



India's Long March to a Global Auto Major: A Study of Government Influence on Industry Development in the Post-Independence Era

Key Results of a TUHH Study

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A few words about our institute and the project

Research Project Global Innovation

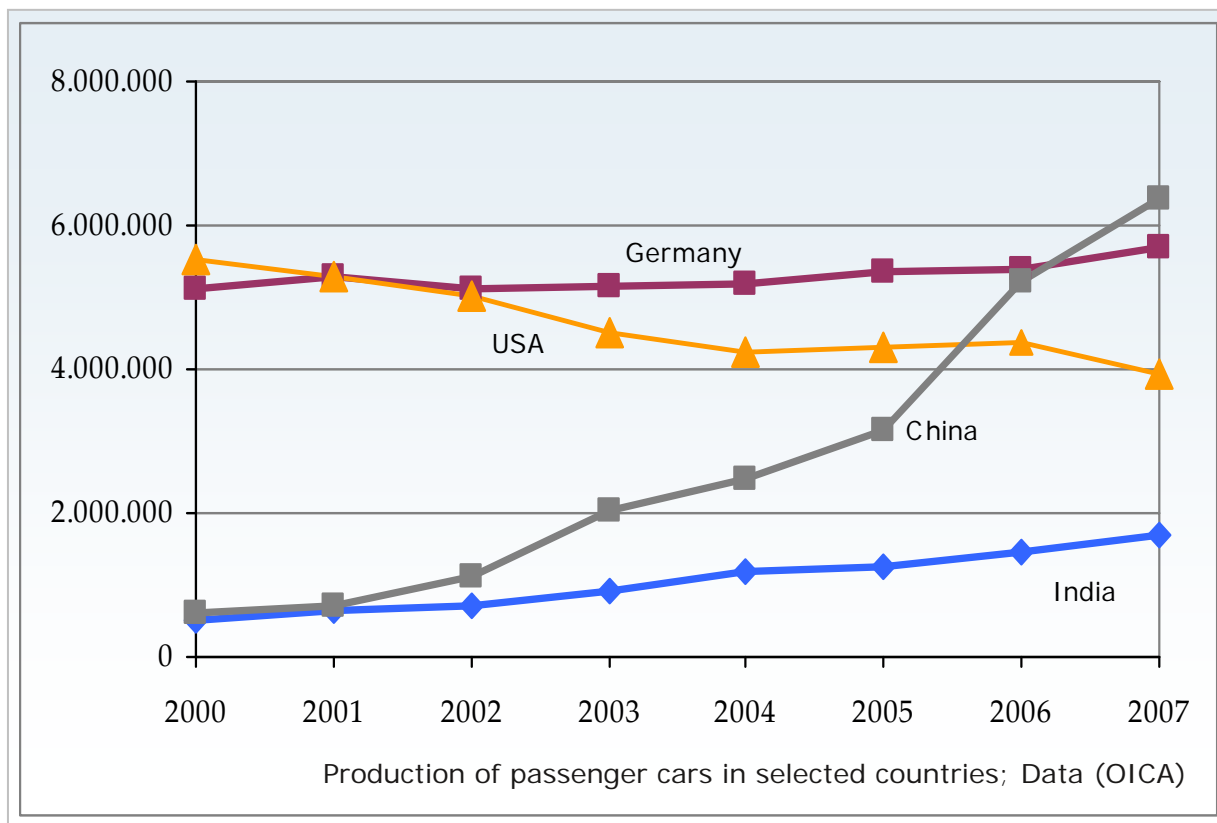
- Globalization of innovation / R&D
- Focus on Indo-German context (but not limited to it)
- Topics: Offshoring, Lead Market, International Product Development
- Industries: Automobile, ICT, Pharma & Biotech, Aerospace, Machinery
- Objective: Innovation management research with practice-relevance



Present Study “Small Car Hub & Govt.”

Examine India’s emergence as a global hub for small cars; identify & evaluate influence of govt. policies

India is on its Way to become a Major Automobile Player



Indian automotive firms continue to “defy” the global slowdown and registered “quantum leap on both exports and domestic sales” in Feb. 2009

