



# October 16, 2018 I Industry Research

# Overview of the India Warehousing Industry

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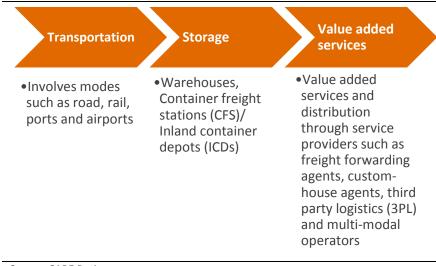
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#### **Logistics Industry Overview**

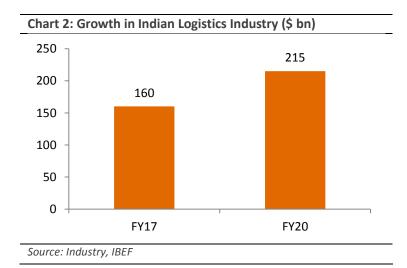
Logistics including transportation, inventory management, warehousing, materials handling & packaging, and integration of information, is related to management of flow of goods between the point of origin and the point of consumption. With the growing Indian economy and changing business perspectives, the scope of the logistics industry has broadened from rudimentary transportation of goods to include end-to-end supply chain solutions including warehousing & express delivery. The logistics value chain therefore comprises the following segments:

#### **Chart 1: Logistics Value Chain**



#### Source: CARE Ratings

The logistics sector is fundamental to the development of a country. Logistics is a sector where the trend is determined by the country's overall economic performance.

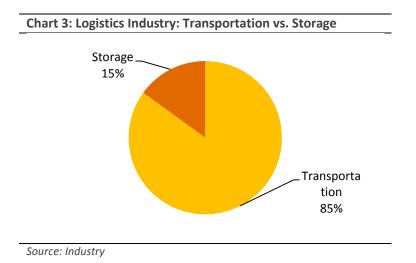


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The Indian logistics industry was estimated to be approximately \$160 bn in FY17. The key segments include road, rail, coastal,



warehousing, cold chain and container freight stations and inland container depots (CFS/ ICD). The domestic logistics market is expected to grow at a CAGR of approximately 10%. Indian logistics market is expected to be driven by the growth in the manufacturing, retail, FMCG and e-commerce sectors. Development of logistics-related infrastructure such as dedicated freight corridors, logistics parks, free trade warehousing zones, and container freight stations are expected to improve efficiency. The industry is dominated by transportation, which accounts for over 85% of total value, and its share is expected to remain high over the next few years. The sector provides employment to more than 22 million people. Improving logistics sector has significant bearing on exports and media sources estimate that a 10% decrease in indirect logistics cost could potentially increase 5-8% of exports.



Of the various modes of transportation, roads and railway are the most preferred mode accounting for ~60% and ~30% of the total cargo volumes handled, respectively. The share of other transportation modes comprising Inland shipping, pipelines and airways remains minimal accounting for the balance 10%. The higher transportation costs in India can be associated with poor road infrastructure leading to lowering of the maximum distance that can be covered by any commercial vehicle, old vehicles fleet and higher cess and toll on the highways while the higher warehousing costs are on account of shortage of warehousing capacity in India, non- standardization of warehouses in terms of IT application etc.

Table 1: India: Growth of Transportation Modes								
Modes of Transport	Details	Unit	FY13	FY14	FY15	FY16	FY17	FY18
Railways	Total Revenue Earning traffic	mn tonnes	1,009.8	1,053.5	1,097.5	1,104.1	1,107.1	1,161.6
Ports	Traffic at major ports	mn tonnes	545.6	555.4	581.3	606.3	647.1	678.7
Airways	Domestic cargo traffic at All airports	'000 tonnes	2,190.7	2,279.2	2,528.9	2,705	3,000.2	3,358.5

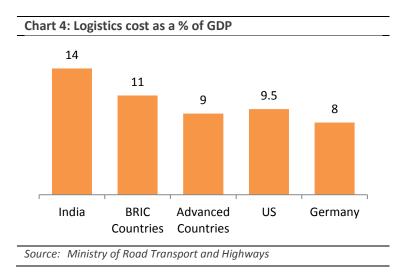
### Table 1: India: Growth of Transportation Modes

