

Infrastructural Transformation in Resurgent India

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India : A Nation on the Roll

India : A Nation On The Roll

- Fastest Growing Free Market Democracy
- Robust Institutional Framework including judiciary, independent media and strong non-governmental institutions
- Young Nation with 70% population below 35 years of age driving Demand. Median Age 24.9 years
- Booming Markets, Rapid market integration and strong economic resurgence in countryside
- 15 years of sustained economic reforms

India On The Roll

- Market Cap of Traded Companies \$685bn
- Industry and Services contributing >76% GDP
- 51% of \$ 690 bn GDP by Private Sector
- Industry growing at 12-14% with GDP clocking 8-9%
- Transport Sector growing at 12% contributing 4.9% of GDP

On the Roll

- India produces 500,000 doctors, nearly 10,000 PhDs, 350,000 engineers and 800,000 management graduates annually
- 9.9 million students in around 17200 Universities and colleges
- 125 of the Fortune 500 companies have R&D centers in India, 220 of them source software.
- Forex Reserves cross \$ 133 bn
- Pace of Economic Growth to sustain till 2040 and India to emerge as the Third Largest Economy By then (Goldman Sachs' "Dreaming with the BRICs")

India on Global Platform

- India is :-
 - One of the three nations having built super computer
 - One of the six nations having satellite launch capabilities
 - Home to 10% of global mobile phone expansion
 - One of the seven nations having built own car
 - Manufacturer of every sixth 2-wheeler
 - Amongst three most attractive FDI destinations

Roaring Resurgence

- \$1 trillion GDP by 2010 and \$2 trillion by 2020
- 840 million Indians below 35 yrs by 2009
- 45,000 km of new highways and 5,000 km of dedicated freight corridor of Railways by 2014
- Over 90,000 MW of new Power generation capacity by 2013
- \$ 60 bn outsourcing of high tech services by 2010
- Over 500 million Telecom Subscribers by 2010

Roaring Resurgence

- Total purchasing power of Indian households in 583 districts and 100 urban centres doubled to \$2973 bn in 4 years during 1999-2003
- Real estate market to grow to \$50 bn by 2010 with a CAGR of 30%
- India is the 5th ranked emerging retail market and is set to grow by 400% by 2010 to occupy 60 mn sq ft of space
- India ranks 43rd in Global Competitiveness Ranking 2006-07 ahead of Brazil (66), China (54) and Russia (62).
- India to emerge as the fastest wealth creator by 2010 leaving China behind (*Boston Consulting Group*)

Indian Automotive Sector In A Snapshot

Little Known Facts

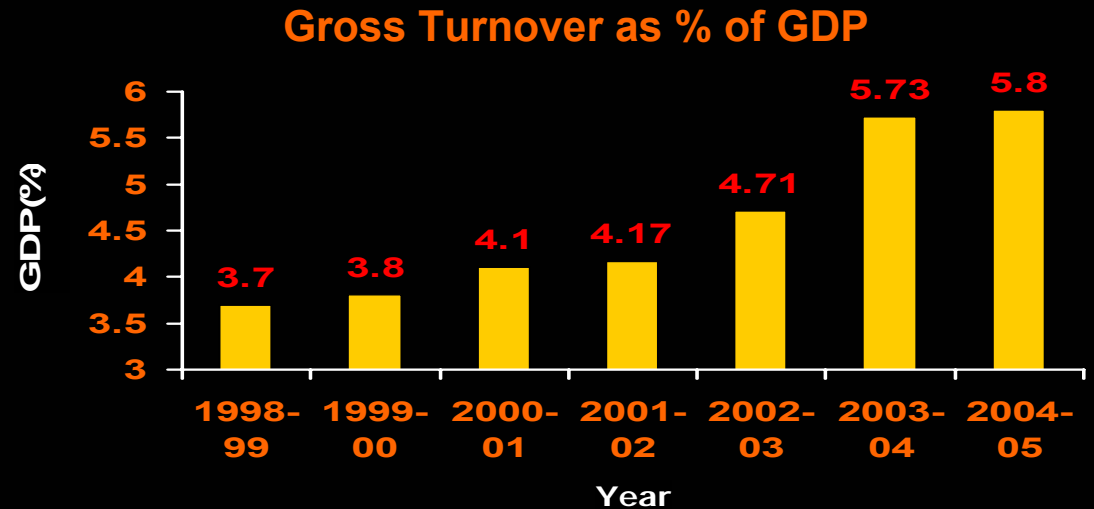
- Automotive Industry is one of the largest and fastest growing industry.
- India is :-
 - The second largest Two Wheeler manufacturer
 - The Largest Tractor Manufacturer
 - 4th largest Passenger Vehicle market in Asia.
 - 5th largest Commercial Vehicle manufacturer in the world.
- Automotive Sector in India is growing at around 18% per annum