Hyundai: + 31.9%
 Maruti Suzuki: + 24.1%
 M&M: 8.2%

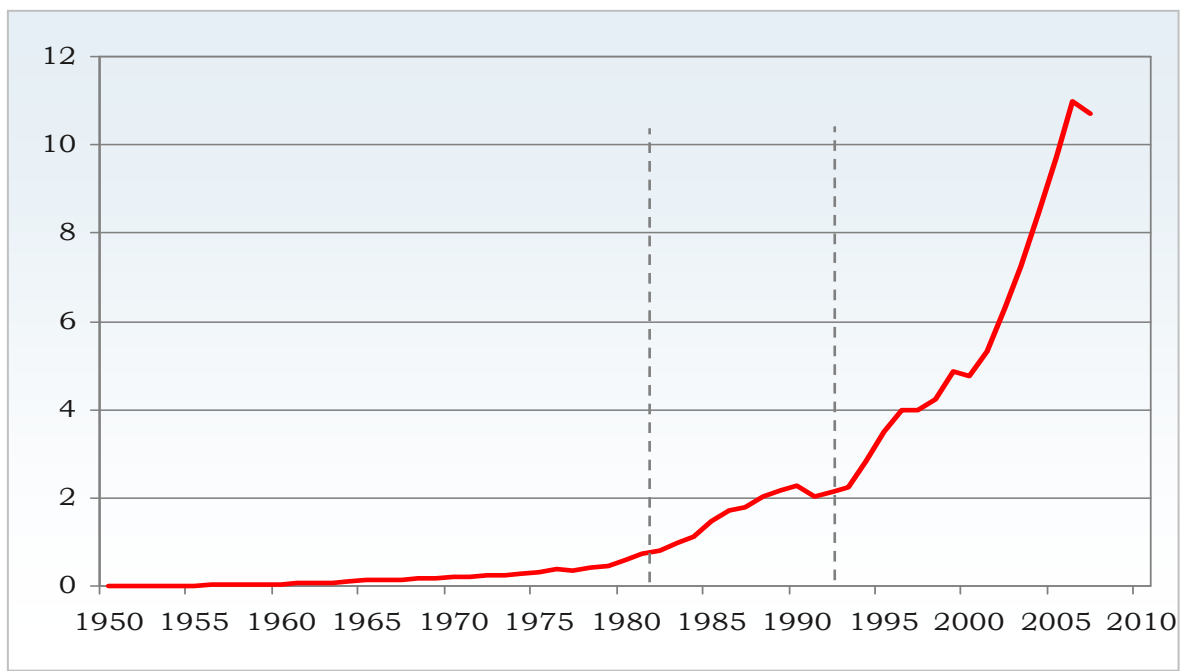
Domestic growth outpaced exports

(Source: Economic Times, 2.3.2009)

In 2007, India became the 9th largest passenger car producer of the world; and the 12th fastest growing market

India's Automotive & Automotive Components Sector

- Since independence the production of vehicles in India has grown exponentially: from a mere 10,000 vehicles in 1950, to over 10 million by 2006
- **The production trend indicates distinct transitions**, with each successive transition demonstrating a higher production growth
- Economic liberalization in 1991 has served as **a launch pad** for the current growth

