

# IMAP

Industry Report

## Logistics - India 2017

Research Conducted by

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# Sector Report Logistics – India 2017

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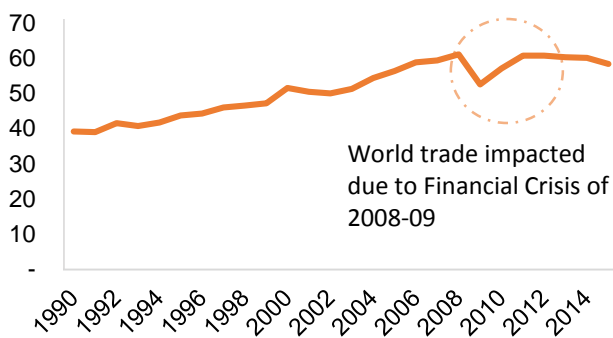
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Logistics is an integral activity for economic growth as it involves the management of flow of goods from place of origination to place of consumption. The sector comprises shipping, port-services, warehousing, rail, road and air freight, express cargo and other value added services. The global logistics market currently generates over USD 8 trillion annually and represents around 11% of global GDP.

The growth of the logistics sector is linked to growth in international trade flows and the robustness of the economic environment.

World Trade (% of global GDP)



Source: World Bank Estimates

Trade was severely affected during the financial crisis of 2008-2009. Since then, global trade had been recovering and has returned back to 2009 levels in recent years, i.e. around 60% of global GDP.

The following key trends are being observed in the logistics sector across the globe:

## 1. Digitization and Automation

Digitization in the logistics sector is currently in a nascent stage with most processes yet to be automated. The current structure of the logistics sector involves intermediaries, which lead to leakages in the value chain and hence, higher costs for consumers.

Technology is being applied and implemented in different formats; physical automation for trucking and warehousing; automated documentation and booking of parcels, online marketplaces for comparing price and services, etc. All these technological enhancements have provided benefits in the form of disintermediation of services, cost rationalization and curbing inefficiencies.

## 2. Shifting of Trade Centers

Demographic profiles of Asian populations coupled with economic growth has triggered demand-led consumption. In Africa, critical positioning and access to natural resources is incentivizing investments in the region. Population density and ever-increasing aspirational requirements are leading large scale producers to migrate to these regions to build infrastructure and production facilities. Accordingly, trade movement has been increasing towards these regions to meet the growing demand and investments.

