

Logistics

Many miles to walk

Reason for report: Initiating coverage

The most apt description that sums up our study on the Indian logistics space is an excerpt from World Bank Logistics Performance Index report 2016 – *India outperforms and leads its peers in logistics performance in the lower middle income group of countries (characterised by GDP per capita) – as collected from shippers' response globally. Following are the key themes that we come across in our study and which determines our views on the sector.*

- **Allcargo (BUY)**
Target price Rs197
- **VRL Logistics (BUY)**
Target price Rs350
- **Gateway (BUY)**
Target price Rs309
- **Concor (ADD)**
Target price Rs1,340

▶ **Asset intensity provides a guiding risk-reward matrix in logistics space globally.** A two-by-two matrix based on asset intensity and the nature of service delivery (3PL/Execution) is instrumental in explaining global valuations. In India, the perception of growth has inversed the same and the players with the highest asset intensity and lowest FCF yields (given that there is only a limited progression towards 3PL in India) draw the highest multiples. We try to correct the same through our recommendation mix.

▶ **Convergence of Logistic Asset Provider (LAP) with Logistic Execution Provider (LEP) increases the risk profile of Indian logistics players.** Convergence started in India as capital plays on storage terminals (i.e. CFS/ICD/warehouses). The model however sees increasing regulatory and economic risks as overcapacity and declining returns drive new LAP ideation (logistic parks, PFT, etc). Absence of global LAPs in India (likes of GLP and Prologis) makes the convergence of LEP and LAP in India a necessary evil and is the source of the biggest risk. Regulations are also ever evolving (our case study of Arshiya highlights some of our key concerns – see pg. 18 inside). While the freight-forwarder / 3PL model has hardly evolved in India (with typical characteristics of low asset turn, high FCF yield), our relative preference is for the player who we feel bears the closest resemblance, i.e Allcargo Logistics.

▶ **Road transportation – LEPs striving for optimal asset mix globally and locally.** Without venturing into the arcane theme of road to rail freight mix shift, we tried to look into the US and Asian examples of players achieving an optimal asset mix. We also see a global emerging trend of 3PLTL and the non-linear impact that e-commerce has played in outperformance of truckers globally (ZTO and CJ Korea Express case studies). These are some of the themes we feel can work in India and guides our positive stance on road truckers like VRL, who also incidentally scores highly in our risk-reward matrix.

▶ **Expensive rail freight India story resting solely on DFC hope theme.** Policy and regulations have played spoilsport in the CTO space failing to separate infrastructure and service leading to significant asset heaviness and declining FCF yields. Opening up the CTO space to private sector meanwhile has been catastrophic to PSU monopolies like Concor (chart 4 inside). DFC remains the panacea and keeps getting delayed. What perhaps excites us the most is our analysis that low-cost funding of DFC may allow freight movement in DFC without any significant increases of haulage rate. Nevertheless, our relative preference will place CTOs lower in the valuation chart; some of the findings are startling, i.e. *Concor remains one of the most expensive railroad freight carriers globally.*

Valuation summary

Name	Target Price	Reco	Mcap (Rs mn)	PE (x)			EV/EBITDA (x)			RoE (%)		
				FY17E	FY18E	FY19E	FY17E	FY18E	FY19E	FY17E	FY18E	FY19E
Allcargo	197	BUY	41,795	19.2	15.9	13.5	9.1	7.5	6.2	9.6	10.7	11.4
VRL Logistics	350	BUY	26,754	33.9	27.9	17.7	11.8	11.0	8.2	14.4	16.3	22.7
Gateway	309	BUY	27,291	34.1	20.6	16.7	12.6	10.7	9.4	8.6	13.7	15.7
Concor	1,340	ADD	239,038	31.6	28.0	23.1	21.2	18.2	14.7	9.0	9.6	10.8
Average				29.7	23.1	17.8	13.7	11.8	9.6	10.4	12.6	15.2

Source: I-Sec research

Research Analysts:

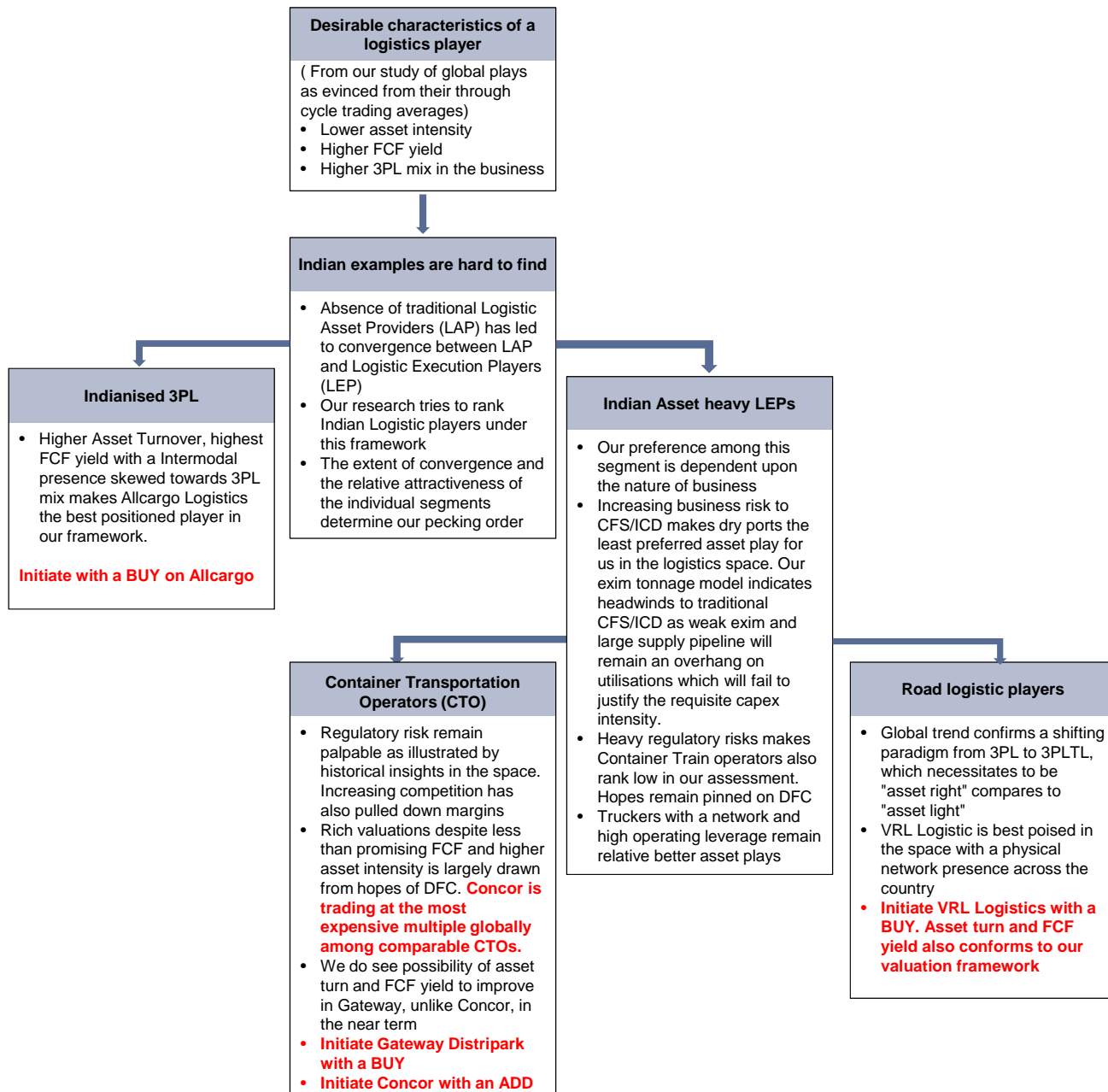
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Indian Logistics and Transportation sector----our analysis framework



Relative attractiveness quotient – Allcargo, VRL stands out

	Asset Turn (30%)	FCF Conversion (PAT to FCF) (20%)	RoCE (10%)	Core Business Score	FCF Yield (30%)	Valuations (EV/E -- 1 yr. forward) (10%)	Valuation score	Cumulative relative attractiveness score
Container Corporation	2.9	4.0	4.0	3.5	4.0	4.0	4.0	3.7
Allcargo Logistics	7.5	9.0	5.0	7.6	9.0	9.0	9.0	8.2
Gateway Distriparks	2.9	4.0	5.0	3.6	4.5	6.5	5.0	4.2
VRL Logistics	9.0	6.3	9.0	8.1	6.0	7.0	6.3	7.4
Comment	Higher asset turn means high score	Higher FCF conversion means high score	Higher RoCE means higher score		Higher FCF yield means high score	Higher EV/E means lower score		Allcargo, VRL stands out

Source: I-Sec research

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Asset intensity provides a guiding risk-reward matrix in logistics space globally

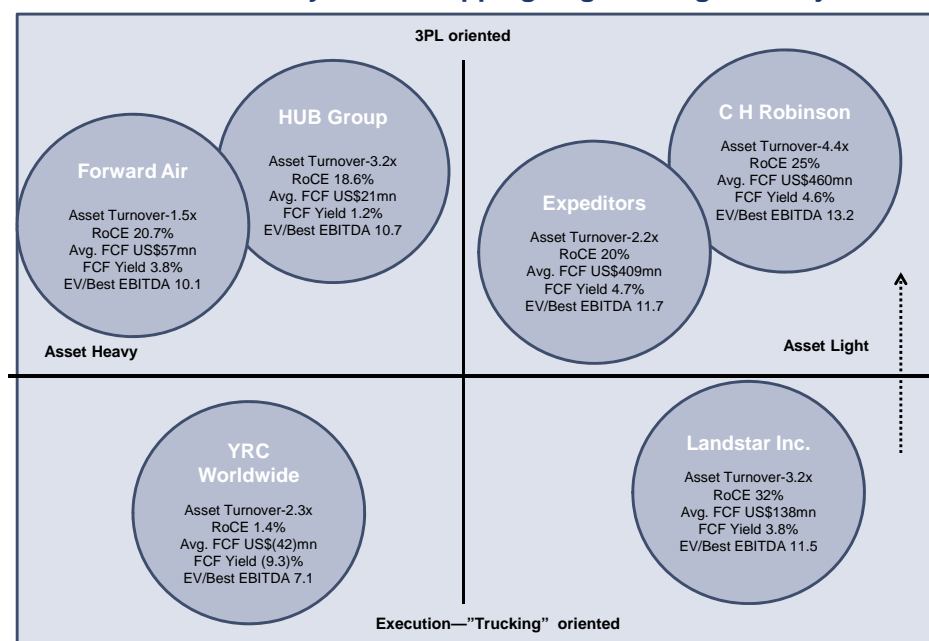
Key research themes

- We highlight the following valuation matrix (Chart 1) for looking into relative attractiveness of logistics players
- The relative positioning of higher asset turn (low asset intensity) and higher FCF yield results in a multiple premium in the space globally
- Not only have we benchmarked Indian players valuation model to the same, business models have also been benchmarked to understand risks and returns

Asset intensity has traditionally posed the biggest risk to returns in logistics business model

Players across the value chain in logistics have been facing the biggest conundrum in attaining the correct asset intensity for their business. While higher asset intensity poses better control of the entire workflow, assured delivery schedules (hence better favour from liners and shippers across a long time cycle), it necessarily brings down the returns apportionately. This has been one of the reasons why, on a global level, although the Transportation & Logistics (T&L) industry is huge and growing, its RoCE and total shareholder return have been comparatively low, which is attributable to the high asset base and capital employed of many T&L segments. However, margin headwinds also come from a competitive environment characterised by a market with many smaller companies and higher costs not fully offset by price increases, especially for fuel and labour.

Chart 1: Asset intensity based mapping of global logistic majors



Source: Harris Williams & Co.'s Transportation & Logistics Group

Asset intensity matrix follows near perfect way with global logistic majors.....

- True to the matrix, CH Robinson and Expeditors, being asset-light, generate the highest FCF and trades at the highest EV/EBITDA multiple (11-13x 1-year forward EV/EBITDA). **The FCF yield is the highest at ~5%**. The nature of their business (brokerage, freight forwarding, and contract logistics) has a higher share of 3PL services, which has that de-risking element lending the higher multiples. We can categorise them as **asset-light 3PL players**.
- The next tier, **3PL, yet asset-heavy**, trades at a lower multiple. They have lower asset turnover but trades at a **FCF yield of 1.5-3.5%**. Prominent companies in this zone include Forward Air and Hub Group, and trade at 10x 1-year forward EV/EBITDA. These players not only have fixed assets such as trucks, warehouses, specialised handling equipment, but also provide supply chain/3PL services.
- The third tier is that of **asset-light non-3PL players** like Landmark, who typically trade at 8x 1-year forward EV/EBITDA (although currently at ~11x). They typically do not own the assets, which may be trucks, or operate with a mix of owned and contracted carriers. The asset turnover remains high.
- The last tier is that of **asset-heavy non-3PL players (more execution than service)**, often trading at the lowest multiple. They trade at 4-7x 1-year forward EV/EBITDA. Asset turnover would be low and often generating no FCF (example: YRC Worldwide – trucking FTL/LTL player)

Categorising logistic companies according to their asset intensity

While exploring the valuation differential across logistic companies globally, we tried to figure out their categorisation as well. Following are the key categorisations that we could see:

- **Logistics asset provider (LAP)** comprises players who own the logistic assets and management of infrastructure is what they have taken up as a business model. These segments are hinterland terminals, rail network providers, port authorities, sea terminals, airports and warehousing. The segments in this category typically have the highest asset intensity in the industry. Companies must make significant investments to acquire and maintain assets, creating a high entry barrier for new competitors.
 - Examples include GLP and Prologis among the global players. There are no pureplay LAP companies in India. The evolution of Multi-Modal Logistic Parks (MMLP) in the Indian logistics space will be a first step in that direction.
- **Logistics execution player (LEP)** comprises businesses that undertake the basic transportation activity. This category includes four transport segments: road, rail, sea and air. It also includes two delivery segments: postal & courier and express parcel. Although execution segments are typically less asset-intensive than infrastructure segments, companies must own or rent fleets for transporting freight.
 - Global examples include JB Hunt in the US and ZTO Express, and CJ Korea in Asia. Indian examples include VRL Logistics (VRL), Container Corporation of India (Concor), and Gateway Distriparks.

- **Logistic services, or third-party logistics (3PL)**, comprise three segments: road- and rail-freight forwarding, air- and sea-freight forwarding, and contract logistics; the management of capacity being their main focus. Freight-forwarding players manage transport services. Road and rail forwarding companies have similar economics arising from the similarity of their customers; the same is true for air and sea forwarding providers. Contract logistics players manage value-added services related to warehousing and transport, such as supply chain management. Because companies in these three segments provide only management services, their asset intensity is low (unless they have consciously made it more asset-intensive businesses, such as owning warehouses).
 - Examples include CH Robinson and XPO Logistics in the US. Perhaps the closest resemblance to a 3PL model in India is to be seen in Allcargo Logistics.

Logistics in Indian context – Asset-heavy inception

Key research themes

- Asset heavy inception -- CFS/ICD ownership was the first asset play in India with proliferation of capital players (4th quadrant of I-Sec's global valuation model)
- CFS/ICD business faces overhang of higher capacity, declining margin profile
- Our proprietary model of India's EXIM distribution at different ports and CFS/ICD volume share projection till 2023 highlights
 - CFS faces existential problem even if EXIM recovers
 - WDFC remains the key hope theme for ICD volume share post CY19
- Direct Port Delivery (DPD) – a regulatory swing that can inflict further pain to the CFS industry

Indian logistic space is nascent with the initial investments largely concentrated towards CFS/ICD and warehouses (in its basic form). CFS/ICDs were the first asset plays of Indian logistic industry and, as with all capital plays, benefited from cheap resources (land and labour) coupled with inefficiencies at the major ports.

What India witnessed is a gradual convergence of asset plays (largely represented by CFS/ICD owners as well as warehouse owners) and execution plays like Concor and VRL. With the opening up of container train operations (CTO) space to private players, we have seen some more convergence (likes of Gateway Distriparks, Arshiya, etc.) where CTOs have also started to own CFS/ICDs and invested in FTWZs/logistic parks – part of the convergence has been driven by policy as we shall see later.

Investments chasing CFS/ICD have not showed any meaningful cool-off. As we shall see, policy changes present similar threat for the existing CFS players – *deja vu* of what we have seen with free trade warehousing zones (FTWZ). Even without a potent regulatory overhang, CFS/ICD industry remains extremely oversupplied and returns have been declining steadily.

Of late, we have seen a bigger attraction towards LAPs from traditional asset and execution plays where **multimodal logistic parks (MMLP)** are being looked upon as key to future business in the expectation of **dedicated freight corridors**. We are seeing a similar attraction to private freight terminals along with MMLPs and the trend is a matter of concern for us.

CFS/ICD ownership was the first asset play in India

CFS/ICD ownership was driven by cheap resources (land and labour) and supposed inefficiencies or sought-after efficiencies at major ports. Many of the listed proponents in the space have started operations on the back of a successful CFS and have reinvested cashflows into other asset-heavy businesses – thereby retaining the LAP nature of business. There are other examples such as Allcargo Logistics, where reinvestment has been witnessed into an asset-light segment out of FCFs enjoyed from the CFS business. There are other examples involving CTOs where regulatory diktat ensured continued investment into terminals – thereby failing to separate the infrastructure and service aspect of logistics.

Indian logistics players present a concerning trend of increase in asset intensity, partly due to absence of dedicated logistics asset providers (LAP) and increase in business convergence trends.

Difference between CFS and ICD

Inland Container Depots (ICDs) are self-sufficient Customs stations and for all practical purposes a Custom House in the same way as any port or airport. On the other hand, a Container Freight Station (CFS) is only a Customs area located in the jurisdiction of a Commissioner of Customs. CFS by itself cannot have an independent existence; it has to be linked to a Customs station within the jurisdiction of the Commissioner of Customs. It is an extension of a Customs station set up with the main objective of decongesting the ports. It is a place where only a part of the Customs process, mainly the examination of goods, is normally carried out by Customs and goods are stuffed into containers and de-stuffed therefrom; aggregation / segregation also takes place at such places. Given the aforesaid status of CFS being extension of port / airport / ICD / LCS, the Customs functions relating to processing of manifest, import / export declarations that are filed by the carrier / Importer or exporter and assessment of bill of entry / shipping bill, are performed in the Customs House / Customs Office that exercises jurisdiction over the parent port / airport / ICD / LCS to which the said CFS is attached. In the case of Customs Stations where automated processing of documents has been introduced, terminals have been provided at such CFSs for recording the result of examination, etc. In some CFSs, extension of service centres have also been made available for filing documents, amendments, etc. However, the assessment of the documents, etc. is carried out centrally. An ICD on the other hand would have an automated system of its own with a separate station code [such as INTKD 6, INSNF6 etc.] being allotted by the Directorate General of Systems and with the inbuilt capacity not only to enter examination reports but also to enable assessment of documents, processing of manifest, amendments, etc.

Majority of the dry ports now are owned by CTOs (Concor/Gateway). There are also many dedicated asset players or Indianised LAPs like Navkar Corporation, CWC, etc. **However, we feel the environment increasingly looks more and more adversarial for CFSs/ICDs.**

- **Traditional CFS/ICD faces an existential problem.** This is well evinced by falling utilisation levels of CFS/ICD players in India as well as a significant supply pipeline that remains as a structural overhang on the segment. Extremely high competition in exim-heavy sectors, as in the NCR, and Punjab, manifests itself in distraught utilisation of terminals.
- **Direct Port Delivery (DPD).** JNPT has started implementing the DPD model as a pilot and already registered 62 parties. While DPD volumes have not picked up till Nov'16, the sudden policy changes exposes the sector to a huge risk of volume loss along with the existing risk to viability of the investment.
- **Diminishing utility of CFS/ICD business is leading to new ventures, with increasing risk profile – the emergence of Indianised LAPs.** With CFS/ICD segments facing structural overhang, there has been an increasing push towards newer asset classes, case in hand being logistic parks, PFTs and FTWZs.

CFS/ICD business faces overhang of higher capacity, hence declining margin profile

The investment frenzy towards CFSs/ICDs was driven by cheap resources, quick payback time, increasing containerisation and increasing port congestion. However, as with all capital plays, participants had very little visibility on freight cyclicality (container volume throughput stood stagnant at ~7.5mn TEUs per annum during FY11-FY14) and, due to sizeable oversupply developed over the past decade, we see little signs of investments cooling off. Further, the volatile swings in policy environment have started to resurface again for the CFS segment questioning its viability.

Increasing capital costs have started to pull return ratios lower

- In CY06, the total cost of setting up a CFS/ICD in Chennai, Mundra and NCR was Rs798mn as per the DRHP of Allcargo Logistics.
- In CY16, the total cost of capacity enhancement at Somathane CFS of Navkar Corporation is pegged at Rs1,145mn, while in 2016 the establishment of a logistic park by Navkar has been budgeted at Rs3.1bn.
- A further comparison of time related escalation in costs can be seen between the comparison of gross blocks of Allcargo Logistics (old player) and Navkar Corporation (new player)
 - New player: The gross block of Navkar ex-railway siding is Rs11.4bn for a throughput capacity of 310,000TEUs per annum
 - Old player: For a similar capacity of 305,000 TEUs per annum, the capital employed by Allcargo in its CFS business is Rs4.6bn.

Table 1: Capital cost inflation in CFS (past and present)

	CFS Chennai		CFS Mundra		ICD NCR	
	Particular	(Rs mn)	Particular	(Rs mn)	Particular	(Rs mn)
Allcargo estimates of project cost of CFS/ICDs made in 2005-06	Land (15.904 acres)	143	Leasehold Land from Adani (16 acres)	57	Land (10 acres)	107
	Land Development	18	Land Development	8	Land development	6
	Warehouse	57	Warehouse (108,870sqft)	73	Warehouse (80,000sqft)	30
	Office (including interiors)	10	Office (including interiors) (6,456sqft)	14	Office (including interiors) 10,000sqft.	14
	Yard (including truck parking area, misc. civil works, compound wall etc.)	50	Yard (including truck parking area, misc. civil works, compound wall etc.) (489,763sqft)	74	Yard (including truck parking area, misc. Civil works, compound wall etc.) (215,053sqft)	27
	Equipments (including electrical & computers)	33	Equipment (including Reach stackers, Forklifts, Trailers)	52	Equipments (including electrical & computers)	26
	Total	310	Total	278	Total	210
	Area-----15.9 acres		Area-----16 acres on lease		Area --- 10 acres	
	Capacity-96,000 TEUs per annum					
	Rate---per sq-metre	,819	Rate---per sq-metre	4,291	Rate --- per sq-metre	5,190
Continental Warehouse estimates of proposed projects in 2016	Warehouse in PFT-Ahmedabad		Warehouse in PFT-Panipat			
	Area (sq-metres)	34,000	Area (sq-metres)	33,500		
	Rate---per sq-metre	8,500	Rate---per sq-metre	8,500		
	Total Cost (Rs mn)	289	Total Cost (Rs mn)	285		
	Total cost including taxes (Rs mn)	322	Total cost including taxes (Rs mn)	317		

Source: Company data I-Sec research

The comparison of two DRHPs with a time gap of 10 years captures the essence of capital cost inflation in warehousing projects typical to dry port infrastructure in logistics. While Allcargo proposed to set up CFS/ICD at Chennai, Mundra and NCR at average rate of ~Rs4,500 per sq-metres in 2006, the same cost has almost doubled in 2016. Continental Warehousing Corporation in their DRHP issued in 2016 pegs the cost of setting up inland warehouses at their PFT facilities in Ahmedabad and Panipat at Rs8,500 per sq-metre.

Declining return ratios/ margins is a play of competition

Historically, the CFS/ICD industry has been driven by high operating margins of 45-50% at the pan-India level. However, over the past few years, operating margins have been declining due to surplus capacities installed by CFS/ICD players on expectations that container traffic will continue growing rapidly. This has translated into low utilisation levels. Operating margins differ depending on the region where the player is operating, the intensity of competition, and average utilisation levels.

Performance of major CFS players

Table 2: Allcargo Logistics – key financial metrics

(Rs mn)	Dec'05	Dec'06	Dec'07	Dec'08	Dec'09	Dec'10	FY12	FY13	FY14	FY15	FY16
Revenue	660	619	934	1,455	1,500	1,973	3,513	3,108	3,121	3,875	4,303
EBIT	423	350	444	831	780	910	1,648	1,139	975	1,090	1,371
Depreciation	15	11	34	56	70	75	92	135	157	236	207
Assets	351	728	1,320	1,816	1,979	2,136	2,330	4,077	4,120	4,522	4,654
EBITDA	439	361	478	887	850	985	1,740	1,274	1,132	1,326	1,578
EBITDA margin (%)	66.5	58.4	51.2	61.0	56.7	49.9	49.5	41.0	36.3	34.2	36.7
RoCE (%)	120.7	48.1	33.6	45.8	39.4	42.6	70.7	27.9	23.7	24.1	29.5
Capex							1,171	1,475	114	120	64

Source: Company data, I-Sec research

Table 3: Gateway Distriparks – key financial metrics

(Rs mn)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Revenue	1,401	1,559	2,062	2,522	2,271	2,800	3,100	3,028	2,923	3,384	3,204
EBIT	755	758	876	1,223	945	1,035	1,461	1,208	905	1,088	782
Depreciation (%)	4.0	4.0	4.0	4.0	4.5	5.4	6.6	5.7	7.0	8.9	10.1
Assets	2,827	2,865	3,375	3,455	3,726	3,090	3,072	3,613	3,606	3,572	3,025
EBITDA	868	872	1,011	1,361	1,111	1,202	1,663	1,414	1,157	1,408	1,088
EBITDA margin (%)	62.0	56.0	49.0	54.0	48.9	42.9	53.6	46.7	39.6	41.6	34.0
RoCE (%)	26.7	26.5	26.0	35.4	25.4	33.5	47.6	33.4	25.1	30.5	25.8
Capex	449	691	585	229	159	432	307	595	394	223	323

Source: Company data, I-Sec research

Table 4: Balmer Lawrie – key financial metrics

(Rs mn)	FY11	FY12	FY13	FY14	FY15	FY16
Revenue	3,547	4,587	5,277	4,716	5,566	5,738
EBIT	921	1,273	1,446	1,296	1,509	1,408
Depreciation (%)	34	47	56	57	40	34
Assets	1,790	1,988	2,039	2,303	3,357	2,825
EBITDA	955	1,320	1,502	1,353	1,549	1,442
EBITDA margin (%)	26.9	28.8	28.5	28.7	27.8	25.1
RoCE (%)	51.4	64.0	70.9	56.3	45.0	49.9
Capex	235	126	86	92	167	323

Source: Company data, I-Sec research

Table 5: Operating performance of Navkar Corporation / Allcargo Logistics

	FY12	FY13	FY14	FY15	FY16
Navkar Corporation					
Cargo TEU	184,188	220,182	244,128	268,836	308,510
Cargo Handling	1,181	1,675	2,132	2,370	2,628
Cargo Storage	781	588	718	860	754
Total Cargo Revenue	1,962	2,262	2,850	3,230	3,382
Cargo Realisation(Rs/TEU)	10,650	10,275	11,674	12,014	10,964
EBITDA/TEU	4,892	4,623	5,083	4,449	4,330
Allcargo Logistics					
Cargo TEU	303,266	259,000	250,000	291,579	304,756
Total Cargo Revenue	3,513	3,108	3,121	3,875	4,303
Cargo Realisation(Rs/TEU)	11,583	12,000	12,482	13,291	14,119
EBITDA/TEU	5,738	4,919	4,527	4,548	5,177

Source: Company data, I-Sec research

ICD players have also been hit by rising competition and weaker exim

The hit on ICD players is evident from their declining margins as shown in the tables below (Table 6 and 7). Realisations per TEU have remained almost stable over the past six years with rising costs shrinking the margins. Return ratios have also gone down accordingly.

Table 6: Associated Container Terminals (ACT) – sharp decline in margins despite being an early entrant

ACT is one of the early entrants into the ICD business in India with its facility in Faridabad.

(Rs mn)	FY10	FY11	FY12	FY13	FY14	FY15
Revenue	280	371	380	374	334	405
Cost of material	96	143	129	131	126	182
Employee	21	24	31	37	38	44
Other expenses	16	20	46	48	55	61
EBITDA	146	184	175	158	115	117
Margin (%)	52.3	49.7	46.0	42.4	34.3	29.0
Depreciation	53	52	43	36	31	39
Other income	1	1	5	11	9	14
EBIT	94	133	138	133	92	92
Margin (%)	33.6	36.0	36.2	35.6	27.5	22.8
Capital employed	434	493	512	554	618	641
RoCE (%)	21.6	27.1	26.9	24.0	14.9	14.4
Throughput	25,304	32,996	33,172	34,094	33,556	35,804
Realisation	11,057	11,251	11,468	10,956	9,961	11,303
EBITDA/TEU	5,781	5,588	5,270	4,643	3,416	3,278

Source: Company data, I-Sec research

The Thar Dry Port, a unit of HPCSL, is recognised through an well-established chain of ICDs and CFSs. The company ventured to set up the ICD at Jodhpur in Rajasthan and subsequently in 2009 at Sanand in Ahmedabad. It has further expansion plans.

Table 7: Hasti Petro Chemical and Shipping Limited (HPCSL) – a case of declining margins for ICDs

(Rs mn)	FY14	FY15
Revenue	828	1,178
-ICD	739	1,125
-Fuel	86	51
-Others	2	3
Cost of material	86	83
Employee	61	79
Other expenses	583	922
EBITDA	98	95
Margin (%)	11.9	8.0
Depreciation	43	45
Other income		
EBIT	55	50
Margin (%)	6.6	4.3
Capital employed	1,306	1,367
RoCE (%)	4.2	3.7

Source: Company data, I-Sec research

Undeterred investments lead to palpable overcapacity

Modeling exim tonnage – CFS, ICD and direct share

We have tried to ascertain: 1) the CFS tonnage over the next six years through a most likely scenario analysis based on our estimations of the various port terminals and their upcoming capacities over the same time (supply), 2) how CFS share is likely to map in these port terminals, and 3) how the overall CFS/ICD share is likely to adjust and give way to direct port delivery. We have also done a top-down modeling of exim tonnage from GDP projections (demand). We understand that while decline in the share of CFS is a given, there are regional dynamics in play with terminal capacity at various ports likely to materialize faster than volumes. This will lead to redistribution of cargo among terminals with resultant change in port utilisations. **We have explored these details in much depth later. Following is a summary of the same used to ascertain CFS utilisations in India going forward.**

Key takeaway remains that share of ICDs will increase on account of DFCs.

- **Cargo-to-GDP growth has been cyclical; currently at a trough.** Cargo-to-GDP ratio has mostly followed a 5-year cycle with highs of **1.6 in FY05, 1.7 in FY10 and 1.15 in FY15**. While there has been a structural decline in the average cargo-to-GDP ratio, we are in the trough currently with FY16 ratio at a decadal low of 0.25x. We are working with an average of 1x in FY17E-FY23E..
- **Direct Port Delivery (DPD) share likely to maintain its market share of 25% in the near term.** This is lower than the government's target of 40% exim tonnage under DPD. We believe that DPD will increase in line with the various measures of the government, including the cost and time savings associated in the process. However, the spate of new ports and incremental capacities eventually being routed through DFC, would result in an aggregate stagnant DPD share.
- **Upcoming port terminal capacity to help increase total Indian container throughput capacity from 20mn TEUs to 42mn TEUs over the next 6-7 years.** New capacities in the foreseeable future will come in: 1) **Mundra** (AICTPL), which will see capacity increase from 1.3mn TEUs to 3.1mn TEUs, 2) **Krishnapatnam/Katupalli** will have major increase in container capacity from 1.2mn-TEUs each in 2016 to 6mn/4.8mn TEUs by 2023, 3) **Vallarpadam**, where capacity will increase from 1mn TEUs to 4mn TEU, and 4) the greenfield **4th terminal at JNPT**, which is scheduled to have a capacity of 4.8mn TEUs. Apart from these terminals, around 2.6mn TEUs capacity will also be added through **Dhamra, Ennore and Vizhinjam**.
- **Regional interplay of port terminals to have a definite bearing on CFS utilisations.** This would be evident from higher capacity at ports like Krishnapatnam, Ennore, and Katupalli, which could lower utilisations at Chennai. Similarly, higher capacity at Mundra will come along with the 4th terminal in JNPT. However, additional tonnage in JNPT might significantly be routed through DPD.
- While the average CFS market share remains at **~44%** for FY16, we see it declining to **34%** by FY23. ICD market share is expected to increase from **27%** currently to **44.3%** by FY23, largely driven by WDFC.

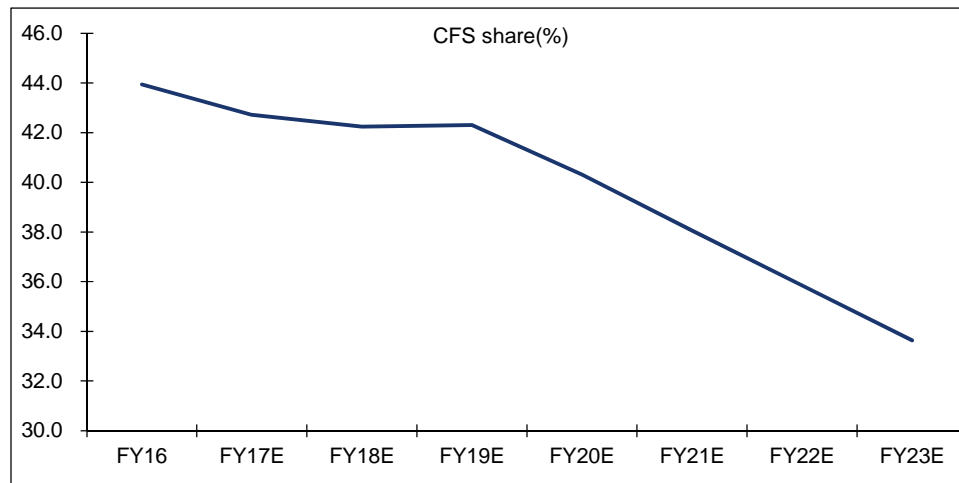
We are factoring in a structural increase in ICD share driven by western ports as DFC ramps up. This helps us build a longer-term constructive scenario for exim volumes for both Container Corporation of India (Concor) and Gateway Distriparks.

Table 8: Region-wise CFS utilisation projections

Container Traffic	mn TEUs handled	CFS volumes	CFS Utilisation	Implied CFS Capacity	Upcoming CFS Capacity	FY20E TEUs	FY20E utilisations with full capacity pipeline	FY20E utilisations with most probable capacity pipeline
JNPT	4.6	2.0	60%	3.3	1.06	2.0	46%	60%
Mundra/Pipavav	4.0	1.4	73%	1.9	1.23	1.7	52%	78%
Chennai/Eastern	2.5	1.5	38%	4.0	2.59	1.7	26%	35%
Others (Krishnapatnam, Katupalli)	1.4	0.6	40%	1.5	1.62	1.2	40%	71%
Total	12.5	5.5	51%	10.8	6.50	6.6	38%	55%

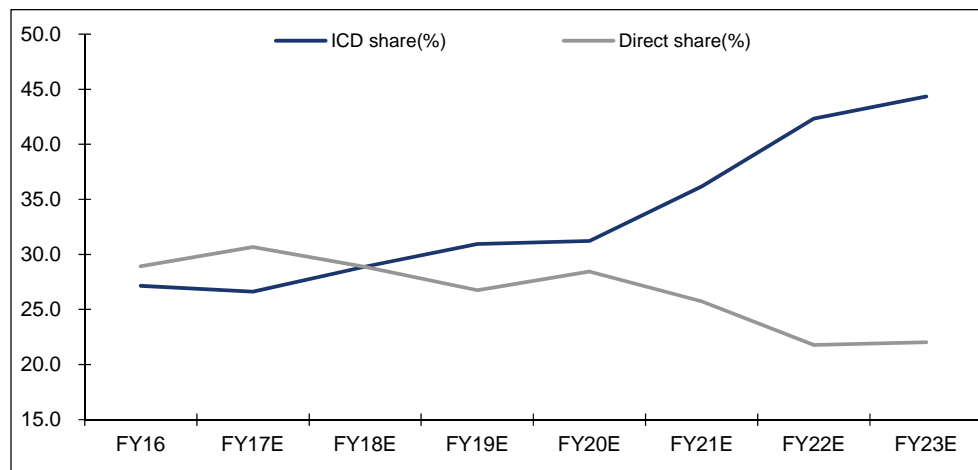
Source: I-Sec research

Chart 2: CFS utilisations to drop in line with loss in market share



Source: I-Sec research

Chart 3: Direct port delivery share to increase at the cost of CFS/ICD



Source: I-Sec research

Direct Port Delivery (DPD) – a regulatory swing that can inflict further pain to the industry

CFS has sustainability challenges from alternate services like DPD

The genesis of CFS as a concept lay in the insufficient dock space available for container yard within a port. The ideal practice should be that a container needs to be delivered to a liner's account at the port so that it could be moved directly to the Customs bonded container yard inside the port; similarly, in the case of an import container, importers should have been able to receive the container at the port and move it to their factory. Since ports like JN Port don't have such facility, it led to the establishment of off-dock CFSs that were located outside the port area. However, what started as a compulsion for the exim industry converted to a profitable thriving business. Most of the CFSs maintained very high profits over the past decade (EBITDA margins~25-45%, meaningful RoCEs).

CFS – From value providers to value destroyers...

From the basic purpose of facilitation of cargo, CFSs started making higher profits. CFS operators partnered with liners for gaining import market share. Shipping lines move containers to CFSs from where they get hefty rebates and CFSs recover it by charging various overheads to consignees. If consignee insists on shipping lines to diverted containers to a desired CFS, lines charge hefty sum to the tune of Rs4,000-Rs5,000 per TEU and additional documents. This movement of cargo to specific CFSs has created transparency issues for importers. With increasing opacity in the process, while most of the paperwork and other statutory requirements related to exim cargo were handled by CHAs, importers were completely unaware about the procedures, documentation and the additional costs. This led to average shipment time increase from five days to 15 days over the past five years. As a result, importers end up paying demurrage, detention and reefer plugin charges for the delay of about 10 days, resulting in an additional cost of average US\$200 per day for a container. The CFS on the other hand also blamed the forwarders and liners who incrementally continued to exert pressure on them for increased incentives. This problem got aggravated with increase in CFS capacity across the country. To address this problem of transparency, the Multi Modal Transportation of Goods Act 1993 is being amended to discourage CFSs from charging high bills from an importer.

.... hence, alternative solutions like DPD find government patronage

There were solutions proposed like the Authorised Economic Operator (AEO) and Accredited Client Program (ACP), which involved faster clearances leading to lower dwell time and lower transaction costs and the Direct Port Delivery (DPD). Once the DPD model gets wider acceptance, the add-on intermediaries in the exim logistics will be streamlined or eliminated. To comply with the norms of DPD is a good incentive for importers since it could save about 30% in terms of logistics cost for importers. The shipping ministry is also under serious pressure to do something about the dwell time and the logistics cost, which is adversely affecting India's ranking in the World Bank's *Doing Business Report*. The ministry has instructed all major ports to implement DPD facility and provide additional space for storage and clearance of DPD containers, which earlier used to be moved through CFSs. **The government has a target of more than 40% of total volumes to be cleared through DPD.** The dwell time for import containers is 7-8 days at JNPT, out of which JN Port terminals account for 1.25

days. Hence, cargo is detained for an average of seven days at CFSs. If cargo worth Rs5mn-6mn is detained for a week, it adds to the inventory and bank interest for an importer and, in the process, other stakeholders involved will also add further input cost. There is a saving of Rs25,000-40,000 per TEU for importers due to DPD as per government calculations.

Direct Port Delivery (DPD) – potential disruptive force in times ahead

As part of ease of doing business, the Jawaharlal Nehru Port Trust (JNPT) has taken several initiatives, including introduction of DPD system. *As of date, 62 agencies have signed for DPD from JNPT.* To enable greater efficiencies in the overall transportation and logistics supply chain, the Indian Central Board of Excise and Customs, merged the 'Accredited Client Program' with the recently introduced 'Authorised Economic Operator' program. This resulted in extension of the DPD service to small and medium scale importers, who account for a significant portion of Indian container trade. As a result, against the previous requirement of at least 300 containers per month to enable a consignee to get direct delivery, now even allowing delivery of a single container can be undertaken via DPD, provided the importer is registered with Customs.

Some of the major agencies in this list include Asian Paints, Bajaj Electricals, BASF India, Bennett Coleman, Dell International Services, LG Electronics India, Samsonite South Asia, Samsung India Electronics, Siemens, Tata Motors, Supreme Industries, BKT Industries, etc.

Cost advantages of DPD – as per government of India

- Saving in transportation cost from port terminal to Customs bound warehouses.
- Saving in handling and storage charges at warehouse.
- Saving in container detention charges payable to shipping agencies.
- Delivery of DPD container at port terminals is on 24x7 basis, which is not possible in Customs bounded warehouses.
- Saving towards dwelling of boxes till clearance at destined Customs-bound warehouses. A large part of the savings will also come from overall lower dwell time. In the past, import containers were sent to Container Freight Stations (CFS), 1-1.5 days after arriving by vessel. Next, depending on the completion of import procedures and clearances with shipping lines, Customs House agents, Customs, consignees and CFS operators, the cargo was then delivered to the end user after an average dwell time of 9-10 days. With DPD, importers can avoid these obstacles and import containers can be delivered to the end user directly from the port with an average dwell time of 1.5 days.

As per JNPT, the cumulative benefit of all these measures was approximately between Rs25,000-Rs40,000 per container to the importer.

Table 9: Charges under DPD – significantly lower than CFS/ICD

Compared to a topline of Rs10,000-11,000/TEU reported by CFS/ICD, the per TEU charges under DPD comes out to be Rs7,000-8,000.

Particulars	20'	40'
Handling and Transportation Services		
-Import Container Loaded Delivery	4258	6387
-Import Container DDS Delivery	5388	8082
Ground Rent-Loaded Containers		
-1-3rd Day (per day)	Free	Free
-4-7th Day (per day)	109	217
-8th-15th Day (per day)	217	435
-16th-30th Day (per day)	435	869
-31st Day and beyond (per day)	869	1738
Ground Rent-Empty Containers		
-1st to 15th Day (per day)	25	50
-16th Day onwards (per day)	100	200
Cargo storage and demurrage		
-1st 3 days from days of destuffing)	Free	
-1st week to 4th week (after free period)	Rs124 per sq-metre per week	
-5th week onwards (per grid per week)	Rs187 per sq-metre per week	
General operation Services		
-Lift on/Lift off loaded containers	174	261
-Lift on/Lift off empty containers	87	130
-Shifting empty containers for washing/cleaning	468	702
-Weighment-loaded containers	1304	1955
-Grounding for container delivery	521	782
-Survey and EIR charges	217	326
-Damage container Survey charges	217	326
-Documentation charges	217	326
-Movement of container between JNPT and MbPT nominated area and vice versa	-	-
(a) Empty containers	-	-
(a) Loaded containers	-	-
Other charges		
-Cargo handling charges	Rs136/-PMT	
-Insurance charges (per Rs1,000 on value + duty per week)	12.50 paise	
-Locking charges per night per container	Rs26	
-Reefer plugging/monitoring charges	1,722	3,444
-Container scanning charges		
-Measurement charges		
-Container load plan		
-EIR (Equipment inspection report) charges		

Source: Government of India, I-Sec research

The current volumes under DPD are insignificant and have remained stagnant over the past three years at ~7kte per month. Gateway Terminals India (GTI) – a joint venture between APM Terminals and the Container Corporation of India Ltd (Concor) – currently operates the majority share of DPD tonnage.

Table 10: DPD volumes in TEUs in JNPT

Month	JNPCT	NSICT	GTI	Total
Apr-16	1,594	3,056	2,198	6,848
May-16	1,867	2,455	2,471	6,793
Jun-16	1,489	1,170	2,344	5,003
Jul-16	1,565	1,481	2,452	5,498
Aug-16	1,948	2,205	2,536	6,689
Sep-16	2,170	1,877	2,857	6,904
Oct-16	2,313	2,088	3,022	7,423
Nov-16	2,039	1,393	3,499	6,931

Source: Government of India

Challenges for DPD

Our due diligence with the industry expert highlights following challenges which is becoming an impediment for DPD volumes to rampup from JNPT (apart from the widely prevalent and to a certain extent arcane nexus between shipping lines and CFS)

- **Challenges in documentation** – Large share of imports are from China and South East Asia which are short sea routes. This means that the container can reach in 5-7 days since despatch (stretching to at max 10-20 days). These results in most of the cases, containers arriving before documentation. Thus, clearing those containers becomes a challenge. Historically, CFS has played an important role in such cases as containers could have been moved into CFS, thereby helping to decongest ports as documentation gets completed.
- **Customs interface.** Shippers importing cargo prefer CFS as they also play an active role in customs interface thereby relieving such responsibilities from the shippers.
- **CFS offers a lot of credit and helps introduce an added flexibility in the supply chain.** All shippers would have planned for a schedule of usage for the imported cargo and need not necessarily plan to shift the container to the factory/warehouses as soon as they are imported. CFS allows free storage of the containers, where customs can be cleared at the end of the storage period (6-7 days) and additional credit is extended to big shippers/customers. To get rid of these benefits would entail running a much tighter supply chain which may take some time in Indian context.

Hence, as DPD volumes continue to disappoint, JNPT has allowed 21 CFS s to play the role equivalent of a speedy CFS where in the container is supposed to move if not cleared from the port in 48 hours. It's expected, that like speedy CGS, the tariffs of these 21 additional CFS is going to be regulated by Tariff authority of major ports (TAMP) and hence can lead to significant compression of profitability.

Table 11: List of CFS situated at JNCH who have been granted permission to handle DPD containers by Commissioner of customs

SI. No.	Name of CFS to whom permission to handle DPD containers granted	SI. No.	Name of CFS to whom permission to handle DPD containers granted
1	All Cargo Logistics	12	Indev Logistics Pvt Ltd
2	Ameya Logistics	13	Speedy Multimodes Ltd
3	APM Terminal Main	14	MSWC (under process)
4	Apollo LogiSolutions Ltd	15	Navkar Corporation Ltd
5	Ashte Logistics Pvt Ltd	16	Ocean Gate
6	Balmer Lawrie	17	Punjab Conware
7	Continental	18	SBW Logistics
8	CWC Dronagiri	19	Seabird Marine Pvt Ltd
9	CWC Impex Park	20	ICT & IPL (Formerly ULA Agencies Ltd)
10	EFC Logistics Pvt Ltd	21	Vaishno Logistics Yard
11	Gateway Distripark Ltd	22	JWC logistics Park

Source: Government of India

Absence of LAPs in India is continuing to guide convergence of LEPs...

Key research themes

- India has traditionally lacked LAPs in line of global examples of Prologis/ GLP
- As capital players embarked on finding new opportunities in the logistics space they only stumbled upon new LAP ventures
- Convergence of LAP and LEP increased risk profile of Indian logistics players and they started relegating to the 4th quadrant of global valuation model
- Case study of Arshiya highlights the risks why global valuation model assigns high importance to asset turn and FCF yield.

With absence of big LAP players in India and increasing obsolescence of traditional CFS/ICD models, many logistics players (both LEP and 3PL providers) have new projects towards asset ownership, **primarily in the logistics park space**. Hence, there is a slew of logistics parks, PFTs in pipeline from 3PL players like Allcargo Logistics, CFS/ICD players like Navkar as well as LEPs like Concor and Gateway Distriparks. We believe this will happen in phases and in a measured way, but will definitely increase the risk profile of these companies as they climb higher in the asset intensity matrix. We have had examples in the past where increasing asset base has negatively affected company performance and returns have often tumbled whenever there has been any regulatory risk and/or economic slowdown leading to decline in tonnage.

India has traditionally lacked LAP in line of global examples of Prologis/ GLP

Logistics real estate starting from warehouses, distribution facilities, fulfillment centres, etc. often involves separate players who do not provide any logistic services. Prologis and GLP are the global leaders in that space.

Yet, the concept of logistics asset provider (LAP), the likes of GLP/Prologis had to come out of an evolution in the global logistic industry and the evolution, we believe, can be divided into two broad leaps. **The first is the need of a logistics cluster or nodes, and second is the emergence of LAP as a stakeholder in the logistic business as owners of this logistics cluster.**

Evolution of logistics clusters

What is a logistics cluster? Logistics cluster is an agglomeration of distribution centres concentrated to serve local consumption and/or global trade routes. Such facilities will meet a combination of superior and often enduring locations and suitable functional features such as ceiling heights. Building characteristics will vary by region depending on the maturity of the regional supply chain. Many clusters have elevated demand growth rates and increasing demand for modern logistics facilities plays an important role in that growth.

What is driving the formation of logistics clusters? Three main drivers are consumers, trade and modernisation. We have seen a rise of logistics clusters globally – with a notable concentration of modern facilities – emerge and gain footing

over the past two decades. Customers are importing supply chain best practices from regions where the business of modern logistics real estate is more mature, principally in North America. This modernisation fuels elevated demand in developed and emerging economies alike. However, based on the requirement, logistics clusters can be consumer oriented and trade oriented (*source: Prologis White Paper*). Interestingly India is conspicuous by its absence in all the three key metrics driving the formation of logistic clusters – World bank has categorized India as a Low income economy based on per capita GDP and India's trade largely remain consumption driven which perhaps explains why clusterisation is yet to pick up in India.

- **The growth of consumer classes around the world is the primary driver of the rise in logistics demand.** Employment and wage growth in the local economy are often the most closely correlated metrics to demand growth in clusters oriented toward distribution to consumers. The rapid rise of consumption in a local economy is generally driven by the structural emergence of the middle class, which in turn drives a rapid increase of logistics real estate to service the middle class. Relative size differences between markets typically are best explained by the relative size difference of the local consumer base. However, two drivers – trade and modernisation – also drive considerable differences within regions and around the world.

The rise of consumer classes in emerging markets prompts demand for modern logistics stocks where previously there was none. **To illustrate, modern logistics stock in the greater Shanghai area has risen from less than 5mn-sqft a decade ago to nearly 100mn-sqft today.**

- **Geographic positioning along global trade routes** also drives the formation of logistics clusters. Often, the flow of global trade coincides with local consumption. As such, distinguishing the effect of trade on market growth can be difficult. Proximity to value-added light assembly and parts suppliers can be a driver of logistics demand in trade-oriented clusters.

The reversing of trade flows in Japan, with a greater reliance on imports and local distribution, is a relatively recent phenomenon. Similarly, the rise of the euro and the decline of trade barriers across Europe in the past 20 years have been catalysts for change in the organisation of distribution in Continental Europe.

- **Modernisation of supply chains and the adoption of modern logistics real estate** is an important driver of growth in many clusters. Modern logistics stock is relatively nascent around the world compared to North American standards. **As retailers and distributors implement supply chain best practices, industrial clusters modernise, creating demand that can persist independent of economic cycles.**

This supply chain evolution is visible in clusters now unfolding in emerging and developed economies, which were always big consumer hubs.

Emergence of Logistics Asset Providers – LAPs

The emergence of logistics real estate like logistics clusters led way to the independent logistic asset providers, e.g. companies like **GLP** and **Prologis**. The genesis of this class of stakeholder in the logistics business chain was primarily due to separation of assets management from services and the intention of being asset-light, de-risking in the process. Significant modernisation of facilities entailed higher capex and higher standardisation, which was better managed by the LAPs.

Inherent risk of LAPs and how it is managed through committed client book

LAPs such as Prologis and GLP typically lease properties on a long term basis (with a **weighted average lease term of six years**). The risk will be there at the time of renewal of these leases depending upon the attractiveness of that property and/or global economic conditions at that point of time. However, the same has to be managed with geographic diversification of portfolio, market research and asset management capabilities. Asset management is the key, considering that the lease period is spread out over significant time periods to distribute expiries; customer portfolio is also well diversified and there is a committed client demand like a ready orderbook.

Case study: Global Logistic Properties (GLP)

GLP's US\$39bn property portfolio encompasses 52mn-sq-metres (560mn-sqft) of logistics facilities across China, Japan, the US and Brazil.

Adidas as a customer of GLP: Adidas has dedicated space ('Built to Suit Warehouse') within the GLP logistics park in China, which serves as its China distribution centre. The value proposition for Adidas includes:

- Good location for reducing transportation costs and shortening delivery time and inventory turnover.
- Large unit with big column width and adequate clear height providing flexibility in layout design
- Spacious and convenient loading and unloading areas easing pressure on sorting and picking.
- High-quality warehouse and reliable park security.

Deppon Logistics as a customer of GLP: Unique enough, Deppon Logistics, even being one of the leading road transportation logistic service providers, is a client of GLP. The value proposition for Deppon includes:

- Improved throughput
- Value-added process operations within the GLP facility
- Flexibility in space requirement as per contract
- Co-marketing with customers by reputable modern and high-quality logistics facilities

Table 12: GLP financials indicate that even LAP can be a high-margin business

(US\$ 000)	2014				2015				2016				2017	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Rental and related income	130,341	133,209	156,639	143,586	148,397	174,177	153,897	147,177	155,336	158,697	159,322	160,223	158,235	167,124
Property related income	(25,368)	(27,507)	(30,457)	(30,916)	(31,091)	(35,670)	(35,062)	(36,687)	(37,639)	(38,881)	(39,215)	(41,306)	(38,243)	(37,520)
Other expenses	(30,420)	(32,574)	(34,663)	(39,082)	(36,570)	(44,276)	(41,741)	(47,348)	(52,784)	(62,817)	(60,811)	(59,393)	(55,544)	(56,975)
EBIT	74,553	73,128	91,519	73,588	80,736	94,231	77,094	63,142	64,913	56,999	59,296	59,524	64,448	72,629
Margin (%)	57.2	54.9	58.4	51.3	54.4	54.1	50.1	42.9	41.8	35.9	37.2	37.2	40.7	43.5

Source: Company data, I-Sec research

What remains to be seen is whether such a convergence of LEP and LAP in India is positive or negative for Indian logistics plays?

Can Indian logistics players, on course to add responsibilities of a LAP due to reasons discussed by us can make an aggregate margin that would be the sum of the margins of a logistics execution company and a logistic assets provider (e.g. GLP/Prologis).

We remain sceptical on any such prospects. Any course divergence out of the traditional CFS/ICD domain has led to suboptimal outcomes in India. We have seen this in the past with the case of Arshiya. Additionally, the added risk of higher asset intensity only compounds the problems.

Convergence of LAP and LEP increases risk profile of Indian logistics players

India never had pureplay LAPs though we have seen presence of some groups like NDR (Continental warehouse) with historical presence in real estate venturing into private freight terminals in four key regions in India. However, such instances are not very common and the idea is perhaps not to own infrastructure even for such groups.

Case study 1: Arshiya – an Indian attempt at being LAP

Mainstay of Arshiya's business was freight forwarding.

Through its subsidiary *BDP India*, Arshiya provided freight-forwarding services to clients in India and Middle East countries like UAE, Oman and Qatar (through strategic investments). The gamut of services included air and ocean transportation, custom house brokerage, global logistics management and logistics consulting services. The division offered end-to-end solutions from the origin of the goods to the destination countries, providing full visibility and tracking of shipments, order status and inventory levels. The company reported clients like Mahindra & Mahindra, Glenmark, L&T, Lupin, Alan Dick, Bechtel, AMD, Reebok and Quaker among others. BDP also provided project logistics and chemical logistics services and solutions worldwide. The division offered a wide range of products and services including tailor-made logistics solutions (essentially project logistics) for power generation, mining, oil and gas, plant construction/relocation and government projects. The project logistics entailed the ability to handle and move heavy and large units from one location to other, thereby making it a niche service. Clients included Vedanta, Jindal, ThyssenKrupp, Hindalco, Tata, etc. among others. Arshiya claimed expertise in handling chemicals and project logistics with significant benefit out of their presence in the Middle East market.

Arshiya had grand plans that significantly increased its asset intensity

A significant thrust by the company was upon logistics infrastructure projects such as FTWZs and CTOs across the various regions in India to create a connectivity grid across the country.

- **Free Trade Warehousing Zone (FTWZ).** Arshiya set up an FTWZ, a special category SEZ in Raigad, Maharashtra, with a project outlay of **~Rs12bn**. The company also had plans for two more FTWZs in Uttar Pradesh (Rs11bn) and

Nagpur (Rs9bn) while there were plans to have two more FTWZs in the long run in Eastern and Southern India.

- **Containerised Rail Transport Operations (CTO).** Arshiya secured Category-I license from the Ministry of Railways to operate containerised rail services. The company placed orders for rakes as early as FY07/FY08. To augment these services, Arshiya required land for private siding operations across the pan-India rail operations network. The project outlay for the containerised rail operations is estimated at Rs16bn.
- **Domestic Distriparks.** These were essentially CFS/ICD operations adjoining the FTWZ businesses. These were supposed to be IDHs (Industrial Distribution Hubs) – but the company started to convert these into ICDs as in Khurja, Uttar Pradesh.

However, the group started to reduce the freight-forwarding and transportation business with more focus on maximising usage of the created asset base.

FY13/FY14-regulatory risks started weighing upon the business.

The regulatory risk associated with logistics industry is more palpable in case of asset-heavy businesses. The same was felt by Arshiya with their FTWZ business, which started to suffer from FY13/FY14 with series of adverse regulatory changes as detailed below in their FY13 annual report. The declining revenue stream failed to justify the large asset base and the company entered financial restructuring under Corporate Debt Restructuring (CDR).

Stoppage of transshipment of cargo from Mumbai Port to FTWZ

- Mumbai Port Customs in Sept'12 stopped the movement of cargo from Mumbai port to FTWZ in Panvel, which hampered Arshiya's operations.

Delays in duty drawback

- Lack of procedural clarity on claiming the duty drawback for exports made through FTWZs; due to this, the exporter is being deprived of major benefits that an FTWZ offers.

Non-availability of Customs EDI system in FTWZs

- EDI link system is used by Customs for getting relevant notifications, instructions, exchanges rates, valuation references, historic data, etc. to facilitate imports and exports.
- Non-availability of EDI link system at FTWZs has resulted in delays in import and export procedures.

Import General Manifest (IGM) approvals for FTWZs

- An IGM is a regulatory document to be filed with Customs by carriers of goods into the country, in this case the shipping lines.
- The IGM details the particulars of goods to be transshipped. It specifies the location at which the goods would be cleared from customs.
- As per existing statutory provisions, the IGM cannot list an FTWZ as the end location. Due to this constraint, shipping lines are not moving their cargo to FTWZ.

