Indian Commercial Vehicle Industry – Opportunities & Challenges Ahead

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<u>Focus on India</u>

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Contents:

- The Indian Economic Scenario & the Key Growth Drivers
- The Indian CV Industry - Business Scenario
- Challenges and Opportunities
- The take Away

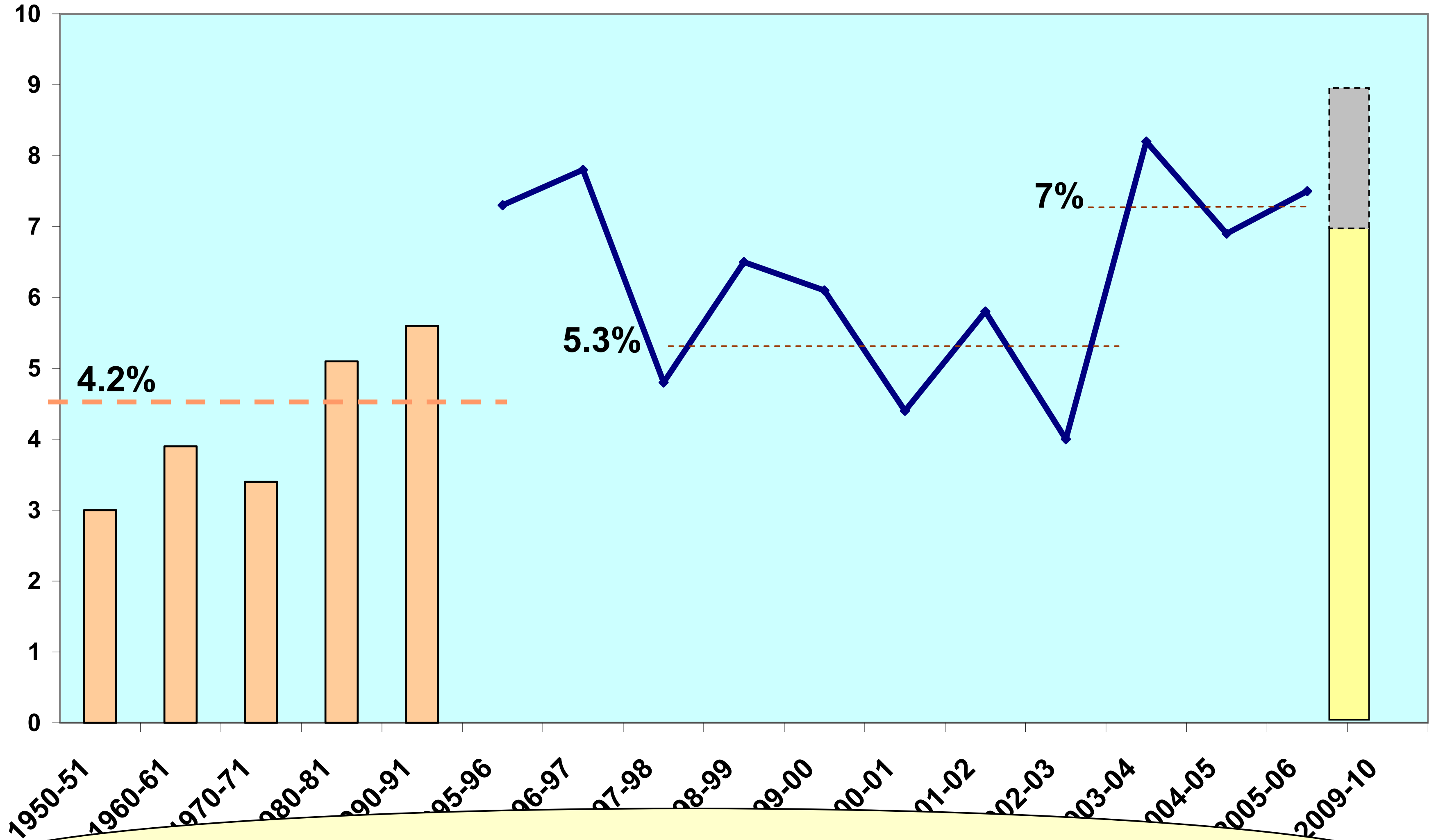
The Indian Economic Scenario

&

The Key Growth Drivers

India's Macro Economic Growth

GDP Growth (%)

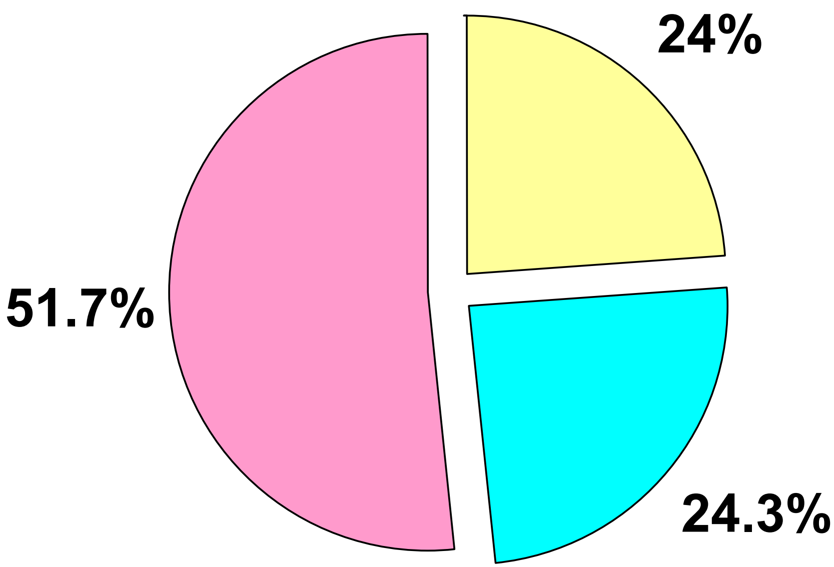


Robust Economic Growth Projections ~ 7% to 9% -- Short to Medium Term

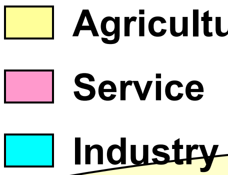
Source: CSO, JCIF

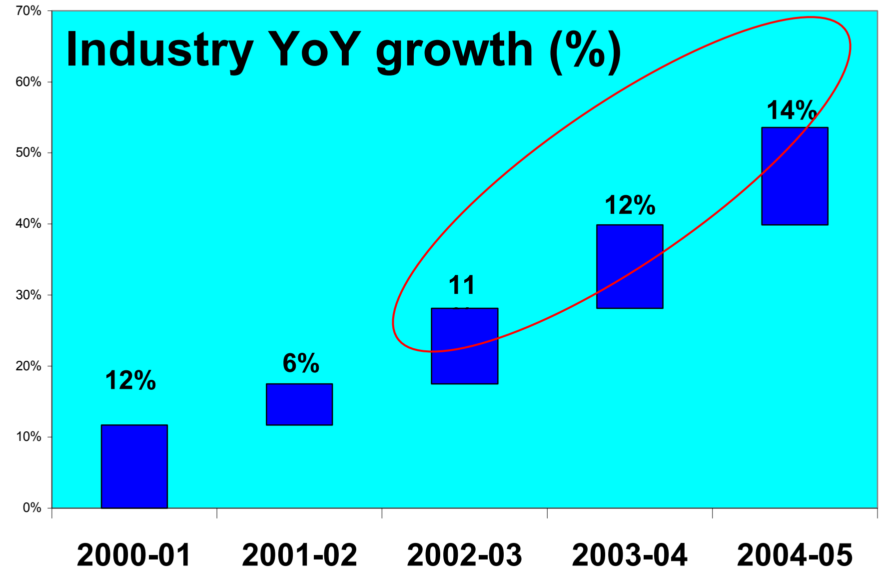
India's Macro Economic Growth

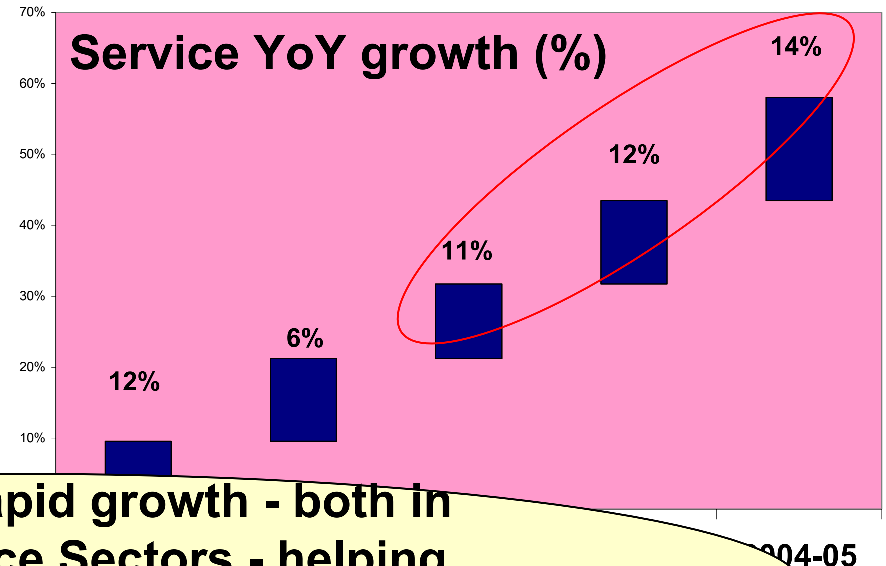
Component of GDP 2004-05



100% = US $ 690 Bn.







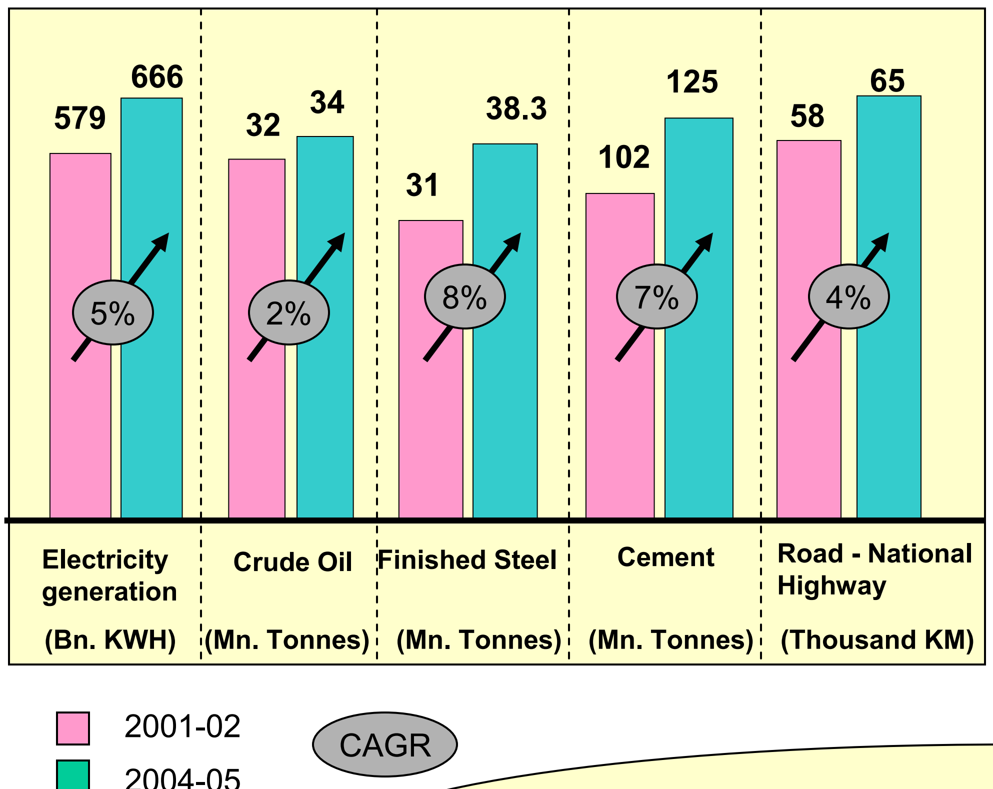
Healthy mix with rapid growth - both in Industry and Service Sectors - helping Commercial Vehicles Business Expansion Substantially