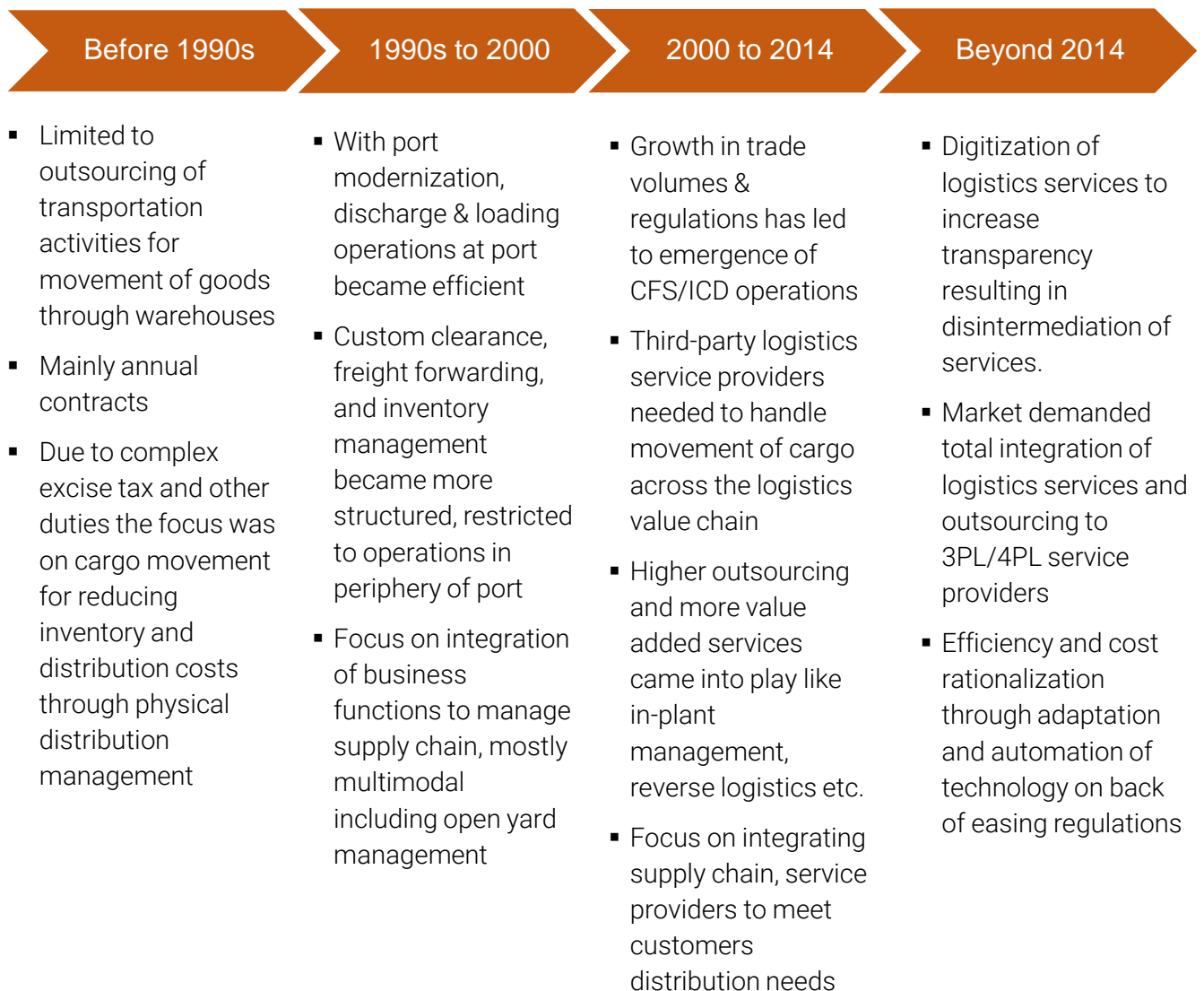
## 3. E-Commerce Wave

The growth of e-commerce has given way to specific logistics channels handling only last mile deliveries. These channels ensure faster delivery and provide assured reverse logistics. They also insure for the consignee collection of payment. This model is a true 3PL (third-party logistics) service offering. With the complexity involved and the level of automation required, big e-commerce companies like Amazon and others have set up their own last mile delivery services and are now entering as full fledged 4PL logistics service providers.

The size of the logistics sector in India is estimated to be USD 260 billion. Unlike global trends, the logistics sector in India has been growing at a healthy rate of ~14% over the last 5 years on strong demand drivers. Over the last two decades, the Indian logistics sector has evolved from mere transportation services to fully integrated service providers.

Going forward, the trend towards integration of logistics service providers is expected to continue and new players/business models are expected to emerge amid the digitization and automation of business processes, implementation of the new GST (goods and services tax), and expansion in the 3PL/4PL service landscape.

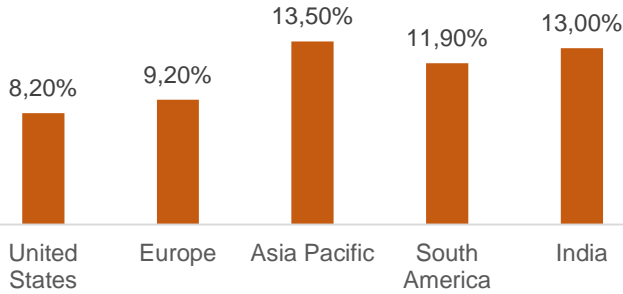
### Evolution of Logistics Sector in India





India's logistical costs as a percentage of GDP is on the higher side: 13.0% vs. global average of 11.7%. Logistics in India are plagued by an inefficient system, lagging infrastructure, lower average trucking speeds, congestion and bottlenecks in surface transportation, etc.

