



*New Energy Indicators for Transport:  
The Way Forward*

Session 3: Data & Indicators for Light Duty  
Vehicles: Sales/ Stocks

**INDIA**

Rinki Verma

***SIAM***

Society of Indian Automobile Manufacturers

January 28, 2008

Paris

# *Presentation Outline*

- ◆ About SIAM
- ◆ Automobile Industry in India
  - Current Performance
  - Data Availability
  - Energy Sources Used
  - Second-hand vehicles
- ◆ Advantage India

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- ◆ **Advantage India**

## *Society of Indian Automobile Manufacturers*

- ◆ Non-profit organisation representing 39 vehicle & vehicular engine manufacturers
- ◆ Advocacy: Industrial & Economic Policy, Technical roadmaps and Public Policy
- ◆ Networking – Stakeholders National / International
- ◆ Seminars / Conferences – Technical, Trade & Economic, Road Safety
- ◆ Statistical services – production, sales and exports
- ◆ Auto Expo

*Promotes sustainable development of the industry*

# SIAM Members



Think LML. Think innovation.™



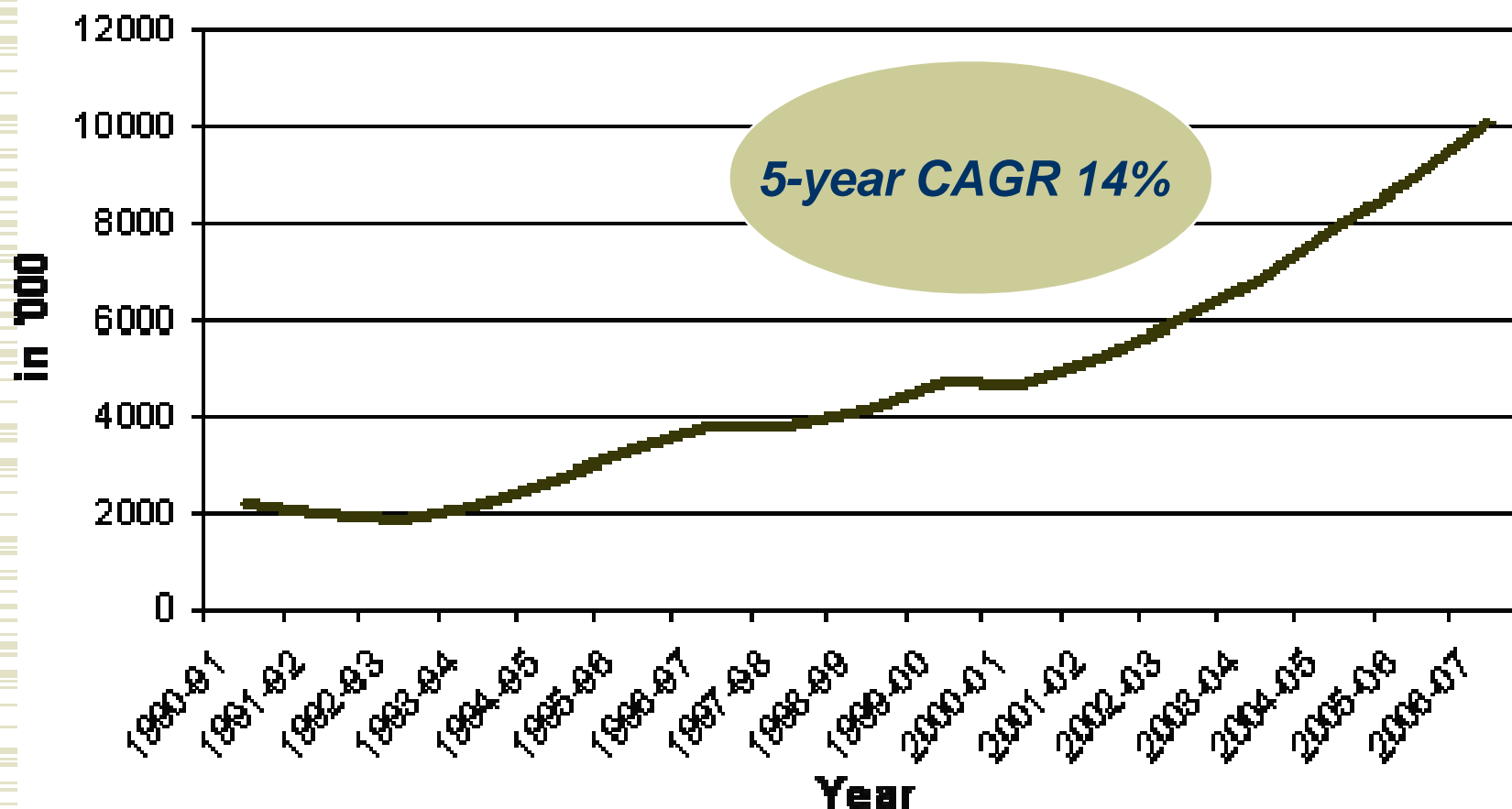
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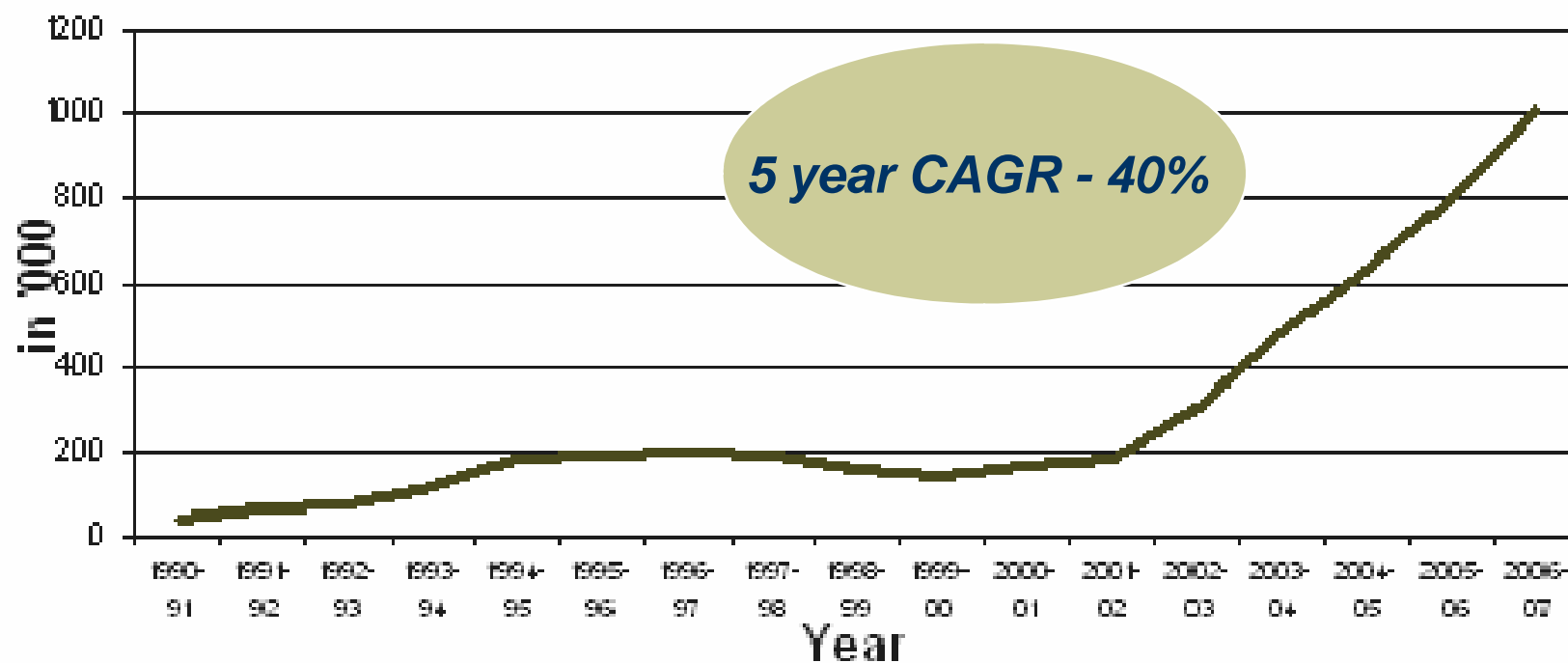
## *Indian Automobile Industry – Today*