Source : DES

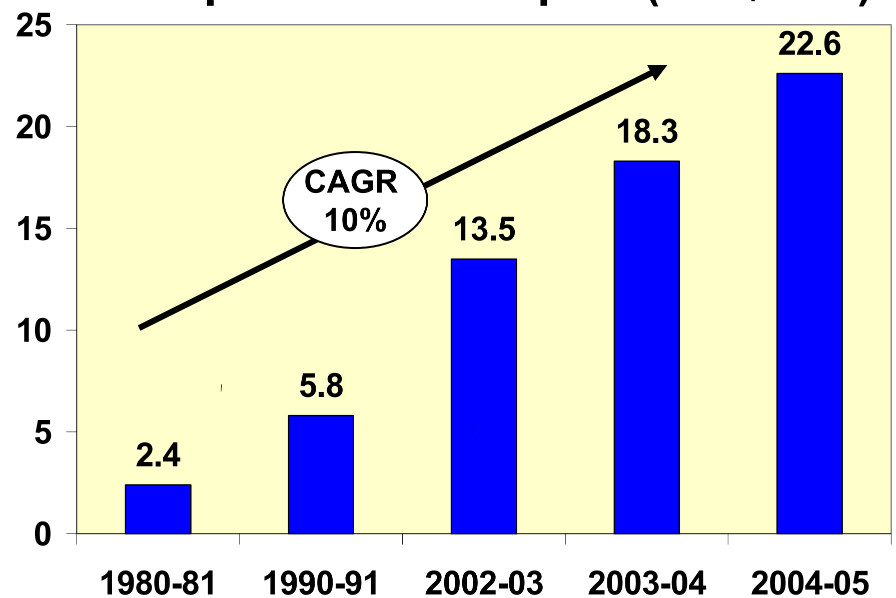
India’s Macro Economic Growth

Growing Investment –

Growth of Core Industries



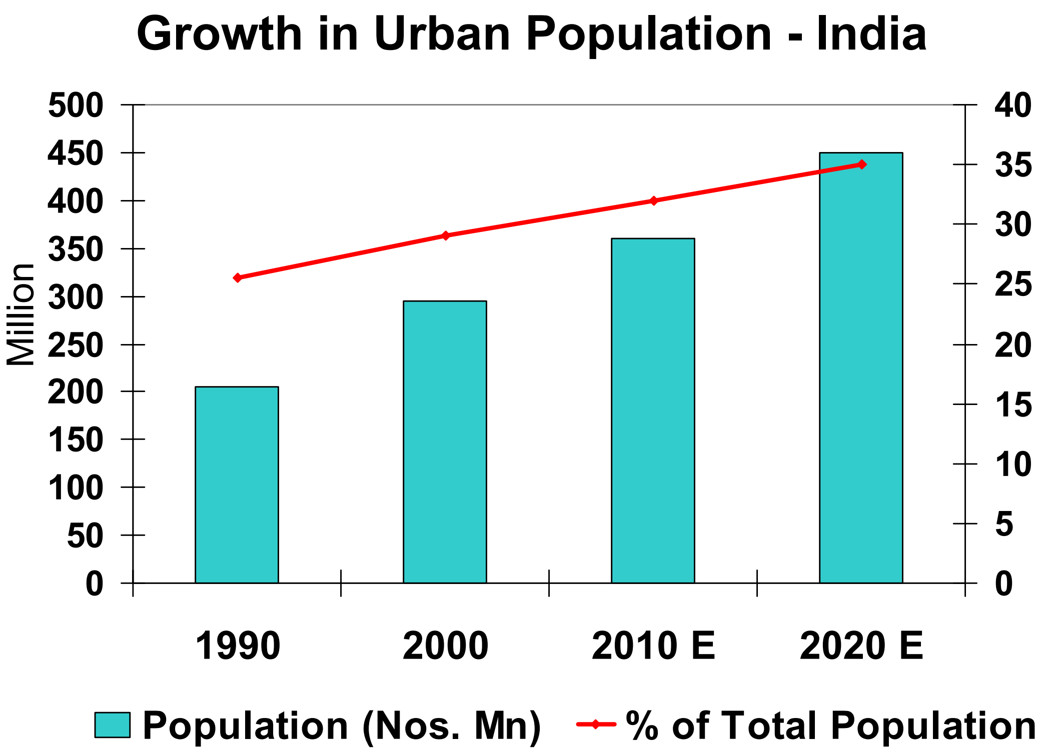
Capital Goods Import (US $ Bn.)

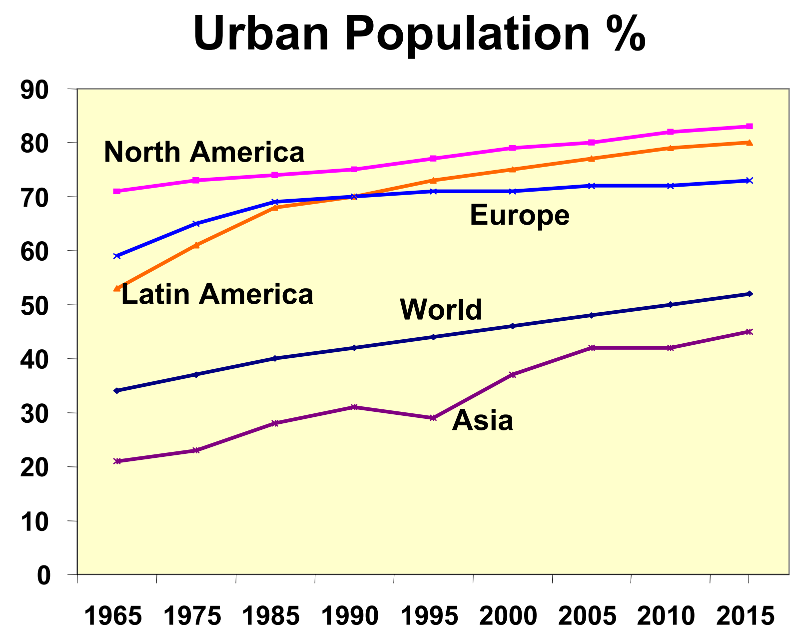


Sustained growth in Industry & Service - Backed by growing infrastructure & Capital investment

Source : Statistical outline of India

Growing urbanization





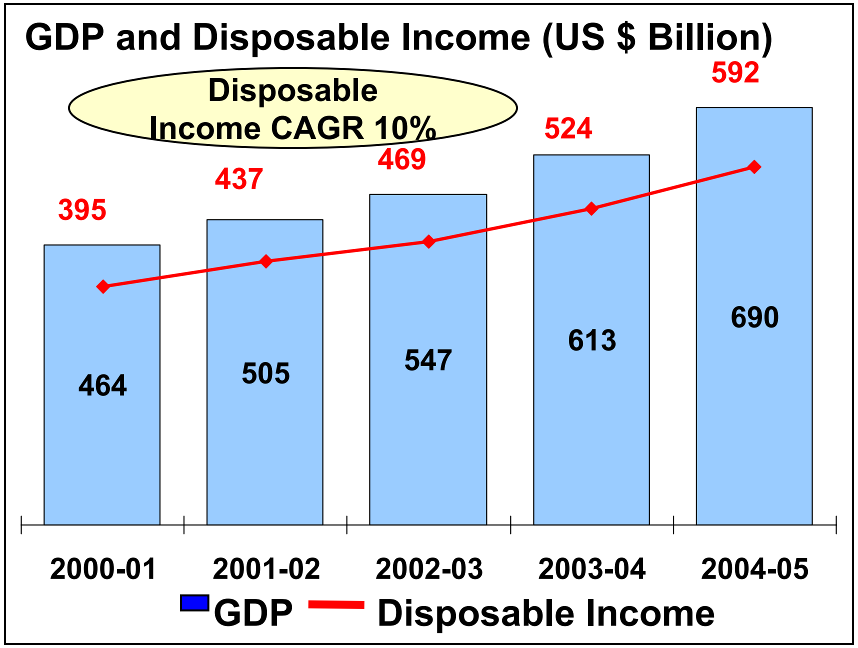
Increase in urban population to Sustain market expansion and drive growth

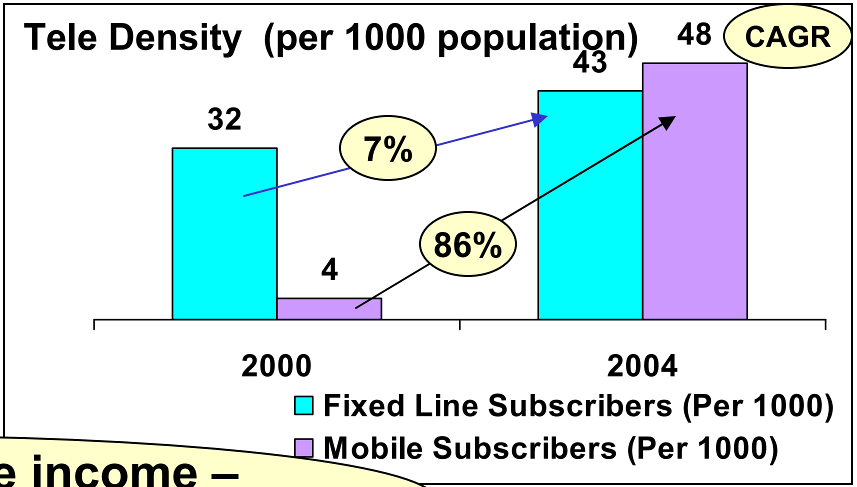
Increasing Disposable Income

Increase in income level, Decline in tax and interest rates have helped to increase in Personal Disposable Income

Change in mindset leading to changing investment / spend pattern from property investment to increasing consumerism

Explosive growth in communication (Cell Phones/TV) has led to urbanization of rural consumer attitude and has increased the propensity to consume