Non-recognition of Arshiya FTWZ as a port for import of a few items, especially cars

- Imports of cars into India are permitted from specified ports/ICDs, which did not include Arshiya FTWZ. More than 1,000 cars were initially handled by Arshiya FTWZ, based on temporary approvals from DGFT, which were subsequently withdrawn.
- This resulted in car companies withdrawing their decision to use Arshiya FTWZ.

Asset trap started to grip further as revenues suffered from business slowdown and regulatory setbacks.

Tables 13&14 highlight the extent of asset intensity of Arshiya and how it was the key headwind in terms of countering regulatory challenges. This coupled with the fact that exim container trade in India has been very lacklustre over the past many years makes us extra cautious about grand plans of increasing asset base without a weather eye on balance sheet. This also probably highlights the relevance of the global valuation model which persists in the space – the affinity towards higher asset intensity will draw in valuation discount from the investor community sooner or later.

Table 13: Key Indicators – high capex dragged FCF down

(Rs mn)	FY07	FY08	FY09	FY10	FY11	FY12	FY 13	FY14	FY15	FY16
Revenue	1,865	4,012	5,034	5,259	8,215	10,573	11,396	5,166	3,242	3,087
EBITDA	235	538	740	1,306	1,600	2,717	1,765	(326)	315	546
Interest expenses	4	6	8	123	462	1,019	2,441	3,630	4,028	3,421
Capital expenditures	(227)	(1,874)	(3,428)	(4,499)	(9,397)	(9,776)	(4,417)	(160)	(8)	(12)
Free cashflow	(269)	(1,736)	(3,040)	(4,384)	(7,472)	(9,207)	(5,312)	(4,565)	(1,056)	156
Depreciation & Amortisation	30	42	70	108	176	314	602	835	1,011	916
Net Income/Net Profit (Losses)	175	454	656	983	820	1,208	(1,272)	(8,462)	(4,740)	(6,038)
Net debt	(487)	(2,247)	703	5,095	12,149	22,057	26,391	29,962	25,407	24,835
Cash from operations	(42)	137	388	115	1,924	569	(895)	(4,404)	(1,048)	169
Asset turnover	—	1.2	0.7	0.5	0.4	0.4	0.3	0.1	0.1	0
Net Debt To Shareholders Equity	(46)	(45)	12	76	163	255	303	526	1,140	—

Source: Bloomberg, I-Sec research

Table 14: Revenue shift from asset-light (freight-forwarding) to asset-heavy (FTWZ/Rail transport) remained weak and could never replace the former

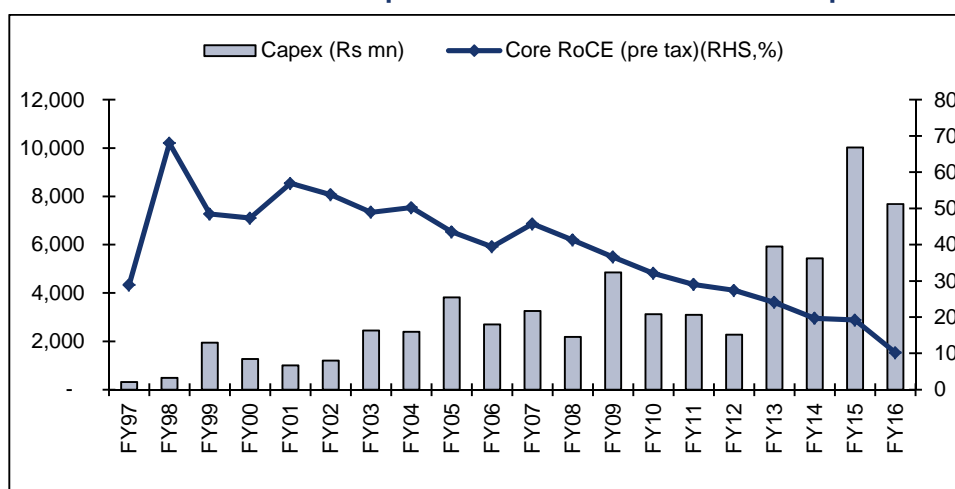
(Rs mn)	FY07	FY08	FY09	FY10	FY11	FY12	FY 13	FY14	FY15	FY16
Revenue										
Logistics and related services	1,696	3,643	4,608	4,598	6,207	6,131	6,260	2,654		
FTWZ/Distripark				0	257	1,788	2,173	691	919	1,124
Rail Transport			21	483	1,692	2,716	3,021	1,961	2,398	1,979
Software	165	370	408	586	63	9	3			
Other	6			2	4	0	(3)	59		
Operating results										
Logistics and related services	175	387	643	825	1,385	1,272	736	126		
FTWZ/Distripark				(5)	140	1,246	894	(260)	170	(81)
Rail transport			0	82	279	447	95	(407)	(260)	(271)
Software			168	482	6	(10)	3	(23)		
Other	21	123	(71)	(217)	(401)	(522)	(566)	(411)	(528)	(2)

Source: Bloomberg, I-Sec research

Case study 2: Concor – declining return with higher capex highlights the risk of LEP carrying out the responsibilities of LAP

Concor has started moving from LEP to LAP with increasing investments towards various multimodal logistics parks across western and eastern DFC. This convergence on expected lines has increased the risk profile of the company along with reducing the return profile in a marked manner. The deterioration of return profile has accelerated as competition has heated up in the container train operations (CTO) space. Most of the hope themes around Concor is about the reversal of this return deterioration phase with the advent of DFCs. Thankfully, having a first-mover advantage and an established revenue and profit profile before the CTO space opened up to competition has not created major risks to Concor's balance sheet yet.

Chart 4: How incremental capex has lowered Concor's return profile



Source: Company data, I-Sec research

Table 15: Various projects on the anvil for Concor (cumulative capex of Rs60bn)

Nos.	Planned 1-2 yrs.	State	Area (acres)	Type	Date
1	Sriperumbudur	Tamil Nadu	50	Road Based	Construction completed in June 2015, awaiting SEZ clarification
2	Jharsuguda	Odisha	30	MMLP	Commissioning by Mar 2016
3	Naya Raipur	Chhattisgarh	100	MMLP	Commissioning by May 2016
4	Vernama	Gujarat	130	MMLP-DFC	Land acquisition done, commissioning by June 2017
5	Barhi	Haryana	50	MMLP	Land under HSIDC allotted. Private land being acquired, commissioning by December 2017
6	Swarupganj	Rajasthan	400	RTH-DFC	Land acquisition done, June 2017 commissioning
7	Duburi near Kalinganagar	Odisha	55	MMLP	Land acquisition process initiated with state government, June 2017 commissioning
8	Parjang near Angul	Odisha	55	MMLP	Land acquisition process initiated with state government, September 2017 commissioning
9	Rasayani	Maharashtra	60	MMLP	Proposal of transfer of 60 acres of land with DOCP, commissioning by December 2017
10	Krishnapatnam	Andhra Pradesh	130	MMLP	Commissioning by March 2018; Land allotted by AP Government
11	Vallapardam	Kerala	20	CFS	Port Commissioning by March 2016
12	Bodhjungnagar	Tripura	6	Logistic facilities	Commissioning by March 2016
13	Mihan, Nagpur	Maharashtra	107	MMLP	Commissioning by May 2016
14	Ahmedgarh-DFC feeder	Punjab	150	MMLP	Commissioning of phase-I by September 2016
15	Tihi-Indore	Madhya Pradesh	106	MMLP	Land acquisition underway, commissioning by March 2017

Source: Company data, I-Sec research

...with Indian LEPs striving to find the right asset mix

Key points

- While low asset intensity is desirable, we could see enough global examples (particularly in South Asia) where players strive to achieve the right asset mix – we have highlighted three case studies to that extent
- Also benefits of ecommerce as can be seen in two specific South Asian examples can be reproducible for India and can help road LEPs in scaling up much faster than linear thinking allows
- These two points coupled with the emerging trend of 3PLTL (as we have dealt with in details in VRL) drives our positive inclination towards VRL
- CTOs on the other hand have suffered from regulatory headwinds leading to higher asset intensity. High competition and disappointing EXIM has pulled down margins and return profile, relegating the players to 4th quadrant of our valuation matrix.

The closest business models to LEPs in India are the road transportation companies (e.g. VRL) and CTOs (e.g. Concor and Gateway Distriparks). While we have initiated coverage with positive recommendations on some of the CTOs, large part of the thesis derives strength from commissioning and effective operations of DFC, which has been in the news for almost a decade now and perhaps will not see the light of the day before 2019 (even the western DFC). Nevertheless, the assertions are not without the risks of higher haulage charges in DFC creating again a regulatory setback for the CTOs. VRL Logistics on the other hand fits perfectly the benchmarks of an LEP with a network advantage comparable to some of the global majors in the LEP space. Yet we see it disappoints as chancing upon a *moat* is different from building upon the *moat* for, which we don't see enough effort in the right direction for VRL.

We discuss a few key themes in this section: i) the benefits of right asset mix – how it has helped LEPs globally, ii) the benefits of e-commerce that can alter the landscape for road transportation LEPs such as VRL, and iii) how CTOs failed to achieve the right asset mix in India and where regulation failed to create a domestic champion in the LEP space.

LEP is all about the right asset mix

Some of the road transportation LEPs globally is characterised by what is known as the asset-right model. While investigating the financials of Rivigo in India (which has been aggressively expanding asset base and are planning to acquire 3000 trucks by CY18) and yet accumulating losses as they invest with the ultimate aim of taking a significant pie in the express transportation market (from Bluedart presumably), we were getting a bit sceptical about the extent of asset intensity that a LEP can eventually handle. However, there are numerous global examples – such as JB Hunt, XPO Logistics, ZTO Express (the second largest Chinese IPO in recent history after Alibaba), CJ Korea Express – all of which are examples towards achieving the right asset mix in implementing a successful road transport operation. While we have highlighted some of the examples in the VRL Logistics initiation report (particularly XPO Logistics), we briefly highlight the case of JB Hunt in this section.

Case study of JB Hunt – operating on healthy margins despite being asset-heavy

Mix of asset-light and asset-heavy business segments: One of the features of most LEP players is that they operate a mix of asset-light and asset-heavy businesses. As we explore the business segments of JB Hunt, the key question to ask is whether a local trucker like VRL can evolve into a business model akin to JB Hunt's?

- **Intermodal segment – JBI (asset-heavy):** The transportation service offerings of JBI segment utilises arrangements with most major North American rail carriers to provide intermodal freight solutions for customers throughout the Continental United States, Canada, and Mexico. JBI draws on the intermodal services of rail carriers for the underlying line haul movement of its equipment between rail ramps. The origin and destination pickup and delivery services (drayage) are handled by company-owned tractors for a majority of intermodal loads, while third-party dray carriers are used where economical. By performing own drayage services, it offers value to the customer by providing a cost-competitive, seamless coordination of the combined rail and dray movements for customers.

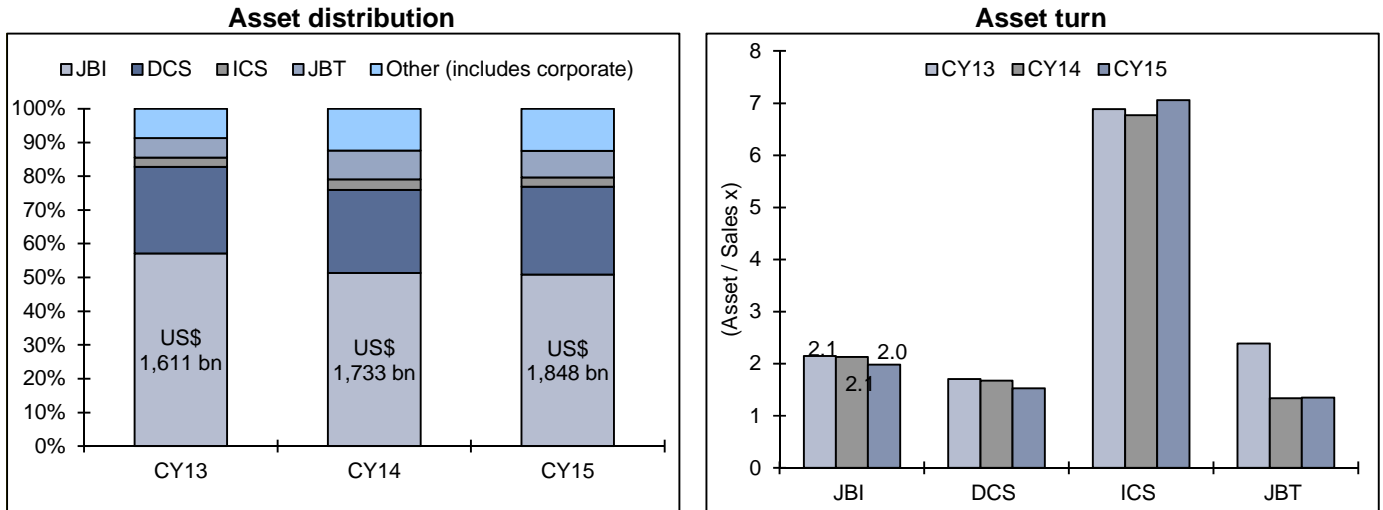
Despite being asset-heavy, the asset deployment in only first-mile / last-mile connectivity ensures better asset turnover and better margins compared to other simple asset-heavy businesses (like pure trucker, which is the JBT segment).

- **Dedicated Contract Services – DCS (asset-heavy):** DCS focuses on private fleet conversion and creation in replenishment, specialised equipment, and final-mile delivery services (this works later in the supply chain as the product is about to reach the customers). DCS specialises in the design, development and execution of supply-chain solutions that support a variety of transportation networks. The final-mile delivery services are supported with a network of approximately 89 cross-dock locations nationwide, with 98% of the Continental US population living within 150-miles of a cross-dock location. **Contracts with customers are long-term, ranging from three to 10 years, with the average being approximately five years.** Pricing of contracts typically involves cost-plus arrangements, with fixed costs being recovered regardless of equipment utilisation, but is customised based on invested capital and duration.
- **Integrated Capacity Solutions (asset-light) – closest to a 3PL play:** ICS provides traditional **freight brokerage and transportation logistics solutions** to customers through relationships with thousands of third-party carriers and integration with its owned equipment. It provides a broader service offering to customers by providing flatbed, refrigerated, expedited, and LTL, as well as a variety of dry-van and intermodal solutions. ICS provides single-source logistics management for customers desiring to outsource their transportation functions and utilise supply-chain technology and design expertise to improve efficiency. ICS operates 34 remote sales offices or branches, as well as on-site logistics personnel working in direct contact with customers.

Highest asset turnover of almost 7x among all the segments in line with its asset-light model.

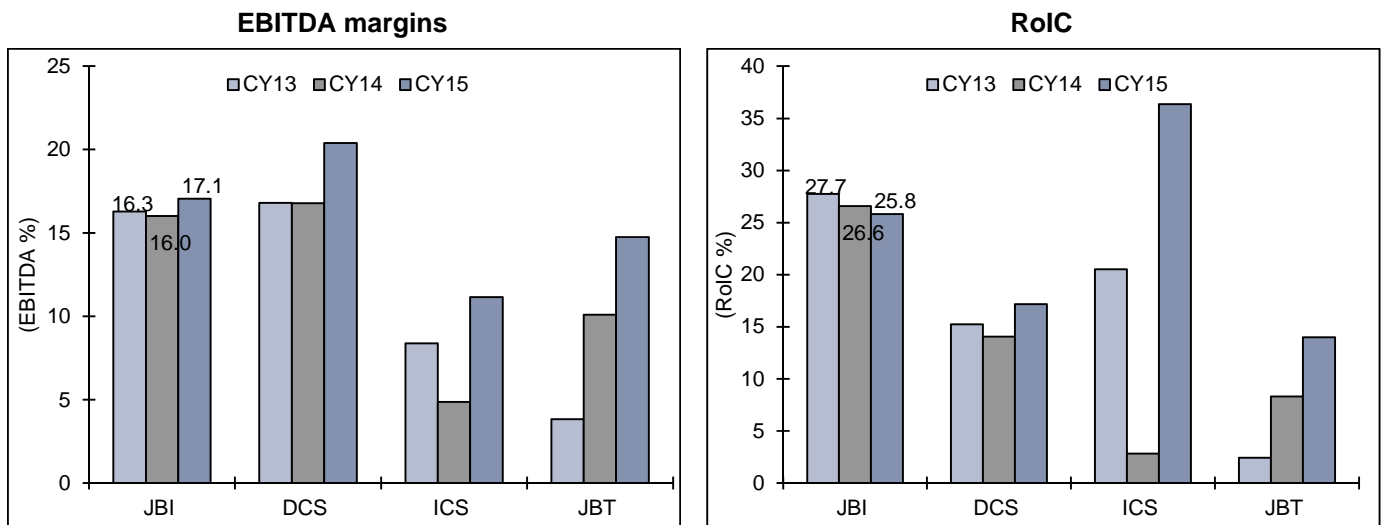
- Trucks (asset-heavy):** The service offering in this segment is full-load, dry-van freight, utilising tractors operating over roads and highways. It typically picks up freight at the dock or specified location of the shipper and transports the load directly to the location of the consignee. It uses the company-owned tractors and employee drivers or independent contractors who agree to transport freight in the company trailers.

Chart 5: Asset distribution and asset turn of JB Hunt’s business segments



Source: Company data, I-Sec research

Chart 6: EBITDA and RoICs of JB Hunt’s business segments

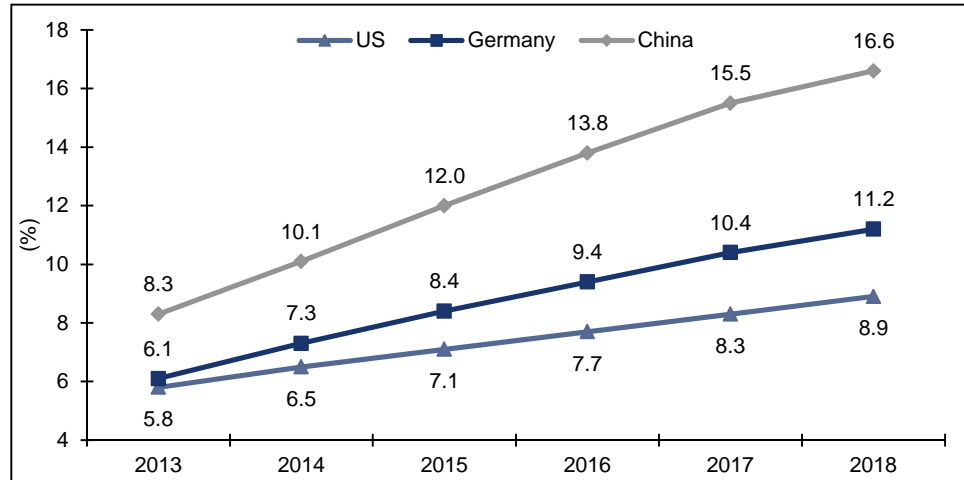


Source: Company data, I-Sec research

How e-commerce has offered tailwinds to LEPs globally

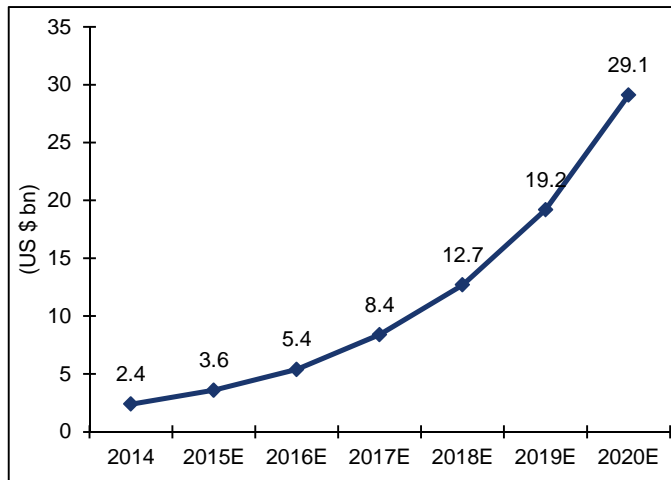
E-commerce accounts for less than 1% of the overall retail market in India. This is significantly small and the hope is that it will grow in line with trends we have seen in other countries, as shown in the chart below.

Chart 7: Share of e-commerce in the overall retail market has grown leaps and bounds in several countries



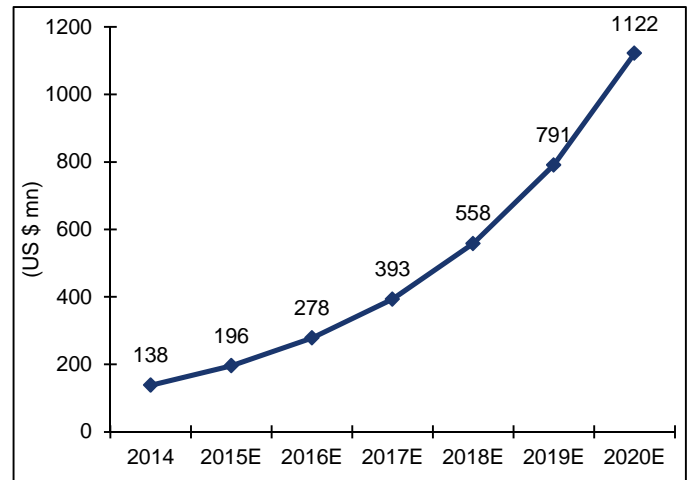
Source: Bluedart, I-Sec research

Chart 8: Potential revenues of e-commerce in India



Source: Bluedart, I-Sec research

Chart 9: E-fulfillment opportunity in India



Source: Bluedart, I-Sec research

ZTO Express – How e-commerce drove topline and further investment into assets

ZTO Express has generated strong increase in parcel volumes. The total parcel volume increased from 279mn pieces in 2011 to 2,946mn in 2015 and from 1,185mn in the six months ended 30-Jun'15 to 1,913mn in the same period in 2016.

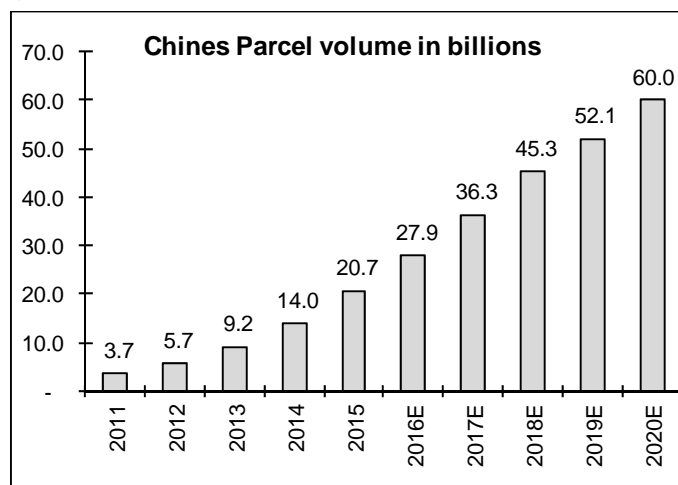
Increase in volumes has been driven through changes in consumer behaviour, which has increasingly engaged in e-commerce. Data suggests that China's internet shopping volume reached RMB1.84trn in 2013, with at a compound annual growth rate of 70% in the past five years and is expected to remain at the level of over 30%. The construction of internet network and the applications on mobile platforms laid the preliminary foundation for internet shopping. In 2013, China's netizen population accounted for 89.6% of total population, and mobile terminal penetration rate reached 98.3%, 82% of which are smartphones. Aided by this improved infrastructure, the number of China's online shoppers dramatically increased from 70mn in 2008 to 300mn in 2013, and internet shopping penetration rate climbed from 24.9% to 47.4%.

Infrastructure build-up has enabled the growth of express cargo delivery. The transportation industry has safeguarded the development of express industry. In 2013, China built 8,260km of new highways, rebuilt 28,600km of main national or provincial roads and 210,000km of rural roads. The operation mileage of high-speed railway topped the world with 11,000km, and domestic airlines started to operate in 92 new international air routes and 252 new branch routes.

Increase in volumes has also led to significant increase in asset base. ZTO Express has incurred significant capital expenditures on acquisition of land use rights, construction of facilities and upgrading of delivery infrastructure in connection with the consolidation and organic growth of the business. The total capex incurred by the company was ~RMB790.1mn, RMB1.5bn (US\$225.7mn) and RMB866.6mn (US\$130.4mn) in 2014, 2015 and the six months ended 30-Jun'16, respectively, for the acquisition of land use rights, fleet procurement, building of sorting facilities and purchase of equipment and other fixed assets.

Asset base of the company includes 74 sorting hubs and a fleet of over 3,300 trucks (2,100 self-owned trucks, over 680 of which are high-capacity 15-17m long models, as of 30-Jun'16). The new 15-17m long trucks have nearly twice the loading capacity of 9.6m long trucks with minimal incremental costs, lowering the unit line-haul transportation cost. The centralised planning and design of sorting hubs with extra capacity provides sufficient parking and operation space for 15-17m trucks. The company deploys suitable models of trucks to cope with different transportation conditions so that we can reduce our transportation cost. **The remaining trucks are outsourced to Tonglu Tongze.** Tonglu Tongze has a fleet of approximately 1,200 trucks (mostly 9.6m long) as of 30-Jun'16 and works exclusively for ZTO.

Chart 10: Chinese express delivery market has grown multifold



Source: Company Data, I-Sec research

Chart 11: ZTO Express delivery volumes have had an even sharper growth

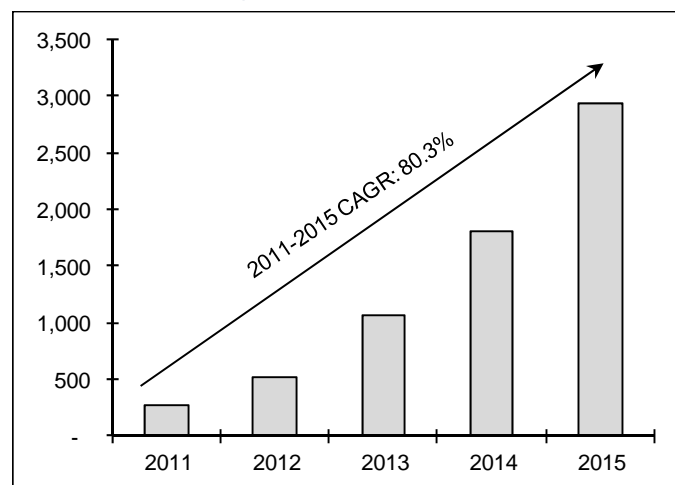


Table 16: Increase in volumes with improvement in margins for ZTO Express

Parcel delivery business of ZTO Express has increased at CQGR of 15% (from Mar'15 to Jun'16)

(RMB '000 except for parcel volume)	Mar'15	Jun'15	Sep'15	Dec'15	Mar'16	Jun'16
Revenues	1,128,295	1,357,765	1,412,422	2,187,973	1,958,548	2,286,629
Gross Profit	348,432	466,349	439,699	833,238	601,448	827,819
Gross Profit Margin	30.9	34.3	31.1	38.1	30.7	36.2
Parcel volume (mn)	498	687	732	1,029	828	1,085

Source: Company Data, I-Sec research

CJ Korea Express – Another play riding structural growth from e-commerce

Express delivery poised to benefit from e-commerce: Parcel delivery business is riding the structural growth of e-commerce in Korea. E-commerce in Korea is structurally growing on the back of high penetration of smart devices, entry of new online retailers, and easier payment schemes. With online buyer penetration already at 70% by 2015, 80% of the online GMV growth is likely to come from annual spending per online buyer, while the remaining 20% of the growth from an increase in the number of online buyers. At the same time, competition among online retailers is intensifying, leading to increasing demand for swift delivery of merchandise and inherent higher value of efficient express delivery business.

CJ Korea is benefitting from e-commerce, but also has scale and market share to defend from competition. CJ Korea Express, with its 45% market share in parcel delivery, is a key beneficiary of e-commerce industry development in Korea. It has a dominant scale advantage. The average selling price of CJKX is lower than the industry average **as well as its competitors with 10% market share each**. At the same time, operating profit of CJKX's parcel division was recorded higher than those of its competitors.

Table 17: E-commerce traffic at an average 10-12% over last seven years for Korea

(bn KRW)	2010A	2011A	2012A	2013A	2014A	2015A	2016E
E-commerce GMV	25,203	29,133	34,068	38,498	45,302	53,888	65,179
YoY % change		15.6%	16.9%	13.0%	17.7%	19.0%	21.0%
No. of parcel boxes (mn)	1,198	1,299	1,406	1,509	1,623	1,816	2,068
YoY % change	11.0%	8.4%	8.2%	7.3%	7.5%	11.9%	13.9%
as % of e-payment transaction		125.2%	116.2%	112.5%	109.7%	106.8%	103.4%
Aggregate revenue of parcel service	2,990	3,290	3,520	3,703	3,966	4,343	4,847
YoY % change	9.9%	10.0%	7.0%	5.2%	7.1%	9.5%	11.6%

Source: Company data, I-Sec research

Table 18: Parcel delivery business of CJ Korea has increased by 5% CQGR for last 15 quarters

(bn KRW)	2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Revenue	293.6	306.6	324.1	375.7	355	381	378	443	423	447	447	508
Gross profit	26.2	28.9	27.2	45.6	34	39	38	46	42	52	47	48
Margin (%)	8.9	9.4	8.4	12.1	9.7	10.3	10.1	10.5	10.0	11.6	10.6	9.5
Market growth (%)	6.0	7.0	10.1	10.0	12.2	14.4	10.5	10.7	13.8	12.0	13.0	12.3
CJ Korea growth (%)	5.4	17.2	18.0	20.5	23.7	26.9	18.5	18.1	23.2	19.8	20.6	18.7

Source: Company data, I-Sec research

Where CTOs stumbled in India – stringent regulations, high competition and disappointing exim

Regulations have been a bottleneck

Among the two most consistent themes that have come up in our discussion with the logistics value chain is the upcoming Dedicated Freight Corridor (DFC) in India and the resulting road to rail freight shift it can create and therefore pull up profitability of logistic execution operators like Concor. Container Train Operators (CTOs) remain one of the key hope themes of the space – a space where we have seen **policy and regulatory intervention** creating consistent headwinds for return generation, unhealthy competition and unnecessary asset heaviness.

Case study: The evolution of CTOs in India

In Jan'06, in a landmark initiative to introduce competition in the container operations segment, the Ministry of Railways (MoR) allowed entry of private and public sector operators to obtain licences for running container trains on the Indian Railways (IR) network. Until then, the Container Corporation of India, a subsidiary of IR, was the monopoly operator of container trains in India. This initiative was the first significant move of its kind where private parties were allowed to make entry in the domain of railway operations with direct customer interfacing.

The entire network of IR was classified and grouped into four categories based on existing and anticipated traffic volumes of ports (*table 19*). A one-time registration fee of Rs500mn (about US\$10mn) (for category-I license) or Rs100mn (about US\$2mn) (for categories-II, III & IV licenses) was payable to MoR.

Table 19: Container train operator licence categories

Category	Areas of operation	Registration fee (Rs mn)
I	JNP/Mumbai Port - National Capital Region rail corridor and beyond. This category will also include all domestic traffic.	500 (automatically includes all four categories)
II	Rail corridors serving JNP/Mumbai Port and its hinterland in other than National Capital Region and beyond. This category will also include all domestic traffic except on category-I routes.	100
III	Rail corridors serving the ports of Pipavav, Mundra, Chennai/Ennore, Vizag and Kochi and their hinterland. This category will also include all domestic traffic except on category-I routes.	100
IV	Rail corridors serving other ports like Kandla, New Mangalore, Tuticorin, Haldia/Kolkata, Paradip and Mormugao and their hinterland and all domestic traffic routes. This category will also include all domestic traffic except on category-I routes.	100

Source: Industry data, I-Sec research

The rolling stock had to be procured by the operators based on IR approved design. It would have to be inspected by IR as per the rules in force. Locomotives would be supplied by the IR. **For terminal activities, operators were required to either have a rail linked Inland Container Depot (ICD) or give an assurance within a period of six months of getting approval that they would construct their own ICD within three years or arrange to furnish a lease agreement with an existing ICD owner.** Maintenance of track at the terminals would be done by the operators at their own cost, with IR being paid for inspection/supervision according to the prescribed prevailing rates. Maintenance of rolling stock would be done by IR, for which the prescribed charges would be recovered from the operators.

Despite initial interest, poor viability drove off players

The initial response to the policy was good. In the first round of registration (16-Jan to 15-Feb 2006), 14 operators, including the incumbent Concor, signed an agreement with IR. Ten of these permissions were for category-I routes, two for category-II and the remaining two were for category-IV. As promised by MoR, 'in principle approval' to run container trains was given to these 14 operators before 31-Mar'06. This number was larger than expected, and more so since the Model Concession Agreement (MCA) (which is a precise policy and regulatory framework legalising the agreement between the MoR and operators) was not yet ready. MoR collected Rs5,400mn as registration fee.

To satisfy the requirement for access to terminals, eight of the 13 CTOs signed MoUs with Concor for using its terminals. Concor put a restriction on CTOs that they should not do business with Concor's existing customers using these terminals. The following year, in the second round of registration (1-Dec'06 to 31-Jan'07), although 60 companies sent applications, only two, KRIBHCO and Gammon India, showed further interest. Finally, KRIBHCO alone signed the agreement with IR for category-I routes. The enthusiasm had already gone down, showing that the first round registrations were more opportunistic. The one-year period had given operators a deeper insight into the business and a realistic assessment of operational viability.

Table 20: List of CTOs – much of initial interest in CTO business was short-lived

Company	Year	Category	Parent company	Other activities	First trip		
					When	From	To
Adani Logistics Ltd	2006	I	Adani Group	Ports, container terminal, railways, CFS	9-Nov-07	Patli	Mundra Port
Concor	2006	I	IR (Public Sector Undertaking)	Incumbent			
Container Rail Road Services	2006	I	DP World	Ports, container terminal	5-Oct-07	Dadri	Mundra Port
CWC	2006	I	CWC (Public Sector Undertaking)	Warehousing, CFS	4-Jan-07	Loni	Mumbai Port
Freightstar	2006	I	ETA Star Group (Dubai)	Shipping and port services	23-Nov-07	Loni	JN Port
Gateway Rail Freight	2006	I	Gateway Distriparks	CFS	3-May-06	Garhi Harsaru	Mundra Port
Hind Terminals	2006	I	Sharaf Group (UAE) and MSC Agency (of Mediterranean Shipping)	Shipping, freight-forwarding	16-Apr-07	Nhava Sheva	Loni
India Infrastructure and Logistics	2006	I	APL India (subsidiary of NOL, Singapore) (76%), Hindustan Infrastructure Project (24%)	Container shipping, infra entrepreneur	31-May-07	Loni	JN Port
Reliance Infrastructure	2006	I	Reliance (ADAG)	Industry in general	Not available		
SMART	2006	I	SICAL Logistics	CFS, container terminal	6-Mar-08	Hatta Road (MP)	Khetri (Rajasthan)
Boxtrans (India)	2006	III	JM Baxi & Co	Container terminal, CFS, stevedoring	12-Apr-07	Kolkata	Loni
Pipavav Railway (PRCL)	2006	III	PRCL (A JV between IR and Gujarat Pipavav, a subsidiary of Maersk)	Ports, railways	Not yet started		
TransRail Logistics Ltd	2006	IV	Delhi Assam Roadways (Transport and Logistics)	Trucking	9-Feb-09	Kolkata	Patli
Innovative B2B	2006	IV	Bagadiya Shipping, and Bothra Brothers	Agency and entrepreneur	30-Oct-06	West Bengal	Andhra Pradesh
KRIBHCO Infrastructure	2007	I	KRIBHCO (Public Sector Undertaking)	Fertiliser industry	Not yet started		
Arshiya Rail Infrastructure	2008	I	Arshiya International	Logistics, entrepreneur	2-Feb-09	Jharsuguda	Visakhapatnam

Source: Industry data, I-Sec research

CTOs were making the move from road to rail happen....

To the credit of CTOs, more commodities moved in containers and new services were being provided on routes where road was a monopoly. The following examples demonstrate this:

- One of the operators was providing customised solutions for moving marble in containers from Kishangarh and Makrana (both in Rajasthan) to Kolkata (West Bengal). Earlier, this traffic was moving entirely by road. Now 60% of marble volumes on this route move in containers.
- 25% of the market was captured by CTOs for tiles moving from Morbi (Gujarat) to eastern India.
- There was a major shift from road to rail for refrigerated containers from National Capital Region to Mumbai.
- Arshiya Rail Infrastructure was moving aluminium ingots in customised containers from Jharsuguda (Orissa) to Vizag port.
- Adani Logistics was transporting cars in specially designed containers for carrying automobiles. (Maruti was one of the first customers of Adani to transport coils). Adani has since added Honda, Adani Wilmar, Hanko, Ravago Shah Polymers, Winmar, Hero Motors, Aditya Birla and many more as customers

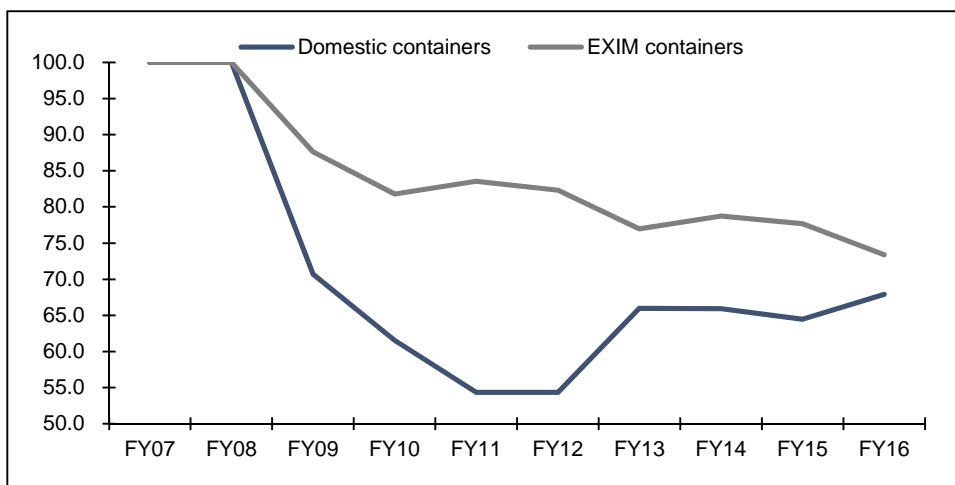
- CTOs were able to increase rail share on routes even where Concor services existed.

...resulting in market share loss by Concor

CTOs posed stiff competition to Concor, a monopoly service provider for nearly 17 years, by offering value-added services. This was reflected in Concor’s market share, which dropped from 95% in 2007-08 to 76% in 2008-09. In terms of intellectual loss, many of their experienced managers resigned from Concor and joined private operators.

In a strategic move to retain its market share, Concor reduced tariffs for FEU (40-foot equivalent unit) containers, dropped rates on selected routes (*Concor reduced rates by 8% for containers between Ludhiana (Punjab) and ports on the west coast after Hind Terminals, and Container Rail Road Services started operations on this route*), introduced incentive schemes (volume discounts, bulk discounts, rebates, lower rates for moving empty containers, and longer free time for clearing loaded import containers) and formed joint ventures with companies to provide end-to-end intermodal logistics solutions to its customers.

Chart 12: Market share loss by Concor



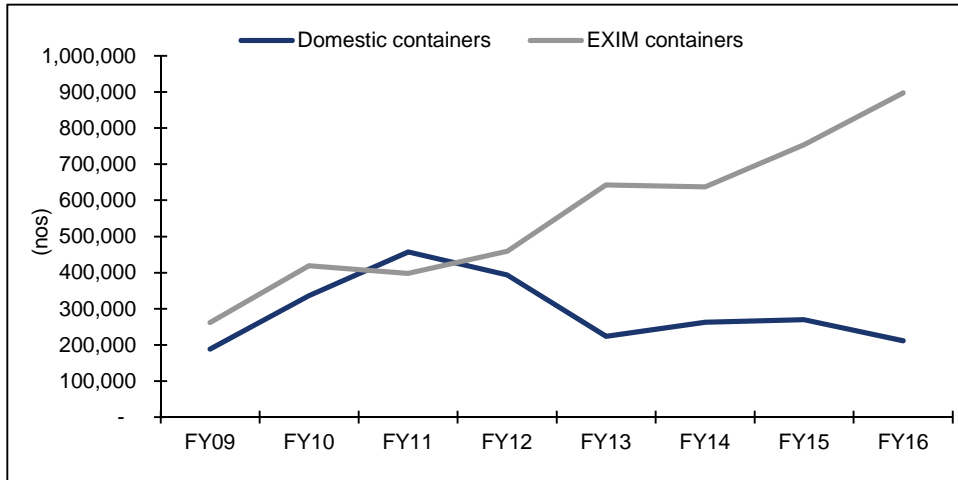
Source: IR data, Concor data

How have the CTOs (ex-Concor) fared – the scents of sub-optimality

We tried to look at the financials of seven key CTOs (ex-Concor) since opening up of the sector to private participants. Clearly, the business prospect looks bleak, with tremendous competitive intensity and declining return potential. The problem is both at the infrastructure level as well as the service level. The margins and the return on capital are both suboptimal even after 7-8 years of operations. While the number of CTOs has not proliferated, returns have kept on lingering at suboptimal levels for them as a whole.

Chart 13: How have IR ex-Concor volumes shaped up

Interestingly, the exim traffic ex-Concor has shown a CAGR of 19% over past seven years. So, given the pace at which Concor has lost business, CTOs should have had good opportunities to enjoy healthy business. That clearly did not happen.



Source: IR data, Concor

Table 21: Performance of key CTOs since inception

(Rs mn)	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Gateway								
Revenue	1,381	2,309	2,441	3,483	5,376	5,671	6,913	7,304
EBITDA	46	233	238	310	799	1,060	1,703	1,473
EBIT	(166)	(22)	51	92	397	660	1,229	974
Capex	1,445	764	239	78	768	394	895	708
TEUs			131,337	180,473	233,566	212,317	250,347	203,167
Realisation/TEU			18,584	19,301	23,017	26,710	27,614	35,951
EBITDA/TEU			1,815	1,718	3,420	4,993	6,804	7,249
EBIT/TEU			385	507	1,701	3,110	4,908	4,796
EBITDA margin	3.4	10.1	9.8	8.9	14.9	18.7	24.6	20.2
RoIC (%)	(3.8)	(0.4)	1.4	2.7	5.2	8.7	14.8	10.8
Assets	4,410	5,116	3,547	3,443	7,614	7,627	8,294	9,057
Asset turn	0.3	0.5	0.7	1.0	0.7	0.7	0.8	0.8
Adani Logistics (unlisted)								
Revenue			1,194	1,231	2,707	4,271	6,341	6,786
EBITDA			(21)	69	275	580	768	606
EBIT			45	49	305	1,519	1,809	1,766
Capex			156	147	380	99	404	440
EBITDA margin			(1.7)	5.6	10.2	13.6	12.1	8.9
RoIC (%)			0.7	0.7	3.3	9.4	9.8	8.5
Assets			6,476	6,610	9,329	16,212	18,371	20,796
Asset turn			0.2	0.2	0.3	0.3	0.3	0.3
Arshiya								
Revenue	21	483	1,692	2,716	3,021	1,961	2,398	1,979
EBITDA	2	119	382	590	335	(69)		
EBIT	0	82	279	447	95	(407)	(260)	(271)
Capex	1,581	1,534	1,498	1,487	574	223		
EBITDA margin	10	25	23	22	11	(4)		
RoIC (%)	0.0	2.4	4.9	6.2	1.2	(5.8)	(3.9)	(4.5)
Assets	1,736	3,445	5,686	7,187	7,728	7,010	6,655	6,024
Asset turn	0.0	0.1	0.3	0.4	0.4	0.3	0.4	0.3
DARCL (unlisted)								
Revenue				214	255	689	971	
EBITDA				(12)	8	4	54	
EBIT				(41)	(22)	(31)	25	
Capex				40	3	36	119	
EBITDA margin				(5.7)	3.2	0.6	5.6	
RoIC (%)				(11.2)	(5.3)	(7.6)	4.4	
Assets				368	408	405	564	
Asset turn				0.6	0.6	1.7	1.7	
Innovative Logistics (unlisted)								
Revenue		1,086	972	1,133	1,646	2,115		
EBITDA		(147)	(121)	(104)	(15)	41		
EBIT		(224)	(239)	(225)	(129)	(84)		
Capex		464	240	110	55	333		
EBITDA margin		(13.6)	(12.5)	(9.1)	(0.9)	1.9		
RoIC (%)		(7.5)	(6.7)	(7.8)	(4.5)	(2.6)		
Assets		2,978	3,574	2,905	2,867	3,248		
Asset turn		0.4	0.3	0.4	0.6	0.7		
SMART (Subsidiary of SICAL)								
Revenue						2,218	2,024	1,779
EBITDA						410	306	257
EBIT						314	188	151
Capex						66	214	297
CFS								117,065
CTO								21,686
Realisation/TEU								12,823
EBITDA/TEU								1,853
EBITDA margin						18.5	15.1	14.5
RoIC (%)						7.1	4.4	3.0
Assets						4,426	4,284	5,054
Asset turn						0.5	0.5	0.4
Hind Terminals (Unlisted)**								
Revenue		1,529	1,955	2,876	3,447	3,900	4,928	
EBITDA		208	239	152	227	280	441	
EBIT		130	156	57	124	178	287	
Capex		101	262	258	36	87	195	
EBITDA margin		13.6	12.2	5.3	6.6	7.2	9.0	
RoIC (%)		8.0	8.6	2.9	6.6	9.7	14.8	
Assets		1,633	1,813	1,929	1,891	1,841	1,938	
Asset turn		0.9	1.1	1.5	1.8	2.1	2.5	

Source: MCA, Company data, I-Sec research; ** ICD and CFS business are not a part of reported numbers

We could cull out the financials of seven critical CTOs just to understand the nature of performance (four unlisted, three listed) over the past 7-8 years. There are decent performances visible both in asset-heavy and asset-light models (case in point being Gateway Distripark and Hind Terminals).

The ICD (present and upcoming) for Gateway Distripark is included in the Rail business; however, measured investment in rakes and ICDs have ensured that an above-industry average RoIC performance is still maintained.

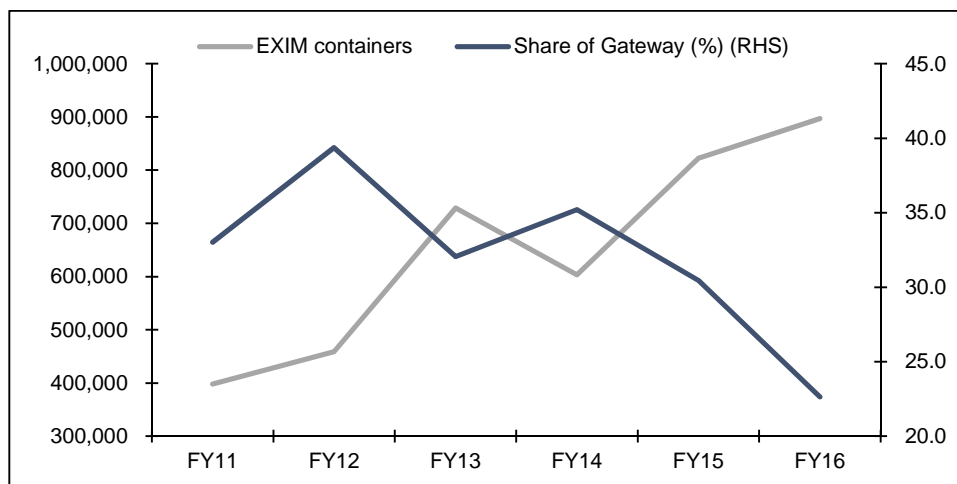
Hind Terminal (Sharaf Group – UAE and MSC Agency) has outperformed return performance of Gateway. Hind Terminal ICD and CFS form a separate segment and in that sense it is slightly different from the other players’ reported rail segment numbers. Also, policy required setting up of ICD within three years of getting the CTO license. Thus, probably an asset-light model is not feasible in this space – however, Hind Terminal is a live example of how an asset-light model helps even in the CTO space and how regulatory development could have shaped better for the industry.

This brings us to the next point – how regulatory intervention has impeded what could have been a profitable logistics execution segment in India. Clearly, there were enough volumes in the exim segment and the number of CTOs has not increased meaningfully since inception to justify such poor return ratios.

Competition in the service and infrastructure segments

To note here, the market share analysis of even perhaps the best performing CTO shows a distraught picture. When we look at *table 21*, it comes out that Gateway is a relatively better performing CTO in the pack analysed (and it is a comprehensive pack in terms of market share). This shows the extent to which competition exists in the sector – in the service segment.

Chart 14: How Gateway has lost market share in a segment that has shown 19% CAGR



Source: IR, Company data

Also, a look at one of the most important infrastructure segments (ICDs) critical for running of CTOs highlights rampant overcapacity. We are yet to see any adverse policy intervention in this segment; however, a look at the NCR ICD market highlights the extent to which the infrastructure has been over-invested into and perhaps the kind of exim bounce required to utilise the same is not forthcoming in near future – the

hope theme is if TKD gets closed. A look into Ludhiana would throw a similar picture. Part of the ICD overcapacity in regions like NCR and Ludhiana is also connected with the failure of the policy to delink assets from service.

Table 22: ICD/CFS utilisation in NCR paints a picture of overcapacity

Location	CFS/ICD	Company	Capacity (TEU)	TEUs handled	Utilisation (%)
Tughlakabad (Delhi) / Northern Region	ICD	Concor	400,000	450,226	112.6
Dadri (Greater Noida) / North Central Region	ICD	Concor	500,000	230,390	46.1
Loni	ICD	CWC	80,000	100,000	125.0
Garhi Harsaru	ICD	Gateway Distriparks Ltd	260,000	105,000	40.4
Patli	ICD	Adani Logistics Limited	140,000	30,000	46.4
Khatuwas **	ICD	Concor	500,000	62,158	12.4
Dadri	CFS	Albatross CFS Pvt. Ltd.			
Ballabgarh	ICD	Concor	25,000	700	2.8
Diwana	ICD + PFT	Continental Warehouse	100,000	NA	NA
Sonepat (Bhodwal Majri)	ICD	Box Trans (JM baxi)	120,000	50,000	41.7
Total			2,125,000	1,028,474	48.4

** Khatuwas has been mentioned as majority of Khatuwas volume is originated from NCR region

Source: Industry data, I-Sec research

How regulation and policy created roadblocks at every stage of the process

Entry costs made the model capital-intensive – by unnecessary linking of asset and services

With all upfront and variable investments, the CTO business has become highly capital-intensive with a long gestation period. They had to pay Rs500mn/ 100mn as one-time registration fee. It was mandatory for them to build an ICD within three years of getting the licence. A medium sized ICD used to invest anywhere between Rs750mn-1,000mn. Initially, many CTOs tied up with Concor for using their ICDs. CTOs felt that the charges by Concor were high. CTOs have to procure their own rakes and containers. One rake, together with containers costs about Rs140mn-150mn. It is estimated that a minimum investment of Rs2000mn is required from a CTO to start business, **considering five rakes and one ICD.**

Table 21 highlights the assets and asset turn (**investment would be higher as 'the figures are adjusted for depreciation'**) from the new participants for the last 7-8 years. Total investments in the space should be >Rs 40bn by FY15. While combined capex data is difficult to obtain – combined assets and asset turn is a fair indicator of extent of asset intensiveness that a simple policy decoupling could have achieved.

Pricing by IR: Regulatory costs kept on dealing hard hands

The major pricing element is the haulage, a charge that IR levies on CTOs for using its tracks, locos and signaling infrastructure. Other cost elements are development surcharge, parking and stabling charges. These prices have a significant impact on the CTO's operational costs.

- Haulage alone accounts for 70-75% of CTO's operating costs. **Haulage has been increased four times since the final policy in Jan'06 within a period of four years**, w.e.f. 01-Nov'06, 01-Oct'08, 01-Jul'09 and 01-Jan'10, with a total increase up to 20%. Revenues earned through haulage account for only 3% of IR's total revenues. However, for CTOs, it is the most significant cost and any upward revision comes as a setback to them.

- **Empty container movement** is charged at 65% and empty container wagon at 60% of the loaded container. On the return, operators do not always get cargo, resulting in lesser margins. Reefer containers (for refrigerated goods) generally come empty on the return due to lesser possibility of finding similar cargo. The capacity by weight of an FEU is just about 1.2 times that of a TEU. The haulage charged by IR for an FEU is 1.8 times that for TEU. The FEU hence is viable only for low-density cargo.
- Additionally, IR introduced **2% development surcharge** on haulage w.e.f. 1-Apr'08.
- **Parking charges** in between runs were increased from Rs9,000 to Rs13,000 per rake per day. The economic downturn in 2008-09, shortly after operators got their licences, forced many operators to stable their rakes for want of business. **Stabling charges** at Rs13,000 per rake per day were introduced.
- **Restricting the container basket**. In Jan'07, a year after the policy was announced, the IR restricted ores, minerals, coal and coke, accounting for 70% of total rail freight, for carriage by containers. The commodity basket for CTOs was thus restricted to just 30% of what moves by rail.

All these charges impacted CTOs by adding to their operational costs and kept on reducing their profitability.

Service levels by IR – wanting a lot to be deserved

The policy did not provide CTOs any service level guarantees from IR. CTOs were demanding guaranteed transit time or a fixed schedule for container trains, which IR denied on the ground of network capacity constraints.

As of now, IR does not have a fully functional timetable for freight trains (Concor has just started its scheduled trains for domestic operations on three routes). Passenger trains run with a time table and are given priority over freight trains. In the absence of such a guarantee, CTOs were having difficulties in ensuring timely delivery to their customers, and managing their own logistics. CTOs were battling for scheduled train service since the policy announcement.

Time table for trains – assured transit time didn't work

In Dec'09, nearly four years after the policy announcement, MoR announced an Assured Transit Time (ATT) service on limited routes. This service aimed at providing scheduled container train services to interested CTOs for end-to-end movements at an additional 10% of the haulage charge, called premium ATT service charge. In case of non-adherence of ATT by IR, the premium would be reimbursed. The reduction in time taken in the ATT service against the existing service varies as follows:

- For the JN Port (Mumbai) Tughlakabad Depot (Delhi) stretch, a distance of about 1,500km, the ATT service offers about 15% reduction in time (36-39 hours over the current 42-45 hours).
- For the JNPT-Loni Depot stretch, the reduction is 28-30% (42-43 hours against the current 60 hours).

CTOs have yet to start using this service. There are concerns about the implementation modalities and premium being kept at 10%. CTOs are of the view that IR should offer discounts on the charges in case of non-compliance rather than just reimbursement of premium.

System maintenance time for IR remains arduous and lengthy

Rake maintenance is only done by the IR at designated facilities. As of Dec'09, there were 21 designated facilities, eight in IR yards, 10 in Concor premises, and three in CTOs' premises (one each of Adani Logistics Ltd, Gateway Rail Freight Pvt Ltd, and CWC). Each rake is assigned a particular facility for examination. It is possible that such a facility is away from the main circuit on which a rake is operational; hence the rake has to move a long distance to reach the facility. After examination, a Train Examiner (TXR) issues a certificate to the rakes, valid for 6,000km or 30 days, whichever is earlier. There may be a scope to increase validity of distance beyond 6,000 km based on the age of the rolling stock. Most of the rolling stock procured by CTOs was new. At an operational level, containers have to be offloaded from the rake for TXR examination. This results in detention of stock and increased cost of handling. The train examination is done only by a railway TXR staff. This needs coordination with railways. Sometimes the rake is ready but the examination is delayed. CTOs are not allowed to hire their own TXR staff.

Terminal charges added to the burden

Terminals are yards where the consolidation of cargo is done. To provide some relief to CTOs, till the time they build their own terminal base, IR authorised Zonal Railways to notify one or more railway-owned terminals (goods sheds, railway sidings, unused railway lines, etc) as a container rail terminal (CRT) depending upon the requirement. Though guidelines have been issued from the MoR, Zonal Railways are at times resistant in allowing container handling at these CRTs. In the beginning, the usage of these railway terminals turned CRTs was not charged. However, since 01-Jul'07, the following charges were announced by IR:

- Terminal access charges (Rs34,000 per terminal per rake)
- Detention charge (Rs100 per wagon per hour)
- Ground usage charge (Rs2,250-4,500 per rake per hour, depending on the type of the goods shed)

Case study – How policy continued to create roadblocks in the CTO space**FY11 annual report of Innovative Logistics Ltd (unlisted)**

IR is taking long time to approve the usage of private sidings by CTOs even after timely submission of required information. IR is taking long time in approval for setting up of new terminals. Northern Railway (NR) has stopped recognising extra time of 15 days given by other Railway zones (premium examination) for examination of rakes which are away from their base station. This has affected the operating efficiency of the business and increased empty running of rakes. IR environment is likely to continue to be tough in the short to medium run. It is pertinent to note that two CTOs, Arshiya and KRIBHCO, have filed petition against IR with Competition Commission of India against use of dominant position by IR vis a vis CTOs.

Can India eventually produce a pureplay 3PL?

Key points

- While it's easy to highlight the keenness of Indian LEPs to be attracted to a LAP model, the growth of 3PL has been stunted in India
- Available data highlights that Global 3PL revenues is at ~ US\$750bn, Indian 3PL revenues at ~ US\$73mn, with majority of the outsourcing in Indian context still limited to transportation and warehousing
- This makes any established 3PL model so hard to find in India – perhaps Allcargo comes closest in terms of as asset light, high FCF yielding player

3PL globally comprises three segments: road- and rail-freight forwarding, air- and sea-freight forwarding, and contract logistics; the management of capacity being their main focus. Freight-forwarding players manage transport services. Road and rail forwarding companies have similar economics arising from the similarity of their customers; the same is true for air and sea forwarding providers. Contract logistics players manage value-added services related to warehousing and transport, such as supply chain management. Because companies in these three segments provide only management services, their asset intensity is low (unless they have consciously made it more asset-intensive business, such as owning warehouses).

3PL players assume the most premium valuation quartile in the global logistics space, because of its relatively low asset intensity.