- ◆ Turnover ~ \$ 33.4 billion
- ◆ Exports ~ \$ 2.8 billion
- ◆ Production (in numbers) ~ 11.06 million
- ◆ Exports (in numbers) ~ 1.01 million
- ◆ Employment (in numbers) ~ 10.5 million
- ◆ Contribution to economy ~ 3.8%
- ◆ New investments ~ \$ 15 billion

## Automobile Domestic Sales



## *Automobile Exports*

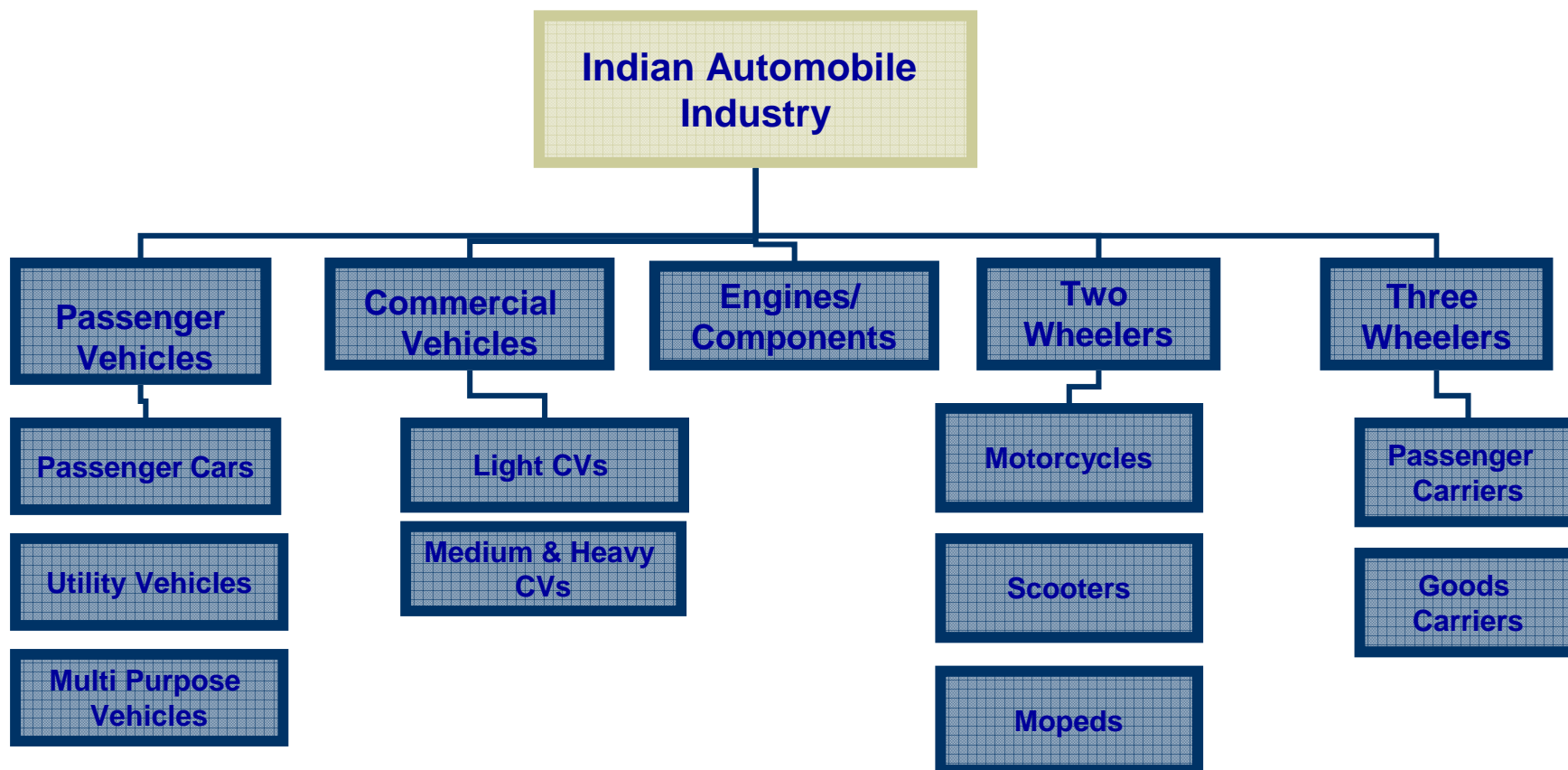


*Currently around 10% of production is exported*

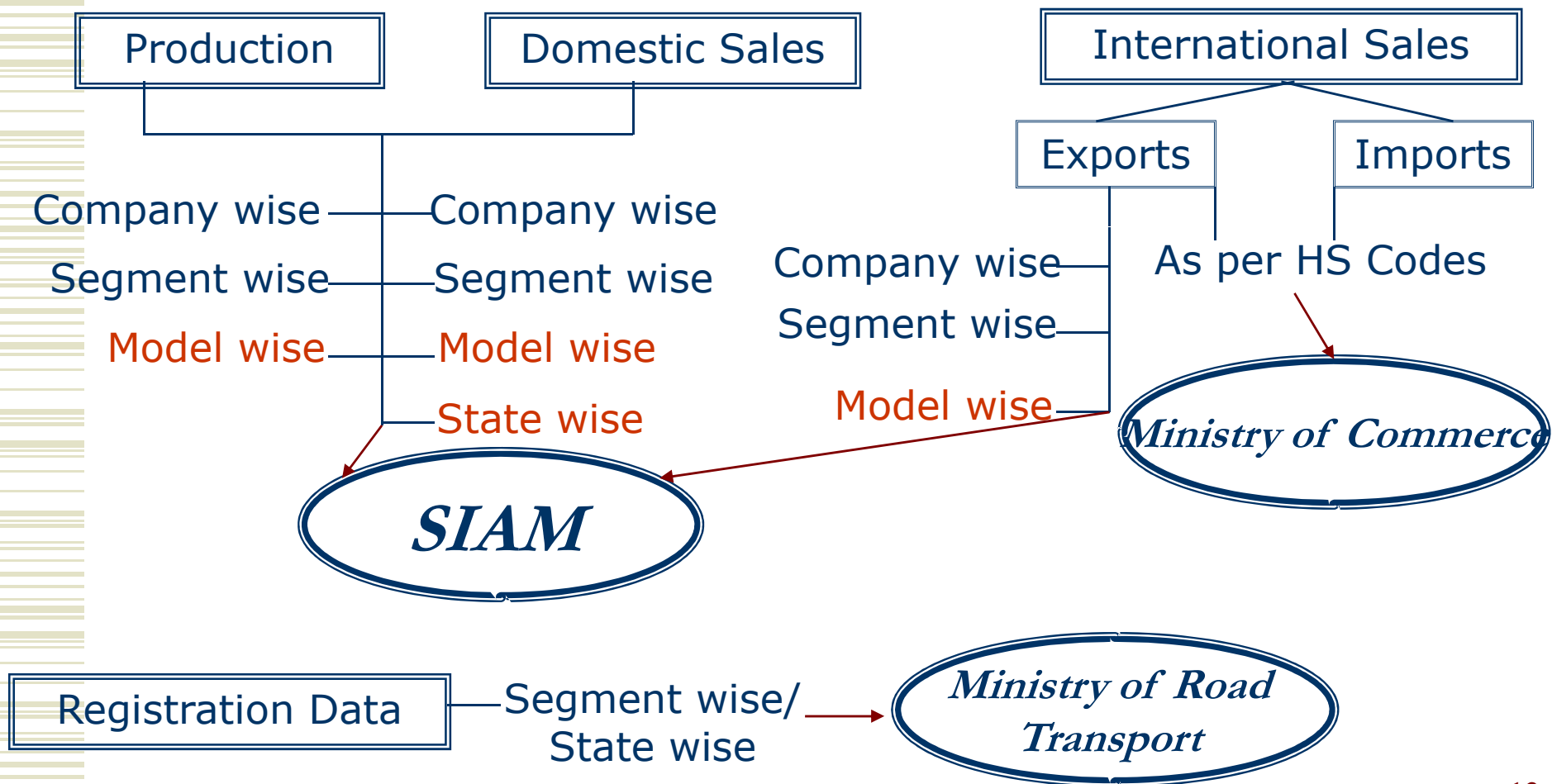
## *Key Drivers*

- ◆ Growth of Economy – GDP
- ◆ Availability and cost of finance
- ◆ Low Level of penetration of vehicles
- ◆ Wide vehicles choice at competitive prices
- ◆ Development of Infrastructure
- ◆ Changing demographic characteristics
- ◆ Increased need for mobility