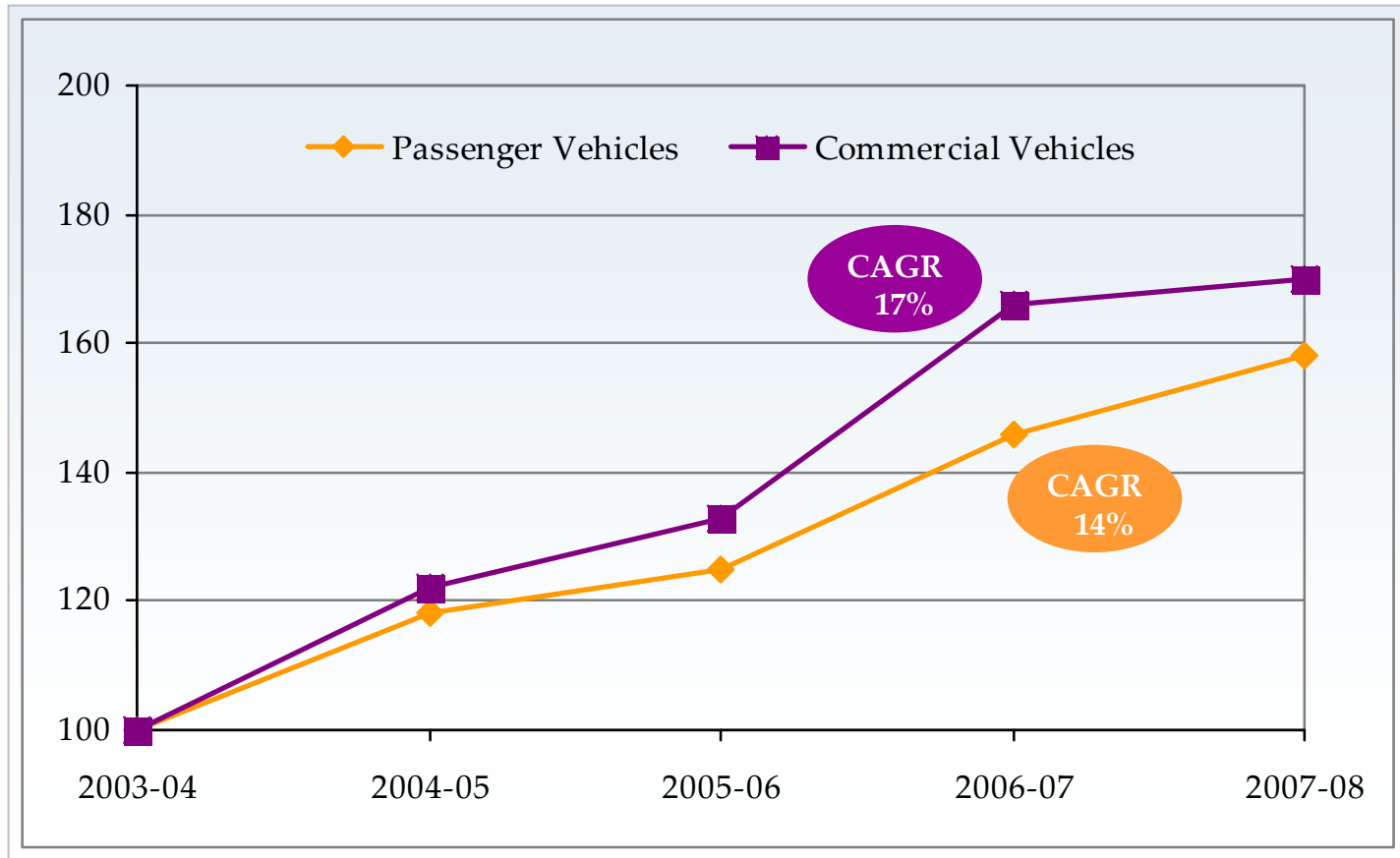


Total production of vehicles in India in million units (1950-2007) in respective fiscal years (April-March), source: ACMA

The break in 2007 was primarily caused by a decline in production of motorcycles

It is too early to interpret a cannibalization trend, but India may well be on its way to see 4-wheelers eat into the traditionally strong 2-wheeler market