Excerpt from: 2016 Global 3PL study by Korn Ferry

Table 23: Global 3PL revenues at US\$750bn, Indian 3PL revenues at ~ US\$73mn

Region	2013 Global 3PL Revenues (US\$bn)	2014 Global 3PL Revenues (US\$bn)	Percent Change 2013 to 2014	Percent Change 2012 to 2013a	Percent Change 2011 to 2012b	CAGR 2006-2014
North America	\$177.30	\$187.60	5.80%	2.90%	6.70%	4.30%
Europe	158.1	174.4	10.30%	0.01%	-2.60%	0.70%
Asia-Pacific	255.6	269.6	5.50%	5.30%	23.60%	10.20%
South America	44.9	41.9	-6.70%	3.00%	12.40%	8.10%
Other Regions	69	77.2	11.90%	-0.01%	6.40%	
Total	\$704.90	\$750.70	6.50%	2.70%	9.90%	

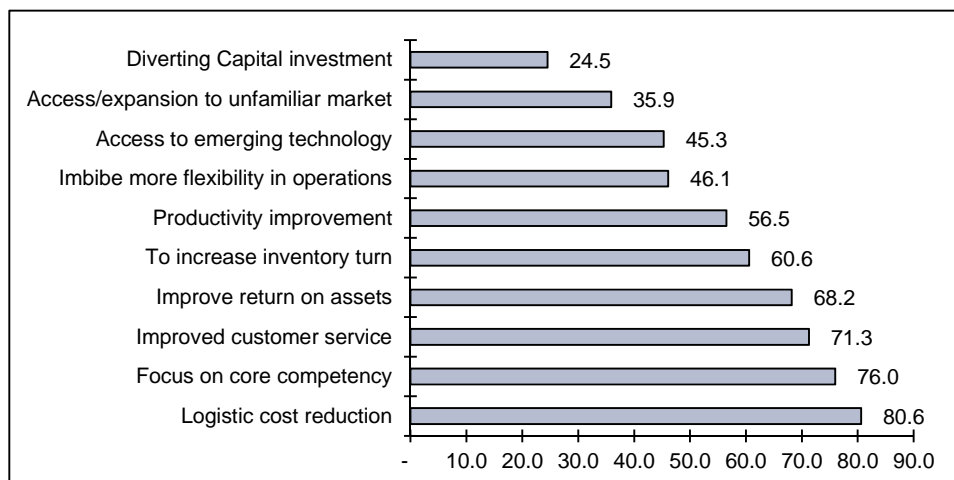
Source: I-Sec research

There have been surveys done to understand the extent of outsourcing from Indian companies and, as expected, the outsourcing is largely revolving around transportation and to certain extent warehousing. Similar feedbacks have been received from the logistics players as well as supply chain parties highlighting that the value of providing differentiated services in the supply chain is not yet acknowledged / rewarded adequately in the Indian landscape.

Chart 15: 3PL survey in India

Less than 55% of Indian companies subscribe to 3PL compared to 75% globally.

Cost reduction and efficiency improvement are key triggers for adopting 3PL.



Source: IIFT, I-Sec research

In the relative evolution of different modes of transport in India, 3PL has been relegated to perhaps a less than important cog in the entire system – something which has been driven by nature of logistics requirements of Indian customers, extent of outsourcing as well as perceived value proposition that the activity brings to the end user. In terms of market value, we could see 3PL appearing eighth with a meagre market size of US\$73mn.

Table 24: Indian logistic segments – where does 3PL stand

Industry	Market Size (Rs bn)	Market Size Growth (FY10-FY15)	Level of Fragmentation	Asset Intensity	RoCE	Drivers
Road Transport	4,911	13-15%	High	Moderate	Moderate to Low	Adoption: Dispersal in consumer demand expected to result in increased Less than Truck Load (LTL) cargo movement and need for consolidation. Regulations: GST expected to increase utilisation. Customer Preference: Adoption of technology - (i) Telematics to drive transparency; (ii) Market place - trucking/cargo exchange; and (iii) Need for Global Positioning System (GPS) tracking in (LTL)
Freight forwarding/ NVOCC	665	6-8%	Very high	Very Low	Moderate to High	Adoption: Development of trade relationships with east Asia has led to emergence of new freight forwarders with focus on these trade lanes. Others: Freight forwarders are building end-to-end capabilities to differentiate in a highly fragmented market
Agri warehousing	207	13-14%	Moderate	Moderate	Moderate	Regulations: Government support for Public-Private Partnership (PPP) projects to increase private sector participation. Adoption: Increasing awareness on agri-wastage.
Express Service	183	10-15%	Moderate	Low	Very High	Customer Preference: Need for high speed movement of cargo. Adoption: (i) Reducing fuel costs (Aviation Turbine Fuel (ATF) / diesel); (ii) emergence of new trade channels – e-tailing; and (iii) growing dispersion in demand (non-metro / non-tier-I locations).

Industry	Market Size (Rs bn)	Market Size Growth (FY10-FY15)	Level of Fragmentation	Asset Intensity	RoCE	Drivers
Cold Chain	177	c.15%	Moderate	High	Moderate and declining	Adoption: (i) Increasing self-compliance with entry of MNCs (food, quick service restaurants {QSR}) and increasing pharma exports; (ii) organised play in end-user industries (dairy products); and (iii) increasing fruit imports. Customer preference: High involvement of logistics service providers (LSPs), end-to-end supply chain requirement. Willingness to pay: 'Premiumisation' in end-user industries (chocolates, QSR, etc.) and increasing quality concerns. Scale of operations (LSP): Increased size by LSPs resulting in economies of scale. Scale of operations in end-user industries and need for service to increase organised play in cold chain.
CFS/ICD/CTO	153	10-15%	High	Very High	Moderate to high	Adoption: Increase in containerisation levels. Customer Preference: Need for better quality of service is expected to increase share of private players.
Port Services	85	NA	Moderate	High	Low	Adoption: Increase in proportion of comprehensive contracts vs standalone tug boats contracts. Others: Emergence of minor ports.
3PL	73	10-15%	Moderate	Low	High	Adoption: Future adoption in low penetrated industries like fast moving consumer durables (FMCD) and FMCG. Customer Preference: Shift from conventional transportation/ warehousing to in-plant support, vendor-managed inventory (VMI), packaging, sub assembly, end-to-end supply chain management (SCM). Others: Increasing customer awareness leading to cost+ contracts impacting overall margins.
Project Cargo-Road	43	15-20%	Moderate	High	High	End-user: Increase in infrastructure investment (wind, solar, pipeline, urban transport, railways). Regulations: FDI norms in manufacturing and infrastructure industries - a potential upside. Others: Mobilisation of capital is an entry barrier.
Coastal Shipping	37	13-15%	Moderate	Very High	Moderate	Regulations: (i) Coastal cargo incentive scheme launched by government; and (ii) Sagarmala project having focus on coastal movement. Adoption: High adoption seen on specific trade lanes.
Custom bonded warehouses	31	10-11%	Very high	Moderate	Moderate	Regulations: Lack of clarity in regulations limits VMI potential.
E-commerce logistics	31	> 35%	Moderate	High	High	Customer Preference: Need for additional services to address delivery gap (such as cash on delivery {CoD}) and technology gap (complete track and trace, evolved warehouse management services (WMS) to know inventory levels) Customer expansion: Geographic and catalogue expansion. Risks: (i) Risks involved with unit economics of end-user industry and resulting impact on LSPs, (ii) competition from potential captive capabilities built with increase in volumes.
Air carrier	18	4-5%	Low	Very Low	Very low	Market: (i) Increase in movement of high-value products; (ii) rising need for on-demand cargo; and (iii) new trade channels such as e-commerce.
Tank Farms-Non POL	12	10-12%	Low	Moderate	Moderate	Adoption: (i) Clubbing tank farm products with multimodal logistics parks (MMLPs); (ii) uptake of port linked processing units; and (iii) increasing imports of liquids. Regulations: Capacity addition at non-major / private ports.

Source: Seaways logistics DRHP

Western DFC – economics highlight lower risks to frequent haulage rate hikes

Key points

- We try to create a working WDFC model to understand the current economics of the project under different scenarios of freight and haulage rates
- To understand the revenue potential of WDFC, we looked at historical earnings from container freight (domestic + exim) in the West/North west sections of IR
- Base case highlights the relative ease with which DFC can maintain FCF without resorting to haulage rate increases. The volume estimates for exim till FY23 are in line with our rail share assumption from western ports (proprietary model)
- Even in our conservative case estimates (70% of base case volumes), while return ratios moderate meaningfully, cashflow management and interest servicing are well taken care of, reducing any meaningful possibility of haulage rate increases.

One of the key positive theses for the CTOs is the possible commissioning of the Dedicated Freight Corridor (DFC) and the resultant non-linear impact it would create on the volumes and the cost profile for majority of the CTOs. This is undoubtedly one of the key reasons for our positive thesis on Concor and Gateway. What has been bothering us is the increasing capex costs of Western DFC (WDFC), which is key to the entire thesis as well as the nature of loan extended to WDFC from Ministry of Railways. A deep dive into the economics of the project was necessary to have minimal amount of confidence in the stability of haulage rates.

Dedicated Freight Corridor can be the big infrastructure makeover for Indian railways

DFCCIL is a wholly-owned company of Ministry of Railways (MoR) registered under Company Act 1956 and was incorporated on 30-Oct'06. The MoR has embarked upon a long-term strategic plan to construct high capacity, high speed, Dedicated Freight Corridors along the 'golden quadrilateral' and its diagonals. In the first phase of this plan, DFCCIL has been entrusted with the responsibility of construction, maintenance and operation of two corridors – Eastern Corridor from Ludhiana to Dankuni with Dadri-Khurja link, and Western Corridor from Dadri to Jawaharlal Nehru Port – along with all attached infrastructure, to enable Indian Railways (IR) and other qualified operators to run their freight trains. DFCCIL's role will primarily be that of the infrastructure provider with responsibility for construction, operation and maintenance. **DFCCIL will accept freight trains on its system, operate them on the DFC and then hand them back to IR and other qualified operators at the other end.**

Table 25: DFC highlights

Total length of Eastern and Western DFC (Eastern-1,856km; Western-1,504km)	3360km
Total estimated costs	Rs815bn
Total expenditure including land till May'16	Rs223bn
Overall financial progress	27.4%
Overall physical progress	29.0%

Table 26: Progress of land acquisition till Jun'16

Section	Total scope (Ha)	Notification u/s 20A (Ha)	Award u/s 20F (Ha)
Eastern Corridor (ex Sonnagar-Dankuni)	4,587	4,587 (100%)	3,884 (84.7%)
Western Corridor	6,000	6,000 (100%)	5,739 (95.7%)
Total	10,587	10,587 (100%)	5,739 (95.7%)
Sonnagar-Dankuni (under PPP)	1,178	1,172 (99.4%)	502 (43%)

Table 27: Features of DFC

Features	Existing	on DFC
Height	4.265mt	7.1mt/5.1mt on WDFC/EDFC
Width	3200mm	3660mm
Container stack	Single stack	Double stack
Train length	700mt	1500mt
Train load	5000te	13000te
Axle load	22.9t/25t	25t
Maximum speed	75kmph	100kmph
Station spacing	7-10km	40km

Source: DFC

Table 28: Expected completion schedule of DFCs

Route Section	Length (km)	Month	Financial year
Eastern DFC			
Bhaupur-Khurja	342	March	2017-18
Bhaupur-Mughal Sarai	402	December	2018-19
Dadri-Khurja-Ludhiana	450	December	2019-20
Mughal Sarai-Sonnagar	123	December	2017-18
Western DFC			
Rewari-Iqbalgarh	625	June	2018-19
Iqbalgarh-Vadodara	325	March	2018-19
Vadodara-JNPT	425	October	2019-20
Rewari-Dadri	127	September	2019-20

Do economics highlight any major risk of increase in haulage rates for freight trains plying in DFC?

The key area of our study and interest is the supporting economics of Western DFC, which is expected to commission in CY19-20 and which can be instrumental in increasing the rail share of container freight traffic (exim + domestic).

Majority of the capex for Western DFC (WDFC) is funded through the long-term loan from Japan International Cooperation Agency (JICA). Loan by JICA is given to MoR as externally aided components of Gross Budgetary Support (GBS) through Ministry of Finance. This is passed on as loan for DFCCIL on back to back basis. As per DFC annual report, the tenure of the loan is 40 years, **rate of interest for DFCCIL is 7%, and moratorium period is 10 years. The accumulated interest accrued during period of moratorium is payable after completion of 10 years. The interest will accrue on a simple interest basis. There is no principal repayment as the Cabinet has approved the loan to be extended to MoR as GBS.**

To understand the revenue potential of WDFC, we looked at historical earnings from container freight (domestic + exim) and derived few key indicators of revenue from the same (namely, earnings/TEU). As WDFC is supposed to cater majorly to this traffic, current volumes and realisations create the base case of revenue expectations for WDFC.

Table 29: Exim container freight traffic through west and north-west sections of Indian Railways (IR)

('000 te)	FY10	FY11	FY12	FY13	FY14	FY15
Northern	17,344	16,837	16,296	19,216	17,739	20,521
North Central	11,254	9,811	11,370	8,036	7,838	7,493
North Western	6,067	6,239	10,816	12,582	11,737	17,593
Western	18,391	18,643	24,065	29,184	25,751	27,275
West Central	11,427	8,482	5,633	8,927	4,517	4,702
Total	64,483	60,012	68,180	77,945	67,582	77,584

Source: Indian Railways annual statistics publication, I-Sec research

Table 30: Exim container earnings through west and north-west sections of IR

('000 Rs)	FY10	FY11	FY12	FY13	FY14	FY15
Northern	1,515,978	1,755,494	2,093,828	2,598,930	2,771,941	3,291,520
North Central	806,128	873,582	1,086,402	843,304	799,272	955,919
North Western	2,325,027	3,158,675	4,589,929	5,832,576	5,629,526	8,497,017
Western	7,001,272	7,481,994	9,760,863	11,998,439	10,213,675	10,612,228
West Central	4,179,025	3,046,839	3,037,059	3,446,733	1,913,523	2,533,401
Total	15,827,430	16,316,584	20,568,081	24,719,982	21,327,937	25,890,085
IR Earnings/te (Rs/te)	245	272	302	317	316	334
IR Earnings/TEU (Rs/TEU) (derived)	3,682	4,078	4,525	4,757	4,734	5,006

Source: Indian Railways annual statistics publication, I-Sec research

Table 31: Domestic container freight traffic through west and north-west sections of Indian Railways

(000 te)	FY10	FY11	FY12	FY13	FY14	FY15
Northern	4,666	4,674	4,362	4,448	5,470	5,341
North Central	4,138	4,102	4,927	4,180	4,722	4,594
North Western	1,900	2,557	2,388	2,798	3,241	3,094
Western	1,811	2,666	2,780	3,324	3,677	3,252
West Central	3,213	3,174	2,976	3,523	3,363	3,161
Total	15,728	17,173	17,433	18,273	20,473	19,442

Source: Indian Railways annual statistics publication, I-Sec research

Table 32: Domestic container earnings through west and north-west sections of Indian Railways

(000 Rs)	FY10	FY11	FY12	FY13	FY14	FY15
Northern	756,797	861,353	839,665	764,868	1,017,971	1,025,209
North Central	975,682	1,052,950	1,283,283	1,239,625	1,526,925	1,659,688
North Western	472,981	625,607	666,632	808,081	968,375	1,047,962
Western	578,109	813,910	871,871	1,294,408	1,227,892	918,228
West Central	450,981	473,362	564,925	998,309	569,185	615,059
Total	3,234,550	3,827,182	4,226,376	5,105,291	5,310,348	5,266,146
Earnings/te	206	223	242	279	259	271
IR Earnings/TEU (Rs/TEU) (derived)	3,085	3,343	3,637	4,191	3,891	4,063

Source: Indian Railways annual statistics publication, I-Sec research

Tables 29-32 above highlight the realisation and the possible volume potential from WDFC post its commissioning. What we also incorporated is our proprietary framework of rail exim volumes from western ports as DFC comes up. The key assumption is the increasing share of rail volumes from JNPT.

Table 33: Rail share in exim volumes as WDFC ramps up

Rail share ('000 TEUs)	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Mumbai	37	-	-							
JNPT	649	984	988	1,000	1,200	1,400	1,800	2,200	2,500	3,000
Rail JNPT share (%)	15.6	22.0	22.0	22.2	26.7	30.3	36.0	40.0	41.7	45.5
Gujarat Ports	2,081	2,195	2,196	2,276	2,526	2,686	2,876	3,186	3,446	3,526
Rail Gujarat Ports share (%)	70.0	62.0	55.0	53.0	54.6	54.1	54.2	56.4	57.9	58.3
Total Rail share	2,767	3,179	3,184	3,276	3,726	4,086	4,676	5,386	5,946	6,526
Rail share of western ports (%)	38.4	39.5	37.3	37.1	40.6	42.4	45.2	48.1	49.6	51.4

Source: Ports data, I-Sec research

WDFC should generate ample cashflows to avoid increase in haulage rates

This deduction is based after triangulating volume projections from different sources as well as keeping in mind container volume guidance from WDFC. Even with no inflation on haulage rates (derived from tables 29-32) and under different volume scenarios, we find DFCCIL to comfortably meet its interest repayment obligations and perhaps add to MoR's resources. There is no need to infuse additional capital under two broad scenarios that we looked at (base case and conservative estimates).

This largely allays our initial fears that DFCCIL will perhaps have to resort to regular haulage rate increases to service interest – especially given the increased burden of interest outflow for the year when 10-year moratorium ends.

Table 34: P&L and cashflow for WDFC (base case)

(Rs mn)	FY20E	FY21E	FY22E	FY23E	FY27E	FY31E	FY32E	FY33E
Container Volume (TEU) Exim	4,676,150	5,386,150	5,946,150	6,526,150	7,932,576	9,642,096	10,124,201	10,630,411
Container Volume (TEU) Domestic	500,000	520,000	540,800	567,840	690,213	838,958	880,906	924,952
Realisation/Teu (Exim)	5,000	5,050	5,101	5,152	5,361	5,578	5,634	5,690
Realisation/Teu (Domestic)	4,000	4,040	4,080	4,121	4,289	4,463	4,507	4,552
Container Revenue (Rs mn)	25,381	29,301	32,535	35,960	45,484	57,531	61,012	64,703
Other Revenue	1,269	1,465	1,627	1,798	2,274	2,877	3,051	3,235
Total Revenue	26,650	30,766	34,162	37,758	47,758	60,407	64,062	67,938
Margin	90%	90%	90%	90%	90%	90%	90%	90%
EBITDA	22,843	26,371	29,282	32,364	40,936	51,778	54,910	58,232
Other Income	4,773	6,910	9,350	3,674	7,423	14,142	16,421	18,981
Interest payable to MOR	15,343	23,014	26,850	26,850	26,850	26,850	26,850	26,850
Interest cost of short-term loan	761	761	761	761	761	761	761	761
Depreciation	7,388	7,388	7,388	7,388	7,388	7,388	7,388	7,388
PBT	12,273	10,267	11,782	9,188	21,509	39,070	44,481	50,364
Tax	2,455	2,053	2,356	1,838	4,302	7,814	8,896	10,073
PAT	9,818	8,213	9,425	7,351	17,207	31,256	35,585	40,291
PAT margin (%)	36.8	26.7	27.6	19.5	36.0	51.7	55.5	59.3
Cashflow abridged								
PAT	9,818	8,213	9,425	7,351	17,207	31,256	35,585	40,291
Depreciation	7,388	7,388	7,388	7,388	7,388	7,388	7,388	7,388
Capex	3,000	3,000	3,000	5,000	5,000	5,000	5,000	5,000
Interest payment to MOR	(15,343)	(23,014)	(26,850)	104,330				
Cash at the end of the year	79,549	115,165	155,828	61,237	123,713	235,703	273,676	316,356
RoCE	3.9	5.1	6.2	5.7	8.3	12.1	13.3	14.6

Source: I-Sec research , FY20-22E – period of moratorium, Realisation/TEU highlights the meager increase that we have assumed. The project throws up such a huge amount of FCF under the assumptions that risks to haulage rate looks limited.

Table 35: Balance sheet of WDFC (base case)

(Rs mn)	FY20E	FY21E	FY22E	FY23E	FY27E	FY31E	FY32E	FY33E
Total Equity	143,432	151,646	161,071	168,422	221,345	323,781	359,366	399,658
Project Debt	383,566	383,566	383,566	383,566	383,566	383,566	383,566	383,566
Other Debt	10,876	10,876	10,876	10,876	10,876	10,876	10,876	10,876
Total Liability	537,874	546,088	555,513	562,864	615,787	718,223	753,808	794,100
Fixed Assets	512,792	508,403	504,015	501,627	492,074	482,521	480,132	477,744
Cash	79,549	115,165	155,828	61,237	123,713	235,703	273,676	316,356
WC (Provisions)	(54,467)	(77,481)	(104,330)					
Total Assets	537,874	546,088	555,513	562,864	615,787	718,224	753,809	794,100

Source: I-Sec research

Base case highlights the relative ease with which DFCCIL can maintain FCF without resorting to haulage rate increases. The volume estimates for exim till FY23 are in line with our rail share assumption from western ports. FY20E exim figures through WDFC are lower than the FY15 exim container traffic carried by West and North West sections of Indian Railways (tables 30, 31 & 32).

We also build up a much more conservative scenario on volumes – at 70% of our base case, moderate the margin assumptions and keep realisations absolutely flat over the assessment period. Even then we don't see any meaningful stress in cashflow servicing from the WDFC project for DFCCIL. This considerably allays our fears.

Table 36: P&L and cashflow for WDFC (conservative case)

(Rs mn)	FY20E	FY21E	FY22E	FY23E	FY27E	FY31E	FY32E	FY33E
Container Volume (TEU) Exim	3,273,305	3,770,305	4,162,305	4,568,305	5,552,803	6,749,467	7,086,940	7,441,287
Container Volume (TEU) Domestic	350,000	364,000	378,560	397,488	483,149	587,271	616,634	647,466
Realisation/TEU (Exim)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Realisation/TEU (Domestic)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Container Revenue (Rs mn)	17,767	20,308	22,326	24,431	29,697	36,096	37,901	39,796
Other Revenue	888	1,015	1,116	1,222	1,485	1,805	1,895	1,990
Total Revenue	18,655	21,323	23,442	25,653	31,181	37,901	39,796	41,786
Margin	75%	75%	75%	75%	75%	75%	75%	75%
EBITDA	13,325	15,231	16,744.32	18,324	22,272	27,072	28,426	29,847
Other Income	4,293	5,844	7,598	1,032	189	240	167	162
Interest payable to MOR	15,343	23,014	26,850	26,850	26,850	26,850	26,850	26,850
Interest cost of short-term loan	761	761	761	761	761	1,811	1,811	1,811
Depreciation	7,388	7,388	7,388	7,388	7,388	7,388	7,388	7,388
PBT	2,275	(1,939)	(2,507)	(7,494)	(4,388)	463	1,744	3,160
Tax	455	(388)	(501)	(878)	(878)	93	349	632
PAT	1,820	(1,551)	(2,006)	(7,494)	(3,511)	370	1,395	2,528
PAT margin (%)	9.8	(7.3)	(8.6)	(29.2)	(11.3)	1.0	3.5	6.0
Cashflow abridged								
PAT	1,820	(1,551)	(2,006)	(7,494)	(3,511)	370	1,395	2,528
Depreciation	7,388	7,388	7,388	7,388	7,388	7,388	7,388	7,388
Capex	3,000	3,000	3,000	5,000	6,000	10,000	10,000	10,000
Interest payment to MOR	(15,343)	(23,014)	(26,850)	104,330				
Additional debt borrowed/returned								
Cash at the end of the year	71,551	97,402	126,634	17,198	3,147	4,006	2,789	2,706
RoCE	2.0	2.7	3.4	2.4	3.0	3.9	4.2	4.4

Source: I-Sec research, FY20-22E – period of moratorium.

Table 37: Balance sheet of WDFC (conservative case)

(Rs mn)	FY20E	FY21E	FY22E	FY23E	FY27E	FY31E	FY32E	FY33E
Total Equity	135,434	133,883	131,877	124,383	104,778	101,084	102,479	105,007
Project Debt	383,566	383,566	383,566	383,566	383,566	383,566	383,566	383,566
Other Debt	10,876	10,876	10,876	10,876	10,876	25,876	25,876	25,876
Total Liability	529,876	528,325	526,319	518,825	499,220	510,526	511,921	514,449
Fixed Assets	512,792	508,403	504,015	501,627	496,074	506,521	509,132	511,744
Cash	71,551	97,402	126,634	17,198	3,147	4,006	2,789	2,706
WC (Provisions)	(54,467)	(77,481)	(104,330)					
Total Assets	529,876	528,325	526,319	518,825	499,220	510,527	511,922	514,450

Source: Ports data, I-Sec research

Even in our conservative case estimates, while return ratios moderate meaningfully, cashflow management and interest servicing are well taken care of, reducing any meaningful possibility of haulage rate increases. More importantly, there is non-linear impact to container freight volumes, which the conservative case ignores.

Indian exim container traffic has been lacking momentum for some time now

Key points – Highlighting the I-Sec model of deriving CFS/ICD traffic over FY17-23E

- Chart 20 highlights how containerised throughput growth over FY11-16 has moderated to 0.9x of GDP growth after recording 1.8x between FY06-10
- Our base model builds up the multiplier to average at 1x over the next half a decade
- We match the estimated container cargo thereby derived to upcoming container terminals across different ports. This we subsequently divide to CFS/ICDs based on due diligence.
- The overriding theme is that WDFC is likely to increase downstream throughput share for rail post 2019; CFS likely to be the key loser.

Indian exim and port data show a consistent trend of slowdown. This is clearly illustrated with the capacity utilisation of ports as well as the cargo tonnage data. Even if we look at containerisation alone, the rate has been at best stagnant with no particular uptick over the past five years. The trade volume as a percentage of GDP has also been declining.

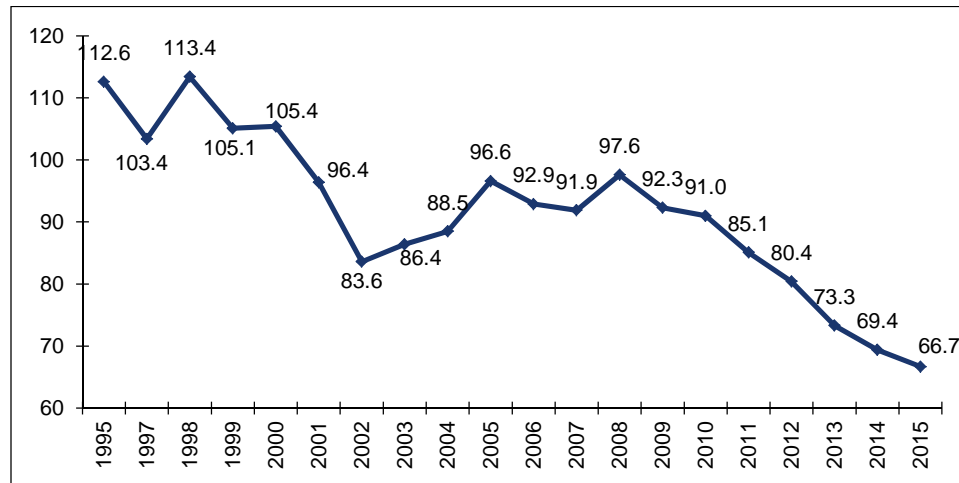
Table 38: Capacity utilisation at major ports of India

Capacity utilisation (%)	FY12	FY13	FY14	FY15	FY16
Kolkata Dock System	71.4	68.8	75.1	72.4	68.0
Haldia Dock Complex	61.1	60.1	57.3	62.3	55.0
Total: Kolkata	63.7	62.4	61.9	65.3	58.0
Paradip	67.6	55.3	62.5	59.3	60.0
Visakhapatnam	101.6	87.6	65.8	59.9	53.0
Kamarajar (Ennore)	48.2	57.7	88.2	81.8	72.0
Chennai	67.0	62.4	59.4	61.1	54.0
Tuticorin	84.3	84.8	68.1	72.8	62.0
Cochin	48.0	44.4	42.1	43.5	45.0
New Mangalore	64.6	48.2	50.6	47.0	46.0
Mormugao	93.1	48.6	32.0	33.6	42.0
Mumbai	126.2	130.3	132.9	138.5	124.0
JNPT	102.7	97.9	94.6	80.4	72.0
Kandla	90.4	100.4	85.0	76.2	76.0
Total	80.4	73.3	69.4	66.7	62.8

Source: Ministry of Shipping, I-Sec research

Capacity utilisation across ports has largely been declining. The decline has been especially more pronounced in FY16.

Chart 16: Even on a historic time basis, port capacity utilisation has been on a secular decline. (Major ports utilisation shown here)



Source: Ministry of Shipping, I-Sec research

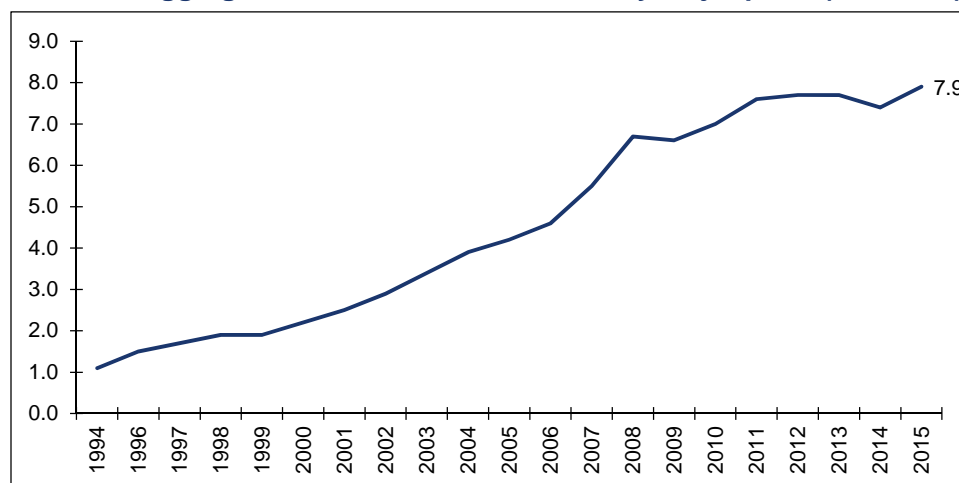
Cargo growth has been moderating vis-à-vis GDP growth

India's exim throughput growth has slowed to 0.25x of GDP growth in FY16, which was closer to 1.35x prior to the global financial crisis. However, it is important to acknowledge the difference between the growth profile of India and its largely export-driven neighbours. From the perspective of Indian ports, while crude and coal throughput growth depends on India's growth prospects, just more than half of total container throughput is driven by India's consumption and the remaining container throughput growth is driven by its key trade partners' economies.

Trying to predict the growth in containerised cargo

Containerisation had a modest start in India in 1973 with the creation of interim container handling facilities at Mumbai and Cochin ports. Since then, container traffic has steadily increased over the years, in tune with the increasing use of containers in international trade. Container traffic has increased about 7-fold from 1.05mn-TEUs (13.08mnte) in FY94 to 7.9mn-TEUs (119.4mnte) in FY15 (chart 17). Over the same period, non-containerised cargo grew almost threefold from 166mnte to 461.89mnte.

Chart 17: Aggregate container traffic handled by major ports (mn-TEUs)



Source: Ministry of Shipping, I-Sec research

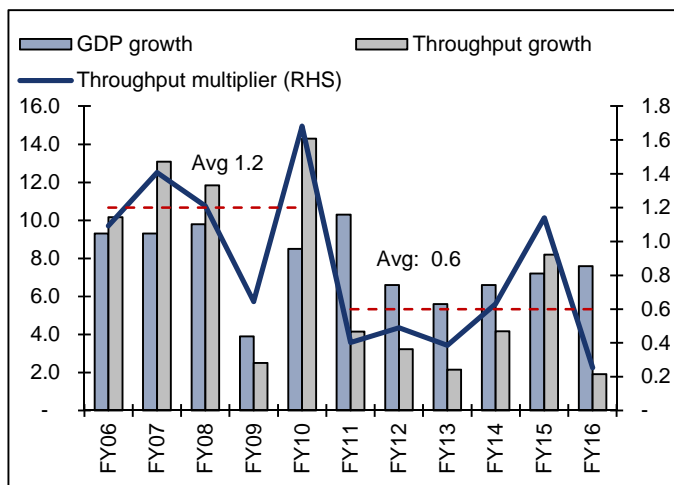
Table 39: Containerisation at the major ports of India

Containerisation (%)	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
Kolkata Dock System	26.2	20.8	20.1	23.7	29.9	31.8	37.4	44.1	50.9	49.6	55.7	59.0	54.9	53.1
Haldia Dock	6.1	6.5	7.0	5.6	4.1	4.5	5.1	5.7	6.0	8.1	8.4	10.2	7.8	6.3
Total: Kolkata	9.6	9.4	9.7	9.5	9.3	10.8	12.9	14.5	18.6	19.1	21.8	24.6	22.5	21.7
Paradip	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1
Visakhapatnam	0.7	0.6	0.6	1.3	1.1	1.4	1.8	2.1	2.6	3.8	6.3	7.7	8.4	7.5
Chennai	16.2	21.4	23.5	22.5	24.9	26.5	31.6	35.8	38.5	47.9	54.0	55.6	55.4	57.0
Tuticorin	16.9	17.3	19.6	20.3	20.0	22.3	26.2	24.9	27.7	31.8	32.8	33.2	35.4	34.0
Cochin	15.8	15.9	15.7	16.4	18.2	19.3	20.5	23.1	22.5	24.1	22.8	23.2	22.9	24.3
New Mangalore	0.2	0.4	0.4	0.4	0.4	0.8	0.9	1.1	1.3	1.8	2.0	1.9	1.9	2.5
Mormugao	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.6	1.2	2.0	2.1
Mumbai	13.9	11.7	9.4	7.3	4.4	3.0	2.9	2.5	1.1	1.2	1.0	1.4	0.8	0.9
JNPT	82.1	85.2	89.1	87.6	89.5	91.1	93.1	88.3	87.4	87.8	80.8	89.8	88.6	89.2
Kandla	4.6	5.5	5.8	6.6	5.0	5.2	4.1	3.0	3.1	3.2	3.4	2.1	0.5	-
Total	12.9	13.9	14.8	14.3	14.6	15.8	17.7	17.6	18.0	20.0	20.5	22.0	20.6	20.5

Source: Ministry of Shipping, I-Sec research

Containerised cargo growth has historically tracked GDP growth closely. According to our study, the GDP multiplier for container averaged 1.8x in FY06-FY10 and came down to just 0.9x in FY11-FY16. We are working with an average of 1x in FY17E-FY23E.

Chart 18: Cargo throughput multiplier



Source: Ministry of Shipping, I-Sec research

Chart 19: Container throughput multiplier

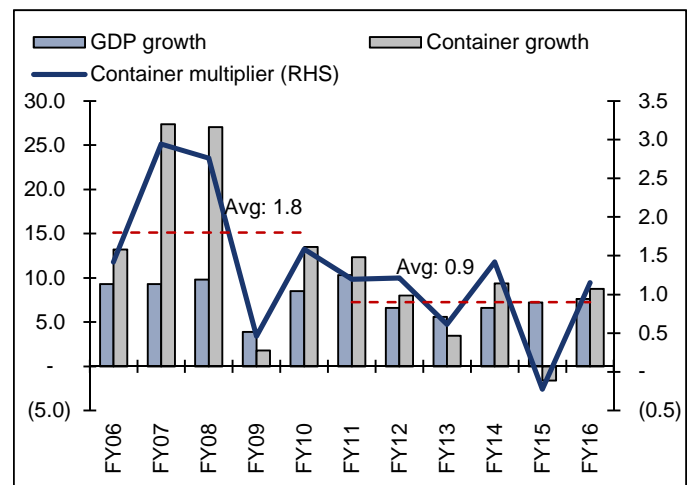
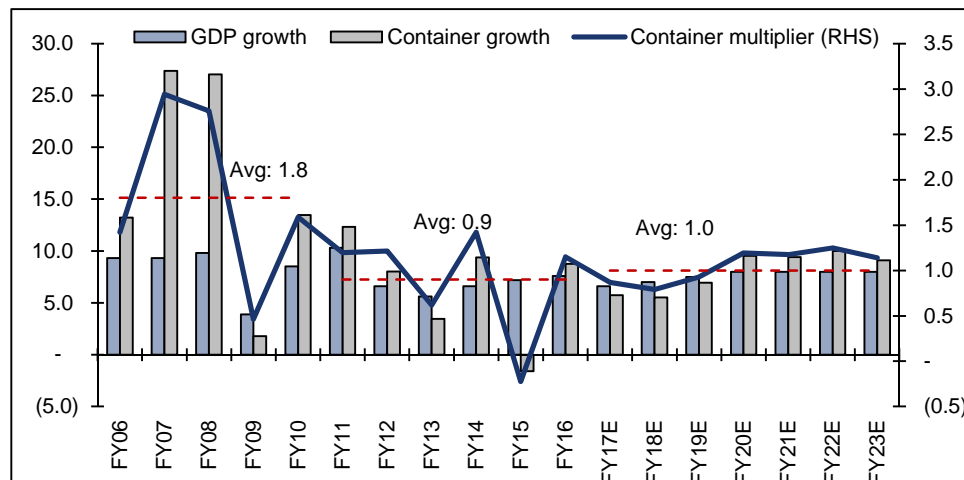


Chart 20: Projected container traffic based on 1x multiplier



Source: Ministry of Shipping, I-Sec research

Projecting exim distribution of India

We tried to do a port based assessment of the container capacity in India based on upcoming terminals and estimate the likely utilisation based on the respective location and expected demand. The combined sum of all the terminals will give us the total container traffic in India.

Subsequently, we split the exim tonnage among CFS, ICD and Direct Delivery segments which takes into account the incidence of DFC from CY19, current and expected utilisations of CFSs across separate ports, respective regional dynamics of ICDs and the expected movements in the Direct Port Delivery segment in India.

In our top-down approach, we try to estimate the container traffic in India from the projected GDP growth and the expected containerisation, which is likely to be achieved over the next four years.

Table 40: Container capacity of India split across various terminals

	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
Container Capacity ('000TEUs)	20,250	20,974	24,964	27,914	31,064	35,508	39,351	42,294
Adani International Container terminal (AICTPL)—Adani	1,300	1,800	2,300	2,800	3,100	3,100	3,100	3,100
APM Terminals Pipavav- Gujarat Pipavav Port Ltd. (GPPL)	1,350	Expanded from 850,000 TEUs to 1.35mn TEUs at a capex of Rs4bn.						
Mundra International Container Terminal-DP World (MICTPL)	1,100	No expansion						
Adani Mundra Container Terminal (AMCT)	1,000	No expansion						
Adani Hazira Container Terminal (AHCT)	800	No expansion						
Chennai Container Terminal-DP World (CCTL)	1,200	No expansion						
PSA's Chennai International Terminal (CITPL)	1,300	1,300	1,500	1,500	1,500	1,500	1,500	1,500
Visakha Container Terminal (VCTPL)	600	700	940	940	940	940	940	940
Krishnapatnam Port Container Terminal (KPCT)	1,200	1,200	2,200	3,200	4,200	5,400	6,000	6,000
Katupalli International Container terminal (KICT)	1,200	1,200	1,200	1,200	1,700	2,700	3,700	4,800
Jawaharlal Nehru Port Container Terminal (JNPCT)	1,300	No expansion						
Nhava Sheva Int'l Container Terminal-DP World (NSICT)	1,200	No expansion						
APM Terminals Mumbai-Gateway Terminals India (GTIPL)	1,800	No expansion						
Bharat Kolkata Container Terminal (BKCT)	900	No expansion						
Haldia International Container Terminal (HICT)	300	No expansion						
Vallapardam Int'l Container Transshipment Terminal (ICTT)	1,000	1,000	1,500	2,000	2,500	3,000	3,500	4,000
PSA Sical Tuticorin Container Terminal (TCT)	500	No expansion						
Dakshin Bharat Gateway Terminal (DBGT)	500	600	750	750	750	750	750	750
New Mangalore Port-(Containers) (NMPT)		No expansion						
JNPT Shallow Drought Berth (JNPT-SWB)		No expansion						
Nhava Sheva India Gateway Terminal (NSIGT)	1,700	No expansion						
Mormugao Port-Containers (MPC)		100	100	150	200	344	687	1,030
Others--Dhamra, Vizingram, Ennore, KoPT		300	500	1,000	1,400	2,000	2,400	2,600
4th Terminal at JNPT			1,200	1,600	2,000	3,000	4,000	4,800

Source: Drewery report, I-Sec research

Table 41: Container capacity utilisation across various terminals in India

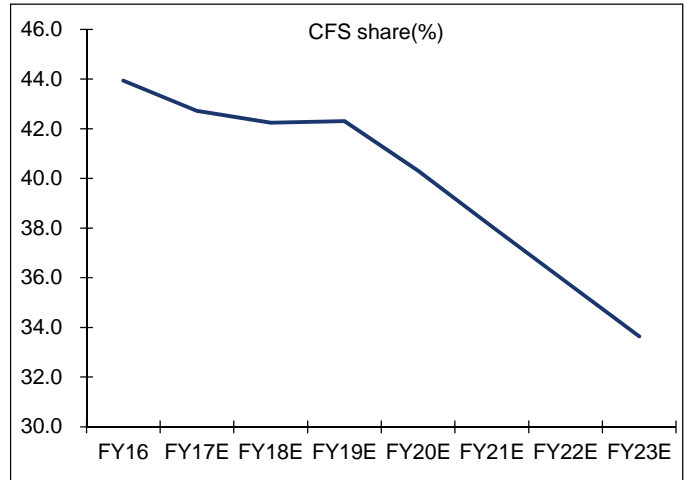
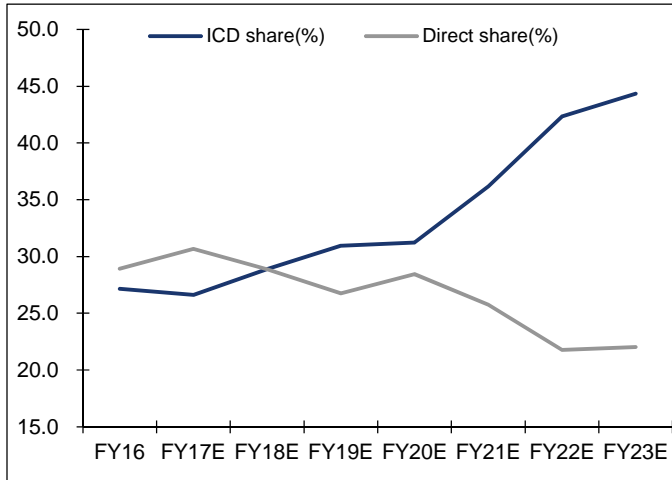
	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
Container Capacity ('000TEUs)	61.9	63.5	56.1	53.6	52.8	50.5	50.1	50.9
Adani International Container terminal (AICTPL)	82.6	63.8	63.0	62.5	66.1	75.8	85.4	88.7
APM Terminals Pipavav- Gujarat Pipavav Port Ltd. (GPPL)	51.5	54.0	56.7	59.6	62.5	65.7	65.7	65.7
Mundra International Container Terminal-DP World (MICTPL)	89.6	95.9	95.9	95.9	95.9	95.9	95.9	95.9
Adani Mundra Container Terminal (AMCT)	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
Adani Hazira Container Terminal (AHCT)	37.8	53.0	53.0	53.0	53.0	53.0	53.0	53.0
Chennai Container Terminal-DP World (CCTL)	72.3	58.3	54.2	54.2	54.2	54.2	54.2	54.2
PSA's Chennai International Terminal (CITPL)	53.5	68.5	63.3	65.3	66.7	67.3	67.3	67.3
Visakha Container Terminal (VCTPL)	48.8	44.0	34.4	36.1	37.9	39.8	41.8	43.9
Krishnapatnam Port Container Terminal (KPCT)	9.9	9.9	9.9	13.1	17.1	18.9	27.0	33.6
Kattupalli International Container terminal (KICT)	9.6	20.8	33.3	50.0	52.9	44.4	40.5	39.6
Jawaharlal Nehru Port Container Terminal (JNPCT)	109.9	125.3	117.6	86.9	94.6	94.6	94.6	94.6
Nhava Sheva Int'l Container Terminal-DP World (NSICT)	83.3	60.0	60.0	60.0	60.0	60.0	60.0	60.0
APM Terminals Mumbai-Gateway Terminals India (GTIPL)	103.3	98.2	92.6	92.6	92.6	92.6	92.6	92.6
Bharat Kolkata Container Terminal (BKCT)	64.1	77.8	77.8	77.8	77.8	77.8	77.8	77.8
Haldia International Container Terminal (HICT)	28.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3
Vallapardam International Container Transshipment Terminal (ICTT)	42.9	51.1	35.1	27.1	22.3	19.2	16.9	15.2
PSA Sical Tuticorin Container Terminal (TCT)	102.0	110.2	110.2	110.2	110.2	110.2	110.2	110.2
Dakshin Bharat Gateway Terminal (DBGT)	22.0	18.3	14.7	14.7	14.7	14.7	14.7	14.7
New Mangalore Port-(Containers) (NMPT)	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
JNPT Shallow Drought Berth (JNPT-SWB)	71.5	56.9	56.9	56.9	56.9	56.9	56.9	56.9
Nhava Sheva India Gateway Terminal (NSIGT)	25.3	50.6	50.6	50.6	50.6	50.6	50.6	50.6
Mormugao Port-Containers (MPC)	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
Others--Dhamra, Vizingram, Ennore, KoPT	19.2	33.3	30.0	20.0	17.9	15.0	14.6	23.1
4th Terminal at JNPT			16.7	45.0	50.0	50.0	50.0	54.2

Source: Drewery report, I-Sec research

Table 42: Port-wise CFS ICD and direct delivery distribution (volumes in mn-TEUs)

Port Wise CFS ICD movement	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
JNPT								
CFS%	43%	43%	43%	42%	39%	36%	33%	30%
JNPT - CFS Volumes	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ICD%	22%	22%	22%	21%	20%	27%	41%	45%
JNPT - ICD Volumes	1.0	1.0	1.0	1.0	1.0	1.5	2.5	3.0
DPD	35%	35%	35%	37%	41%	38%	26%	25%
Chennai								
CFS%	67%	72%	72%	74%	75%	75%	75%	75%
Chennai - CFS Volumes	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
ICD%	4%	4%	4%	4%	4%	4%	4%	4%
Chennai - ICD Volumes	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DPD	28%	23%	24%	22%	21%	21%	21%	21%
Vallapardam Terminal (ICTT)								
CFS%	50%	50%	40%	35%	30%	25%	25%	25%
Vallapardam - CFS Volumes	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.2
ICD%	10%	10%	20%	25%	30%	35%	35%	35%
Cochin - ICD Volumes	0.04	0.05	0.11	0.14	0.17	0.20	0.21	0.21
DPD	40%	40%	40%	40%	40%	40%	40%	40%
Mundra								
CFS%	40%	39%	36%	36%	36%	33%	31%	31%
Mundra - CFS Volumes	1.2	1.2	1.2	1.4	1.5	1.5	1.5	1.5
ICD%	40%	39%	43%	44%	44%	47%	49%	50%
Mundra - ICD Volumes	1.2	1.2	1.5	1.6	1.8	2.1	2.3	2.4
DPD	60%	60%	57%	56%	56%	52%	51%	50%
Pipavav								
CFS%	14%	14%	13%	12%	12%	8%	8%	8%
Pipavav - CFS Volumes	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ICD%	79%	82%	78%	75%	77%	77%	78%	78%
Pipavav - ICD Volumes	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
DPD	21%	18%	22%	25%	23%	23%	22%	22%
Vizag								
CFS%	51%	51.4%	51.4%	51.6%	51.7%	51.6%	51.7%	51.7%
Visakha - CFS Volumes	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ICD%	34.1%	34.1%	34.1%	34.5%	34.5%	34.5%	34.6%	34.5%
Vizag - ICD Volumes	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DPD	14.7%	14.5%	14.6%	13.9%	13.8%	13.9%	13.7%	13.8%
Hazira								
CFS%	33%	24%	24%	24%	24%	21%	17%	17%
Adani Hazira - CFS Volumes	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ICD%	50%	35%	35%	35%	35%	38%	42%	45%
Hazira - ICD Volumes	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
DPD	17%	41%	41%	41%	41%	41%	41%	39%
Krishnapatnam								
CFS%	34%	42%	46%	48%	47%	44%	43%	42%
Krishnapatnam - CFS Volumes	0.0	0.1	0.1	0.2	0.3	0.5	0.7	0.9
ICD%	25%	25%	23%	24%	28%	34%	37%	40%
Krishnapatnam - ICD Volumes	0.0	0.0	0.1	0.1	0.2	0.4	0.6	0.8
DPD	41%	33%	31%	28%	25%	21%	20%	18%
Katupalli								
CFS%	52%	20%	38%	42%	28%	33%	26%	21%
Katupalli - CFS Volumes	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4
ICD%	26%	12%	20%	25%	28%	27%	25%	24%
Katupalli - ICD Volumes	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.5
DPD	22%	68%	43%	33%	44%	41%	49%	56%
Kolkata+Haldia								
CFS%	45%	38%	38%	38%	38%	38%	38%	38%
Kolkata+Haldia- CFS Volumes	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ICD%	12%	13%	19%	25%	25%	25%	25%	25%
Kolkata+Haldia Volumes	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
DPD	43%	50%	44%	37%	37%	37%	37%	37%
Mormugao+Tuticorin+Mangalore								
CFS%	42%	40%	40%	46%	46%	46%	46%	46%
CFS Volumes	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
ICD%	21%	24%	27%	29%	31%	31%	31%	31%
ICD Volumes	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
DPD	37%	36%	34%	24%	23%	23%	23%	23%
Others								
CFS%	-	-	67%	60%	56%	50%	43%	25%
CFS Volumes	-	-	0.1	0.1	0.1	0.2	0.2	0.2
ICD%	-	-	25%	35%	30%	40%	44%	46%

Chart 21: Cumulative distribution of CFSs, ICDs and Direct Delivery in India



Source: Ministry of Shipping, I-Sec research

Key takeaways from the port-wise analysis

India's western ports are undergoing brownfield expansions, increasing container capacity at Mundra, JNPT and Cochin. While we have detailed the container capacity, container throughput and the respective shares of CFS/ICD and Direct Port Delivery (DPD) out of these individual ports, the overriding theme is that DFC is likely to increase downstream throughput share for rail, hence ICDs. DPD will increase at JNPT driven by government incentives and result in cost/time savings in the near term.

Container capacities at India's eastern ports are going to increase majorly driven by greenfield ports. Unlike their western counterparts, possible delay in DFC would mean continued dominance of CFS and perhaps DPD among the dry port alternatives.

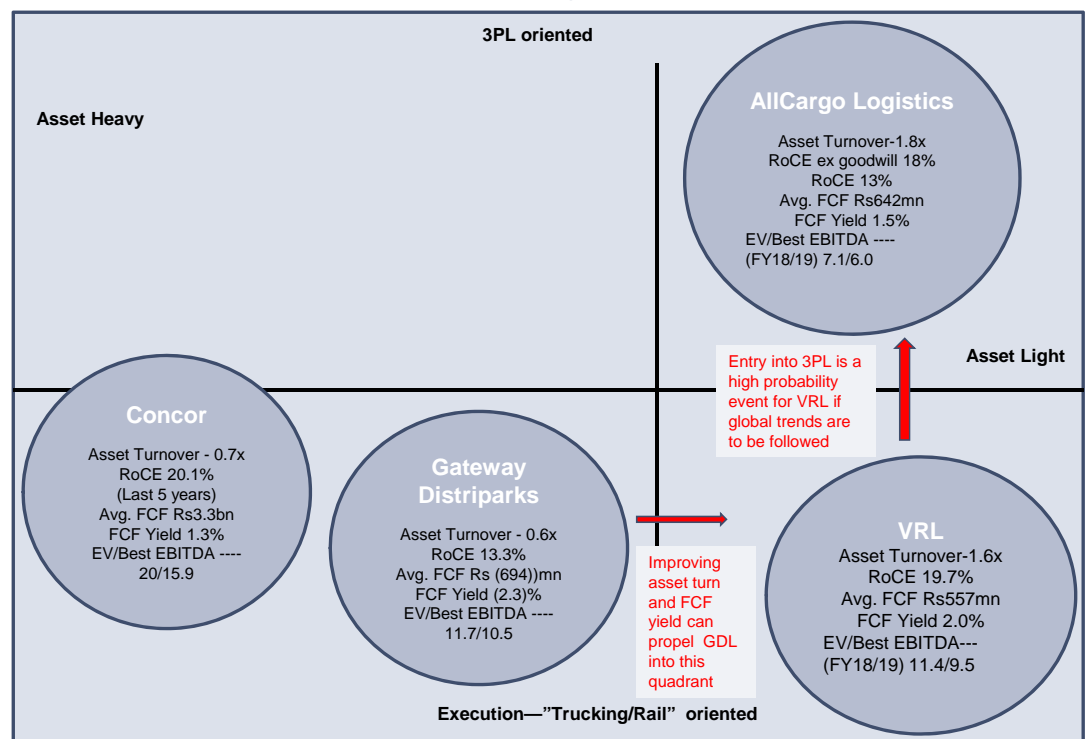
- **JNPT** terminal capacity is likely to increase on the back of new 4th terminal, which is likely to come into operation in FY18, taking the total container capacity at JNPT from 5.2mn-TEUs in 2016 to 10mn-TEUs by 2023. There would be some redistribution of tonnage from the existing terminals to the 4th terminal leading to some decongestion. However, the new capacity will have downstream effect of increase in the throughput for ICDs post the start of DFC operations, tentatively in 2019.
- **Mundra** terminal capacity is likely to increase from 3.4mn-TEUs to 5.2mn-TEUs by 2023 on the back of the expansion at Adani International Container Terminal (AICTPL). **Hazira** has no expansion in the pipeline and is likely to remain with its 800,000-TEU capacity. As with JNPT, the downstream share of tonnage from Adani/Mundra is likely to end up mostly with ICDs, thanks to DFC. **Vallarpadam** terminal at Cochin is also likely to increase capacity from the current 1mn-TEU to 4mn-TEUs over the next six years – the terminal designed as a transshipment hub has seen some serious growth in cargo (19% YTD) in FY17 and perhaps raises hope of it developing into a successful transshipment going forward.
- **Chennai** will have no major capacity expansion (TEU capacity likely to grow from debottlenecking from 2.5mn-TEUs to 2.7mn-TEUs). Without the benefits of DFC, the tonnage share will likely remain with CFS, which commands ~74% of the total container volumes.
- **Krishnapatnam/Katupalli** will have major increase in container capacity from 1.2mn-TEUs each in 2016 to 6mn/4.8mn TEUs by 2023. Being new ports, DPD will have a predominant share during early years, but CFS too is likely to remain strong.
- **Other greenfield eastern ports** (Ennore, Dhamra, Vizhinjam) will also have higher container volumes, with combined capacity likely to increase to 2.6mn-TEUs.

Sector valuations and recommendations

Indian entity valuations have defied the asset intensity / service-execution logic

In a complete contradiction to the asset intensity based risk matrix, Indian logistic companies, which are asset heavy and provide lowest FCF yield, such as Concor and Gateway, have traded at their highest multiples, while the most asset-light enterprises (e.g. Allcargo Logistics) trade at the lowest valuations. Accordingly, we choose our valuations and recommendations with **BUY** rating on Allcargo and VRL. We also initiate with a **BUY** on Gateway as we see a possibility of both asset turn and FCF yield improving significantly over the next few years as capex moderates. We are not sure of such a move in Concor – hence we initiate with an **ADD**.

Chart 22: Asset intensity map of Indian logistics players



Source: Harris Williams & Co.'s Transportation & Logistics Group, I-Sec research

Relative attractiveness quotient

The core takeaway of our analysis is well summarized in this scorecard for the companies under our coverage universe. Asset turnover, FCF yield and PAT to FCF are parameters to assess the degree of asset intensity for these companies, which in turn will also depend upon the degree of 3PL mix in the overall business. In that sense, higher the asset turnover and higher the FCF yield, higher is our score for the company. We ascribe 30% weightage to asset turnover, 30% to FCF yield, 20% to FCF conversion (PAT to FCF) and 10% each to RoCE and valuations in deriving the aggregate score. Next we break the components into i) Indicative of core business (Asset turn, FCF conversion and RoCE) and ii) valuation indicator (FCF yield and EV/EBITDA multiples). **VRL and Allcargo stand out in the framework** both in business and valuation scores. Allcargo scores significantly over VRL in the valuation score.