Indian Automotive Industry

- Turnover 2005 \$ 37 bn
- Investment \$ 12 bn
- *In Pipeline* \$ 7 bn
- Employment 14 mn
- Output Multiplier 2.24* **(One of the highest)**
- Fiscal Contribution 17% of indirect taxes
- Exports USD 4 Bn Growing at around 35% **(Export Destinations : more than 150 countries)**

* Source NCAER

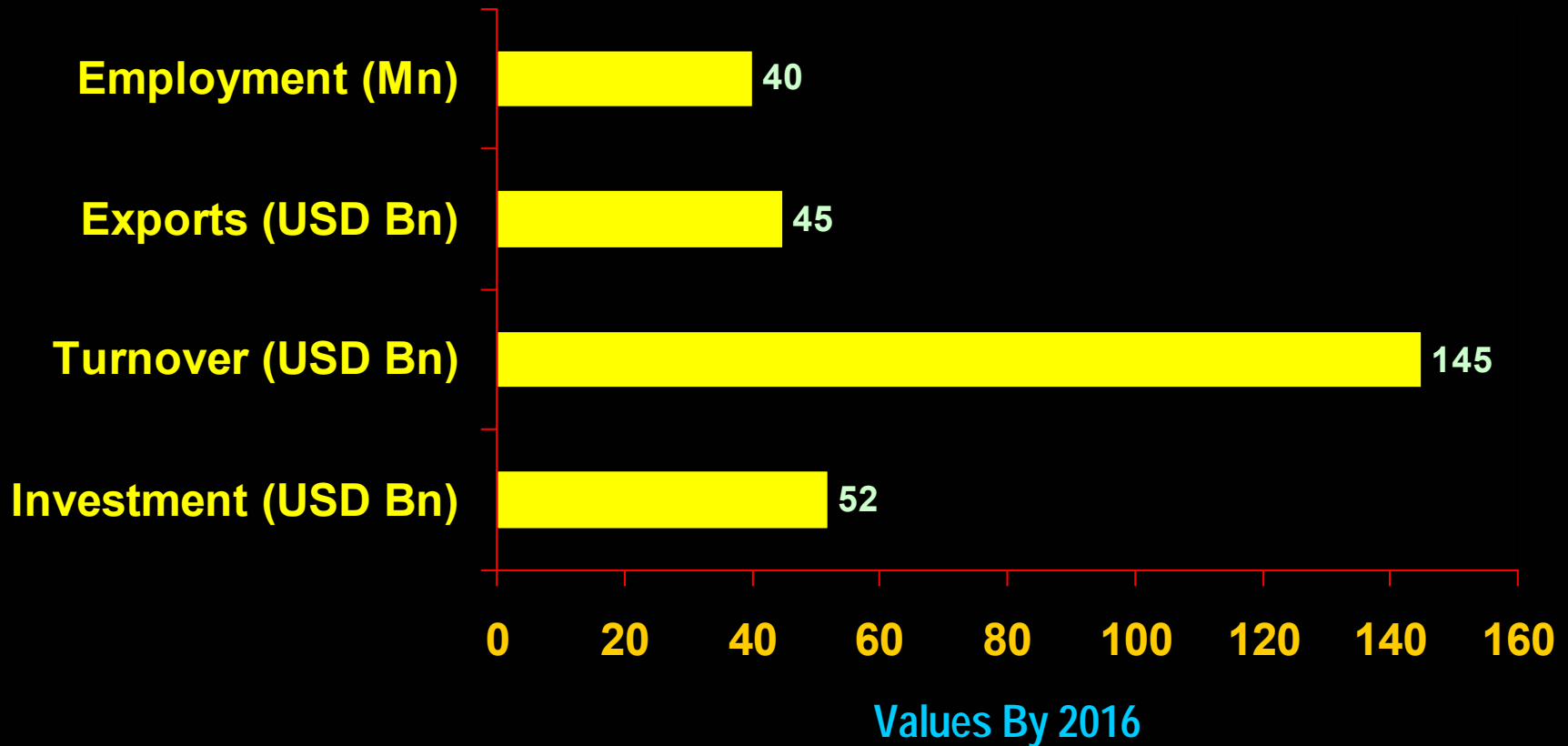
Automotive Industry in India



Indian Automotive Sector

- India manufactured 9.7 million vehicles in 2006 (nearly 7% of global automobiles production and 2.4% of four wheeler production)
- India's auto exports of nearly \$ 4 bn are only about 0.45% of global auto trade
- A low motorization level offers tremendous domestic opportunities