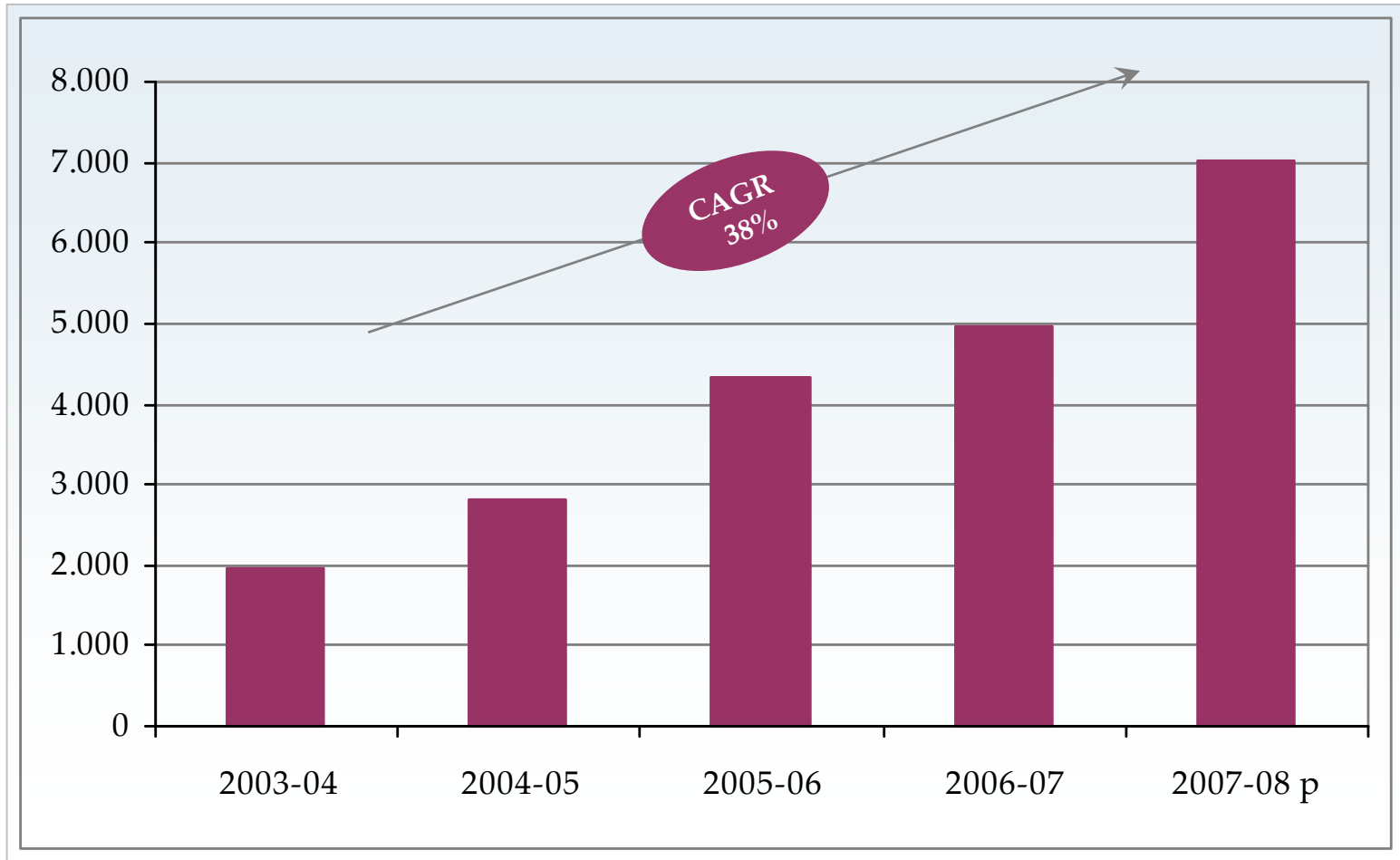
Impressive Growth in Domestic Sales



Growth in domestic sales. Base year 2003-04 = 100 units. Data: SIAM

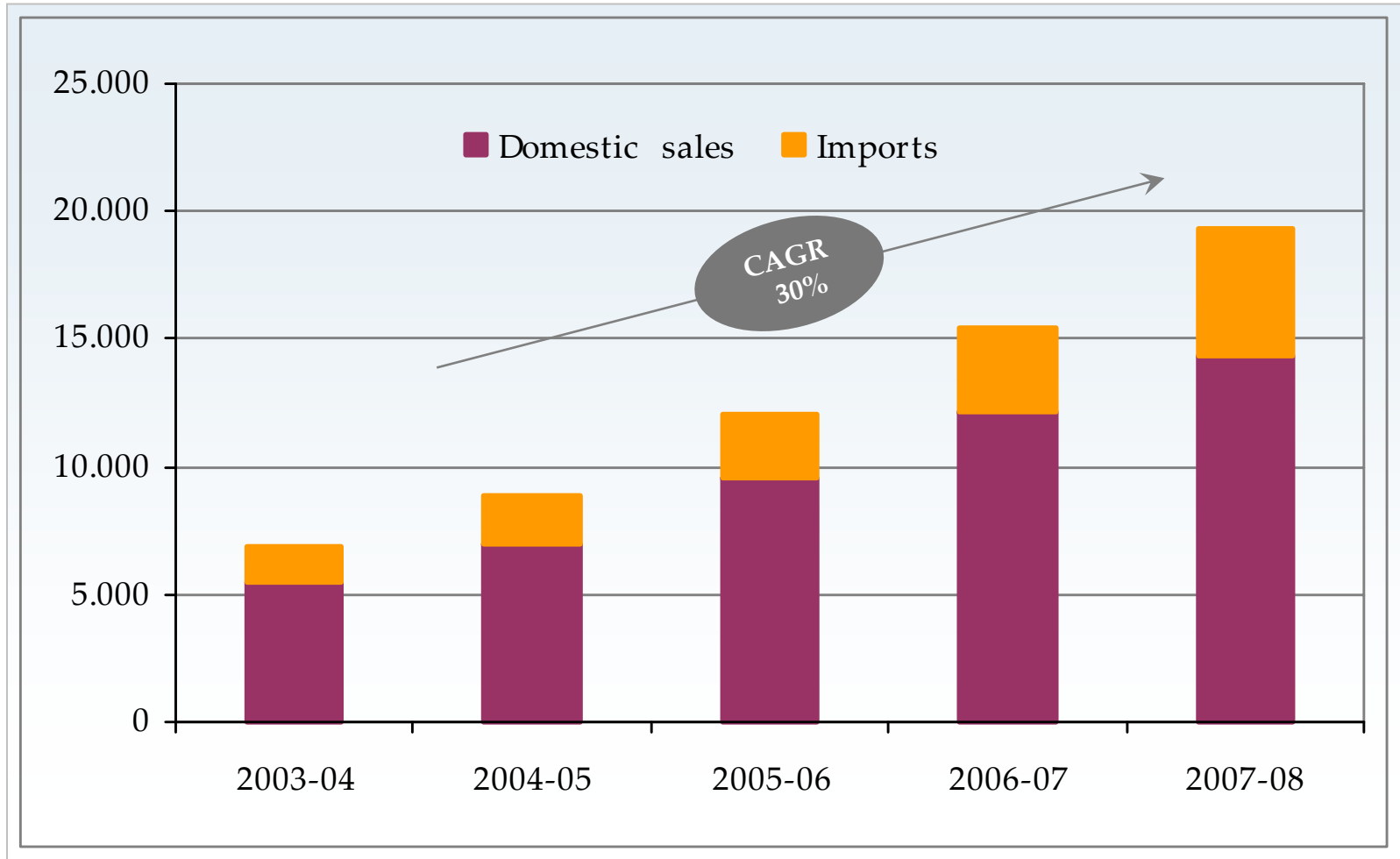
“Commercial vehicles segment has witnessed the highest growth rate in the automotive industry” (IBEF, 2008). In Feb. 2009 Tata registered 35% growth.