Table 43: Relative grading of the four logistic companies under our coverage universe

	Asset Turn (30%)	FCF Conversion (PAT to FCF) (20%)	RoCE (10%)	Core Business Score	FCF Yield (30%)	Valuations (EV/E -- 1 yr. forward) (10%)	Valuation score	Cumulative relative attractiveness score
Container Corporation	2.9	4.0	4.0	3.5	4.0	4.0	4.0	3.7
Allcargo Logistics	7.5	9.0	5.0	7.6	9.0	9.0	9.0	8.2
Gateway Distriparks	2.9	4.0	5.0	3.6	4.5	6.5	5.0	4.2
VRL Logistics	9.0	6.3	9.0	8.1	6.0	7.0	6.3	7.4
Comment	Higher asset turn means high score	Higher FCF conversion means high score	Higher RoCE means higher score		Higher FCF yield means high score	Higher EV/E means lower score		Allcargo, VRL stands out

Source: Company Data, I-Sec research

Chart 23: FCF yield (FY19E)-Allcargo looks best]

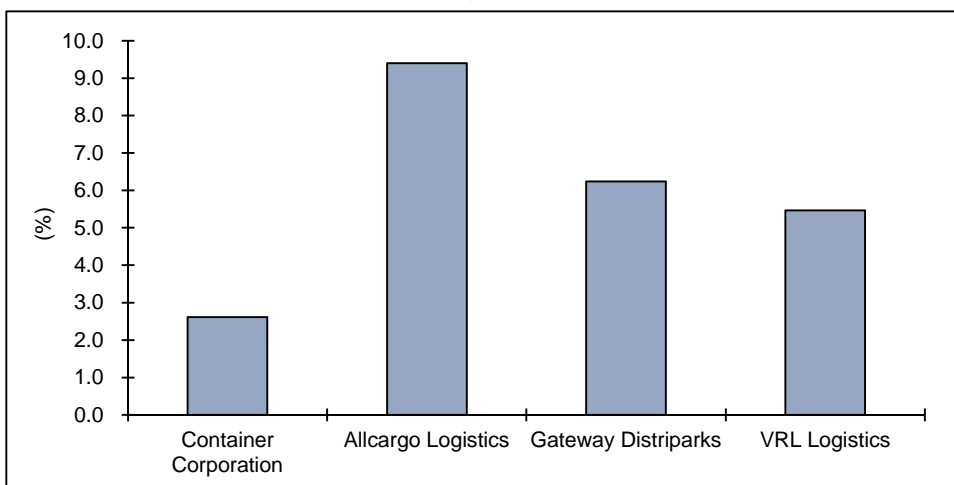
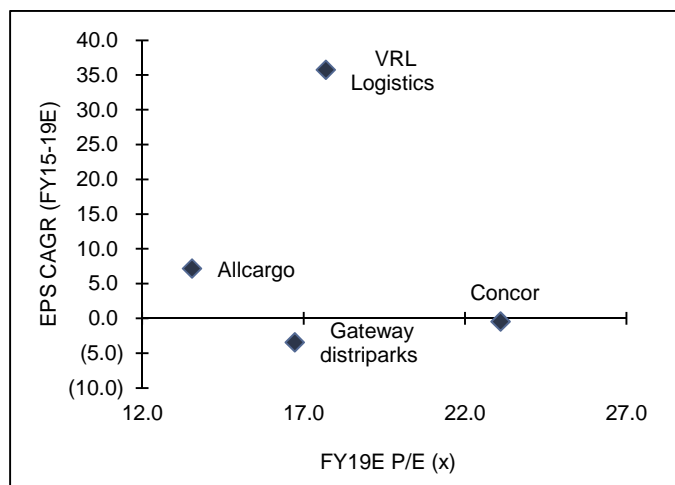
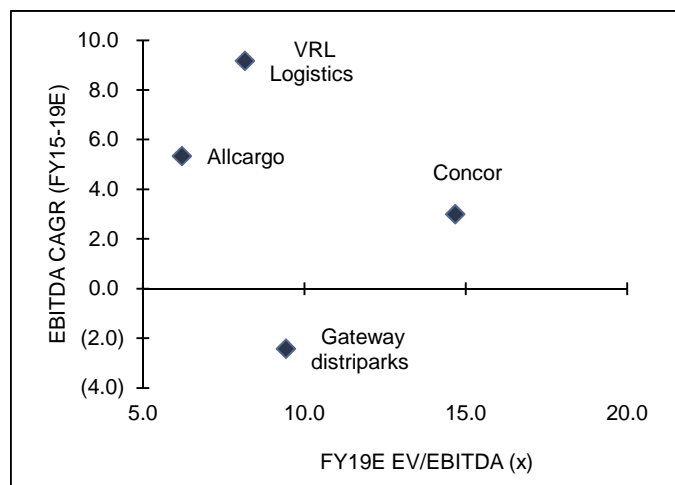


Chart 24: PE and EPS CAGR-VRL and Allcargo look attractive



Source: Company Data, I-Sec research

Chart 25: EV/EBITDA and EBITDA CAGR-VRL and Allcargo best placed



We look at some of key valuation tables that have guided our view on the individual entity valuations.

Table 44: Concor comes across as the most expensive rail road carrier globally

Company	EPS growth				D/E (x)	FCF Yield (%)	Asset Turn (x)	Capex			
	-2FY	-1FY	1FY	2FY				-2FY	-1FY	1FY	2FY
Norfolk Southern	5.8	(17.2)	9.4	11.2	74.6	3.2	0.29	(2,151)	(2,341)	(1,870)	(1,913)
CSX Corp	4.9	4.2	11.5	13.6	87.8	1.4	0.32	(2,318)	(2,498)	(2,183)	(2,205)
UNION PACIFIC CORP	22.1	(4.5)	11.2	12.5	68.6	4.5	0.36	(4,080)	(4,213)	(3,131)	(3,251)
Kansas City Southern	21.1	(6.8)	13.3	10.9	52.4	3.5	0.27	(742)	(744)	(572)	(536)
Canadian Pacific Railway Ltd	32.4	18.8	11.3	12.5	184.2	3.2	0.32	(1,270)	(1,489)	(1,203)	(1,212)
Canadian national railway company	22.9	18.1	7.9	9.1	72.5	3.5	0.33	(2,235)	(2,724)	(2,535)	(2,627)
Genessee and Wyoming Inc.	7.3	(9.2)	(11.1)	17.1	73.0	4.0	0.28	(310)	(318)	(271)	(265)
Aurizon Holdings	13.4	15.9	11.5	(0.7)	59.9	5.5	0.33	(903)	(1,046)	(531)	(517)
Average	16.2	2.4	8.1	10.8	84.1	3.6	0.31	(1,751)	(1,922)	(1,537)	(1,566)
Concor (I-Sec)	(25.9)	(3.3)	12.8	21.3	(8.4)	0.9	0.69	(75)	(159)	(149)	(142)

Company	EV/E (x)				P/E (x)				P/B (x)			
	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY
Norfolk Southern	9.8	11.2	10.3	9.7	19.2	23.8	20.0	18.0	3.1	3.1	2.9	2.7
CSX Corp	11.6	11.5	11.4	10.8	25.3	24.6	24.2	21.3	4.3	4.0	3.7	3.5
UNION PACIFIC CORP	9.7	10.1	10.4	9.7	19.4	19.7	19.5	17.3	4.5	4.6	4.5	4.2
Kansas City Southern	10.8	11.1	9.8	9.1	18.2	20.0	17.1	15.4	2.4	2.4	2.1	1.9
Canadian Pacific Railway Ltd	13.0	11.5	10.9	10.2	23.4	19.2	17.1	15.2	4.7	7.3	5.1	4.6
Canadian national railway company	14.7	12.8	12.0	11.4	25.4	21.5	18.9	17.4	5.6	5.2	4.6	4.3
Genessee and Wyoming Inc.	12.1	12.1	10.0	9.2	17.9	20.4	23.2	19.8	1.8	1.7	1.4	1.3
Aurizon Holdings	10.5	9.5	9.5	9.1	20.9	18.9	19.4	19.6	1.7	1.7	1.9	1.9
Average	11.5	11.2	10.5	9.9	21.2	21.0	19.9	18.0	3.5	3.8	3.3	3.1
Concor (I-Sec)	21.6	23.0	19.7	15.9	33.1	34.2	30.3	25.0	3.2	3.1	2.9	2.7

Source: Bloomberg

Table 45: VRL – the optionality of moving into a 3PL play guides valuations

			FCF Yield (%)	Asset Turn (x)	EPS Growth (%)				EV/E (x)				P/E (x)				P/B (x)			
					-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY
XPO Logistics	IMC/LTL	Trucking, intermodal	0.1	1.3	(45.6)	65.9	342.0	77.3	NA	152.6	8.8	8.0	NA	NA	51	29	2.6	1.9	1.9	2.0
Arcbest	LTL	ABF Freight, ABF Logistics, Panther Premium Logistics	5.3	2.1	213.8	(2.2)	67.2	23.5	5.6	5.0	5.2	4.6	18	16	20	16	1.4	1.3	1.3	1.2
Average			2.7	1.7	84.1	31.9	204.6	50.4	5.6	78.8	7.0	6.3	18	16	36	23	2.0	1.6	1.6	1.6
VRL (i-Sec)	LTL	Trucking	2.1	2.2	144.2	(23.0)	21.8	57.5	10.5	11.8	11.0	8.2	26.1	33.9	27.9	17.7	5.2	4.9	4.5	4.0

Source: Bloomberg, I-Sec research

Table 46: Asian freight-forwarders are trading at discount to their western peers; are western peers better comparable for Allcargo?

Company	EV/E (x)					P/E (x)					P/B (x)					Asset Turn TTM (x)	FCF Yield TTM (%)	D/E TTM (x)	WC turn
	-2FY	-1FY	1FY	2FY	3FY	-2FY	-1FY	1FY	2FY	3FY	-2FY	-1FY	1FY	2FY	3FY				
UPS	11.4	10.6	9.7	9.1	8.6	22.5	20.2	18.0	16.5	15.9	15.8	22.6	35.1	24.2	11.1	1.5	3.8	385.7	15.0
DHL	10.5	10.1	9.0	8.4	7.9	21.2	18.6	14.8	14.3	13.4	3.8	3.9	3.3	2.9	2.8	1.6	1.7	10.5	31.2
Kuehne + Nagel	16.6	15.9	14.7	13.7	12.9	27.8	25.9	23.6	21.9	20.5	6.6	6.8	7.5	7.0	6.7	2.7	4.7	(38.7)	11.9
C.H. Robinson	15.2	13.3	13.1	12.4	12.0	26.1	22.6	21.6	20.1	18.8	11.6	10.6	8.1	7.5	6.5	3.6	4.1	78.9	10.6
Expeditors	14.8	14.4	12.8	12.3	11.6	32.4	29.9	24.0	22.6	21.1	5.5	6.0	5.8	5.8	6.0	2.6	5.1	(47.7)	14.1
DSV A/S	23.3	20.8	14.6	13.1	12.2	33.4	28.9	21.5	18.2	16.3	9.2	7.7	4.4	3.9	3.7	1.7	1.2	62.6	16.7
Panalpina	16.4	14.3	17.2	12.3	10.4	35.5	33.0	34.1	24.1	19.9	3.9	4.1	4.8	4.6	4.3	3.4	6.1	(60.1)	9.9
Logwin AG	8.5	9.6	NA	NA	NA	45.3	28.3	16.2	16.2	15.1	3.3	3.3	NA	NA	NA	2.9	7.1	(67.5)	NA
Mainfreight	16.5	15.0	12.2	11.2	10.0	28.9	25.4	21.2	18.8	16.5	4.9	4.4	3.3	3.0	2.7	1.8	3.6	45.4	7.3
Western FF avg	14.8	13.8	12.9	11.6	10.7	30.3	25.9	21.7	19.2	17.5	7.2	7.7	9.0	7.4	5.5	2.4	4.1	41.0	14.6
Hyundai GLOVIS	8.3	7.8	6.5	6.0	5.8	10.5	14.3	10.0	9.4	9.3	2.1	1.9	1.5	1.3	1.2	2.0	4.2	14.2	10.6
Nippon Express	9.2	8.4	7.4	7.2	7.0	22.5	18.0	15.1	14.5	13.9	1.1	1.1	1.0	1.0	0.9	1.3	4.8	42.9	10.8
Kerry Logistics	11.3	10.4	9.1	8.4	7.9	15.8	16.6	14.3	13.5	12.6	1.3	1.2	1.1	1.0	0.9	0.7	1.8	8.2	9.3
Sinotrans Limited	10.0	7.2	7.5	7.0	6.9	17.1	11.2	9.6	8.9	8.4	1.2	1.1	0.9	0.8	0.8	1.3	11.3	(13.3)	23.5
Sankyu	9.8	8.5	6.7	6.5	6.2	24.6	18.6	12.3	11.7	11.0	1.7	1.6	1.4	1.3	1.2	1.3	(4.0)	42.8	8.2
Kintetsu World	13.5	12.6	10.7	9.3	8.6	13.3	12.7	19.8	15.6	13.5	1.2	1.0	1.0	1.0	0.9	1.1	11.9	68.4	9.5
Yusen Logistics	7.4	5.3	5.3	4.7	4.4	29.0	22.0	34.4	16.3	13.9	0.7	0.7	0.7	0.6	0.6	2.3	(0.5)	(16.3)	10.5
Asian FF avg	9.9	8.6	7.6	7.0	6.7	19.0	16.2	16.5	12.8	11.8	1.3	1.2	1.1	1.0	0.9	1.4	4.2	21.0	11.8
Average	12.4	11.2	10.3	9.3	8.7	24.7	21.0	19.1	16.0	14.7	4.3	4.5	5.0	4.2	3.2	1.9	4.2	31.0	13.2
Allcargo (BBq)	10.1	8.6	8.2	7.2	6.8	23.9	16.8	13.8	11.5	10.2	2.4	2.1	2.1	1.9	1.8	1.5	5.8	12.1	67.9

Source: Bloomberg, I-Sec research

Table 47: Valuation table for Indian logistics players

Name	Target Price (Rs)	Reco	Mcap (Rs mn)	PE (x)			EV/EBITDA (x)			RoE (%)		
				FY17E	FY18E	FY19E	FY17E	FY18E	FY19E	FY17E	FY18E	FY19E
Allcargo	197	BUY	41,795	19.2	15.9	13.5	9.1	7.5	6.2	9.6	10.7	11.4
VRL Logistics	350	BUY	26,754	33.9	27.9	17.7	11.8	11.0	8.2	14.4	16.3	22.7
Gateway	309	BUY	27,291	34.1	20.6	16.7	12.6	10.7	9.4	8.6	13.7	15.7
Concor	1,340	ADD	239,038	31.6	28.0	23.1	21.2	18.2	14.7	9.0	9.6	10.8
Average				29.7	23.1	17.8	13.7	11.8	9.6	10.4	12.6	15.2

Source: I-Sec research

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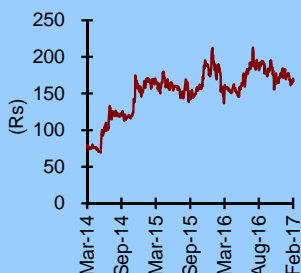
Logistics

Target price Rs197

Shareholding pattern

	Jun '16	Sep '16	Jan '17
Promoters	69.9	69.8	70.1
Institutional investors	13.9	14.7	14.8
MFs and UTI	0.1	0.1	0.1
Banks & FIs	0.0	0.0	0.0
Insurance Cos.	0.0	0.0	0.0
FIs	13.8	14.6	14.7
Others	16.2	15.5	15.1

Price chart



INDIA

ICICI Securities

Allcargo Logistics

BUY

Asset-light play at subpar valuations

Rs166

Reason for report: Initiating coverage

Allcargo Logistics (Allcargo) is a leading global non-vessel operating common carrier (NVOCC) focused on the less-than-containerload (LCL) business, with domestic interests in container freight stations (CFS) and project & engineering (P&E) business. CFS business has traditionally provided the seed capital / cashflows for Allcargo's growth into the MTO business. We are positive on the company's performance going forward, due to the following reasons: 1) optimal presence in high-growth/high-value trade lanes, 2) inherent capability to grow inorganically and to integrate acquisitions effectively and 3) steep valuation discount to comparable global freight forwarders despite an ideal mix of low asset intensity and high FCF yield. Initiate with BUY and a TP of Rs 197/share (SoTP).

- ▶ **Trade lane analysis (growth and market share) suggests optimal presence for Allcargo.** Of 49 global trade lanes analysed by us, Allcargo conducts business in 16 of them. Of 21 lanes showing above average growth (last 5-year CAGR), Allcargo is present in nine of them, with entrenched presence in four. Of the bottom 28 lanes, we see Allcargo's presence in only seven, with entrenched presence in two. The presence is dictated by the market share of those lanes (e.g. Asia-Europe trade lane constituting ~9% and Asia-South and Central America constituting 2% of global container trade flows) – Table 1
- ▶ **Inorganic growth continues to drive growth in the MTO segment; acquisitions followed by RoIC improvement remain key to value creation.** Between CY10-FY16: i) inorganic acquisitions (net of divestitures) was 54% of incremental MTO topline, ii) acquisitions of Econocaribe consolidators and FCL Marine agencies gave ~ 89% of incremental inorganic topline growth and 78% of inorganic PAT growth, iii) adjusting for Econocaribe and FCL Marine acquisitions, inorganic acquisitions contributed 11% of incremental MTO topline, and iv) incremental investment to acquire/add stake in 13 of these companies, adjusted for the divestitures, of ~Rs3.9bn led to an additional PAT of Rs 289mn. RoIC chart of the MTO business (Chart 2) highlights the sharp decline in RoIC post Econocaribe and FCL Marine acquisitions – *however, work to recovery has taken centrestage post that.*
- ▶ **We have seen instances of sharp improvement in the CFS business as well.** The CFS business remains in a structural downturn and no longer can be the mainstay of a potential 3PL player like Allcargo – however Allcargo never ceases to surprise. The improvement in business performance of Transindia Logistic Park post the acquisition of residual stake by Allcargo in Apr'14 can be seen in Table 9. This CFS alone has contributed ~Rs145mn in profit for FY16. This also explains the sharp increase in CFS volumes Allcargo registered from FY15 onwards.

Market Cap	Rs41.9bn/US\$628mn	Year to Mar	FY16	FY17E	FY18E	FY19E
Reuters/Bloomberg	ACLL.BO / AGLL IN	Revenue (Rs mn)	56,879	55,577	59,635	64,056
Shares Outstanding (mn)	252.1	EBITDA(Rs mn)	5,220	4,670	5,275	5,852
52-week Range (Rs)	213/137	Net Income (Rs mn)	2,783	2,175	2,630	3,085
Free Float (%)	29.9	EPS (Rs)	10.0	8.8	10.7	12.5
FII (%)	14.7	P/E (x)	17.0	19.2	15.9	13.5
Daily Volume (US\$'000)	354	CEPS (Rs)	16.1	16.0	18.0	19.9
Absolute Return 3m (%)	(2.7)	EV/E (x)	8.7	9.1	7.5	6.2
Absolute Return 12m (%)	3.5	Dividend Yield	1.7	1.0	1.3	1.5
Sensex Return 3m (%)	10.0	RoCE (%)	18.7	16.8	17.8	18.3
Sensex Return 12m (%)	19.0	RoE (%)	11.4	9.6	10.7	11.4

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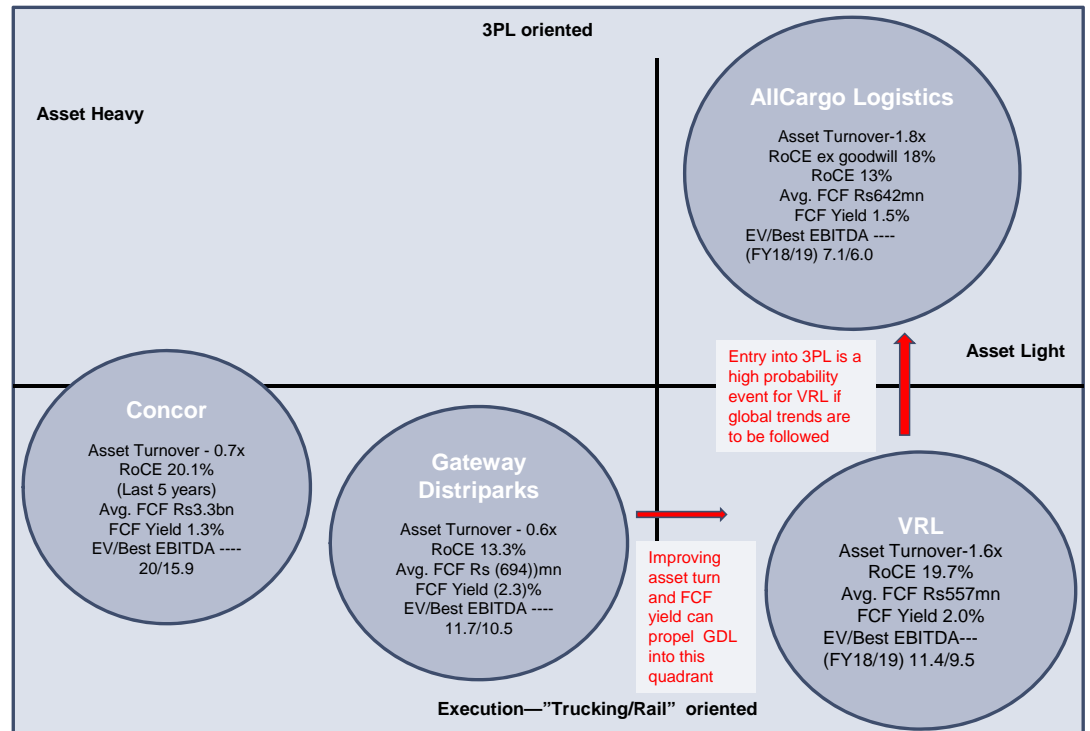
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Nearest to 3PL business format

Allcargo has evolved into perhaps the closest completely integrated 3PL model in existence in India. While its multi transport operator (MTO) business along with sea freight operations (NVOCC) executes transportation, less than container load (LCL) aggregations required for the NVOCC business is complemented by the storage segment of Allcargo through its CFS/ICDs. The project forwarding and equipment rentals business along with coastal ships is a relatively smaller segment offering modest non-cyclical earnings support to the business. The company plans to foray into logistic parks, which will mark the next stage of evolution in Indian warehousing. The plans for moving into contract logistics will heavily rest upon the advanced infrastructure like that of logistic parks, thereby further establishing itself as one of the true 3PL operators of the country.

We also appreciate the cautious approach of the management in embarking on the Jhajjar Logistics Park. Management has amply stated its criterion to first get the railway line connection before incurring any capex in the space. Also, the company has highlighted in our interactions that they may want to share the capital costs with a suitable capital player as and when the decision to incur capex is taken. A conscious effort to control asset intensity and improve RoIC (in the process, trading at > 5% FCF yield) makes Allcargo stand out in our domestic valuation model as well.

Chart 1: I-Sec valuation matrix; Allcargo stands out



Source: Industry, I-Sec research

Allcargo is a leading global LCL consolidator

Allcargo is one of the leading global NVOCC operators with a strong presence in the less-than-container load (LCL) business. It became a major player in the global LCL consolidation business with its acquisition of ECU-Line in 2006. With presence in >160 countries via >300 offices, Allcargo covers over 4,000 port pairs across the world. The key trade routes that the company is focused on are Intra-Asia and the main lane East-West trade route.

Trade lane analysis suggests optimal selection by Allcargo

We analyse the trade lanes in which Allcargo is present, the growth rates in the same trade lanes, and the market share of container volumes in the same (*table 1*). It appears that the company has a **< 1% market share in the overall container volumes – LCL + FCL**. LCL opportunity itself looks limited (the industry remains extremely fragmented barring the top three consolidators, which contribute ~30-40% of LCL volumes – *company data*). Penetrating additional markets (refer to colour codes *table 1*) looks a surer way of adding volumes to the MTO business which, as our next exercise will show, the company has consistently done.

Table 1: Container volumes by lane and presence of Allcargo

CTS Container Volume by Lane	Average CAGR growth in TEUs (11M CY16)	Average market share of global trade (10M CY16)
Indian Sub Cont. & Middle East - Australasia & Oceania	11.6	0.1
Australasia & Oceania - Indian Sub Cont. & Middle East	10.8	0.3
South & Central America - Indian Sub Cont. & Middle East	8.9	0.3
South & Central America - North America	6.7	1.4
North America - South & Central America	6.4	1.9
Indian Sub Cont. & Middle East - Ind. Sub Cont. & ME	4.0	0.8
Asia - Australasia & Oceania	3.7	1.2
Europe - North America	4.8	2.7
Indian Sub Cont. & Middle East - Sub Saharan Africa	3.9	0.6
Europe - Indian Sub Cont. & Middle East	4.0	2.4
Indian Sub Cont. & Middle East - Europe	4.1	1.5
South & Central America - Australasia & Oceania	4.0	0.0
Asia - Asia	3.9	15.1
Asia - Indian Sub Cont. & Middle East	3.7	4.5
Sub Saharan Africa - Sub Saharan Africa	3.5	0.1
Australasia & Oceania - Asia	3.3	1.0
Europe - Australasia & Oceania	3.4	0.4
South & Central America - South & Central America	3.4	1.1
Australasia & Oceania - North America	3.4	0.1
Indian Sub Cont. & Middle East - North America	3.4	0.7
Asia - North America	3.1	1.1
Europe - Sub Saharan Africa	2.6	1.3
Indian Sub Cont. & Middle East - Asia	2.7	1.8
South & Central America - Asia	2.1	0.9
Indian Sub Cont. & Middle East - South & Central America	2.4	0.2
Europe - Europe	2.4	4.6
Europe - Asia	2.1	4.4
North America - Indian Sub Cont. & Middle East	2.3	0.9
North America - Australasia & Oceania	2.3	0.3
Australasia & Oceania - Australasia & Oceania	1.8	0.3
Asia - Sub Saharan Africa	1.6	1.7
South & Central America - Europe	1.7	1.1
Europe - South & Central America	1.3	1.1
Asia - Europe	1.1	3.0
Sub Saharan Africa - Europe	1.0	0.5
Sub Saharan Africa - Indian Sub Cont. & Middle East	0.0	0.3
Asia - South & Central America	0.0	2.1
North America - Asia	(0.0)	5.2
Australasia & Oceania - Sub Saharan Africa	(0.5)	0.0
North America - Europe	(1.1)	1.7
Australasia & Oceania - Europe	(1.3)	0.1
South & Central America - Sub Saharan Africa	(1.7)	0.2
North America - Sub Saharan Africa	(3.4)	0.2
Sub Saharan Africa - Asia	(3.4)	0.6
Sub Saharan Africa - South & Central America	(3.7)	0.0
Australasia & Oceania - South & Central America	(6.6)	0.0
Sub Saharan Africa - Australasia & Oceania	(6.5)	0.0
North America - North America	(7.5)	0.2
Sub Saharan Africa - North America	(8.8)	0.1

Source: Bloomberg, I-Sec research

Colour codes

Trade lanes where Allcargo is present

Asia origination – Entrenched presence

Africa/South-Central America origination where Allcargo is not present currently and perhaps wants to enter

Market share analysis

Analysing the same trade data, we find the market share of Allcargo in the global container trade to be ~0.4% (LCL+FCL). Asia originations (assuming they contribute ~55-60% of the company's MTO volumes) for Allcargo also enjoy 0.3% market share given the trade routes in which they are present. Given the nature of the LCL market, despite enjoying a sizeable market share in LCL, the scope for increase in volumes look extremely limited unless done inorganically – which the company has ably done over the past decade.

Table 2: Market share analysis of Allcargo in the global container trade

	FY16	H1FY17
Volume of MTO (TEUs)	459,746	248,434
Market Share of Allcargo in the trade routes (%)	0.4	0.4
Asia originations (assuming 55-56% originates)	252,860	136,639
Intra-Asia market share (%)	0.3	0.3

Source: Industry, I-Sec research

Peer comparison highlights Allcargo's superior operating performance

There are three large competitors for Allcargo in the NVOCC LCL segment, namely Vanguard Logistics, ShipCo, and CaroTrans. While all the three players are unlisted, CaroTrans' parent **Mainfreight** is listed. Following are a set of commentaries which we could find from Mainfreight annual report. The performance of Allcargo has been better than that of CaroTrans in LCL segment.

Table 3: Comparison of CaroTrans and Allcargo operating performance over past three years

	Mainfreight commentary	Allcargo results
H1FY17 Commentary	<p>"NVOCC segment was one of the major reasons for sales revenue decline (YoY) (of the Americas segment of Mainfreight which contains CaroTrans).</p> <p>Management restructure at CaroTrans has placed strong emphasis on revenue growth and improving branch management performance. A lift in customer booking statistics through October and November is encouraging."</p>	H1FY17 revenues of Allcargo's MTO business declined by 3% YoY
FY16 commentary	<p>"Revenue levels declined 8.2% as international ocean container rates continued at historic lows, and ability to grow customer base faltered. Whilst gross margin levels increased with operating efficiencies and improved container utilisation, these gains were outweighed by the revenue decline."</p> <p>Expectations for CaroTrans include improved profitability in this coming year, with a large degree of focus on their basic service levels and container efficiency. It is likely that CaroTrans' share of inland US freight will find its way into the newly dedicated line-haul freight services of Mainfreight, benefiting group revenues and profitability. "</p>	Allcargo's topline increased 1% YoY while EBITDA margins increased by 100bps. However, one also has to factor INR depreciation in the same period.
FY15 Commentary	<p>"CaroTrans experienced revenue and EBITDA decline as sales efforts failed to attract new customers, and margins were compromised by poor operating efficiencies and the damaging effects of the West Coast port issues.</p> <p>Revenues are predominantly export focused and services in most receiving countries (apart from Asia, Australasia and Chile) are agent-based. Efforts to bolster import sales from own regions saw an improvement of ~30%. Unfortunately, getting a similar improvement from the agent network proved more difficult.</p> <p>This has reinforced the belief in the need to expand the CaroTrans network to deliver increased inbound-US freight tonnage. Accordingly, initial sales offices have been created within Europe."</p>	Topline grew 15%, EBITDA grew 21% YoY. Consolidation of Econocaribe and FCL Marine contributed to the topline and EBITDA increase.

Source: Company data, I-Sec research

Acquisition of ECU-Line provided much needed scale requisite for Allcargo

The acquisition of ECU-Line by Allcargo (*which has now been rebranded to ECU Worldwide*) was a fruit of both opportunistic and ambitious enterprise. Allcargo had established an exclusive agency agreement with ECU-Line back in 1995. This was the first step away from the multi-agency model for sea-freight business. The exclusive agreement allowed better synergies as Allcargo started getting international business while ECU-Line started getting its share of Indian business. ECU-Line had a good relationship with the top-30 global forwarders. The relationship blossomed from there, with the two companies setting up joint ventures in Dubai and Singapore. By 2003, ECU-Line was growing quickly in Asia, and Allcargo was starting to supplement that growth with its own investment in ECU-Line, a 33% stake in the company. In 2006, Allcargo bought the remainder of ECU-Line, using proceeds from the capital markets. In 2013, Allcargo consolidated its position in the Americas by acquiring Miami-based Econocaribe, rounding out earlier acquisitions of its agency partners in China.

Acquisitions have been the growth drivers of NVOCC business. Acquisitions are typically made in regions where Allcargo is present through agents and does not have a significant presence, and is made through buyout of local partners (consolidation of stake) of ECU-Line's subsidiaries and or operating companies. Most of the acquisitions have been made to strengthen presence on key trade routes or growth markets. Further, most of these acquisitions have come at reasonable valuations (mostly 6x-8x EV/EBITDA).

Table 4: Acquisitions undertaken by Allcargo

Acquisitions	Year	Target multiple	Key markets	Rationale
ECU-Line	2006	~8X EV/EBITDA	Europe, global markets	Second-largest global NVOCC
China/HK	2010	~6.2X EV/EBITDA	China/HK	Expand footprint in China
Econocaribe	2014	NA	US	Third-largest NVOCC in US, grow presence in US
FCL Marine	2014	NA	Europe, US, Canada	Key player in FCL segment in Europe, US, Canada

Source: Company data

This brings us to the next subject of our analysis: how inorganic acquisitions (including creeping acquisitions) have helped Allcargo to grow in a market where: i) container trade volumes have offered nothing to cheer and ii) LCL market does not offer requisite scale for the company to grow organically.

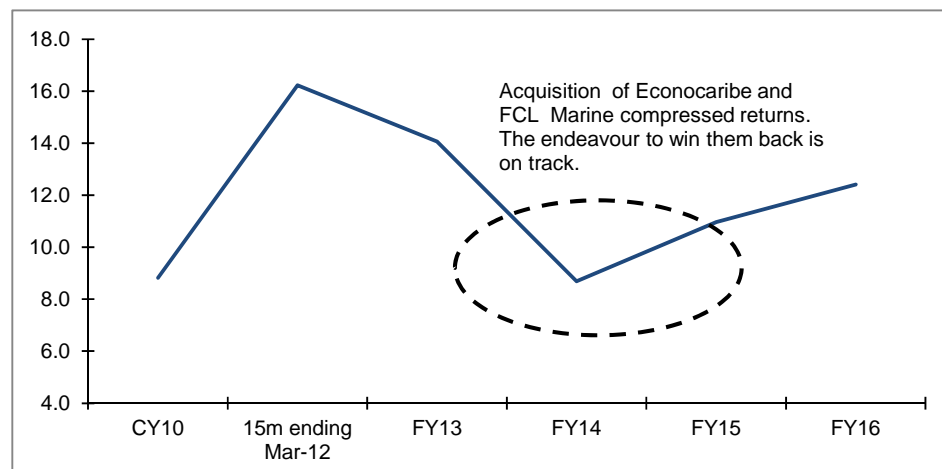
Inorganic growth contributed 54% of Allcargo's incremental topline for the MTO business between CY10 to FY16.

We scanned through the period of CY10 to FY16 to understand the extent of Allcargo's topline and bottom line growth propelled through inorganic acquisitions. The vehicle of all acquisitions (creeping as well as big bang) has been the MTO subsidiary **ECU HOLD NV** (100% subsidiary). While in popular discourse we find investors as well as the company only discussing about Econocaribe Consolidators as well as FCL Marine acquisitions in the period, in reality we could find 13 such instances where the company has acquired 100% stake, or added stake through creeping acquisitions in the MTO space. There are limited instances of two cases where the company, after acquisition of significant stakes in the prior period, has divested the stake in the period under consideration (CY10-FY16).

In our exercise, we consider all the instances to find that:

- Inorganic acquisitions (net of divestitures) have contributed 54% of Allcargo's incremental MTO topline in the period under consideration.
- The acquisitions of Econocaribe consolidators and FCL Marine agencies have contributed almost 89% of **incremental inorganic topline** growth and **78% of inorganic PAT** growth seen during the period.
- Even after adjusting for Econocaribe and FCL Marine acquisitions, inorganic acquisitions contributed 11% of incremental MTO topline between CY10 and FY16.
- Incremental investment to acquire/add stake in 14 of these foreign companies adjusted for the divestitures is ~Rs3,916mn in our calculation (between CY10 and FY16) to extract an additional PAT of Rs289mn. Hence, one cannot thesis that all investments are return-accretive. The RoIC chart (Chart 2) of the MTO business highlights the sharp decline in RoIC post Econocaribe and FCL Marine acquisition; however, the work to recovery has taken centre stage post that. Acquiring stakes and turning it profitable has been a forte for Allcargo – we will see another such example in our discussion of the CFS segment. In areas where the company has failed to turnaround the acquired business meaningfully, it has not hesitated to cut the loss by selling it off.

Chart 2: RoIC history of Allcargo's MTO business



**Given the nature of the business – it perhaps doesn't make sense to look at ex-goodwill RoIC as acquisitions will be an inherent part of growth; Source: Company data, I-Sec research

Hence, it is clear that given the nature of the business, even if there is a limited opportunity to grow organically and limited players to acquire outright, it can be stated with reasonable certainty that Allcargo will be able to grow through the creeping acquisition route – something which they have showcased over CY10-FY16 (we are also looking at organic growth in key markets, which is happening).

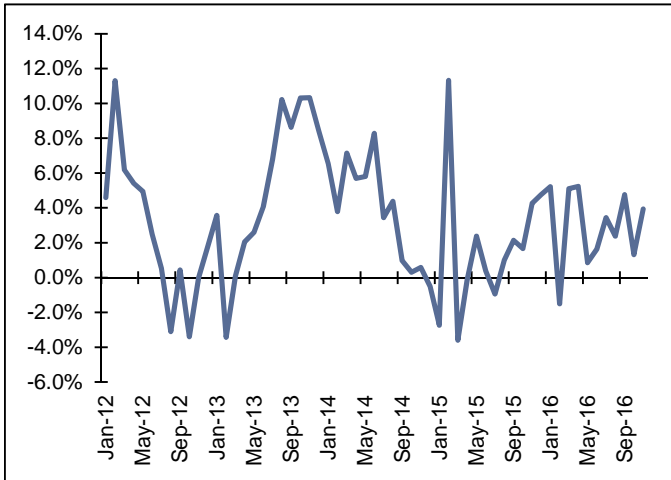
Table 5: Inorganic growth in Allcargo's MTO business

(Rs mn)	Stake in CY10	Stake in FY16
Translogistik International Spedition GmbH	51%	-
Inorganic revenue increase / (decrease) between CY10 and FY16		(77.6)
Inorganic PAT increase / (decrease) between CY10 and FY16		(3.1)
China Consolidation Services Shipping Ltd	60%**	75%
Revenue increase/ (decrease)		22.0
PAT increase/ (decrease)		1.4
Flamingo Line de Guatemala S.A. (JV)	66%	100%
Revenue increase / (decrease)		16.6
PAT increase/ (decrease)		0.6
Flamingo Line El Salvador SA de CV. (JV)	67%	100%
Revenue increase / (decrease)		9.2
PAT increase / (decrease)		0.4
ECU-Line (Indian Ocean Island) Ltd	89.9%	-
Revenue increase / (decrease)		(18.9)
PAT increase / (decrease)		(1.7)
ECU-Line (Johar Bahru) SDN BHD, Malaysia	85%	100%
Revenue increase / (decrease)		63.1
PAT increase / (decrease)		0.7
ECU-Line Ltd Hong Kong	60%**	100%
Revenue increase / (decrease)		529
PAT increase/ (decrease)		13
SHE Maritime Services Ltd	51%	100%
Revenue increase / (decrease)		74.6
PAT increase / (decrease)		4.8
ECU-Line NZ (JV)	-	100%
Revenue increase / (decrease)		77
PAT increase / (decrease)		5
ECU-Line Australia (JV)	-	100%
Revenue increase / (decrease)		543
PAT increase / (decrease)		12
Econocaribe Consolidators	-	100%
Revenue increase / (decrease)		9,935
PAT increase/ (decrease)		173
FCL Marine Agencies B.V.	-	100%
Revenue increase / (decrease)		2,232
PAT increase / (decrease)		49
ECU-Line Canada (Subsidiary since FY16) (JV)	-	70%
Revenue increase / (decrease)		238
PAT increase / (decrease)		11
FCL Marine Agencies GmbH (Bremen) (Associate)	-	50%
Revenue increase/ (decrease)		
PAT increase / (decrease)		17.4
FCL Marine Agencies GmbH (Hamburg) (Associate)	-	50%
Revenue increase / (decrease)		
PAT increase / (decrease)		5.8
Total		
Net Revenue increase / (decrease)		13,643
Revenue from Econocaribe and FCL Marine agencies		12,167
Net PAT increase / (decrease)		289
Net PAT increase / (decrease) from Econocaribe and FCL marine agencies		222

Source: Company data, I-Sec research; ** These stakes were acquired in CY09

Chart 3: Container trade market in charts – Improving global growth can be a hope theme

Growth in container trade – CY16 witnessed strong rebound



Rebound in container rates continue

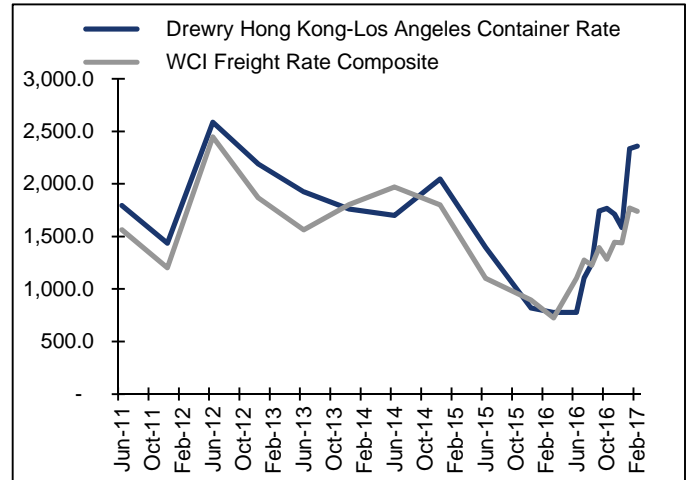
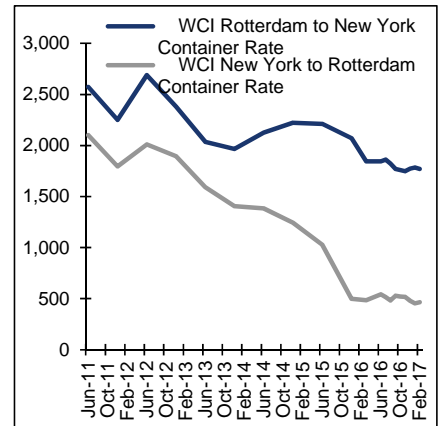
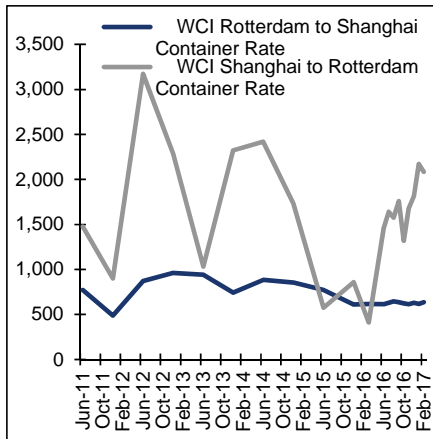
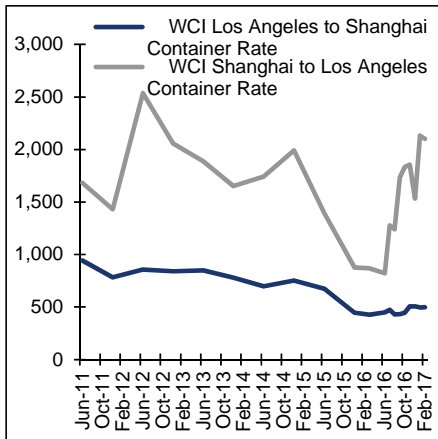


Chart 4: Rebound in container rates have been driven by Asia originations

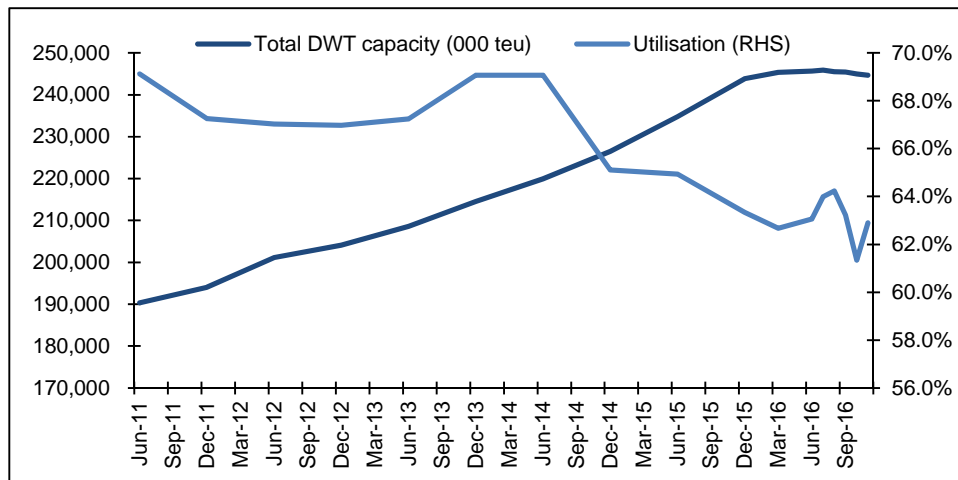


Source: Industry, I-Sec research

Asia originations contribute almost 55-60% of Allcargo's MTO volumes

Chart 5: Capacity in DWT and utilisation – Hanjin offered some relief in utilisation, which has reflected in container rates for Asia origination

Can the pickup in utilisation sustain? Supply doesn't paint any interim relief. Hopefully, increasing global economic growth rate and corresponding increase in container trade can help sustain rates.



Source: Industry, I-Sec research

CFS/ICD investments have provided growth capital for Allcargo

Allcargo has four CFSs located at the key container ports of JNPT (two in Mumbai), Chennai and Mundra, with a total capacity of 485,000-TEUs. The company has also recently entered into an O&M contract with CWC for the CFS at Mundra adjacent to Allcargo's own existing CFS. It also has two ICDs located at Dadri (JV with Concor) and Indore (JV with Hind Terminals) with a total capacity of 88,000 TEUs.

JNPT, Chennai, and Mundra ports controlled almost 65% of total container traffic in India in FY16.

The CFS/ICD business has been the primary cash cow for Allcargo as increasing port congestion and healthy trade volumes meant very high return on capital for them during most part of 2000-2010.

While returns have moderated over the recent past, it still remains healthy and is the primary source of cashflows for the domestic business – in case the company decides to diversify in near future (e.g. into logistics parks).

Table 6: Allcargo's CFS business – providing the seed capital for growth

(Rs mn)	Dec'05	Dec'06	Dec'07	Dec'08	Dec'09	Dec'10	FY12	FY13	FY14	FY15	FY16
Revenue	660	619	934	1,455	1,500	1,973	3,513	3,108	3,121	3,875	4,303
EBIT	423	350	444	831	780	910	1,648	1,139	975	1,090	1,371
Depreciation	15	11	34	56	70	75	92	135	157	236	207
Assets	351	728	1,320	1,816	1,979	2,136	2,330	4,077	4,120	4,522	4,654
EBITDA	439	361	478	887	850	985	1,740	1,274	1,132	1,326	1,578
EBITDA margin (%)	66.5	58.4	51.2	61.0	56.7	49.9	49.5	41.0	36.3	34.2	36.7
RoIC (%)	120.7	48.1	33.6	45.8	39.4	42.6	70.7	27.9	23.7	24.1	29.5
Consolidated EBIT	522	723	1,288	2,098	1,942	2,542	4,581	2,989	2,727	3,727	4,419
CFS EBIT% of consol EBIT	81.1	48.4	34.5	39.6	40.2	35.8	36.0	38.1	35.8	29.3	31.0

Source: Company data, I-Sec research

Table 7: Snapshot of Allcargo's facilities

	JNPT-I CFS	JNPT II CFS	Chennai CFS	Mundra CFS	Kheda CFS	Dadri ICD
Nearest Port/Rail Siding (km)	18	18	7	7	3	0.3
Annual Capacity (TEUs)	144000	144000	120000	77000	36000	52000
Land Area (acres)	23.5	43	25	16	14	11
Paved	Yes	Yes	Yes	Yes	Yes	Yes
Warehouse Area (sq. mt.)	11400	22800	14257	12210	3100	5160
Bonded warehouse	Yes	Yes	Yes	No	No	No
Weighbridge	Yes	Yes	Yes	Yes	Yes	Yes
Trailers	130	40	25	45	35	10
Cranes	1 x 70mt	-	-	1 x 50mt	-	-
Reach Stackers	8	2	6	4	1	1
Forklifts	19	20	22	9	2	2
Reefer Points	32	32	22	15	6	48
RTGC	-	Yes	Yes	-	-	-

Source: Company data, I-Sec research

While the business is in structural downturn – Allcargo has outperformed

The CFS business remains in a structural downturn as per our understanding and no longer can be the mainstay (key contributor for domestic revenues and EBITDA) of a potential 3PL player like Allcargo in the future. The trend has unfolded over the past many years with anemic growth in container traffic, and huge expansion in capacity from many of the capital players leading to increasing competitive pressures. While direct port delivery is the latest regulatory overhang to plague the sector (at least involving the CFS associated with JNPT) structurally, development of DFC and logistic

parks will slowly and surely take majority of the business away from CFS over the next 5-10 years.

We have already seen compression of RoIC for majority of the CFS players including Allcargo. (Table 7)

Table 8: What has caused CFS RoIC to strengthen for Allcargo between FY14-FY16?

	CY10	15M Mar-12	FY13	FY14	FY15	FY16
CFS revenues	1,973	3,524	3,080	3,121	3,875	4,303
Volumes (TEU)	226,797	304,741	258,741	249,947	291,579	304,756
Realisation (Rs/TEU)	8,700	11,565	11,903	12,485	13,291	14,119
Segment EBIT	965	1,618	960	962	1,090	1,371
Depreciation	78	104	135	157	236	207
EBITDA	1,044	1,722	1,095	1,119	1,326	1,578
EBITDA/TEU	4,603	5,651	4,232	4,476	4,548	5,177
Margins (%)	52.9	48.9	35.6	35.8	34.2	36.7
Capex	74	1,171	1,475	93	120	64
Segment Assets	2,134	3,590	4,458	4,496	4,522	4,654
RoIC	45.2	45.1	21.5	21.4	24.1	29.5

Source: Company data, I-Sec research

However, despite the declining return landscape in the CFS space, Allcargo has shown the maximum improvement in return profile over the past three years (given the comparable listed universe). The key question is: what drove this outperformance?

Table 9: Allcargo's CFS business performance has outperformed listed peers over past three years

	CY10/FY11	FY12	FY13	FY14	FY15	FY16
Allcargo	42.6	70.7	27.9	23.7	24.1	29.5
Navkar		12.9	12.4	15.4	8.1	8.4
Gateway	33.5	47.6	33.4	25.1	30.5	25.8
Balmer Lawrie	51.4	64.0	70.9	56.3	45.0	49.9

Source: Company data, I-Sec research

Acquisition of residual stake in TransIndia Logistic Park and ramping up volumes was the key to improve CFS performance

The improvement in business performance of TransIndia Logistic Park post the acquisition of residual stake by Allcargo in Apr'14 can be seen in table 9. The CFS alone has contributed ~Rs145mn in profit for FY16, a remarkable turnaround keeping in mind that the facility was incurring losses in FY14. The turnaround in profit has been driven by sharp rampup in volumes, which highlights the ability of Allcargo to source volumes given its relationship with shipping lines. This also partly explains the sharp increase in CFS volumes registered by the company FY15 onwards.

With a capacity of 144,000-TEUs, this CFS is a relatively modern facility with a well-planned layout supporting two RTGCs, which help safe handling with minimum movement and lower fuel consumption. The facility has 43 acres of land out of which the company is using only 25 acres — this provides an opportunity to **double the capacity at a marginal cost in the future**. This CFS has GPS tracking for containers and customers can track containers online and at a kiosk at the CFS. It has 9-acre storage for empty containers, helping shipping lines to manage empty container movement. The warehouse pricing is based on volumetric weight and most of the space is leased out to freight forwarders and corporate and shipping lines.

Table 10: Allcargo acquired residual stake in Transindia Logistic Park, ramped up its volumes resulting in improvement of the CFS performance

(Rs mn)	FY13	FY14	FY15	FY16
% Stake of Allcargo	70%	70%	100%	100%
Sales	41	300	646	856
PBT	(88)	(42)	96	222
Tax	(29)	-	29	77
PAT	(59)	(42)	68	145
Share Capital	1	1	1	1
Reserves & Surplus	298	495	563	708
Equity	298	496	564	709
Total Assets	1,373	1,405	1,353	1,461
Total Liabilities	1,373	1,405	790	752
Investment of Allcargo into Transindia Logistic Park	555	555	778	778

Source: Company data, I-Sec research

Thus, despite the CFS industry undergoing a downward readjustment, Allcargo has again demonstrated its ability to create value through critical acquisitions (similar to what we have seen in the MTO space).

Allcargo is setting up a warehouse inside the Transindia Logistic Park CFS

Transindia Logistic Park has 43 acres of land, of which 25 acres are notified under CFS. Given the abundance in land availability in the Transindia Logistic Park, the company has decided to set up a warehouse in the premises, which should be operational by FY18. The total investment scheduled for the warehouse is ~Rs400mn. This will further enhance the performance of Transindia Logistic Park's CFS in our view. In the interim, returns will get compressed; however, longer-run progress towards return optimisation will continue with the company as seen in almost all its business verticals.

The latest arrangement with CWC can be prospective in our view

Allcargo has announced in its Q2FY17 results that it has entered into a contract to manage and operate Central Warehousing Corporation CFS in Mundra. The CFS facility is located adjacent to Allcargo's CFS in Mundra with 40 acres of space. Allcargo has guided that the company will bring in new supply chain capabilities to create new benchmarks in CFS operating performance.

Nature of the contract: This is an O&M contract; hence Allcargo will not have to incur any capital expenditure. However, there will be some operating expenditure in the nature of IT services, office materials, etc. The current capacity of the CWC CFS is ~ 135,000-TEU, which was previously being operated at 50-55% utilisation. We have seen similar arrangements for Gateway and the **EBITDA/TEU for Gateway is as high as Rs3,500/TEU** for them. We have not built-in any volumes for the O&M contract yet, as management is yet to guide for the operating parameters/payment terms citing confidentiality. Nevertheless, there is significant scope for this arrangement to deliver in future and continue to strengthen Allcargo's CFS operating performance.

While the management has not disclosed the nature of arrangement that has been entered with CWC, we look at Gateway's FY08 annual report to understand the nature of payment that is usually entailed in these kinds of arrangements – an upfront payment and an annual fee. While the amounts may differ, Allcargo's FY17 annual report can give a better idea on exact nature of the arrangement.

Gateway's FY08 annual report extract

On January 12, 2007, Punjab State Container and Warehousing Corporation Limited (Punjab Conware) had entered into an agreement with the Company (Gateway) to operate and manage Punjab Conware's Container Freight Station (CFS) at Dronagiri Node, Nhava Sheva, Navi Mumbai. The agreement is for a period of 15 years effective February 1, 2007. **Pursuant to the Agreement, the Company had paid one-time upfront fees of Rs. 350,000,000 to Punjab Conware. Further, annual fees of Rs100,000,000 is payable to Punjab Conware, to be escalated annually at the Wholesale Price Index on April 1, every year,** of which the Company has paid installments aggregating Rs43,110,000 till June 30, 2007. The facility at Punjab Conware CFS required overall upgradation to improve pavement of yard area, drainage systems, Electronic Data Interchange network and the condition of warehouse. The Company completed work for revitalization and renovation of the CFS and commenced operations from July 1, 2007. The installment fees and other expenses incurred at Punjab Conware CFS aggregating Rs8,637,688 (net of Income from Container Handling of Rs57,267,619) were capitalised under Buildings with effect from July 1, 2007.

Improving RoIC in the project business – target remains to up returns from 10% to 15% in near term and to finally take it to 16-18%

Projects and Engineering Solutions (PES) logistics is a legacy part of Allcargo's business. PES comprises of project logistics, equipment leasing and coastal shipping. It is involved in transferring over-dimensional heavyweight cargo from ports through roads. The company also has 135 heavy-duty cranes leased out to several industries like power, refineries, wind, cement, steel, mass transportation, etc. Allcargo owns four vessels, which operate in coastal movement of bulk, break-bulk and project cargo. Half of the capacity is dedicated to one client (cement customer in Sri Lanka) while the other half is dedicated to several bulk commodity customers. EBITDA margin in the business is ~35%, gross block is of Rs10bn and RoCE is ~10%.

- Management remains categorical in its assessment that within five years, the RoCE of the PES business will move to 15%, even if it requires selling off assets with lower return potential.
- The said intent has been stressed by the management even in the recent quarterly conference calls where they remain committed to keep exiting the low-margin equipment business (like trailers) and deliver top quartile returns.
- Towards that end, the company has sold some of its aged assets (which were not delivering expected yields).

Table 11: Project business has a target of 15% RoIC

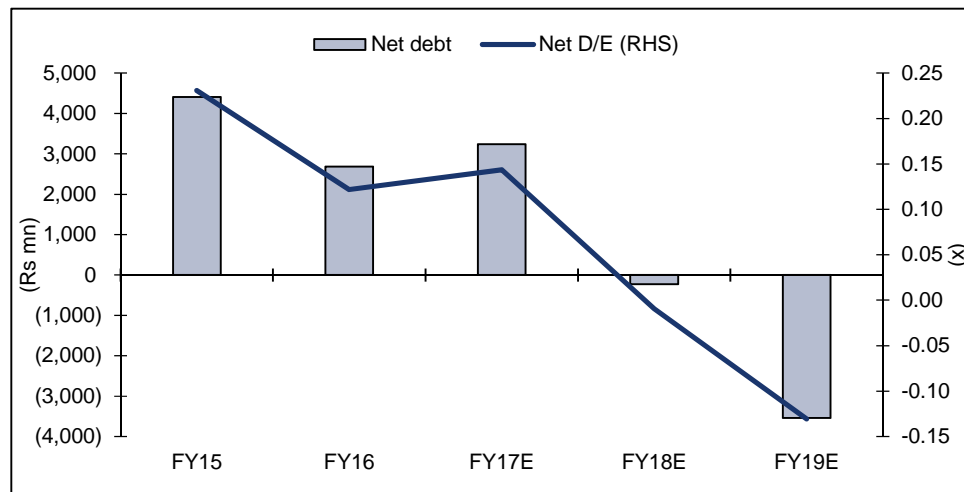
(Rs mn)	FY12	FY13	FY14	FY15	FY16
Project and Engineering Solutions	4,969	4,053	4,131	4,976	5,158
Segment Results before Interest and Tax	1,081	404	135	726	644
Depreciation	849	1,094	1,294	966	956
EBITDA	1,929	1,499	1,429	1,692	1,601
Margins (%)	38.8	37.0	34.6	34.0	31.0
Capex	3,937	1,301	464	32	678

Source: Company data, I-Sec research

Strong balance sheet; valuations provide attractive entry point

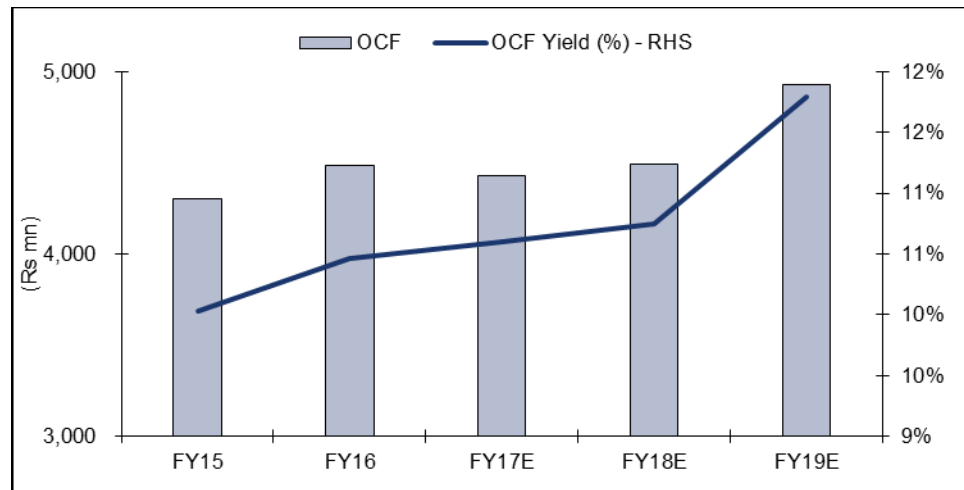
Allcargo's net debt to equity ratio is going to improve for the company in near future. While net debt is estimated to improve from Rs2.68bn in FY16 to net cash of Rs3.54bn in FY19, the net debt to equity ratio will increase from 0.11 to (0.14) in the same period.

Chart 6: Net Debt and Net Debt to Equity ratio



Source: Company Data, I-Sec research

Chart 7: High OCF yields



Source: Company Data, I-Sec research

Cash fungibility remains a concern though....

A significant amount of cash remains with the acquired MTO entities abroad, evident from Table 11. Repatriation of the cash remains a challenge from the view of taxation, which moots the question of probable holding company discount applicable to the same with regards to valuations. While ECU has paid dividend to Allcargo this year, such transactions are not tax efficient in our view.

