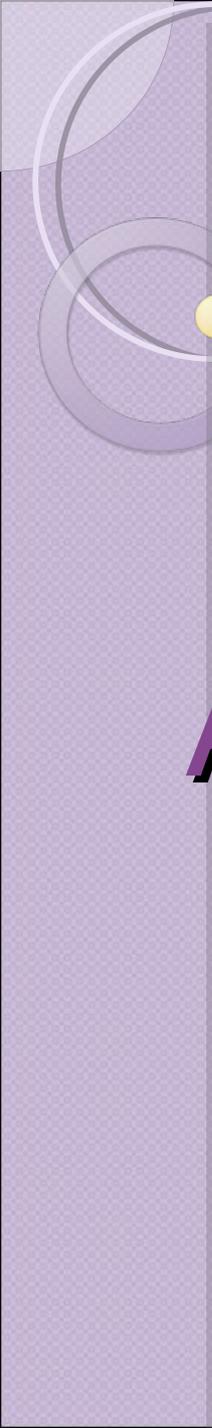


DEPARTMENT OF MANAGEMENT STUDIES

B.S. Abdur Rahman
University Vandalur, Chennai-
600 048.





AUTOMOBILE SECTOR

Presented By:

Maruthu pandi.,B.com.

Shaik Abdul

Rahman.,B.E

Mohamed

Mubarak.A.,B.Tech

Farose

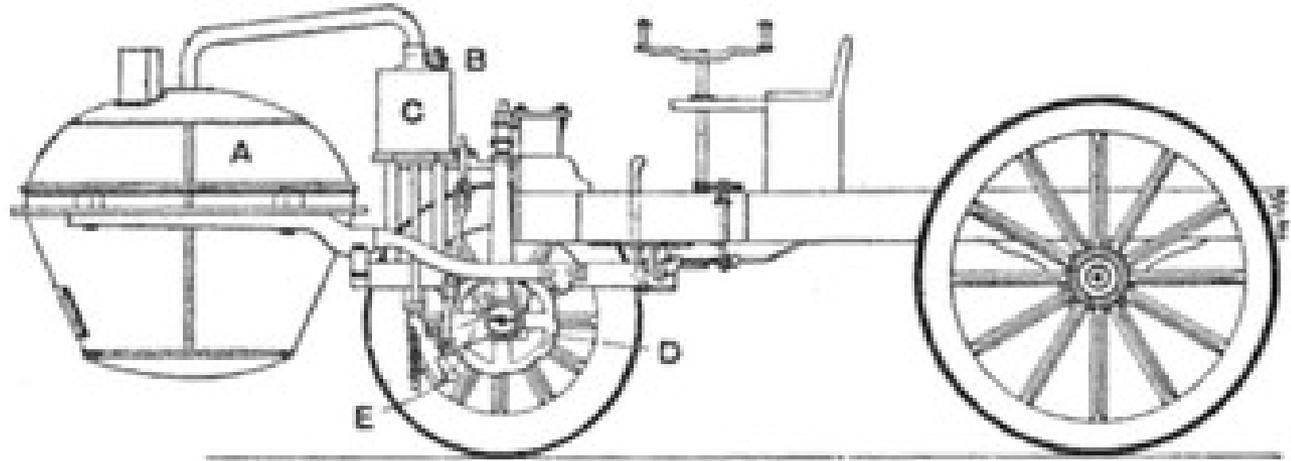
Khan.S.,B.Sc(mat)

Mohammed Azarudeen

Bala

kumar.P.,B.Com(CA)

Automobile History in brief



The design of the Cugnot Steam Trolley (1769)

- History of the automobile begins as early as 1769, with the creation of steam-powered automobiles capable of human transport In 1806.
- The first cars powered by internal combustion engines running on fuel gas appeared, which led to the introduction in 1885 of the ubiquitous modern gasoline or petrol-fueled internal combustion engine.

INDIA : An Introduction

| | India | USA |
|----------------------------|--------------------------------|------------------|
| □ Population | : 1,168,590,000 | 307,324,000 |
| □ States | : 28 | 50 |
| dependent reaps) | (+ 7 Union Territories) | (+14 |
| □ Geographical Area | : 3.3 mn sq km | 9.6 mn sq |
| kms | | |
| □ GDP | : 2.966 Trillion | 13.84 |
| Trillion | | |

Why India

The economy of India is emerging. The following table show the ranking of India in the past four years.

| Rank | 2008 | 2007 | 2006 | 2005 |
|------|--------------|--------------|--------------|--------------|
| 1 | China | China | China | China |
| 2 | India | Thailand | Thailand | Thailand |
| 3 | Thailand | India | USA | USA |
| 4 | Vietnam | Vietnam | Vietnam | Indonesia |
| 5 | USA | USA | India | Vietnam |
| 6 | Russia | Russia | Indonesia | India |
| 7 | Korea | Indonesia | Korea | Korea |



AUTOMOBILE

2 WHEELER

3 WHEELER

PASSENGER
VEHICLE

COMMERCIAL
VEHICLE

I.C.V.

M.C.V.