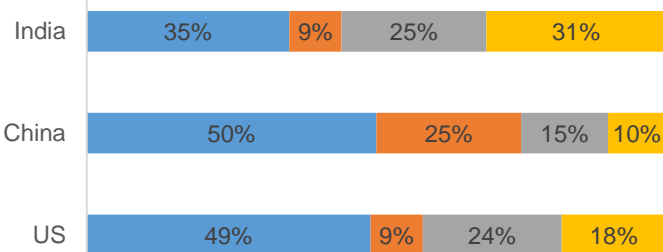
**Logistics Costs (% of GDP)**



Source: CIA, World Bank, Armstrong & Associates

In terms of the relative composition of transportation and logistics costs, transportation costs in the US and China are high due to widespread geography. Interestingly, costs are also high in India but due to a combination of factors including vehicle quality, stressed drivers, overloading, poor road infrastructure, and low average speeds. In addition, costs are higher due to excessive taxes and toll expenditures.

■ Transportation ■ Warehousing  
■ Inventories ■ Others (incl. losses)



Source: KPMG Analysis

## Current Issues and Challenges

The main issues currently faced by the logistics sector in India are as follows:

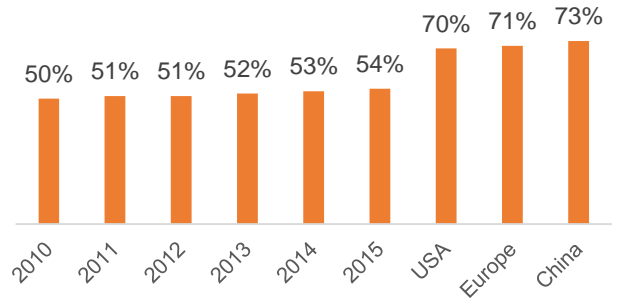
### 1. Connectivity Congestion

India is ranked 35<sup>th</sup> in the Logistics Performance Index (LPI) by the World Bank which benchmarks efficiency of trade logistics across nations. India's low ranking is due to slow transit time for the movement of cargo through road and shipping networks. In terms of transportation through shipping channels, transit time is affected due to lengthy custom clearance processes and the number of intermediaries required for bringing products in/out of the country. The road logistics network is affected due to poor infrastructure as national highways constitute only 2% of the overall road network. In addition, toll collection, inter-state checkpoints and other stoppages lead to higher transit times.

### 2. Lower Standardization

India's logistics market has been impacted by lower standardization of cargos and containerization of logistics traffic, hampering the overall speed and thus increasing cost of movement.

**Container traffic as % of overall traffic**



Source: KPMG Analysis

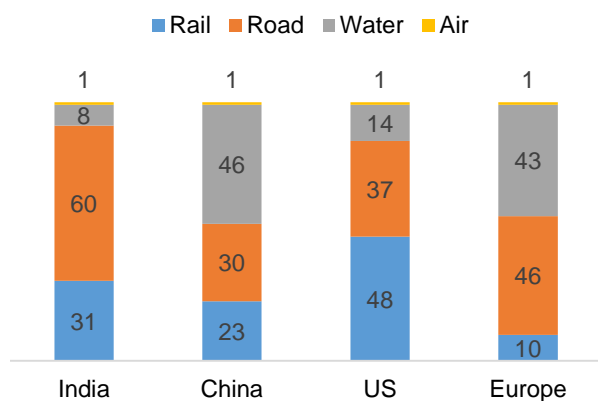
### 3. Unfavorable Modal Mix

Cargo movement in India is skewed towards road networks. India boasts the world's fourth largest railway network and is cheaper than roads, but suffers from under investment resulting in capacity constraints, redundant railway siding, inadequate rolling stocks, and non-availability of cargo hubs in proximity to industrial hubs with a large work-force. Inland waterways, despite being green and cost effective, are affected due to inadequate transit gateways between inland waterways and linkages to coastal shipping. Air is the fastest transportation mode but continues to have miniscule (1%) share in the transportation pie and suffers from limited connectivity and an absence of designated cargo terminals. The inability to provide last mile connection leads industries to prefer the road as mean of transportation of goods.

