India

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Under the lens

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Logistics: A play on India's growth

Executive Summary

The Indian economy has grown at an average rate of 7.7% in the last five years and is expected to grow at the rate of 6-8% over the next five years despite the current economic slow down. Logistics supports almost all industrial activity and gained from the growth. The logistics industry has grown annually at 8-10% since 2002 is now estimated at over $100bn. Evolution of the business environment and increasing volume of operations have increased demand for efficient and quality logistics services that can handle all the aspects of the supply chain management. This has led to emergence of companies offering sophisticated end-to-end supply chain solutions such as transportation, warehousing, freight forwarding, customs brokerage, express cargo delivery, courier services, container freight station related services and shipping services. The logistics players have transformed from being mere contract transporters to providers of integrated end-to-end service providers. Third party logistics (3PL) service providers and fourth party-logistics (4PL) service providers have emerged, taking the industry from a fragmented to a more organised framework. This, together with the focused government initiatives for improving India's infrastructure, growth in the organized retail sector and increasing recognition of India as an outsourcing hub for manufacturing activities will see the logistics sector reach $300bn by 2015 growing annually at ~15%.

Transportation, express cargo and intermediate services are the three main segments of the logistics sector in India. Road transportation dominates the freight market with a 55% share and will continue to do so due to its extensive coverage and deep penetration. Express market in India is still at a nascent stage and is much smaller than its global counterparts in the developed countries. However, increased outsourcing, international trade and strong domestic market make this segment a highly attractive one. Warehousing accounts for nearly 20% of the industry and has transformed from being a traditional store keeping function to include value added services such as labeling, packaging, reverse logistics and bar coding. With the boom in organised retail and changing consumption patterns of consumers, cold chain is increasingly gaining importance.

The Indian logistics sector is plagued by infrastructure bottlenecks, complicated indirect tax structure and larger share of unorganised market. These structural inefficiencies have made logistics a costly proposition and logistics cost as a percentage of GDP has been much higher in India at 13% compared to the 8-10% in developed economies. Considering that manufacturing contributes only ~45% of the India's GDP, the relative inefficiencies in logistics become even more significant. In order to remove inefficiencies the Government has rolled out an action plan to create quality infrastructure. The planning commission intends to triple its spending on infrastructure in the eleventh plan (2007-12) as compared to the tenth plan. The Government plans to standardize the tax structure and is working towards simplifying it.

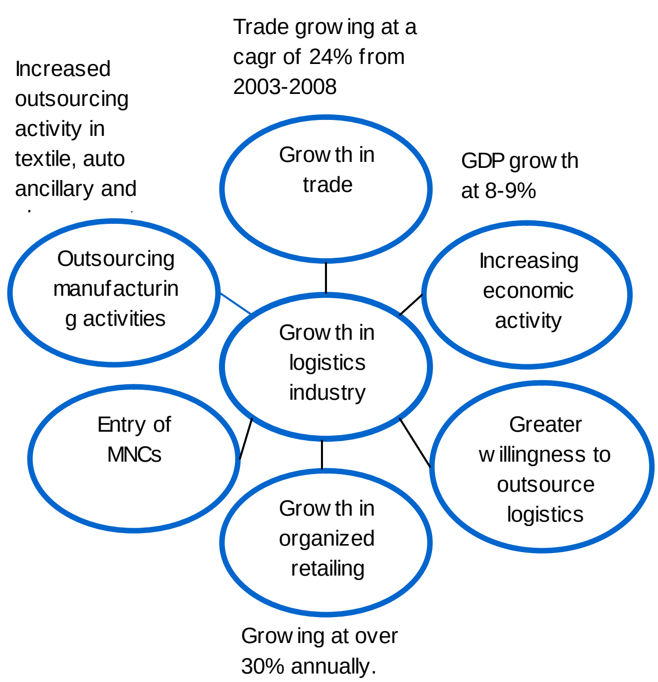
Planned infrastructure development, improvement in regulatory environment, boom in organised retail and changing consumer preferences will provide the impetus for sustained growth of the logistics sector in India. Despite a deceleration of the economy, the long-term prospects of the sector look optimistic.

1. The Indian Logistics story

1.1 Overview

The size of the Indian logistics industry is currently estimated at over $100bn. The industry has grown annually at 8-10% since 2002 driven largely, by the growth in GDP and increase in domestic as well as international trade. The Indian economy has grown at an average rate of 7.7% in the last five years and is expected to grow at the rate of 6-8% in the next five years. The logistics industry is expected to grow at ~15% annually to reach $300bn by 2015, primarily driven by growth in the organised retail sector and increasing recognition of India as an outsourcing hub for manufacturing activities. Various factors contributing to the growth of logistics in India have been highlighted below:

Key Drivers of Logistics



Source: ValueNotes Research

Logistics supports almost all industrial activity and has been a follow through of such growth. Notwithstanding its importance, logistics was traditionally not treated as a separate sector primarily due to the fragmented nature of the industry focusing mainly on contract transportation. However, with the evolving business environment and increasing volume of operations there was an increase in demand for efficient and quality logistics services that can handle all the aspects of the supply chain management. This has resulted in players offering sophisticated end-to-end supply chain solutions such as transportation, warehousing, freight forwarding, customs brokerage, express cargo delivery, courier services, container freight station related services and shipping services. The logistics services today are viewed as not only a cost-cutting tool but also a means to gain competitive advantage by efficient handling of various components within the supply chain. A direct outcome of this has been the emergence of third party logistics (3PL) service providers. Though the 3PL market is in a nascent stage in India, it is fast gaining acceptance with the domestic companies following the footsteps of their MNC counterparts and realizing the benefits of outsourcing the logistics function.

A '4PL' or fourth-party logistics provider, an emerging concept in India, is a supplier of outsourced supply chain coordination and management services and generally does not own or operate the underlying logistical assets and resources. The end users of logistics services outsource the management of 3PL service providers to 4PL service providers. 4PL is slowly gaining popularity among large Indian firms. The existence and success of a 4PL largely depends on the success of the 3PL segment and the growth drivers for both remain the same.

The logistics cost as a percentage to GDP has been much higher in India at 13% compared to the 8-10% in developed economies. Considering that manufacturing contributes only ~45% of the India's GDP, the relative inefficiencies in logistics become even more significant. High logistics spends are attributed to several structural inefficiencies such as infrastructural bottlenecks, complicated indirect tax structure and larger share of unorganised market. However, sustained economic growth, increasing domestic consumption and favorable policy measures initiated by the central government to improve the current infrastructure will lead to an increase in demand for logistics services. Though the short-term prospects may be dampened by a slowdown in business, the long-term horizon will see immense opportunities unfold for logistics in India.