Exports Trend of Indian Automotive Industry



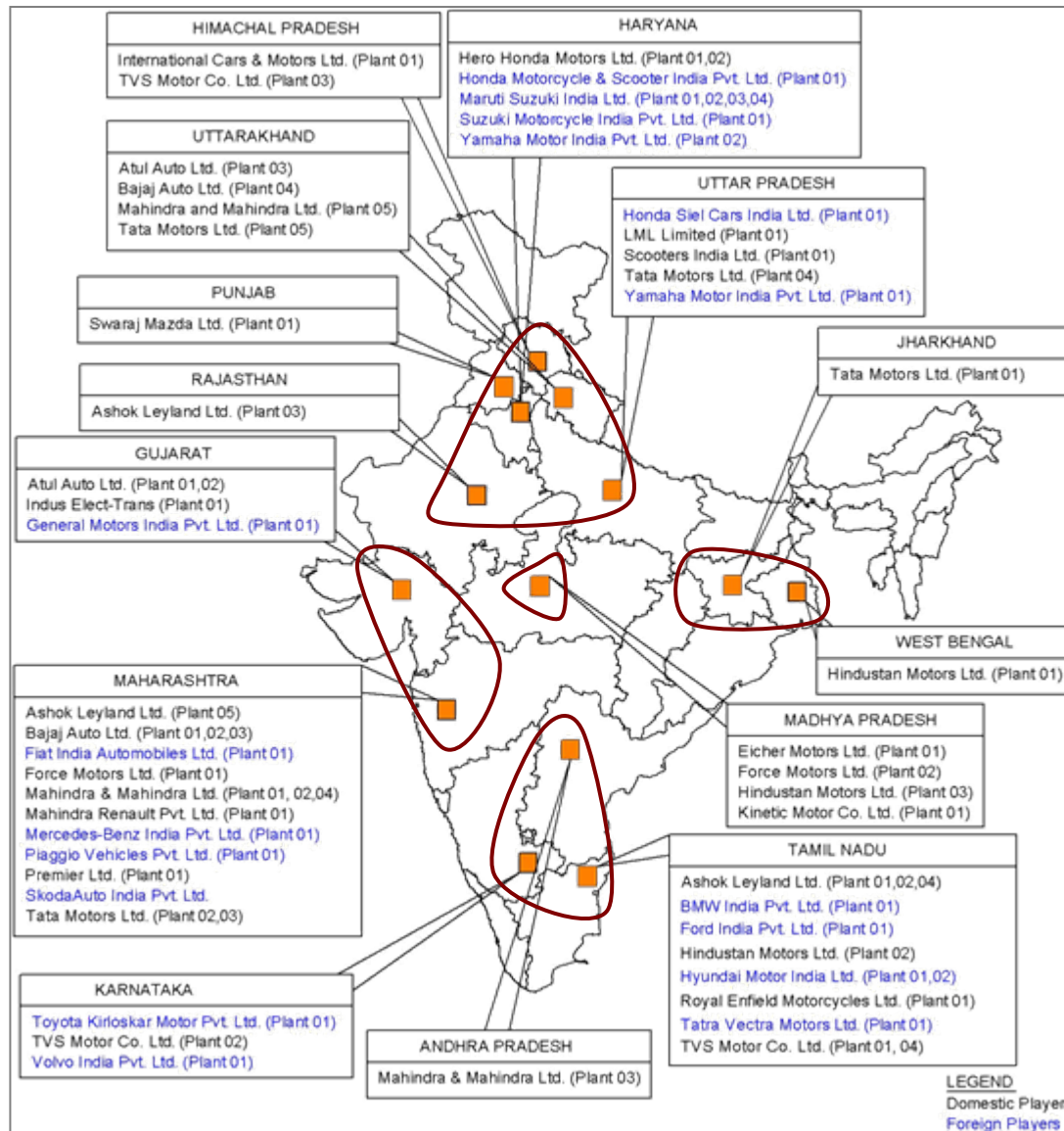
Total automotive exports in million USD in respective fiscal years (April-March); p = provisional; Data: RBI