### 4. Tax Structure and Regulatory Inefficiencies

India is currently in the midst of a transition from a historical state-wise tax regime to a centralized Goods and Service Tax. At present, India has different applicable tax rates within 29 states and multiple taxes levied are by both Central and State governments when goods move across the state borders. This leads to higher cost and inefficiency/delays on account of inadequate documentation and necessary clearances while goods are transiting across multiple state borders. The planned dual GST model (central GST and state GST) proposes to replace around 29 state and federal taxes with a single tax regime at the point of sale.

Modal Mix - Transportation (in %)



Source: CII & CARE

Despite the challenges, the logistics sector in India is expected to grow at a healthy rate of close to 12%-14% going forward. The growth is expected along with a transition of the sector from high cost to a leaner cost alternative through rationalization of expenses, elimination of intermediaries and technology adaptation. This is possible with significant development and improvement envisaged in infrastructure, adaptation of technology and backed by a changing regulatory environment.

Key drivers and trends which are expected to contribute towards the growth of the sector are:

#### 1. Implementation of Goods and Service Tax

The Indian parliament cleared the long pending implementation of the Goods and Service Tax (GST) which will simplify the tax structure and improve the turnaround time for trucks, hence easing cargo movement. The GST is expected to be implemented across the country from 1st July 2017. As discussed earlier, the current tax structure leads to inefficiencies and delays in cargo movement. The GST is expected to trigger a significant change in the warehousing sector with the small state-wise warehouses being consolidated in large nodal based multi-product

warehouses closer to consumption centers. Currently, small warehouses are operated for distribution by carry & forward agents to link movement of goods for the ease of taxation. This leads to inability to achieve scale with pilferage at multiple levels. The GST will give way to a large hub and spoke model (prevalent in developed countries) with large automated warehouses aided by technology to achieve economies of scale. The hub and spoke model will enable optimal use of transportation with room for reverse logistics as well.