Source: Ministry of Railways, Indian Ports Association (IPA), CMIE

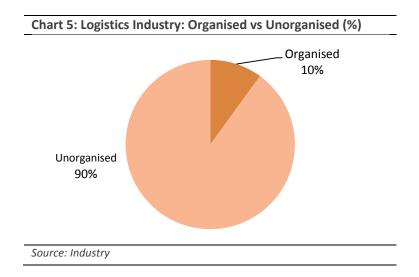
As per the Ministry of Road Transport and Highways, India's logistics cost as a % of GDP stood at 13-14% compared to 10- 11% for BRIC countries and 8-9% for developed countries. The US spends 9.5% and Germany 8% of their GDP on logistics costs. A significant proportion of the higher cost can be attributed to the absence of an efficient intermodal and multimodal transport systems. Going forward, the logistics cost as a % of GDP for India is expected to decline driven



by initiatives such as Implementation of GST, investments towards road infrastructure, development of inland waterways and coastal shipping, thrust towards dedicated freight corridors etc.



Currently the Indian logistics industry is highly fragmented and unorganized. Owing to the presence of numerous unorganized players in the industry, it remains fragmented with the organized players accounting for approximately 10% of the total market share. With the consumer base of the sector encompassing a wide range of industries including retail, automobile, telecom, pharmaceutical, heavy industries etc., logistics industry has been increasingly attracting investments in the last decade.



The sector is facing challenges such as under-developed material handling infrastructure, fragmented warehousing, multiple regulatory/ policy making bodies, lack of seamless movement of goods across modes, minimal integrated IT infrastructure. In order to develop this sector focus on new technology, improved investment, skilling, removing bottlenecks, improving intermodal transportation, automation, single window system for giving clearances, and simplifying processes would be required.



### Warehousing Industry Overview

#### **Global Scenario**

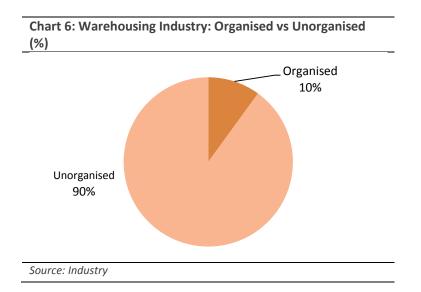
Warehousing primarily refers to the storage of goods to be transported, whether inbound or outbound. The Warehousing and Storage industry includes establishments operating warehousing and storage facilities for general merchandize, refrigerated goods and other warehouse products. Warehouses are one of the major segments of the rapidly growing logistics industry. Currently the segment has evolved from providing not only custody for goods but also offering value added services such as sorting, packing, blending and processing. With evolution of an organized retail sector modern warehouses for the storage of perishable goods have become indispensable

In 2017, the global warehousing and storage market was estimated to be around \$475 billion. The global warehousing and storage accounted for approximately 8% of the overall logistics market in 2017. The warehousing and storage market was the fifth largest market in the global logistics market in 2017. North America is the largest geographic region accounting for nearly 28% of the global market.

Globally, warehousing has moved ahead from single storey to multi-story warehouses in densely populated cities and expensive land spaces. A multi-story warehouse consists of more than one floor and is designed to increase the available floor space. It results in better land utilization rate and enhances operational efficiency. Multi-story warehouses have been successful in densely populated cities predominantly in Asian countries such as China, Japan, Hong Kong and Singapore, due to high land and construction costs, small site areas and limited industrial land availability.

#### **Domestic Scenario**

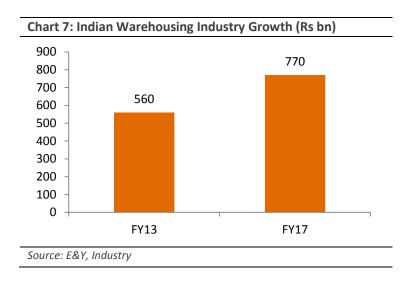
The warehousing market in India is highly fragmented with most warehouses having an area of less than 10,000 sq.ft. Approximately 90% of the warehousing space in the country is controlled by unorganized players with smaller sized warehouses which have limited mechanization. Fragmented warehousing footprint results in higher average inventory holding, in addition to resulting in higher storage and handling losses, driven by lower level of mechanization.