Size of Indian Auto-Component Market



Value in million USD in respective fiscal years (April-March). Data: ACMA

Distribution of Automobile Plants Across India

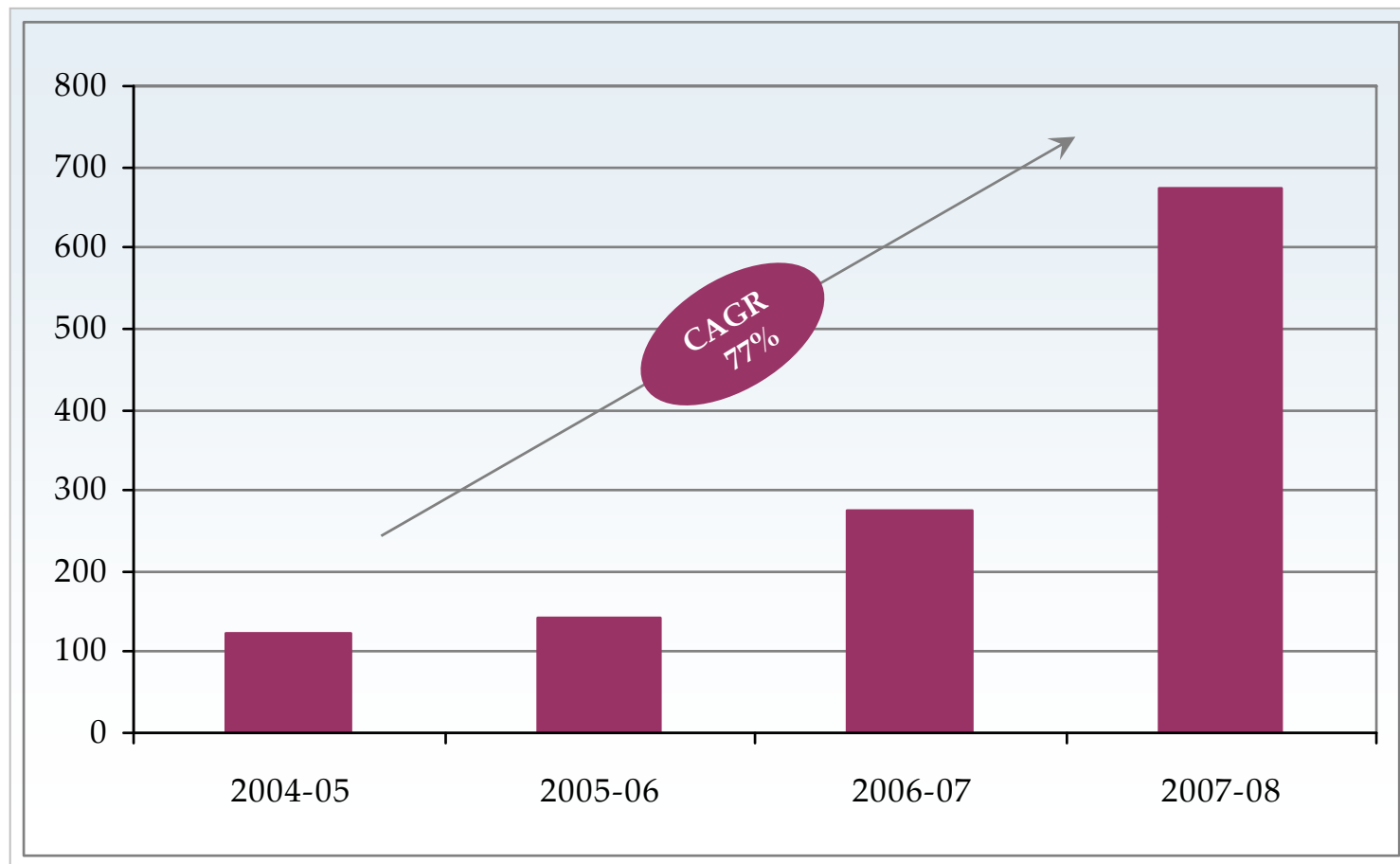


District-wise Distribution of Automotive Plants in the Leading Indian Auto States



Sr. no.	State	District	No. of automobile mfg. plants (SIAM members)	No. of auto-component mfg. plants (ACMA members)	Total
1.	Maharashtra	Pune	10	94	104
		Aurangabad	2	31	33
		Mumbai	1	17	18
		Nashik	3	15	18
Total			16	157	173
2.	Haryana	Gurgaon	7	116	123
		Faridabad	1	40	41
		Rewari	1	13	14
Total			9	169	178
3.	Tamil Nadu	Kanchipuram	5	39	44
		Tiruvallur	3	35	38
		Krishnagiri	5	21	26
		Coimbatore	0	17	17
		Chennai	2	10	12
Total			15	122	137

FDI Trend in India's Automotive Industry



FDI in India's Automotive sector in million USD in respective years (April-March). Data: Govt. of India

Global Majors are Discovering India

NEW PLANT INVESTMENTS*		
COMPANY	INVESTMENT (US \$ million)	CAPACITY (cars/yr)
Fiat/ Tata	1,000	200,000
Ford	500	100,000
GM	325	140,000
Honda Siel	250	200,000
Renault/ Nissan	1,125	400,000
Toyota Kirloskar	350	100,000
Volkswagen	937	n/a
Total	4,487	1,140,000

* Investments partially realized and partially planned

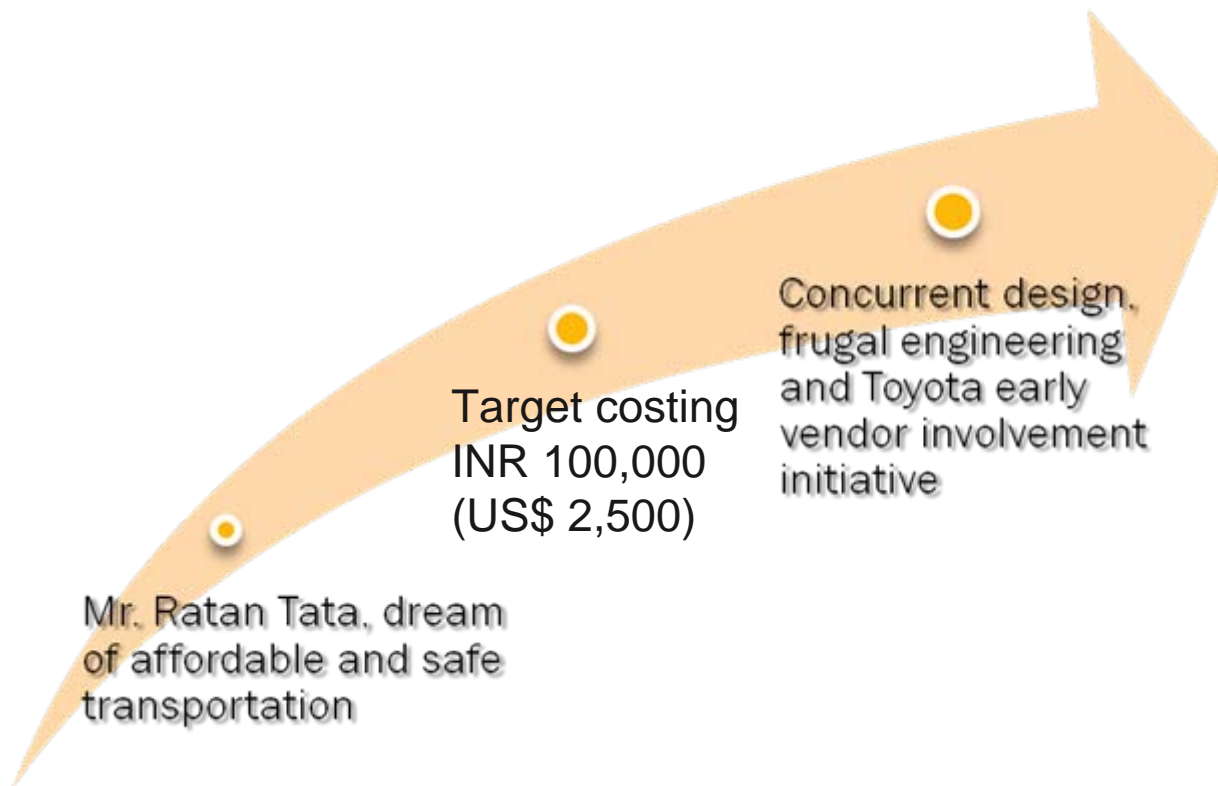
981 “greenfield” projects in 2006 vs. 246 in 2002
Engine plants built by Ford, Fiat/Tata, Maruti Suzuki, and Hyundai
Passenger Car Exports in 2007-08: 218,418