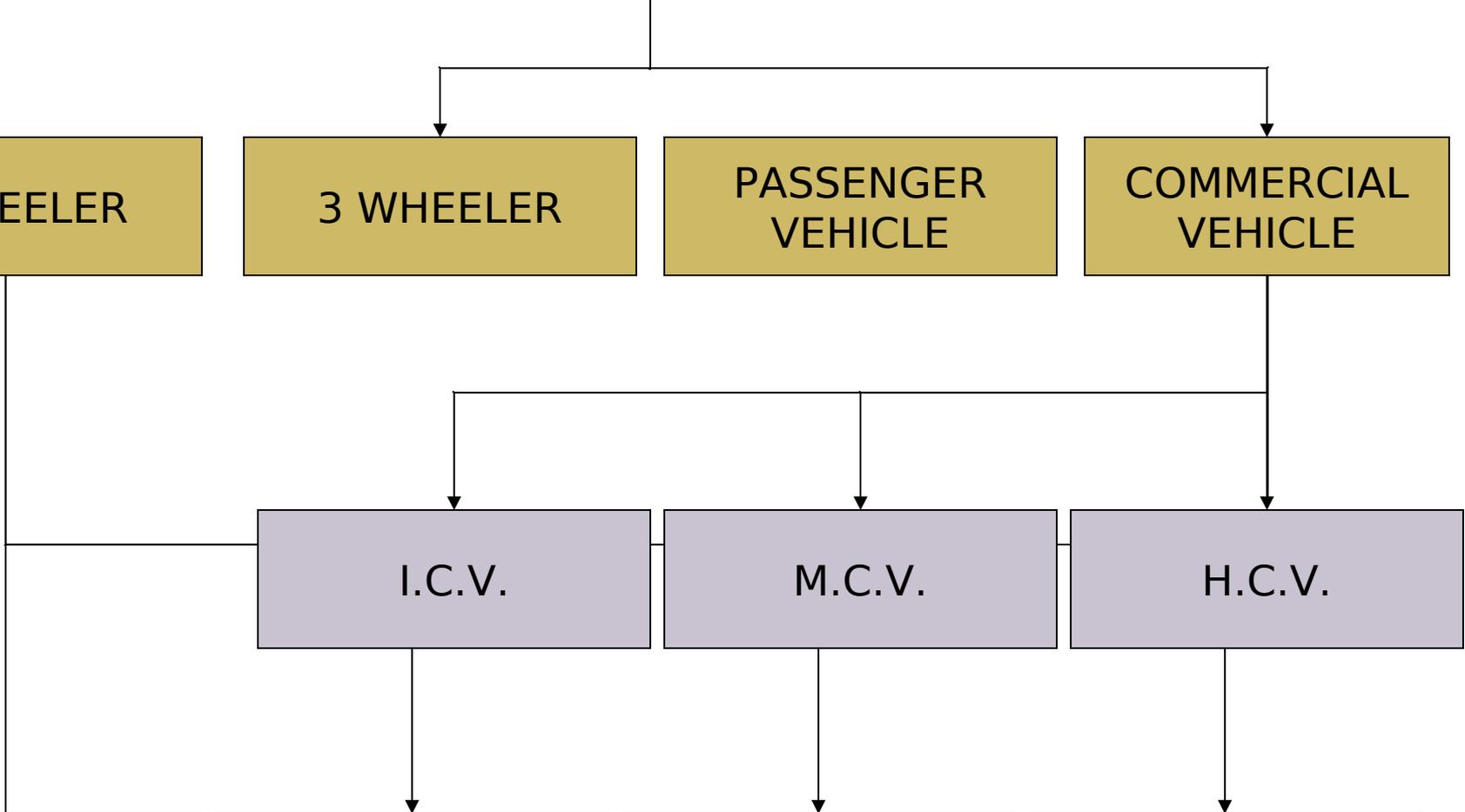
H.C.V.

MOTORCYCLE

SCOOTERS

SCOOTERETTES

MOPEDS



AUTOMOBILE SECTOR

- The automotive sector is one of the key segments of the economy having extensive forward and backward linkages with other key segments of the economy.
- It contributes about 4 per cent in India's Gross Domestic Product (GDP) and 5 per cent in India's industrial production.
- This sector has generated about 4.5 lakh of direct employment and about one crore of indirect employment

- 
- India holds huge potential in the automobile sector including the automobile component sector owing to its technological, cost and manpower advantage.
 - India has a well developed, globally competitive Auto Ancillary Industry and established automobile testing and R&D centers.
 - India enjoys natural advantage and is among the lowest cost producers of steel in the world.

Landmark of Indian automobile industry

- 1897 First Person to own a car in India - Mr Foster of M/s Crompton Greaves Company, Mumbai
- 1901 First Indian to own a car in India - Jamsetji Tata
- 1905 First Woman to drive a car in India - Mrs. Suzanne RD Tata
- 1905 Fiat Motors
- 1911 First Taxi in India
- 1924 Formation of traffic police
- 1928 Chevrolet Motors
- 1942 Hindustan Motors
- 1944 Premier Automobiles Limited
- 1945 Tata Motors
- 1947 Mahindra & Mahindra Limited
- 1948 Ashok Motors
- 1948 Standard Motors
- 1974 Sipani Motors
- 1981 Maruti Suzuki

- 
- 1994 Rover Company
 - 1994 Mercedes-Benz
 - 1994 General Motors India - Opel brand launch
 - 1995 Ford Motor Company
 - 1995 Honda Siel Cars India
 - 1995 REVA Electric Car Company
 - 1995 Daewoo Motors
 - 1996 Hyundai Motor Company
 - 1997 Toyota Kirloskar Motors
 - 1997 Fiat Motors (Re-Entry)
 - 1998 San Motors
 - 1998 Mitsubishi Motors
 - 2001 Škoda Auto
 - 2003 General Motors India - Chevrolet brand launch
 - 2005 BMW
 - 2007 Audi
 - 2009 Land Rover and Jaguar

The automobile industry in India

- 9th largest automobile industry .
- 2nd largest two-wheeler market,
- 11th largest Passenger Cars producers.
- 4th largest in Heavy Trucks.
- 2nd largest tractor manufacturer.
- annual production of over 2.3 million units.
- The monthly sales of passenger cars in India exceed 100,000 units.

Auto sector this year

- Despite economic slowdown that has affected the automobile industry, production and exports of the sector went up last fiscal, said the Economic Survey 2008-09, and underlined that the industry employs over one crore people.
- While the overall automobile production went up by 3 per cent to reach 1.11-crore, exports increased by over 23 per cent to over 15-lakh. The domestic turnover of the sector stood at Rs. 2.19-lakh crore, while exports totalled at Rs. 31,782 crore, taking the total size of the industry to Rs. 2.50 lakh crore.