Warehouses have become one of the major segments of the rapidly growing Indian logistics industry. Today they do not only provide custody for goods but also offer value added services such as sorting, packing, blending and processing. With evolution of an organized retail sector modern warehouses for the storage of perishable goods have become essential. The government's initiatives to promote the growth of warehouses in the country through measures such as

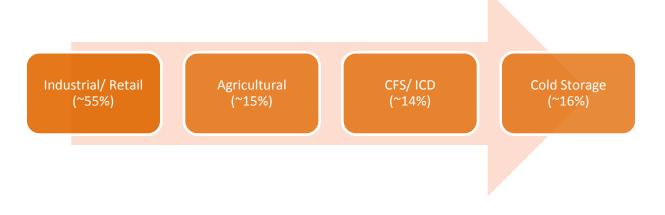


enactment of the Warehousing Act, 2007, investments in the establishment of logistic parks and Free trade warehouse zones (FTWZs) together with the introduction of Goods & Service Tax (GST) regime augurs well for the industry's growth. Sensing the tremendous growth potential of the warehouse sector, the private players (including both domestic & international) have ventured with a view to bridge the gap between cost and efficiency of operations.



Nearly 60% of the modern warehousing capacity in India is concentrated in the top six cities namely Ahmedabad, Bangalore, Chennai, Mumbai, NCR and Pune, with Hyderabad and Kolkata being the other major markets. This is driven by concentration of industrial activity and presence of sizeable urban population around these clusters. Going forward, due to factors like quality of infrastructure and availability of labour, these advantages are likely to remain with these cities. In all the segments of warehousing industry barring the agricultural segment, the majority of the capacity is controlled by the private sector. In the agricultural segment, approximately 3/4th is controlled by different Government entities. The primary objective of a majority of these warehouses is to only store food grains and ensure food security.

# The key warehousing segments can be represented as:





# **Types of Warehouses:**

Traditionally, warehouses were broadly classified into public-private, bonded, government and co-operative warehouses. Lately, cold chains, container freight stations (CFS) and inland container depots (ICD) are gaining importance.

- **Private Warehouses:** These warehouses are owned by private entities or individuals and are used exclusively for the goods owned, imported by or on behalf of the licensee. The warehouses are usually constructed at strategic locations to cater various manufacturing, business and service units. They are flexible enough to be customized in terms of storage and placement, according to the nature of the products.
- **Public Warehouses:** These Warehouses are licensed by the government to private entities, individual or cooperative societies to store goods of the general public. They are rented out against a fee and usually set up at transportation points of railways, highways and waterways, providing the facilities of receipt, dispatch, loading and unloading of goods. The government also regulates the functions and operations of these warehouses used mostly by manufacturers, wholesalers, exporters, importers, government agencies, etc.
- **Bonded Warehouses:** These warehouses are licenced by the Government to accept imported goods for storage until the payment of customs duty. They are located near the ports. They are either operated by the Government or work under the control of customs authorities. The warehouse is required to give an undertaking or 'Bond' that it will not allow the goods to be removed without the consent of the custom authorities. The goods are held in bond and cannot be withdrawn without paying the customs duty. Such warehouses are very helpful to importers and exporters. If an importer is unable to pay customs duty immediately after the arrival of goods he can store the goods in a bonded warehouse. He can withdraw the goods in instalments by paying the customs duty proportionately. Goods lying in a bonded warehouse can be packaged, graded and branded for the purpose of sale.
- **Container freight stations (CFS)/inland container depots (ICDs):** CFSs/ICDs are custom-bonded facility with public authority status for the handling and storage for containers. These depots equipped with warehousing space, adequate handling equipment and IT infrastructure.
- **Cold Storage:** A cold storage is a temperature controlled storage space catering mainly to agriculture and food industries. Cold stores are used for the storage and distribution of perishable goods such as fruits and vegetables, dairy products; frozen foods such as meat and ice cream, and temperature-sensitive pharmaceutical products. Given that India is primarily an agriculture country, cold storage has huge potential in India.