The following table provides a snapshot of the Indian Logistics sector

	Trucking	Container	Multi-modal Transport	Container Freight Station(CFS) /Inland Container Depot(ICD)	Warehousing	Express Cargo	Courier
Market Size FY 2008	INR 750bn	INR 55bn	INR 20bn	INR 25bn 3.5 m TEUs*	$20bn	INR 40-45m	INR 22m
2007-2010 CAGR (%)	10-12	15-20	10-12	15-20	15-20	15-20	15-20
Growth Drivers	• GDP growth • Increase in Industrial production • Growth in organized retailing	• Export and imports • Growth in high tech goods • Retail sector expansion • Increasing concern for safety and security of goods	• Exports and Imports	• Exports and Imports	• VAT implementation • Outsourcing of services • Reduction in working capital and inventory costs • Greater emphasis on value added services.	• Mainly FMCG, Retail, Auto	• Domestic growth
Competition	Local	National	Local	Local	Regional to National	National	Local
Industry fragmentation	High	Low	Low	Medium	Low/High	Medium	High

	Trucking	Container	Multi-modal Transport	Container Freight Station(CFS) /Inland Container Depot(ICD)	Warehousing	Express Cargo	Courier
Entry barriers	Low	Medium	High	Low	Medium	High	Medium
Capital Requirements	Low	High	Low	High	High	High	Low
Business Requirements	• Level of service	• Return Freight • Strong ICD network • Turnaround of vehicles	•Contacts with shipping lines and freight forwarders	Level of service Distance from the port/main industrial area Contacts with shipping lines	Presence across the country Well equipped Access to major highways and transport hubs	Distribution network reliability Good tracking system	IT infrastructure to track and trace vessels Branch network

Source: Media Reports / ValueNotes Research
* Twenty-foot equivalent unit

1.2 Industry segments / organisation architecture

Transportation and warehousing continue to be the predominant functions of the Indian logistic industry. Interestingly, warehousing, which accounts for nearly 20% of the industry, has transformed from the traditional store keeping function to include value added services such as labeling, packaging, reverse logistics and bar coding. It is expected to grow from $20bn in FY08 to $55bn by 2010-11. The organised segment, which accounts for nearly 6% of the total logistics market, is likely to grow at a CAGR of 10-15% during 2009-12. Even though the global economy has slowed down, this segment is still growing at 15-20%. The basic characteristics of different segments and sub-segments of the industry are summarised in the table below.

Asset based service providers		Industry Characteristics and competition

Transportation	Rail freight
	Road freight
	Sea freight
	Air freight
		▪ High barriers to entry including
		  ▪ Port logistics and rail haulage require heavy CAPEX
		  ▪ High-cost, low-margin business
		  ▪ Non-uniform tax structure
		  ▪ Poor physical and communications infrastructure
		▪ Key success factors include ability to raise capital and geographical spread
		▪ Regulatory framework is still not conducive to support organised players.

Express Cargo		▪ Low CAPEX requirements ▪ Low barriers to entry resulting in a highly fragmented market ▪ Success factors include brand equity, network width and service quality, communication network and IT capabilities.

Intermediate Services	Warehousing CFS/ICD Cold Storage	▪ Medium to high asset based ▪ High barrier to entry as success depends on network width, customer relationships and fast turnaround time ▪ CFS segment is highly competitive with a minimum of 15 players at each major port ▪ ICD segment remains unexploited ▪ Cold chain solutions offer higher margins and established players from other segments are setting up infrastructure ▪ Warehousing services are still primitive, there is significant scope for players with right quality infrastructure to meet the post VAT scenario, where substantial consolidation of existing facilities is expected to happen.

Source: ValueNotes Research

1.3 Components of the Indian logistics sector

1.3.1 Transportation (Road freight, rail freight, air freight, sea freight)

Road transportation dominates the freight market with 55% share in the freight market. Roadways will continue to dominate the transportation market because of its extensive coverage, door-to-door delivery and high flexibility. Other factors that give road freight transport an edge is low risk of losses resulting from pilferage, less handling of goods and high degree of convenience. A comparison of different transportation modes across key parameters is given in the table below

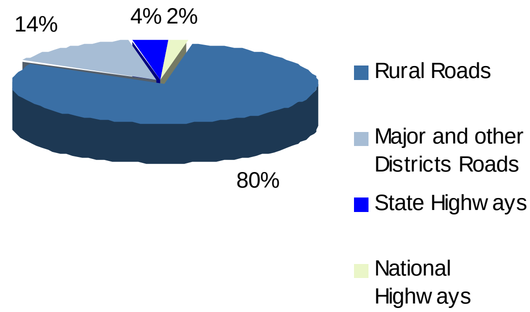
	Roads	Railways	Water/Ports	Airports
Length	3.3m km	84,370 km	7,516 km (Coastline)	454 airports and airstrips
Capacity (per annum)	1,804m tones	850m tones	504.75m tones	121.25m tones
Carriage (Freight)	55%	25%	19%	1%
Advantage	• Wide reach • Easy accessibility • Low risk of losses resulting from pilferage	• Low transportation cost	• Cheapest mode of transportation • Low risk of losses resulting from pilferage	• Fastest mode of transportation
Disadvantage	• High cost of transportation • Overburdened national highways carrying 40% of the total freight	• Inflexibility • Revenue concentration with bulk commodities accounting for 90% of the share • High risk of pilferage	• High turnover time • Inefficient inland waterways	• Weight limitation • 80% of freight traffic handled in metro city airports

Source: Ministry of Road Transport, Shipping and Railway (Annual Reports)/ValueNotes Research

Road Freight

India has a road network of 3.3m km, the third largest in the world. Roads have always ruled over rail in terms of freight traffic in India. However, the quality of roads in India is still poor resulting in high logistics costs and accident rates. The average transit time by road in India is three times higher than that in Europe. Road development has been confined to a few states only, thereby limiting access and connectivity to the rural markets. Further, the trucking industry in India is dominated by unorganised players and controlled by small fleet operators. Despite this, approximately 55% of freight transportation takes place via roads.

India Road Network (3.32 million kms)



Source: Ministry of Roadways/ValueNotes Research

To address the issues of poor connectivity and quality of Indian roads the Government has embarked on projects that include planned development of the existing road networks. The projects also include creating new roads to ease the burden on the existing road network. (Refer to the section2.1 for details). These initiatives are expected to not only increase the freight traffic but also shorten the transit time.

Rail Freight

India has the second largest rail network in the world. However, freight trains, at present do not have dedicated rail tracks and have to share the existing network with passenger trains. Passenger trains get preference over freight trains; this increases the lead-time. Lack of adequate wagons and containers compounds the problem further. These lacunas increase the cost of transportation. This is evidenced by a World Bank study which found that the freight charges for rail in India were 7.9 cents/km, about 3 times the rates in China and 4 times those in Canada. Notwithstanding, transporting goods by rail is approximately 25-30% cheaper than road for long distances.

Freight services contribute nearly 70% to the revenues of Indian railways. Coal accounts for nearly 50% of the bulk traffic. India is the third largest coal producer in the world and is expected to see a 9% growth in its production by 2012. Steel and cement industries account for a considerable demand for rail freight services. India is the fifth largest producer of steel with 60m tones of capacity, which is expected to reach 124m tones by 2012. Cement industry is expected to add 111m tones of capacity to the existing 160m tones by 2009-2010. This will increase the future demand for rail freight.

The government has initiated concerted measures to improve the current rail network and supporting infrastructure in India. These measures have been explained in detail in the later sections of the report. (Refer to the section 2.1 for details).

Air Freight

Airfreight volumes in and out of India have been on a rise and cargo traffic has increased by more than 45 per cent between 2003-04 and 2006-07. As per the Investment Commission of India, air traffic cargo is expected to grow by over 11.4% per annum over the next 5 years and exceed 2.80mt by 2010. Leading global logistics companies have acquired companies in India (DHL acquired Blue Dart and FedEx acquired Prakash Air Freight), which evidences the interest of global players to exploit India’s growing airfreight market.