# Main Segments



# Data Availability



# *Data Classification*

*Indian Classification is based on  
United Nations Classification*

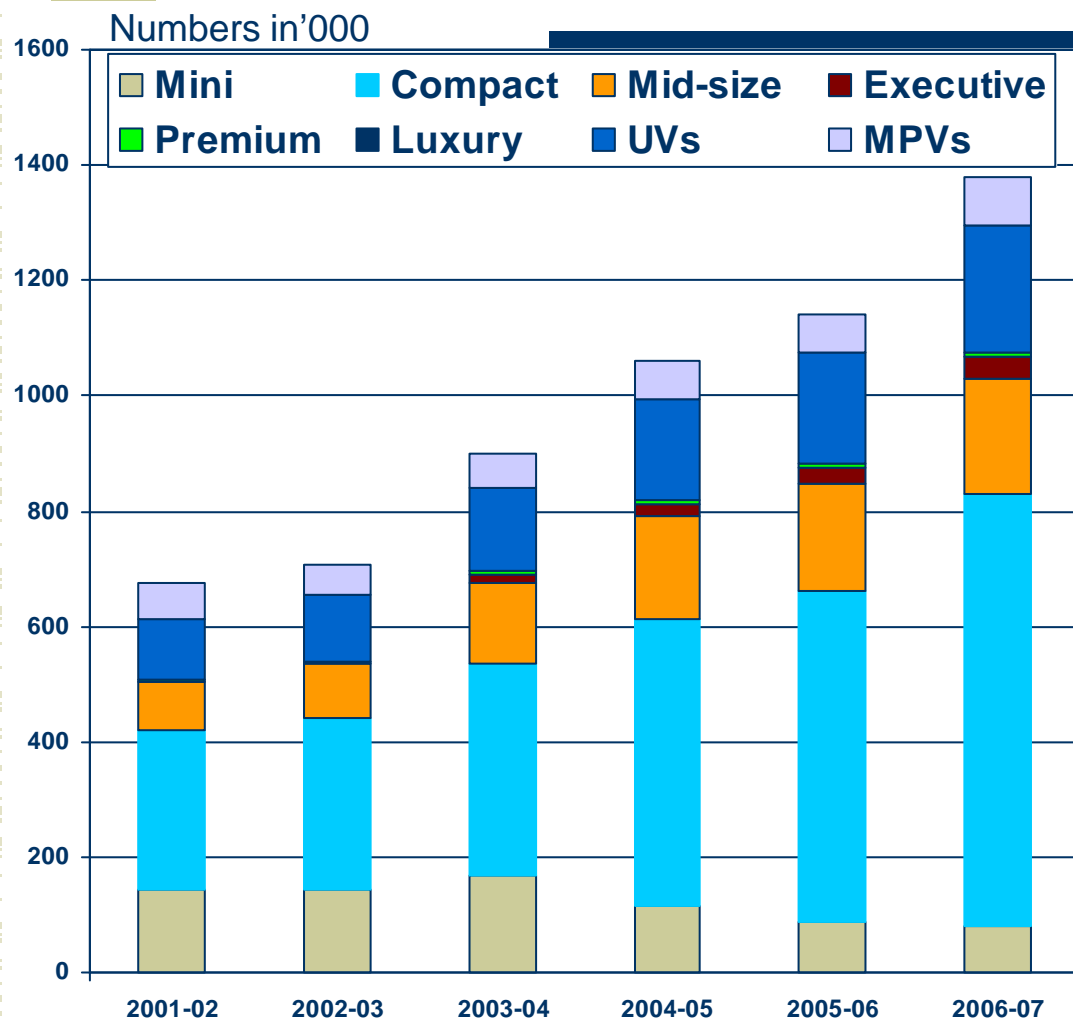
<b>Criteria</b>	<b>Seats</b>	<b>Length</b>	<b>Max. Mass</b>	<b>Wheel size</b>	<b>Engine capacity</b>
Passenger vehicles					
Commercial vehicles					
Three wheelers					
Two wheelers					

# *Data Classification*

## Passenger Vehicles Segment

- ◆ Based on number of seats
  - ◆ Length criteria      Passenger cars
  - ◆ Max. Mass            Utility vehicles (jeep type)
  - ◆ Max. Mass            MPVs (van type)

# Passenger Vehicles



## 5 year CAGR

Mini	(-)11%
Compact	22%
Mid-size	19%
Executive	112%
Premium	6%
Luxury	33%
UVs	16%
MPVs	6%

## *Data Classification*

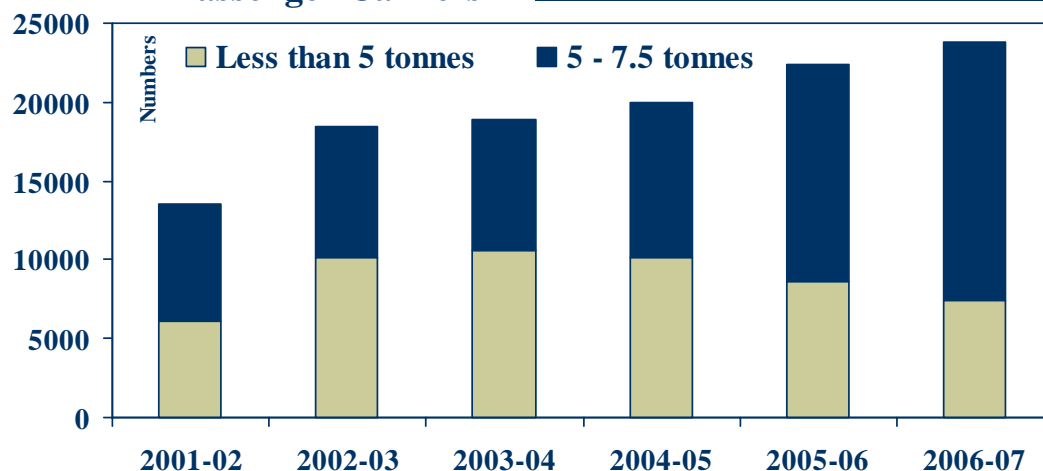
### Commercial Vehicles & Three Wheelers Segment

#### ◆ Based on Max. Mass

- ◆ No. of seats                      Passenger carriers
- ◆ Max. Mass                        Goods carriers