Table 12: Debt and cash positions in standalone and consolidated business

FY16	Standalone	Consolidated	Subsidiaries
Cash	1,603	20,688	19,085
Current Investments	6,029	6,761	732
Cash and other investments	7,632	27,449	19,817
LT borrowings	162	26,167	26,005
Other LT borrowings	70	9,636	9,566
ST borrowings	7,500	18,080	10,580
Current maturity of LT borrowings	11,957	427	(11,530)
Total Debt	19,689	54,310	34,621
Net Debt	12,057	26,861	14,804

Source: Company Data, I-Sec research

Relative valuations – Domestic and global

A comparison with some of the global freight forwarders highlights that Asian forwarders are trading at a discount to their western counterparts. Allcargo is no exception. The trend is not supported by asset intensity or FCF yield or working capital turnover, which makes benchmarking even more difficult.

Majority of Allcargo's business is comprised of businesses obtained through acquisitions of erstwhile ECU-Line, Econocaribe consolidators and FCL Marine. Even the employee cost structure of Allcargo (employee costs account for 16% of topline) is closer to a Panalpina or Kuehne+Nagel rather than a Sinotrans (7%) or a Nippon Express (3%). Even CaroTrans's (competitor to Allcargo and a fellow LCL consolidator) parent Mainfreight is drawing a much higher EV/E and P/E multiple.

Premium in multiples of US/European counterparts also has to do with the proximity to a 3PL model for these players vis-à-vis their Asian counterparts. Entry into contract logistics will allow Allcargo to cash in that optionality as well.

Table 13: Asian freight forwarders trade at a discount to Western counterparts

Company	EV/E (x)					P/E (x)					P/B (x)					Asset Turn TTM	FCF Yield TTM	D/E TTM	WC turn
	-2FY	-1FY	1FY	2FY	3FY	-2FY	-1FY	1FY	2FY	3FY	-2FY	-1FY	1FY	2FY	3FY				
UPS	11.4	10.6	9.7	9.1	8.6	22.5	20.2	18.0	16.5	15.9	15.8	22.6	35.1	24.2	11.1	1.5	3.8	385.7	15.0
DHL	10.5	10.1	9.0	8.4	7.9	21.2	18.6	14.8	14.3	13.4	3.8	3.9	3.3	2.9	2.8	1.6	1.7	10.5	31.2
Kuehne + Nagel	16.6	15.9	14.7	13.7	12.9	27.8	25.9	23.6	21.9	20.5	6.6	6.8	7.5	7.0	6.7	2.7	4.7	(38.7)	11.9
C.H. Robinson	15.2	13.3	13.1	12.4	12.0	26.1	22.6	21.6	20.1	18.8	11.6	10.6	8.1	7.5	6.5	3.6	4.1	78.9	10.6
Expeditors	14.8	14.4	12.8	12.3	11.6	32.4	29.9	24.0	22.6	21.1	5.5	6.0	5.8	5.8	6.0	2.6	5.1	(47.7)	14.1
DSV A/S	23.3	20.8	14.6	13.1	12.2	33.4	28.9	21.5	18.2	16.3	9.2	7.7	4.4	3.9	3.7	1.7	1.2	62.6	16.7
Panalpina	16.4	14.3	17.2	12.3	10.4	35.5	33.0	34.1	24.1	19.9	3.9	4.1	4.8	4.6	4.3	3.4	6.1	(60.1)	9.9
Logwin AG	8.5	9.6	NA	NA	NA	45.3	28.3	16.2	16.2	15.1	3.3	3.3	NA	NA	NA	2.9	7.1	(67.5)	NA
Mainfreight	16.5	15.0	12.2	11.2	10.0	28.9	25.4	21.2	18.8	16.5	4.9	4.4	3.3	3.0	2.7	1.8	3.6	45.4	7.3
Western FF avg	14.8	13.8	12.9	11.6	10.7	30.3	25.9	21.7	19.2	17.5	7.2	7.7	9.0	7.4	5.5	2.4	4.1	41.0	14.6
Hyundai GLOVIS	8.3	7.8	6.5	6.0	5.8	10.5	14.3	10.0	9.4	9.3	2.1	1.9	1.5	1.3	1.2	2.0	4.2	14.2	10.6
Nippon Express	9.2	8.4	7.4	7.2	7.0	22.5	18.0	15.1	14.5	13.9	1.1	1.1	1.0	1.0	0.9	1.3	4.8	42.9	10.8
Kerry Logistics	11.3	10.4	9.1	8.4	7.9	15.8	16.6	14.3	13.5	12.6	1.3	1.2	1.1	1.0	0.9	0.7	1.8	8.2	9.3
Sinotrans Limited	10.0	7.2	7.5	7.0	6.9	17.1	11.2	9.6	8.9	8.4	1.2	1.1	0.9	0.8	0.8	1.3	11.3	(13.3)	23.5
Sankyu	9.8	8.5	6.7	6.5	6.2	24.6	18.6	12.3	11.7	11.0	1.7	1.6	1.4	1.3	1.2	1.3	(4.0)	42.8	8.2
Kintetsu World	13.5	12.6	10.7	9.3	8.6	13.3	12.7	19.8	15.6	13.5	1.2	1.0	1.0	1.0	0.9	1.1	11.9	68.4	9.5
Yusen Logistics	7.4	5.3	5.3	4.7	4.4	29.0	22.0	34.4	16.3	13.9	0.7	0.7	0.7	0.6	0.6	2.3	(0.5)	(16.3)	10.5
Asian FF avg	9.9	8.6	7.6	7.0	6.7	19.0	16.2	16.5	12.8	11.8	1.3	1.2	1.1	1.0	0.9	1.4	4.2	21.0	11.8
Average	12.4	11.2	10.3	9.3	8.7	24.7	21.0	19.1	16.0	14.7	4.3	4.5	5.0	4.2	3.2	1.9	4.2	31.0	13.2
Allcargo (BBg)	10.1	8.6	8.2	7.2	6.8	23.9	16.8	13.8	11.5	10.2	2.4	2.1	2.1	1.9	1.8	1.5	5.8	12.1	67.9

Source: Bloomberg, I-Sec research

Given that the erstwhile ECU-Line, Econocaribe and FCL Marine drives business of Allcargo, we see more reason for Allcargo's MTO business to trade closer to multiples of its Western peers, albeit discounted for scale and presence in the LTL market where growth may be capped unless acquired inorganically. We value Allcargo's MTO business at 10.5x FY19E EV/E against 11.6x as suggested by its Western peers.

Initiate with BUY; SoTP valuation provides an attractive upside

We value Allcargo on SoTP basis due to the inherent differences in capital intensity, profitability, *et al.* of its key businesses of MTO and CFS on one hand, and project & engineering solutions business on the other.

Our target price of Rs197 is arrived at by valuing the MTO business at 10.5x FY19E EV/EBITDA at a discount to global peers with a 20% holding company discount, the CFS business at 10x FY19E EV/EBITDA, and the project & engineering business at 6x FY19E EV/EBITDA. At our target price, the implied FY18E EV/EBITDA works out to 8.7x.

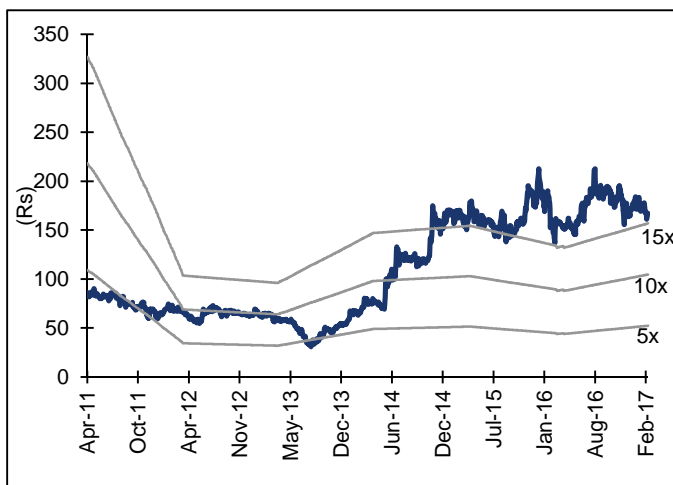
We are yet to build-in any benefits from the warehouse in Transindia Logistic Park, the O&M contract with CWC for the Mundra CFS as well as growth optionality in the contract logistics business. All this can add substantially to Allcargo's earnings as well as future valuations.

Table 14: SoTP valuation

Business	Valuation Multiple	EBITDA (Rs mn)	Implied EV (IRs mn)
MTO	10.5x FY19E EV/EBITDA;		
	20% Hold Co discount	2,996	23,824
CFS/ ICD	10x FY19E EV/EBITDA	1,938	17,948
P&E	6x FY19E EV/EBITDA	1,726	10,354
Elimination	8x FY19E EV/EBITDA	(200)	(1,600)
Total			50,526
Less: Net Debt			(3,541)
Equity			46,985
No of Share			246
Equity/share (Rs/share)			191
Business of JV (15x PE)			6
Equity Value per share			197

Source: Company data, I-Sec research

Chart 8: P/E bands



Source: Bloomberg, Company data, I-Sec research

Chart 9: P/BV bands

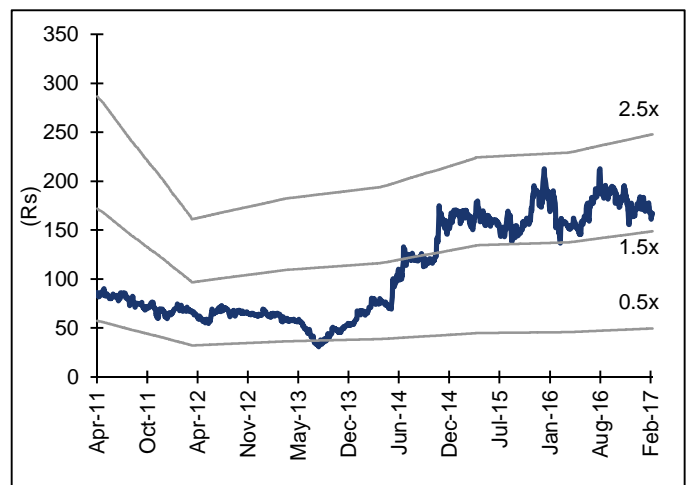
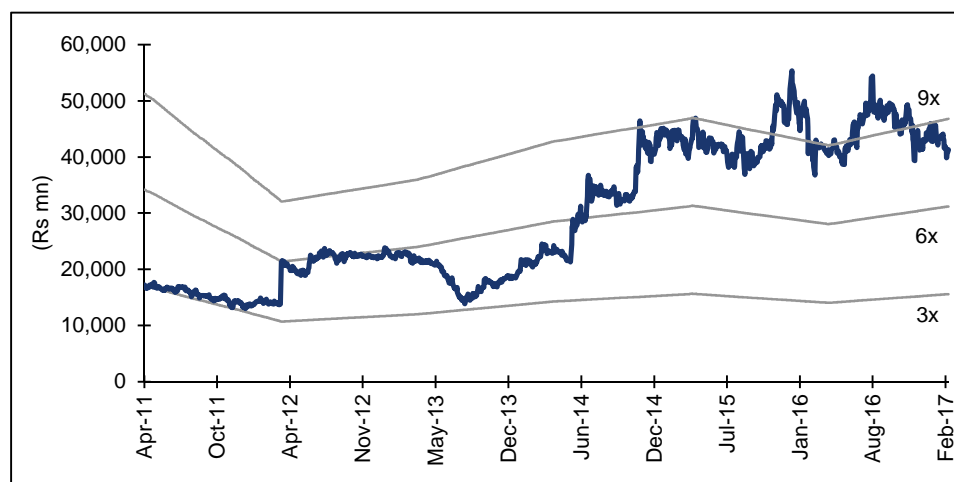


Chart 10: EV/E bands



Source: Bloomberg, Company data, I-Sec research

Key assumptions

Table 15: Key highlights

(Rs mn)	FY13	FY14	FY15	FY16	FY17E	FY18E	FY19E
CFS							
CFS-capacity (TEU)	573,000	573,000	573,000	573,000	573,000	673,000	673,000
Utilisation (%)	45.2	43.6	50.9	53.2	56%	51%	53%
CFS-volumes (TEU)	258,741	249,947	291,579	304,756	320,880	343,230	356,690
CFS rates (Rs/TEU)	11,903	12,485	13,291	14,119	14,498	14,643	14,789
Revenue	3,107	3,112	3,821	4,432	4,652	5,026	5,275
EBITDA	1,095	1,119	1,326	1,578	1,651	1,754	1,795
EBIT	960	962	1,090	1,371	1,424	1,493	1,520
MTO							
MTO Volumes (TEU)	284,726	334,870	422,200	459,746	505,720	543,649	584,423
MTO Rates (Rs/TEU)	111,884	123,196	112,004	103,589	92,195	92,195	92,195
Revenue	31,856	41,255	47,288	47,625	46,625	50,122	53,881
EBITDA	1,654	1,819	2,199	2,675	2,284	2,561	2,836
EBIT	1,448	1,558	1,896	2,393	1,961	2,238	2,513
P&E							
Revenue	4,227	4,085	5,071	5,490	4,300	4,487	4,901
EBITDA	1,723	1,429	1,716	1,601	1,403	1,550	1,726
EBIT	629	135	745	644	509	656	832
Consolidated							
Revenue	39,191	48,452	56,180	57,546	55,577	59,635	64,056
EBITDA	4,003	4,470	5,280	5,221	4,946	5,565	6,157
EBIT	2,529	2,716	3,706	3,693	3,192	3,776	4,355

Source: Company data, I-Sec research

Key risks

Continued slackness in global container trade

Global container trade tends to mirror global GDP growth, which in recent years has been muted. Allcargo's NVOCC business, which is heavily exposed to global container trade, can be adversely impacted by this slowdown if it lingers for longer.

High competitive intensity and continued pressure on utilisation in the CFS industry.

We continue to see the risks of higher capacity and lower utilisation driving down rents in the CFS industry. We don't feel that an inflection point has been reached for the same. Structurally, CFSs are set to lose volumes to logistic parks and ICDs over the next 5-10 years and we do foresee a continuous decline in CFS market share in port traffic. In such a scenario, Allcargo will have to think about innovative methods to: i) maintain business performance, ii) try and create more consolidation within the industry, and iii) try and think of alternative modes to diversify away from CFS as a domestic earnings driver. The company has already embarked on the same with the inception of Jhajjar Logistics Park.

The impact of Direct Port Delivery on CFS (around JNPT) business performance

As if economics of the CFS industry were not enough, the government of India, in search of ease of doing business, has introduced Direct Port Delivery (DPD) scheme. As of date, 62 agencies have signed for DPD from JNPT. To enable greater efficiencies in the overall transportation and logistics supply chain, the Indian Central Board of Excise and Customs, merged the 'Accredited Client Program' with the recently introduced 'Authorized Economic Operator' program. This resulted into extension of the DPD service to small and medium scale importers, who account for a significant portion of Indian container trade. As a result, against the previous requirement of at least 300 containers per month to enable a consignee to get direct delivery from ports, now even allowing delivery of a single container can be undertaken via DPD, provided the importer is registered with Customs. This can have a debilitating impact on the CFS business performance of many players including Allcargo.

Key shipping lines can influence CFS business

Shipping lines and consolidators are the main decision makers in the choice of CFS for bringing in import containers and export cargo. Allcargo's CFS business is thus largely dependent on these shipping lines and consolidators. The decision of shipping lines and consolidators, in turn, is mainly dependent on the service levels and the overall competitive scenario in the space.

Financial summary

Table 16: Profit and Loss statement

(Rs mn. year ending Mar 31)

	FY15	FY16	FY17E	FY18E	FY19E
Net Sales	56,180	56,756	55,577	59,635	64,056
Other operating revenue	108	123	-	-	-
Total Revenue	56,288	56,879	55,577	59,635	64,056
Operating Expenses	51,534	51,659	50,906	54,360	58,204
EBITDA	4,754	5,220	4,670	5,275	5,852
% margins	8.4%	9.2%	8.4%	8.8%	9.1%
Depreciation & Amortization	1,574	1,529	1,754	1,788	1,802
Gross Interest	535	425	399	399	399
Other Income	526	263	276	290	304
Recurring PBT	3,171	3,530	2,793	3,378	3,956
Less: Taxes	700	700	615	743	870
Minority Int. & Asso. Profit	(73)	(47)	(4)	(5)	(1)
Net Income (Reported)	2,399	2,783	2,175	2,630	3,085

Source: Company data, I-Sec research

Table 17: Balance sheet

(Rs mn. year ending Mar 31)

	FY15	FY16	FY17E	FY18E	FY19E
Assets					
Total Current Assets	10,396	11,502	10,703	14,316	18,124
of which cash & cash eqv.	1,738	2,069	1,518	4,983	8,296
Total Current Liabilities & Provisions	7,431	7,934	8,124	8,265	8,711
Net Current Assets	2,965	3,568	2,579	6,050	9,413
Investments	703	861	861	861	861
Net fixed assets (including CWIP)	12,439	12,354	12,599	11,311	10,509
Intangible Assets	166	363	363	363	363
Goodwill on consolidation	8,314	9,049	10,349	10,349	10,349
Long term loans and advances	2,424	2,655	2,655	2,655	2,655
Other non-current assets	19	50	50	50	50
Total Assets	27,029	28,900	29,457	31,639	34,200
Liabilities					
Borrowings	6,144	5,431	5,431	5,431	5,431
Deferred Tax Liability	1,101	1,165	1,165	1,165	1,165
Other long term liabilities	241	8	8	8	8
Long term provisions	246	5	5	5	5
Minority Interest	221	228	293	372	465
Equity Share Capital	252	505	492	492	492
Reserves & Surplus	18,826	21,559	22,063	24,167	26,635
Net Worth	19,078	22,063	22,555	24,659	27,127
Total Liabilities	27,029	28,900	29,457	31,639	34,200

Source: Company data, I-Sec research

Table 18: Cashflow statement*(Rs mn, year ending Mar 31)*

	FY15	FY16	FY17E	FY18E	FY19E
Net Profit before tax	3,171	3,530	2,793	3,378	3,956
Depreciation	1,574	1,529	1,754	1,788	1,802
Non-Cash Adjustments	(80)	234	61	74	92
Working Capital Changes	113	86	437	(6)	(49)
Taxes Paid	(478)	(894)	(615)	(743)	(870)
Operating Cash flow	4,300	4,484	4,432	4,491	4,930
Capital Commitments	(474)	(1,648)	(2,000)	(500)	(1,000)
Free Cash Flow	3,826	2,837	2,432	3,991	3,930
Other investing cashflow	447	(565)	(1,300)	-	-
Cash flow from Investing Activities	(27)	(2,213)	(3,300)	(500)	(1,000)
Inc (Dec) in Borrowings	(3,773)	(1,274)	-	-	-
Dividend paid	(310)	(714)	(435)	(526)	(617)
Other financing activities	126	(91)	-	-	-
Cash flow from Financing Activities	(3,957)	(2,182)	(1,683)	(526)	(617)
Chg. in Cash & Bank balance	316	89	(551)	3,465	3,313

Source: Company data, I-Sec research

Table 19: Key Ratios*(Year ending Mar 31)*

	FY15	FY16	FY17E	FY18E	FY19E
Per Share Data (Rs)					
EPS	9.5	10.0	8.8	10.7	12.5
Cash EPS	15.8	16.1	16.0	18.0	19.9
OCF per share	17.1	17.8	18.0	18.3	20.1
Dividend per share (DPS)	1.2	2.8	1.8	2.1	2.5
Book Value per share (BV)	75.7	87.5	91.7	100.3	110.3
Growth (%)					
Net Sales	16.0	0.6	(2.3)	7.3	7.4
EBITDA	19.0	9.8	(5.3)	12.5	10.6
PAT	52.3	5.1	(13.7)	20.9	17.3
Valuation Ratios (x)					
P/E	17.9	17.0	19.2	15.9	13.5
P/BV	2.2	1.9	1.9	1.7	1.5
EV / EBITDA	9.9	8.7	9.1	7.5	6.2
Return/Profitability Ratios (%)					
EBITDA Margins	8.4	9.2	8.4	8.8	9.1
Net Income Margins	4.2	4.4	3.9	4.4	4.8
RoCE - without goodwill	19.8	18.7	16.8	17.8	18.3
RoE	12.6	11.4	9.6	10.7	11.4
Other Key Ratios					
Effective Tax Rate (%)	22.1	21.4	22.0	22.0	22.0
Total D/E Ratio (x)	0.3	0.2	0.2	0.2	0.2
Net D/E Ratio (x)	0.2	0.1	0.1	(0.0)	(0.1)

Source: Company data, -Sec research

Annexure 1: Company profile

Management

Name	Role	Description
Shashi Kiran Shetty	Founder and Chairman	A true entrepreneur, he began early, when the logistics sector was at nascent stage in 1993, by founding Allcargo Logistics. Spearheading 10 key global acquisitions in less than a decade, Shashi Kiran Shetty sets an example of benefiting from first movers advantage, wherein he saw the formidable strength and bright future the sector holds in India and globally. He made history in 2005-06, when the acquisition of Belgium-based ECU-LINE, the world's second largest NVOCC player, stunned the world as its revenues were almost five times that of Allcargo Logistics. The winning streak continued till 2013 with subsequent acquisitions of companies in key geographies like China, Europe and the US.
Adarsh Hegde	Joint Managing Director	Adarsh Hegde has been associated with Allcargo Logistics since its inception. With over two and half decades of experience in the field of logistics, he has been instrumental in the success of Allcargo Logistics' growth story. Under his leadership, Allcargo Logistics established six CFS and ICD facilities pan-India, making Allcargo CFS and ICD division one of the largest private players in the country. He continues to lead the blueprint and strategy for the division. With his extensive experience and proficiency in transportation, he has contributed to the set-up of Allcargo Logistics Project Forwarding division. He is also a part of the leadership team at ECU-Line with respect to driving international procurement initiative and organisation-wide planning.
S. Suryanarayanan	ED – ECU Worldwide	S. Suryanarayanan is a Chartered Accountant by qualification; he oversees Allcargo's strategic planning and mergers & acquisitions. He has over 27 years of experience in the logistics, chemical and engineering sectors. Due to his deep understanding on fund raising, he has also been extensively involved in mergers and acquisitions globally. Prior to joining Allcargo Logistics, he has worked in organisations such as Reliance Corporate Finance and Great Eastern Shipping.
Prakash Tulsiani	Executive director and Chief Operating Officer	Prakash Tulsiani is a Chartered Accountant and a Company Secretary by qualification. He also holds a degree in Law and Commerce. Mr. Tulsiani joined the leadership team at Allcargo Logistics in 2015 to head the Operations division. He is also responsible for the Project Forwarding division. He brings with him over three decades of experience and expertise in scaling businesses and expanding services. Prior to joining Allcargo Logistics, Mr. Tulsiani was serving as the Managing Director of Gujarat Pipavav Port. He has also worked at key management positions with internationally renowned organisations such as AP Terminals in Mumbai, A.P. Moller Maersk Group in Indonesia, and GP Group of Companies in Thailand.
Jatin Chokshi	Chief Financial Officer	Jatin Chokshi is a Chartered Accountant & Company Secretary by qualification. He has 27 years of work experience in industries like shipping, consumer durables and industrial chemicals. He joined Allcargo Logistics group in 2001 and worked in capacity of financial controller, CFO & CEO of a business vertical before taking over as Group Chief Financial Officer. He is responsible for managing the investment & treasury functions and taxation matters.

Source: Company data

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Reason for report: Initiating coverage

VRL Logistics (VRL) is one of the leading pan-India surface logistics and less-than-truckload service (LTL) providers. VRL's asset ownership model and extensive *hub-and-spoke network* in the goods transportation business is one of its key differentiators. Advent of GST has been widely publicised as the game changer for organised road transportation players like VRL – we do agree. However, apart from GST, of more relevance is the strengthening of the network advantage, where our benchmarking exercise with UPS Air shows possibility of meaningful reduction in operating and capital costs for VRL. Additionally, the optionality of e-commerce volume growth (case studies of South Asian peers) present further tailwind to express tonnage segment for VRL, which is currently mere 5% of total tonnage today for VRL. Further, the global trend of 3PL moving to a 3PLTL opens up optionality for an asset-right player with its corresponding impact on valuations (Table 11 inside). We initiate with a BUY and target price of Rs350 (21x P/E FY19E).

- ▶ **Network optimisation protocol can unlock significant benefits.** Case study of UPS Air (volume, location, and aircraft network optimizer -- VOLCANO, an optimization-based planning system that transformed the planning and business processes within UPS Air way back in 1995) highlights the operating costs and resultant capex savings. There are instances with VRL regarding hub selection (from FY08 DRHP – Table 1 inside) as well as divergence in hubs, branches, trucks and employee addition (FY09-FY16E, Table 3-5 – decisions which we feel can be institutionalized by implementing a network optimisation protocol especially before the advent of GST).
- ▶ **E-commerce can create potential tailwind to a logistics execution company like VRL.** Unlike some of their South Asian counterparts (case study of ZTO transport and CJ Korea Express inside where in the topline/operating profits of the players have increased by 5 % to 15% compounded quarterly growth rate over the last 2-4 years), Indian transport players have not benefitted from e-commerce. If global examples are to be followed, we are staring at a period of explosive growth in express delivery for VRL (currently 5% of its total tonnage).
- ▶ **VRL is an ideal asset partner for a 3PL in need of scale and asset base in India.** VRL is ideally poised to be an asset based partner for any prospective 3PL player as an “asset-right” combination to an otherwise “asset-light” 3PL player. We look at XPO Logistics and ABF Freight, two unique examples of how global 3PL is converging towards 3PLTL. We highlight the resultant valuation implications it may have for VRL (Table 11 inside).
- ▶ **VRL stands out in our valuation framework; initiate with a BUY.** VRL stands out in our valuation matrix with right asset intensity and FCF yield to justify our valuation of 21x FY19E P/E. The multiple has been selected as an average of global LTL peer set (19x +2FY) adjusting for the 3PL TL optionality that we see VRL.

Market Cap	Rs26.3bn/US\$393mn	Year to Mar	FY16	FY17E	FY18E	FY19E
Reuters/Bloomberg	VRL.L.BO / VRL.L.IN	Revenue (Rs mn)	17,225	18,094	19,998	22,285
Shares Outstanding (mn)	91.2	EBITDA (Rs mn)	2,677	2,279	2,403	3,197
52-week Range (Rs)	445/259	Net Income (Rs mn)	973	713	875	1,461
Free Float (%)	30.4	EPS (Rs)	11.2	8.7	10.6	16.6
FII (%)	11.6	P/E (x)	26.1	33.9	27.9	17.7
Daily Volume (US\$'000)	757	CEPS (Rs)	21.1	19.2	21.1	27.2
Absolute Return 3m (%)	10.6	EV/E (x)	10.5	11.8	11.0	8.2
Absolute Return 12m (%)	(20.1)	Dividend Yield	1.7	1.7	2.0	2.7
Sensex Return 3m (%)	10.0	RoCE (%)	23.1	14.8	18.3	26.1
Sensex Return 12m (%)	19.0	RoE (%)	19.9	14.4	16.3	22.7

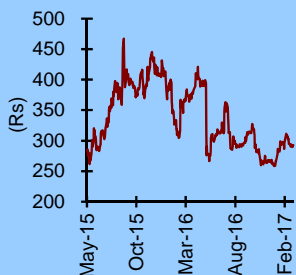
Logistics

Target price Rs350

Shareholding pattern

	Jun '16	Sep '16	Dec '16
Promoters	69.6	69.6	69.6
Institutional investors	21.7	18.3	20.1
MFs and UTI	7.5	7.6	8.4
Banks & FIs	0.0	0.4	0.1
Insurance Cos.	0.0	0.0	0.0
FII	14.2	10.3	11.6
Others	8.7	12.1	10.3

Price chart



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A network advantage---by chance or design?

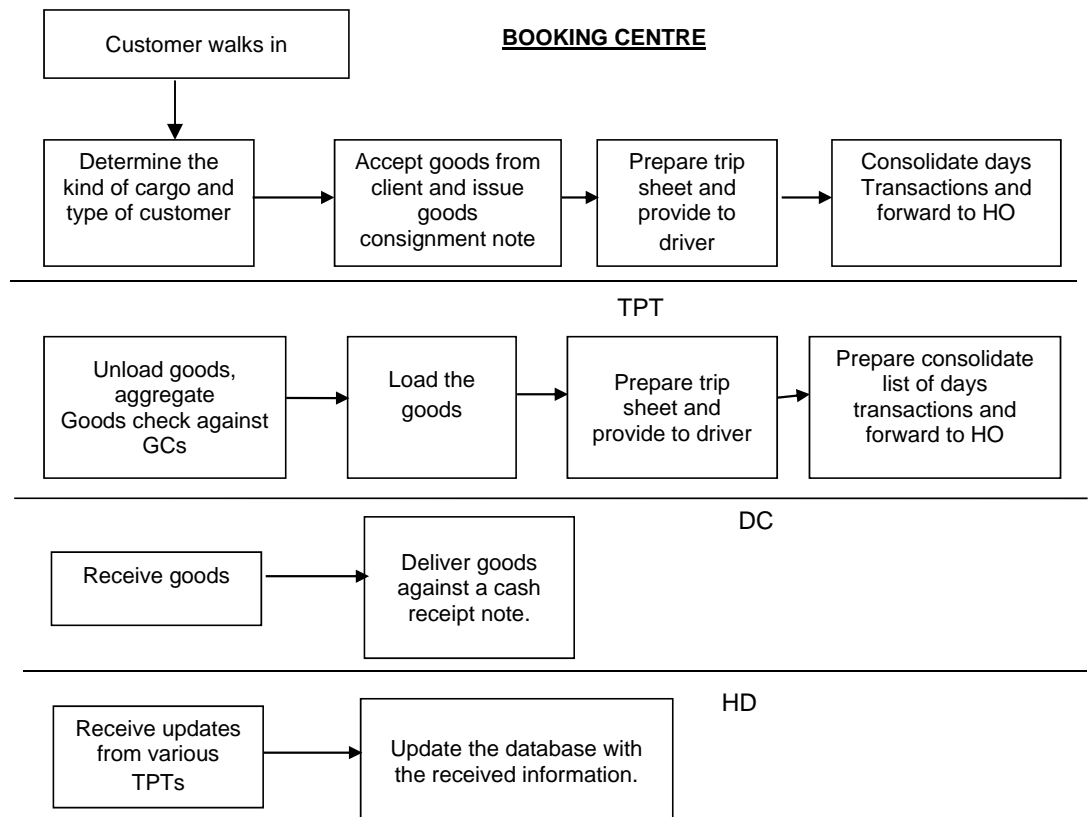
VRL has adopted a hub-and-spoke distribution model for delivery of their consignments, which entails establishment of several transshipment hubs and re-distribution of consignments to and from their respective destinations. This ensures significant cost savings, rationalisation of routes covered by the vehicles and optimum utilisation of resources including vehicles, manpower, etc.

VRL's network advantage is what sets it apart from many of its peers within India. Through 43 transshipment hubs and a combination of owned branches and franchises, the company has steadily increased its presence in road transportation across India. There is no way to judge the nature of development of this network (chance or design) apart from the benchmarking the company's efforts globally to strengthen its network.

VRL has 43 transshipment hubs, 799 owned branches and 1,387 franchisees, which enables the smooth flow of goods and services. They are an integrated transport solution provider with the variety of services that they offer. The service offerings enable us to access a diversified customer base comprising both institutional and retail customers. This enhances brand visibility among different customer segments.

With the largest reach in south India, the company has a well-established network of branches enabling, procuring and distribution of goods across south India. The company currently has in excess of 350 branches in Karnataka, Tamil Nadu and Kerala making it the transporter with the largest reach in south India. Needless to say the impressive reach of VRL within south India combined with its reliability has made VRL the preferred transportation player of many a corporate houses in the southern region.

Chart 1: Brief overview of order fulfillment process

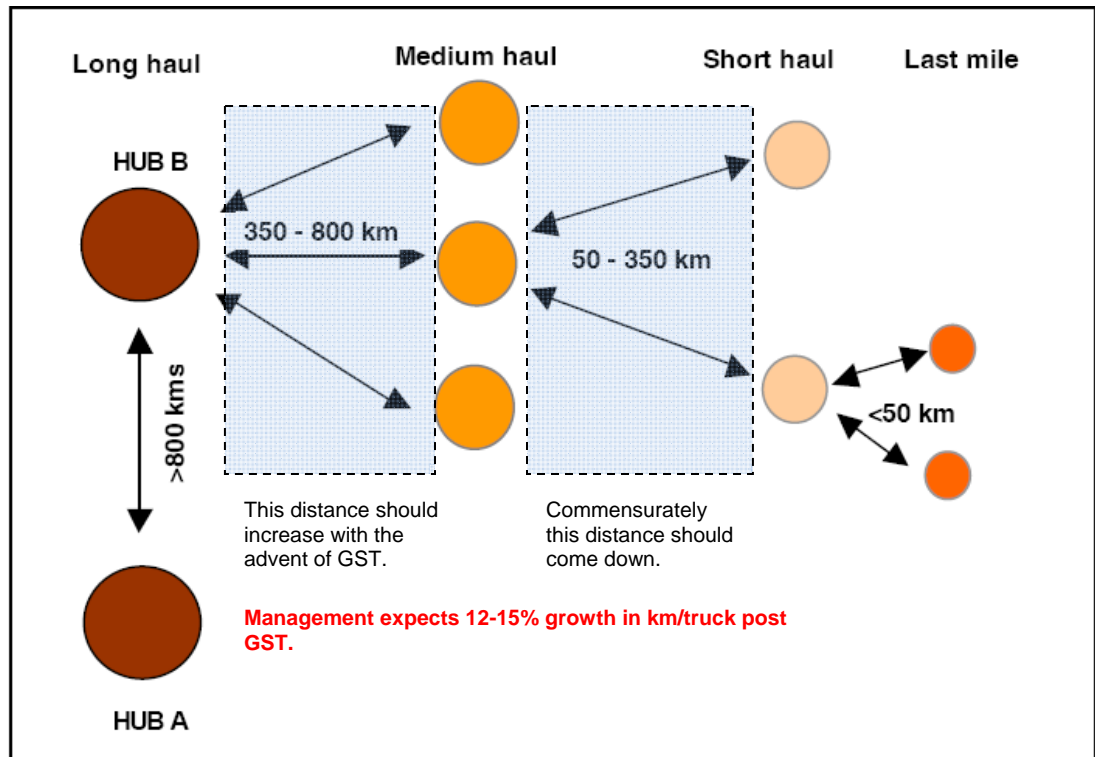


Source: Company Data, I-Sec research

Hub-and-spoke system

Under the hub and spoke system, VRL transshipment yards (TST) act as hubs and the various booking and delivery offices act as spokes. The hub acts as a connector between the booking office and the delivery office. The hub receives the booking consignments from various branches, which are segregated, based on the destination and then dispatched directly to the delivery office or to the other hub, which connects to the delivery office.

Chart 2: Hub-and-spoke system for VRL



Source: Company data, I-Sec research

Once consignments are booked at the spoke, they are unloaded at the nearest hub based on the destination of the consignment. Once the unloading of a certain number of trucks is complete, all the consignments meant for a particular destination are aggregated and loaded into a truck for further transportation. This ensures that every truck is filled to capacity and its utility is improved (management maintains hub to hub utilisation is 85-90% for all trucks). In case a hub does not have enough consignments for a particular destination, the goods are unloaded onto the next nearest hub to be further aggregated at that hub en-route to the destination.

As soon as the customer agrees to the terms and conditions of the contract, the goods are booked and the customer is issued a Goods Consignment Note (GCN). The GCN contains all relevant details such as the type of consignment (i.e. express, full load, parcel, etc.), type of customer (to pay, paid, account paying), volume of goods, rate, and estimated value of goods. At the time of loading the goods at the branches, a "trip sheet" is prepared and handed over to the driver. **If the customer pays at the time of booking, "Cash Receipt Note" is generated, this records details about the cash received – such as amount of cash, and corresponding GCN.**

At the Transshipment yard (TPT), the goods are unloaded and an unloading report is prepared which needs to tally with the trip sheet. The goods to a particular destination are aggregated and are loaded onto a truck wherein a fresh trip sheet is prepared. At the delivery point, the goods are unloaded (and an unloading report is prepared). The goods are released to the receiver and acknowledgement obtained. **If the goods to be delivered were of "to pay" type, goods are released after cash is received and a Cash Receipt Note is generated.** All branches (booking or delivery) deposit the cash receipts of each day to pre-designated bank accounts.

In case of computerized branches, a database is prepared for all the bookings made on these branches and sent to the head office. In case of non-computerised branches, copies of documents are sent directly to the head office. Each branch and Transshipment yard also sends daily reports on the activities to the head office.

As the location and the extent of these transshipment hubs are essential for the smooth functioning and success of the business, the company has tried to ensure that these hubs are strategically located and the consignments that are booked to the various destinations are within a radius of 200-250km of the destination.

Major hubs – There are **nine major hubs** and more than 500te per day are handled by these hubs. These nine hubs are located at Bengaluru, Delhi, Bilaspur, Delhi Manesar, Hubli, Varur, Chennai, Vijayawada, Pune, Hyderabad and Ahmedabad.

Midsized hubs – There are **29 midsized hubs**, which handle from 100te to 500te materials per day. These hubs are located at Sholapur, Salem, Mangalore, Mumbai Bhiwandi, Nagpur, Ludhiana, Hyderabad, Shirol, Madurai, Dhulagar Howrah, Aurangabad, Mysore, Perundurai, Gangavati, Anantapur, Ambala, Indore, Goa, Chittoor, Visakhapatnam, Vijayapura, Coimbatore, Ernakulam, Vapi, Gulbarga, Davangere, Rajamahindravaram, Varanasi and Raipur.

Small hubs – There are **nine small hubs** handling less than 100te materials per day. These hubs are located at Shivamoga, Kanpur, Nellore, Trichy, Kurnool, Ballari, Proddatur, Baharagora and Feroke.

What the company has done to increase its moat

Strong in-house capabilities

VRL has developed strong in-house capabilities over a period of time, which enables it to improve the efficiency of the vehicles and improve their delivery model. Their in-house body designing facility enables the company to build structures for the vehicles based on their specifications, thereby maximizing utilisation of space and minimising the body weight by using light metals like aluminium along with the steel, rather than steel alone. The in-house competency also includes a vehicle repair and maintenance facility at Varur where they carry out preventive maintenance measures to minimise the events of breakdown or damage to vehicles.

All the heavy goods vehicles and LCVs purchased since 1996-97 are mounted with in-house bodybuilding. With this view in mind, VRL has been procuring all the inputs such as aluminium sheets, iron and steel bars, etc. required for the bodybuilding activities. There is considerable saving by way of excise duty and central tax by virtue of VRL activities having taken up all acts on its own.

Information technology

Information technology division prepares software which is hardware-related such as office automation, courier tracking and accounting software. VRL has developed their own GPS based tracking devices which have been installed in selected vehicles. In addition to helping to keep track of the movement of the vehicles, the GPS system also tracks the time spent by the vehicle when not in motion, the location it has stopped in addition to tracking pre-assigned route to be followed by the vehicle. This discourages the drivers from not complying with the instructions given to them regarding the route and time sheets that they are required to comply with.

Most of the software requirements are met in-house and in the event that any activity is outsourced by the company, the source code is retained by the company to ensure that it can be used at a later stage as per requirements.

Some of the important developments of information technology division include:

- **Vehicle Maintenance Tracker:** This application schedules the maintenance of the entire fleet and generates reminders and alerts automatically when any maintenance events become due. These reminders help in avoiding the premature failure and the excess consumption of parts.
- **Vehicle Traffic Application:** This application controls the entire movement of the vehicles and keeps track of drivers' performance in terms of the fuel average and the distance travelled. This also tracks the advance amount paid to the drivers and the diesel vouchers issued for en route fuelling. This application is online and ensures access to this data from any part of the world.
- **Consignment Delivery Application:** This application is used in delivery branches to raise online cash receipts and track the consignment. This application also maintains a record of the stock in the company's warehouses and is used to answer queries from customers regarding the arrival of consignments. The records of stock and the delivery particulars are updated every 24 hours.

- **Hub Application:** This application receives the consignment from other hubs and booking branches and dispatches them to the final destination and sometimes reroute to other hubs.
- **On-line bus ticket booking system:** This application is hosted online on the web server and all agents and passengers log on for booking passenger tickets.
- **Accounting package:** This application consolidates all accounting programs and helps in the preparation of periodical financial statements, MIS reports, etc.
- **Remote access to networked computers:** This application enables the company to take remote access of any computer system linked to the network. This facility is used for monitoring the operations of employees and also for conducting training sessions for employees in remote locations.
- **Consignment Booking Application:** This facilitates booking of consignments at booking offices.
- **Online Purchase enquiry:** This is used to generate purchase order and give quote for the spares online.
- **DAR Report on Android platform (mobile app):** This enables our marketing executives to submit report.
- **Hub Application on Mobile Platform:** This enables us to do loading and unloading data collection in real time replacing the current manual system.
- **Vehicle Tracker:** This enables us to collect the GPS coordinates of our vehicles on real time basis. Courier operations can also be tracked on mobile.
- **Digital VRL:** This is a mobile app where we can give view on outstanding of customers, application for leave, ledger view for drivers and mechanics and view of important reports.
- **Door delivery module:** This is an Android-based app. It helps get real time updates about door delivery of consignments.

Network optimisation solution remains pending

As we discuss the network advantage that VRL is supposed to enjoy, the comparisons cannot be properly understood unless some benchmarking is done with the advances made by global peers. We look at the example of UPS Air in this context.

Network optimisation benefits---Case study of UPS air

UPS is the world's leading package-delivery company, carrying an average of more than 18.3mn packages daily to nearly 8mn customers in over 220 countries and territories. With a fleet of 236 aircraft and 14 (Boeing 747-8 freighters) more on order, UPS Air, a wholly owned subsidiary of UPS, is the 11th largest commercial airline in the world and the ninth largest in the United States. **The airline is the key infrastructure that enables UPS to provide such expedited delivery services as same-day "Sonic Air", "Next day air", and "Second day air".** The airline's 2002 next-day air operations produced over US\$5bn in revenues and averaged more than 1.1mn package deliveries a night; the airline's 2015 next-day air operations produced over US\$6.6bn in revenues and averaged more than 1.3mn package deliveries a night.

In 1995, the OR group in UPS initiated a joint research project with MIT to develop optimisation methods for simultaneously determining aircraft movements and package flows **that would minimise aircraft ownership and operating costs while considering numerous operating constraints on system capacity and customer service standards.** No tractable optimisation methods existed for designing a network of this size and complexity. The company faced a tremendous technical hurdle in developing an optimisation-based approach. Moving the technology from a theoretical proof of concept to the planners' desks and gaining their acceptance was equally daunting.

To support next-day-air network planning and operations, team from UPS and MIT developed and implemented **Volume, Location, and Aircraft Network Optimizer (VOLCANO), an optimisation-based planning system that transformed the planning and business processes within UPS Airlines way back in 1995.**

Network design – key obstacles that VOLCANO overcame (learning for VRL)

The key achievement for VOLCANO was to simultaneously determine the minimum-cost set of routes, fleet assignment, and package flows that satisfy constraints on various operating issues, including limits on the number of aircraft of each fleet type; landing restrictions at airports; aircraft operating characteristics, such as range, speed, and load capacity; continuous aircraft flow requirements (that is, balance of flow); time windows for pickup and delivery; and sorting capacities and hours of operation for each hub.

In addition, packages must arrive at the hubs in a staggered manner to spread the package volume across the entire sorting period. Finally, the next-day-air network must interface with the daytime aircraft requirements used in the second-day-air network. For the second-day network, the number of aircraft of a given type at a particular location is known, and these requirements serve as boundary conditions for aircraft flows in the next-day-air network.

Prior to VOLCANO, expert planners UPS Air could take up to nine months to manually produce a single plan.

Prior to VOLCANO, expert planners could take up to nine months to manually produce a single plan. This process did not include analysing sensitivity of the plan to key data, such as package volume levels. Planners were forced to plan to a single, conservative set of package volume projections. And the problem was continuing to grow. Rodger McLaughlin, a UPS planning manager with 17 years of experience, is quoted, "The size and complexity of our operational system, and the amount of data available was so vast and so interdependent that it became more than the human mind could process."

Manual Planning Prompted Research Effort

Within UPS Airlines' industrial engineering division, **three groups of planners** work on different next-day-air planning issues that share a common element: to determine the most cost-effective set of airplane routes and package movements that meet customer demands and timing requirements.

- First, the long-range planners develop network plans for two to 10 years in the future, specifying the capacity of the network by selecting its operating locations (airports), air hubs, and the mixture of different aircraft types needed to move projected volume.
- Network planners work on the plans for the current year, adjusting the existing plans to accommodate actual or anticipated changes in the system and enabling the airline to meet current demand.
- Peak planners focus on developing the network plan to enable operations during the busy retail season in November and December.

All planning groups participated in specifying requirements for the VOLCANO system and developing, implementing and validating it. These groups focus on the next-day-air network; a separate corps of planners works on similar planning issues for second day air.

Without going into the details of the composite variable approach undertaken to solve the next day air network problem (essentially involving better load sharing through a common intermediate stop as different aircrafts approach the same hub or different hubs – see *chart 3* below to understand the hub and spoke model at work for UPS), the implementation of the same has led to tangible financial benefits. Since the initial version of VOLCANO in late 2000, it has changed the cost of operating the network and the way planners do their jobs. The three planning groups have accepted the system and routinely use it to support their planning processes.

- UPS credits the system with saving over US\$87mn between its acceptance by UPS planners in late 2000 and the end of 2002, and senior UPS managers estimate saving approximately US\$189mn in operating costs over the next decade.
- Even more important are the potential savings in aircraft acquisitions, as long-range planners use VOLCANO to support fleet composition and acquisition. In addition, VOLCANO is cutting-edge technology consistently cited by senior UPS leaders, including Tom Weidemeyer, the president of UPS Airlines and the chief operating officer of UPS.

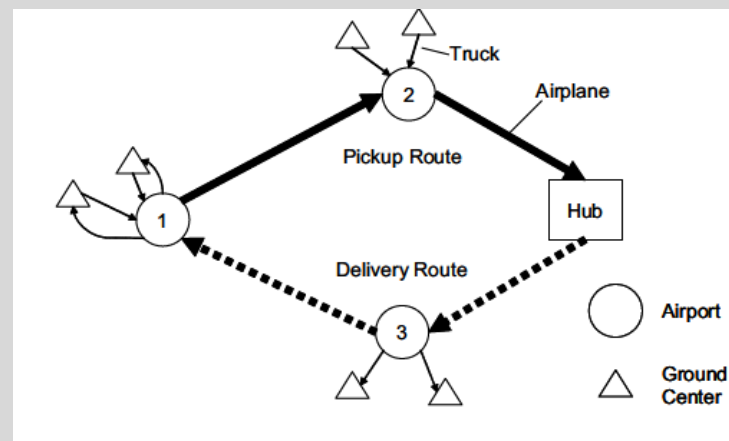
UPS transformed the hub and spoke model that existed once and for all by implementing a network optimisation protocol. Cost savings were enjoyed for the next half a decade, capex was minimized, and utilisations were improved.

The hub-and-spoke model – note the similarity with VRL

In the UPS network, trucks carry packages to ground centers and from ground centers to airports. At the airports, workers load packages onto aircraft.

Each aircraft transports its packages directly to an air hub or stops at one intermediate airport to pick up additional packages. At the hub, workers unload all packages from the inbound aircraft, sort them, and load them onto the outbound delivery aircraft. The aircraft performing pickup and delivery are the same, with each aircraft positioned at the air hub until it is fully loaded for its delivery route. The aircraft then fly to two airports at most, where workers transfer the packages to trucks that carry them to a local ground centre. At the ground centres, workers sort the packages again and load them on smaller trucks for delivery to their destinations. Thus, a next day package typically travels from its origin to a ground centre by truck, from the ground centre to an airport by truck, from the airport to a hub by plane, from the hub to an airport by plane, from the airport to a ground centre by truck, and from the ground centre to its destination by truck.

Chart 3: Hub and spoke model for UPS Air



In this example of a next-day-air network, a two-leg pickup route runs from airport 1 to airport 2 to the hub and a two-leg delivery route runs from the hub to airport 3 to airport 1

Source: UPS

The aircraft routes are carefully planned. Each type of aircraft has operating characteristics that determine which routes it can fly, including maximum flying range, effective speed, restrictions on the locations at which it can land, and cargo capacity. The number of airports a plane can visit on a pickup route or a delivery route, not including the hub, is two. Manual planners typically create route networks in which delivery routes simply reverse the order of a corresponding pickup route, while such mirror-image routes might not effectively use aircraft capacity. In addition, some of the aircraft used during the night for next-day-air deliveries are used during the day for second-day-air deliveries, so an important interface exists between the next-day-air network and the second-day-air network.

Implementation of similar system or at least a miniature version of it can give VRL immense visibility on the utility of hub location (with addition/deletion of hubs), requisite number of trucks and employees to cater to the existing and expected traffic flow, quicker turnaround time in parcel deliveries, as well as better hub-to-hub as well as hub-to-spoke truck utilisation rates, as well as improving sharing of resources (trucks and drivers) between express and parcel delivery.

Improvements that remain low hanging for VRL to attain

The scope of doing a global benchmarking exercise highlights the following areas of introspection:

- Route planning – Focus on low-cost routes based on parcel flow – reducing costs
- Allocation of truck types to different routes – improving route-km
- Truck ownership requirements and hub location selection – huge scope of capex optimisation
- Employee and driver base
- Sorting, loading and unloading time – based on arrival of parcel to booking centre, TPT and delivery centres
- Hub-to-hub and hub-to-spoke truck utilisations.

Currently, based on our interaction with the management, and our visit to Hubli and Bengaluru hubs highlights that most of these functions are highly decentralized, and follows broad set of rules evolved through 30 years of operations. Somehow, the importance of strengthening the network advantage has not been given enough priority. This implies that **any capital player**, strengthened with private equity money can replicate the same over a period of time and the investor/analyst base can easily get disenchanted with the so-called singular network advantage of VRL in India.

Capex discipline – what FY08 DRHP highlights and what can be avoided in future

The implementation of network optimisation solution for entities like VRL can easily lead to enhanced capex discipline – acquisition of trucks in particular. In the past, we have seen a failed IPO bid from VRL (as of FY08) wherein key object of the issue were setting up three TSTs and acquiring 300 trucks for iron ore transport in the state of Karnataka. Out of the three TSTs mentioned in FY08 DRHP, only Bijapur was worked on subsequently and developed as a hub

Table 1: Key objects of the FY08 DRHP document

Particulars	Amount (Rs mn)
Setting up of Transshipment hubs at Gurgaon, Solapur and Bijapur	540
Land	146
Site, development, civil work & building construction	323
Installation of HSD consumer pump	24
Machinery & other ancillaries	46
Funds deployed till February 29, 2008	130
Setting up of booking and delivery office at Gadag	40
Purchase of vehicles	537
Total	1,116

Source: SEBI VRL DRHP of FY08, I-Sec research

Excerpt from FY11 annual report: “During the year, the company disposed of its land at Solapur, Maharashtra, as the same was too small for the company’s envisaged transshipment hub at Solapur. The land owned by the company at Gurgaon is also classified as an asset held for sale as an agreement for sale has been executed for the sale of the said land. The said land is being disposed of as the same is also envisaged to be smaller vis-à-vis the company’s requisition at Delhi/NCR for a transshipment hub.”

These kinds of decisions can be avoided in future if the company focusses on implementing a network optimisation solution. Part of the problem is also on account of constant changes in city planning, entry restrictions for trucks (time and type of vehicles) for which optimal location can change easily and is not in control of the company.

Table 2: Nature of capital expenditure of VRL in the past

(Rs mn)	FY05	FY06	FY07	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Good	367	204	693	236	585	1,180	319	815	677	668
Passenger	107	60	304	213	633	654	433	85	16	276
Windmills	-	-	2,163	-	-	-	-	-	-	-
Air Chartering Service	-	-	-	-	-	-	-	121	-	-
Un-allocable Capital Expenditure	130	420	346	58	140	599**	163	80	159	164
Total	604	684	3,506	508	1,358	2,434	915	1,101	852	1,107

Source: Company Data, I-Sec research

**** Excerpts from FY12 annual report:** ... new properties comprising of Land / Buildings were added at Belgaum, Raichur and Bangalore. The centralized vehicle maintenance facilities at Varur also were significantly expanded to accommodate the fleet increase for the future periods. Balance work was also completed on the Gadag and Bijapur properties of the company. This infrastructure addition resulted in a financial outlay of Rs59.52 crores. **

Network optimisation can create scope for better planning on truck/resource addition – Was there an opportunity missed?

There are distinctly different paces for hub addition, branch addition and truck as well as employee addition witnessed for VRL over the past nine years. While additions of hub and branches have significantly slowed down over the period, truck addition and probably driver addition (indicator drawn from employee base) continues at a meaningful pace.

Topline CAGR at goods transport has been ~18% over last 11 years; nevertheless, margins have meandered back to levels now seen in FY05. What is surprising structurally is that while the company has been able to maintain diesel costs (despite deregulation since FY04-FY05) as a percentage of topline, there is a structural increase in employee costs. The ability to create margins despite controlling diesel costs as percentage of topline, structurally increasing employee costs and continued capex as well as topline growth – all these aspects could have been better managed with implementation of network solution – **Was there an opportunity missed?**

Table 3: Hub and branch addition has slowed down significantly over the past eight years

(nos)	FY08	FY11	FY12	FY13	FY14	FY15	FY16
Hubs	43	43	44	46	48	48	48
Branches	799	850	900*	906	1000	1000	1024

Source: Company data, I-Sec research, * estimated

Table 4: Aggressive expansion has been seen in trucks and employees

	FY05	FY06	FY07	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Capex	604	684	3,506	510	1,358	2,434	914	1,094	852	1,107
Trucks	1,453	1,638	2,169	2,512	2,648	2,950	3,000	3,300	3,500	3,872
Employees			11,932		12,000			13,851	15,652	19,194*

Source: Company Data, I-Sec research

Table 5: Employee costs have seen a sharp up-move in FY16

	FY05	FY06	FY07	FY10	FY11	FY12	FY13	FY14	FY15	FY16	CAGR FY 05-16 (%)
Topline growth (%)		31	24		23	20	15	15	13	5	18
Employee cost as % of topline	7.8	9.9	10.7	13.3	11.8	11.5	11.2	11.7	11.8	14.3	25
Diesel cost as % of topline	23.2	27.1	28.2	22.6	22.5	23.9	25.9	27.2	26.8	22.5	18
EBITDA % of goods transport business	12.6	11.3	13.2	19.0	18.5	18.2	14.6	14.7	16.2	14.2	

Source: Company data, I-Sec research

* Management highlighted that the change is on account of converting *Hamaali* labor and drivers from a contractual nature to a permanent nature due to changes in labor Law. *

Similar network optimisation and route planning is even more critical before GST sets in

GST should favour VRL, which intends to scale up operations in its existing transshipment hubs and increase focus on north, central and eastern regions – where VRL has limited number of TSTs.

This kind of capex requires utilisation planning for trucks based on expected freight, selection of low-cost routes (e.g. minimum lead distance) as well as a clear hold on hub locations as well as capex to augment truck capacity as well as implement the role of warehousing agent effectively when needed. An established system today can go a long way in effectively soothing out the migration pang of a GST regime and the expected investment that will follow.

The remaining benefits out of GST are well known and as highlighted in the following excerpt from Report on ***the Revenue Neutral Rate and Structure of Rates for the Goods and Services Tax (GST) dated December 2015 by Arvind Subramanian***

“... in one day, trucks in India drive just one-third of the distance of trucks in the US (280km vs 800km). This raises direct costs (wages to drivers, passed on to firms), indirect costs (firms keeping larger inventory), and location choices (locating closer to suppliers/customers instead of lowest-cost location in terms of wages, rent, etc.). Further, only about 40 per cent of the total travel time is spent driving, check points and other official stoppages take up almost one-quarter of total travel time. **Eliminating check point delays could keep trucks moving almost 6 hours more per day, equivalent to additional 164km per day** – pulling India above global average and to the level of Brazil. So, logistics costs (broadly defined and including firms' estimates of lost sales) are higher than the wage billed or the cost of power, and 3-4 times the international benchmarks.”

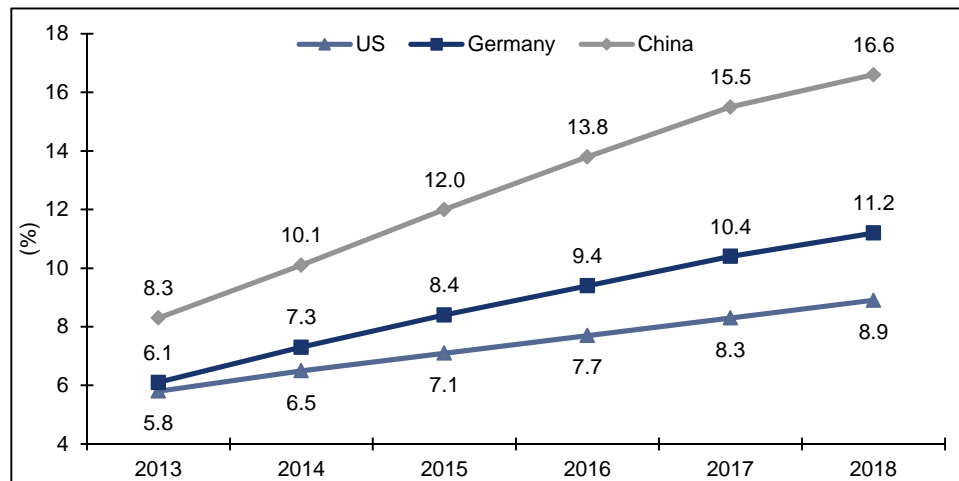
How e-commerce can create tailwind to a logistics execution company like VRL

Another area where we see opportunity for VRL is the potential growth in e-commerce space. The breakthrough growths in e-commerce revenues/parcel volumes have helped global logistics execution players across China, Korea, US, etc. We present two case studies from across the globe to highlight the extent of revenue buoyancy that e-commerce has helped in and, like VRL, we could see tilting towards asset-right model for both these two cases. Predictably, the growth of e-commerce and the corresponding benefit to logistic execution players like Bluedart in India has disappointed.

As e-commerce revenue growth reaches its expected potential of 30-50% CAGR over the next five years (a hope theme again), a player like VRL is bound to benefit. Also, prevalence of a hub-and-spoke operating model can help seamless move towards implementation of an e-fulfilment centre – which players like Bluedart and even Allcargo are now investing to create.

E-commerce as a percentage of the overall retail market in India is below 1%. This is significantly small and will grow in line with trends that we have seen in other countries, as shown in the chart below. The e-commerce revenue potential is very big (expected value of ~US\$30bn by 2020).