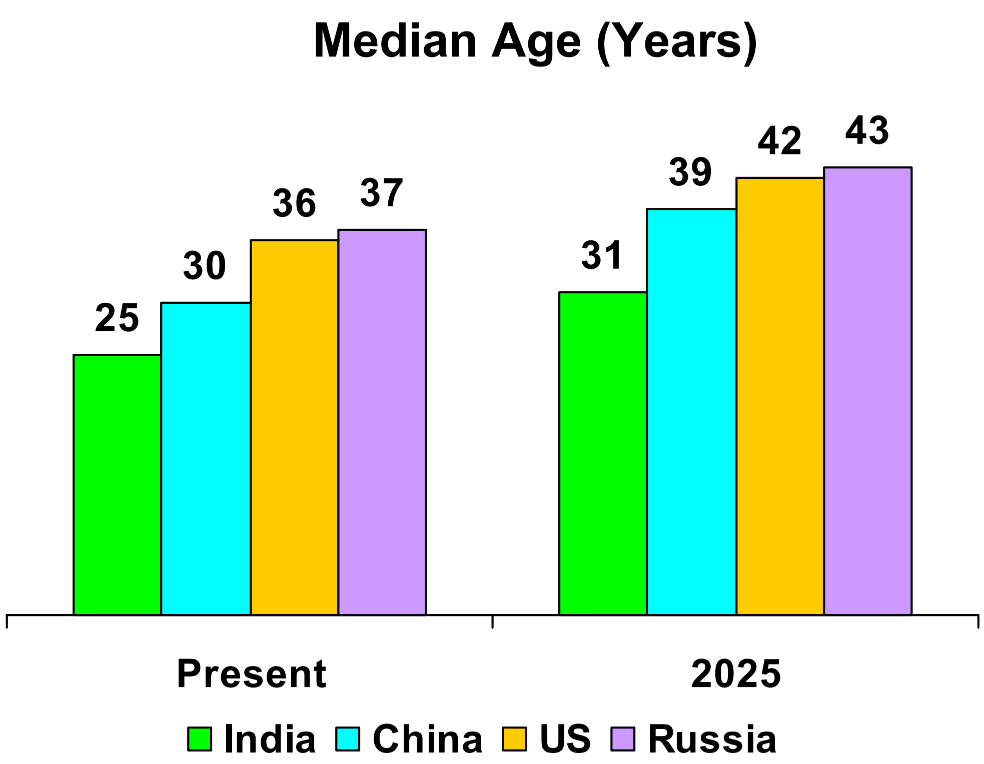


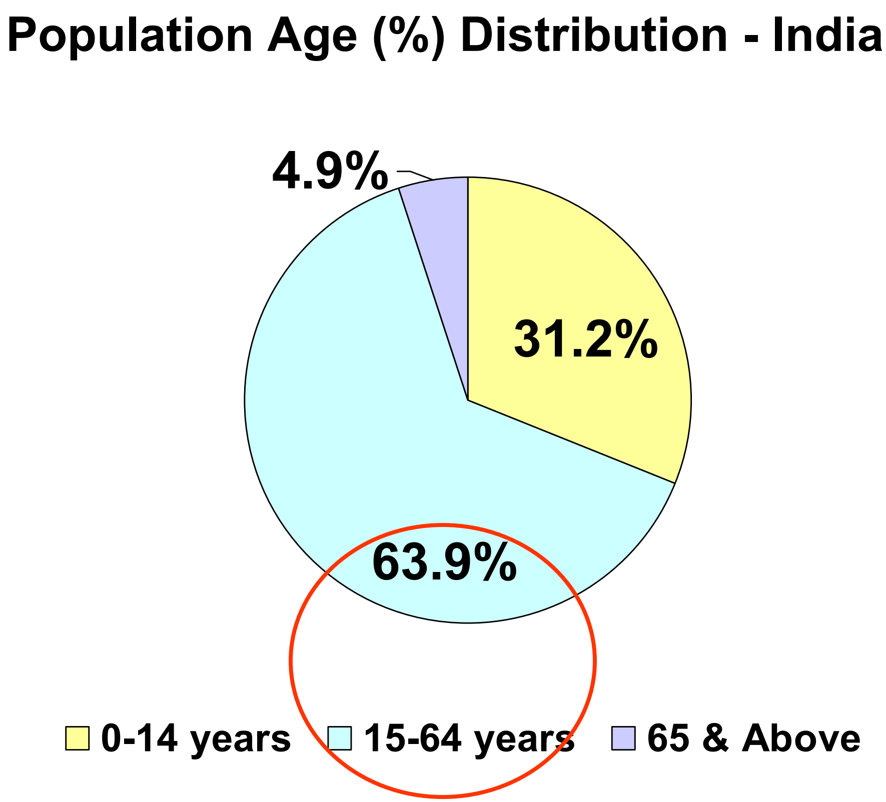


Increased disposable income – Fast changing spending habits

Source: World Bank Country Profile

India's Population – Youngest in terms of Median Age



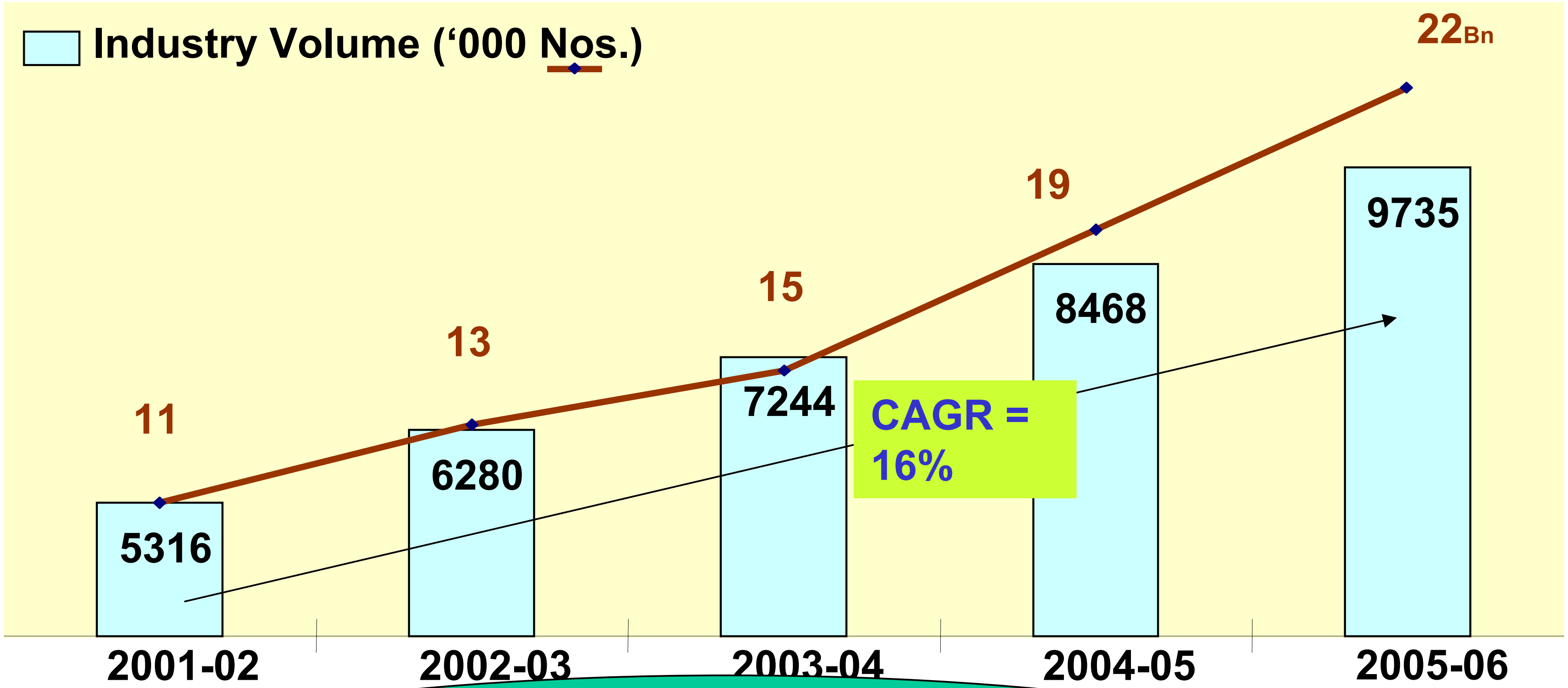


India is and will remain the youngest nation in the world for at least next 20 years

Source : Statistical Outline of India

The Indian Auto industry

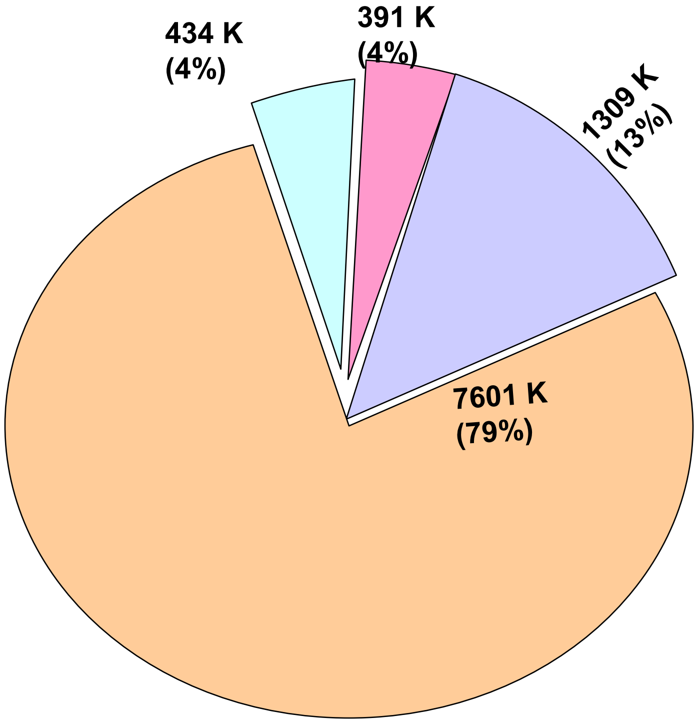
Indian Automobile Industry



The US$ 22 Bn Industry, making ~10 m vehicles still dominated by the 2 Wheelers - But Fast Growing 4W Market – Both Personal & Commercial Segments

Source: SIAM, ACMA, Morgan Stanley

Indian Automobile Industry

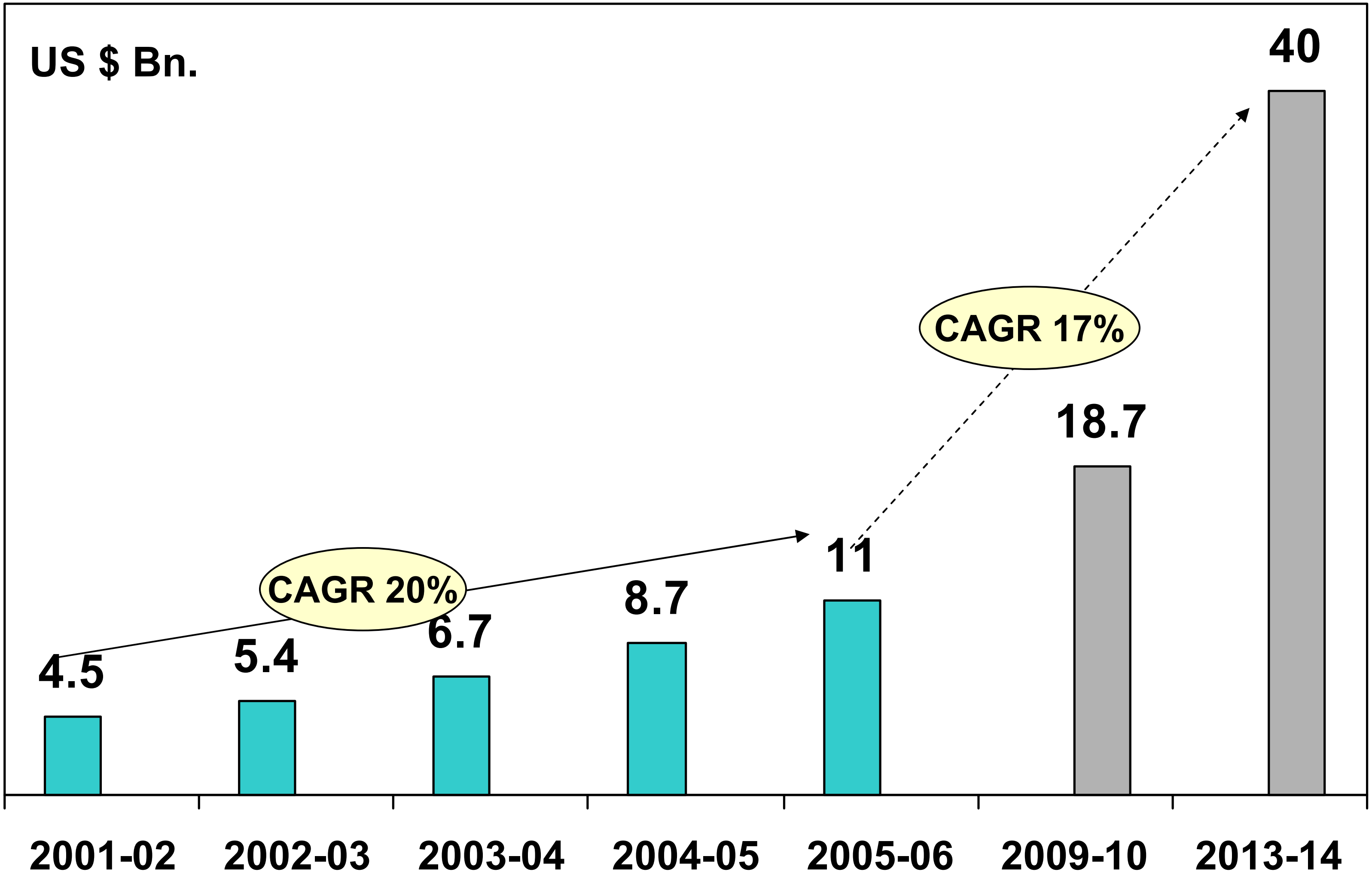


CAGR {2005-2014 Projection}	CV	PV	3W	2W
	Trucks {7%}	Cars {10%}	{16%}	{16%}
	Buses {6%}	MUV {4%}		