**Government Storage:** The primary objectives of any government storage are 1) to ensure food security, and 2) enable trade movement both within and out of the country. Consequently, the Central Warehousing Corporation operates 431 warehouses (storage capacity of 100.28 lakh MT) including 44 custom bonded warehouses, 29 CFSs/ICDs, 3 Air Cargo Complexes (ACCs) (5,961 MT) and 3 cold storage warehouses (2,419 MT). Further, various State Warehousing Corporations (SWC) manage a total capacity of 283.34 MT across 1,831 warehouses. The Food Corporation of India (FCI) works for holding agricultural produce to meet the requirements of various government schemes. FCI has its own storage capacity but also hires capacities from CWC, SWCs and the private sector. Growth in FCI controlled storage capacity has tabulated below.



Table 2: Storage Capacity for Central Pool Food Stocks					
Year Ending	Capacity with FCI	Storage Capacity Other Agencies			
FY11	316.10	291.32			

336.04

377.35

368.90

356.63

357.89

352.71

362.50

# Table 2. Character Connecting for Constral Deal Food Stools

Source: FCI

**FY12** 

FY13

FY14

FY15

FY16

FY17

FY18

As is apparent above, the government has created and also utilises a significant proportion of the agricultural storage capacity.

341.35

354.28

379.18

352.59

456.95

420.22

480.53

Total

607.42

677.39

731.63

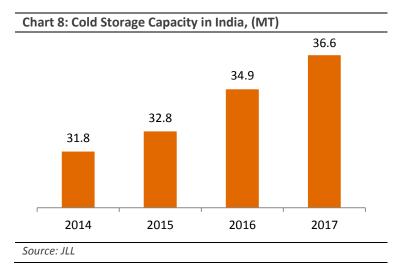
748.08 709.22

814.84

772.93

843.03

Cold Storage: There are over 7,700 cold storage warehouses with a capacity of over 36 million MT in India with a significant portion of the facilities being privately owned.



India's cold storage capacity is unorganized and dominated by traditional cold storage facilities. The distribution of cold storages is highly uneven with majority of the cold storages located in Uttar Pradesh, Gujarat, Punjab and Maharashtra. Further nearly two thirds of the total cold storage capacity is used for horticulture crops including potato. Despite the above storage capacity, the Central Institute of Post-Harvest Engineering and Technology estimates that close to 15%-16% of fruits and vegetables perish as cold storages are located near consumption centres rather than farms. The cold storage segment is driven by growth in trading of perishable products both agricultural and others (e.g. pharmaceutical).



# Regulations

Warehousing Development and Regulatory Authority (WDRA) Rules: Warehouses (especially agricultural) in India are regulated and governed under The Warehousing (Regulatory and Development) Act, 2007. The main objective of this Act is to develop and regulate warehouses, negotiability of warehouse receipts, establishment of Warehousing Development and Regulatory Authority and for related matters.

The Act gives directions on the following:

- Registration
- Warehouseman duties and liabilities
- Issuing warehouse receipts
- Powers and Authority
- Offences under the act
- Penalties

**Registration:** The Act makes it compulsory for a person to carry on warehousing business as a business and issue a negotiable receipt to obtain a certificate of registration.

**Warehousing Receipt:** The warehouse would issue receipts only after ascertaining quantity, quality / grade and other particulars as may be mentioned in the receipts.

Authority and Powers under the Act: Some of the authorities and powers conferred under the Act are granting registration and cancellation/renewal of registration, specifying qualification of warehouseman, and regulating rates, advantages, terms and conditions that may be offered by warehouseman in respect of warehousing business.

**Offences under the Act:** Failing to ascertain quality and quantity, failing to surrender negotiable receipt by depositor or endorsee and payment of all his lawful charges and cancelation of encumbrances endorsed on the receipt to deliver the goods represented by the receipt are some of the offences under the act.

**Penalties:** The offences committed under this Act shall be punishable with imprisonment of a term of up to three years or with fine of Rs 1,00,000 or both.