To keep pace with the rapid economic growth, the Government of India has developed two new airports in Bangalore and Hyderabad and drawn upon an airport modernization plan for the existing ones. The international airports in Delhi and Mumbai have been restructured and are being modernized through private sector participation. The construction of first phase of Delhi airport started in January 2007 and is likely to be completed by March 2010 at a cost of about $89bn. The construction work of Mumbai airport also started in January 2007; total cost is estimated at $70bn. The airport will be saturated by 2014 with capacity of 40m passengers per annum after modernization.

Sea Freight

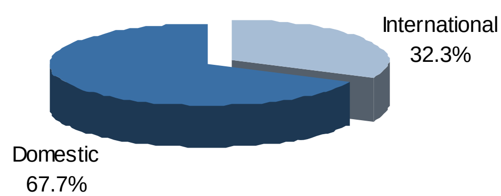
The Indian coastline is 7,516 kilometers long and has a total of 187 ports. As per Datamonitor, "India Logistics Report 2007", Sea freight in India accounts for 95% of India's exports by volume and nearly 70% in value terms. The ports handled a record 133.81m tones during April 2008- June 2008 a growth of 8.8% YoY. India has the capacity to handle 10m (Twenty-foot equivalent unit) TEUs of transshipped containers; this is expected to increase to 30m TEUs by 2012.

Indian ports are rated lower than other developed ports due to insufficient cargo handling facilities and outdated regulations. As a result of this, the turnaround time (the time taken by the ship to unload cargo at a port) at Indian ports is approximately three and a half days as compared to international standards of 13 hours. Furthermore, the Indian ports are much smaller than their international counterparts and cannot accommodate large vessels that are major carriers of cargo. Therefore, cargo needs to be trans-shipped through other ports like Singapore and Colombo, adding to costs.

1.3.2 Express Cargo

Express market in India is still at a nascent stage and is much smaller than its global counterparts in the developed countries. The domestic industry is highly fragmented and has more than 2,500 companies, the top 10 players accounting for over 90% of the market by value. However, increased outsourcing, international trade and strong domestic market make this segment a highly attractive one. Express Cargo has been one of the fastest growing segments in the logistics value chain and has grown at a CAGR of 30% in the last decade. With an expected GDP growth rate of 6-8% over the next five years, express logistics business is expected to continue its strong growth momentum. The express cargo industry is slated to grow at CAGR of 15-20% in 2008-2012.

Indian Express and Parcels Market ($1.25 bn)



Source: India Logistics Outlook 2007- Datamonitor Report

1.3.3 Intermediate services (cold chain, CFS/ICD, warehousing)

Cold Chain

The current cold chain capacity in the organised sector is around 60,000 tones and is estimated to grow almost 40% by 2010. Cold chain utilization is just 10% in India, compared to 25% in China and 80-90% in developed countries. A significant gap exists between the potential utilization and the availability of cold chain logistics and transportation. As a result, an estimated 40% of the fruits and vegetables grown in India worth $13bn go waste on an annual basis. With an annual production of 32m tones, India is the leading producer of fruits in the world and accounts for approximately 8% of the global production. It is the second largest (after China) producer of vegetables, with an annual production of 71m tones accounting for 15% of the world market. Better cold chain facilities will not only reduce the waste but also provide opportunities to export excess fruits and vegetables to other countries.

A boom in organized retail and changing consumption patterns of consumers (detailed later in the report) have enhanced opportunities for cold chain logistics. Many logistics players have drawn up plans to invest in refrigeration facilities. Further, food retailers have integrated backwards into storage and transportation. Private equity players, Indian as well as foreign, have shown keen interest to invest in cold chain companies— more so after witnessing the boom in the retail sector. Global and local financial services firms like Edelweiss, IDFC, Goldman Sachs, Macquarie and Blackstone are on the lookout for investment opportunities.

CFS/ICD

Of the total containers handled at ports, 35% of the traffic is destined for CFSs and 65% for ICDs. The CFS/ICD segment is estimated at $25bn with a total capacity of 3.5m TEUs. The CFS segment remains fragmented with a minimum of 15 CFS players at most major ports. The CFS operators consist of public sector players, independent private sector players and private players associated with shipping lines. The ICD segment has no private sector operators.

Warehousing

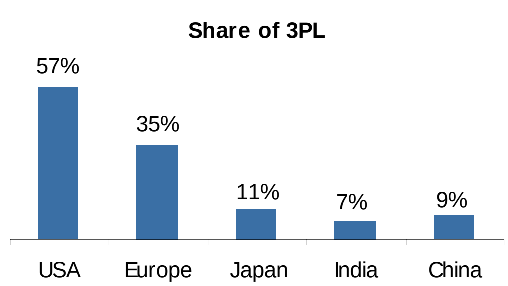
Warehousing in India has come a long way from being dominated by small players with low capacities and inefficient handling to being efficiently managed with greater emphasis on value-added services. The increasing demand from MNCs and domestic companies has led to the rapid growth of 35-40% per annum in organized warehousing and total capacity of around 80m metric tones. Warehousing now accounts for over 20% of the total logistics market; by 2010 it is estimated to increase to 35%. The segment is estimated to grow from $20bn in 2007-08 to about $55bn by 2010-11. The next five years is likely to witness addition of nearly 45m sq ft of warehousing space and 110 logistics parks across the country.

At present, an inter-state sale attracts a Central Sales Tax (CST) of 2%, in addition to the normal state sales tax. In order to avoid CST companies have set up multiple stocking locations (for example one in each state). This has increased the need of working capital, higher inventory cost and other overheads. The Government has now introduced a VAT (Value added tax), which will replace the existing state sales tax. Further, the government is planning to phase out CST by 2010-11. The change will primarily eliminate the need to have multiple storage location across states, and will affect the current distribution structure significantly. Small multiple warehouses with be replaced by larger ones. Logistics players are expected to adopt the hub and spoke model whereby a large sized 'hub' warehouse at a strategically important location is connected to many small 'spoke' warehouses. The change in the distribution structure is likely to enhance the demand for warehousing.

1.4 Key industry trends

1.4.1 Emergence of 3PL/4PL logistics providers

The concept of third party logistics players has emerged due to the need for cost cutting in the manufacturing sector as a result of global sourcing activity and increased competition. Third party logistics players such as DHL and Federal Express have changed industry dynamics by transforming



Source: ValueNotes Research/Media Reports business practices and services across the sector. The end users are primarily players from the retail, auto and electronics sectors. With increasing outsourcing and growth of the manufacturing sector the 3PL segment is expected to grow 30% annually in the next two to three years. Though the share of 3PL in India is very small as compared to the developed nations, the planned phase out of CST by 2010 is expected to fuel the demand for 3PL providers. The growth of 3PL providers will not only help in saving logistics costs but will also enhance the competitive advantage of companies through greater efficiencies in handling the various components in the supply chain.