Indian Auto Industry growing in all segments

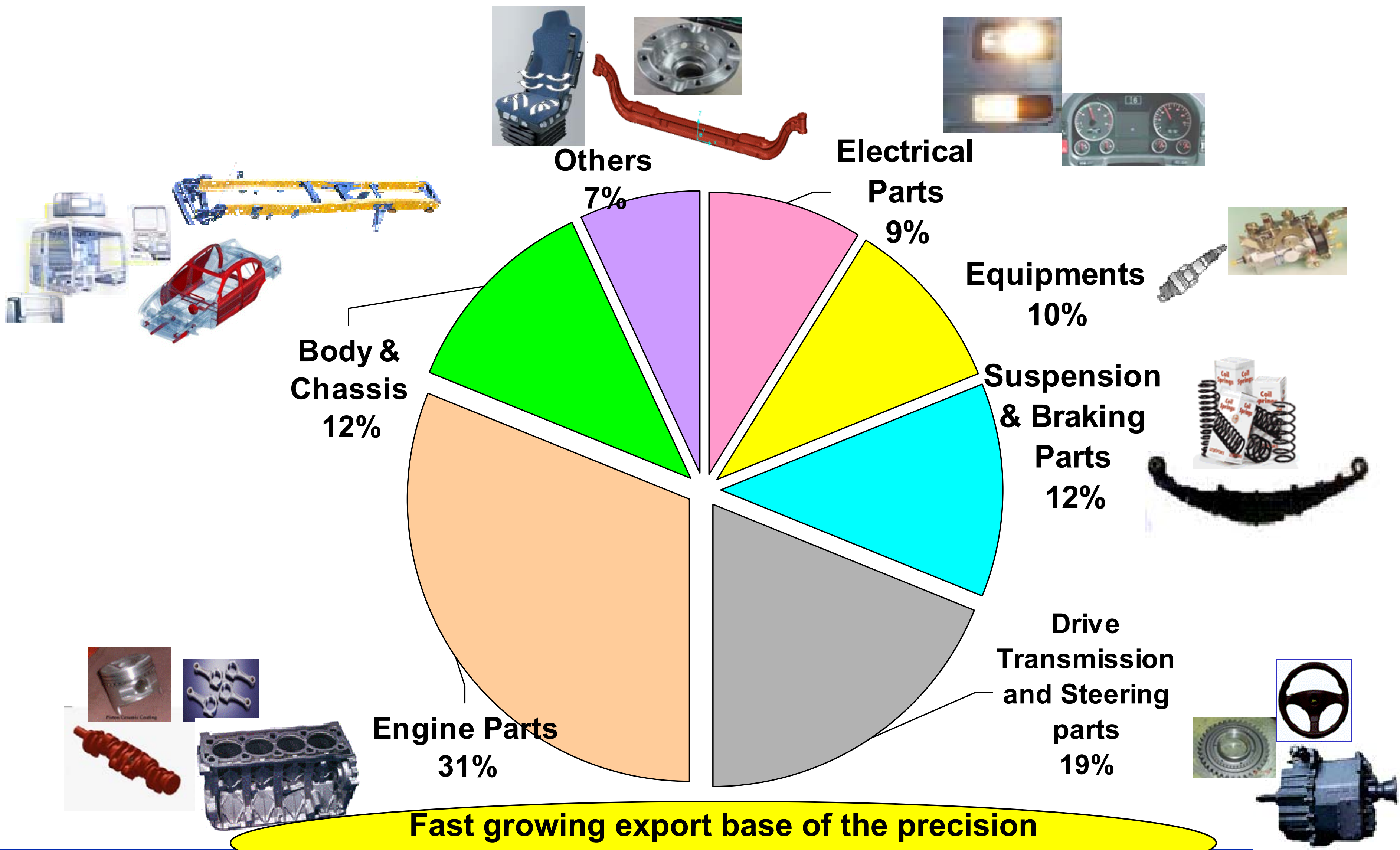
Source: SIAM, ACMA, Morgan Stanley

Indian Auto-Component Industry



2009-10 and 2010-14 figures are McKinsey projections

Product Range of Indian Auto-Component Industry

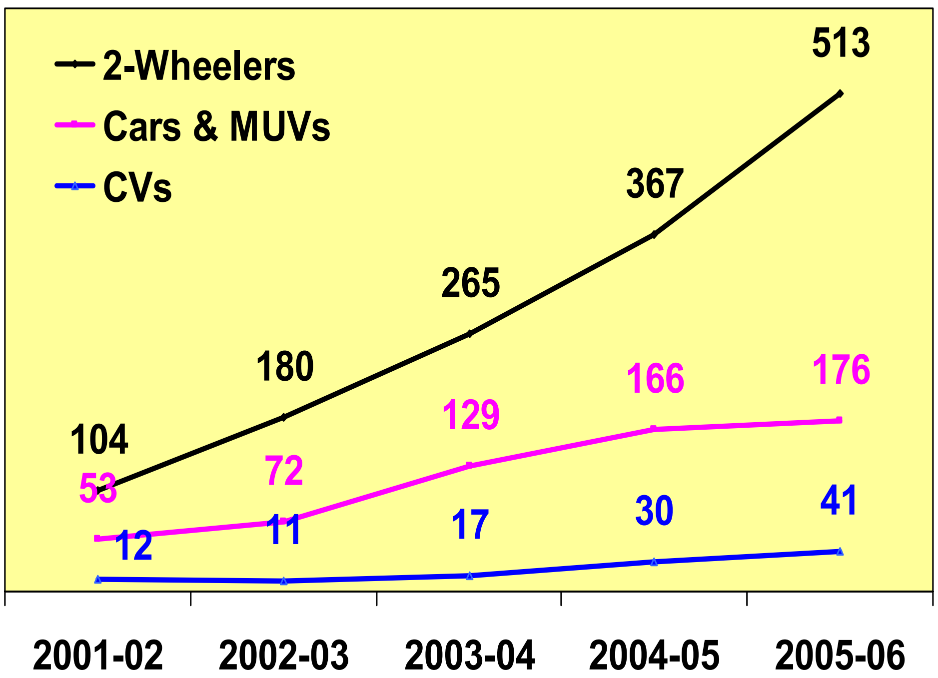


Fast growing export base of the precision engineering auto components

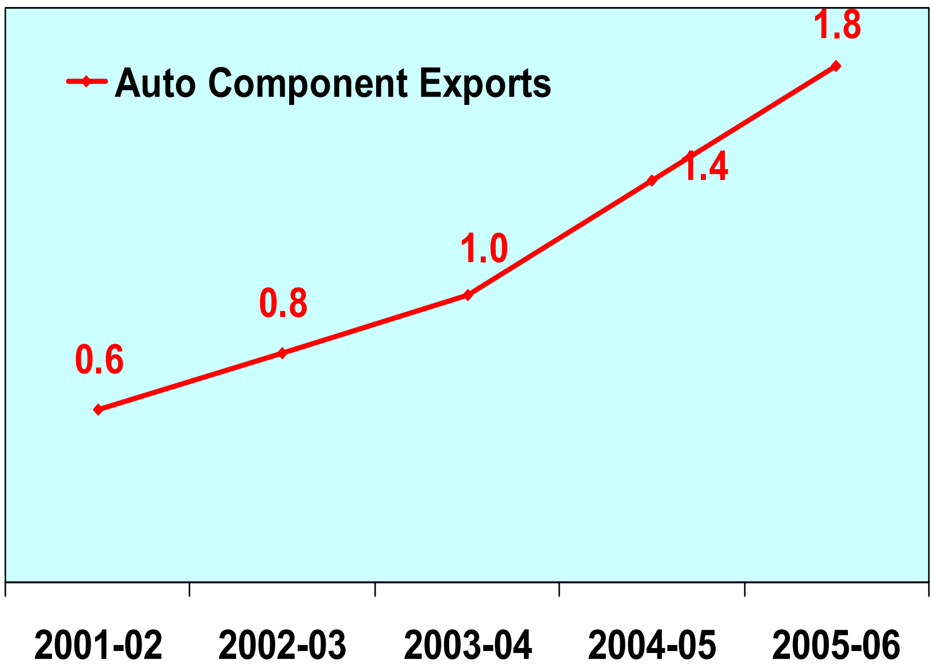
Source: ACMA

Export Performance of Indian Automotive Industry

Vehicle Exports ('000 Nos.)



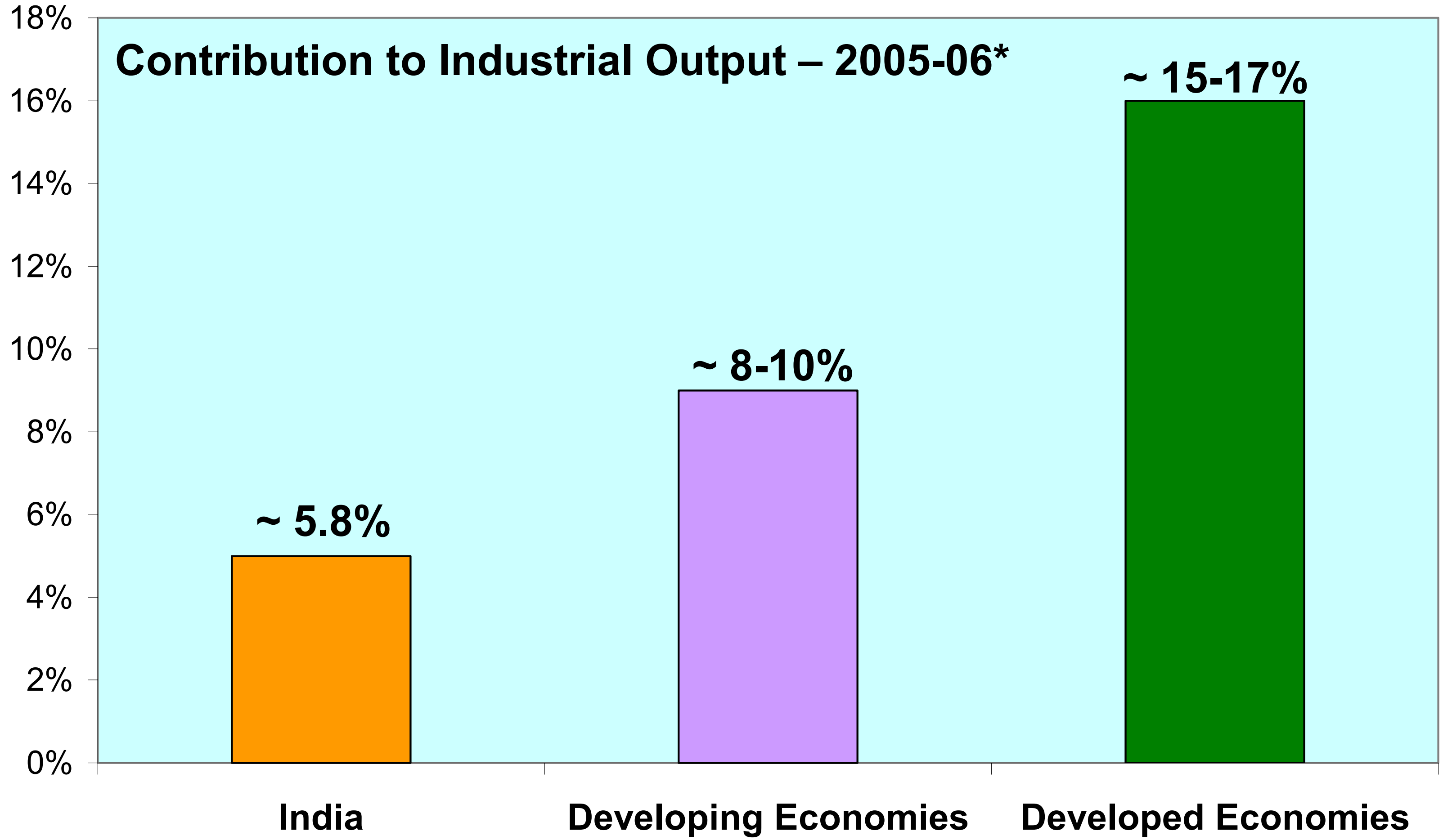
Auto Component Exports (US $ Bn.)