Automotive Industry : Prospects*



* Automotive Mission Plan 2006-16

India's Transport System

Expanding to Meet Needs of
Resurgent India

India's Transport System

- India's transport system is one of the largest in the world serving the land mass of 3.3 million square km and a population of over one billion.
- The network for the services comprises mainly of 3.3 mn km of roads including 66,000 km of highways, 64,000 km of Railways, 12 major and 187 minor ports across 6000 km coast line and 334 airports

A Nation Taking Gigantic Infrastructural Leap

“India must have \$320 bn investment in infrastructure during the next 5-7 years for ensuring desired 9-10% growth momentum”.

Prime Minister of India, 8th October 2006

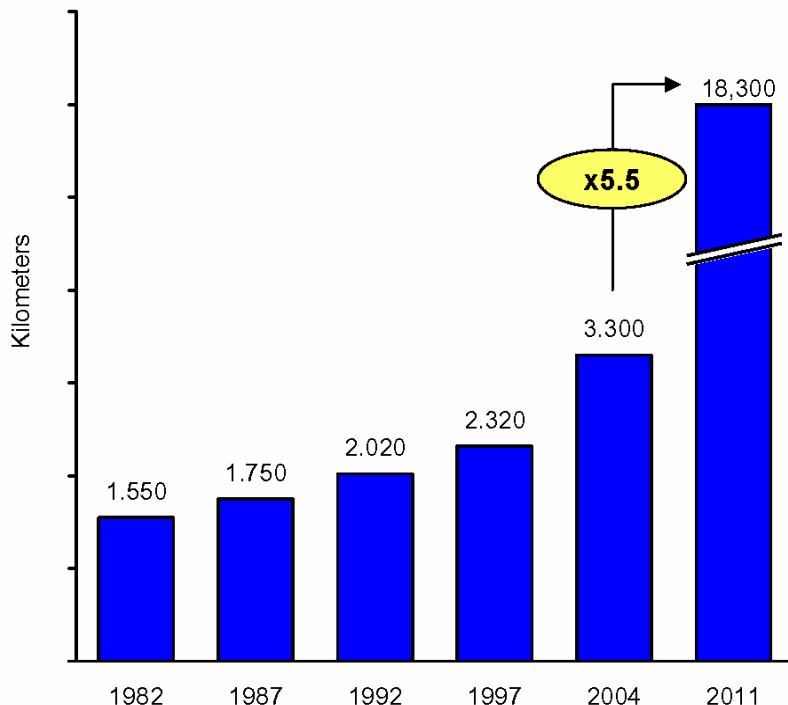
Expanding Road Network

- A \$60 bn investment funded out of tax on gasoline and diesel for:-
 - Constructing 368,000 km of new roads by 2009
 - Strengthening 374,000 of existing roads
 - Widening and 4-Laning of highways connecting all metros and large cities Under National Highway Development Project.
 - All 500,000+ villages being connected with all weather roads

Large Highway Expansion

India is expanding its highway infrastructure by the factor 5.5 within the next 10 years

India's Total Highway Mileage



Observation

- ▶ The state and central governments are planning \$50 B on highway improvements in the period to 2011
- ▶ Continued expansion of express highways “Golden Triangle” road network to connect all four corners of India
- ▶ Continued spend on existing roads to upgrade infrastructure in order to accommodate increased population of vehicles

Source: EIU report, World Bank Data, Booz Allen analysis

Infrastructure Buildup



Highway Prospects

- Passenger traffic on Indian roads set to annually grow by 15% and cargo traffic by 18% till 2010.
- Inter-Modal share of road to scale up to 70% with 1120 Billion Ton KM of freight load moving on roads