Government support:

- The Industrial Policy of 1991 de-licensed the Automobile Industry in India, but passenger car was de-licensed in 1993.
- This took the Indian automobile production from 5.3 Million Units in 2001-02 to 10.8 Million Units in 2007-08. The other reasons attracting global auto manufacturers to India are the country's large middle class population, growing earning power, strong technological capability and availability of trained manpower at competitive prices. These are the major findings of our new report, **“Indian Automobile Sector - A Booming Market”**.

Government support:

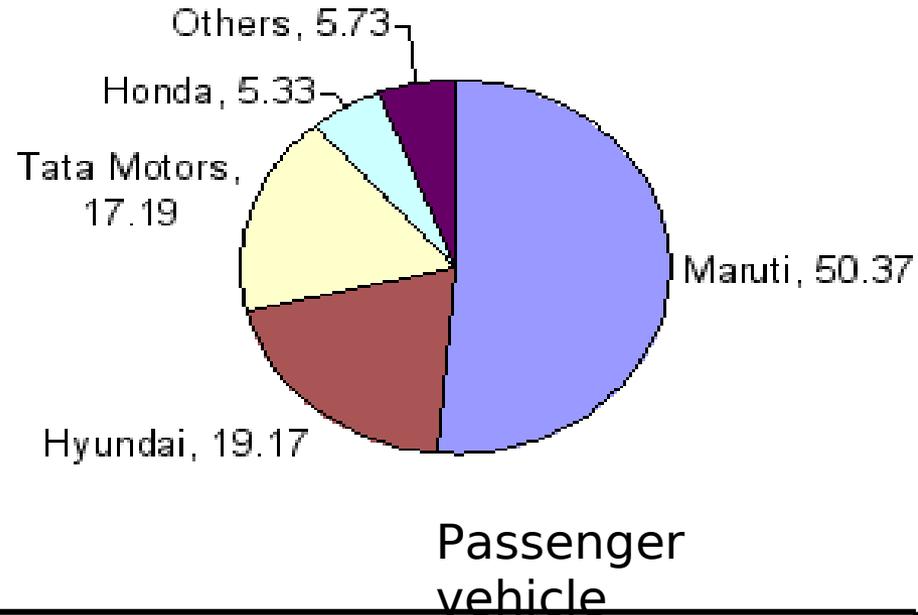
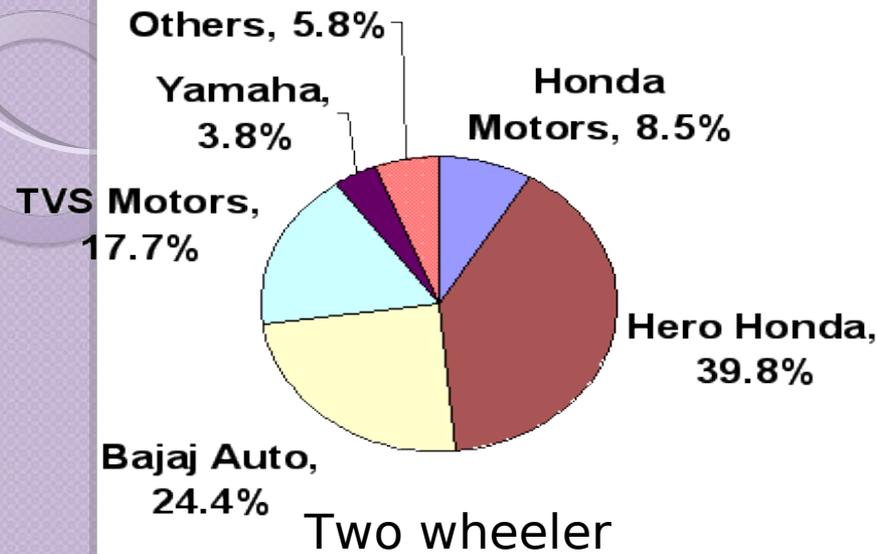
Con..

- Now, no license is required for setting up of any unit for manufacture of Automobiles except in some special cases. Further, 100 per cent Foreign Direct Investment (FDI) is permissible.
- This liberalization has helped this sector to restructure itself, absorb newer technologies, and keep pace with the global developments realizing its full potential.
- Removal of Quantitative Restrictions (QRs) from April 1, 2001 has allowed the import of vehicle, including passenger car segment freely subject to certain conditions notified by DGFT

Government support: Con..

- To protect India from becoming a dumping ground for old and used vehicles produced abroad, the custom duty on the import of second hand vehicles including passenger cars has been raised to 105 per cent.
- The custom duty rate on new Completely Built Units (CBUs) has also been increased to a level of 60 per cent to allow Indian countries to a fully competitive environment.
- In the Union Budget 2007-08, import duty on raw material had been reduced to 57.5 per cent from the earlier 10 per cent.

The Key Players...



| | |
|---------------------|---|
| Commercial vehicles | TATA Motors, Ashok Leyland, Swaraj Mazda, Mahindra & Mahindra, Force motors, Eicher Motors |
| Passenger vehicle | TATA Motors, Maruti Udyog, Honda Motors, Toyota, Skoda, Mahindra & Mahindra, Daimler Chrysler, Hindustan Motors |
| Two Wheeler | Hero Honda, Bajaj Auto, Honda Motors, TVS Motors, Yamaha, Kinetic Motors |
| Three Wheeler | Bajaj Auto, Piaggio India |

Production trend:

- Installed capacity of this sector has been growing at a compound annual rate of over 16 per cent since 2001-02. Automobile industry grew by 14.83 per cent in April 2006-February 2007. Cumulative growth of some important segments in April 2006-December 2007 was
 - Passenger Vehicles: 22.91%
 - Passenger cars: 24.76%
 - Utility Vehicles: 12.69%
 - Multi Purpose Vehicle: 28.38%
 - Commercial Vehicle: 36.12%
 - Medium and heavy Commercial Vehicle: 36.74%
 - Light Commercial Vehicle : 35.25%