Export of Finished Automobiles and Auto Component growing at 25+ % (CAGR)

Source: ACMA

Indian Auto Industry Contribution to the Industrial Output



Increased Contribution from Auto Industry in India can help to propel Indian Industry significantly

Source : DES, CRIS

* Quick Estimate

The CV Business and the changing Scenario

The Indian CV Industry – Broad Scope

		GVW / KMs
Long Distance Haulage		>500 KM **> 33000lbs** 10 - 250 KM
Special Purpose Application		
Short Distance Haulage		**19501-33000lbs** 101- 500 KM
Inter City Public Transport		**16001-19500lbs** 51- 500 KM
Intra City Public Transport		**14001-16000lbs** < 50 KM
Distribution Network		**6001-14000lbs** 51 – 100 KM
Last Mile Haulage		**0-6000lbs** < 50 KM

The half million Indian CV market is Fifth largest in the world

CV Sales Volume 434 K (FY06)

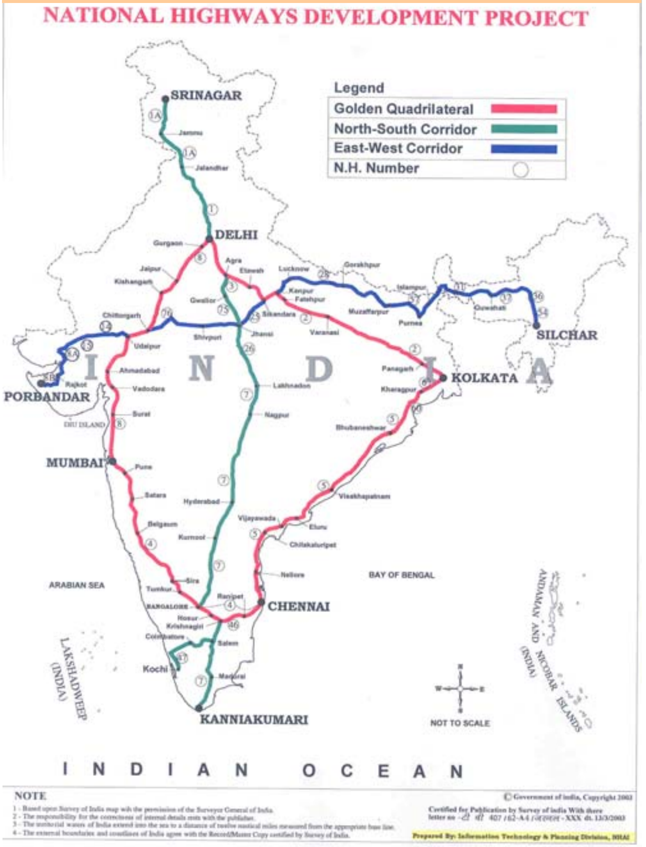
Source: CRIS INFAC

Major Thrust on Indian Road Infrastructure Development

52000 + Kms Road development project taken up under NHAI

- 5851 Kms of Golden Quadrilateral (93% completed)
- 7300 Kms of NSEW corridor (Phase I&II) – (11% completed) – Target Date - Dec'09
- 380 Kms of Port Connectivity (29% completed) – Target Date – Dec'12

Road Development Project Map



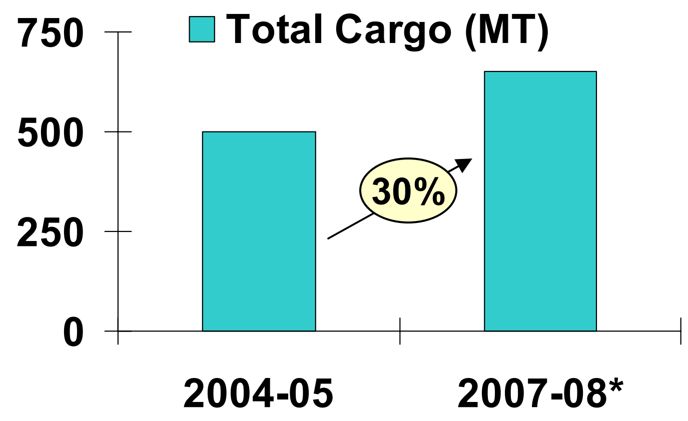
46000 KM Length of Road Development- US $ 27Bn Project in progress – Completion by Dec'12

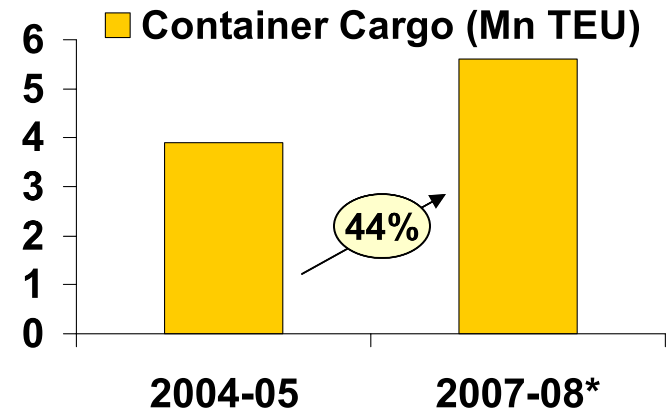
Source: NHAI / CRIS/ EIA

Port Infrastructure Development

- Upgradation of major ports through private sector involvement (13 projects are operational and 4 under implementation)
- Development of container terminals (in 6 ports of total 15 million TEUs capacity) – Target Date – 2013-14
- Projects worth US$ 13.33 billion proposed under National Maritime Development Programme (NMDP) – Target Date – 2013-14
- Additional port handling capacity of 530 MMTA in major ports – Target Date – 2013-14