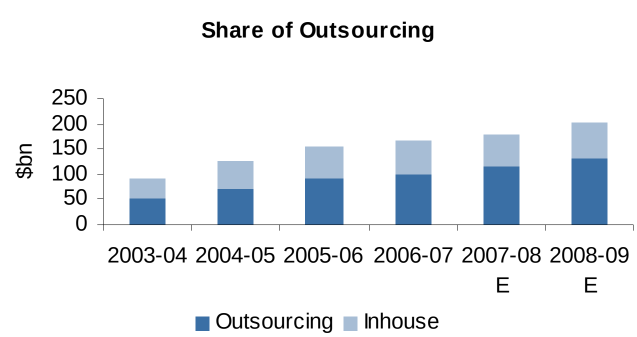
1.4.2 Moving from a fragmented to organised framework

The logistics industry in India has historically been highly fragmented with numerous small unorganized players. These players have been providing individual services such as warehousing, transportation, packaging and so on. The organized market accounted for only 6% of the $100bn logistics industry in 2007. The share of the organized segment is expected to double to 12% by 2012. The key drivers are:

- Increasing popularity of 3PL/4PL players.
- Increasing importance of logistics as a strategic function to improve efficiency and reduce cost.
- Expansion of distribution networks by national and regional players.
- Increasing M&A activity resulting in greater consolidation. DHL acquired Blue Dart, Fedex acquired Pafex and TNT acquired Speedage Express Cargo Service.
- Entry of global logistics companies such as Gazeley Broekmen, Kerry logistics and CH Robinson. Many of these companies are planning to develop their own logistics parks across the country.
- Entry of large Indian corporate houses such as Reliance, Bharti and Tatas in the retail sector has given new dimension to organized logistics with larger scale and efficiency. These companies have their own logistics arms, which cater not only to the needs of the group companies but also provide services to third parties.

1.4.3 Increasing prominence of outsourced logistics as against in-house

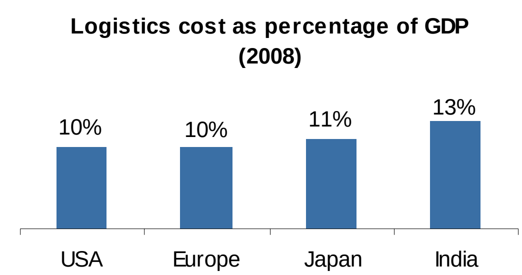
Outsourcing of logistics function is fast gaining ground as more and more manufacturing companies realize the benefits of outsourcing. Outsourced logistics, which constitutes about 30% of the entire market, is expected to grow at a CAGR of over 16% from 2008-2010. India is being considered as a land of opportunities by Logistics Service Providers (LSPs) globally.



Source: ValueNotes Research

1.4.4 Logistics cost as a % to GDP increasing consistently

The logistics cost as a percentage to GDP is much higher in India at 13% as compared to the other developed economies. The average time taken to clear import and export cargo from ports in India is about 19 days as compared to the three to four days taken in Singapore. In India, the average transit time by road is three times higher and rail transport is 3.5 times expensive than that in Europe. According to



Source: ValueNotes Research/Media Reports

Kale Consultants, India loses about 3% of its GDP because of supply chain inefficiencies. These inefficiencies can be attributed to inadequate infrastructure, complex tax regime and fragmented and unorganised market structure.

1.4.5 Containerisation

India has already seen a rapid growth in containerization; the share of containerised cargo in major ports has doubled in the last 10 years. This growth can be attributed to robust external trade, growth of consumer and industrial markets within the country and improvements in port infrastructure. Container traffic at India's 12 major ports increased by 19.03% in FY08 as compared to the 11.94% growth in the total cargo traffic handled at the 12 major ports.

Containerisation at major ports in India has increased to 16% from an 11% share of the cargo handled in 2001 and is expected to further increase to 23% by 2010. In India, containerisation was a monopoly of the Container Corporation of India (Concor) until 2004. However, to keep pace with the growth rate, the Government has opened the doors to private players. At present the ports and CFS' are working at full capacity. According to a Datamonitor report, JNPT, India's largest container handling port, which carried 2.8m TEUs, accounts for over half of the total TEUs handled in India. The existing capacity of Indian ports at 900,000 TEUs is insufficient to cater to the current traffic. Further, the completion of the golden quadrilateral (road) project is likely to lead to replacement the current 20 foot / open trucks by 40 foot / container trucks.

Going forward, the northern and western parts of the country are expected to generate as much as 60% of the total container traffic given the industrial development in that region.

The Government of India has initiated the development of ICDs and CFSs to facilitate multi-modal transportation and distribution of cargo. This provides an opportunity for companies with business interests in containers to tap this increase in demand. The following chart reflects the factors responsible for containerisation and opportunity that it provides.

- Trade Liberalization
- Capacity creation through investment in dedicated rail freight corridor and cargo handling in ports
- Developing CFS/ICD clusters
- Deregulation of rail container haulage

Beneficiaries
- Shipping Liners
- Container terminal operators
- ICD/IFS
- Haulage service providers

Rail Haulage	Expected ~15% over years upside potential 3x translating into $2bn opportunity
Port	Port based delivery mechanisms are preferred for EXIM traffic as they are cost effective and handle all types of cargo

Source: ValueNotes Research

1.4.6 Infrastructure Bottlenecks

Bottlenecks such as lack of adequate capacity to handle the current traffic, insufficient technological upgrades and communication networks have plagued the current logistics infrastructure in India. The National Highways (NH), which constitute only 2% of the entire road network in India, handle around 40% of the road freight traffic. Further, the poor condition and pending repairs compound the already existing woes of the highway infrastructure. This results in a higher vehicle turnover, and hence an increase in operating costs. As a result, transportation costs in India account for more than 40% of the total logistics costs.

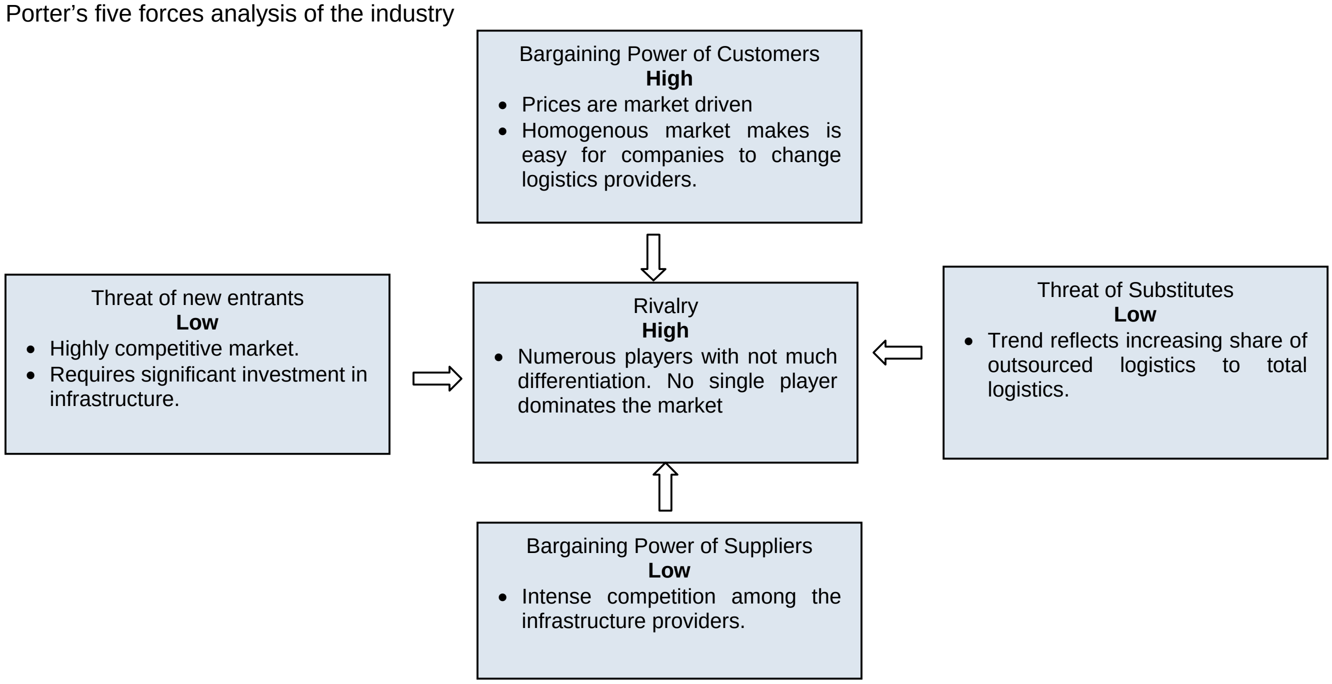
As per the Datamonitor report, on an average a commercial vehicle in India runs at a speed of 20 miles per hour (mph) compared to over 60 mph in the mature logistics markets in Western Europe and the US.