TWO WHEELER



MOTORCYCLE



SCOOTERS -
SCOOTERETTES

Indian 2-Wheeler Market

| |  |  |  |  |  |  |  |  |  |
|--|---|---|---|--|---|---|---|---|---|
|  | 50% | 30% | 13% | 4% | 1% | 2% | <1% | - | <1% |
|  | - | 15% | 28% | - | 2% | 46% | 9% | <1% | - |
|  | - | - | 82% | - | - | - | 8% | 10% | - |

India is now the second largest two-wheeler market in the world

Passenger Vehicle Market



Passenger
cars



Multi Purpose
Vehicle

Indian Passenger Vehicle Market

| |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|--|---|---|---|---|---|---|---|
| Passenger Cars | 52% | 17% | 19% | - | 1% | 5% | 2% | 2% | 2% | 1% | - | <1% | <1% |
| Utility Vehicles | 2% | 18% | 1% | 42% | 21% | 1% | 10% | 1% | <1% | - | 4% | - | <1% |
| Multi Purpose Vehicles | 100% | - | - | - | - | - | - | - | - | - | - | - | <1% |

4th largest Passenger Vehicle Market in Asia



Light Commercial Vehicle



Heavy Commercial Vehicle



Medium Commercial Vehicle

Commercial Vehicle Market

Indian Commercial Vehicle Market

| |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|
|  | 64% | 24% | - | 8% | - | 3% | - | <1% | <1% |
|  | 40% | 30% | 7% | 5% | 10% | 6% | 1% | 1% | - |
|  | 59% | <1% | 32% | 4% | 3% | 3% | <1% | - | - |

TATA Motors dominates over 60% of the Indian Commercial Vehicle Market. It is also the World's fifth largest Medium & Heavy commercial vehicle manufacturer.

Three wheelers



Utility Vehicles

Indian 3-Wheeler Market

| Sub Segments |  BAJAJ |  PIAGGIO |  Mahindra |  FORCE |  ATUL AUTO LTD. |  Scooters India |
|--|---|--|--|---|---|---|
|  Passenger | 68% | 24% | 2% | 1% | 3% | 3% |
|  Goods | 23% | 40% | 12% | 13% | 7% | 6% |

60 %

40 %

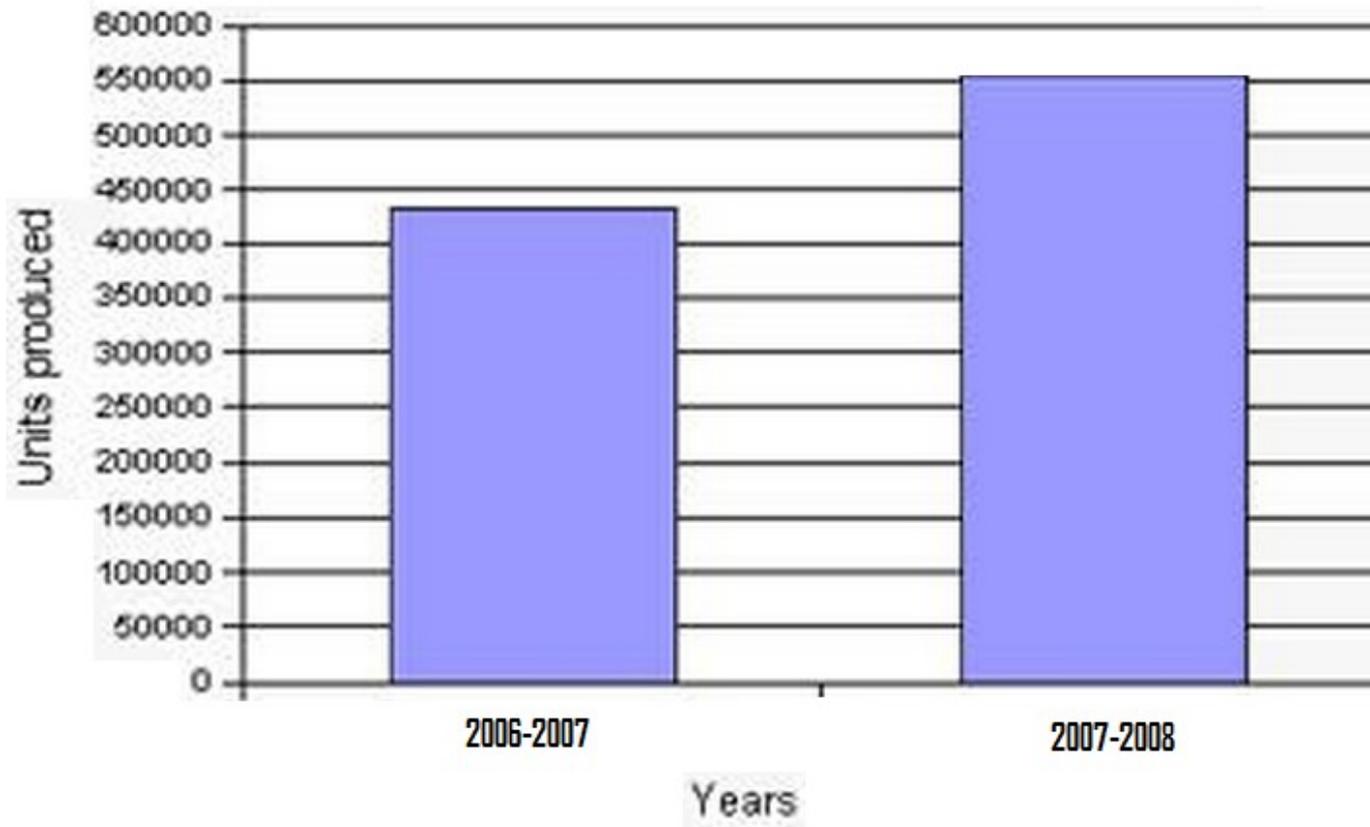
India is the largest three-wheeler market in the world

Three wheelers

- India has also been one of the major exporters of three wheelers. Thousands of passenger and goods carriage three wheelers running in the various Southeast Asian nations are often manufactured by the several companies based in India.
- There has been massive growth in the export of three wheelers during 2006-2007. The exports of three wheelers grew by 20.35 % than the previous fiscal year. In the year 2005-2006 the total number of three wheelers exported was 76881, and it rose to about 92526 during 2006-2007.