Current Growth Drivers of Indian Automobile Market

Sr. no.	Growth drivers	Passenger vehicles	CVs	3-wheelers	2-wheelers
1.	Rising industrial and agricultural output	-	✓	✓	-
2.	Growth in road infrastructure	✓	✓	-	-
3.	Rising per capita income	✓	-	-	✓
4.	Favourable demographic distribution with rising working population and middle class	✓	-	-	✓
5.	Urbanisation	✓	-	-	✓
6.	Increasing disposable income in rural agri-sector	✓	-	-	✓
7.	Availability of variety of vehicle models meeting diverse needs and preferences	✓	-	-	✓
8.	Greater affordability of vehicles	✓	-	-	✓
9.	Easier finance schemes	✓	✓	✓	✓
10.	Favourable government policies	✓	✓	✓	✓

Data: ACMA, SIAM, and IBEF

Inspiration: Tata Nano



Source: Tata Motors

- 47% less expensive than Maruti 800
- 65 % more families can afford a car¹



Tata Nano – An innovation in price & engineering opening a new segment of automobile buyers

¹ CRISIL Research

Future Small Car Models in India

BRAND	MODEL	ESTIMATED LAUNCH	ENGINE TYPE / SIZE	ESTIMATED PRICE
Ajanta	small car	-	electric	INR 85,000 (approx. US\$ 2,125)
Bajaj Auto/Renault/ Nissan	ULC	early 2011	600 - 700 cc	INR 100,000 (approx. US\$ 2,500)
Fiat	low cost car	earliest 2010	-	-
Ford	small car	2010	-	-
GM	mini-car	2010	-	-
Hindustan Motors/ Mitsubishi	I-Miev	2011	electric	-
Honda Siel Car	Jazz	end of 2009	1200 cc	-
India				
Hyundai Motor India	small car	2012	-	INR 140,000 (approx. US\$ 3,500)
Maruti Suzuki Ltd.	A-Star Splash	end of 2008 end of 2008	1000 cc 1200 cc gasoline	-
Skoda	small car	2010	-	INR 300,000 – 500,000 (~ US\$ 7,500 – 12,500)
Tata Motors	Nano	2008	623 cc gasoline	INR 100,000 (approx. US\$ 2,500)
Toyota	small car	2009	-	-
Volkswagen	Polo small car	2010 2012	-	-

Small cars are in the focus of the most auto majors in India

Hyundai is one example of global players using India as a development and manufacturing hub for small cars; GM plans to launch one “mini car” and two other models next year

Factors Affecting India's Competitive Position



Growth Drivers

- Economy
- Financing
- Government Initiatives
- Engineering & Technology



Challenges

- Infrastructure
- Skilled Labor

The Issue of Government Influence

- The transitions in the growth of India's automotive industry actually occurred simultaneous to the **major transitions in government policies**

- The policy framework surrounding the Indian automotive industry has evolved from
 - a **HEAVILY REGULATED** one until the 1970s, to
 - a **PARTIALLY LIBERALISED** one in the 1980s, and to
 - a **LIBERALISED** one from 1991 onwards

- This raises the question if government policies played a role in the growth of India's automotive industry and if so, to what extent

The answer shall help to obtain an insight into the role of government in industry development in general and that of the Indian government in the development of India's automotive industry (including auto components) in particular

Study Objectives

In line with the overall purpose, the study has following objectives:

1. To IDENTIFY GOVERNMENT POLICIES that have influenced the development of India's automotive industry
2. To UNDERSTAND THE INFLUENCE of government policies on the development of India's automotive industry
3. To EXPLORE ROLE played by the government in the development of India's automotive industry

The Regulatory Phase

Some important policy decisions in the **REGULATORY PHASE** (1947-1979) and its influence on the development of India's automotive industry