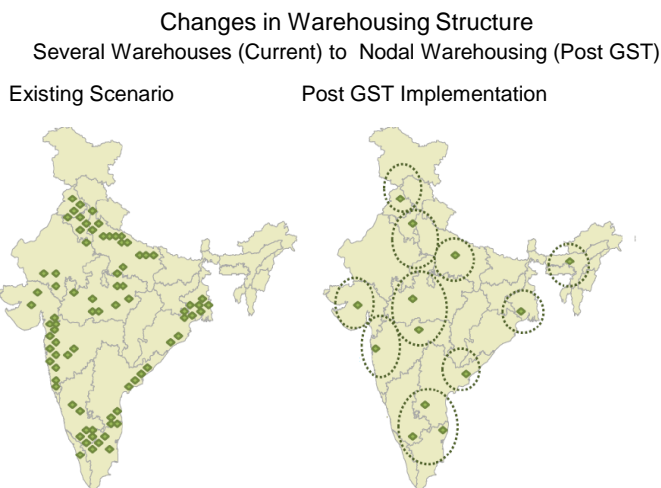
#### 2. Infrastructure Development

##### a) Road Development

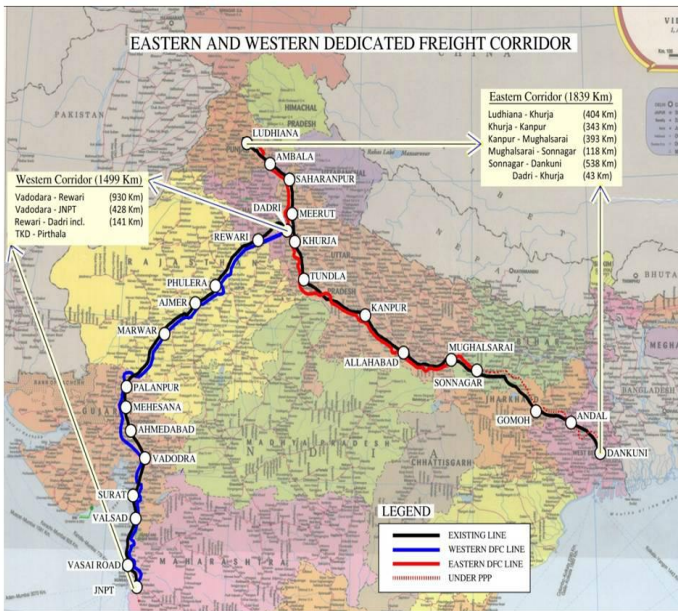
Over the last two years, the Government of India has increased its pace of road construction. Further, the policy has been strengthened with the Government mandating that no road project will be awarded until 80% of land is acquired, which increases the viability of the project and reduces delays in implementation after award of the project. The Government has set a target of constructing 15,000 km of roads in FY 2017-18 with budgetary allocation of close to USD 14 billion for the year. The stage is set to develop a more robust road infrastructure network across the country.

##### b) Dedicated Freight Corridors/DMIC

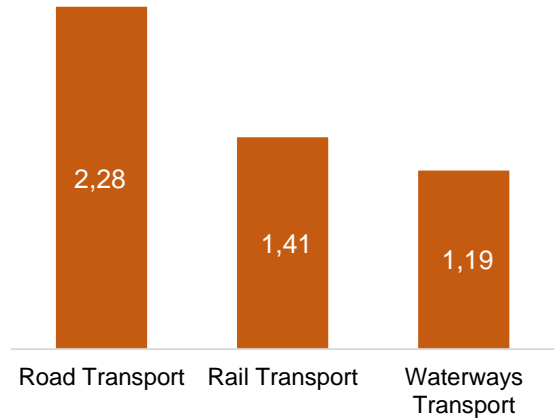
The Government approved the construction of dedicated freight corridors in 2014/15 to increase freight handling capacity through railways and reduce transit time. Currently, the plan is to connect the high container traffic routes of North to West and North to East through dedicated freight corridors.



Completion of these projects will not only increase the freight handling capacity on these routes but will also increase the average travelling speed of freight wagons from the current 25kms/hour to 70 kms/hour. The vast expanse of India would be interlinked to enable seamless cargo movement from areas of production to areas of consumption.



Cost of Transportation (Rs. per MT per Km)



Source: World Bank Estimates

In 2016, the Government announced 106 new national waterways through enactment of the National Waterways Act. This will help realize the potential of inland waterways as greener and more cost effective options and establish routes in which adjoining hinterlands could be serviced. According to government estimates, inland waterways transport has potential investment opportunities of around USD 600 million in the next 3-4 years, towards various ongoing/proposed programs.

Going forward, the Government is further committed to developing three additional freight corridors i.e. (1) East-West Corridor (Kolkata-Mumbai, 2328 kms) (2) North-South Corridor (Delhi-Chennai, 2,343 kms) and (3) East Coast Corridor (Kharagpur- Vijayawada, 1,114 kms). Completion of these corridors will improve the logistics efficiency and reduce costs and transit time.

### c) Inland Waterways Development

India has about 14,500 kms of navigable waterways which include rivers, canals, backwaters, creeks, etc. Currently, only 4,382 kms of waterways have been utilized. There is a huge potential waiting to be unlocked through development of these inland waterways.