3 wheelers

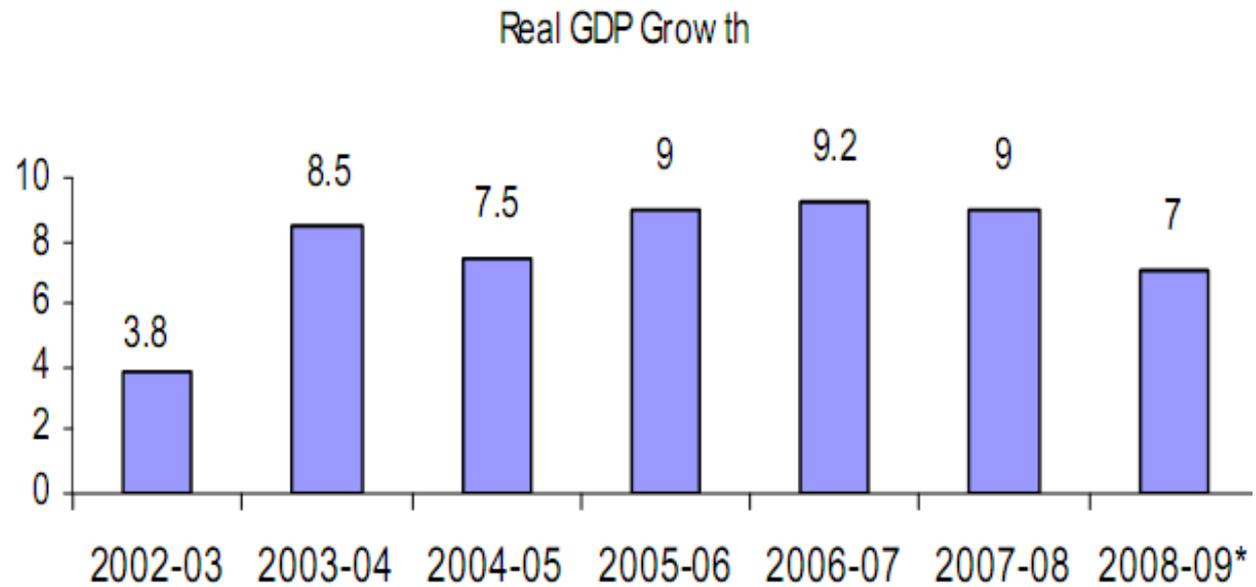
Production trend of three wheelers in INDIA (2007-2008).





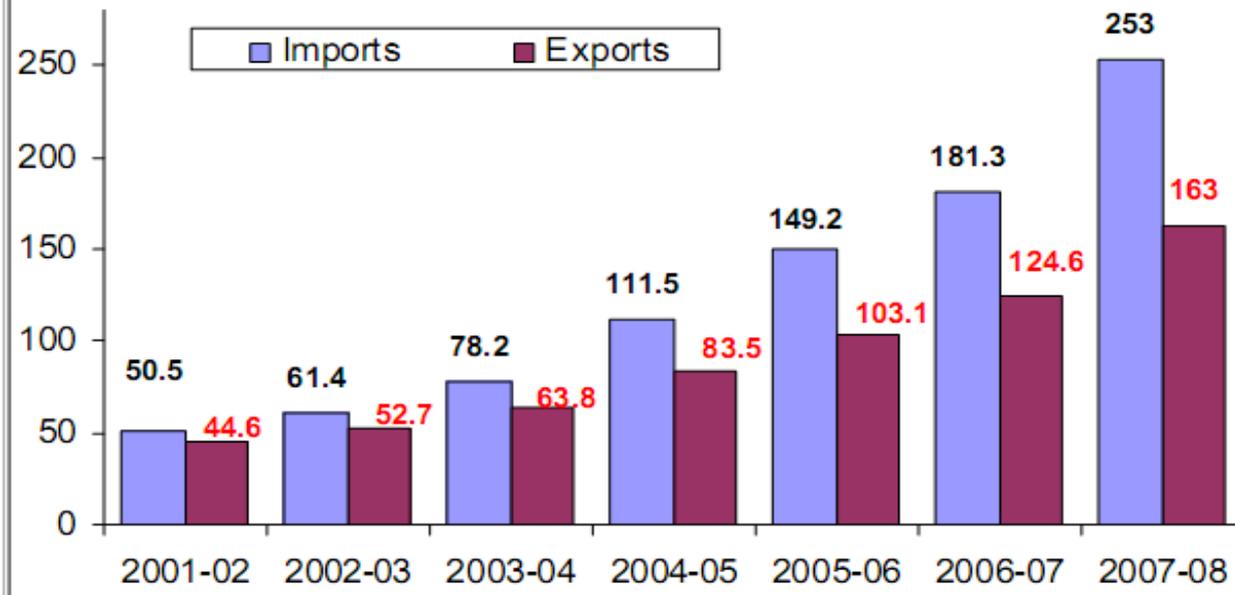
GDP, FOREIGN TRADE AND FDI

Real GDP Growth (%)



