10	5
40169990	Other articles of vulcanised rubber other than hard rubber: Other: Other: Other	MFN duties (Applied)	10	9.5
40092100	Tubes, pipes and hoses, of vulcanised rubber other than hard rubber, with or without their fittings (for example, joints, elbows, flanges): Reinforced or otherwise combined only with metal: Without fittings	MFN duties (Applied)	10.5	5
40169310	Other articles of vulcanised rubber other than hard rubber: Other: Gaskets, washers and other seals: Of a kind used in machines or instruments	MFN duties (Applied)	8	5

Product code	Product Description	Tariff regime	MFN Rate (%)	APTA Rate (%)
40169390	Other articles of vulcanised rubber other than hard rubber: Other: Gaskets, washers and other seals: Other	MFN duties (Applied)	8	8
40081100	Plates, sheets, strip, rods and profile shapes, of vulcanised rubber other than hard rubber: Of cellular rubber: Plates, sheets and strip	MFN duties (Applied)	8	5
40094200	Tubes, pipes and hoses, of vulcanised rubber other than hard rubber, with or without their fittings (for example, joints, elbows, flanges): Reinforced or otherwise combined with other materials: With fittings	MFN duties (Applied)	10	5
40051000	Compounded rubber, unvulcanised, in primary forms or in plates, sheets or strip: Compounded with carbon black or silica	MFN duties (Applied)	8	5
40094100	Tubes, pipes and hoses, of vulcanised rubber other than hard rubber, with or without their fittings (for example, joints, elbows, flanges): Reinforced or otherwise combined with other materials: Without fittings	MFN duties (Applied)	10.5	5
40103400	Conveyor or transmission belts or belting, of vulcanised rubber: Transmission belts or belting: Endless transmission belts of trapezoidal cross-section (V-belts), other than V-ribbed, of an outside circumference exceeding 180 cm but not exceeding 240 cm	MFN duties (Applied)	8	5
40131000	Inner tubes, of rubber: Of a kind used on motor cars (including station wagons and racing cars), buses or lorries	Preferential tariff for APTA countries	15	13
68138100	Friction material and articles thereof (for example, sheets, rolls, strips, segments, discs, washers, pads), not mounted, for brakes, for clutches or the like, with a basis of asbestos, of other mineral substances or of cellulose, whether or not combined: Not containing asbestos: Brake linings and pads	MFN duties (Applied)	10	5

Source- Trademap

References:

- Customs Duty related information for various Auto Components may be accessed through the following websites:
 - **General Administration of Customs of the People's Republic of China:** A government agency that supervises and manages all arrivals in and departures from the customs territory of the mainland of the PRC. It can be accessed through -
<http://english.customs.gov.cn/publish/portal191/>
 - **China Customs Information Centre:** An online information service platform of import-export trade, which can be accessed through -
<http://www.customs-info.com/StaticPage/AboutUs.aspx>
- The **emission standards** for different classes of vehicles in China can be obtained from the following web link:
<https://www.dieselnet.com/standards/cn/>
- Trade related data may be accessed from **Trade Map** and **Comtrade**, the links for the same are respectively:
<http://comtrade.un.org/>
- GDP and other economic data have been obtained from the websites of the **World Bank**, **National Bureau of Statistics in China** and **UNCTAD**
<http://www.worldbank.org/>
<http://www.stats.gov.cn/english/>
<http://unctad.org/en/Pages/Home.aspx>
- Auto Sales related data have been procured from the **China Auto Web** and **China Automotive Information Net** websites. These websites give a holistic view of the Chinese Auto Industry
<http://chinaautoweb.com/>
http://english.autoinfo.org.cn/autoinfo_eng/index.htm



Avalon Consulting is an Asia-focussed international management consulting firm that advises clients across the world on Strategy, Performance Improvement, Business Transformations and Transactions. It is one of Asia's Top 10 strategy consulting firms as per Vault 2013 rankings. It is a part of the 25 year old, 1500-people Avalon Group, with offerings across the knowledge value chain including Market Research and Marketing Analytics.

Avalon Consulting offers end to end services - from solution design to implementation.

Avalon's services are characterised by customer centricity, depth of expertise, a collaborative approach across stakeholders and actionable solutions. Avalon has deep expertise in various sectors including auto and auto components, engineering, chemicals, pharmaceuticals, healthcare, education, etc.

Avalon's clientele includes corporates in manufacturing and service sectors, financial institutions, private equity and venture capital firms, governments, industry associations, etc. in 14 countries including India and South Asia, West Asia, South East Asia and China

Avalon has offices in Mumbai, Delhi, Chennai, Bangalore and Singapore with a new office opening in Saudi Arabia in the next few months. It has executed assignments in over 80 countries across a diversified range of fields.



Automotive Component Manufacturers Association of India

The Automotive Component Manufacturers Association of India (ACMA) is the apex body representing the interest of the Indian Auto Component Industry.

The Auto Component industry in India has a strong positive multiplier effect as a key driver of economic growth. Despite a very turbulent year, the industry clocked a turnover of Rs. 2,11,765 crores (USD 35.13 billion) in FY 2013-14, with an impressive CAGR of 14 percent over the last six years. Indian auto components are exported to more than 160 countries and have been growing at 15 percent per annum over the past six years. Components exports stood at Rs 61,487 crores (USD 10.2 billion) in FY 2013-14, accounting for 29 percent of overall industry turnover.

ACMA represents over 700 companies, which contributes more than 85% of the total auto component output in the organised sector. In the domestic market, they supply components to vehicle manufacturers as original equipment, to tier-one suppliers, to state transport undertakings, defence establishments, railways and even to the replacement market. A variety of components are being exported to OEM's and after-markets world-wide.

ACMA has played a critical role in growth and development of the auto component industry in India. Its active involvement in trade promotion, technology up-gradation, quality enhancement and collection and dissemination of information has made it a vital catalyst for this industry's development. Its other activities include participation in international trade fairs, sending trade delegations overseas and bringing out publications on various subjects related to the automotive industry.

ACMA's charter is to develop a globally competitive Indian Auto Component Industry and strengthen its role in national economic development as also promote business through international alliances.

ACMA is represented on a number of panels, committees and councils of the Government of India through which it helps in the formulation of policies pertaining to the Indian automotive industry.

For exchange of information and especially for co-operation in trade matters, ACMA has signed Memoranda of Understanding with its counterparts in Australia, Brazil, Canada, Egypt, France, Germany, Hungary, Iran, Italy, Japan, Malaysia, Nigeria, Pakistan, Russia, South Africa, South Korea, Spain, Sweden, Thailand, Tunisia, Turkey, UK, USA and Uzbekistan.

ACMA is an ISO 9001:2008 Certified Association

Further information and data on the Indian automotive industry is available on the ACMA Website: www.acma.in



Automotive Component Manufacturers Association of India

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