# Light Commercial Vehicles

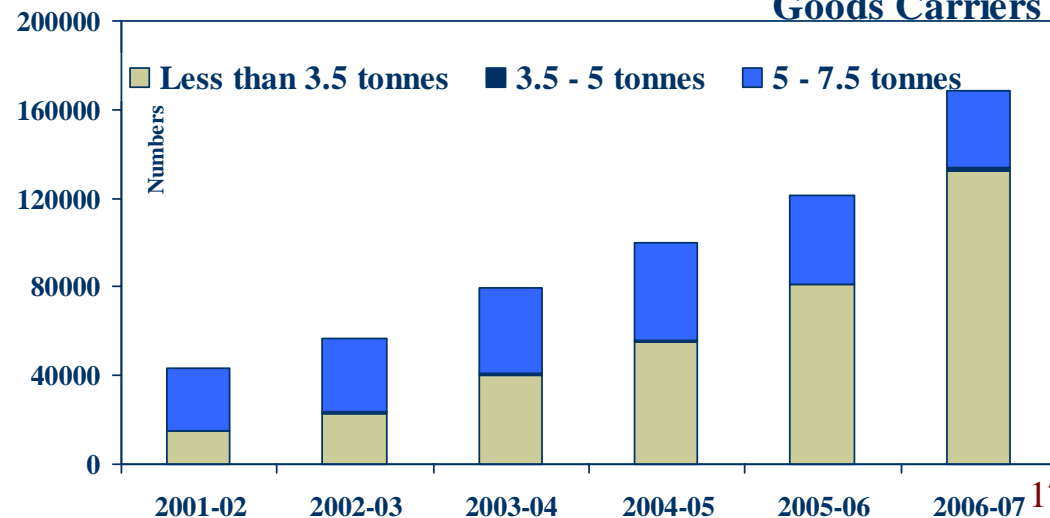
Passenger Carriers



**5-year CAGR 12%**

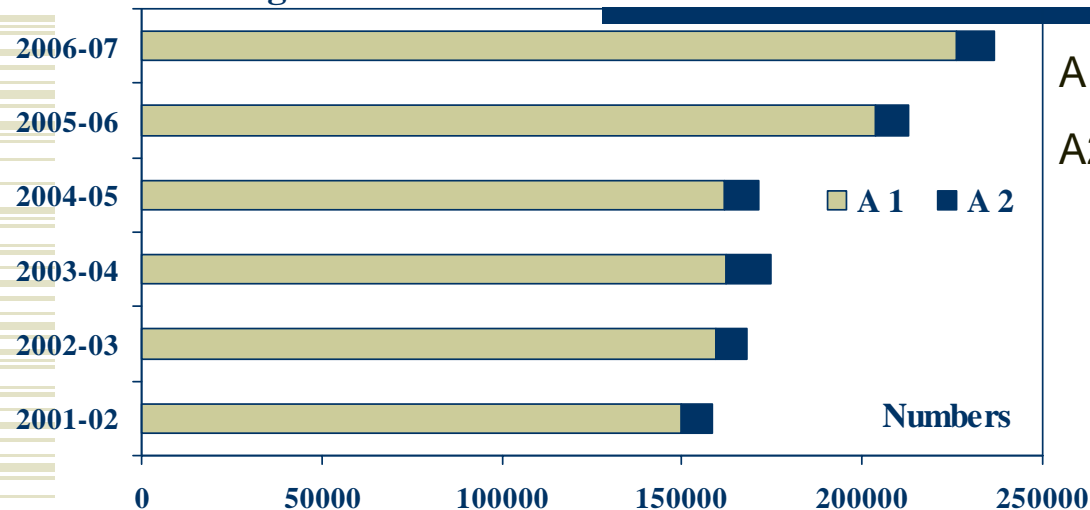
**5-year CAGR 31%**

Goods Carriers



# Three Wheelers

## Passenger Carriers



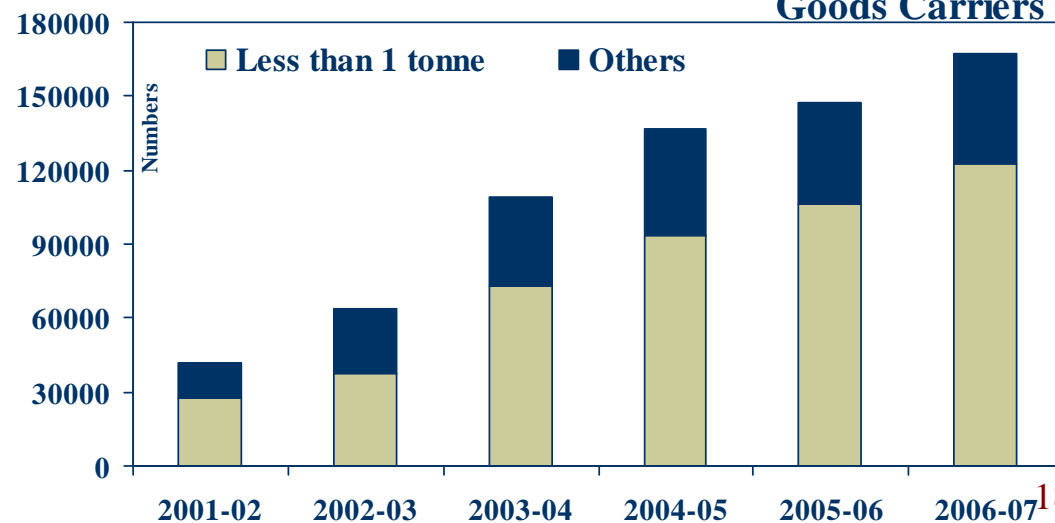
A1: Seats 4 & Mass 1 tonnes

A2: Seats >4 but 7 & Mass 1.5 tonnes