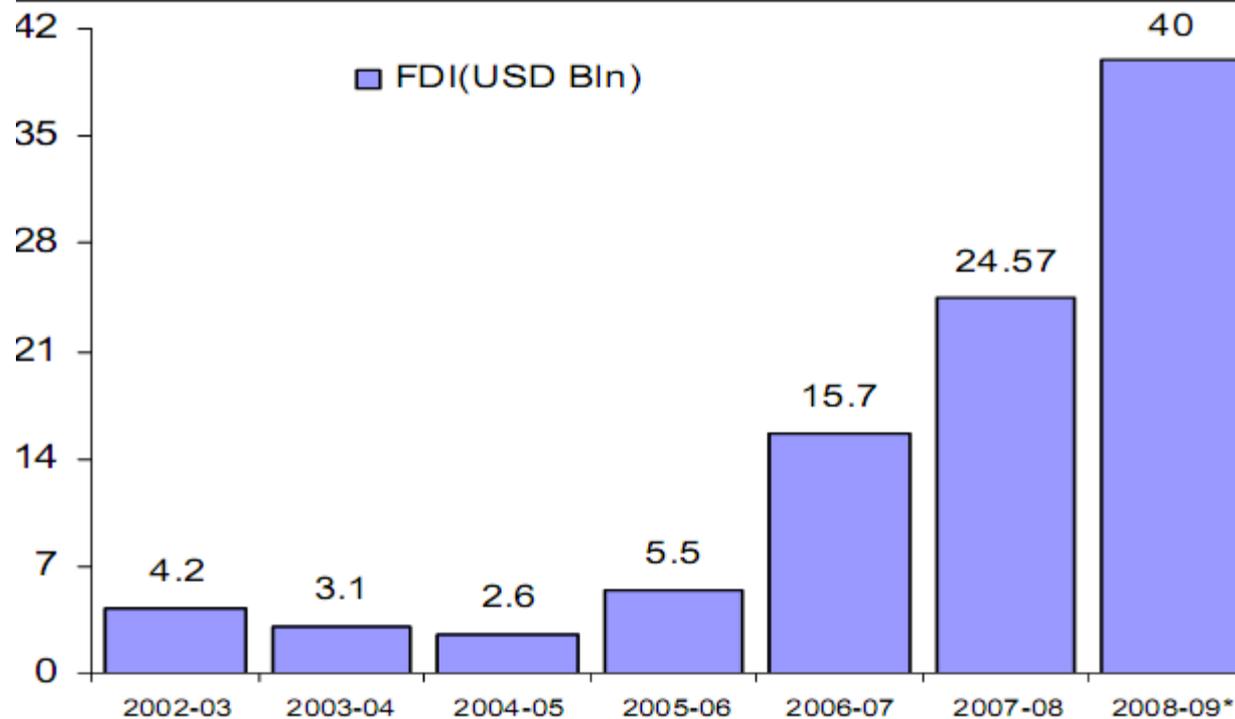
*As on Dec
2008

India's Foreign Trade (USD Billion)



*Estimated

FDI Inflow in India (USD Billion)



*Estimated



PRODUCTION, SALES AND EXPORT

| Automobile Production | | | | | | | |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------------------|
| Category | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 (till Sept'06) |
| Passenger Cars | 513 | 564 | 609 | 842 | 961 | 1,046 | 594 |
| Multi Utility Vehicles | 128 | 106 | 112 | 146 | 249 | 263 | 144 |
| Commercial Vehicles | 157 | 163 | 204 | 275 | 350 | 391 | 237 |
| Two Wheelers | 3,759 | 4,271 | 5,076 | 5,625 | 6,527 | 7,600 | 4,155 |
| Three Wheelers | 203 | 213 | 277 | 341 | 374 | 434 | 264 |
| Total | 4,759 | 5,316 | 6,280 | 7,229 | 8,461 | 9,735 | 5,394 |
| Growth in per cent | -2 | 11.7 | 18.6 | 15.12 | 16.8 | 14.97 | 18.04 |

Contribution in exports:

| Automobile Export | | | | | | | |
|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------------|
| (Numbers in thousand) | | | | | | | |
| Category | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 (till Sept. 06) |
| Passenger cars | 23 | 50 | 71 | 126 | 161 | 170 | 98 |
| Multi utility vehicles | 4 | 3 | 1 | 3 | 6 | 5 | 3 |
| Commercial vehicles | 14 | 12 | 12 | 17 | 30 | 41 | 23 |
| Two wheelers | 111 | 104 | 180 | 265 | 367 | 513 | 332 |
| Three wheelers | 16 | 15 | 43 | 68 | 67 | 77 | 62 |
| Total | 168 | 185 | 307 | 479 | 620 | 806 | 519 |
| Growth in per cent | 20.24 | 9.74 | 65.35 | 55.98 | 31.25 | 28.03 | 27.43 |

Vehicle Production & Sales : Till 3rd Qtrs (April-Feb) (Qty in '000 Nos.)

(Number of Vehicles)

| Category | Production | | | Domestic Sales | | | Exports | | |
|---------------------|------------|------------|--------|----------------|-----------|--------|-----------|-----------|--------|
| | Apr-Feb | Apr-Feb | % Gr. | Apr-Feb | Apr-Feb | % Gr. | Apr-Feb | Apr-Feb | % Gr. |
| Segment / Subseg | 2007-08 | 2008-09 | | 2007-08 | 2008-09 | | 2007-08 | 2008-09 | |
| I Pasger Veh(PVs) | 1,595,708 | 1,634,458 | 2.43 | 1,382,815 | 1,386,692 | 0.28 | 193,182 | 301,952 | 56.30 |
| M&HCVs | 261,409 | 175,583 | -32.83 | 240,364 | 164,172 | -31.70 | 19,105 | 15,432 | -19.23 |
| LCVs | 230,949 | 201,349 | -12.82 | 193,408 | 178,180 | -7.87 | 32,540 | 24,393 | -25.04 |
| Total CVs | 492,358 | 376,932 | -23.44 | 433,772 | 342,352 | -21.08 | 51,645 | 39,825 | -22.89 |
| Total 3 Wheelers | 464,653 | 460,357 | -0.92 | 335,049 | 316,599 | -5.51 | 130,660 | 140,364 | 7.43 |
| Total 2 wheelers | 7,327,588 | 7,670,660 | 4.68 | 6,618,302 | 6,783,653 | 2.50 | 744,461 | 934,653 | 25.55 |
| Grand Total | 9,880,307 | 10,142,407 | 2.65 | 8,769,938 | 8,829,296 | 0.68 | 1,119,948 | 1,416,794 | 26.51 |