Cargo at Indian Ports



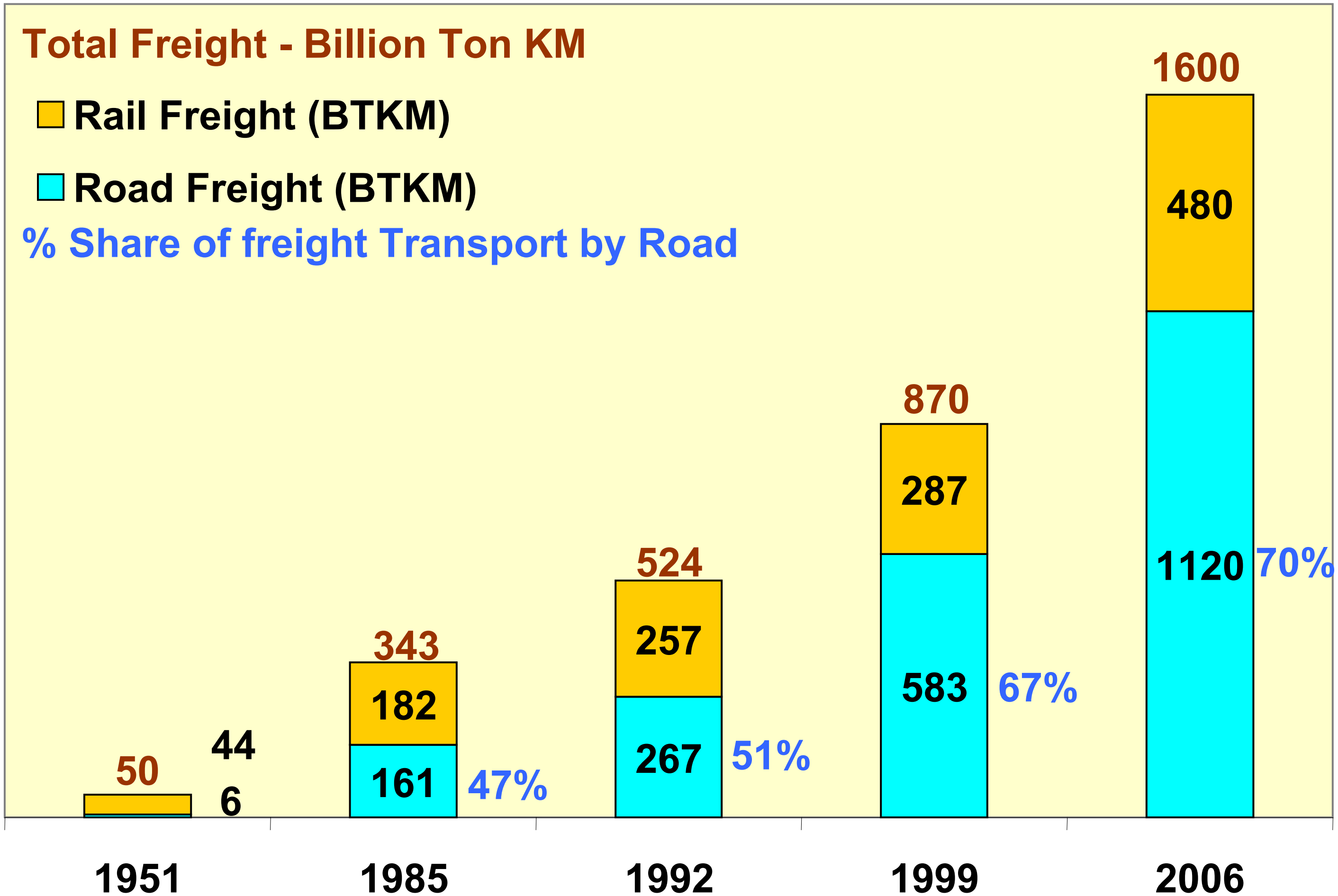


* Source: Projection IBEF.org

Port Infrastructure upgradation projects ~ US $ 16 Bn. in progress

Source: Department of Shipping

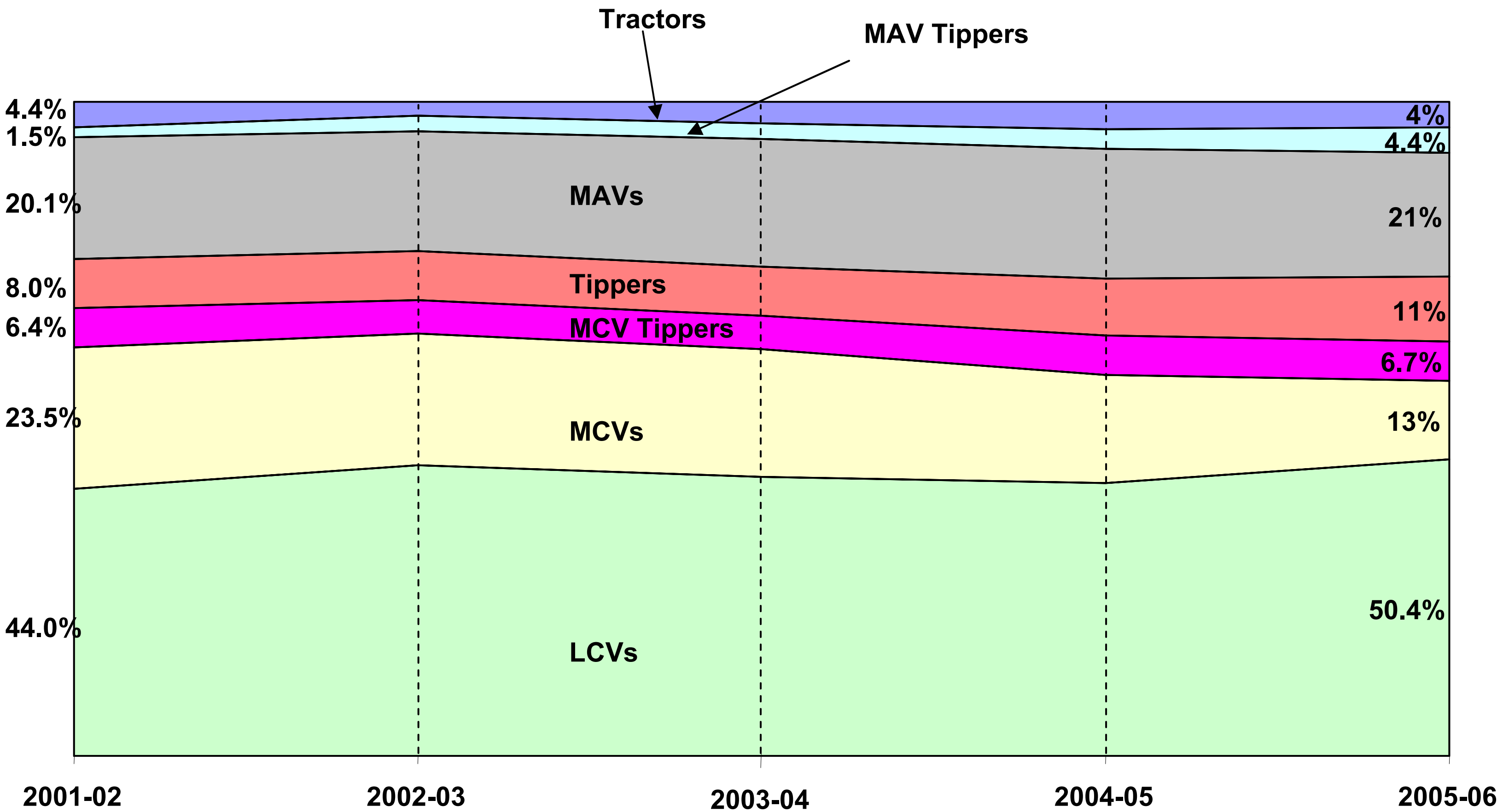
Inter Modal Transport Shift



Increasing share of Road Transportation due to road infrastructure development and evolving hub and spoke model

Source: NHAI / CRIS/ EIA

Segment-wise shift



Fast changing Product Mix in line with the global trends

Commercial Vehicle Industry : Short to Medium Term outlook

- Expected demand in Passenger segment to grow at 6% CAGR in volume terms over the period FY05-FY10
- Goods segment to show 4.6% CAGR over the same period
- Light Commercial Vehicles to grow at a rate of 20% YOY
- Heavy Commercial vehicles to grow at a rate of 12% YOY
- Rapid surge in demand; Revised projections 150+% higher than initial industry estimates

All CV segments getting redefined in line with the global CV Industry trends

Source: CRIS/ McKinsey

The Indian CV Industry – Challenges and Opportunities

Increasing Competition & WTO Regime

Cyclicality of businesses

Increasing Customisation & Application Proliferation

Accelerated Infrastructure development

Key Challenges

Stiff Emission & Other Regulatory changes

Operating Cost Pressures

Increased Customer awareness

Accelerated Technology upgradation requirements & other Change needs

Competition from alternative modes

Indian CV Industry conscious of the challenges to achieve a fast transformation

The Global CV markets has developed in 4 distinct stages.
Example Goods Carrier

Accelerated pace of convergence with global markets

Level of Market Development

Stage 1 e.g. India

Market
- Poor infrastructure (Roads)
- Rampant Overloading

Customers
- Fragmented & Uninformed
- Purchase decision by price

Products
- Dominance by MCVs (65%)
- Tonnage range - Few models
- Rugged, low tech, standardized vehicles
- Emission norms: Euro I & II

Manufacturers
- Few strong local manufacturers

Stage 2 e.g. China

Market
- Road infrastructure dev.
- Reduced overloading

Customers
- Increased awareness
- Purchase decision more by life cycle cost

•Products
- MCVs (35%) to HCVs Shift
- Explosive increase in LCVs
- Emergence of special applications vehicles
- Premium CVs grow (20%)
- Emission norms: Euro I & II

Manufacturers
- Entry of foreign OEMs

Stage 3 e.g. Brazil

Market
- Customized vehicles Requirement
- Growth in product plus offerings

Customers
- Increasing sophistication
- Emergence of consolidation

Products
- MCVs diminishes (10%)
- Technology convergence of low end & premium products
- Largest share of haulage (60%) by HCVs, mainly TTs
- Proliferation in LCVs
- Emission norms: Euro III

Manufacturers
- Dominance of foreign OEMs

Stage 4 e.g. USA / Germany

Market
- High level of regulation
- Domination by 3PL provider
- Transport solution package

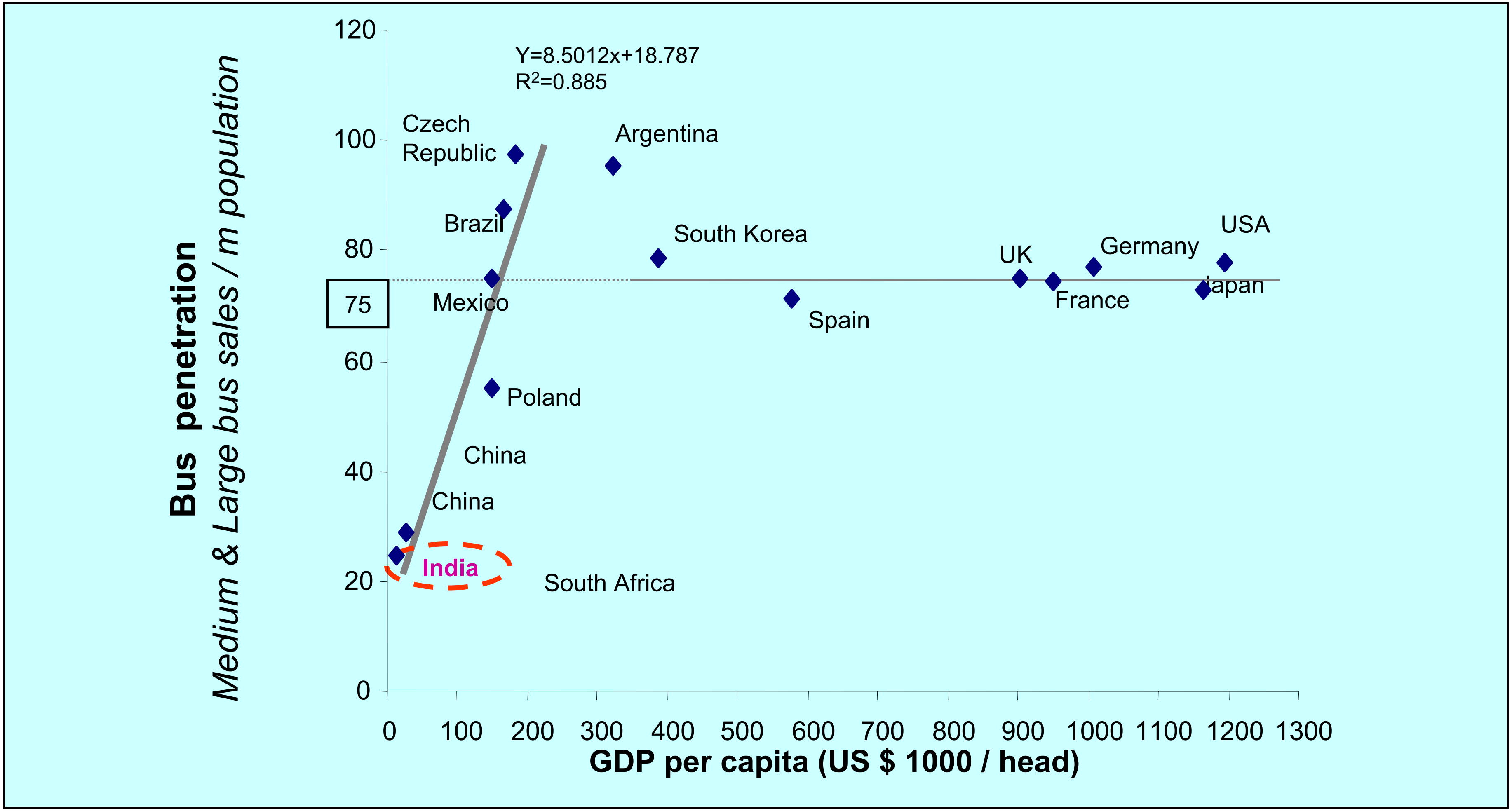
Customers
- Highly sophisticated
- Purchase decision purely by life cycle cost and profit
- High level of consolidation

Products
- Sophisticated technology
- Shrinking product life cycle
- High Utilization
- High level of electronics
- Car derived LCVs
- Emission norms: Euro IV