The industry also remains governed by various acts such as: Multimodal Transportation of Goods Act, 1993, Foreign Trade (Development and Regulation) Act, 1992, Customs Act, 1962, Carriage of goods law etc. regulating the movement of goods and allied services. Various policy changes have impacted the warehousing sector in India. These include the introduction of the Goods and Service Tax (GST), National Policy on Handling, Storage and Transportation, and increasing Public-Private Partnerships (PPP). Following are a few such policy measures:

 Goods and Services Tax (GST): GST has consolidated the tax regime across states which will result in cost and time efficiencies across the supply chain. GST will also hasten the consolidation of warehouses thus accentuating the formalisation of the largely unorganized warehousing sector. For most logistics services like e-commerce logistics, warehousing and air freight (export), the tax rate is 18%, which is an increase from the earlier rate of 15% which includes service tax and cess. Services like ocean freight and road transportation are in the 5% slab. Under GST, the tax on warehouse, storage and other labour services has increased from 15% to 18%.



- Logistics Parks Policy: Launch of multi-modal logistics parks and the grant of 'industry' status to the logistics sector would enable better access to finance.
- **Domestic manufacturing emphasis:** The focus on "Make in India" is expected to increase domestic manufacturing and increase the requirement for associated activities such as warehousing.
- Agri-warehousing activity covered under Priority Sector Lending by RBI
- Subsidy schemes such as 1) Grameen Bhandaran Yojana a capital investment subsidy scheme offered by the NABARD, which ranges from 15% to 33% of project cost, depending on the location and operator,
   2) National Agricultural Renewal Fund. Govt. of India - encourage private investment in the creation of agriculture infrastructure
- Tax incentives such as 1) Tax relief under 80(I)(B): tax holiday on warehousing income, 2) Investmentlinked deduction under Section 35AD: 100% upfront depreciation for tax purposes

The government permits 100% FDI under the automatic route for all logistics services except courier and air transportation services. In case of courier services, 100% FDI is permitted subject to the approval of the Foreign Investment Promotion Board (FIPB) while FDI up to 74% is permitted under the automatic route for air transport services including air cargo services. Further according to media reports, the government is working on a policy to create new logistics hubs by preparing an integrated logistics plan. The new integrated logistics plan would be prepared by the logistics division in the department of commerce in consultation with various stakeholders.



#### Trends

- Warehouse consolidation due to GST: With the advent of GST and the consequent redrawing of supply chains, there will be significant consolidation of warehouses by companies in the consumption space. A bigger warehouse in an appropriate location would be able to better serve a larger area. This will lead to development of large modern technology based warehousing operations and rapid modernization of unorganised godowns. Smaller local developers and property owners are expected to exit the space by selling out to the large institutional developers in existing clusters.
- Reduction in inventory holding costs: Further the combining of smaller warehouses into a single larger one is also expected to reduce the inventory level requirements which are expected to positively impact the companies as inventory carrying cost is a significant share of costs.
- Technology usage on the rise (IT, automation, and robotics) (Smart warehouses): With the increase in the warehousing and storage market there has been a concurrent increase in technology usage especially in the grade A/B warehouses. These warehouses use internet of things (IOT) to track a product in the warehouse and also helps in increasing efficiency and speed across supply chains. Variety of devices such as wearables, sensors and radio frequency identification tags are used to locate the products in the warehouse. This reduces the time to deliver the product to the customer and increases accuracy.
- Rise of Direct Port Delivery (DPD): DPD involves the delivery of a shipment directly from a port to the consignee instead of initially holding it at a CFS (Container Freight Station). The DPD initiative under 'Ease of Doing Business' has witnessed steady growth in terms of proportion of total containers handled. At JNPT, the share of Direct Port Delivery (DPD) has increased from 5.4% in April 2016 to 39.2% March 2018. This is likely to have an impact on the CFS. However, shortage of space at warehouses poses a challenge to service DPD clients efficiently.
- High Tonnage trucks sales are expected to rise: Supply chain realignment and check post discontinuation has led to a reduction in the travel time as well as fuel costs. This has led to a demand for larger more efficient trucks as warehouses are consolidating and larger loads are required at lower number of locations. Despite the higher upfront costs, such trucks are expected to reduce overall shipment costs by carrying a larger load per trip.
- M&A to rise: Various PE firms and foreign players are making inroads in the sector via joint ventures, mergers and acquisitions. Below are a few key instances of M&A activity reported in the sector:

Table 3: Select Transactions					
City	Investor	Target	Segment	M&A Type	
Mumbai	Ascendas Singbridge	Firstspace Realty	Logistics	JV	
Mumbai	Ascendas Singbridge	Arshiya	Industrial Warehousing	Acquisition	
Pune	Morgan Stanley	KSH Infra	Industrial Warehousing	Merger	
Pune	Warburg Pincus	ESR	Industrial Warehousing	Merger	
Chennai	Tata Realty Infrastructure JV SCB	MIDC	Land	Acquisition	

Source: CBRE



### Negotiable Warehouse Receipts:

Negotiable Warehouse Receipts (NWR) issued by registered warehouses enables farmers to seek loans from banks against NWRs and enables them to extend the sales period of modestly perishable products beyond the harvesting season. Consequently, NWRs can avoid distress sale of agricultural produce by the farmers in the peak marketing season. However, NWRs have not witnessed substantial growth due to 1) low levels of registered warehouses with WDRA, 2) minimal concession from banks for loans against NWRs, 3) presence of other collateral based lending entities which do not require registration under WDRA. The following table summarises the NWRs issued by registered warehouses and loans availed against the same

Sr. No.	Year	No. of NWRs issued	Value of commodities deposited against NWRs (Rs. cr.)	Total loan against NWRs (Rs. cr.)
1.	FY12	8,056	1,356.3	591.0
2.	FY13	8,242	416.3	105.7
3.	FY14	6,121	583.0	108.0
4.	FY15	16,993	1,160.7	388.4
5.	FY16	15,178	845.1	203.5
6.	FY17	19,350	719.1	148.4
7.	FY18	12,313	510.2	118.5
8.	YTD FY19	12,015	490.9	37.8
9.	Total	98,268	6,082.4	1,701.2

Table 4: Details of NWRs issued and loan financed against NWRs as on 31.07.2018

Source: Warehousing Development & Regulatory Authority



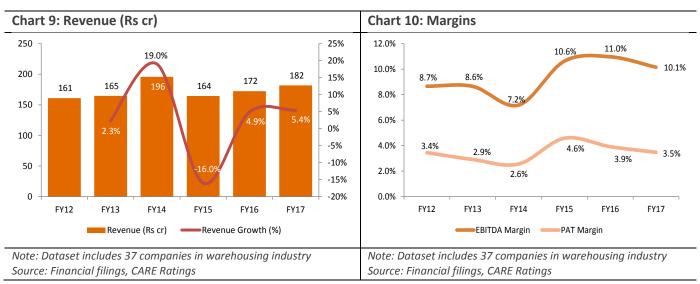
### Demand drivers for logistics industry

- Emergence of MNCs and organized retail: One of the key demand drivers for the logistics industry has been emergence of MNCs and the share of organized retail has been increasing over the years. Most of the global MNCs prefer low cost manufacturing locations connecting the consuming market at the lowest possible cost and through highly efficient supply chain.
- Emergence of 3PL and 4PL: Third party logistics or 3PL is a concept where a single logistics service provider manages the entire logistics function for a company. While the Indian 3PL market is still very much in its infancy compared with other countries, it is experiencing healthy growth and attracting new companies eager to capitalise on the plentiful opportunities it offers. In fourth party logistics 4PL, logistics is controlled by a service provider that does not own the assets to carry out logistics activities but outsources to subcontractors, the 3PL. 4PLs facilitate single-point reference for all logistics needs, possess knowledge of logistics to obtain most efficient and effective solutions, have manpower resources of higher quality to supervise vendors and ensure continuous process improvements and, above, all an IT base to network customer systems.
- Robust Trade Growth: Post liberalization there has been significant increase in economic growth which has
  led to an improvement in the domestic and international trade volumes. Consequently the requirement for
  transportation, handling and warehousing is growing at a robust pace and is driving the demand for
  integrated logistics solutions.
- **Globalization of manufacturing systems:** Information Technology (IT) plays a key role in supporting transportation and logistics industry. Today technology is present in all the areas for a logistics service provider. Technology helps organised logistics companies score over the unorganised ones, and will be key to their operations going ahead given the competition
- Increasing investment in logistics parks: The concept of Logistics Park has gained attention from both public as well as private players. A large number of special economic zones have also necessitated the development of logistics centre for the domestic market as well as for trade purposes
- Growth in the organized retail and the food processing sector is driving growth in the cold chain storage segment in India.