Auto Component Industry - Statistics

Value in US\$ billion

| | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 Apr-Nov |
|------------------------------------|----------|----------|----------|----------|----------|--------------------|
| Turnover | 6,730 | 8,700 | 12,000 | 15,000 | 18,000 | 19,000? |
| Growth in % | 24.6% | 29% | 38% | 25% | 20% | 6% |
| Exports | 1,274 | 1,692 | 2,469 | 2,873 | 3,615 | 3,800? |
| Growth in % | 37% | 34% | 47% | 16% | 24% | 5.5% |
| Investment | 3,100 | 3,750 | 4,400 | 5,400 | 7,200 | 7,700 ? |
| Employment In No. | 2,50,000 | 2,60,000 | 2,75,000 | 3,00,000 | 3,50,000 | 4,00,000 |
| Export as % Of Turnover | 18.9% | 19.5% | 20.5% | 19.2% | 20.1% | 20.1% |



Future of
**INDIAN AUTO
INDUSTRY**

Future prospect of Indian Automotive Sector

- Nissan Motors plans to export 250,000 vehicles manufactured in its India plant by 2011.
- [General Motors](#) announced its plans to export about 50,000 cars manufactured in India by 2011. By 2010, India is expected to witness over Rs 30,000 crore of investment.
- [Maruti Udyog](#) has set up the second car with an investment of Rs 6,500 crore.
- [Hyundai](#) will bring in more than Rs 3,800 crore to India.
- [Tata Motors](#) will be investing Rs 2,000 crore in its small car project.
- [General Motors](#) will be investing Rs 100 crore and Ford about Rs 350 crore.
- Ashok Leyland and Tata Motors have each announced

Future prospect of Indian Automotive Sector ²

- Future prospect of Indian Automotive Sector is looking bright.
- Passenger car production in India is projected to cross three million units in 2014-15.
- Sales of passenger cars during 2008-09 to 2015-16 are expected to grow at a CAGR of around 10%.
- Export of passenger cars is anticipated to rise more than the domestic sales during 2008-09 to 2015-16.
- Motorcycle sales will perform positively in future, exceeding 10 Million units by 2012-13.
- Value of auto component exports is likely to attain a double digit figure in 2012-13.
- Turnover of the Indian auto component

Technological

Environment

- With the entry of global companies into the Indian market, advanced technologies, both in product and production processes have developed.
- With the development or evolution of alternate fuels, hybrid cars have made entry into the market.
- Few global companies have setup their R&D centres in India.
- Major global players like Audi, BMW, Hyundai etc have setup their manufacturing units in India.
- Government initiatives regarding tax rebates has led to global players setting up their R&D centres in India.
- Govt. initiatives in establishing NATRIP network across the country will further lead to enhancing R&D and technological



Problems with Automobile Sector

Impact of Global Recession on Indian Car Industry

- India is one of the few countries where car sales have been increasing in the course of the worldwide economic downturn.
- Passenger car sales rose 31% to 115,067 units in July from 87,901 units a year ago.
- The effect of inflation has taken the rise in the price rate of the cars by 3-4% which in turn suffices the need to meet the rise in price of the raw materials to build a car.
- The effect of inflation has affected not only the production and sales of Indian cars but also has significantly affected the car dealer, officials and car financiers. Research and observations have led to the conclusion that in the year 2008, the car market and the car industry is expected to witness 8-9% fall

Some other Problems with Automobile Sector

- Effect of Rising Fuel Prices on Car Sales
- The cars today are run on petrol, diesel and gas. The price hike of all the three has led to a serious problem. The hike in petrol went by 5% whereas the price of diesel went up by 3%. The rise in the price of the fuel has depreciated the sales of cars by 8%.

Steps taken by government to overcome recession

- Vehicle makers cut prices following a government reduction in value-added tax last December, part of a stimulus package to help the sector, and the central bank has made a series of rate cuts to spur the economy.

Steps taken by A leading company to overcome rescission

- TATA Motors is shedding up to 3,000 temporary jobs at its Pune factory, weeks after its decision to cut production and dismiss a similar number of temporary workers at its Jamshedpur plant. The latest cuts could take the overall layoffs to around 6,000 workers.



THE MAJOR PLAYERS OF AUTOMOBILE SECTOR

TATA



- Current Share Price **Rs.508.20.**
- Nano the world's cheapest car.
- Car giant Ford has sold its luxury UK-based car brands Jaguar and Land Rover to Indian company Tata.
- Tata, India's biggest vehicle maker, is paying \$2.3bn for the British brands after months of negotiations over price and supply relationships.
- **Commercial Vehicles**
The company's sales of commercial vehicles in August 2009 in the domestic market were 29,762 nos., a 28% growth compared to 23,231 vehicles sold in August last year.
- LCV sales were 18,644 nos., a growth of 42% over August last year. M&HCV sales stood at 11,118 nos., a growth of 10% over August last year. This is the second consecutive month of growth for M&HCV.
- Cumulative sales of commercial vehicles in the domestic market for the fiscal were 130,226 nos., a growth of 11% over last year. Cumulative LCV sales were 81,824 nos., a growth of 34% over last year, while M&HCV sales stood at 48,402 nos., lower by 14% over last year.
- **Exports**
The company's sales from exports at 2,684 vehicles in August 2009 were lower by 44% compared to 4,772 vehicles in August last year. The cumulative sales from exports for the fiscal at

Tata Passenger Vehicles

- **Passenger Vehicles**

The passenger vehicles business reported a total sale and distribution offtake of 20,146 nos. (17,364 Tata + 2,782 Fiat) in the domestic market in August 2009, a 26% increase compared to 15,948 nos. (15,597 Tata + 351 Fiat) in August last year.