However, this problem could be resolved with the completion of the four or six-lane national highways projects connecting the four corridors of the country. This will also lead to introduction of larger 40-foot containerized trucks (2 TEUs) to lower the cost of transportation while maintaining acceptable transit times.

Furthermore, the twelve major ports of India are working at more than 100% capacity, which lead to pre-berthing delays and longer ship turn-around times compared to its global counterparts and in particular, the South-east Asian countries. Privatisation of airports and seaports will lead to increase in capacities, mechanisation, efficient handling of cargo and quicker turnaround of vessels.

1.5 Porters five forces analysis

Porter's five forces analysis of the industry



Source: ValueNotes research

Threat of Substitutes
The main threat faced by the logistics players in India is from their customers opting to handle logistics in-house. However, past trend suggests that the share of outsourced logistics to total logistics is increasing steadily. This ratio is expected to increase further as more companies start seeing outsourced logistics and the resulting gains in efficiency in supply chain management, as a tool to gain a competitive advantage. .

Bargaining Power of Customers
The logistics market in India is not regulated and prices are market determined. The market is fragmented and competition among existing players is high. The homogeneity of the logistics market and the 'ready to offer' services of logistics players make it easy for companies to shift from one logistics player to another without incurring significant collateral costs. Moreover, players in the warehousing, trucking and 3PL segment incur significant capital cost and hence need high volumes in order to recover the capital costs. These factors result in high bargaining power of customers.

Bargaining Power of Suppliers

Suppliers to the logistics industry can be primarily classified into infrastructure providers and services providers. Infrastructure providers include government, truck manufacturers, container suppliers and construction companies. Service providers primarily include employees and providers of technology. Government is a dominant player since it not only sets up the policies but also actively participates in evaluation of the bids for infrastructure projects involving public private participation. As far as other providers are concerned, there is intense competition with no dominant player in the market. This lowers the bargaining power of suppliers (except the government).

Rivalry between existing players

Competition between existing players is high as there are many players (organized and in the unorganized sector) offering only one or two services such as Express Cargo and Courier services. There is not much differentiation between players, hence there is intense rivalry leading to price wars.

Threat of New entrants

There are high barriers to entry in the sector. To offer differentiated services such as pan-India service/integrated service/outsourced logistics, new players need to make significant investment to set up the infrastructure. This makes the sector unattractive for players who are unable to raise the requisite capital. There are numerous players offering basic services in the Express Cargo and Courier segment. High competition will make it difficult for a new player to grab a reasonable share of the market. Hence, threat of new entrants is low.

The above factors reveal that the logistics market in India is highly competitive. Players who have a PAN India presence and offer end-to-end solutions will have a competitive advantage over the existing players.

1.6 Competitive Landscape

Company	Segment Presence	Coverage	Current Infra-structure	Planned Capex	Financial Data in INR m
GATI Gati is the leader in the express cargo distribution business and provides an entire range of supply chain solutions.	**Express distribution and supply chain** Surface cargo movement, logistics and supply chain management, international services, freighter and couriers, and trucking solutions, etc. **Sea Freight Service** provider for all sea bound cargo in the Bay of Bengal, Andaman Islands and Malacca Straits. **International Business** Presence in the SAARC countries and the Asia Pacific region	**Pan-India** **Covers 220 countries worldwide**	Manages a fleet of over 2,000 trucks by entering into contractual relationships with vendors. (Owns 200 of these) Runs five dedicated cargo freighters. Owns 4 container vessels with a combined capacity of 25,835 Deadweight tonnes (DWT)	Plans to double its warehousing space, increase fleet of owned trucks in operation, augment shipping operations, and enhance its IT infrastructure over the next 4 years.	Revenue 7,411.5 PAT: 197.7
Container Corporation Of India Ltd (CONCOR) CONCOR is the largest integrated multi-modal transport operator	**Rail Freight** **Terminal and CFS Operator** These terminals provide a gamut of services, which include warehousing, container parking, repair facilities, and even office complexes	**Pan-India** **Handles 30% EXIM container traffic**	Over 58 terminals, of which 48 are for EXIM and another 9 exclusively for domestic. Operates 8,421 wagons (96% of which is owned) and 13,517 containers	Plans investments of $800m over the next 5 years for acquiring rolling stock (wagons) and terminal expansion. It also intends to expand its cold storage infrastructure and make strategic investments in port terminals through joint venture.	Revenue: 35,117.7 PAT: 7,505.2
All Cargo Global Logistics Limited All Cargo is the leading LCL (Less than Container Load) consolidator in India. It offers direct outbound and inbound LCL groundage services to and from major cargo destinations worldwide	**Multi-modal Transport** **Container Freight Stations** **Project and ODC Cargo Handling** **Airfreight** **Transport Logistics**	**Pan-India** **Covers 51 countries worldwide**	More than 100 own offices in 51 countries and 203 franchisee offices in 130 countries connecting around 5000 locations. Total capacity of around 2.0 lakh TEUs.	Plans expansion in the CFS/ICD segment. The company plans to expand its CFSs to Pithampur, Dadri, Nagpur and Bangalore	Revenue: 3,645.3 PAT: 597.8
Gateway Distriparks Limited (GDL) GDL offers Containerized Freight and Warehousing services	**Warehousing** **Container Freight Stations** **Container rail operations**	**Eastern India**	Operates the largest CFS with a capacity of 516,000 TEUs per annum. Operates 12 container trains.	Plans to expand network of CFSs and ICDs to northern, western, and southern India, and connect western and northern India by a rail link. Plans new ICDs at Ludhiana and Faridabad to capture market in NCR and nearby areas by FY09. Plans to expand its cold chain operations to a capacity of over 25,000 tons from the current 10,000 tons in the next year and a half.	Revenue: 1,758.5 PAT: 752.1