### 3. Integrated Supply Chain Service Provider

The logistics sector stands to benefit from the increasing trend of outsourcing. Logistics functions are traditionally performed by the organizations themselves. However, corporate entities recognize the benefits associated in engaging third-party logistics providers for integration of information flow, material handling, production, packaging, inventory, transportation, warehousing and often security. This allows corporate entities



to concentrate on their core business and also achieve cost rationalization through outsourcing. Higher outsourcing of services have further benefited from:

#### a) Shift from 80-20 to 65-35

Traditionally, logistics as a service constitute 80% of cost in the form of transportation (mainly fuel) and 20% in the form of storing and peripheral services. However, over the last 4-5 years with the drop in fuel prices, the logistics cost had eased considerably. This enabled value added service providers to raise their share of services and include services like packaging, in-plant inventory management, etc. The cost shift is now gradually moving from traditional 80-20 to 65-35, with additional benefits in the form of service integration.

#### b) Unorganized Sector & Asset Lean Business Model

Traditionally, logistics providers have been working on an asset-heavy business model. With the help of technology, some companies have migrated to the asset-lean model of providing integrated logistics solution with an optimum mix of owned and outsourced assets. The unorganized nature of the transportation sector, which is largely fragmented, benefited the integrated supply chain service provider to justify need of outsourcing partners.

#### 4. “TECHNOGISTIC Powered” – Technology Reshaping Existing Delivery Systems

Cloud based systems are replacing legacy enterprise resource planning (ERP) systems in manufacturing and logistics organizations. Software-as-a-Service (SaaS) companies have

penetrated the technology users with much affordable terms providing lean investments and easy upgrades. These providers offer increased versatility and inbuilt flexibility to adapt to changes and market developments.

Robotics is being utilized at warehouses for tagging, labelling, sorting, and placing products in carts and shelves. The role of robotics has enabled round-the-clock operations. This has helped to rationalize the costs of evacuation during low peak hours of traffic.

Similarly, Industrial Internet of Things (IIoT), Internet of Things (IoT) and Big Data Analytics are streamlining supply chain functions of organizations for just-in-time inventory and provide predictive analysis to manage procurement processes.

Technology is enabling logistics firms to eliminate inefficiencies to boost operations.

#### 5. Contingency Preparedness

Logistics solutions are being designed to cater to meet the requirements of emergency contingencies, especially natural and manmade disasters. With dynamic geo-political situations and climatic changes, the world is prone to face challenges and disasters more often. Logistics service providers are getting more attuned to providing services to meet emergency needs.

#### 6. E-Commerce and Emerging Logistics Channels:

E-commerce is currently a USD 16 billion market but growing rapidly and expected to reach USD 100 billion by 2020. Advent of e-commerce has led to creation of multisource channels for vendors, even small sized ones.

In traditional brick and mortar channels distribution is much simpler with products arriving at warehouses in bulk, moved around in pallets and selected by the case, and shipped out to store in bulk. E-commerce businesses pose a unique challenge to the traditional logistics channel. In e-commerce, inventory arrives in bulk but needs to be distributed into different SKUs. The distribution to onward channels is much more diverse and in smaller parcels. The complexity of this process increases with thousands of suppliers, multiple warehouses and extensive sales channel across geographies, increasing the risk of misplaced orders. In addition to that, logistics channel companies are also expected to process the payment through delivery and manage the complicated reverse logistics in case of return of product.

Managing all these activities requires technology and standardization to synchronize business processes with real-time access and insight to inventory management.

With intense competition in the e-commerce segment and emphasis on prompt and fast delivery of products, the distribution channel has been put under immense pressure in all major modes of freight movement. "Just in Time" and "Just in Case" strategies in logistics must now meet to the challenge of "Just Do It" demand created by today's highly impatient customers.

To meet this growing demand of e-commerce logistics, new channels and companies have emerged with different business models and catering exclusively to e-commerce companies like DelhiVery, Ecom Express, DotZot, eKart etc. These companies have attracted significant PE capital as growth trajectory forecasted to rise on the back of growing market size.