Chart 4: Share of e-commerce in the overall retail market has grown leaps and bounds in several countries



Source: Bluedart, I-Sec research

We look at a few global models to understand the impact e-commerce has created on global truckers

ZTO Express: Case study on how parcel delivery has propelled growth in China

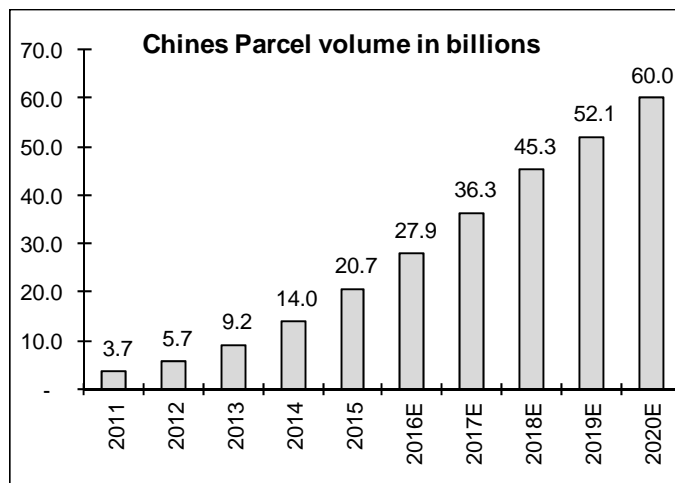
ZTO has generated strong increase in parcel volumes. The total parcel volume increased from 279mn in 2011 to 2,946mn in 2015 and from 1,185mn in the six months ended June 30, 2015, to 1,913mn in the same period in 2016.

Increase in volumes has been driven through changes in consumer behaviour, which has increasingly engaged in e-commerce. Data suggests that China's internet shopping volumes reached RMB1.84trn in 2013, at a compound annual **growth rate of 70% in the past five years, and is expected to remain at the level of over 30%.** The construction of internet network and the applications on mobile platforms laid the preliminary foundation for internet shopping. In 2013, China's netizen population accounted for 89.6% of total population, and mobile terminal penetration rate reached 98.3%, 82% of which are smartphones. Aided by this improved infrastructure, the number of China's online shoppers dramatically increased from 70mn in 2008 to 300mn in 2013, and internet shopping penetration rate climbed from 24.9% to 47.4%.

Increase in volumes has also led to significant increase in asset base. ZTO has incurred significant capital expenditure on acquisition of land use-rights, construction of facilities and upgrading of delivery infrastructure in connection with the consolidation and organic growth of the business. The total capex incurred by the company was ~ RMB790.1mn, RMB1.5bn (US\$225.7mn) and RMB866.6mn (US\$130.4mn) in 2014, 2015 and the six months ended June 30, 2016, respectively, for the acquisition of land use-rights, fleet procurement, building of sorting facilities and purchase of equipment and other fixed assets.

ZTO's asset base includes 74 sorting hubs and a fleet of over 3,300 trucks (2,100 self-owned trucks, over 680 of which are high-capacity 15-17m long models, as of June 30, 2016). The new 15-17m long trucks have nearly twice the loading capacity of 9.6m long trucks with minimal incremental costs, lowering the unit line-haul transportation cost. **The centralized planning and design of sorting hubs with extra capacity provides sufficient parking and operation space for 15-17m trucks.** The company deploys suitable models of trucks to cope with different transportation conditions so that we can reduce our transportation cost. **The remaining trucks are outsourced to Tonglu Tongze.** Tonglu Tongze has a fleet of approximately 1,200 trucks (mostly 9.6m long trucks) as of June 30, 2016, and works exclusively for ZTO.

Chart 5: Chinese express delivery market has grown multifold



Source: Company Data, I-Sec research

Chart 6: ZTO Express delivery volumes have had an even sharper growth

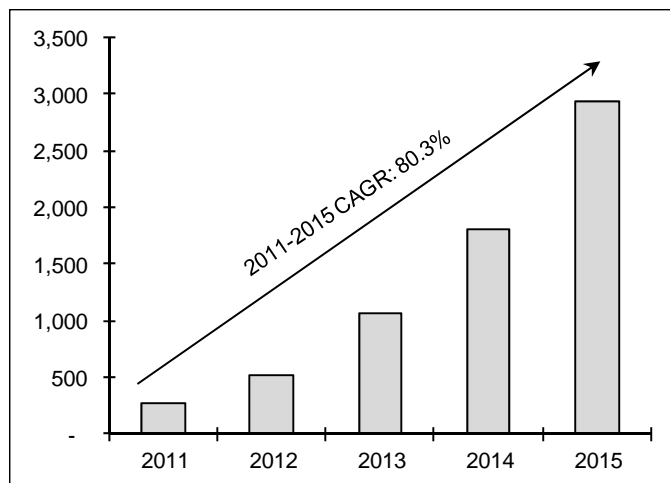


Table 6: Increase in volumes has happened with improvement in margins for ZTO Express

Parcel delivery business of ZTO Express has increased at CQGR of 15%

(RMB '000 except for parcel volume)	Mar'15	Jun'15	Sep'15	Dec'15	Mar'16	Jun'16
Revenues	1,128,295	1,357,765	1,412,422	2,187,973	1,958,548	2,286,629
Gross Profit	348,432	466,349	439,699	833,238	601,448	827,819
Gross Profit Margin	30.9	34.3	31.1	38.1	30.7	36.2
Parcel volume (mn)	498	687	732	1,029	828	1,085

Source: Company Data, I-Sec research

CJ Korea Express -- Case study on benefits of e-commerce to surface transport players in Korean market

Express delivery poised to benefit from e-commerce: Parcel delivery business is riding the structural growth of e-commerce in Korea. E-commerce in Korea is structurally growing on the back of high penetration of smart devices, entry of new online retailers, and easier payment schemes. With online buyer penetration already at 70% by 2015, 80% of the online GMV growth is likely to come from annual spending per online buyer, while the remaining 20% of the growth from an increase in the number of online buyers. At the same time, competition among online retailers is intensifying, leading to increasing demand for swift delivery of merchandise and inherent higher value of efficient express delivery business.

CJ Korea is benefitting from e-commerce, but also has scale and market share to defend from competition. CJ Korea Express, with its 45% market share in parcel delivery, is a key beneficiary of e-commerce industry development in Korea. It has a dominant scale advantage. The average selling price of CJKX is lower than the industry average **as well as its competitors with 10% market share each**. At the same time, operating profit of CJKX's parcel division was recorded higher than those of its competitors.

Table 7: E-commerce traffic at an average 10-12% over last seven years for Korea

(bn KRW)	2010A	2011A	2012A	2013A	2014A	2015A	2016E
E-commerce GMV	25,203	29,133	34,068	38,498	45,302	53,888	65,179
YoY % change		15.6%	16.9%	13.0%	17.7%	19.0%	21.0%
No. of parcel boxes (mn)	1,198	1,299	1,406	1,509	1,623	1,816	2,068
YoY % change	11.0%	8.4%	8.2%	7.3%	7.5%	11.9%	13.9%
as % of e-payment transaction		125.2%	116.2%	112.5%	109.7%	106.8%	103.4%
Aggregate revenue of parcel service	2,990	3,290	3,520	3,703	3,966	4,343	4,847
YoY % change	9.9%	10.0%	7.0%	5.2%	7.1%	9.5%	11.6%

Source: Company data, I-Sec research

Table 8: Parcel delivery business of CJ Korea has increased by 5% CQGR for last 15 quarters

(bn KRW)	2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Revenue	293.6	306.6	324.1	375.7	355	381	378	443	423	447	447	508
Gross profit	26.2	28.9	27.2	45.6	34	39	38	46	42	52	47	48
Margin (%)	8.9	9.4	8.4	12.1	9.7	10.3	10.1	10.5	10.0	11.6	10.6	9.5
Market growth (%)	6.0	7.0	10.1	10.0	12.2	14.4	10.5	10.7	13.8	12.0	13.0	12.3
CJ Korea growth (%)	5.4	17.2	18.0	20.5	23.7	26.9	18.5	18.1	23.2	19.8	20.6	18.7

Source: Company data, I-Sec research

Indian e-commerce revenue for truckers have disappointed; VRL remains open to future opportunities

Bluedart example in India – sharp drop in B2C revenues

As has been the case with other logistic themes, the e-commerce story in India has been very unlike that of global players for B2C logistic providers, case in hand being Bluedart. B2C revenues accounted for **~25% of Bluedart revenues in FY16, while in Q1FY17 it contributed ~20%**.

The discounts that e-commerce players are providing are also coming down as we are seeing meaningful consolidation in the space as: i) parking vehicles has become tough, ii) drivers' salaries are on the rise, iii) transport infrastructure is weak, iv) change in regulations like maximum of 25% can be sourced from one vendor, and v) drying-up of funding. This has further impacted e-commerce revenues in India.

Logistics outsourcing by e-commerce players is another opportunity for road execution players like VRL

Outsourcing of logistics can help e-commerce players to penetrate more and more markets without incurring significant costs on in-house logistics. The key differentiation, which players like BDEL and VRL will provide, is the distribution reach. **As COD accounts for ~70% of transactions in India, reliability is very important for e-commerce companies as there were instances in the past where small logistics companies shut operations and vanished with e-commerce companies' cash.** Huge money was spent by e-commerce players on in-house logistics development in the past few years because of ample availability of funds. Going further, this is going to reduce significantly as the pace of getting new funds slowed down significantly. Services of in-house logistics arm of any e-commerce company are not used by competitors and will therefore remain underutilized, thereby make cost per delivery high. Depending on the PIN code, e-commerce players will decide whether to

deliver products via in-house route or outsource. Generally, in a highly dense area, e-commerce players prefer to do it in-house and outsource in case of remote locations. **As players like Bluedart are charging 30-35% premium compared to competitors, there is ample scope for players like VRL, to make a toehold in the market as volumes pick up.**

Currently e-commerce hardly contributes to VRL's topline as the company is more inclined towards B2B delivery. There is an increasing trend of e-commerce shipments from warehouse to distribution centres as seen by VRL. The company is not yet interested to take up the last mile delivery in e-commerce – citing lower margins, higher costs and the training that it would require to impart to some of the staff (including *Hamaali* labour). However, the management understands if parcel volumes pick up and logistic distribution arms of e-commerce companies fail to cater to those volumes (which have happened globally), competitors like TCI and Gati will show a much higher topline and EBITDA growth vis-à-vis VRL, and there is no point in missing out on the same.

VRL – an ideal 3PL asset partner in need of scale and asset base in India

As clamor for GST increases and logistics industry matures in India, the network advantage will become more and pricier. The network advantage in itself will allow VRL an opportunity either to move towards a relatively asset-right 3PL model by implementing a more efficient network optimisation solution, or by acquiring some 3PL players inorganically (global example of ABF Freight) or else get acquired by a 3PL provider (likes of AllCargo or global 3PL players – global example of XPO Logistics).

We believe that the unique combination of having the asset base of trucks, terminal presence across the country and the drivers on payroll are some of the key features **that sum up to an ‘asset-right’ combination for any prospective ‘asset-light’ 3PL player.** VRL is ideally poised to be that asset-based partner for any prospective 3PL player. While there are several instances of 3PL players with an asset base in road transportation, we look at one such player---**XPO Logistics.**

Case study -- How XPO Logistics endeavors to be an asset-right play by acquiring TL/LTL players

XPO Logistics is a 3PL player that has ventured into acquisition of LTL and FTL players to achieve an asset-right model giving the company diversified growth while gaining favour among liners. XPO Logistics' acquisition of Con-way Inc., owner of the second-largest LTL carrier in the US and a truckload and logistics operator, reflected a shift toward the asset-right model for XPO. XPO began adding assets in CY14 with the purchase of intermodal rail operator Pacer International. The acquisition of European logistics and trucking operator Norbert Dentressangle, and the experience of its customers, helped drive the Con-way deal. With Con-way under the XPO umbrella, three of the five largest LTL carriers in the US are owned by broader-based transportation and logistics companies, including FedEx Freight, the largest LTL operator, and UPS Freight, the fifth-largest LTL player.

This rationale of convergence of asset-light 3PL and asset-heavy LT businesses lies in the difference between asset-heavy and asset-right perception among various logistic players. **While standalone trucking business may be asset-heavy, 3PL integration into trucking remains asset-light within the context of their entire business. Yet, what it achieves is the higher reliability and measure of control that such combinations can provide to the liners.** Cyclical decline in capacities also provide crunch times when the value of an assured asset base becomes valuable for the liners.

Case study of ABF Freight – How an LTL player expanded into asset-light 3PL segment

Through ABF Freight, Panther, ABF Logistics, Fleet Net, and ABF Moving, ABF Freight offers end-to-end solutions and expertise including: 1) domestic and global transportation of LTL, truckload or full-container load (FCL), and less-than container load (LCL) shipments; 2) expedited ground and time definite delivery solutions; 3) freight forwarding services; 4) freight brokerage; 5) transportation and warehouse management services; 6) roadside assistance and total maintenance services for

medium- and heavy-duty vehicles; and 7) household goods moving services for consumers, corporations and the military.

Freight Transportation (ABF Freight) segment (LTL). ABF Freight offers regional service with its traditional long-haul model to facilitate its customers' next-day and second-day delivery needs in most areas throughout the US. Development and expansion of the regional network required added labour flexibility, strategically positioned freight exchange points, and increased door capacity at a number of key locations. Regional service offerings within the ABF Freight network have resulted in reduced transit times and allows for consistent and continuous LTL service. ABF Freight defines the regional market, which represented approximately 60% of its tonnage in 2015, as tonnage moving 1,000 miles or less.

During the year ended 31-Dec'15, no single customer accounted for more than 4% of ABF Freight's revenues, and its 10 largest customers, on a combined basis, accounted for approximately 12% of its revenues. In 2015, ABF Freight managed 5.1mn customer shipments weighing a total of 6.6bn lb for an average weight of 1,298 pounds per shipment. As of 31-Dec'15, ABF Freight utilised approximately 4,200 tractors and 20,800 trailers in its linehaul and local pickup and delivery operations.

In response to customers' needs for expanded service offerings, ABF has strategically increased investment in asset-light logistics businesses. The additional resources invested in growing the asset-light logistics businesses is part of management's long-term strategy to serve the changing marketplace through these businesses as well as their traditional less-than-truckload (LTL) operations by providing a comprehensive suite of transportation and logistics services.

For the year ended 31-December 2015, 2014, and 2013, the combined revenues of asset-light logistics segments (formerly referred to as "non-asset-based" segments) totaled US\$798.1mn, US\$722.5mn, and US\$571.8mn respectively, accounting for approximately 29%, 27%, and 25% of total revenues before other revenues and intercompany eliminations in the respective periods.

Spate of acquisitions by ABF Freight

- On 15-Jun'12, ABF Freight acquired Panther Expedited Services, Inc., one of North America's largest providers of expedited freight transportation services with expanding service offerings in premium freight logistics and freight forwarding (**asset-light model**).
 - Panther's highly fragmented competitive landscape includes both non-asset-based and asset-based logistics companies, including freight forwarders that dispatch shipments via asset-based carriers; smaller expedited carriers; integrated transportation companies that operate their own aircraft and trucks; cargo sales agents and brokers; internal shipping departments at companies that have substantial transportation requirements; associations of shippers organised to consolidate their members' shipments to obtain lower freight rates; and smaller niche service providers that provide services in a specific geographic market, industry, or service area. Panther and FedEx Custom Critical are North America's largest expedited freight transportation service providers. In this market, Panther also competes directly with several small regional and specialised carriers that have close relationships with certain of

their customers. Panther has many significantly larger competitors in the truckload market. The premium freight logistics market is the largest market in which Panther competes, and it is a relatively smaller and newer competitor in comparison to companies that have operations worldwide and those that have been in business for several decades.

- On 31-May'13, ABF acquired a privately-owned business, which is included in the ABF Moving segment.
- Effective 1-Jul'13, it formed the ABF Logistics segment in a strategic alignment of the sales and operations functions of the logistics businesses.
- On 30-Apr'14, it acquired a privately-owned business which is reported within the Fleet Net segment.
- On January 2, 2015, ABF Logistics acquired Smart Lines Transportation Group, LLC (Smart Lines) and a privately-owned truckload brokerage firm.
- On 1-Dec'15, ABF Logistics acquired Bear Transportation Services, L.P., a privately-owned truckload brokerage firm.

In India, VRL is one of those ideal asset-based plays to complement any aspirational 3PL players in search of a network and asset base required for road logistics. As such, VRL is an attractive candidate for acquisition or merger. If any such move happens, the unique proposition of VRL can fetch very high valuations, which underlines an option value that can be comforting to investors.

Global valuations – Pure play asset-heavy TL/LTL never gets the multiples

We look at some of the select FTL and LTL plays globally to understand the valuation band that truckers enjoy globally. 19x P/E for +2FY (two year forward fiscal year) looks like a good benchmark which comes out in Table 9. However, within this 19x P/E multiple is also imbibed some 3PL characteristics. If we look at pure play logistics provider like YRC Worldwide, the multiples are much lower. Also, as we have seen in the sector report –the asset intensity and the FCF profile of VRL is actually much better to deserve a better multiple than asset-heavy low-FCF yielding players like YRC Worldwide– so we feel there is a possibility given the evolving landscape in India for VRL to gradually enter the 3PL space or get acquired by a 3PL player in the process.

Table 9: Global diversified truckers' valuation

Company	Primary Service	Subsidiary Portfolio/Services	EV/E (x)					P/E (x)					P/B (x)				
			-2FY	-1FY	1FY	2FY	3FY	-2FY	-1FY	1FY	2FY	3FY	-2FY	-1FY	1FY	2FY	3FY
UPS	Parcel	Ground, Freight, Brokerage	11.4	10.6	9.7	9.2	8.7	22.6	20.3	18.0	16.6	15.9	15.8	22.7	35.2	24.3	11.1
Fedex	Parcel	FedEx ground, FedEx freight, FedEx custom critical	10.3	9.0	7.3	6.8	6.3	28.9	21.7	16.1	14.3	12.8	3.9	3.3	3.3	2.8	2.4
J.B. Hunt	IMC	Truckload, Dedicated Contract Service, Intermodal, Integrated Capacity Solutions	13.4	11.6	10.6	9.7	8.9	32.3	27.6	24.2	21.1	18.3	9.8	8.8	7.3	6.1	5.5
YRC Worldwide	LTL	YRC Freight, Holland, Reddaway, New Penn	6.4	4.2	4.2	3.8	NA	NA	15.8	12.9	7.5	NA	NA	NA	NA	NA	NA
Swift Transportation	TL	Dry-Van, Refrigerated, Dedicated, Intermodal	6.6	6.3	7.0	6.3	5.9	17.0	15.4	17.8	13.9	11.9	6.9	4.8	3.9	3.3	2.3
Hub Group	IMC	Hub, Mode, Unyson	15.6	13.1	10.2	9.2	8.4	29.6	26.1	21.3	19.1	16.9	3.3	2.9	2.6	2.3	2.0
Landstar System	TL	Dry-Van, flatbed, LTL, Intermodal	14.3	13.2	12.9	12.0	11.4	28.7	25.9	25.1	22.4	20.7	7.7	8.0	6.2	5.6	4.8
XPO Logistics	IMC/LTL	Trucking, intermodal	NA	152.6	8.8	8.0	7.0	NA	NA	51.2	28.9	18.7	2.6	1.9	1.9	2.0	1.6
Old Dominion Freight Line	LTL	Trucking	13.3	11.6	10.5	9.5	8.7	30.7	25.9	23.5	20.6	18.6	5.3	4.7	3.7	3.3	3.1
Arcbest	LTL	ABF Freight, ABF Logistics, Panther Premium Logistics	5.6	5.0	5.2	4.6	4.1	18.1	15.9	20.0	16.2	14.2	1.4	1.3	1.3	1.2	1.1
Werner Enterprises	TL	One way TL, Dedicated, Value Added Service	6.6	5.6	6.0	5.5	5.2	21.6	16.7	23.4	19.4	17.5	2.4	2.2	1.9	1.8	1.7
Road Runner Transportation	TL	LTL	6.4	5.6	6.9	6.1	5.5	5.3	5.3	12.1	9.8	7.9	0.5	0.5	0.4	0.5	0.4
Saia	LTL	Saia LTL Freight, Saia TL Plus, Link Ex	8.9	8.6	7.6	6.7	6.1	24.8	24.2	23.3	19.5	18.2	3.4	2.9	2.3	2.1	1.8
Knight Transportation	TL	Dry-Van, Refrigerated, Dedicated, Intermodal, Drayage, Brokerage	10.8	9.0	9.7	8.7	7.9	28.0	22.9	27.6	23.3	20.2	4.1	3.8	3.4	3.2	3.0
Transforce	TL	Dynamex, Transport America, Hazen final mile	10.0	7.6	6.7	6.4	6.0	21.5	17.0	15.0	13.2	10.4	3.6	3.5	NA	NA	NA
Celadon Group	TL	Truckload, dedicated, Brokerage, e commerce purchasing cooperative	6.1	4.6	7.6	6.4	5.4	9.3	6.2	NA	23.4	12.3	NA	NA	NA	NA	0.7
Universal Truckload Services	TL	Truckload, Drayage	6.1	5.4	7.4	7.3	6.9	7.9	8.9	15.5	14.9	13.4	3.8	2.9	NA	NA	2.1
Heartland Express	TL	Heartland Express, Gordon Trucking	6.6	7.1	8.5	7.8	7.6	21.2	24.8	30.3	25.5	23.9	3.8	3.7	3.2	3.0	2.7
Ryder System	TL	Dedicated Contract Carriage	5.8	5.3	5.2	4.9	4.3	13.8	12.4	14.5	13.0	11.4	1.8	1.9	1.6	1.6	1.5
Covenant Transportation	TL	Covenant Transport, Southern Refrigerated Transport, Star Transportation, Covenant Transport Solutions	6.9	4.7	5.2	4.6	4.5	15.7	10.6	22.1	15.8	16.1	NA	NA	1.5	1.4	1.3
Marten Transport USA Truck	TL	Truckload, Dedicated, Inter Modal, Brokerage	6.8	5.8	5.5	5.0	4.7	27.1	23.6	23.5	19.6	17.8	NA	NA	NA	1.6	1.5
	TL	Trucking, Intermodal, Strategic Capacity Solutions	4.0	3.7	6.1	5.1	5.2	18.9	9.6	NA	16.3	14.7	NA	NA	1.4	1.4	1.3
ZTO Express	Express Delivery	Express Delivery	NA	NA	22.7	14.6	10.9	NA	NA	31.0	21.4	15.8	NA	NA	3.7	3.2	2.7
All average			8.7	7.5	8.3	7.3	6.8	21.3	18.0	22.3	18.1	15.8	4.0	3.6	2.9	2.5	2.1
LTL			8.6	7.3	9.8	7.9	7.4	24.5	22.0	27.0	19.0	17.1	3.2	2.7	2.6	2.3	2.1

Source: Bloomberg, I-Sec research

Asset turn and FCF yield largely explains the discount in multiples

From table 9 above, we tried to cull out the players where multiples are real laggards. Large part of the valuation differential can be explained by a combination of asset turn and FCF yield as *table 10* highlights. Case in point is YRC Worldwide (LTL) which is similar to VRL in terms of business model, yet trades at a significant discount to its transportation peerset. While we have not included FedEx in the list (not being a pureplay trucker) a comparison with UPS only confirmed this particular trend in market valuations.

Table 10: Global diversified truckers' valuation – Asset turn and FCF yield largely explains the discount in multiples

Subsidiary Portfolio/Services	FCF Yield (%)	Asset Turn (x)	EV/E (x)					P/E (x)				
	Present	Present	-2FY	-1FY	1FY	2FY	3FY	-2FY	-1FY	1FY	2FY	3FY
YRC Worldwide	0.6	2.6	6.4	4.2	4.2	3.8	NA	NA	15.8	12.9	7.5	NA
Swift Transportation	7.7	1.4	6.6	6.3	7.0	6.3	5.9	17.0	15.4	17.8	13.9	11.9
Road Runner Transportation	16.4	1.5	6.4	5.6	6.9	6.1	5.5	5.3	5.3	12.1	9.8	7.9
Transforce	9.2	1.2	10.0	7.6	6.7	6.4	6.0	21.5	17.0	14.9	13.0	10.4
Universal Truckload Services	(0.2)	2.0	6.1	5.4	7.4	7.3	6.9	7.9	8.9	15.5	14.9	13.4
Ryder System	(7.4)	0.6	5.8	5.3	5.2	4.9	4.3	13.8	12.4	14.5	13.0	11.4

Source: Bloomberg

VRL fits perfectly in our matrix of asset heaviness/FCF yield to justify higher multiples regionally

Even from our valuation matrix of (Chart 22 of the sector piece), VRL fits perfectly to justify a higher valuation keeping in mind the asset intensity and the FCF yield of the universe. Also, both these factors can actually improve from here on, given the extent of inefficiencies that the company can remove if they implement some of the network optimisation solutions as highlighted by us.

We are quite convinced that unless there is a significant increase in capex or a significant reduction in freight impacting FCF, VRL should attract high premium on valuations vis-à-vis its listed peers. Currently, the valuation scenario in India remains extremely inverted on the back of heightened hopes from DFC. While DFC may significantly increase earnings of some of the LEP whom we have addressed in the report (Concor, Gateway Distriparks), the timing continues to be uncertain.

Valuations that VRL can fetch by association with a 3PL play

As we have highlighted through two case studies (XPO Freight and ABF Freight) in the previous section, any association with 3PL can enhance the value proposition for VRL and its minority holders. If any 3PL players want to approach VRL as a strategic and relative asset-heavy fit, or if VRL organically/inorganically moves towards a 3PL business model, the following valuation parameters will provide a good benchmark.

Table 11: Global truckers’ valuation – 3PL opportunity brings in valuation premiums

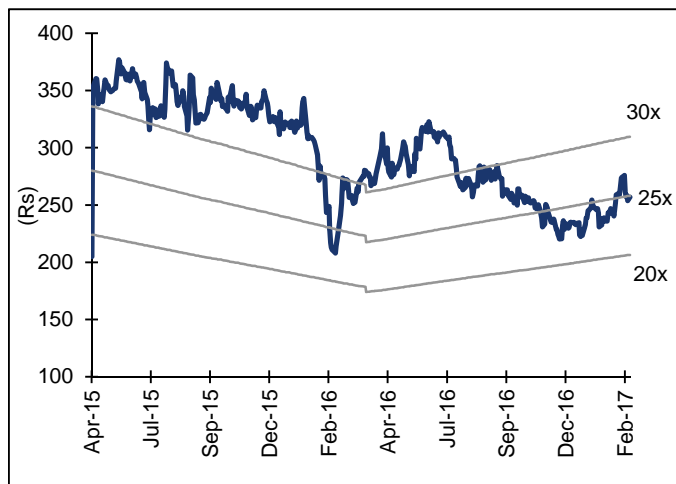
			FCF Yield	Asset Turn	EPS Growth (%)				EV/E (x)				P/E (x)				P/B (x)			
			(%)	(x)	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY
XPO Logistics	IMC/LTL	Trucking, intermodal	0.1	1.3	(45.6)	65.9	342.0	77.3	NA	152.6	8.8	8.0	NA	NA	51	29	2.6	1.9	1.9	2.0
Arcbest	LTL	ABF Freight, ABF Logistics, Panther Premium Logistics	5.3	2.1	213.8	(2.2)	67.2	23.5	5.6	5.0	5.2	4.6	18	16	20	16	1.4	1.3	1.3	1.2
Average			2.7	1.7	84.1	31.9	204.6	50.4	5.6	78.8	7.0	6.3	18	16	36	23	2.0	1.6	1.6	1.6
VRL (i-Sec)	LTL	Trucking	2.1	2.2	144.2	(23.0)	21.8	57.5	10.5	11.8	11.0	8.2	26.1	33.9	27.9	17.7	5.2	4.9	4.5	4.0

Source: Bloomberg, I-Sec|research

We value VRL at 21x FY19E P/E; initiate with BUY

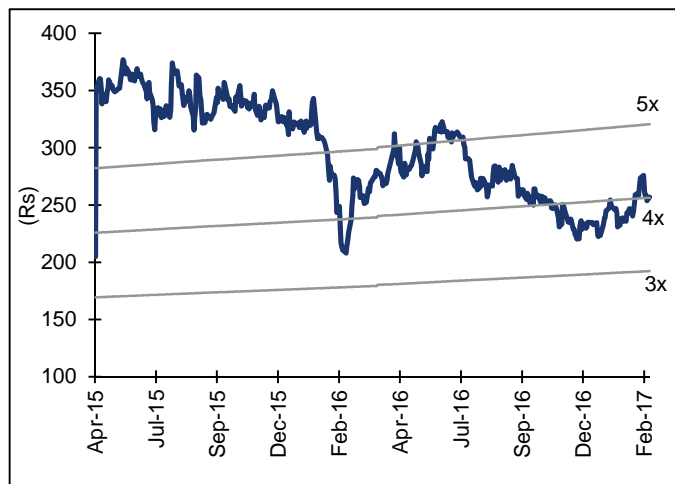
Global LTL peerset throws up 19x +2FY P/E. XPO and ABF Freight are the two examples which highlight the multiples that a trucker can get in association with 3PL play. +2FY from that analysis throws up 23x as P/E. We chose the middle band of the two, i.e. 21x FY19E P/E for VRL. At our current FY19E assumption the target price for VRL comes to ~ Rs350/share. We initiate coverage on VRL with a BUY rating.

Chart 7: P/E band



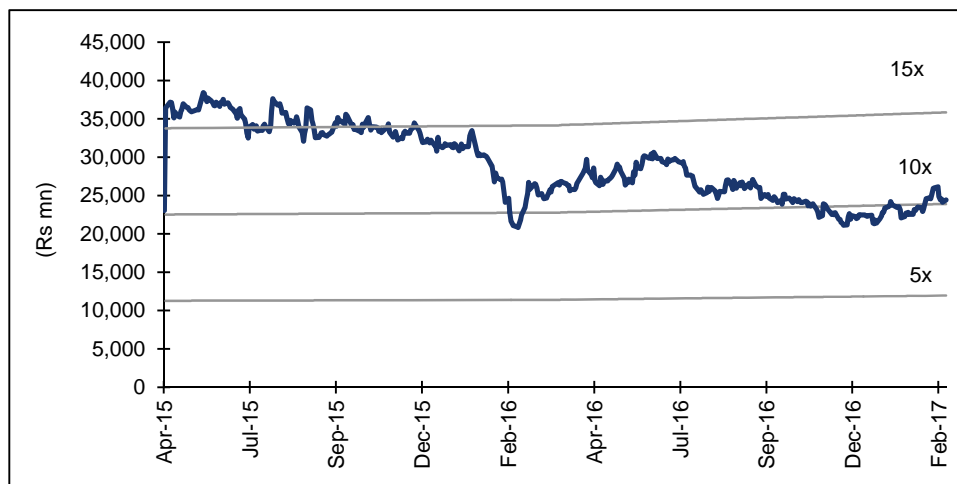
Source: Bloomberg, I-Sec research

Chart 8: P/BV band



Source: Bloomberg, I-Sec research

Chart 9: EV/EBITDA band



Source: Bloomberg, I-Sec research

Key concerns / risks

- **Limited ability to pass-on fuel hikes:** Fuel cost is a key cost component for the company and accounted for around 32% of its total costs in FY15. Fuel costs, toll charges and rent represent some of the most significant operating costs for the company, and any increase in such costs or inability to pass on the increases will hurt the company's profitability.
- **Shortage of drivers and rising competition:** VRL faces significant competition in attracting, recruiting and retaining qualified and experienced drivers. A shortage of qualified drivers would further increase driver compensation, and / or increase dependence on hiring third-party owned trucks, which can impact margins.
- **Fragmented market leads to high competitive intensity:** VRL operates in a highly competitive industry dominated by a large number of unorganised players. High competition may lead to revenue reduction, reduced profit margins, or a loss of market share, any of which can adversely affect the company's business.
- **Increase in age of vehicles can impact maintenance costs:** As of 31-Mar'15, 66% of VRL's owned goods transportation vehicles and 10% of its bus fleet were over five years old. Increasing age of fleet pushes up the cost of maintaining them. VRL will have to continue to expand and upgrade its fleet of goods transportation vehicles or buses and acquire such vehicles on commercially favourable terms to control operating and maintenance costs. In addition, passenger buses on interstate and longer routes are allowed to operate for a maximum period of 10 years, after which they need to be replaced.
- **Evolving and changing regulatory environment:** Motor vehicles in India were first regulated under the Indian Motor Vehicles Act, 1914, which was subsequently replaced by the Motor Vehicle Act, 1939. The Motor Vehicle Act, 1939, was amended several times and finally the Motor Vehicle Act, 1988 (the 'Motor Vehicle Act') came into force on 1-Jul'89. The Motor Vehicles Act was amended on 1-Mar'12. The key areas under the Motor Vehicles Act pertaining to transport operators are emission norms, weight norms and vehicle age norms. The government of India has introduced the Road Safety and Transport Bill, 2014 which sought to amend and replace the Motor Vehicles Act, 1988, to provide a comprehensive framework for goods transportation and passenger transportation activities in India. It is currently unclear when and in what form the Transport Bill will finally be signed into law.
- **Risks related to handling unverified parcels:** VRL transports various types of goods other than goods classified as hazardous or illegal. While the company obtains a declaration from the customer regarding the contents of the parcel and its value, it does not independently verify the contents. Hence, it is unable to guarantee that these parcels do not contain any hazardous or illegal goods.
- **Exposed to taxation-related risks:** VRL's business is subject to a multiplicity of taxes levied at the national, state and local administration levels including income tax, value-added tax, service tax, stamp duty, motor vehicle tax, octroi and other special taxes and surcharges (such as tolls by local bodies), which are introduced on a temporary or permanent basis from time to time. Moreover, the central and state tax scheme in India is extensive and subject to change from time to time.

Financial summary

Table 12: Profit and loss statement

(Rs mn. year ending March 31)

	FY15	FY16	FY17E	FY18E	FY19E
Revenue from operations	16,728	17,225	18,094	19,998	22,285
Goods transport	12,844	13,489	14,166	15,259	17,086
Passenger transport	3,297	3,158	3,301	4,067	4,488
Wind	222	214	238	250	250
Air charter	117	112	156	164	173
Others	248	252	232	259	289
Operating Expenses	14,477	14,548	15,814	17,595	19,088
EBITDA	2,251	2,677	2,279	2,403	3,197
% margins	13.5%	15.5%	12.6%	12.0%	14.3%
Other Income	16	19	21	21	60
Depreciation & Amortisation	877	900	957	962	962
Gross Interest	586	307	242	115	89
Profit before tax & exceptional item	804	1,489	1,101	1,348	2,206
Exceptional Item	37	-	-	-	-
Profit before tax	842	1,489	1,101	1,348	2,206
Less: Taxes	467	517	388	473	745
Less: Minority Int. & Asso. Profit	-	-	-	-	-
Net Income (Reported)	375	973	713	875	1,461

Source: Company data, I-Sec research

Table 13: Balance sheet

(Rs mn. year ending March 31)

	FY15	FY16	FY17E	FY18E	FY19E
Assets					
Total Current Assets	2,345	2,097	3,474	2,412	3,179
of which cash & cash eqv.	166	196	1,369	235	878
Total Current Liabilities & Provisions	516	1,661	1,565	1,572	1,577
Net Current Assets	1,830	437	1,909	840	1,602
Investments	1	1	1	1	1
Net Fixed Assets	7,051	7,159	7,159	7,142	7,165
Intangible assets	17	17	17	17	17
Capital Work-in-Progress	91	162	-	-	-
Goodwill	-	-	-	-	-
Other non-current assets	25	-	-	-	-
Total Assets	9,015	7,775	9,085	8,000	8,784
Liabilities					
Borrowings	4,481	1,654	2,631	1,131	1,131
Deferred Tax Liability	888	904	904	904	904
Other long term liabilities	85	82	82	82	82
Equity Share Capital	855	912	912	912	912
Reserves & Surplus	2,707	4,223	4,556	4,970	5,755
Net Worth	3,562	5,135	5,469	5,883	6,667
Total Liabilities	9,015	7,775	9,085	8,000	8,784

Source: Company data, I-Sec research

Table 14: Cashflow statement*(Rs mn, year ending March 31)*

	FY15	FY16	FY17E	FY18E	FY19E
Net Profit before tax	1,379	1,540	1,176	1,433	2,257
Depreciation	877	898	957	962	962
Non-Cash Adjustments	564	307	242	115	89
Working Capital Changes	(216)	(143)	(299)	(66)	(118)
Taxes Paid	(287)	(498)	(388)	(473)	(745)
Operating Cashflow	2,317	2,104	1,689	1,970	2,446
Capital Commitments	(859)	(1,520)	(795)	(944)	(985)
Free Cashflow	1,459	584	894	1,026	1,461
Other investing cashflow	368	-	-	-	-
Cashflow from Investing Activities	(491)	(1,520)	(795)	(944)	(985)
Inc (Dec) in Borrowings	(1,208)	(1,568)	734	(1,615)	(89)
Issue of Share Capital	-	1,170	0	-	-
Dividend paid	(604)	(455)	(455)	(546)	(728)
Cashflow from Financing Activities	(1,812)	(853)	279	(2,161)	(817)
Chg. in Cash & Bank balance	15	(269)	1,173	(1,135)	644

Source: Company data, I-Sec research

Table 15: Key ratios*(year ending March 31)*

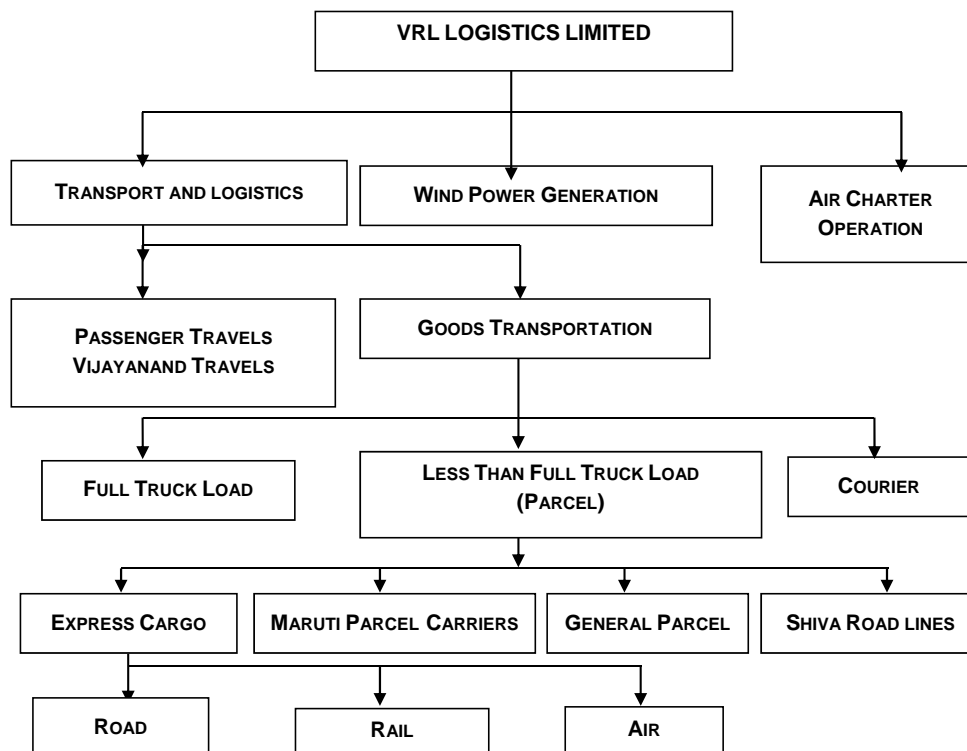
	FY15	FY16	FY17E	FY18E	FY19E
Per Share Data (Rs)					
EPS	4.9	11.2	8.7	10.6	16.6
Cash EPS	15.1	21.1	19.2	21.1	27.2
Dividend per share (DPS)	7.1	5.0	5.0	6.0	8.0
Book Value per share (BV)	41.6	56.4	60.1	64.6	73.3
OCF per share	27.1	23.1	18.6	21.7	26.9
FCF per share	17.1	6.4	9.8	11.3	16.1
Growth (%)					
Net Sales	11.6	3.0	5.2	10.5	11.4
EBITDA	9.0	18.9	(11.2)	5.6	31.8
PAT	(26.5)	144.2	(23.0)	21.8	57.5
Valuation Ratios (x)					
P/E	60.0	26.1	33.9	27.9	17.7
P/BV	7.1	5.2	4.9	4.5	4.0
EV / EBITDA	13.1	10.5	11.8	11.0	8.2
EV / Sales	1.8	1.6	1.5	1.4	1.2
Operating Ratios					
Employee cost / Sales (%)	11.8	14.2	14.5	14.7	14.9
Other Operating exp. / Sales (%)	73.2	68.5	71.2	71.6	68.9
Effective Tax Rate (%)	52.7	33.6	33.0	33.0	33.0
Total D/E Ratio (x)	1.3	0.3	0.5	0.2	0.2
Net D/E Ratio (x)	1.2	0.3	0.2	0.2	0.0
OCF yield (%)	9.2	7.9	6.3	7.4	9.1
FCF yield (%)	5.8	2.2	3.3	3.8	5.5
Return/Profitability Ratios (%)					
EBITDA Margins	13.5	15.5	12.6	12.0	14.3
Net Income Margins	2.2	5.6	3.9	4.4	6.6
Return on Equity (RoE)	11.8	19.9	14.4	16.3	22.7
Return on Capital employed (RoCE)	15.4	23.1	14.8	18.3	26.1

Source: Company data, I-Sec research

Annexure 1: Company profile

VRL operation

Chart 10: VRL Operation



Source: Company data, I-Sec research

Goods transportation and distribution business is carried across 17 states and seven Union Territories, i.e. Pondicherry, Daman, Silvassa, Chandigarh, Karaikal, Yanam, and Mahe covering 649 cities throughout India. They cover the states of Karnataka, Andhra Pradesh, Telangana Tamil Nadu, Kerala, Maharashtra, Goa, Gujarat, Rajasthan, Punjab, Haryana, Delhi, Himachal Pradesh, Uttar Pradesh, Chhattisgarh, Madhya Pradesh, West Bengal and Uttarakhand under this business.

Passenger transport business is carried on under the name of Vijayanand Travels. The company conducts this business within the state of Karnataka, Maharashtra and Tamil Nadu covering 56 cities in all. They have 40 branches and 466 franchisees across the states of Karnataka, Maharashtra and Tamil Nadu for their passenger transport business. The fleet strength comprises of 4,253 vehicles, all of which are owned by the company. The fleet comprises of 3,872 vehicles for goods transportation, 381 for passenger travels and 40 for internal use, which includes forklifts, cranes, staff buses, water tankers, diesel tanker, tractors, etc.

Wind power generation: In 2006, VRL commenced its wind power business in southern India at Kappatgudda, Gadag district, in Karnataka by setting up a wind farm of 42.50 MW. The wind farm consists of 34 Wind Turbine Generators (WTGs) having individual capacity of 1.25 MW. The turbines are of S66 technology developed by

Suzlon Energy Limited and the power generated is sold to Hubli Electricity Supply Company Limited under six Power Purchase Agreements (PPAs).

Air charter business: VRL Logistics has entered into the air charter business by providing services to individuals and corporates. Recently, the company has purchased Premier 1A aircraft from Hawker Beech Craft Incorporation, US. Premier 1A is a 2-pilot and 6-passenger seat aircraft (with four club configuration seats). They have also entered into MoU dated 1-Nov'07 with Indamer Company Private Limited for the maintenance of the aircraft.

The air charter business is headed by Vice President-Air Charter, who looks after all the activities of this business. They also started recruiting pilots, co-pilots, security officers and other staff for the business. They will be on the payroll of VRL Logistics Limited.

Company had also made an application to the Ministry of Civil Aviation, requesting for a no-objection certificate (NOC) which grants a Non-Scheduled Operator Permit. They have been granted the initial NOC dated 23-Mar'07 to operate Non-Scheduled Operator Permit from the Ministry of Civil Aviation. They will operate on an all-India basis subject to necessary government approvals.

Board of Directors – key members

Dr. Vijay Sankeshwar	Chairman and Managing Director and Promoter of the company, he is actively involved in the day-to-day affairs of the company, as a Whole Time Director. He holds a Bachelor's Degree in commerce from Karnataka University, Dharwad. He is a former Member of Parliament and was elected from the Dharwad (North) constituency in the 11th, 12th and 13th Lok Sabha elections and he was also a member of the Legislature of the State of Karnataka. He was a member of Central Government committees, such as, the Committee of Finance between 1996 and 1997, the Consultative Committee, Ministry of Surface Transport between 1996 and 2000 and the Committee of Transport and Tourism between 1998 and 2000.
Mr. Anand Sankeshwar	Managing Director and Promoter , supervises the marketing operations and he is actively involved in the day-to-day affairs of the company, as a Whole Time Director. He holds a Bachelor's Degree in commerce from Karnataka University, Dharwad. He has 19 years of experience in the transport industry.
Mr. Chantam K. Shetty	A non-executive Independent Director of the Company, he holds a post-graduation in commerce from Karnataka University, Dharwad, and is also a Certified Associate member of Indian Institute of Banking (C.A. IIB). He was employed with Vijaya Bank between 1974 and 1998. He has over 20 years of experience in the banking industry.

Source: Company data

Key management people

- **Mr. K. N. Umesh**, aged 61 years, is the Chief Operating Officer of the company. He has been associated with the company since 12-March 12, 1984, and was reappointed as the Chief Operating Officer of the Company on June 1, 2012, on attaining the age of superannuation on May 30, 2012.
- **Mr. L. Ramanand Bhat**, aged 55 years, is the Chief Technical Officer of the company. He holds a diploma in mechanical engineering from the State Board of Technical Education & Training, Tamil Nadu, and is a certified member of the Institute of Engineers in tool design. He has been associated with the company since July 1, 1995, and resigned from the company on March 13, 2014. He has been reappointed as the Chief Technical Officer of the company on March 14, 2014.
- **Mr. Sunil Nalavadi**, aged 37 years, is the Chief Financial Officer of the company. He holds a bachelor's degree in commerce from the Karnataka University, Dharwad, and is a qualified associate of the Institute of Chartered Accountants of India. He has been associated with the company since March 31, 2005, and the term of appointment extends till attainment of the age of superannuation. He is currently in charge of the finance, taxation and accounting functions of the company.
- **Mr. Aniruddha A. Phadnavis**, aged 34 years, is the General Manager (Finance) and Company Secretary of the company. He holds a bachelor's degrees in commerce and law from the Karnataka University, Dharwad, and is a qualified member of the Institute of Chartered Accountants of India, a qualified company secretary associated with the Institute of Company Secretaries of India, and a certified associate of the Indian Institute of Banking & Finance. He has been associated with the company since June 1, 2007, and the term of appointment extends till attainment of the age of superannuation. He is presently the Company Secretary and Compliance Officer, involved in financial matters and corporate legal compliances.
- **Mr. Prabhu A. Salageri**, aged 47 years, is the Vice President (Travels) of the company. He holds a postgraduate degree in commerce from the Karnataka University, Dharwad. He has been associated with the company since March 7, 1994, and the term of appointment extends till attainment of the age of superannuation.
- **Mr. V. V. Karamadi**, aged 54 years, is the National Head (Operations) of the company. He has been associated with the company since October 3, 1995, and the term of appointment extends till attainment of the age of superannuation.

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Logistics

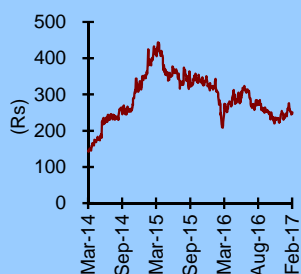
Target price Rs309

Shareholding pattern

	Jun '16	Sep '16	Dec '16
Promoters	25.2	25.2	25.2
Institutional investors	66.3	65.7	65.6
MFs and UTI	24.0	22.6	20.7
FIs / Banks	2.4	2.4	2.6
Insurance Cos.	1.2	1.2	1.2
FII	38.7	39.5	41.1
Others	8.5	9.1	9.2

Source: CMIE

Price chart



INDIA

ICICI Securities

Gateway Distriparks

BUY

Valuations yet to factor in volume recovery

Rs252

Reason for report: Initiating coverage

Gateway Distriparks (GDL) is one of the early entrants in the container Train operation (CTO) space by acquiring category I CTO license in CY07 through the subsidiary Gateway Rail (GRFL). Like many private sector CTOs, GRFL has to counter tremendous competitive pressures and declining return potential both at the infrastructure as well as the service level. Higher capex than peer-set of private CTOs (Table 6), chronic under utilisation of terminals, consequently high operating leverage and completion of the capex cycle with the commissioning of Viramgam terminal allow us to be constructive on GRFL, which will potentially benefit from higher rail volumes from west coast ports as WDFC ramps up. Diversification across east and west coast ports will help maintain (and perhaps improve) CFS business RoIC and provide requisite FCF for maintaining dividend payout. We initiate with a BUY and target price of Rs309/share. We expect both asset turn and FCF yield for GDL to improve over next two to three years.

- ▶ **High operating leverage (under utilised terminals as well as inflated fixed costs) can easily reflate margins and returns going forward.** The way GRFL has lost EXIM market share is alarming (Chart 2). Nevertheless, the extent of capex incurred (scoring hugely over other private CTOs) and capacities created (which are significantly under utilised now) have suppressed RoICs. Decline in volumes has also created a significant fixed cost headwind (given GDL's employee cost to sales is higher than Concor now). This can reverse leading to a sharp reflation in EBITDA/teu (EXIM) as well as RoIC.
- ▶ **The operating leverage available with GRFL can swing valuations.** We create two scenarios – one where GRFL maintains its market share. Second scenario entails GRFL winning back its market share seen in FY15. These two scenarios determine the valuation range of GRFL, as per us. Even after adjusting for holding company discount for Blackstone's equity stake we see GRFL contributing Rs163/share to Gateway's SoTP valuation.
- ▶ **Factoring in improving RoIC in the CFS business; FCF generation from CFS will support dividend payout from Gateway.** Diversified presence across east and west coast ports has allowed GDL to partly mitigate the risks arising out of i) DPD leading to a potential stagnation of JNPT volumes in the near term, ii) limited port of call for shipping lines at JNPT, and iii) extremely competitive landscape in the CFS space. Despite severe competitive pressures, we expect RoICs to improve as capex cycle is expected to come to a halt. Net debt however continues to inch up as the CFS business will have to bear the brunt of dividend distribution from Gateway till the time cash flow from Gateway rail doesn't become fully fungible.

Market Cap	Rs27.4bn/US\$410mn	Year to Mar	FY16	FY17E	FY18E	FY19E
Reuters/Bloomberg	GATE.BO / GDPL IN	Revenue (Rs mn)	10,509	11,347	12,935	14,094
Shares Outstanding (mn)	108.7	EBITDA(Rs mn)	2,487	2,252	2,657	2,962
52-week Range (Rs)	350/208	Net Income (Rs mn)	1,096	801	1,327	1,631
Free Float (%)	74.8	EPS (Rs)	10.1	7.4	12.2	15.0
FII (%)	41.1	P/E (x)	24.9	34.1	20.6	16.7
Daily Volume (US\$'000)	507	CEPS (Rs)	17.5	14.6	19.7	22.7
Absolute Return 3m (%)	7.8	EV/E (x)	11.3	12.6	10.7	9.4
Absolute Return 12m (%)	(5.8)	Dividend Yield	2.8	2.8	2.8	2.8
Sensex Return 3m (%)	10.0	RoCE (%)	12.2	11.7	13.8	14.8
Sensex Return 12m (%)	19.0	RoE (%)	11.6	8.6	13.7	15.7

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Gateway rail stands out in performance amidst the universe of private CTOs

We could cull out the financials of 7 critical CTOs to understand the nature of performance (4 unlisted, 3 listed) over the last 7-8 years. There are decent performances which are visible – both in asset heavy and asset light models (case in point being Gateway Distripark and Hind Terminals).

The ICD (present and upcoming) for Gateway Distripark is included in the rail business, however measured investment in rakes and ICDs have ensured that an above industry average RoIC performance is still maintained.

Hind Terminal (Sharaf Group -- UAE and MSC Agency) has outperformed Gateway. Hind Terminal ICD and CFS form a separate segment and in that sense it is slightly different from the other players' reported rail segment numbers. Also, policy requires setting up of ICD within three years of getting the CTO license; thus, probably an asset light model is not feasible in this space – however, Hind Terminal is a live example as to how an asset light model helps even in the CTO space and how regulatory development could have shaped better for the industry.

Table 1: Performance of key CTOs since inception

(Rs mn)	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Revenue	1,381	2,309	2,441	3,483	5,376	5,671	6,913	7,304
EBITDA	46	233	238	310	799	1,060	1,703	1,473
EBIT	(166)	(22)	51	92	397	660	1,229	974
Capex	1,445	764	239	78	768	394	895	708
Teu			131,337	180,473	233,566	212,317	250,347	203,167
Realisation/teu			18,584	19,301	23,017	26,710	27,614	35,951
EBITDA/teu			1,815	1,718	3,420	4,993	6,804	7,249
EBIT/teu			385	507	1,701	3,110	4,908	4,796
EBITDA Margin	3.4	10.1	9.8	8.9	14.9	18.7	24.6	20.2
RoIC (%)	(3.8)	(0.4)	1.4	2.7	5.2	8.7	14.8	10.8
Assets	4,410	5,116	3,547	3,443	7,614	7,627	8,294	9,057
Asset Turn	0.3	0.5	0.7	1.0	0.7	0.7	0.8	0.8
Adani Logistics (Unlisted)								
Revenue			1,194	1,231	2,707	4,271	6,341	6,786
EBITDA			(21)	69	275	580	768	606
EBIT			45	49	305	1,519	1,809	1,766
Capex			156	147	380	99	404	440
EBITDA Margin			(1.7)	5.6	10.2	13.6	12.1	8.9
RoIC (%)			0.7	0.7	3.3	9.4	9.8	8.5
Assets			6,476	6,610	9,329	16,212	18,371	20,796
Asset Turn			0.2	0.2	0.3	0.3	0.3	0.3
Arshiya								
Revenue	21	483	1,692	2,716	3,021	1,961	2,398	1,979
EBITDA	2	119	382	590	335	(69)		
EBIT	0	82	279	447	95	(407)	(260)	(271)
Capex	1,581	1,534	1,498	1,487	574	223		
EBITDA Margin	10	25	23	22	11	(4)		
RoIC (%)	0.0	2.4	4.9	6.2	1.2	(5.8)	(3.9)	(4.5)
Assets	1,736	3,445	5,686	7,187	7,728	7,010	6,655	6,024
Asset Turn	0.0	0.1	0.3	0.4	0.4	0.3	0.4	0.3
DARCL (Unlisted)								
Revenue				214	255	689	971	
EBITDA				(12)	8	4	54	
EBIT				(41)	(22)	(31)	25	
Capex				40	3	36	119	
EBITDA Margin				(5.7)	3.2	0.6	5.6	
RoIC (%)				(11.2)	(5.3)	(7.6)	4.4	
Assets				368	408	405	564	
Asset Turn				0.6	0.6	1.7	1.7	

Source: Company Data, I-Sec research

Table 2: Performance of key CTOs since inception (cont'd)

(Rs mn)

	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Innovative Logistics (Unlisted)								
Revenue		1,086	972	1,133	1,646	2,115		
EBITDA		(147)	(121)	(104)	(15)	41		
EBIT		(224)	(239)	(225)	(129)	(84)		
Capex		464	240	110	55	333		
EBITDA Margin		(13.6)	(12.5)	(9.1)	(0.9)	1.9		
RoIC (%)		(7.5)	(6.7)	(7.8)	(4.5)	(2.6)		
Assets		2,978	3,574	2,905	2,867	3,248		
Asset Turn		0.4	0.3	0.4	0.6	0.7		
SMART (Subsidiary of SICAL)	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Revenue						2,218	2,024	1,779
EBITDA						410	306	257
EBIT						314	188	151
Capex						66	214	297
CFS								117,065
CTO								21,686
Realisation/teu								12,823
EBITDA/teu								1,853
EBITDA Margin						18.5	15.1	14.5
RoIC (%)						7.1	4.4	3.0
Assets						4,426	4,284	5,054
Asset Turn						0.5	0.5	0.4
Hind Terminals (Unlisted)**	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Revenue		1,529	1,955	2,876	3,447	3,900	4,928	
EBITDA		208	239	152	227	280	441	
EBIT		130	156	57	124	178	287	
Capex		101	262	258	36	87	195	
EBITDA Margin		13.6	12.2	5.3	6.6	7.2	9.0	
RoIC (%)		8.0	8.6	2.9	6.6	9.7	14.8	
Assets		1,633	1,813	1,929	1,891	1,841	1,938	
Asset Turn		0.9	1.1	1.5	1.8	2.1	2.5	

Source: MCA, Company data, I-Sec research

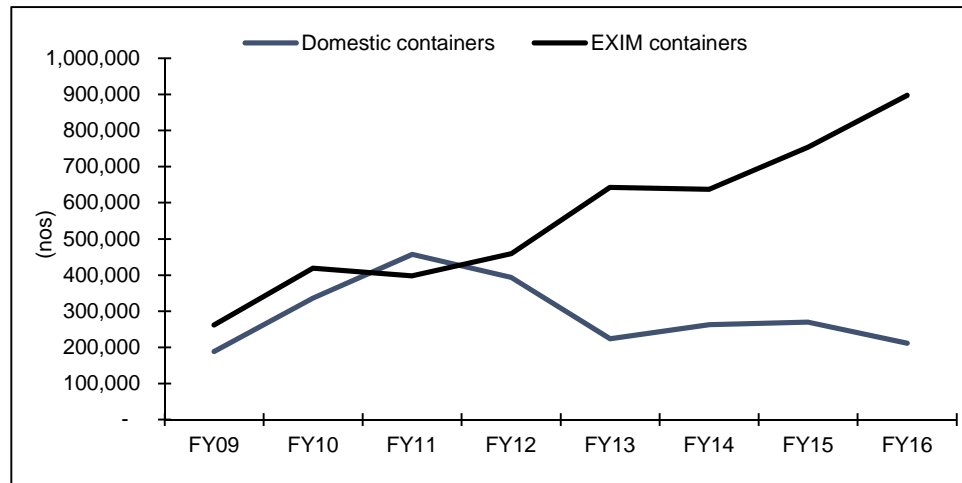
** CFS and ICD is separate

How have the CTOs (ex Concor) fared – the scents of sub-optimality

A look at the financials of seven key CTOs (ex Concor) since opening up of the sector for private participants suggests stunted business prospects, with tremendous competitive intensity and declining return potential. The problem is both at the infrastructure as well as the service level. The margins and the return on capital are sub-optimal even after 7-8 years of operations. While the number of CTOs has not proliferated, returns have kept lingering at sub-optimal levels for CTOs as a whole. The competitive dynamics of ICDs in some of the key regions like NCR (which is now a key infrastructure part of the CTO operation) highlights the same.