### Challenges

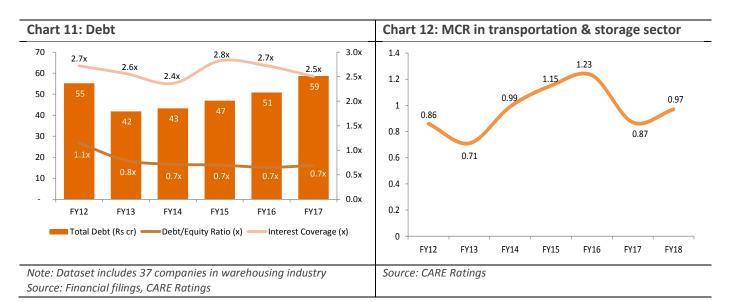
- Lower Standardization: India's logistics industry has been adversely affected by the lower standardization of cargo and containerization of logistics traffic, hampering the overall speed and thus increasing cost of storage and movement.
- Need for large capital and issues related to land acquisition have also tempered the growth of the sector. However, with expected increase in investment by international players, the gap in funding requirement is expected to be addressed in the near future.





# Financials

The industry revenue has grown at a modest CAGR of 2.5% over the FY12 – FY17 period. Concurrently, the annual revenue growth rate has varied significantly over the same period. The companies generate the largest share of their revenues from rental i.e. storage charges; other sources of earnings include income from value added services such as such as sorting, packing, blending and processing. On the other hand, the key heads of expenses include employee costs, depreciation, SG&A costs, power & fuel costs and interest costs. Over the FY12-FY17 period, EBITDA margin has moved down as well as up ranging from a low of 7.2% in FY14 to a high of 11% in FY16 and declining to 10.1%, while PAT margin has generally remained at around 2.5%-4%.



Although the debt levels of the companies have trended upwards, the debt to equity has generally remained stable, on the other hand, the interest coverage having peaked in FY15, has trended marginally downwards in the next two years. The decline in credit quality in the transportation and storage sector is on account of delays in debt servicing, liquidity constraints, decline in profitability and deterioration in the capital structure.



### Outlook

CARE Ratings estimates that the warehousing industry will grow at a rate of 13-15% in the medium term driven by the growth in manufacturing, retail, FMCG and ecommerce sector. Growth in overall production and consumption, organized retail, logistics outsourcing, and regulatory interventions such as WRDA Act and GST, private investments in logistics and other infrastructure developments such as Dedicated Freight Corridor (DFC) have also improved prospects of the organised professional warehousing segment. Further the implementation of GST is eliminating inefficiencies arising out of the erstwhile complex tax structure as well as interstate taxes. Additionally, the government's decision to allow FDI in retailing with emphasis on backend infrastructure such as modern warehousing space is also expected to provide further impetus to the sector.

- Industrial warehousing is expected to grow due to various factors including the anticipated increase in
  global demand, growth in organized retail and increasing manufacturing activities, expansion of ecommerce options and growth in international trade. This segment is expected to witness significant
  activity as the presence of the unorganised segment which is dominant in the segment is also expected to
  significantly reduce and the companies would also be rationalising and consolidating their space
  requirements based on time to serve the market and not taxation.
- Demand for agriculture warehousing is expected to grow moderately on account of high base and expected normal monsoons.
- Integrated models, diversification across end-user industries are expected to drive growth of cold chain segment. Significant demand is also seen coming from storage of fruits and vegetables, and pharmaceutical segments.
- The container freight station (CFS)/ inland container depot (ICD) industry although on a growth curve is expected to be under pressure due to the growth of Direct Port Delivery (DPD) and profitability is expected to be hampered with the anticipated loss of volumes and consequential lower utilisation.

However, the overall growth potential is limited by several key challenges like limitations in infrastructure connectivity, need for large capital and issues related to land acquisition which would need to be addressed for ensuring sustainable growth.

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