### **7. Green Transition**

Reverse logistics has become an integral part of e-commerce transactions. Similarly, a sustainable solution for manufacturing companies and production plants is envisaged in the form of 'Green Earth' initiatives for recycling and disposal of residual plant wastages. In developed countries, manufacturing units follow stringent norms with regards to recycling and disposal of residual plant waste. However, in India, residual raw material and waste like sludge is often disposed in open yards. Meeting green standards would require finding logistical solutions for disposal and treatment through creation of cluster infrastructure for further processing, recycling and finding alternative use of the residual plant waste.

The growing size of the Indian logistics market has led to investment by domestic and international players in the sector. Several international logistics companies like Fedex, DHL, Kinetsu World, UPS, Kuehne and Nagel, CEVA logistics, etc., have already established their presence through JVs, acquisitions or green field projects.

The logistics sector has also seen investment from major PE players like Warburg Pincus, Mandela Capital, Everstone Capital, Carlyle Capital, CDC, etc., highlighting the potential of the sector.

| Company                                | Investor                              | Date   | Type       | Deal Value (Stake)           |
|--|---------------------------------------|--------|------------|------------------------------|
| Delhivery                              | Carlyle                               | Mar-17 | PE         | USD 100 mn (Undisclosed)     |
| Sohanlal Commodity Management          | Incofin, ResponsAbility Investments   | Mar-17 | PE Takeout | USD 20 mn (Undisclosed)      |
| Blackbuck                              | SandCapital, IFC                      | Feb-17 | PE         | USD 30 mn (Undisclosed)      |
| Sri Kailash Logistics                  | Everstone Capital                     | Jan-17 | PE         | USD 30 mn (majority stake)   |
| Letstransport                          | GMO                                   | Jan-17 | Strategic  | USD 4 mn (Undisclosed)       |
| Kelvin Cold Chain                      | Stellar Value Chain Solutions Pvt Ltd | Jan-17 | Strategic  | Undisclosed (majority stake) |
| Rivigo                                 | Warburg Pincus                        | Nov-16 | PE         | USD 75 mn (Undisclosed)      |
| Browntape Technologies Pvt. Ltd,       | Gati Ltd                              | Nov-16 | Strategic  | USD 3 mn (20% to 26%)        |
| TVS Logistics                          | CDPQ                                  | Oct-16 | PE takeout | USD 155 mn (Undisclosed)     |
| FR8                                    | Omnivore Partners                     | Oct-16 | PE         | USD 10 mn (Undisclosed)      |
| ETA Engineering Pvt Ltd                | Vikram Logistics                      | Aug-16 | Strategic  | USD 21 mn (100%)             |
| Stellar Value Chain Solutions Pvt. Ltd | Warburg Pincus                        | Aug-16 | PE         | USD 125 mn (Undisclosed)     |
| Indev Logistics                        | Kerry Logistics                       | Apr-16 | Strategic  | USD 150 mn (50%)             |

| Company                          | Investor                       | Date   | Type        | Deal Value (Stake)      |
|----------------------------------|--------------------------------|--------|-------------|-------------------------|
| Future supply                    | SSG Capital                    | Apr-16 | Debt        | USD 87 mn (50%)         |
| Continental Warehousing          | IFC                            | Mar-16 | Debt and PE | USD 60 mn (9.7%)        |
| CCI Integrated Logistics Pvt Ltd | Allcargo Logistics Ltd.        | Mar-16 | Strategic   | Undisclosed             |
| ColdEx Logistics                 | Asia Climate Partners          | Feb-16 | PE          | USD 37 mn (Undisclosed) |
| Mehta Frozen Foods Carrier       | Ambit Pragma Ventures          | Feb-16 | PE          | Undisclosed (74%)       |
| Sohanlal Commodity management    | Everstone Capital & ICICI Bank | Sep-15 | PE          | USD 23.5 mn (32.5%)     |
| LCL Logistix                     | CMA-CGM Group                  | Apr-15 | Strategic   | Undisclosed (15%)       |
| Pristine Logistics               | CDC                            | Jan-15 | PE          | USD 25 mn (Undisclosed) |
| Mahindra Logistics Ltd           | Kedaara Capital                | Apr-14 | PE          | USD 16.7 million (30%)  |

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