Expanding Railways

- One of the largest Railway Systems in the World, Indian Railways is slated to receive a major \$13 bn investment to:
 - Enhance Existing 64,000 km of railway network by 10% by 2012.
 - Create 5,000 km dedicated railway freight corridor along Golden Quadrilateral
- Roll-on Roll-off (RO-RO) scheme for trucks to move piggyback on flat wagons
- Integrated Inter-Modal Passenger Movement in the offing

Growing Port Infrastructure

- A \$43 bn investment under National Maritime Development Program for:-
 - Adding 530 MMTA port handling capacity at major ports by 2013
 - Replacement of port equipment
 - Adding dedicated container terminals
 - Deepening of Channels
 - Improving Port Connectivity

Expanding Ports



Expanding Ports



Port Prospects

- Indian exports are set to double by 2011 and reach a level of \$ 150 bn. About 95% of export volumes to move through maritime route
- Cargo handling at ports set to grow at 7.7% per annum to reach 1 bn ton by 2013.

Improving Airports

- A \$16 bn investment for:-
 - Expanding and modernizing all metro airports
 - Adding 3 Greenfield international airports
 - Setting up 32 new airports in medium towns
 - Converting existing domestic airports to international levels

Air Traffic Prospects

- Passenger traffic growing at CAGR of 15% and will cross 100 million passengers by 2010
- Cargo traffic growing at 20%+ and will cross 3.3 million ton by 2010
- Strong growth in in-bound traffic attendant on a growing economy

Other Infrastructure

- 128 large truck terminals coming up across the country
- 80% highways will have automated toll collection systems by 2009
- Digitization of national highway maps to be completed by 2007
- Entire Highway system already covered by mobile telephony and broadband network for on-line fleet tracking

Other Infrastructure

- More than 200 Special Economic Zones (SEZ) including in the three automotive hubs in the south, north and west of the country for deepening manufacturing and enhance export potential
- A \$20 bn investment on improving city infrastructure under Urban Renewal Mission
- As many as 600 Indian cities are developing bus-based public transport systems
- Large automotive testing, R&D and homologation infrastructure coming up at seven locations in India under **NATRiP**



A Blueprint for State-of-the-Art Testing and R&D Infrastructure for Automotive Sector

World Class Automotive Testing & Developmental Facilities needed for

- Meeting existing Domestic and Export related Mandatory Testing requirements
- Promoting development of world class automobile and components
- Deepening India's capability in R & D and auto designing for enhancing value addition in manufacturing
- Catalysing development of India as a hub for product development & related engineering services for both local & global firms
- Integrating India's strengths in IT and Electronics in Automotive Sector for future Technologies

NATRIP : Broad Contours

- Country's largest comprehensive initiative to set up state-of-the-art automotive testing and generic R&D Infrastructure
- Total investment ~\$ 500 mn
- Entire infrastructure to come up in phases in next 24-40 months



- Three state-of-the-art centers near Delhi (North), Chennai (South) and Pune (West) for world class automotive testing, validation and generic R&D
- Large proving ground on 4,123 acres of land in central India with 14 km of speed circuit and all possible surfaces and terrains for testing of various vehicle types
- Winter Tracks / Summer Tracks also coming up separately
- All centers to be autonomous and professionally run and assist in global integration of automotive sector

Centers of Excellence

- Centers of Excellence on Passive Safety, Automotive Infotronics, Materials, Power train, NVH, Fatigue, Vehicle Dynamics, Components, EMC, etc. to usher India into advanced automotive engineering and design

Proving Grounds Layout



Key Benefits of NATRIP

- Creation of infrastructure to enable the Government to introduce global Vehicular Safety, Emission and Performance standards
- Encouraging larger value addition within the country leading to higher sectoral contribution to economy by way of revenues and employment.
- Facilitating development and mass production of high technology driven, affordable and globally acceptable Automotive products
- De-bottlenecking exports of Automotive products

Infrastructural Transformation in Resurgent India

What Does it Mean For Global
Commercial Vehicle Industry

Opportunities for CV Industry

- Large freight and passenger mobility needs driving significant growth in domestic CV demand
- Infrastructure growth @ 15% creating large additional space for CV industry due to forward and backward linkages
- Gradual but sustained shift towards multi-axle configurations
- Bus segment set to grow at 12% during coming decade
- LCV demand to grow @ 20% annually

**The Resurgent India's
unfolding story is fascinating...**

Are you part of It?

It may soon be too late

THANK YOU

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