**5-year CAGR 8%**

**5-year CAGR 32%**

## Goods Carriers



# Data Classification

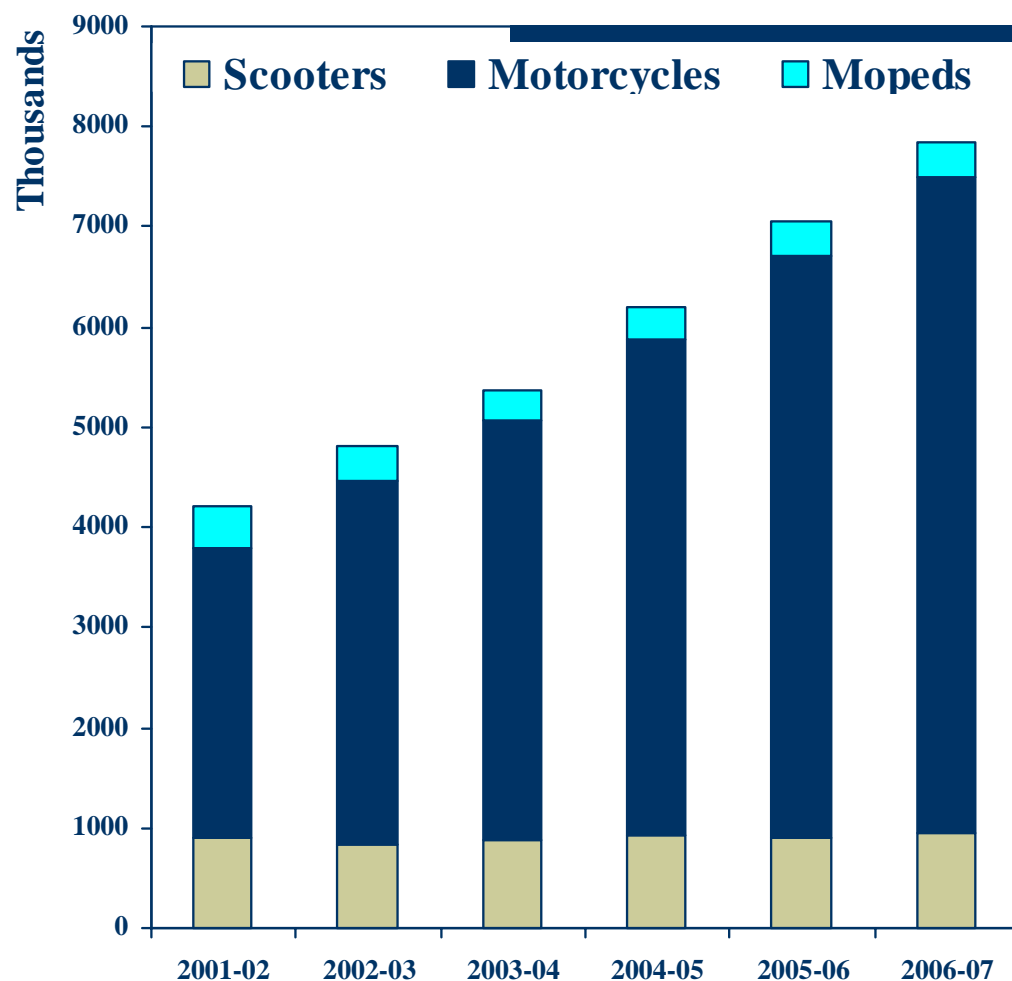
## Two Wheelers

- ◆ Based on Wheel size & Engine Capacity

Sub-segment	Wheel size	Engine capacity
Scooters	Less than equal to 12"	Less than 250 cc
Motorcycles	More than 12"	3 categories
Mopeds	More than 12"	Less than 75 cc