2. Key Drivers of Logistics Sector

2.1 Focused Government initiatives

2.1.1 Increased spend on upgrading current and developing new infrastructure

The Government of India has set an ambitious target of $200bn of combined trade in FY09 as compared to $15.5bn in FY08. In order to achieve this it has embarked upon a multi-level strategy of tax reforms and infrastructure development such as roads, railways and ports. The planning commission intends to triple its spending on infrastructure to $492bn in the eleventh plan (2007-12) as compared to the tenth plan. The planned initiatives of the government and the planned outlay and capacity addition across different transportation mode are shown in the tale below:

	Road	Rail	Sea	Air
Planned Initiatives	• Up-gradation of 12,109 km of National Highways (NHs) • Six laning of 6,500 km of NHs comprising 5,700 km of Golden Quadrilateral and balance 800 km of other sections of NHs • Construction of 1,000 km of additional expressways. • Construction of ring roads including improvement of NH Links in City, grade separated intersections, flyovers, elevated highways, Road Over Bridges (ROBs) Under passes and service roads • 4/6-laning of the North-South and the East-West Corridor.	• Dedicated freight corridors with the first phase including development of two corridors - western and eastern connecting Delhi, Mumbai, Chennai and Kolkata. • Augment line capacity of about 20,000 km of the railways' high-density network, coal and iron ore routes and port connectivity railway lines. • Route-wise works will be undertaken in a phased manner including 124 works of doubling, third and fourth lines, by-passes, flyovers, crossing stations, inter-mediate block stations, automatic signaling works and yard re-modeling. • 104 throughput enhancement works in progress to be completed over the next two years. Entire network to be provided with IBS by March 2009.	• Deepening of channels for improvement of drafts • Projects related to Port Development (construction of jetties, berths, etc.) • Procurement, Replacement or Upgradation of Port Equipment • Projects related to Port Connectivity	• Modernize/upgrade upto 39 airports, planned in four different stages. • Develop multi-modal hubs for six metros that would not only cater to commercial airlines but will also have cargo and maintenance, repair and overhaul (MRO) facilities • Establish a multi-modal air cargo hub at Nagpur for a pan India presence, offering seamless connectivity to various International destinations.
Planned Outlay for the above (INR bn)	2,356.9	750	552.4	-

Source: ValueNotes Research, Annual Reports of Respective Ministries

Highway Development: The national highways are being redeveloped into 4-lane / 6-lane under the National Highway Development Program (NHDP) implemented by the National Highway Authority of India (NHAI). In addition, the Golden Quadrilateral program envisages the improvement in connectivity between the four major metros, Delhi, Mumbai, Kolkata and Chennai. The National Highway Development Project is spread over seven phases with an estimated expenditure of INR 2,356.9bn till 2015. All the new projects under different phases of NHDP will be built on the Public Private Partnership (PPP) model.

An amount of INR 176.2bn was earmarked during the year 2007-08 for construction of various projects of NHDP. The phase wise details of the various projects are given in the table below

Phases	Developments	Total Length (in km)	Planned Outlay
Phase I	Golden Quadrilateral, East-West, North-South corridors, Port connectivity & others	7,498	30,300
Phase II	4/6-laning North South- East West Corridor, Others	6,647	34,339
Phase III	Upgradation,4/6-laning	12,109	80,626
Phase IV	2 - laning with paved shoulders	20,000	15,855
Phase V	6-laning of GQ and High density corridor	6,500	41,210
Phase VI	Expressways	1,000	16,680
Phase VII	Ring Roads, Bypasses and flyovers and other structures	2,000	16,680

Source: ValueNotes Research/Ministry of Shipping, Road Transport & Highways

Rail Infrastructure: The high cost of railway transport in India stems from transshipment cost and high cost of last and first mile connectivity, which in turn are the result of regulatory and capacity constraints. In order to fulfill this potential demand the Government has planned INR 750bn investment in the next seven years to augment line capacity on about 20,000 km of the railways' high density network, coal and iron ore routes and port connectivity railway lines. Route-wise works will be undertaken in a phased manner, including 124 works of doubling, third and fourth lines, by-passes, flyovers, crossing stations, inter-mediate block stations, automatic signaling works and yard re-modeling. This also includes construction of the Eastern and Western corridors. Dedicated freight corridors are planed in order to separate passenger and freight routes and eliminate capacity bottlenecks. The first phase of this project involves development of two corridors - western and eastern, that will connect Delhi, Mumbai, Chennai and Kolkata. This project, with a planned spend of $63bn, would add 2,700 km to existing rail length and reduce the transit time between Delhi and Mumbai to about 30 hours, almost half the current time. The Delhi – Mumbai Industrial Corridor (DMIC) project will focus on development of a band of 150 km on either side of the Dedicated Freight Corridor (DFC) between Delhi and Mumbai. It will also focus on development of 24 market driven nodes at strategic locations with enhanced connectivity to DFC, Ports, and Hinterland.

Port Development: Domestic ports are challenged by insufficient capacities and outdated regulations. Indian ports are not able to cater to large vessels due to capacity constraints. Therefore, the cargo needs to be transshipped through Colombo and Singapore adding to the shipping cost. The government plans to add capacity of 493 mt to the existing 165 mt, with an investment of $14bn. Container terminals will take the lion's share of the investment with a capacity expansion of 139 mt, as container traffic is expected to grow at a CAGR of 21% over 2008-2012.

The national maritime development programme (NMDP) envisages an investment of INR 552.43bn port infrastructure to meet the expected growth in external trade. The various developmental programs under the NMDP are shown in the table below:

Developments	Number of Projects	Planned Outlay (INR bn)
Deepening of Channels for Improvements in Drafts	25	63.04
Projects related to Port Development (construction of jetties, berths, etc.)	76	325.6
Procurement, Replacement or Upgradation of Port Equipment	52	26.3

Projects related to Port Connectivity	45	54.0
Other related schemes	78	83.5

Source: ValueNotes Research/Ministry of Shipping, Road Transport & Highways

Airport Development: The Government has rolled out plans to build/upgrade up to 39 airports, planned in four different stages. The international airports in Delhi and Mumbai have been restructured and are being modernized through private sector participation. The Government also plans to modernize Kolkata and Chennai International Airports In addition the government has identified 35 non-metro airports for modernization through the PPP model. Two new Greenfield airports set up under the PPP model near Hyderabad and Bangalore are already operational. A third Greenfield airport is planned at Navi Mumbai to be developed through the PPP model. The Government has also planned to develop a multi-modal international cargo hub and airport at Nagpur. The INR 25.81bn project is planned to serve 14mn passengers per annum and handle 0.87mn tones of cargo by 2035.

Logistics parks are expected to come up in all state capitals as well as in Nagpur, Indore, Jamshedpur and Ambala according to Safexpress Chairman and Managing Director, Mr. Pawan Jain. The Government also plans to develop multi-modal hubs for six metros that would not only cater to commercial airlines but will also have cargo and maintenance, repair and overhaul (MRO) facilities. The civil aviation ministry has proposed a Special Economic Zone (SEZ) status for these zones. On implementation of the multi-modal hubs will have the following benefits:

- 10 year corporate tax holiday on export profit – 100% for initial five years and 50% for the next five years
- 10 years exemption on electricity duty
- Duty-free procurement of capital goods
- Full freedom for sub-contracting
- Facility to realize and repatriate export proceeds within one year
- Facility to retain 100% foreign exchange receipts in the export earner's foreign currency account
- Other indirect tax benefits

2.1.2 Phased implementation of VAT

The phased implementation of VAT will replace unnecessary state and central government taxes. It will benefit the logistics industry in two ways. One is that, it will enable the logistics companies to maintain large warehouses at strategic locations instead of small warehouses in multiple states thus cutting down on cost. Second, the companies will save time on interstate tax transactions and at transport checkpoints. Phased VAT implementation will improve the distribution efficiency and reduce transportation and storage cost.