Chart 1: How have IR ex Concor volumes shaped up

Interestingly the EXIM traffic (ex Concor) has shown a CAGR of 19% over last 7 years. So, given the pace at which Concor has lost business should have given enough opportunity for the CTOs to enjoy a healthy business. That's clearly not the case.



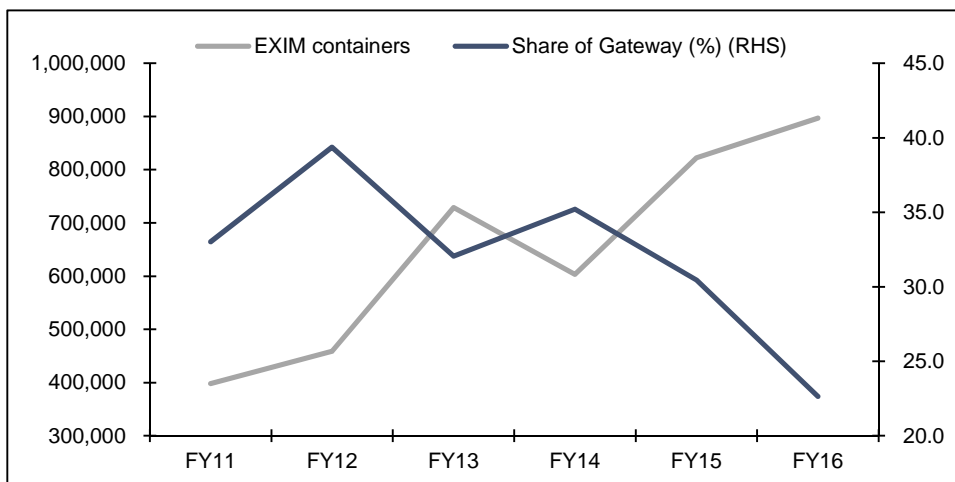
Source: IR Data, Concor

Gateway market share loss has been alarming

The market share analysis of GDL presents a disappointing picture. Table 1 and 2 shows that Gateway is a relatively better performing CTO in the pack analysed (and also a comprehensive pack in terms of market share). However, Chart 2 below highlights how sharp the loss in market share has been for GDL.

Chart 2: How Gateway has lost market share in a segment which has shown 19% CAGR

Particularly concerning is the drop in FY14-16E



Source: IR, Company data

While margin trajectory (EBITDA/teu) of GRFL has shown a healthy trend (Table 1 and 2), market share loss highlights that the company is ready to lose volumes and keen to maintain margins. Since GDL reports terminal volumes and majority (almost 70-80% of the volumes) were handled at Gurgaon terminal (Garhi Harsaru), it reflects the dynamics of catchment area and terminals in NCR region in particular.

How terminal dynamics seem in the NCR region

A look at the NCR ICD market highlights to what extent the infrastructure space is over invested, and perhaps the kind of EXIM bounce that is required to utilise the same is not forthcoming in near future – the hope theme remains if TKD gets closed. A look into Ludhiana would throw similar picture (with 2.2 lakhs teu of volumes and <60% utilisation of terminals – our due diligence suggests that drop in Buffalo meat exports have alone impacted EXIM volumes from 2000 teu per month to ~ 1300 teu per month). While GRFL accounts for ~42% of Ludhiana rail freight market, the competitive scenario in Ludhiana is worse than that in NCR, as per management.

Part of the ICD over capacity in regions like NCR and Ludhiana is also due to failure of the policy to delink assets from service (since an essential part of getting the CTO license in 2007 was to invest in terminals). Thus, despite local trade dynamics not supporting, we have seen an influx of ICDs, leading to utilisations lingering at extremely low levels.

Table 3: ICD/CFS utilisation in NCR paints a picture of overcapacity

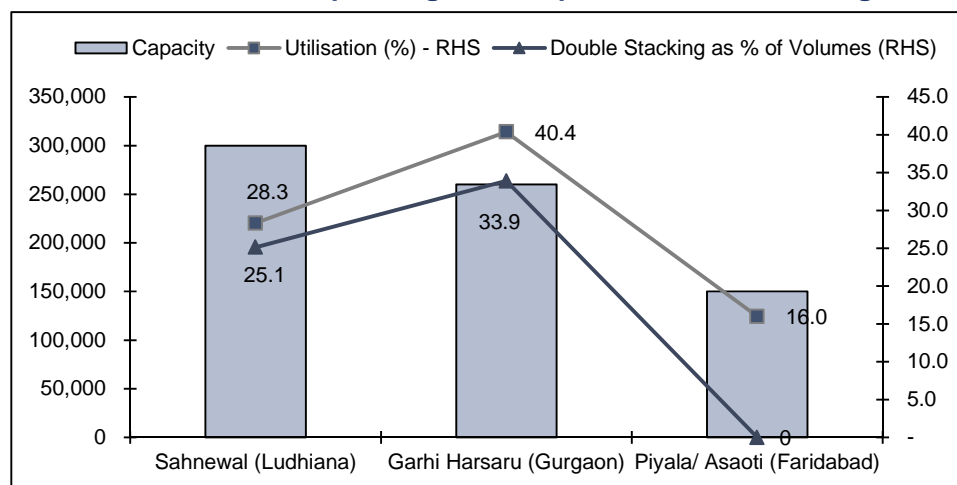
Location	CFS/ICD	Company	Capacity (teu)	TEU handled	Utilisation (%)
Tughlakabad (Delhi) / Northern Region	ICD	Concor	400,000	450,226	112.6
Dadri (Greater Noida) / North Central Region	ICD	Concor	500,000	230,390	46.1
Loni	ICD	CWC	80,000	100,000	125.0
Garhi Harsaru	ICD	Gateway Distriparks Ltd	260,000	105,000	40.4
Patli	ICD	Adani Logistics Limited	140,000	30,000	46.4
Kathuwas / Northern Region **	ICD	Concor	500,000	62,158	12.4
Dadri	CFS	Albatross CFS Pvt. Ltd.			
Ballabgarh	ICD	Concor	25,000	700	2.8
	ICD +				
Diwana	PFT	Continental Warehouse	100,000	NA	NA
Sonepat (Bhodwal Majri)	ICD	Box Trans (JM Baxi)	120,000	50,000	41.7
Total			2,125,000	1,028,474	48.4

** Kathuwas has been mentioned as majority of Kathuwas volume is originated from NCR region

Source: IR, Company data

The intensity of competition is visible if one looks at the current utilisation of capacities of three GDL terminals

Given intense competition, losing market share (perhaps not pursuing volumes as aggressively as competition), GRFL has allowed for utilisations even in its original terminal Garhi Harsaru to moderate to 40% (chart 3). Sahnewal (Ludhiana) has suffered on account of two other operators moving out of the arrangement (in June, '16). Faridabad is ramping up and is expected to reach four figure in container handled in Q4FY17. The extent of utilisation and double stacking of the three operational terminals of GDL highlight the amount of operating leverage that the company can potentially enjoy as volumes improve. One need not turn a blind eye to the headwinds already existing in the space. Nevertheless, we keep witnessing enough instances of operating levers in place for GDL which can act as margin tailwinds in future.

Chart 3: The terminals operating at sub-optimal utilisations bring down RoIC

Source: Company data, I-Sec research

Given the reduced utilisation of assets, some of the fixed cost disparities are overwhelming at present

As GRFL has lost market share and terminals are chronically underutilised, some of the fixed cost disparities, even in comparison to PSU units like Concor, pose a major surprise. The employee costs of Concor as a % of topline is actually lower than the of GDL – this is perhaps a rare occasion where we are seeing such an equation playing out between private and a public sector player. This is despite GDL having 229 employees and Concor having 1,332 employees as of March 16.

Table 4: Margin and cost comparison between Concor and GDL in the Exim segment

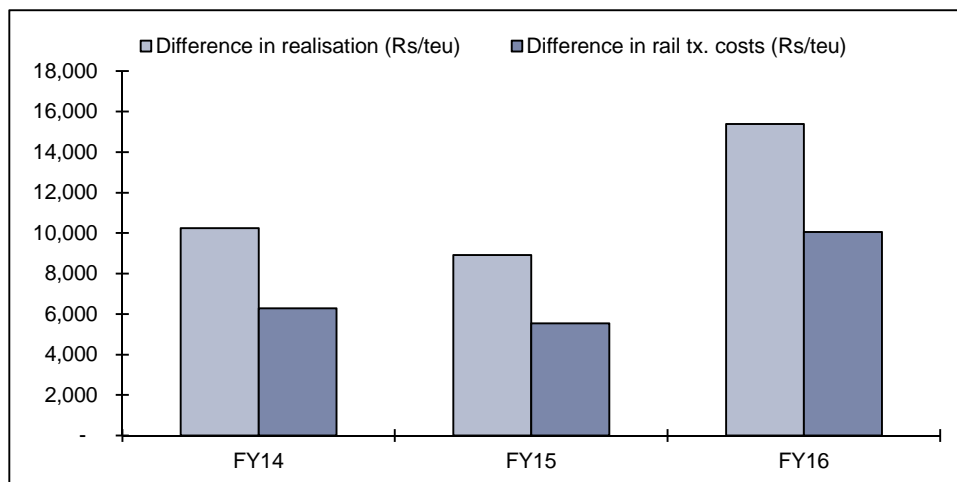
	FY14	FY15	FY16
Concor			
Realisation/teu	16,473	18,694	20,561
Cost/teu	11,773	13,584	15,754
EBITDA/teu	4,701	5,110	4,807
Employee costs as % of topline	2.7	3.2	3.1
Gateway			
Realisation/teu	26,710	27,614	35,951
Cost/teu	21,717	20,811	28,702
EBITDA/teu	4,993	6,804	7,249
Employee costs as % of topline	4.8	3.8	3.7

Source: Company data, I-Sec research

Even with the fixed cost disparity, GRFL’s performance has been better than Concor in all other conceivable parameters.

GRFL earns higher revenue/teu for EXIM (most probably due to higher lead distances), enjoys higher proportion of double stacking (due to majority of the running happening to Mundra and Pipavav ports), and lower empty repositioning costs/teu. The higher lead for GRFL (vis-à-vis Concor) can be understood by the fact that **~70-80% of GRFL volumes were traditionally handled by Garhi Harsaru (Gurgaon) terminal and the distance of the same from Mundra/Pipavav as well as JNPT is ~2400km.** Along with higher lead, lower empty repositioning to a large extent explains the difference in realisations as well as EBITDA/teu for GRFL. The lead distance of GRFL is very different from the IR EXIM leads in the same region (as we have discussed in the Concor report) and in a way stands out in the space.

Chart 4: Higher lead distance for GDL vis-à-vis Concor is evident from realisation/costs



Source: Company data, I-Sec research

High operating leverage (underutilized terminals as well as inflated fixed costs) can easily reflate margins and returns going forward.

The way GRFL has lost EXIM market share is alarming. Nevertheless, the extent of capex incurred and capacities created (which are considerably under utilised now) have suppressed RoIC and decline in volumes has also created a significant fixed cost headwind (given GDL's employee cost to sales is higher than Concor now). This can reverse, leading to a sharp reflation in EBITDA/teu (EXIM) as well as RoIC – much higher than what we are anticipating.

Table 5: Capex and expected RoIC of the rail business

(Rs mn)	FY11	FY12	FY13	FY14	FY15	FY16	FY17E	FY18E	FY19E
Total Revenues	2,441	3,483	5,376	5,671	6,913	7,304	7,310	8,442	9,235
TEU	131,337	180,473	233,566	212,317	250,347	203,167	213,423	240,000	260,000
Revenue/TEU	18,584	19,301	23,017	26,710	27,614	35,951	34,250	35,174	35,521
Segment result	51	92	397	660	1,229	974	818	1,098	1,274
Total Assets	3,547	3,443	7,614	7,627	8,294	9,057	8,988	8,798	8,568
Total Capex	239	78	768	394	895	708	440	250	250
EBITDA	238	310	799	1,060	1,703	1,473	1,329	1,617	1,808
EBITDA/TEU	1,815	1,718	3,420	4,993	6,804	7,249	6,225	6,736	6,954
Margin (%)	9.8	8.9	14.9	18.7	24.6	20.2	18.2	19.1	19.6
EBIT	385	507	1,701	3,110	4,908	4,796	3,834	4,576	4,898
RoIC (%)	1.4	2.7	5.2	8.7	14.8	10.8	9.1	12.5	14.9

Source: Company data, I-Sec research

Table 6: Capex comparison of top 7 private CTOs

(Rs mn)	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Gate way	1,445	764	239	78	768	394	895	708
Adani Logistics (Unlisted)	-	-	156	147	380	99	404	440
Arshiya	1,581	1,534	1,498	1,487	574	223	-	-
DARCL (Unlisted)	-	-	-	40	3	36	119	-
Innovative Logistics (Unlisted)	-	464	240	110	55	333	-	-
SMART (Subsidiary of SICAL)	-	-	-	-	-	66	214	297
Hind Terminals	-	101	262	258	36	87	195	-

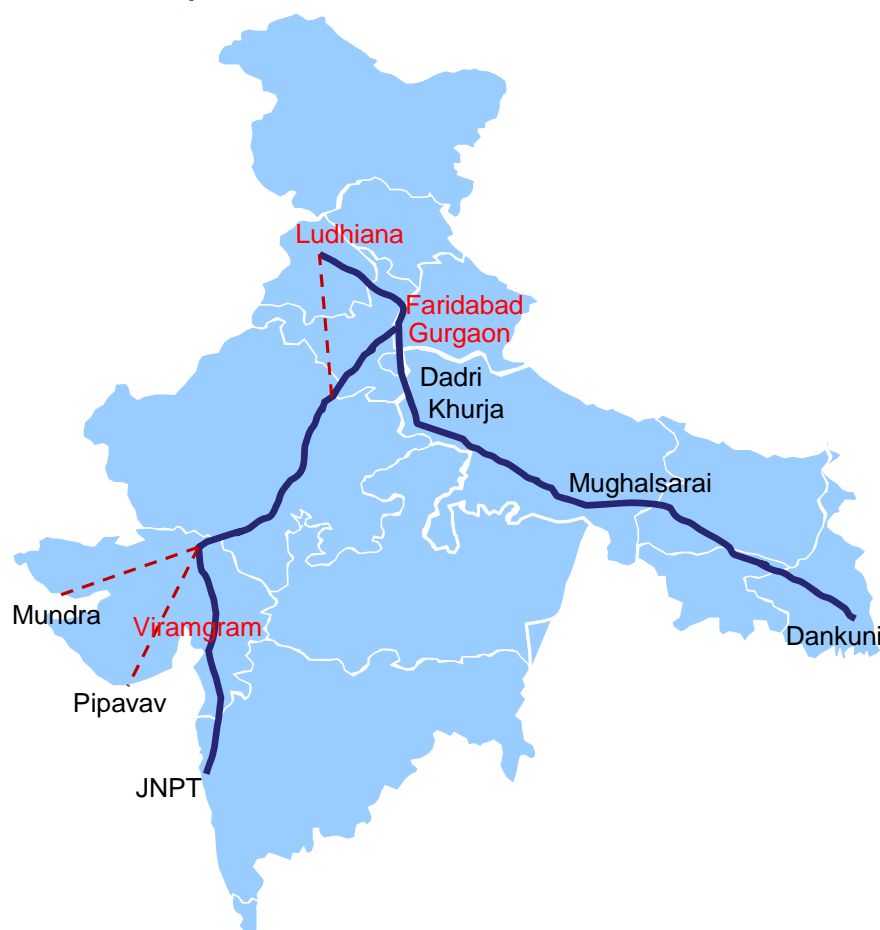
Source: Company data, I-Sec research

Like Concor scoring hugely over private CTOs, investments undertaken by GDL will score significantly over other private CTOs given the capex distribution in the space.

Viramgam terminal – the next margin tailwind (*if volumes recover*)

Viramgam terminal is spread across 35 acres of land, which will be the second hub for GRFL's container train service. The railway terminal will be built over 25 acres and will initially have a capacity to handle two trains simultaneously (implying a capacity of 150,000-200,000 teu per annum). The remaining 10 acres will be used to develop an ICD to cater to the needs of Gujarat trade.

Chart 5: Viramgam: Strategic location will help in higher double stacking and lower rail transportation costs



Source: Company Data, I-Sec research

The terminal would increase double-stacking lead distance for the rail segment, as container volumes transported to JNPT would be partially double-stacked as against hardly any double-stacking at present.

The terminal will help in consolidating business both in import and export direction in such a way that GRFL doesn't have to run a port specific train from any of the terminal and terminal specific train from a port. Hence, evacuation speeds are faster; the basket that GRFL carries at any point in time is larger, so opportunity for double-stack is also higher. The management expects significant reduction in haulage charges once the terminal stabilises.

Savings in rail transportation costs alone cannot justify Viramgam capex – volumes will have to move up to ensure there is a meaningful RoIC from the investment

We look at sensitivity to savings in rail transportation costs savings possible. Management has highlighted that the first full year of operations should save ~ 2% of the haulage costs. As volumes ramp up, the savings in haulage costs can be increased to 4%.

Given the nature of the capex which is incurred, RoIC from haulage cost savings alone cannot justify the investment. Hopefully, the volume through Viramgam ramps up, leading to better savings and justifying the investment.

Table 7: Haulage cost savings in Viramgam alone doesn't justify the investment

Savings in tx. costs (Scenarios)	2%	4%
Capex for Viramgam (Rs mn)	1,050	1,050
Current rail tx. costs of GDL in FY16 (Rs/teu)	22,450	22,450
Volumes catered through Viramgam (teu)	100,000	200,000
Savings in tx. costs (Rs/teu)	449	898
Savings in tx. costs (Rs mn)	45	180
EBIT (Rs mn) through Viramgam	(18)	117
RoCE (pre-tax) (%)	(2)	11.1
RoCE (post- tax) (%)	(1)	8.9

Source: Company data, I-Sec research

Factoring in improving RoIC in the CFS business

Gateway has been one of the early entrants into the CFS business; and like many other players in the logistic space, the company has derived its main growth capital from the CFS business. However, like many of its competitors, the business pressures have been manifesting through stagnating volumes, dip in margins, and a dip in RoIC.

Profitability of the CFS segment has declined by ~50% over FY12-16 due to weak EXIM trade and increasing competition. Competitive intensity is particularly high for JNPT, where port volumes have been flat for 4-5 years but the number of CFS players has consistently increased. Kochi CFS volumes have been sluggish due to higher proportion of direct clearance at the port level.

Table 8: Gateway's CFS performance at a glance

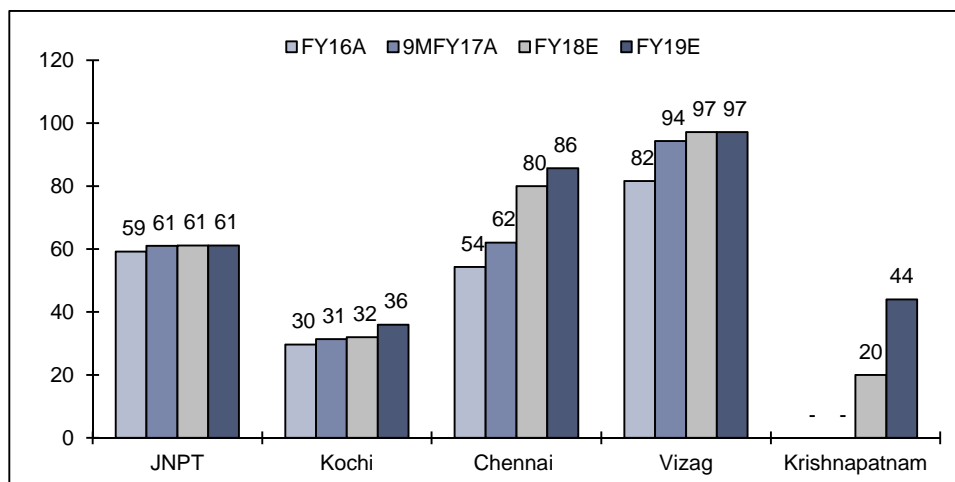
(Rs mn)	FY11	FY12	FY13	FY14	FY15	FY16	FY17E**	FY18E	FY19E
External Revenues	2,824	3,762	3,038	2,933	3,401	3,204	4,038	4,493	4,859
Volumes (teu)	333,422	334,088	342,662	340,004	387,138	361,227	392,491	426,000	448,000
Revenue(Rs/teu)	8,471	11,261	8,865	8,625	8,785	8,871	10,287	10,548	10,846
Segment result (EBIT)	1,130	1,742	1,208	905	1,088	782	694	797	898
Total Assets	6,092	6,611	3,613	3,606	3,572	3,025	3,032	3,005	2,852
Total Capital expenditure	1,142	852	595	394	223	323	510	265	220
EBITDA	1,327	2,015	1,414	1,157	1,408	1,088	973	1,091	1,204
EBITDA(Rs/teu)	3,980	6,032	4,127	3,402	3,636	3,013	2,479	2,560	2,687
Margin (%)	47.0	53.6	46.7	39.6	41.6	34.0	24.1	24.3	24.8
EBIT/teu	3,390	5,213	3,525	2,661	2,811	2,165	1,769	1,870	2,004
RoIC (%)	18.6	26.3	33.4	25.1	30.5	25.8	22.9	26.5	31.5

**Change in accounting treatment from FY17E where in management also started accounting for Handling and Transportation income in line with ground rent income. Earlier Handling and Transportation income were accounted for once the containers were delivered, now income is recognized while the containers are in inventory. Also in FY16 there has been slackness in Punjab Conware (JNPT) as well Chandra CFS (Chennai). To understand the business continuity EBITDA/teu is a better indicator.

Source: Company data, I-Sec research

Extremely high competition across CFS can be seen by scoping potential market around JNPT and Chennai. The distraught picture of capacity utilisation across different CFS of Gateway also is a testimony to the severe competitive pressure that the industry suffers from. Despite severe competitive pressures, we expect RoICs to improve as capex cycle is expected to come to a halt. Net debt however continues to inch up as the CFS business will have to bear the brunt of dividend distribution from Gateway till the time cash flow from GRFL doesn't become fully fungible.

Chart 6: Utilisation scenarios across different CFS of Gateway

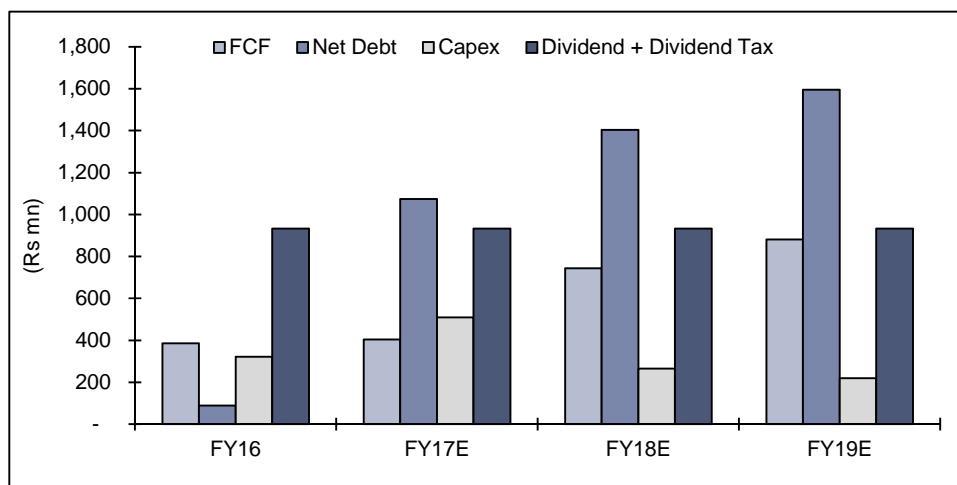


Source: Company data, I-Sec research

FCF generation from CFS will support dividend payout from Gateway

Given the first mover advantage of Gateway, relatively high asset turn before incurring the latest round of capex for CFS in Krishnapatnam, and relatively high market share in Vizag as well as expectations of an increase in utilisation in Chennai with modest market share increase, CFS business still throws up decent free cash flows. Also capex is expected to moderate over next few years. Since the cash from Gateway Rail is not fungible, Gateway maintains dividend payout from the FCF of CFS business. This doesn't allow for the net debt to moderate effectively in the CFS business over next 3 years.

Chart 7: FCF and net debt in the CFS business



Source: Company data, I-Sec research

East coast port based CFS to slowly overtake volumes of west coast port based CFS

Gateway has opportunistically expanded and set up CFS capacity across several ports of the country. Diversified presence across east and west coast have allowed the company to partly diversify the risks arising out of i) DPD leading to a potential stagnation of JNPT volumes in the near term, ii) limited port of call for shipping lines at JNPT (with Mundra getting higher allocation in port of call incrementally), and iii) extremely competitive landscape in the CFS space in general.

Hence, management, with commissioning of the new ~50,000teu CFS in Krishnapattam and increased volume traction (and higher utilisation) expected out of Chennai guides for east coast port based CFS volumes, expects to slowly and gradually overtake west coast port based CFS volumes. Table 9 below will show the volume progression and margin performance of the CFS division off late.

Table 9: Key highlights of Gateways' CFS performance across regions

	FY16	Q1FY17	Q2FY17	Q3FY17
Volume (teu)	361,207	92,467	100,600	98,024
Mumbai (CFS 1 & 2)	213,167	52,569	57,843	54,288
Punjab Conaware (estimated)		22,154	21,000	22,000
Chennai (CFS 1 & 2)	76,093	20,975	21,096	23,028
Vizag**	57,131	15,480	18,168	15,890
Kochi (60% ownership of subsidiary)	14,816	3,443	3,493	4,818
Krishnapatnam (Coming up)				
Revenue(Rs/TEU)	8,795	10,366	10,213	10,189
Cost(Rs/TEU)	5,209	7,196	7,298	7,102
EBITDA(Rs/TEU) (Before fixed fee)	3,586	3,170	2,915	3,087
EBITDA(Rs/TEU) (After fixed fee)	2,940	2,509	2,393	2,509
EBITDA(Rs/TEU) (After fixed fee) – Mumbai	3,002	2,092	2,075	2,395
EBITDA(Rs/TEU) (After fixed fee) – Chennai	2,103	2,861	2,370	2,171
EBITDA(Rs/TEU) - Vizag and Kochi	3,614	3,171	3,232	2,897

** Vizag is still under 801A, hence increase in volumes from Vizag will help in moderating tax rate of the CFS business division of Gateway.

Source: Company data, I-Sec research

Estimated market share of gateway across CFS around different ports

Based on our proprietary model of distribution of volumes into CFS/ICDs across different ports, following market share picture arises for Gateway. Given our assessment of EXIM growth, level of containerisation as well as increasing penetration of ICD as DFC commissions, we have been generous to Gateway in Krishnapattam (the volumes assumed for Gateway are in line with broad management guidance). We also see downside risks in JNPT. Also, it highlights the little headroom left with Gateway to grow in Vizag – little incremental room to avail the tax benefits as well.

Table 10: Market share of gateway across different ports

(000 teu)	FY16	FY17E	FY18E	FY19E
JNPT CFS volumes	1,993	2,000	2,000	2,000
Gateway volumes	213	220	220	220
Share (%)	10.7	11.0	11.0	11.0
Vallapadam International Container Transshipment Terminal (ICTT)**	500	500	600	700
Gateway volumes	15	17	16	18
Share (%)	3.0	3.4	2.7	2.6
West coast volumes of Gateway	228	237	236	238
Chennai CFS volumes	1,052	1,150	1,150	1,200
Gateway volumes	76	90	112	120
Share (%)	7.2	7.8	9.7	10.0
Krishnapattam CFS volumes	40	50	100	200
Gateway volumes	-	-	10	22
Share (%)	-	-	10.0	11.0
Vizag CFS volumes	150	150	150	150
Gateway volumes	57	66	68	68
Share (%)	38.1	43.7	45.3	45.3
East coast volumes of Gateway	133	156	190	210

Source: Company data, I-Sec research

Table 11: GDPL's CFS facilities are present across India

	Ownership	Area (Acres)	Developed area (sq mt)		Current capacity (TEUs)
			Yard	Warehouse	
Navi Mumbai (Near JNPT/Uran)	60-year lease	35	100,000	40,000	366,000
Punjab Conware (Near JNPT)	15-year O&M wef 1-Feb 07	27	65,000	50,000	
Chennai (between Chennai and Ecnnore)	Freehold	20	70,000	7,000	140,000
Chennai (near Ennore/Kattupalli)	Freehold	10.5	38,000	4,000	
Vizag	30-year lease	20	75,000	3,000	70,000
Kochi (Vallarpadam)	30-year lease	6.5	24,000	1,000	48,000
Kochi (Kalamasserry)	Freehold	20		Land Bank	
Krishnapatnam (Andhra Pradesh)	Freehold	40		NA	50,000

Source: Company data, I-Sec research

Snowman Logistics – play on cold-chain logistics

Snowman Logistics is the largest integrated cold chain service provider in India, offering warehousing, transport and other value-added services. It operates 30 temperature-controlled warehouses across India, with a capacity of 98,500 pallets. Gateway currently holds 40% in Snowman logistics.

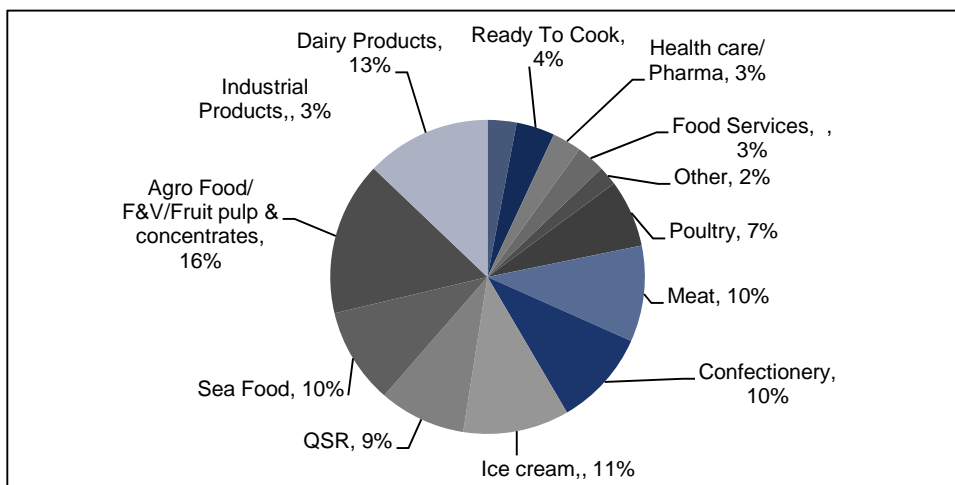
It operates 293 reefer vehicles with a nationwide network, connecting more than 500 cities and towns. It also provides value-added services (VAS) such as inventory management, reverse logistics, labeling, sorting, repacking and blast freezing.

It was listed on the exchanges in September 2014. GDPL now has 40% stake in Snowman Logistics.

There is a distinct strategy towards improving profitability in snowman namely i) Owning trucks – from earlier owned and lease-hire truck base of > 500, management has completed the process of owning the trucks and thereby reduced the fleet size to 293. This has helped in augmenting temperature control as well as pacify customer complaints, ii) increase utilisation and yield of mature warehouses (> 3 years) which contribute majority of Snowman’s EBITDA.

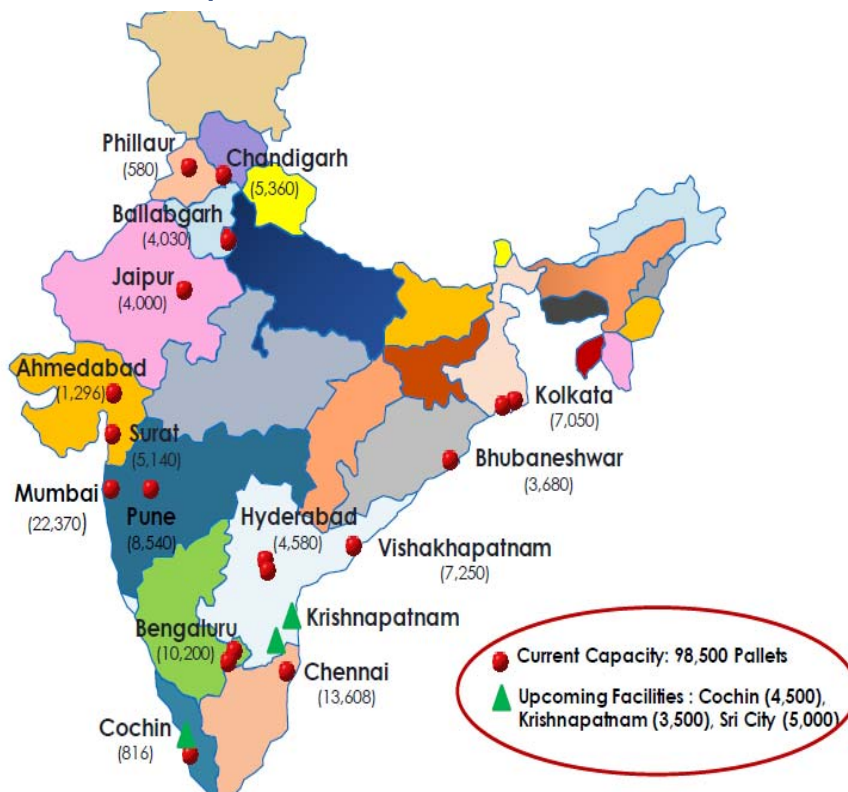
Management highlighted that 29-30% of EBITDA margin is mainly supported by temperature controlled as well as ambient warehousing.

Chart 8: Evolution of Snowman’s EBITDA



Source: Company data

Chart 9: Snowman pan India network



Source: Company data

Table 12: Key assumptions for cold chain business projections

(Rs mn)	FY16	H1FY17	FY17E	FY18E	FY19E	Comment
Sales	2,401	975	1,974	2,104	2,338	
Warehousing Revenues		604	1,236	1,304	1,525	
Pallet Capacity (nos)	98,500	98,500	100,000	106,500	111,500	
> 3 years		63,760	63,760	63,760	66,760	Yield on mature warehouses is more.
Occupancy		80%	80%	80%	80%	
< 3 years		34,740	36,240	39,240	44,740	Expansion in Kochin, Krishnapatnam and Sri City
Occupancy		53%	53%	50%	60%	
Transportation Revenues		371	738	800	813	The company has completed the process of owning the vehicles
Fleet Size	501	293	293	293	293	Fleet size is mostly catering to captive revenues
KM run Per Vehicle Per Month		6033	5,800	6,100	6,200	
EBITDA	511	194	436	598	726	Employee cost is ~8% of topline.
Margin (%)	21	20	22	28	31	
Warehousing		203	413	504	609	
EBITDA/pallet						
> 3 years		1700	1,820	2,125	2,350	
< 3 years		877	907	900	1,000	
Transportation		75	107	94	116	Majority of EBITDA now is derived from own fleet. Hire charges were 8% of total snowman's cost in FY16.
PAT	206	(65)	(87)	48	136	

Source: Company data, I-Sec research

The operating leverage available with GRFL can swing valuations

We undertake a SoTP valuation for GDL, valuing the rail freight business using FCFE model till FY23 adjusting for Blackstone's 49% stake, using EV/EBITDA (at a premium to Allcargo given the well distributed nature of business), and valuing Snowman Logistics stake at market value.

We attribute holding company discounts to GRFL and Snowman Logistic's stake given typical fungibility issues that we have encountered in our remaining coverage universe (likes of Vedanta).

Table 13: SoTP valuation

	Methodology	Equity Value (Rs mn)	Valuation (Rs/share)
Gateway Rail Freight (51% Subsidiary)	FCFE, 51% stake, 20% Hold co discount (Average of Scenario 1 and 2)	17,723	163
CFS business	EV/EBITDA, 10x FY19E	10,440	96
Snowman Logistics (40% Associate)	Market value adjusted for stake and Holdco discount	3,200	29
Dividends to accumulate FY17-19E			21
Total		31,362	309

Source: Company data, I-Sec research

GRFL valuations -- ICD market share for GRFL has been considered in mapping long term volume potential

Like Concor, we have also looked at market share of GRFL in West Indian attributable ICD volumes. We have factored in some decline in market share for GRFL as shown in Table 14. Given enough spare capacity in the system, sustenance capex can itself lead to increasing utilisation, provided EXIM volumes increase as expected in our base model.

Table 14: ICD volume assumptions from western ports of India

ICD Share (000 teu)	FY14A	FY15A	FY16A	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Mumbai	37	-	-							
JNPT	649	984	988	1,000	1,200	1,400	1,800	2,200	2,500	3,000
Rail JNPT share (%)	15.6	22.0	22.0	22.2	26.7	30.3	36.0	40.0	41.7	45.5
Gujarat Ports	2,081	2,195	2,196	2,276	2,526	2,686	2,876	3,186	3,446	3,526
Rail Gujarat Ports share (%)	70.0	62.0	55.0	53.0	54.6	54.1	54.2	56.4	57.9	58.3
Total ICD Share	2,767	3,179	3,184	3,276	3,726	4,086	4,676	5,386	5,946	6,526
Rail share of western ports (%)	38.4	39.5	37.3	37.1	40.6	42.4	45.2	48.1	49.6	51.4

Source: Port data, I-Sec research

We create two scenarios – one where GRFL maintains its market share. Second scenario entails GRFL winning back its market share seen in FY15. These two scenarios determine the valuation range of GRFL, as per us.

Scenario 1 – Maintained market share (Base case)

We assume that GRFL maintains reduced market share of FY16-17 into the future as volume benefits start flowing in on account of DFC. This scenario acknowledges competition, and builds in the fact that as volumes on account of DFC start ramping up Concor should gain the maximum market share – with its terminals being situated around DFC. This is the base case scenario for GRFL, as per us.

Table 15: GRFL's share in ICD volumes from Western ports

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Total ICD Share (000 teu)	3,179	3,184	3,276	3,726	4,086	4,676	5,386	5,946	6,526
Rail share of western ports (%)	39.5	37.3	37.1	40.6	42.4	45.2	48.1	49.6	51.4
Gateway volume (teu)	250,347	203,167	213,423	240,000	260,000	300,000	340,000	380,000	420,000
Gateway's volumes Share of West Coast ICD volumes (%)	7.9	6.4	6.5	6.4	6.4	6.4	6.3	6.4	6.4

Source: Port data, I-Sec research

Table 16: Valuation of GRFL under scenario 1

(Rs mn)	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
EBITDA (Rs mn)	1,473	1,329	1,617	1,808	2,253	2,758	3,390	4,122
EBITDA/teu	7,249	6,225	6,736	6,954	7,510	8,111	8,922	9,814
EBIT (Rs mn)	974	818	1,098	1,274	1,683	2,179	2,803	3,526
Tax rate	34	47	20	20	20	20	20	20
EAT	639.91	436.21	878.51	1,018.84	1,347	1,743	2,242	2,820
NOPAT	1,138	946	1,397	1,553	1,916	2,322	2,830	3,417
Capex	708	440	250	250	200	200	200	200
Change on OWC	0	(1)	(78)	(55)	(135)	(129)	(136)	(121)
FCF	430	506	1,069	1,248	1,582	1,993	2,494	3,096
Less: Debt Repayment		-	-	-	-	-	-	-
Less: Interest Cost		(132)	(278)	(280)	(260)	(260)	(260)	(260)
FCFE		637	1,346	1,528	1,842	2,253	2,754	3,356

Source: Port data, I-Sec research

Table 17: GRFL value of Rs 150/share under scenario 1

FCFE (Rs mn)	8,569
Terminal Value (2.5%)	31,329
Total FCFE (Rs mn)	39,898
Blackstone's stake (Rs mn)	19,550
GRFL's valuation (Rs mn)	20,348
GRFL Value/share	187
After holding Company discount @20% (Rs/share)	150

Source: Port data, I-Sec research

Scenario 2 – GRFL increases on its market share to reach FY15 levels as volume benefits from DFC start flowing in

In this scenario, we assume that GRFL will succeed in increasing its market share to FY15 levels as volume benefits start flowing in on account of DFC. This is the bull case scenario for GRFL, as per us.

Table 18: GRFL's share in ICD volumes from Western ports

	FY15	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
Total ICD Share (000 teu)	3,179	3,184	3,276	3,726	4,086	4,676	5,386	5,946	6,526
Rail share of western ports (%)	39.5	37.3	37.1	40.6	42.4	45.2	48.1	49.6	51.4
Gateway volume (teu)	250,347	203,167	213,423	240,000	260,000	300,000	340,000	440,000	520,000
Gateway's volumes Share of West Coast ICD volumes (%)	7.9	6.4	6.5	6.4	6.4	6.4	6.3	7.4	8.0

Source: Port data, I-Sec research

Table 19: Valuation of GRFL under scenario 2

(Rs mn)	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
EBITDA (Rs mn)	1,473	1,329	1,617	1,808	2,253	2,758	3,926	5,103
EBITDA/teu	7,249	6,225	6,736	6,954	7,510	8,111	8,922	9,814
EBIT (Rs mn)	974	818	1,098	1,274	1,683	2,179	3,338	4,507
Tax rate	34	47	20	20	20	20	20	20
EAT	639.91	436.21	878.51	1,018.84	1,347	1,743	2,671	3,606
NOPAT	1,138	946	1,397	1,553	1,916	2,322	3,258	4,202
Capex	708	440	250	250	200	200	200	200
Change on OWC	0	(1)	(78)	(55)	(135)	(129)	(300)	(232)
FCF	430	506	1,069	1,248	1,582	1,993	2,758	3,770
Less: Debt Repayment		-	-	-	-	-	-	-
Less: Interest Cost		(132)	(278)	(280)	(260)	(260)	(260)	(260)
FCFE		637	1,346	1,528	1,842	2,253	3,018	4,030

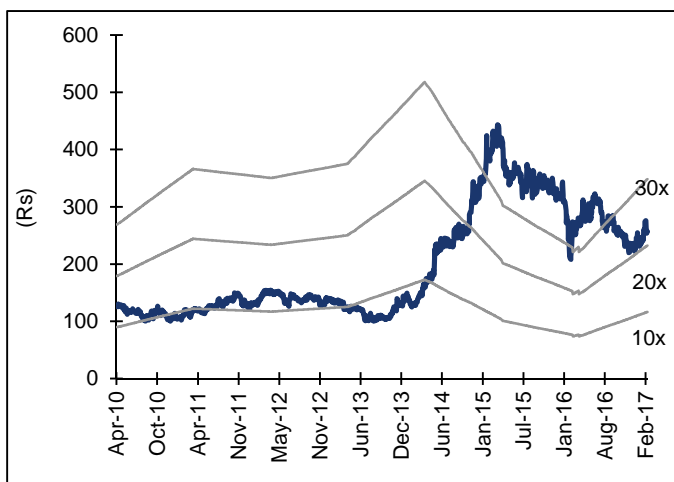
Source: Port data, I-Sec research

Table 20: GRFL value of Rs 176/share under scenario 2

FCFE (Rs mn)	9,168
Terminal Value (2.5%)	37,614
Total FCFE (Rs mn)	46,782
Blackstone's stake (Rs mn)	22,923
GRFL's valuation (Rs mn)	23,859
GRFL Value/share	219
After holding Company discount @20% (Rs/share)	176

Source: Port data, I-Sec research

Chart 10: P/E bands



Source: Bloomberg, Company data, I-Sec research

Chart 11: P/BV bands

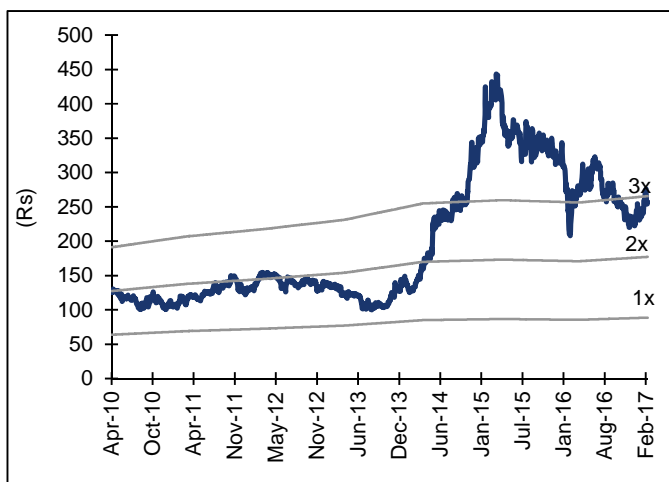
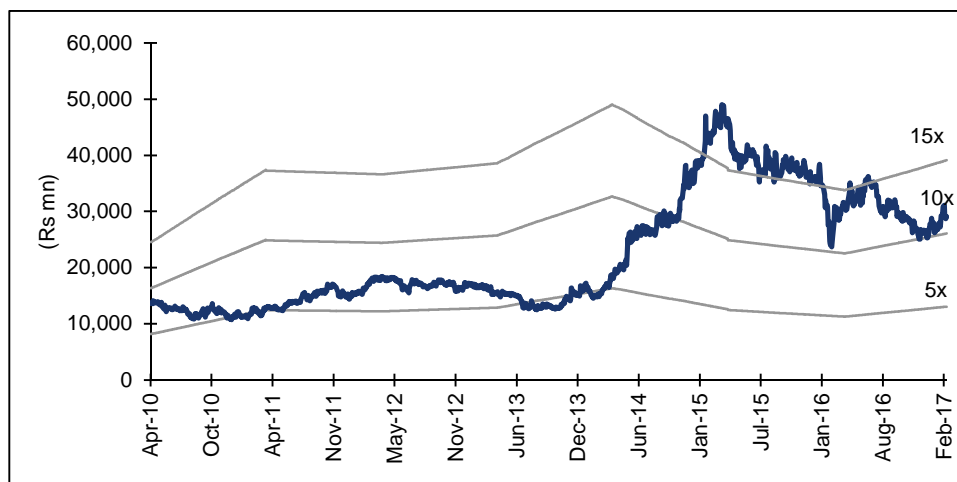


Chart 12: EV/EBITDA bands



Source: Bloomberg, Company data, I-Sec research

Key risks

- **Slowdown in exim volumes.** Indian Exim and port data show a consistent trend of slow down. This is clearly illustrated with the capacity utilisation of ports as well as the cargo tonnage data. Even if we look at containerisation, the rate has been at best stagnant with no particular uptick over the last 5 years. The trade volume as a percentage of GDP has also been declining. India's EXIM throughput growth has slowed to 0.25x of GDP growth in FY16, which was closer to 1.35x prior to global financial crisis.
- **Increase in tariff hike from Indian Railways, which might be difficult to pass on to customers in the current environment.** Policy headwind has played a big role in the substantive return dilution of the CTO space, including Concor. Maximum haulage charges for loaded containers have increased from Rs42,900/TEU in 2009 to ~Rs65,000 in 2015. Similar increase has happened in empty container charges from ~Rs21,000 in 2009 to ~Rs31,000 in 2015. Similar increase was seen in terminal access charges, ground usage charges multiple times.
- **Delay in DFC.** Due to delay in land acquisition process, the ambitious Dedicated Freight Corridor (DFC) project has been delayed for at least a year. Only 75% work will be completed by December 2019, which is the scheduled date of completion of the project. The DFC sources said that land acquisition process for 184 hectare on Khurja-Kanpur and Khurja-Saharanpur sections and around 160 ha on the Vaitarana-Jawaharlal Nehru Port in Maharashtra of the Eastern DFC, is stuck.

Financial summary (Consolidated)

Table 21: Profit and Loss statement

(Rs mn, year ending Mar 31)

	FY15	FY16	FY17E	FY18E	FY19E
Revenue from operations	11,113	10,509	11,347	12,935	14,094
CFS	3,401	3,204	4,038	4,493	4,859
Rail	6,913	7,304	7,310	8,442	9,235
Others	799	-	-	-	-
Operating Expenses	7,846	8,022	9,096	10,278	11,133
EBITDA	3,267	2,487	2,252	2,657	2,962
% margins	29.4%	23.7%	19.8%	20.5%	21.0%
Depreciation & Amortization	889	805	789	812	840
Gross Interest	240	184	331	420	400
Other Income	128	197	365	408	453
Profit before tax & exceptional item	2,266	1,694	1,496	1,832	2,174
Exceptional Item	-	-	-	-	-
Profit before tax	2,266	1,694	1,496	1,832	2,174
Less: Taxes	441	671	654	510	580
Less: Minority Int. & Asso. Profit	52	73	(41)	5	37
Net Income (Reported)	1,878	1,096	801	1,327	1,631

Source: Company data, I-Sec research

Table 22: Balance sheet

(Rs mn, year ending Mar 31)

	FY15	FY16	FY17E	FY18E	FY19E
Assets					
Total Current Assets	2,772	2,904	2,961	3,488	4,316
of which cash & cash eqv.	1,554	1,834	1,828	2,203	2,920
Total Current Liabilities & Provisions	695	800	859	885	912
Net Current Assets	2,078	2,105	2,102	2,603	3,405
Investments	1,443	1,492	1,457	1,477	1,531
Net Fixed Assets	9,107	9,051	9,262	9,449	9,609
Intangible assets	540	514	514	514	514
Capital Work-in-Progress	299	743	743	743	743
Goodwill	317	317	317	317	317
Other non-current assets	1,115	1,233	1,233	1,233	1,233
Total Assets	14,898	15,454	15,628	16,336	17,351
Liabilities					
Borrowings	1,820	2,222	2,522	2,822	3,122
Deferred Tax Liability	150	128	128	128	128
Other long term liabilities	478	458	458	458	458
MI	259	276	282	296	314
CCPS	2,958	2,958	2,958	2,958	2,958
Equity Share Capital	1,087	1,087	1,087	1,087	1,087
Reserves & Surplus	8,146	8,326	8,193	8,587	9,285
Net Worth	9,233	9,413	9,281	9,674	10,372
Total Liabilities	14,898	15,454	15,628	16,336	17,351

Source: Company data, I-Sec research

Table 23: Cashflow statement*(Rs mn, year ending Mar 31)*

	FY15	FY16	FY17E	FY18E	FY19E
Net Profit before tax	2,266	1,694	1,496	1,832	2,174
Depreciation	889	805	789	812	840
Non-Cash Adjustments	(1092)	(1267)	197	339	354
Working Capital Changes	(304)	176	(3)	(126)	(85)
Taxes Paid	615	641	654	510	580
Operating Cash flow	1145	768	1824	2347	2704
Capital Commitments	(1557)	(1134)	(1000)	(1000)	(1000)
Free Cash Flow	(411)	(367)	824	1347	1704
Other investing cashflow	(266)	(428)	135	81	46
Cash flow from Investing Activities	(1822)	(1562)	(865)	(919)	(954)
Inc (Dec) in Borrowings	428	382	300	300	300
Issue of Share Capital	12	0	0	0	0
Finance cost	(237)	(178)	(331)	(420)	(400)
Dividend paid	(902)	(933)	(933)	(933)	(933)
Cash flow from Financing Activities	(699)	(729)	(965)	(1,053)	(1,033)
Chg. in Cash & Bank balance	(1,376)	(1,523)	(5)	375	717

Source: Company data, I-Sec research

Table 24: Key ratios*(Year ending Mar 31)*

	FY15	FY16	FY17E	FY18E	FY19E
Per Share Data (Rs)					
EPS	17.3	10.1	7.4	12.2	15.0
Cash EPS	25.4	17.5	14.6	19.7	22.7
Dividend per share (DPS)	7.0	7.0	7.0	7.0	7.0
Book Value per share (BV)	84.9	86.6	85.4	89.0	95.4
OCF per share	10.5	7.1	16.8	21.6	24.9
FCF per share	(3.8)	(3.4)	7.6	12.4	15.7
Growth (%)					
Net Sales	9.7	(5.4)	8.0	14.0	9.0
EBITDA	27.0	(23.9)	(9.5)	18.0	11.5
PAT	38.2	(41.6)	(27.0)	65.8	22.9
Valuation Ratios (x)					
P/E	14.5	24.9	34.1	20.6	16.7
P/BV	3.0	2.9	2.9	2.8	2.6
EV / EBITDA	8.6	11.3	12.6	10.7	9.4
EV / Sales	2.5	2.7	2.5	2.2	2.0
Operating Ratio					
Employee cost / Sales (%)	3.8	3.7	3.7	3.4	3.3
Other Operating exp. / Sales (%)	7.7	8.2	8.5	8.5	8.5
Effective Tax Rate (%)	19.4	39.6	43.7	27.9	26.7
Net D/E Ratio (x)	0.1	0.1	0.1	0.1	0.1
OCF yield (%)	4.2	2.8	6.7	8.6	9.9
FCF yield (%)	(1.5)	(1.3)	3.0	4.9	6.2
Return/Profitability Ratio (%)					
EBITDA Margins	29.4	23.7	19.8	20.5	21.0
Net Income Margins	16.9	10.4	7.1	10.3	11.6
Return on Equity (RoE)	20.3	11.6	8.6	13.7	15.7
RoCE	16.8	12.2	11.7	13.8	14.8

Source: Company data, I-Sec research

Annexure 1: Company profile

Management details

- **Prem Kishan Gupta (Chairman and Managing Director):** Prem Kishan Gupta is the Chairman and MD of Gateway Rail Freight Ltd. and Gateway Distriparks Ltd. He is also the Chairman of Snowman Logistics Ltd. He also runs his newsprint business - Newsprint Trading & Sales Corporation since 1978 and represents internationally reputed newsprint manufacturers from USA, Canada and Europe with strong tie ups in South-East Asia in India. He controls his investments through the NBFC Prism International Ltd. He is also a member of the Parents Leadership Council of Boston University.
- **Ishaan Gupta (Joint Managing Director):** A graduate of Boston University, Ishaan Gupta has been deeply involved in all the three verticals of Gateway Distriparks Ltd. ever since he completed his education in 2010. Enthusiastic and pro-active, he remains focused towards bringing seamless synergy within the group. He is also a Director in Gateway Rail Freight Ltd., and he spearheads business development in the forest products industry at Newsprint Trading & Sales Corporation.
- **Shabbir Hassanbhai (Independent Director):** Mr. Shabbir Hassanbhai, aged 69 years, is an accountant and has more than 40 years of business experience in manufacturing and cross border trading of wood products and metals. He has worked in Singapore, Middle East and USA. Mr. Hassanbhai is an Independent Director of the Company and has been part of many committees of the Board and is also on the Board of its subsidiaries viz., Gateway Rail Freight Ltd and Snowman Logistics Ltd. Mr. Hassanbhai also serves on several institutions in Singapore amongst which are: Chairman, Advisory Board, NTU-SBF Centre for African Studies, Nanyang Technological University; Board Member, Middle East Institute, National University of Singapore; Co-Chair, of the Singapore-Oman Business Council; Vice Chairman, Singapore Business Federation; Vice President, Singapore Indian Development Association. He is currently Singapore's Non-Resident High Commissioner to the Federal Republic of Nigeria; He was awarded in 2010 the Public Service Medal (PBM) by the President of the Republic of Singapore.

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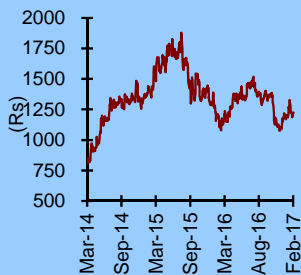
Logistics

Target price Rs1,340

Shareholding pattern

	Jun '16	Sep '16	Dec '16
Promoters	56.8	56.8	56.8
Institutional investors	40.0	39.9	40.0
MFs and UTI	6.8	6.3	7.7
Banks & FIs	0.1	0.2	0.3
Insurance Cos.	4.7	4.7	4.7
FII	28.4	28.7	27.3
Others	3.2	3.3	3.2

Price chart



Squeezing valuations out of DFC

Rs1,233

Reason for report: Initiating coverage

Container Corporation of India (Concor) is a subsidiary of Indian railways and India's prime container railroad carrier. Chart 12 highlights the history of Concor, with two key periods – pre and post FY07 when CTO space was opened to private sector operators. Profitability, asset intensity and FCF yield of Concor have changed dramatically since the event, while implementation of Western DFC (WDFC) kept fuelling hope as earnings stagnated, leading to Concor becoming one of the most expensive rail road freight carriers globally. We acknowledge the impact of DFC and its possible bearing on Concor volumes which dictates our ADD rating on the stock, TP of Rs1,340/share.

- ▶ **WDFC can help double the volumes of Concor from the West/North West regions...** The traffic carried by IR from Western ports can easily improve from 3.2mnteu in FY16 to 6.8mnteu in FY23E under our base case scenario. Even if Concor maintains its market share in the region, Concor volumes from the West region can increase from 2.36mnteu in FY16 to 5.1mnteu in FY23E. Higher capex vis-à-vis private CTOs (Chart 13 and 14) and presence of upcoming terminals along DFC can further help accentuate market share gains for Concor.
- ▶ **...Improving JNPT share with WDFC can help increase Concor's EXIM leads and reduce empty running...** The drop of JNPT share in Concor volumes (Chart 11) is a key reason for declining EXIM leads for Concor (Chart 10). This has also enhanced the problem of empties as typically JNPT is a preferred port of call for shipping lines for imports, and Gujarat ports (mainly Mundra) are preferred port of call for exports. With reducing JNPT share in Concor EXIM traffic, the export import gap has also widened, thereby leading to reducing leads as well as increasing empties.
- ▶ **...help Concor wrestle back severe origination market share loss seen in W/NW.** Concor has suffered the maximum brunt of opening the CTO space to the private sector. While it is contributing ~ 53% of EXIM originating volumes in Indian railways (73.4% if one has to look at Concor's EXIM throughput data), it accounts for 74% of container freight earnings for the parent (higher leads than private CTOs). Origination market share loss for Concor has happened in W/NW (Charts 8 and 9).
- ▶ **Valuations dictate an ADD and not a BUY.** WDFC and its associated benefits are amply discounted in our estimates. Yet following data points dictate an ADD i) Concor is the one of the **most expensive railroad freight carrier** – while it marginally scores over asset turn, all other parameters (barring the hope of DFC) stack up against Concor, including FCF yield (Table 7); ii) Concor trades at ~ 100% valuation premium over other LEPs (having 3PL characteristics as well) despite scoring low on asset turn as well as FCF yield (Table 8). We initiate with an ADD and a target of Rs1,340/share (DCF valuation), implying ~10% upside from current levels.