YEAR	POLICY	INFLUENCE*	FACT
1951	Regulation of automotive industry	Reduced internal competition and slowed development	- Oligopolistic structure in the passenger car segment led to its slow development
1953	Progressive manufacturing obligation	Development of indigenous capabilities by the industry	+ More than 80% indigenisation level in vehicle production was achieved in India by 1970s
1965	Reservation of components for small scale manufacture	Higher fragmentation leading to inefficiencies	- One of the reason for high cost and poor quality vehicles in India until the 1970s
1968	Stricter control on foreign collaborations	Provided incentives for indigenous R&D efforts	+ Bajaj Auto introduced an indigenously designed 50 cc motorcycle during that time

* Only the most important influence along with the overall impression of the policy decision outcome is provided here

The Phase of Limited Liberalisation

Some important policy decisions in the **LIMITED-LIBERALISATION PHASE** (1980-1990) and their influence on the development of India's automotive industry

YEAR	POLICY	INFLUENCE*	FACT	
1980	Modernisation programme for the automotive industry	Upgradation of the industry's technological base	+	New vehicle models with fuel-efficient engines and better features were introduced by the automobile manufacturers
1980	Promotion of exports	Export orientation of the industry	+	Export of the Indian automotive industry nearly doubled from INR 1561 million in 1984-85 to INR 3041 million in 1988-89
1985	Broad-banding policy for automotive segments	Increased competition	+	In automobile sector, TELCO diversified into LCVs and Lohia Machines switched from 100cc to 150 cc scooters

* Only the most important influence along with the overall impression of the policy decision outcome is provided here

The Liberalisation Phase



Some important policy decisions in the **LIBERALISATION PHASE** (1991 onwards) and their influence on the development of India's automotive industry

YEAR	POLICY	INFLUENCE*	FACT	
1991-1993	Delicensing of all automotive segments	Higher industry growth	+	India has been moving up in its world ranking for production of commercial vehicles and cars. Production of vehicles in India crossed the 10 million mark in 2006
1991	Automatic approval for FDI upto 51% equity	Increased competition and rising industry standards	+	17 new ventures involving foreign players had come up after 1993
2002	Automatic approval for FDI upto 100% equity	Demand stimulation and increased internationalisation	+	FDI in India's auto industry grew at a CAGR of 77% over the period 2004-05 to 2007-08
2002	Higher incentives and push for local R&D	Increased R&D spending	+	Local R&D centres announced by Hyundai and Maruti Suzuki

* Only the most important influence along with the overall impression of the policy decision outcome is provided here

Brief Review of Policy Influence

Review of role played by the Indian government in different phases against the theoretical framework developed based on Porter's findings

PHASE	ROLE PLAYED		
REGULATORY (1947-1965) & (1966-1979)	More direct	<ul style="list-style-type: none"> -Adequate protection to the infant industry -Adequate priority and encouragement to the industry 	<ul style="list-style-type: none"> -The duration of protection was not pre-specified -Internal competition was suppressed due to licensing
LIMITED-LIBERALISATION (1980-1990)	Less direct	<ul style="list-style-type: none"> -Transition from regulated environment was gradual -Competition in the industry was increased, but gradually 	<ul style="list-style-type: none"> -Near monopoly situation of Maruti due to favouritism -Too many entries in LCV segment
LIBERALISATION (1991 onwards)	Indirect	<ul style="list-style-type: none"> -Stimulating demand and raising its standards -Encouraging R&D and exports 	<ul style="list-style-type: none"> -Demand could have been further stimulated e.g. by lower tax incidences on vehicles in India

Summary of Govt. Influence on Industry Development

- Government policies have “significantly” influenced the development of India’s automotive industry
- Some of the important policies have been the ones related to the protection, indigenisation, modernisation and liberalisation of the industry
- The role of Indian government transitioned from regulatory to facilitative one as the industry progressed through successive stages of competitive development. This was in alignment to the theoretical framework, but with some deviations
- However, the transitions were mainly brought about by chance events like Oil Crisis, Gulf War, etc. The government has to be at least credited for implementation
- Government policies shall continue to play an important role in the future development of the industry with their effect on demand and factor conditions

Outlook on Government Policies

- The role of government will continue to be that of a facilitator – facilitate firms to innovate and upgrade by means of industry-specific programmes
- The future government policies will affect the development of India's automotive industry largely through their effect on demand and advanced factor conditions
- Accordingly the policies will focus on tax incidences, exports, industry R&D, safety & environmental standards, infrastructure, specialised manpower, etc.
- Indian automotive industry will thrive to attain its own competitive position (probably small cars) in the global auto industry moving away from mere cost advantages

India's small car industry is substantial:

- Strong demand base
- Government initiatives
- Growing confidence in India's engineering capacity

India is a lead market for the low-cost small car segment:

- It is on the forefront of development of the low-cost small car
- Shares commonalities with other emerging economies
→ optimal platform to do business with these countries

India must secure its growing role in the small car industry:

- Improve infrastructure and increase skilled labour
- Ensure social/political harmony (“inclusive growth”) to avoid slowing of reform policies
- Create a conducive eco-system by adopting a pro-active approach in supporting world-class innovations in all segments of the automobile industry

For further information

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