Manufacturers
- Consolidation of players

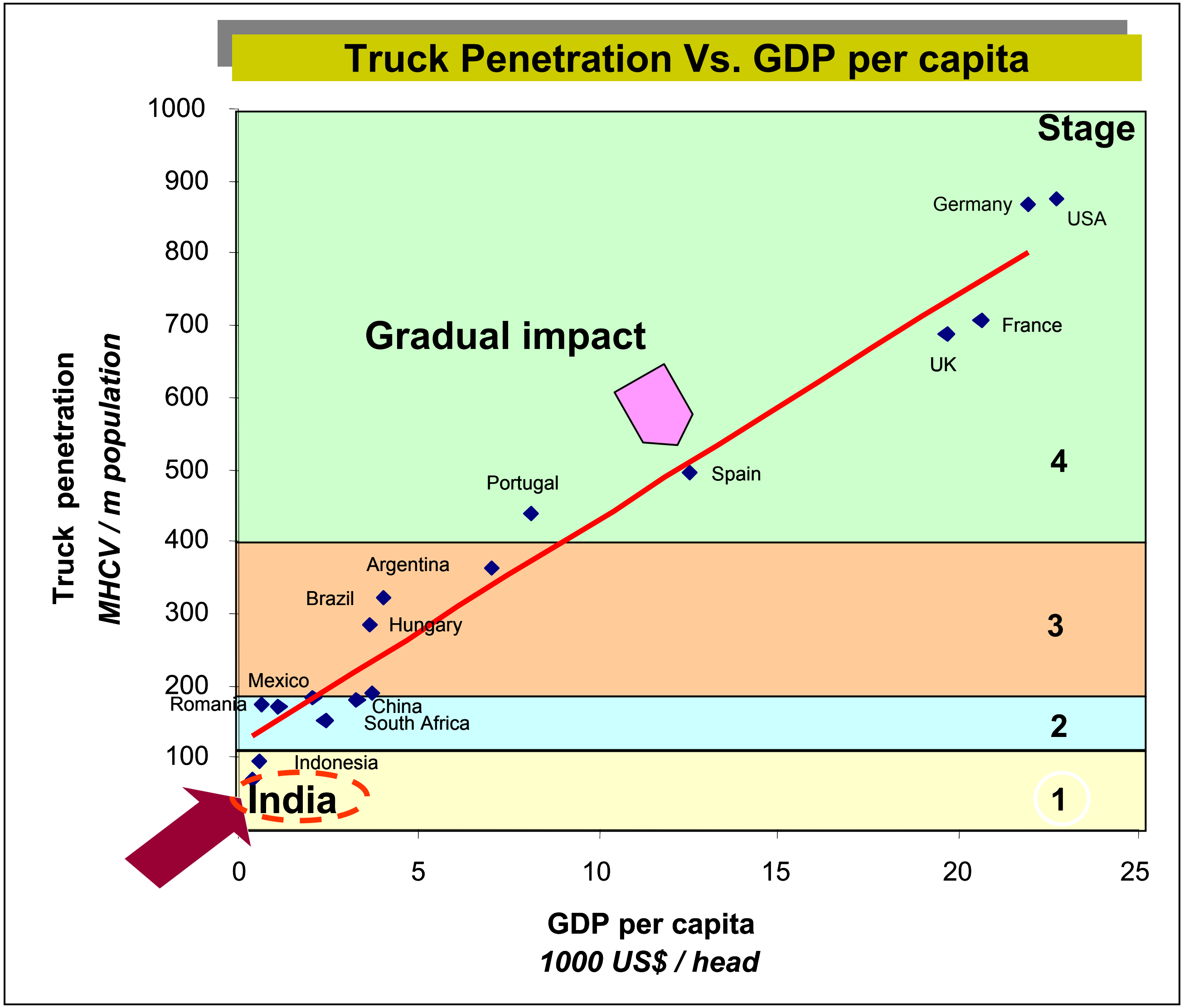
Time

Evolution of the Bus market with changing economies

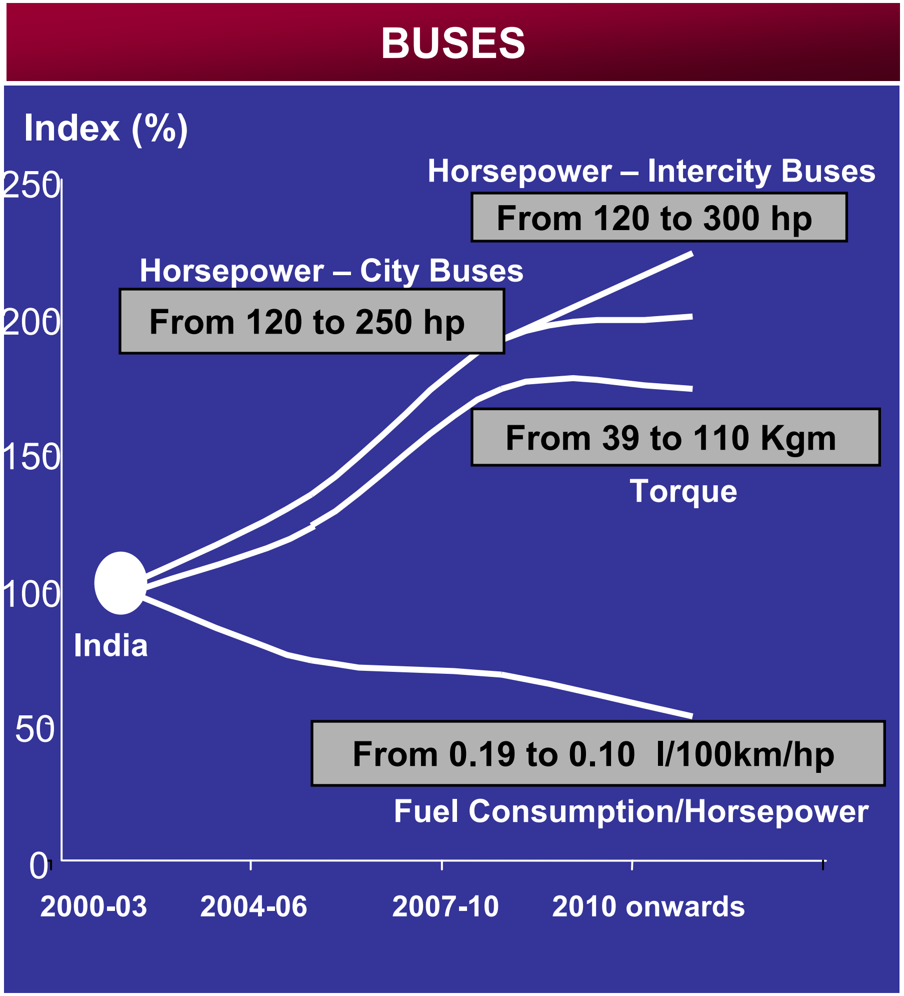


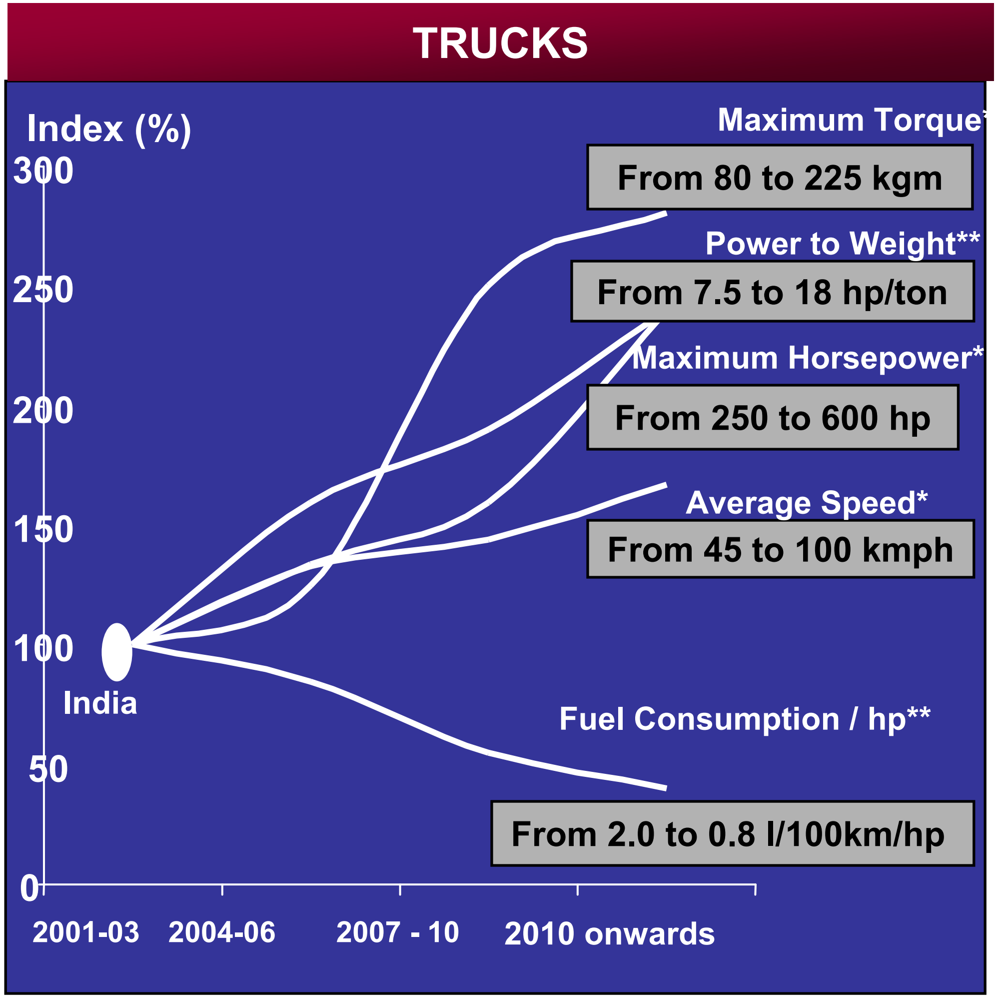
The Indian bus market will show high growth rate in the early phases of development driven by intercity passenger movement

Growth in GDP would fuel the demand for Trucks



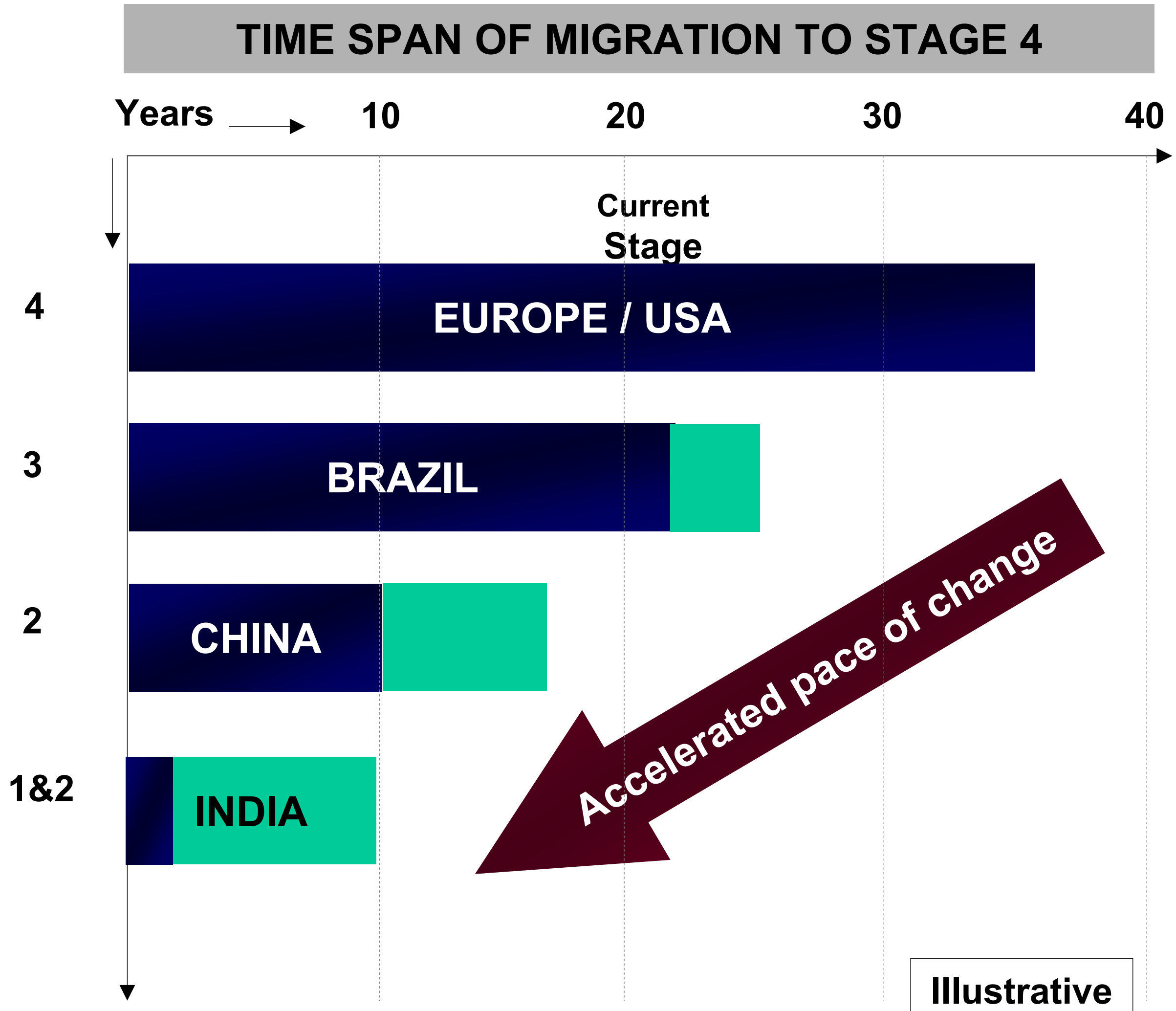
Indian CV Market and the Product Evolution