VAT implementation will also see a phase out of CST by 2010-11 and will eliminate the need to have multiple storage location across states. This will significantly impact the current distribution structure. Logistics players are expected to adopt the hub and spoke model whereby a large sized 'hub' warehouse at a strategically important location is connected to many small 'spoke' warehouses. The change in the distribution structure is likely to enhance the demand for warehousing.

2.1.3 Free Trade Warehousing Zones (FTWZ)

There is shortage of large and quality warehousing space in India. To tackle this, the government had announced Free Trade Warehousing Zones (FTWZ) in the Foreign Trade Policy 2004-09 to create the required infrastructure for the import and export of goods. The government has also allowed 100% FDI in FTWZ. With this, a number of national and international players are expected to enter the space.

Fiscal Benefits	Infrastructure Benefits	Administration Benefits
- Duty Deferment Benefits - Income tax (section 80IA) and Service Tax exemptions for developers and users of the zone - Excise Duty Exemptions	- Single Product Storage Facilities – Storage facility for each product category - Shared Warehousing – Temporary storage facilities - Shared Equipments _ Leasing equipment provided by the zone	- Reduction in custom clearance time - Efficient management services and support facilities such as banking, insurance

Source: ValueNotes Research

2.1.4 Cold Chain

The Government has conferred a 100% FDI to the cold chain sector. The Finance Minister, in the recent budget, proposed full excise duty exemption on refrigerated equipment. These measures provide a significant business opportunity for players in the cold chain storage and warehousing space.

Cold chains are fast becoming an integral part of the retail food market. Ready meals, fast food and frozen products are gradually increasing their share in the market. The total market size for cold storage was estimated at about 35bn tones in 2007. The small storage capacity at hotels, restaurants, airports etc account for 2/3rd of the total capacity.

The eleventh plans to establish 50 cold chains, 30 food parks and revamp the comprehensive cold chain structure. The government of India (GOI) has taken major initiatives to encourage the development of cold chains. This includes

- 100% foreign direct investment is allowed in cold chain projects.
- No restriction on import of cold storage equipments or establishing cold chains in India.
- National Horticulture Board (NHB) operates a capital investment subsidy scheme (CISS) for expansion/modernization/construction of cold chains and storage of horticulture produce. Under the scheme 25% (maximum INR 5m) subsidy is given to the promoter.

2.2 Outsourcing driving demand (India as a manufacturing hub for Asia Pac

Auto

The auto sector is a key sector in India in terms of growth and employment. The Indian auto and auto components industry has registered a CAGR of 17% over the last few years driven by rising income levels and lower interest rates. Major global players have established manufacturing facilities in India to cater to their global supplies of vehicles, parts and components. The automotive component exports, which are currently less than $3bn, are estimated to touch $25bn by 2015 (Source: CMIE). Indian automotive companies like Tata Motors and Mahindra & Mahindra have global ambitions and have resorted to acquisitions/setting up of plants outside India.

Recently, with rising inflation and higher interest rates, the industry has experienced a slow down and with the global meltdown, the short-term industry scenario remains uncertain. However, many global auto players have plans to make India their manufacturing hub to cater to worldwide markets. The long-term growth prospects of the auto sector in India therefore remain positive.

Textile

Global giants like Wal-Mart, Metro and GAP are continuously looking at options to increase textile supplies from India and local retailers such as Shoppers Stop, Pantaloon, and Big Bazaar are expanding to smaller cities; increased demand for outsourced logistics will follow. Demand for air and sea freight services are expected to be driven by exports. The industry has incurred huge capital expenditure in the last couple of years, the benefits of which will start coming in soon. Global retail majors have formed joint ventures in India and are planning to source RMG (ready made garments) products from India for international markets. The industry is expected to post an average growth of 18% per annum over the next five years.

Pharma

The Indian pharmaceutical industry is expected to post a CAGR of about 10% from 2006-10. With the introduction of product patents in January 2005, a number of global pharmaceutical players have entered the Indian market. Low labor costs, together with nascent research skills make India an attractive location. This has increased the potential for sourcing pharma products from India. Further, the contract research & manufacturing (CRAMS) and the clinical trials sub-segments, which currently constitute less than 10% by value of the total Indian pharmaceutical market, are expected to grow above the rate of the overall pharmaceutical market. With the emergence of the biotechnology sector, global players are looking forward to offer medical and clinical sample transportation services to and from India.

Retail

The organised sector currently accounts for only 5% of the total Indian retail market. However, business houses such as Reliance, Bharti, ITC, Godrej, Tata, the Aditya Birla Group and the Future Group have expended their retail operations. Various multinational companies such as Walmart, Marks & Spencer's, Tesco and Metro cash and carry also plan to enter the Indian retail market. With FDI flowing into the sector, organised retail market in India is expected to increase from the current $9bn to over $90bn by 2015 accounting for close to 20% of total market size. The operating model and scale of operations of organised retail will demand specialised logistics services to support the operations and replenish stocks at short intervals. Demand for outsourced logistics services in organised retailing is expected to increase.

2.3 Boom in organised retailing and cold chain logistics

The retail sector is one of the fastest growing sectors in India with a growth of 25-28% in 2007. The total market size was estimated at $365bn at the end of 2008 and expected to reach $440bn by 2010.

The retail sector in India is highly fragmented, the unorganized sector constituting 97% share of the industry. However, the organized sector is picking up gradually with the increase in occupied space from one million sq ft in 2002 to nearly 16m sq ft in 2008. According to a study by ASSOCHAM, there will an additional investment of $70bn in the organized retail sector by 2010. The total investment in the retail sector at the end of 2008 is estimated to be nearly $25-28bn. The study also estimated that the share of retail sector in India's GDP would go from the current 10% to 22% by 2010. The entry of large players such as Reliance Industries, DLF, Plaza, Spencer and the Aditya Birla Group is expected to stimulate the growth of organized retail in India. The organized retail sector is estimated to grow from $9.9bn in 2007 to $60bn by 2015.

As a result of the boom in organized retailing and emergence of the food processing sector, there is a greater need for a well developed network of warehouses and cold chains.

- India is the largest producer of fruits, second largest producer of vegetables after China and one of the leading producers of pulses, a range of cereal crops and milk. However, as much as 40% of the fruits and vegetables are wasted for want of an efficient cold chain infrastructure.
- The boom in organized retail offers a ready market for third-party cold chain logistics players. As per a Business Today report, the cold chain industry itself is estimated at $2.2- 3.3bn, growing at 20-25% per annum and is expected to touch $8.8bn by 2015. Logistics and cold chain operations are a logical integration extension food retailing companies; some big food retailing players are exploring backward integration into cold chain storage and transportation.
- Third, the consumption patterns of Indians have changed significantly. This is evident in the gradual shift in favor of frozen meats and fresh vegetables that are available in supermarkets not just in metros, but also in tier-II and tier-III cities. Growing consumption in India has resulted in the willingness of customers to buy imported fruits, dairy products and vegetables. This has contributed to the huge demand for cold chain infrastructure in the country as such products need temperature-controlled storage and movement after they are unloaded from ships.