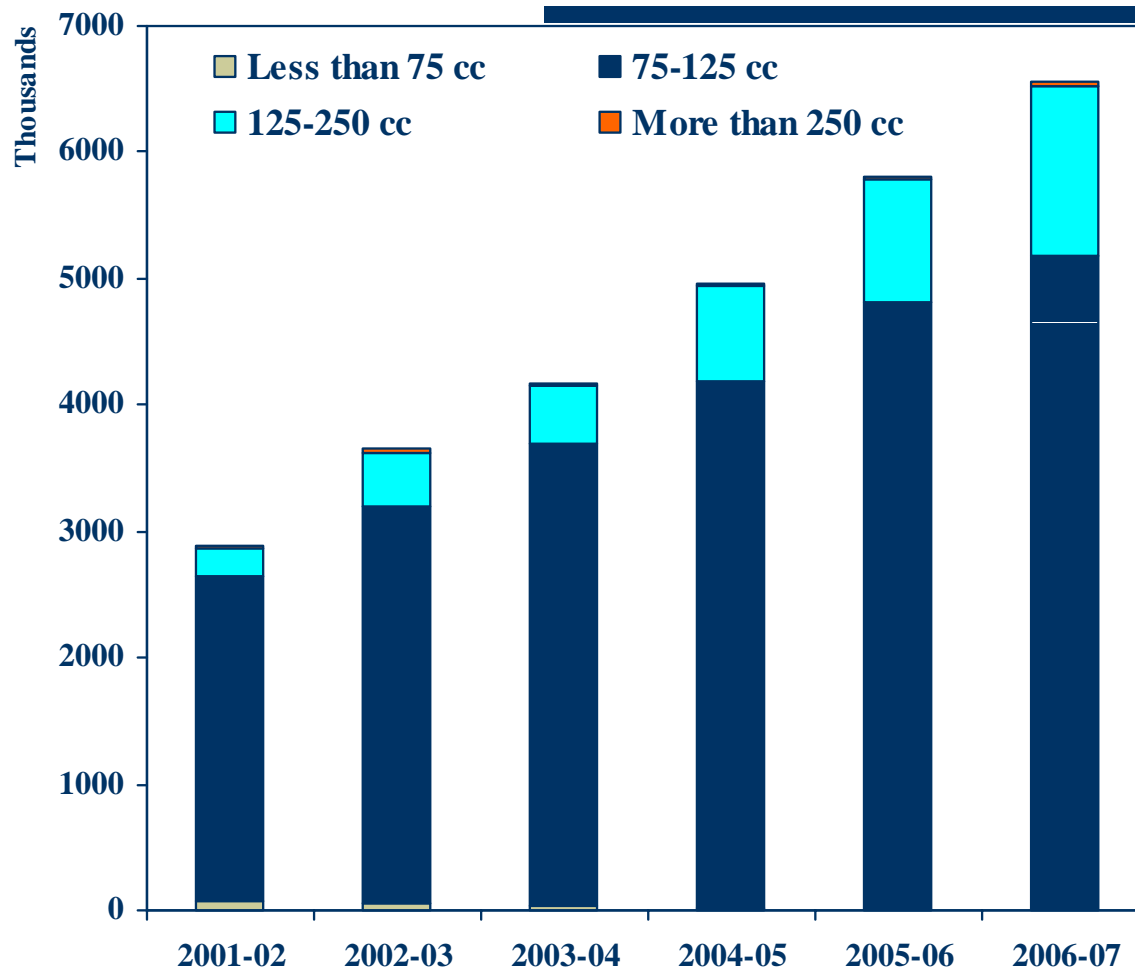


# Two Wheelers



<u>5 year CAGR</u>	
Scooters	0.7%
Motorcycles	18%
Mopeds	(-)3%

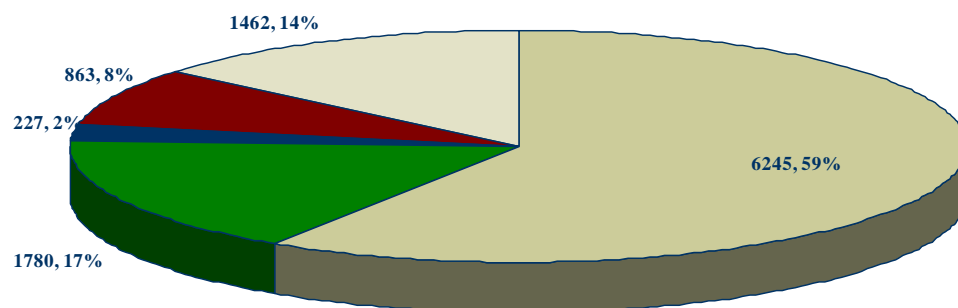
# Motorcycles



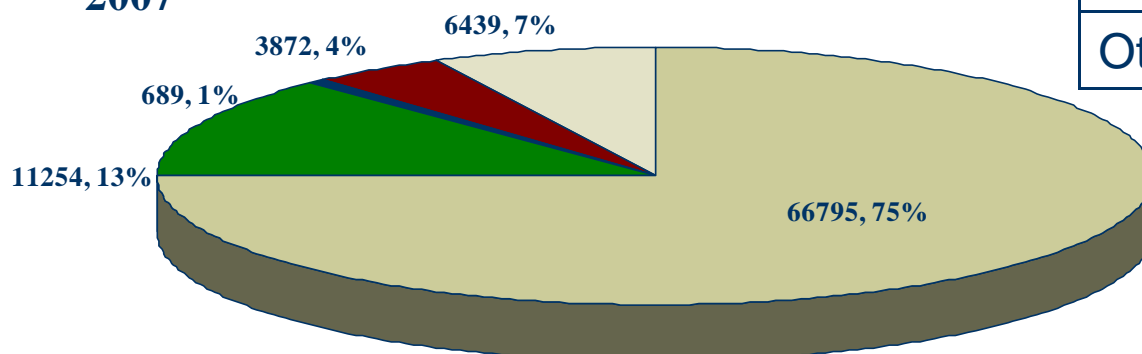
<u>5 year CAGR</u>	
75-125 cc	15%
125-250 cc	45%
Above 250 cc	6%

# Vehicle Parc

1986



2007



Segment	Change: 2007 over 1986 (%)
2 W	↑ 16%
Cars	↓ 4 %
Buses	↓ 1 %
Goods vehicles	↓ 4 %
Others	↓ 7 %

## *Powertrains Prevalent*

- ◆ Passenger Cars                      Petrol, LPG, CNG & some diesel
- ◆ Utility Vehicles                      Largely Diesel