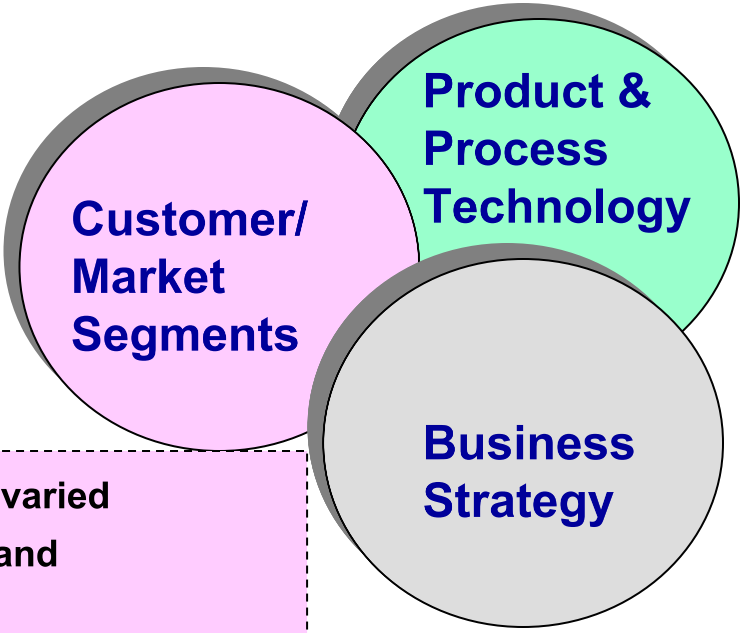


The evolution of the Indian market will result in major changes in Buses & Trucks

We clearly see Indian market moving towards Stage 2 and 3 simultaneously and going forward, it is likely to follow the evolutionary path, albeit at an accelerated pace



Engineering Challenges To Address Current & Future Business needs

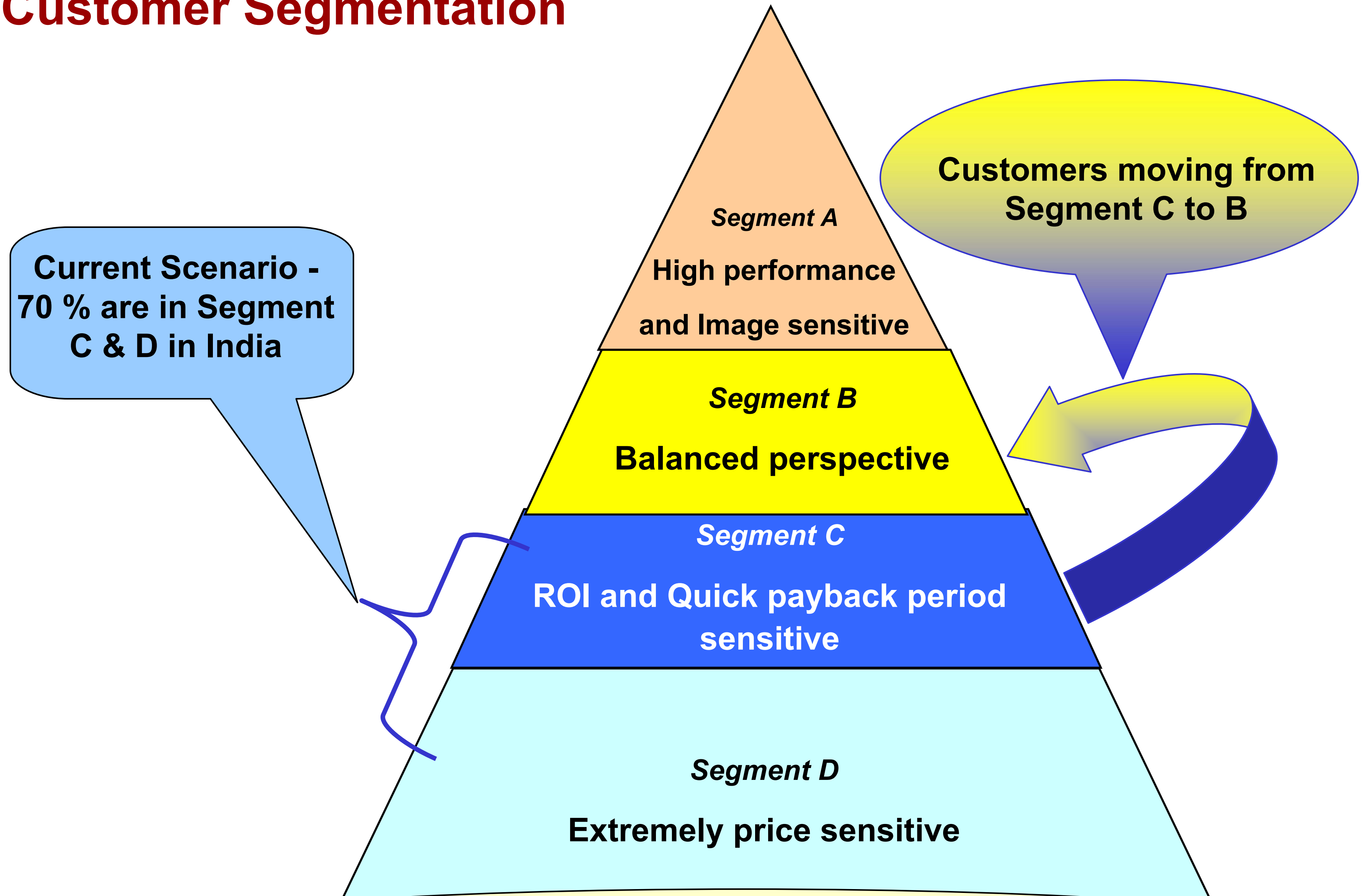


- Introduce advance products and features @ no or minimal cost impact
- Improve fuel efficiency & driveline performance
- Develop Alternative Fuel Vehicles
- Meet Stiffer Regulations – emission, safety and noise
- Use of alternative material
- Improve Reliability & Durability

- Focused products for varied customer application and performance needs
- Robust/ Rugged vehicles to address target markets & terrains
- Application proliferation with modularity, commonization and rationalization
- Flexible Capacity ramp up for faster response

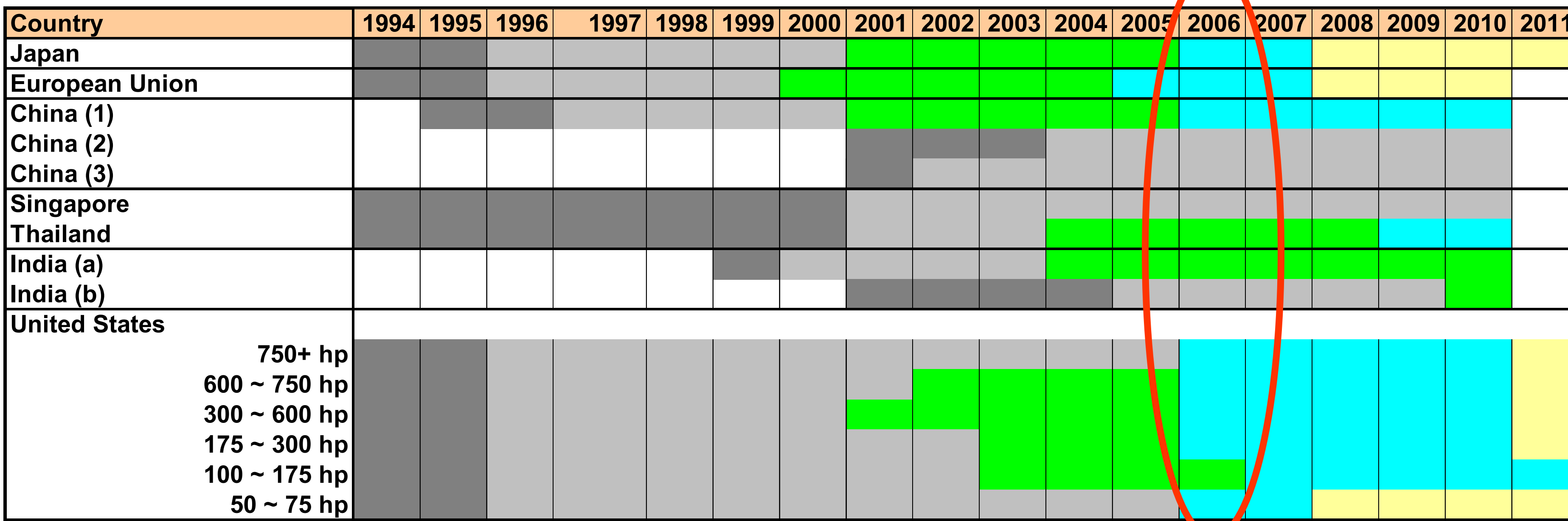
- Rapid development & cost effective introduction of New Products
- Flexibility – Design/ Development/ Manufacturing/ Distribution
- Optimised Outsourcing

Customer Segmentation



Providing right horses for bourses in each target market

Emission Regulations – World wide



Euro I	US Tier 0	Stufe I
Euro II	US Tier I	Stufe II
Euro III	US Tier II	Stufe III
Euro IV	US Tier III	Stufe IV
Euro V	US Tier IV	Stufe V

(a) Delhi and other cities; Euro 2 introduced in Mumbai, Kolkata and Chennai in 2001; Euro 2 in Bangalore, Hyderabad, Kanpur, Pune and Ahmedabad in 2003; Euro 3 introduced in Delhi, Mumbai, Kolkata, Chennai, Bangalore, Hyderabad and Ahmedabad in 2005
(b) Rest of the Country
(1) Beijing, Hong Kong
(2) Rest off the country
(3) Heavy Duty Vehicle

India catching up fast on the global emission regulation trends

Source: EPA

Indian Commercial Vehicle Industry – Transformation to World Class Products

	Existing	2009-10
Power to weight ratio	Moderate (4)	High (>6.5)
Fuel Efficiency	“X” KMpL	“1.2 X” KMpL
Operating Economics	“X” Rs. (fuel cost) / Ton / KM	“0.7 X” Rs. (fuel cost) / Ton / KM
Reliability	4.5L KM/ 18 months warranty on Driveline	300000 KM/ 3 years warranty on Driveline
Safety	Low safety requirements	Safety requirements to match ECE 2S

Vastly Upgraded Technology & Process Performance Expectations

Courtesy: Industry Analysis

Indian Commercial Vehicle Industry – Transformation to World Class Products

	Existing	2009-10
Emission	Euro III in Metro cities and Euro II rest of the country	Euro IV in 14 metro cities Euro III for rest of the country
Comfort	Power Steering, No air-conditioning	Electronic Power Steering, Air-conditioning, Climate control
Navigation	None	GPS & Data Loggers, telematics
Suspension	Pressed	Rolled
Gear Box	No Range selection	Range selection with Planetary gears

Increased Electronics & Vehicle Control System

The challenges for the Indian CV Industry – Opportunities for the Global Counter-Parts

- Collaboration Partnerships
  - Technologies @ Component /System /Vehicle Levels
  - Supply Sourcing to Mutual Benefits
  - Joint Ventures
  - Consultancy & Turnkey Projects
- Low Cost R & D Base
- And many More

A Detailed Study & Visit to India Is a worthwhile Investment

The Take Away

The Future Outlook

- Indian Commercial Vehicle Industry poised for major growth phase
- Despite challenges, the Industry catching up fast with global trends & standards - both on technology and quality processes
- Indian auto component Industry well positioned to grow at 14% (CAGR) and reach US $ 40 Bn by 2014
- Indian Auto Industry likely to retain Low cost advantage for a sizeable period
- Attractive collaboration opportunities between Indian CV industry / Auto component manufacturing with global OEMs and the Supply Chain majors
- Great opportunity to partner & use India's competitive advantages for sourcing and setting up collaborative operations

A Win-Win opportunity – both for Indian CV industry and the global counterparts

Thank you