3. Key Risks

3.1 Political Risks

Key political risks are as follows:

- Organized Retail: Organized Retail business model is based on directly sourcing from farmers, thereby eliminating middlemen and thus cut costs. However, severe political lobbying by the middlemen has created hindrances for players in organized retail. One such instance saw Reliance Retail shut operations in the state of Uttar Pradesh. There is a risk that this might set a precedent for other states and could drive away potential players in the sector.
- Introduction of Post Office Act Amendment Bill: The Government proposes to prohibit private courier service providers from carrying packets weighing below 150 grams. If this proposal takes effect, it could significantly impact courier companies, which earn a major share of their revenues from letter and packets weighing less than 500 grams.
- Impending elections: The 15th general election in India is scheduled to be held in May 2009. If the Government changes, it is possible that the new administration may alter some of the current policy initiatives. However, given that infrastructure development is on the priority of all the political parties we do not expect this to pose a significant risk.

3.2 Projects on hold will trigger a slowdown

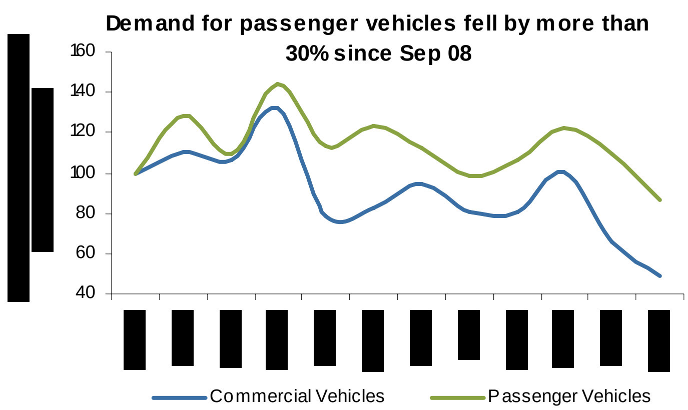
The Logistics sector is closely linked to GDP growth. Any kind of slowdown in the domestic sales or exports is thus detrimental to the sector.

India is an outsourcing hub for Auto-ancillary, Textile, Retail and Pharmaceutical goods. Any downfall in the exports thus poses a risk to the sector. India's exports totaled over $160bn in FY07-08.The exports, which posted a robust 30.9% growth in the first half of FY08-09, contracted by 12.1% in October 2008, for the first time in the last 5 years.

- According to Automotive Component Manufacturers Association (ACMA), exports from Indian auto-ancillaries accounted for over $3.6bn in FY2007-08 and were expected to post a 60% growth YoY. However growth expectations have sharply fallen to 6%. These companies produced about 25,000 tonne of components on an average every month. Due to a fall in orders, this came down to 7,500 tonnes in November 2008.
- The textile sector earns $52bn from exports mainly to the US and Europe. Shipments to the US declined to $3.8bn between January-August 2008 from $3.9bn a year ago.

The domestic consumption too has witnessed a slowdown as fallout of the global economic crisis.

- The economic downturn has increased the risk of job losses and salary cuts. Consumers are apprehensive about spending on new auto purchases. Commercial vehicle purchases have slowed down because of a drop in payload. Unless, the economy revives there is unlikely to be an increase in demand for commercial vehicles.



Source: Society of Indian Automobile Manufacturers

- Retail chain companies have been witnessing a slowdown in footfalls in their outlets during the year. Infinity Retail Ltd, the electronics stores chain of the Tata Group has witnessed footfalls decline by ~10% YoY. Footfalls in the malls have declined; many companies are rethinking their expansion plans and closing down the non-performing outlets to control costs.

Investments in Infrastructure are a growth-enabler for the logistics industry. However, the financial crisis has triggered a liquidity crunch and many infrastructure projects are either delayed of cancelled for want of funds. The slowdown has also started affecting infrastructure projects, particularly those built on the PPP (public private partnerships) model. Reduced air traffic has affected airport related projects. Similarly, a fall in toll collection (below estimates) has affected several road projects. In November 2008, the Government announced a dedicated fund of $10bn to provide loans to infrastructure projects being undertaken by private companies as well as by government-private joint ventures.

A host of private Indian infrastructure companies have decided to defer their new investment plans given the projections of a future deceleration in the economic growth next fiscal. According to a study by the Centre for Monitoring Industrial Projects (CMIE), projects worth ~$15bn (INR 765.4bn) were shelved in the first two quarters of this financial year.

Demand for logistics services is expected to decline in the short term. However we believe that the Indian economy will pick up in the medium term; consequently, demand for logistics services will also grow.

4. Investment Rationale

The logistics sector in India is closely linked to the economic activities of the country as in any other developed economies. The industry has grown annually at 8%-10% since 2002 in line with the annual GDP growth of 8.8% and is expected to grow at 15%-20% annually exceeding the estimated GDP growth of 7%-8% in the next five years. The relative under-penetration of the sector combined with the following key enablers makes logistics an attractive sector for investment.

Government Initiatives: The Government has embarked on a multi-pronged strategy of regulatory reforms and infrastructure development. The non-standardized and complex tax structure has been one of the main hindrances in the development of the logistics sector. The Government plans to rationalise the tax structure and is working towards simplifying it. On the infrastructure front, the planning commission has tripled the spending budget in the 11th five-year plan (2007-12) as compared to the 10th five-year plan.

Emerging Market Trends: The boom in organized retail, growing popularity of India as an outsourcing destination and shift towards a more organized logistics framework is expected to support the growth of logistics in India. The operating model and scale of operations of organized retail demand specialized logistics services to support the operations and replenish stocks at short intervals. Demand for outsourced logistics services in organized retailing is expected to increase.

Changing Consumer Preferences: The life style of Indian consumers is witnessing a change, with increased demand for processed food, fast food and frozen products. This has created the need for cold chains, which are fast becoming an integral part of the retail food market. While some of the logistics players are planning to invest in cold chains, the food retailers are planning backward integration in cold storage and transportation.

Faced with increased competition, corporations need to focus on the core business operations. They are increasingly finding it difficult to manage complex supply chain management, preferring to outsource it. This has led to a shift from players offering stand alone services to integrated end-to-end services and third-party logistics (3PL) and fourth-party logistics (4PL) service providers. Given the underlying growth in demand for logistics we see significant potential for end-to-end services.

The global slowdown has also affected the Indian economy as is evident from decline in the growth of industrial production, exports, excise duty collections and FDI. The GDP growth estimates have been downsized to 7.1% for 2008-09 and 6.5% for 2009-10. A slowdown in business activity will directly affect demand for logistics. Further, inability to meet the planned infrastructure creation targets may create transportation bottlenecks and pose a threat to the growth of logistics in India. However, the government has recently announced a number of measures to ensure smooth and adequate funding to infrastructure projects. Such concerted steps evidence governments commitment towards infrastructure creation. We do not see significant threats to the creation of planned infrastructure in India.

On the whole, we are bullish on the logistics sector from a long term point of view.

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