- ◆ MPVs                                      Petrol & CNG
- ◆ Commercial Vehicles                Diesel & CNG
- ◆ Three Wheelers                      Diesel, LPG & CNG
- ◆ Two Wheelers                         Petrol

## *Alternative Fuels Vehicles*

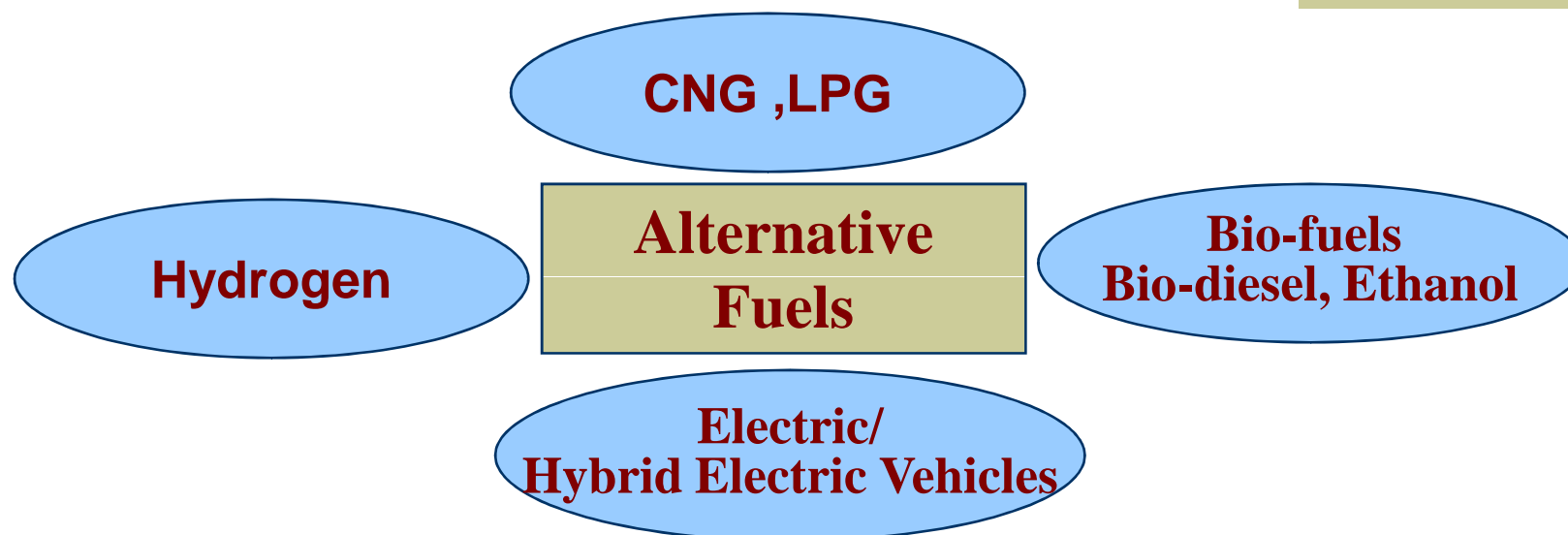
- ◆ CNG
- ◆ LPG

Three Wheelers, Cars & Buses

Factory-fitted Cars & Three Wheelers



# Alternative Fuels



Proposed Time Frame	Technology
Short Term	Ethanol, CNG & LPG
Medium Term	Bio-Diesel, EV & HEV
Long Term	Hydrogen/ Fuel Cell