- Sales of Tata cars, at 14,755 nos., grew by 21% over August 2008. The sales of the Tata Nano were 2,501 nos. The Indica range sales were 9,598 nos., a growth of 24% over August last year.
- Jaguar Land Rover sales continue to get an encouraging response. The Land Rover range will be augmented by the addition of the Freelander 2, which will be launched in September.
- Cumulative sales and distribution offtake of passenger vehicles in the domestic market for the fiscal were 90,718 nos. (80,392 Tata + 10,326 Fiat), against 83,507 nos. (81,343 Tata + 2,164 Fiat) last year, a growth of 9%. Cumulative sales of the Nano were 4,976 nos. Cumulative sales of the Indica range at 47,010 nos., reported a growth of 15%.

Maruti Suzuki



- Current Share Price **Rs.1,546.40**
- Maruti Suzuki India Limited, India's car market leader, sold a total of 84,808 vehicles in August 2009, growing 41.6 percent in the month. This includes exports of 14,847 units, the highest ever monthly export in the company's history.
- The company had sold a total of 59,908 vehicles in August 2008.
- Maruti Suzuki's volume in the domestic A2 segment grew by 39.3 per cent. In the A3 segment the sales volume grew by 44.1 cent during the month as compared to sales in August 2008.
- During the month the company crossed the milestone of 50,000 cumulative exports in this fiscal. A star is Maruti Suzuki's flagship export model. A star, which was introduced internationally in January 2009, has been leading the export numbers since introduction. The major markets for this model in Europe include Germany, UK, France and Netherlands.
- In the last week of August 2009, the company introduced the Estilo with a bolder new look and the latest, 1-litre, BS-IV compliant, K-series engine.

Ashok Leyland



ASHOK LEYLAND

CAR@INDIA.COM

- Current Share Price **Rs.39.65.**
- Against the backdrop during 2008-09, the Company registered sales of 47,118 medium and heavy commercial vehicles, 37.5% less than in the previous year. This includes 16,049 M&HCV buses and 31,069 M&HCV trucks respectively, 8.7% and 46.3% less than in the previous year.
- The Company lost 1.8 percentage market share in the Indian medium and heavy commercial vehicle market during the financial year 2008-09, mainly due to loss of sales in the truck segment.
- While the medium and heavy duty buses declined by about 8.7%, the Company's market share grew marginally and the Company retained its number one position in this segment.
- The Company sold 6,812 vehicles in the overseas markets during 2008-09. This represents a decrease of approximately 6.5% over the previous year. overseas markets to which the Company exports witnessed a reduction of about 25% over the previous year.

Ashok Leyland

- Engines business registered an impressive 82.4% growth during 2008-09. A total of 21,447 engines were sold by the Company. This includes 12,169 engines sold under the LEYPOWER brand of generator sets, representing a seven-fold growth during the year.
- This is part of a business transformation, offering value-added Power Solutions and not just engines. Spare parts sales including KD packs to Vehicle Factory, Jabalpur, accounted for Rs. 800 crores during 2008-09 against sales of Rs. 791 crores during previous year.
- The Company produced in all 54,049 vehicles during the year. To contain costs and conserve cash, the Company worked only about 50% of the working days in all its manufacturing units during the second half of the year.

BAJAJ



BAJAJ

Distinctly Ahead

- Current Share Price **Rs.1,230.90.**
- In 2006-07, overall two-wheelers sales was 8.47 million, but in 2007-08 the sale fell by 4.8% to 8.07 million.
- exports increased by 20.8% to Rs.20.48 billion.
- Bajaj Auto's market share in motorcycles fell marginally from 22.52% in 2006-07 to 22.50% in 2007-08.

Hero Honda



- Current Share Price
Rs.1,609.20.
- The annual sales of the Company grew at 0.01 per cent during 2007-08. The sales in 2007-08 was 3,337,142 units, while compared to 3,336,756 units during the year 2006-07.

TVS MOTORS



- Current Share Price **Rs.51.75.**
- The total number of two wheelers sold by the Company during the year 2007-08 was 1.28 million units, registering a fall of 16% over the previous year.
- Motorcycles declined steeply by 33%, while mopeds grew by 19%. Scooter sales remained flat. The Company's export sales grew by 32% to 1.36 lakh numbers from 1.03 lakhs in 2006-07.
- During the year, the turnover declined to Rs. 3310 crores from Rs. 3921 crores. The profit before tax (PBT) of Rs. 35 crores for the year was substantially lower than the previous year's PBT of Rs. 91 crores due to lower sales and consequent reduction in margins.

SWOT Analysis

Strengths

- Automobile industry is an established and an evergreen industry.
- India is the strongest player in the small car segment of the global automobile market
- Indian companies are the best cost innovators
- The automotive industry has long been known for its development and promulgation of the assembly-line.

Strengths con..

- Some of the greatest developments in the automotive supply chain lie in the development of Just-In-Time (JIT) inventory methods.
- Through the use of advanced technologies, assembly line manufacturing, and JIT inventory management, the automotive industry has been able to achieve significant gains in productivity.

Weakness

- Indian is lacking in proper infrastructure.
- This is slowing the pace of growth of auto industry
- Companies are not improving after sale services

Opportunities

- The automotive ecosystem is in the midst of significant change, with increasing challenges in consumer demands, technology development, and globalization.
- While demand for incumbent technologies will remain strong, alternative power trains could capture more than 20 percent of the global market by 2020, depending upon boundary conditions such as fuel taxation and emissions regulation set by governments as well as oil price development.
- storage is in the heart of the next generation of efforts for fuel economy.
- More realistic scenario will emerge for technologies using Hydrogen as automotive fuel.
- Intelligent use of NCES (Non conventional energy sources) for powering Public Transport.

Threats

- Global Crisis
- Companies not focusing on R & D are under great risk
- High competition from foreign players
- Lack of technology for Indian companies

Reference

- Ministry of Heavy Industries & Public Enterprises (Department of Heavy Industries), Government of India



- **AutomobileIndia.com**

- **THE HINDU Business Line**

- **Google™**



THANK YOU