## *e.g. - CNG Vehicles*

Item	Delhi	Maharashtra	Gujarat			Total	Grand Total
	Delhi	Maharashtra	Vado-dara	Surat	Ankle-shwar		
	IGL	MGL	GAIL	GGCL	GGCL		
1	2	3	4	5	6	7	8

### Station Type

Mother	65	4	1 @	0	1	2	71
Online	42	103	0	11	0	11	156
Daughter Booster	35	13	1 @	0	0	1	49
Daughter	4	0	0	0	1	1	5
<b>Total</b>	<b>146</b>	<b>120</b>	<b>2</b>	<b>11</b>	<b>2</b>	<b>15</b>	<b>281</b>

### No. of Vehicles

Cars\$	24573	50679	596	2880	956	4432	79684
Autos	65335	116938	805	27458	626	28889	211162
LCV/RTVs	5298	1338	0	0	0	0	6636
Buses	10941	376	21 *	31	4	56	11373
Others/Phatphat Sewa	336	672	0	21	5	26	1034
<b>Total</b>	<b>106483</b>	<b>170003</b>	<b>1422 *</b>	<b>30390</b>	<b>1591</b>	<b>33403</b>	<b>309889</b>

**However, fuel-based data is not maintained in India.**

## *Second-hand vehicle Flows*

- ◆ No separate database for second-hand vehicles.
- ◆ India's International Trade in second-hand vehicles is negligible.
- ◆ Domestic second-hand vehicles market emerging & market is largely unorganized.
- ◆ Some organized players exist & are emerging – Maruti's True Value, Toyota's First Choice, Hero Honda's Sure, etc.

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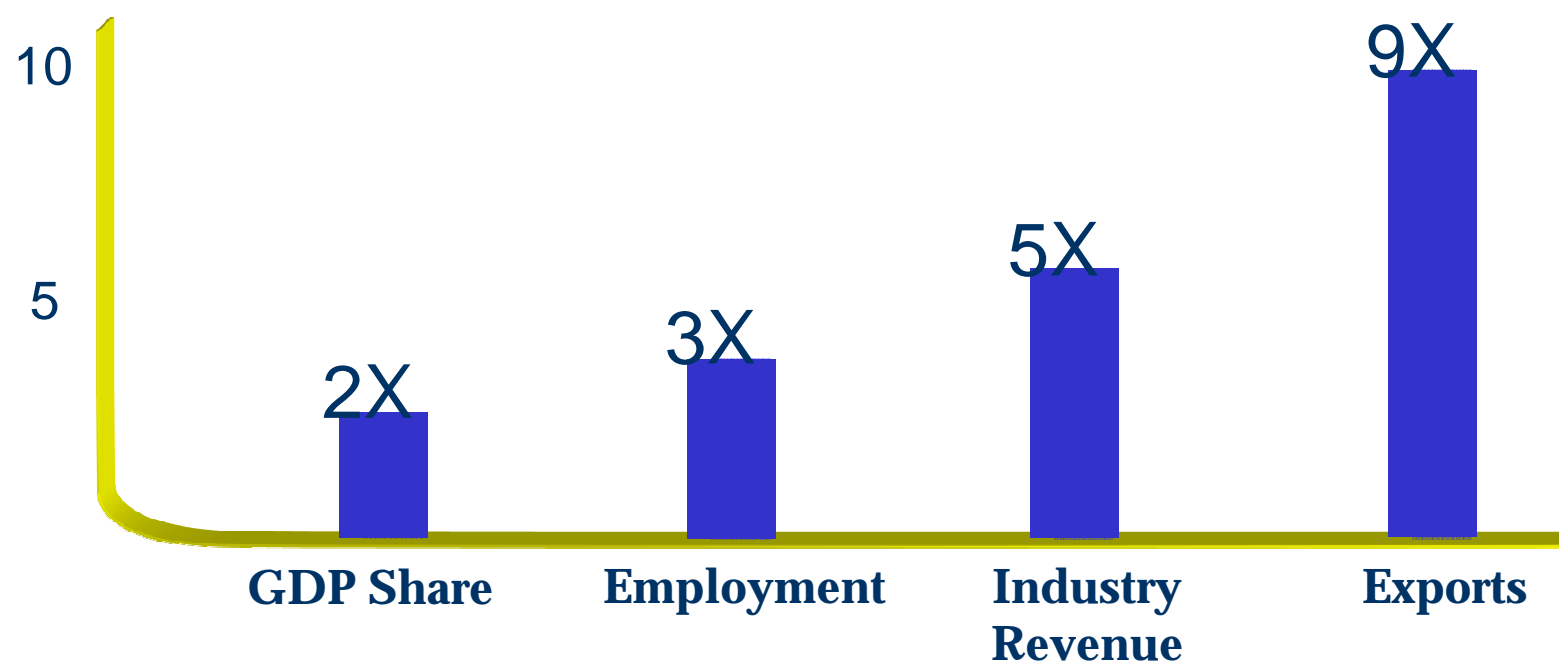
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# *Government Policy*

- ◆ WTO compliant policies
  - No restrictions on import
  - To comply with emission and safety norms as applicable to domestic companies
- ◆ Increased engagement in Free Trade Agreements
- ◆ Tariffs being reduced every year
- ◆ Robust legal system
- ◆ Stable foreign exchange regime
- ◆ Joined UN-ECE WP 29 for global standard in technology

## *Automotive Mission Plan 2006-2016*

“To emerge as the destination of choice in the world for the design and manufacture of automobiles and automotive components. The output of India’s automotive sector will be USD 145 billion, contributing to more than 10% of India’s Gross Domestic Product and providing employment to 25 million persons additionally by 2016”.



## *India Advantage*

- ◆ Stable & a trillion dollar economy.
- ◆ Rising foreign exchange reserves of over US\$ 222 billion.
- ◆ Booming capital market with "Sensex" topping 15,000 mark.
- ◆ FDI flow estimated at US\$ 15.5 billion
- ◆ More than 20 per cent surge in exports.
- ◆ 44% of the Top 100 Fortune 500 companies already in India.
- ◆ Productivity rising – globally competitive Indian companies



# *SIAM*

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