Market Cap	Rs240bn/US\$3.6bn	Year to Mar	FY16	FY17E	FY18E	FY19E
Reuters/Bloomberg	CCRI.BO / CCRI IN	Revenue (Rs mn)	63,063	61,714	69,038	79,132
Shares Outstanding (mn)	195.0	EBITDA(Rs mn)	11,562	10,928	12,774	15,683
52-week Range (Rs)	1518/1075	Net Income (Rs mn)	7,818	7,563	8,529	10,345
Free Float (%)	43.2	EPS (Rs)	40.1	38.8	43.7	53.1
FII (%)	27.3	P/E (x)	30.6	31.6	28.0	23.1
Daily Volume (US\$'000)	4,464	CEPS (Rs)	60.7	60.5	67.6	79.3
Absolute Return 3m (%)	9.4	EV/E (x)	19.9	21.2	18.2	14.7
Absolute Return 12m (%)	4.7	Dividend Yield	1.3	1.3	1.5	1.8
Sensex Return 3m (%)	10.0	RoCE (%)	10.2	7.5	8.6	10.5
Sensex Return 12m (%)	19.0	RoE (%)	9.8	9.0	9.6	10.8

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Concor—largest logistic execution player in India

Logistics execution segment is supposed to be the darling of global investor community owing to a right mix of asset heavy infrastructure and asset light execution capabilities. While *asset right* is the key benchmark which defines global logistic execution companies, as usual Indian scenario is different.

Clearly, policy headwind played a big role in the substantive return dilution of the CTO space including Concor – and perhaps intensive competition.

While logistics execution players globally fetch higher multiples and are preferred business models owing to the right mix of asset heavy and asset light execution capabilities, the story in India is quite different. Container train operator space started out with Concor as the single entrenched player in the space, gradually opening to private train operators. However, as we have discussed in the sector report, consistently adverse policy intervention from Ministry of Railways has somewhat jeopardised the sector achieving its full potential.

Inception of Concor: By taking over network of seven Inland Container Depots (ICDs) of Indian Railways (IR) located at Delhi, Ludhiana, Bangalore, Coimbatore, Guwahati, Guntur and Anaparti, Concor was incorporated in March 1988 as a Public Sector Enterprise under the Ministry of Railways and as subsidiary of Indian Railways. The company was formed with objective to have a separate organisation for promoting and managing the growth of containerisation in India as well as developing multimodal (surface, rail, water and air) transport logistics and infrastructure to support India's growing inland as well as international trade.

Opening of CTO space to private sector: On January 5, 2006, MoR announced its new container train policy wherein it allowed private operators to obtain licenses for operating container trains on Indian Railways (IR) network. The policy was conceived with a view to attract a greater share of container traffic for railways and introduce competition in rail freight services. The entire network of IR was classified and grouped into four categories based on existing and anticipated traffic volumes of ports. A one-time registration fee of Rs500mn (about US\$10mn) (for category I license) or Rs100mn (about US\$2mn) (for category II, III, and IV license) was payable to MoR. The initial response to the policy was good. In the first round of registration (January 16- February 15, 2006), 14 operators, including the incumbent Concor, signed an agreement with IR – the details of the same are available in the sector report.

The following year, in the second round of registration (December 01, 2006 – January 31, 2007), although 60 companies sent applications, only two, KRIBHCO and Gammon India, showed further interest. Finally, KRIBHCO alone signed the agreement with IR for category I routes. **The enthusiasm had already gone down, showing that the first round registrations were more opportunistic. The one year period had given operators a deeper insight into the business and a realistic assessment of operational viability.**

What has followed over the next 10 years, to our understanding, has diluted the entire process of opening up the sector to private train operators. While we have addressed many of these policy changes in the sector report, following is a table of increase of select charges which the sector witnessed from FY09.

Chart 1: Haulage charges for loaded container 20-26te

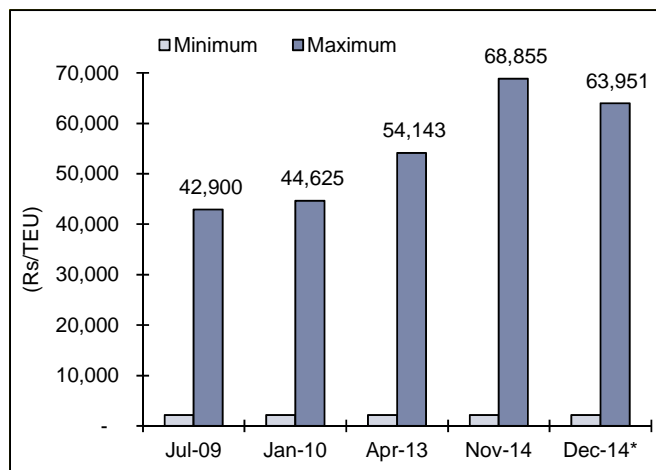
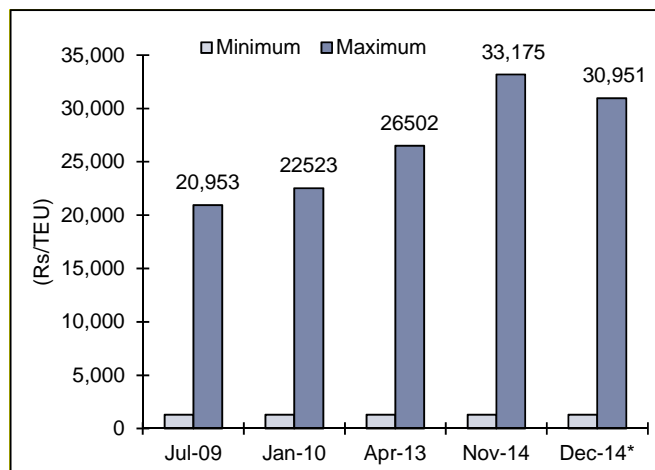


Chart 2: Haulage charges for empty container



Source: MoR, I-Sec research, * not available after that

Table 1: How terminal access charges and policy direction continues to encourage asset heaviness

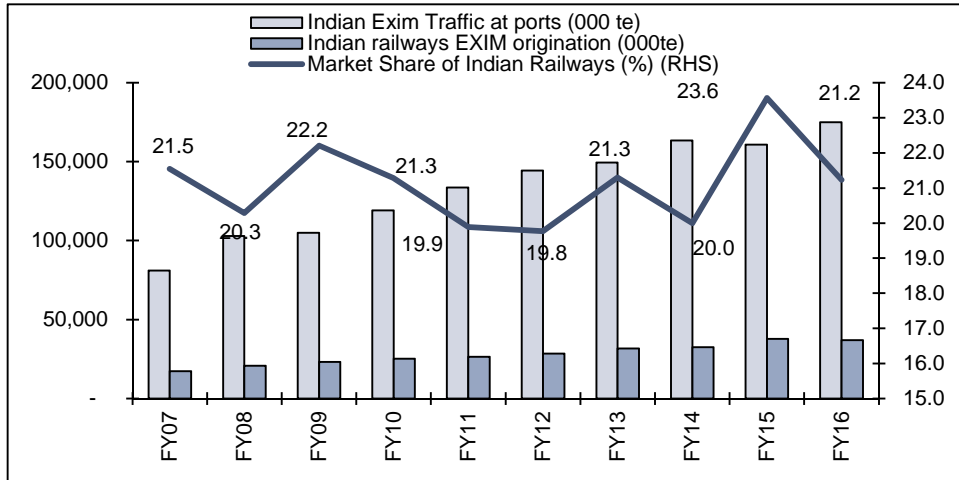
Date	Details				
Jan-10	Revised terminal access charges	Both terminal operated by PCO	Nil		
		Both terminal owned by Railways	Increased from Rs68,000 per rake to Rs1,02,000 per rake		
		One terminal owned by Railway and PCO	Increased from Rs34,000 per rake to Rs51,000 per rake		
Jan-10	Ground usage charges will be levied for full rake of 45 wagons at prevailing rate of wharfage charge	Group-I	Rs45 x 100=Rs4500		
		Group-II	Rs45 x 75=Rs3375		
		Group-III	Rs45 x 50=Rs2250		
		Higher ground usage charge may be levied of upto 6 times the normal rate applicable for the 6th day			
Jan-10	Higher ground usage charge will be applied for those PCOs who repeatedly fail to release the ground at CRT within 2 days	Development surcharge of 2% will be leviable on haulage charges at 2%			
		Group I,II and III has free time in hours of 12, 15 and 30 respectively			
		May-11	Revised terminal access charges	Both terminal operated by PCO	Nil
				Both terminal owned by Railways	Increased from Rs1,02,000 per rake to Rs1,62,000 per rake
May-11	One terminal owned by Railway and PCO	Increased from Rs51,000 per rake to Rs81,000 per rake			
		Jun-13	Terminal access charge	From 01.07.2013 to 30.09.2013	From 01.10.2013 to 31.03.2014
Both terminals owned by Private Container operator(PCO)	Nil				
	Both terminals are owned by Railways			Rs2,21,540 per rake	Rs2,75,520 per rake
Jun-13	One terminal owned by railway and other by PCO	Rs1,10,770 per rake			
		Rs1,37,760 per rake			
Nov-14	Terminal access charge	-loaded rake in and empty flats out	1 X Rate of TAC		
		- TAC is applicable only on CRTs--terminals owned by railway	-empty flats in and loaded rake out	1 X Rate of TAC	
		-Rate of TAC w.e.f. 25.11.2014 will be Rs1,46,450 per rake per terminal	-loaded rake in and loaded rake out	1.5 X Rate of TAC	
		-loaded means flats loaded with empty or full containers	-chassis handling	1.5 X Rate of TAC	

Source: MoR, I-Sec research

Increase in haulage and uncompetitive policies have not shifted tonnage out of IR

Quite contrary to popular perception, data highlights that despite a slew of rate increases, CTOs have ensured that not much EXIM container traffic moves from rail to roads. This was a startling discovery and highlights the essence of profitability impact that CTOs have taken to maintain rail share in India's EXIM container traffic handled by all ports. FY16 has seen a drop from FY15 highs – a trend which can be ascribed at best fleeting.

Chart 3: IR has not lost EXIM market share in the last decade to roads



Source: IPA, MoR, I-Sec research

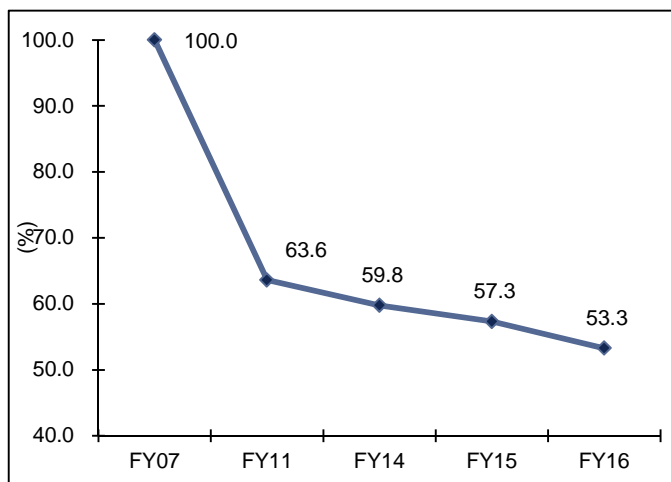
Concor has lost in the origination market share within railways

These are following broad conclusions to be made when one looks at Concor's market share.

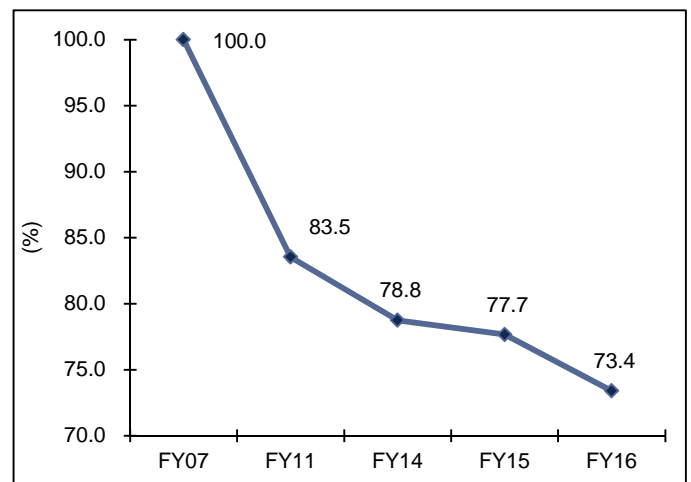
- Concor has lost out remarkably, suggesting the increasing competition in the space. Interestingly, the originating data of Concor highlights even more remarkable market share loss in the EXIM space, highlighting the intensity of competition that the sector has witnessed over the last 7-8 years.

Chart 4: Originating EXIM traffic market share (%) loss of Concor to other CTOs has been pronounced

Assuming Concor origination and IR origination data for EXIM



Assuming Concor throughput and IR origination data for EXIM



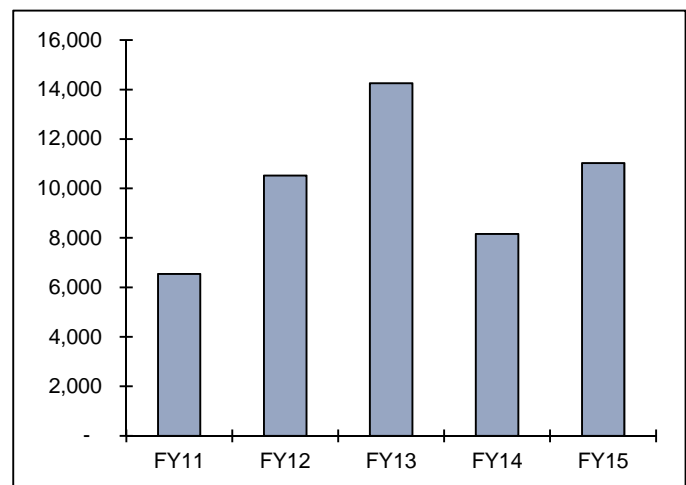
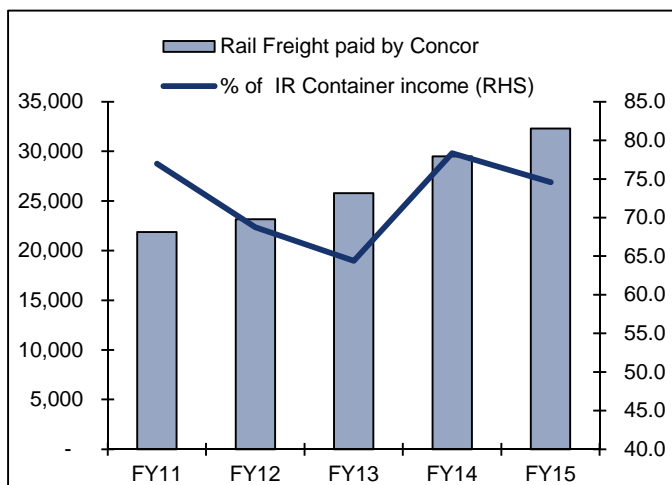
Source: MoR, Company data, I-Sec research

Interestingly, while Concor has apparently suffered the maximum brunt of opening the CTO space to the private sector, it still accounts for the lion share of Indian railway’s container freight earnings. For a company, which is only contributing ~ 53% of EXIM originating volumes in Indian railways (~73.4%, if throughput data of Concor is to be assumed for calculating market share), it still contributes 74% to container freight earnings for the parent – mainly because of higher overall lead distance covered by Concor vis-à-vis private competitors in the EXIM space.

We have highlighted both the scenarios under chart 4. This is post discussion with the management. As per management, even for containers handled at Kathuwas and scheduled for ports (originating say at Dadri or TKD) a separate RR bill is originated by Indian Railways. Hence the handled volumes at hub and spoke centres are also counted as originating volumes in IR. We need to confirm the same with IR. However, this looks logical from Indian Railway viewpoint as IR deals with containers not only of Concor but of private CTOs as well as and there is always a risk of mixing up origination and handling traffic in such centres unless a separate RR bill is generated.

Chart 5: Nearly 3/4th of Railways container freight income comes from Concor

Chart 6: While private CTOs are contributing ~50% to originating traffic now, they account for only 1/3rd of IR’s container freight income

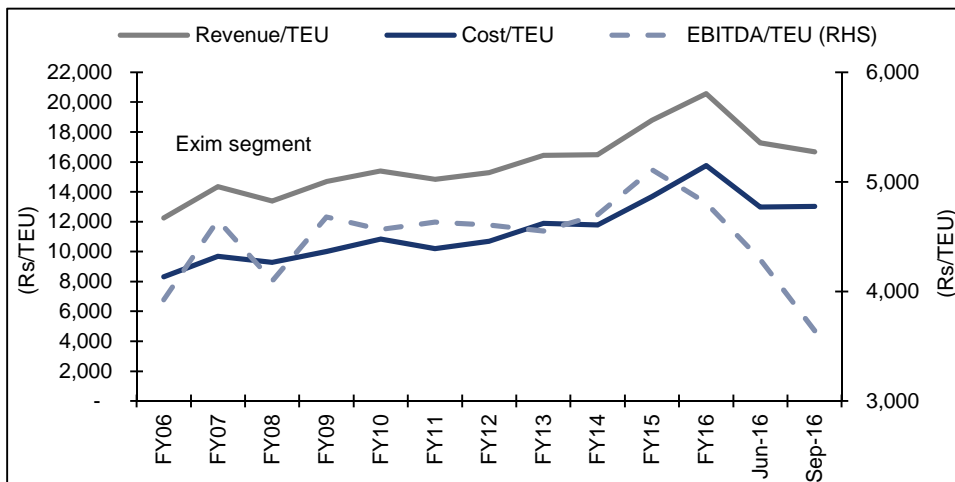


Source: MoR, Company data, I-Sec research

- Elevated competition among CTOs in an environment where cost incidence from MoR has grown and IR has maintained EXIM container market share against road players, profitability of all CTOs including Concor has taken a severe hit.

Apart from *periodic incidence of railway charges* which have systematically pulled down Concor profitability, there are other nagging concerns like the imbalance of import and export tonnage in Indian ports leading to huge increase in empty running costs which have also impacted Concor margins in the EXIM segment.

Chart 7: How profitability of Concor (EXIM) fared in the similar period



Source: Company data, I-Sec research

Lead distance and how Western Dedicated Freight Corridor can help.

To understand the implication of Western DFC as a panacea for the CTO space one needs to look at the following data i) New originations from North and North West already happening, ii) impact of lead distance that it is creating in the system, and iii) incremental volumes that current CTOs including Concor can hope to get once DFC comes into picture.

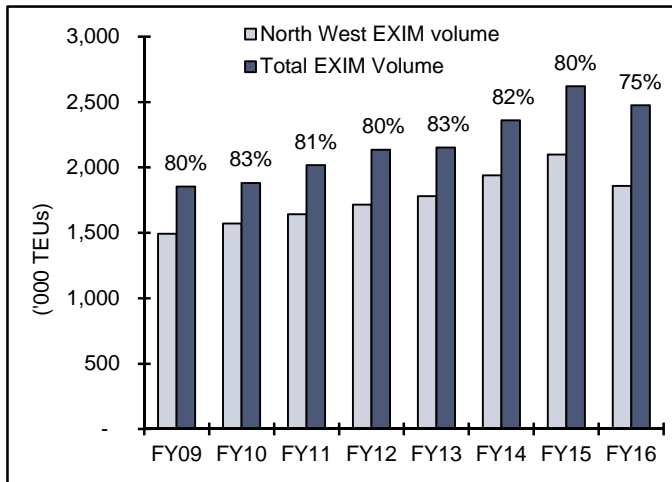
Originations from West and North West – IR and Concor paint very different pictures.

West and North West regions contribute almost 80% to Concor’s EXIM volumes historically (barring the dip in FY16 where we saw 75% coming from the scheduled regions). This clearly is not the case for originating volumes of Indian railways.

We have seen a steady increase in North and North West volumes for Indian railways from 35% in FY08 to 66% in FY15. Importantly, almost 93% of incremental EXIM originations for Indian Railways over FY08-15 have happened over the West and the North West segments. Given such a sharp drop in market share for Concor vis-à-vis IR originations (Chart 4) it is not impossible to gauge the extent of competition in this segment the incumbent faces.

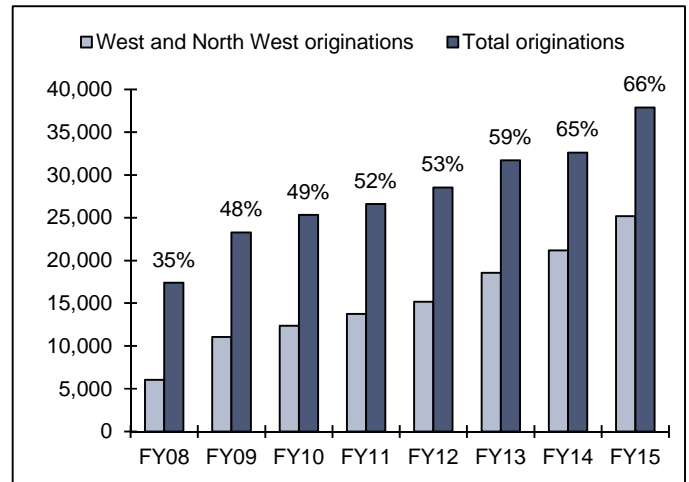
The move of incremental origination getting concentrated over West and North West segments has implications for lead distance both for Indian railways as well as Concor.

Chart 8: North and North West contributing ~ 80% to Concor's throughput



Source: Ministry of Railways

Chart 9: There is a stark difference from North and North West originations of Indian Railways (EXIM)



Lower North, West and North West originations explain lower drop in EXIM lead distance for Concor vis-à-vis IR

We culled out the data of lead distances for IR in West and North West segments. As Table 2 highlights, the short EXIM lead distance for West/North is an indicator of i) very low penetration of JNPT EXIM cargo in the hinterland via rail, and ii) the increasing volumes of Mundra and Pipavav have also helped in reducing the lead of West and North West – however, the impact of the second element is lower as seen in Table 2 where in the lead distances of the West North West EXIM traffic by IR stayed nearly constant over FY08-15.

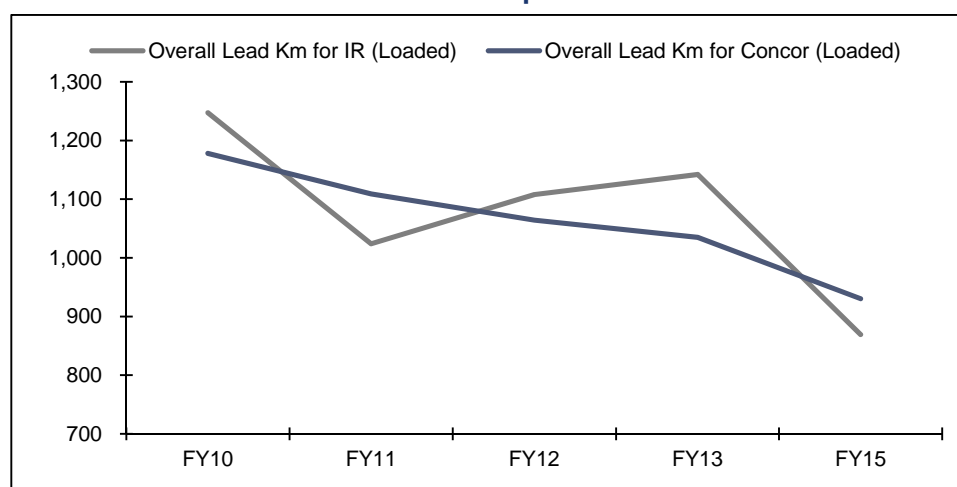
As EXIM originations have happened increasingly from West and North West for IR, they have pulled the overall lead down for IR. As Concor has lost out on originations from North, West and North West, the drop in Concor's lead distance (loaded) for EXIM is almost 10% lower than that of IR in a similar period – As shown in Chart 10.

Table 2: Lead distance of Indian railways in the West and North West segments (EXIM)

	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
Average lead Km								
Northern	103	116	102	97	116	113	127	131
North Central	123	121	106	113	122	127	108	92
North Western	669	656	1,038	763	575	578	571	557
Western	623	638	625	575	580	581	517	433
West Central	515	530	536	498	526	387	1,790	460
West North West lead for IR	383	382	417	374	388	396	462	350
Overall Lead Km for IR	1,052	1,218	1,247	1,024	1,108	1,142	1,109	869

Source: MoR, I-Sec research

Chart 10: Concor has seen a lower drop in loaded EXIM lead vis-à-vis IR

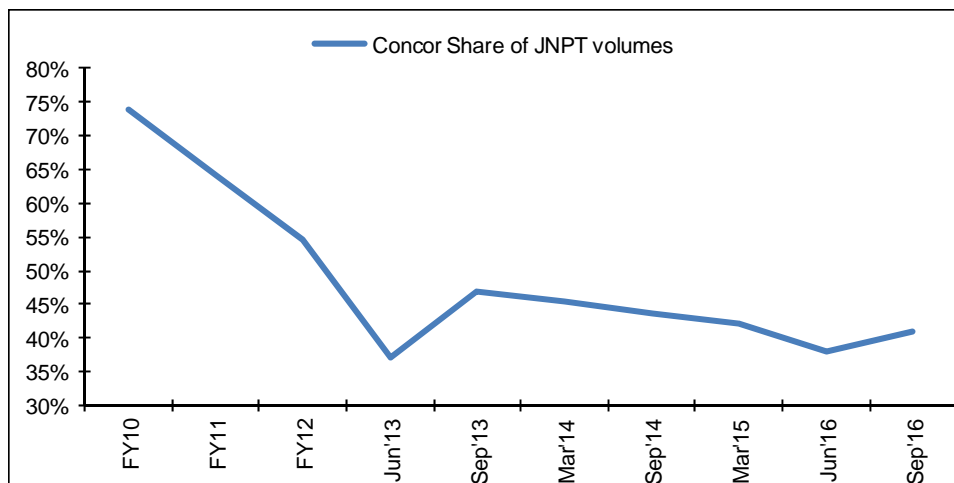


Source: Company data, I-Sec research

However, there has been a fall in leads of Concor (EXIM) as well. A large part of the same has been on account of declining port share of JNPT in Concor's overall volume. As Concor has lost so much market share in originations to private CTOs (Chart 4) it is not yet reflecting in IR's lead. Nevertheless, the drop of JNPT share in Concor volumes that we have seen is a key reason for declining EXIM leads for Concor and has surely impacted IR's West North West lead distance for EXIM as well. This has also enhanced the problem of empties as typically JNPT is a preferred port of call for shipping lines for imports and Gujarat ports (mainly Mundra) are a preferred port of call for exports. With *reducing JNPT share* in Concor EXIM traffic, the export import

gap has also widened, thereby leading to *reducing leads as well as increasing empties*.

Chart 11: How Concor’s share of JNPT volume has reduced over time



Source: Company Data, I-Sec research

In a bid to reverse this decline as far as JNPT’s cargo is considered we ventured into possibilities that DFC can unfold. Implementation of DFC (particularly western) can surely i) increase volumes from JNPT for ICDs by increasing hinterland movement, ii) reverse falling EXIM leads for Concor as volumes from JNPT pick up, iii) improve West and North West as well as overall EXIM leads of IR overall, and iv) reduce to a certain extent the problem of empties in the system.

Western DFC can help double the volumes of Concor from the West/North West regions

Data of IR’s West North-west EXIM lead (Table 2) already highlights limited hinterland movement happening over long distances. It is understandable given the leads, not much port to hinterland movement is happening by rail from JNPT. We created our proprietary model of road/rail share distribution for individual ports’ EXIM volume. While *Major Port* data for Rail/road distribution is available in Ministry of Shipping, we did a brief industry survey to understand the same for Gujarat-based non-major ports. The objective was to understand the current share of Concor in Western ports’ throughput, to see if connectivity benefits brought about by Western DFC can be enjoyed by an incumbent like Concor.

Conclusion: We see that the traffic carried by rail from Western ports can easily improve from 3.2mnteu in FY16 to 6.8mnteu in FY23E under our base case scenario. Even if Concor maintains its market share in the region, Concor volumes from the West region can increase from 2.36mnteu in FY16 to 5.1mnteu in FY23E.

Table 3: EXIM traffic from West coast based ports

(000 teu)	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
Kandla	29	-	3	3	3	3	3	3	3	3
Mumbai	41	45	43	43	43	43	43	43	43	43
JNPT	4,162	4,467	4,492	4,500	4,500	4,620	5,000	5,500	6,000	6,600
Gujarat Ports	2,973	3,540	3,993	4,293	4,629	4,968	5,308	5,650	5,950	6,050
Total	7,205	8,052	8,531	8,839	9,175	9,633	10,353	11,196	11,996	12,696

Source: IPA, I-Sec research

Table 4: Rail share of EXIM traffic from West coast based ports (000 teu)

(000 teu)	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
JNPT Rail traffic	649	984	988	1,000	1,200	1,400	1,800	2,200	2,740	3,300
Rail JNPT share	15.6	22.0	22.0	22.2*	26.7*	30.3*	36.0	40.0	45.7	50.0
Gujarat Ports Tail traffic	2,081	2,195	2,196	2,276	2,526	2,686	2,876	3,186	3,446	3,526
Rail Gujarat Ports share	70.0	62.0	55.0	53.0	54.6	54.1	54.2	56.4	57.9	58.3
Rail Gujarat Ports share	2,767	3,179	3,184	3,276	3,726	4,086	4,676	5,386	6,186	6,826
Total Rail Share of Western Coast ports (%)	38.4	39.5	37.3	37.1	40.6	42.4	45.2	48.1	51.6	53.8

Source: IPA, Company data, I-Sec research

*The rampup in Rail JNPT share can be a bit delayed but the important thing to note is the final rail share of JNPT volumes which we feel can reach 50% eventually

Given a dismal share of JNPT as far as hinterland rail traffic is concerned, and the sharp loss in rail market share seen in Gujarat ports over last two years, the implementation of western DFC can significantly turn tables in favor of rail operators like Concor.

Low share of hinterland rail traffic originating from JNPT. A large part of the JNPT-North route is already facing capacity utilisation in excess of 150%, according to Indian Railways. Although Indian Railways' definition of capacity is debatable (industry checks suggest capacity can be increased to a certain extent even without physical upgrades), the constraints are evident. According to industry estimates (by CIDCO), no more than 25 container trains can operate on the JNPT-North route on the existing track capacity.

Table 5: Concor's throughput from West Coast EXIM if they maintain volume share at current levels

	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
Concor EXIM Volumes (mn teu)	2.24	2.50	2.36	2.43	2.76	3.03	3.47	4.00	4.59	5.06
Concor Volumes Share of West Coast EXIM container (%)	81	79	74	74	74	74	74	74	74	74

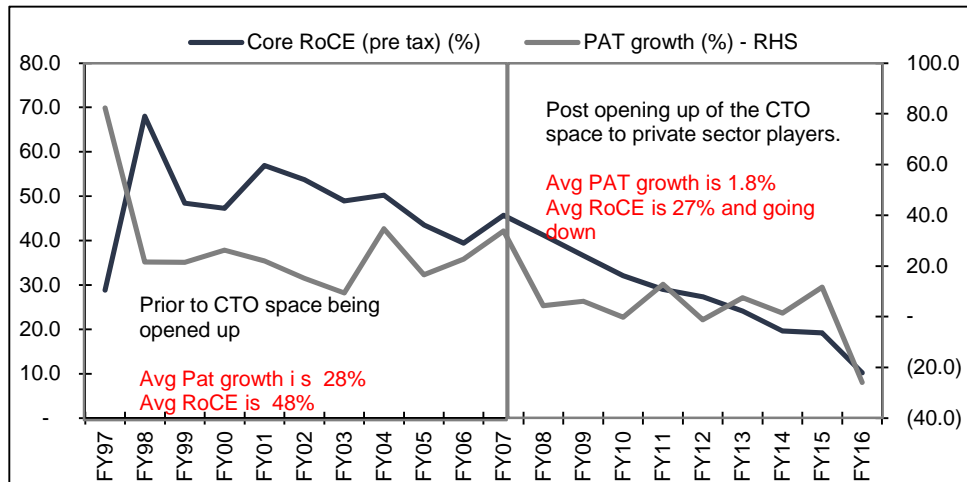
Source: IPA, Company data, I-Sec research

Even if Concor maintains its current market share, we see a possibility of Concor increasing its West and North West EXIM traffic almost double fold from FY16 to FY23E. However, we do expect Concor to increase the market share as DFC comes into picture purely on the back of the scale of investments undertaken by the company vis-à-vis private competition. We believe Concor has a head start vis-à-vis competition in terms of infrastructure creation, which we explore in the next section.

In the expectation of Western DFC, Concor has taken the lead for India's infrastructure creation...

Clearly, what stands out over the past decade is that competition has taken a heavy toll on Concor, especially as the company took lead in infrastructure creation to augment rail share in port EXIM traffic. While (Chart 3) shows that the IR has not lost meaningful traffic to road as far as EXIM traffic is concerned, the share has stagnated at close to ~21%. As one awaits Western DFC to complete (timeline continues to get delayed) what also comes out is the severe loss of profitability and RoCE for Concor as private CTO players have made inroads in the West North West region which has contributed ~93% to all incremental originations of IR over the past decade.

Chart 12: Impact that competition had on Concor



As the table below shows, Concor has taken a lead in infrastructure creation (Multi Modal Logistics Park) and when the Western DFC comes it will be best placed to enjoy the incremental EXIM teu that is going to shift to rails. The gap, as highlighted in Chart 13 is only going to increase as Concor plans on completing the capex target of Rs69bn as envisaged in the 12th five year plan.

Chart 13: Asset creation of private CTOs vis-à-vis Concor

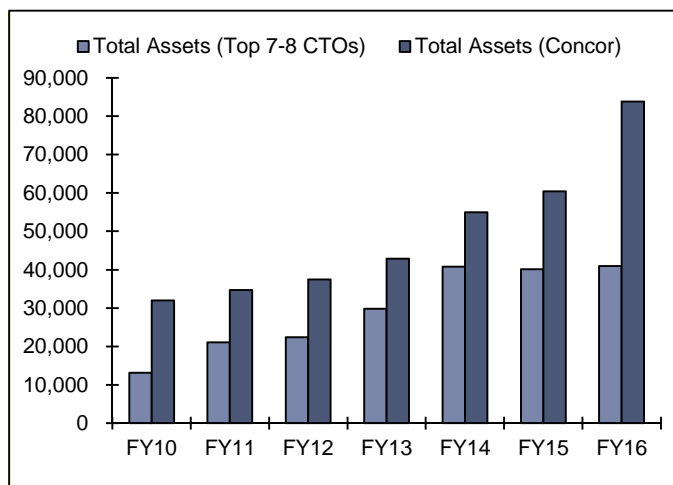
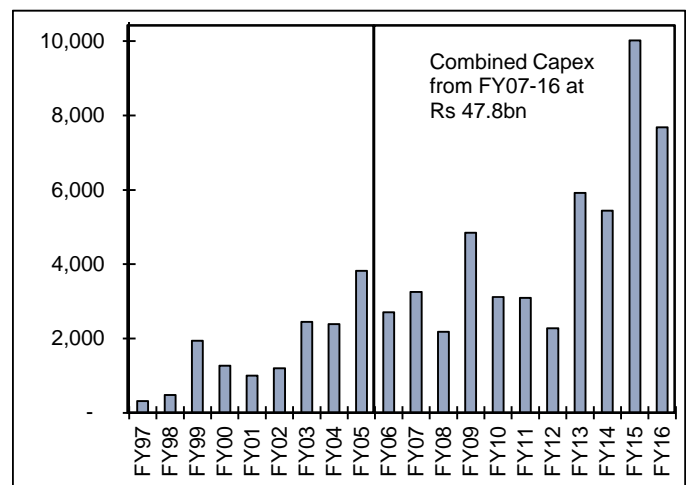


Chart 14: There has been a remarkable shift in capex in the 12th five year plan for Concor



With its network of ~63 terminals (+22 terminals under construction), Concor would be the only company with the ability to offer the **hub-and-spoke** service model (in comparison, all other container train operators combined have only about nine terminals).

Charts 8 and 9 highlighted the loss of share in originations of Western North Western EXIM traffic that Concor has faced over the years. It is high time to get some of the share back while also ensure some of the incidental benefits through double stacking [(which is made possible by the Hub and Spoke model which Concor has consistently tried to implement, lower haulage charges on account of double stacking, higher leads (as share of JNPT in the overall traffic of Concor moves up)] and a lower share of

empties as traffic from preferred port of call for imports (JNPT) moves up it helps to match the increasing EXIM export traffic moving to Mundra and other Gujarat ports.

Terminals spaced across DFC can help increase Concor's market share in originations...

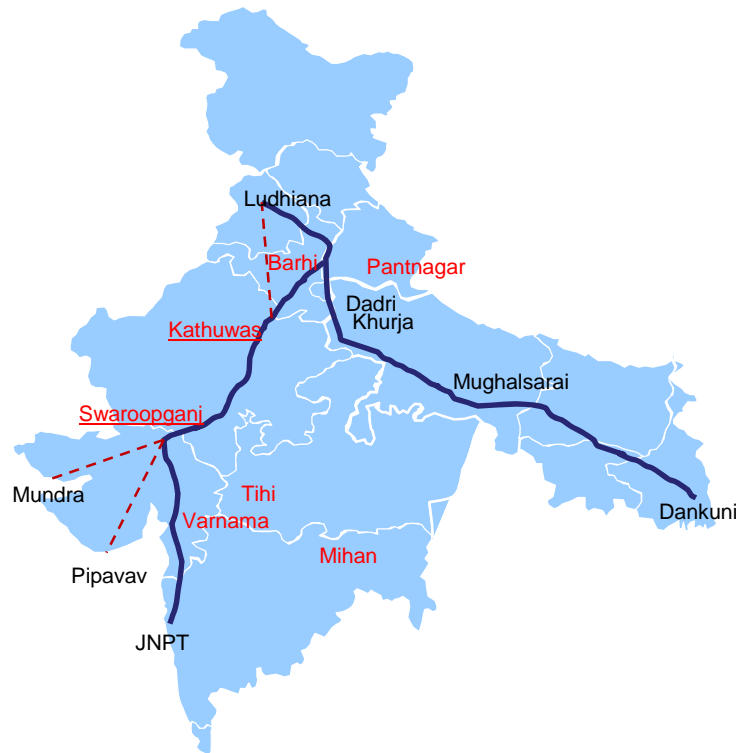
The spate of terminals which are to come for Concor has very high concentration in the North-North West region, which should strategically enable higher traffic gain for the company in the DFC era, particularly as the terminal capacity in JNPT is augmented completely.

Table 6: New terminals for Concor-highlighted ones are in that North-North West corridor

Nos.	Recently commissioned	State	Area (acres)	Type	Date
1	Kathuwas	Rajasthan	283	MMLP	Inaugurated on March-2016, with an initial capacity of 0.5mn TEUs.
2	Pantnagar	Uttarakhand	38	MMLP	Domestic business started during Nov'15 while Exim started during Sep'16. The MMLP is under a subsidiary SCICL, with shareholding of 74% and 26% of CONCOR and State Infrastructure & Industrial Development Corporation of Uttarakhand Ltd. (SIIDCUL)
3	Ahmedgarh-DFC feeder	Punjab	150	MMLP	Commissioning of phase I by March 17. This is a JV with Punjab Conware with Concor shareholding at 51%.
Nos.	Planned 1-2 yrs	State	Area (acres)	Type	Date
1	Sriperumbudur	Tamil Nadu	50	Road Based	Construction completed in June 2015, awaiting SEZ clarification
2	Jharsuguda	Odisha	30	MMLP	Commissioning by Mar'16
3	Naya Raipur	Chhattisgarh	100	MMLP	Commissioning by May'16
4	Vernama	Gujarat	130	MMLP-DFC	Land acquisition done, commissioning by June'17
5	Barhi	Haryana	50	MMLP	Land under HSIDC allotted. Private land being acquired, commissioning by Dec 2017
6	Swarupganj	Rajasthan	400	RTH-DFC	Land acquisition done. This is the other big hub and spoke terminal apart from Kathuwas in WDFC. However the commissioning is far off as per company.
7	Duburi near Kalinganagar	Odisha	55	MMLP	Land acquisition process initiated with State Government, June 2017 commissioning
8	Parjang near Angul	Odisha	55	MMLP	Land acquisition process initiated with State Government, Sep 2017 commissioning
9	Rasayani	Maharashtra	60	MMLP	Proposal of transfer of 60 acre of land with DOCP, commissioning by Dec'17
10	Krishnapatnam	Andhra Pradesh	130	MMLP	Commissioning by Mar'18, Land allotted by AP Government. This is again a strategic location given significant expansion seen in Krishnapatnam. Concor doesn't want to lose out on setting up CFS locations for upcoming ports as it did on Mundra.
11	Vallarpadam	Kerala	20	CFS	Port Commissioning by Mar'16. While transshipment volumes in Vallarpadam has picked up, hinterland movement is yet to pick up. Concor originally decided to transship some of their own containers out of Vallarpadam which didn't work out as planned.
12	Bodhjungnagar	Tripura	6	Logistic facilities	Commissioning by Mar'16
13	Mihan, Nagpur	Maharashtra	107	MMLP	Commissioning by May'16
14	Tihi-Indore	Madhya Pradesh	106	MMLP	Land acquisition underway, commissioning by Mar'17

Source: Company Data

Chart 15: Upcoming terminals of Concor are located around DFC



Note: Red marked locations are new facilities with and around DFC; Source: I-Sec research h
Source: Company Data

Concor – growth through JVs/strategic alliances has been fairly muted

- Angul Sukinda Railway Ltd (ASRL):** Special emphasis is also being given to investments in new lines for capacity augmentation of freight carrying lines of Indian Railway. Towards the same, Concor took 26% stake in Angul Sukinda Railway Ltd (ASRL), an SPV constructing 104 km. Rail line between the two regions in Odisha is expected to yield good financial returns other than giving the company direct access to two logistics parks being set up along this line. **The SPV has relatively higher asset base of Rs6.63bn.**
- SIDCUL CONCOR Infra Company Ltd. (SCICL),** a JV with shareholding of 74% and 26% of Concor and State Infrastructure & Industrial Development Corporation of Uttarakhand Ltd. (SIIDCUL) respectively has developed a MMLP at Pantnagar located approx. 300mts away from Rudrapur-Haldwani State Highway and at a distance of approx. one km. from the NH-87. Balance works including ICD will be completed in FY17. **Asset under this JV is Rs1.33bn.**
- Punjab Logistics Infrastructure Ltd. (PLIL),** a JV with (51%/49% of Concor and CONWARE respectively) has commenced the development of construction of a Multi Modal Logistics Hub (MMLH) located off Ludhiana – Malerkotla State Highway at a distance of ~20 kms from NH-1. Rail connectivity is planned from the single line non electrified Ludhiana - Dhuri – Jakhal section of Ambala Division of Northern Railway which is being developed as a feeder route of the Western DFC. Commissioning of Phase-I of the MMLP was expected by Nov. 2016 with Rail connectivity and all the ICD & PFT works to be completed by FY18. First train from Ahmedgarh is to ply on March 2017. **Asset base value is Rs.161bn.**
- Fresh and Healthy Enterprises Ltd. (FHEL)---100% subsidiary,** incorporated in 2006, originally was aimed at making cold storage infrastructure providing cold chain logistics solutions. However, the company is making losses. In FY16, Concor stopped further capex for this subsidiary, with additional controlled atmosphere chambers being taken on leases. There was a recommendation to divest this business to private sector which however was not possible due to refusal of transfer of land given by Haryana Government to the entity. Net loss/accumulated loss as of FY16 stood at Rs260mn/Rs1.40bn. There was a vigilance fraud detected for one of the officer of FHEL. Asset base is Rs520mn.
- Concor Air Ltd. (CAL).** The 100% subsidiary is aimed at air cargo related activities in domestic as well as international segment. It has entered into concession agreement with Mumbai International Airport Ltd. (MIAL). The company is currently handling air cargo of four airlines - IndiGo, Spice, Go and Vistara. CAL reported profit of Rs150mn in FY16 with an asset base of Rs2.35bn.
- Two other big subsidiaries include** India Gateway Terminal – JV with Dubai port for setting up and managing container terminals at Cochin (**asset of Rs7.74bn, loss of Rs630mn, Concor share 14.56%**) and Gateway Terminals India – JV with APM terminals for third berth at JN Port, Mumbai (**asset base of Rs8.87bn, profit of Rs320mn in FY16, Concor share 26%**). This is an area of strategic interest to Concor. Concor's deputed person is the CEO of GTIPL and Concor effectively runs the port operations which helps the company to garner the maximum market share out of GTIPL.

Valuations – Concor remains one of the most expensive rail road freight carriers globally

We looked into some of the global railroad carriers with business model precisely similar to that of Concor. The businesses are much more mature in developed economies. Most companies own railroads in addition to terminals – albeit at much depreciated value. They incur heavy capex e.g. Norfolk and CSX have been incurring ~ 20-22% of topline as yearly capex over last many years. Despite these indices, the asset intensity of this business is only marginally worse off than Concor as highlighted by asset turn and they generate much higher FCF as indicated by FCF yield. We also looked at margins and RoIC of these players e.g. Norfolk and CSX enjoy 35-40% EBITDA margin despite having employee costs at ~ 28% of topline, and enjoy RoIC of 9-10% given a developed country cost of capital. Incidentally, Concor's RoIC has deteriorated to similar levels with Indian cost of capital.

The hope of DFC and future volume increase is what is driving the valuations currently, nevertheless there is a big risk of multiples failing to re-rate and progressively de-rate hereon even if earnings potential materializes. Also, one must keep in mind that margins and RoCE of Concor pre-opening up of CTO space to private players and post opening up of the space to private players have shown dramatic differences. We don't see competition to recede meaningfully over the next decade.

Table 7: Concor comes across as the most expensive rail road carrier globally

Company	EPS growth				D/E	FCF	Asset	Capex (US\$ mn)			
	-2FY	-1FY	1FY	2FY	(x)	Yield (%)	Turn (x)	-2FY	-1FY	1FY	2FY
Norfolk Southern	5.8	(17.2)	9.4	11.2	74.6	3.2	0.29	(2,151)	(2,341)	(1,870)	(1,913)
CSX Corp	4.9	4.2	11.5	13.6	87.8	1.4	0.32	(2,318)	(2,498)	(2,183)	(2,205)
UNION PACIFIC CORP	22.1	(4.5)	11.2	12.5	68.6	4.5	0.36	(4,080)	(4,213)	(3,131)	(3,251)
Kansas City Southern	21.1	(6.8)	13.3	10.9	52.4	3.5	0.27	(742)	(744)	(572)	(536)
Canadian Pacific Railway Ltd	32.4	18.8	11.3	12.5	184.2	3.2	0.32	(1,270)	(1,489)	(1,203)	(1,212)
Canadian national railway company	22.9	18.1	7.9	9.1	72.5	3.5	0.33	(2,235)	(2,724)	(2,535)	(2,627)
Genessee and Wyoming Inc.	7.3	(9.2)	(11.1)	17.1	73.0	4.0	0.28	(310)	(318)	(271)	(265)
Aurizon Holdings	13.4	15.9	11.5	(0.7)	59.9	5.5	0.33	(903)	(1,046)	(531)	(517)
Average	16.2	2.4	8.1	10.8	84.1	3.6	0.31	(1,751)	(1,922)	(1,537)	(1,566)
Concor (I-Sec)	(25.9)	(3.3)	12.8	21.3	(8.4)	0.9	0.69	(75)	(159)	(149)	(142)

Company	EV/E (x)				P/E (x)				P/B (x)			
	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY
Norfolk Southern	9.8	11.2	10.3	9.7	19.2	23.8	20.0	18.0	3.1	3.1	2.9	2.7
CSX Corp	11.6	11.5	11.4	10.8	25.3	24.6	24.2	21.3	4.3	4.0	3.7	3.5
UNION PACIFIC CORP	9.7	10.1	10.4	9.7	19.4	19.7	19.5	17.3	4.5	4.6	4.5	4.2
Kansas City Southern	10.8	11.1	9.8	9.1	18.2	20.0	17.1	15.4	2.4	2.4	2.1	1.9
Canadian Pacific Railway Ltd	13.0	11.5	10.9	10.2	23.4	19.2	17.1	15.2	4.7	7.3	5.1	4.6
Canadian national railway company	14.7	12.8	12.0	11.4	25.4	21.5	18.9	17.4	5.6	5.2	4.6	4.3
Genessee and Wyoming Inc.	12.1	12.1	10.0	9.2	17.9	20.4	23.2	19.8	1.8	1.7	1.4	1.3
Aurizon Holdings	10.5	9.5	9.5	9.1	20.9	18.9	19.4	19.6	1.7	1.7	1.9	1.9
Average	11.5	11.2	10.5	9.9	21.2	21.0	19.9	18.0	3.5	3.8	3.3	3.1
Concor (I-Sec)	21.6	23.0	19.7	15.9	33.1	34.2	30.3	25.0	3.2	3.1	2.9	2.7

Source: Bloomberg

Initiate with an ADD, as volumes and cost enjoy structural business levers.

Concor not only trades at a significant premium (almost 100% 1FY EV/EBITDA) to its global rail road peers, its current multiples are also at a significant premium to its global peer set of LEPs with much lower asset intensity and much higher FCF yields. Such is the strong hope that DFC is imparting into the stock. The only saving grace is that margins for Concor are definitely on a cyclical low; Policy has become incrementally more supportive for the sector over the last 1/1.5 years.

Table 8: Concor enjoys significant valuation premium to other LEPs as well

Company	EPS growth				D/E (x)	FCF Yield (%)	Asset Turn (x)	EV/E (x)				P/E (x)				P/B (x)			
	-2FY	-1FY	1FY	2FY				-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY	-2FY	-1FY	1FY	2FY
Concor (I-Sec)	(25.9)	(3.3)	12.8	21.3	(8.4)	0.9	0.7	21.6	23.0	19.7	15.9	33.1	34.2	30.3	25.0	3.2	3.1	2.9	2.7
JB Hunt	10.1	15.8	11.6	14.7	69.3	2.0	1.8	13.4	11.6	10.6	9.7	32.3	27.6	24.2	21.1	9.8	8.8	7.3	6.1
Old Dominion																			
Freight Lines	29.7	15.2	10.6	14.1	5.1	1.8	1.2	13.3	11.6	10.5	9.5	30.7	25.9	23.5	20.6	5.3	4.7	3.7	3.3
Hub Group	(9.9)	16.2	4.4	11.3	7.4	(0.3)	3.0	15.6	13.1	10.2	9.2	29.6	26.1	21.3	19.1	3.3	2.9	2.6	2.3
Saia	18.3	8.0	11.3	19.9	15.0	2.2	1.6	8.9	8.6	7.6	6.7	24.8	24.2	23.3	19.5	3.4	2.9	2.3	2.1
ArcBest	213.8	(2.2)	67.2	23.5	12.1	5.3	2.1	5.6	5.0	5.2	4.6	18.1	15.9	20.0	16.2	1.4	1.3	1.3	1.2
YRC Worldwide	64.5	123.6	55.8	71.3	NA	0.6	2.6	6.4	4.2	4.2	3.7	NA	15.8	12.9	7.5	NA	NA	NA	NA

Source: Bloomberg

This group of companies operates in the asset heavy side of logistics operation like LTL, rail and air logistics. This is the region where Concor/Gateway Distriparks operate as Indian version of LEP.

DCF based valuation model

We believe Concor EBITDA will register CAGR of 15% between FY17E (EBITDA of Rs10.9bn) and FY23E (EBITDA of Rs36.5bn). Bulk of the growth is on account of DFC which will lead to growth in EXIM tonnage of average 16% between FY21-FY23.

We initiate with an ADD and target of Rs1,340/share, implying an upside of ~10% from current levels.

Table 9: Free Cash flow to Equity-FY17-23E for Concor will be largely back-ended depending upon the DFC driven surge in EXIM tonnage

Particulars	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E
EBITDA	10,928	12,774	15,683	18,257	23,019	28,985	36,458
Depreciation	4,235	4,658	5,124	5,537	5,823	5,899	6,034
EBIT	6,693	8,116	10,558	12,720	17,196	23,086	30,423
Tax rate	28%	27%	27%	26%	26%	26%	26%
EAT	4,819	5,925	7,708	9,413	12,725	17,083	22,513
Capex	(10,620)	(10,000)	(9,500)	(4,107)	(3,000)	(3,000)	(3,000)
Change on OWC	(163)	116	144	200	278	326	383
FCFF	(1,729)	699	3,476	11,043	15,826	20,309	25,930
Less: Debt Repayment	0	0	0	0	0	0	0
Less: Interest Cost	(147)	(128)	(128)	(128)	(128)	(128)	(128)
FCFE	(1,876)	571	3,348	10,915	15,698	20,181	25,803

Source: Company Data, I-Sec research

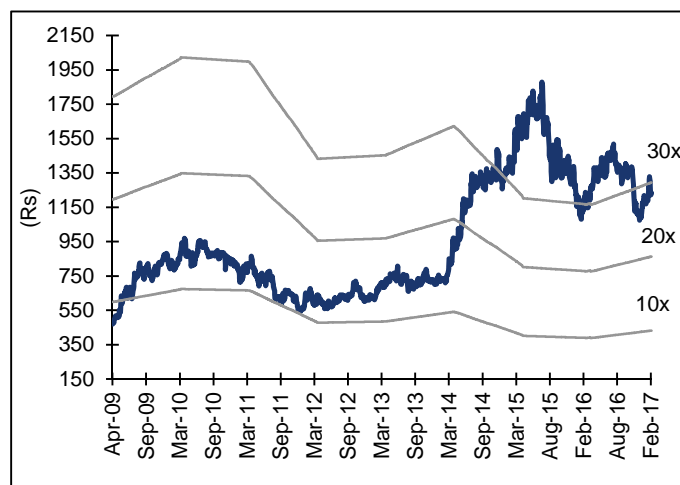
Table 10: Valuation based on DCF

We derive our DCF value based on a WACC of 10%.

(Rs mn)	FY19E
Terminal growth %	2
Terminal Value (Rs mn)	314,442
PV of Terminal value	197,348
PV of FCFF	55,833
Total FCFF	253,181
Net Debt	(6,965)
Total Equity value	261,352
Total o/s # of shares	195
Fair value per share	1,340

Source: Company Data, I-Sec research

Chart 16: P/E bands



Source: Bloomberg, Company data, I-Sec research

Chart 17: P/BV bands

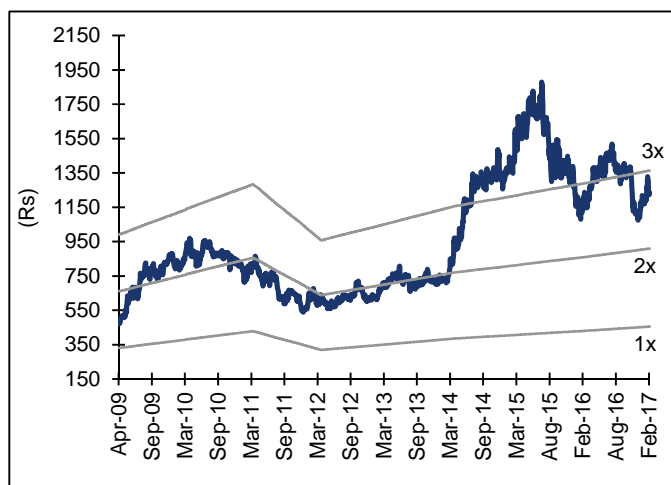
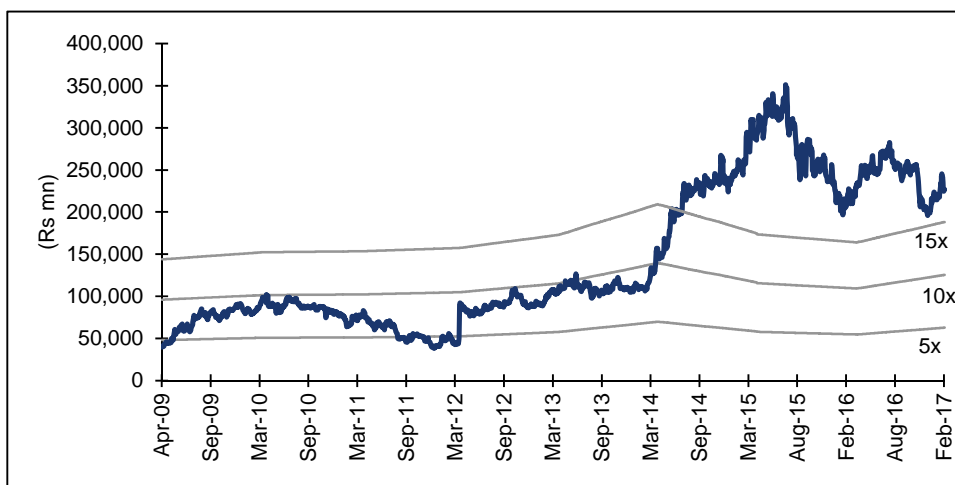


Chart 18: EV/EBITDA bands



Source: Bloomberg, Company data, I-Sec research

Key risks

- **Slowdown in import and export traffic volumes.** Indian Exim and Port data show a consistent trend of slow down. This is clearly illustrated with the capacity utilization of ports as well as the cargo tonnage data. Even if we look at containerization, the rate has been at best stagnant with no particular uptick over the last 5 years. The trade volume as a percentage of GDP has also been declining. India's EXIM throughput growth has slowed to 0.25x of GDP growth in FY16, which was closer to 1.35x prior to global financial crisis.
- **Increase in tariff hike from Indian Railways, which might be difficult to pass on to customers in the current environment.** Policy headwind has played a big role in the substantive return dilution of the CTO space including Concor. Maximum haulage charges for loaded containers have increased from Rs42,900/TEU in 2009 to ~Rs65,000 in 2015. Similar increase has happened in empty container charges from ~Rs21,000 in 2009 to ~Rs31,000 in 2015. Similar increase has happened in terminal access charges, ground usage charges multiple times.
- **Delay in DFC.** Due to delay in land acquisition process, the ambitious Dedicated Freight Corridor (DFC) project has been delayed for at least a year. Only 75 per cent work will be completed by December 2019, which is the scheduled date of completion of the project. The DFC sources said that land acquisition process for 184 hectare on Khurja-Kanpur and Khurja-Saharanpur sections and around 160 ha on the Vaitarana-Jawaharlal Nehru Port in Maharashtra of the Eastern DFC, had been stuck.

Financial summary (Consolidated)

Table 11: Profit and Loss statement

(Rs mn. year ending Mar 31)

	FY15	FY16	FY17E	FY18E	FY19E
Net Sales	61,221	63,063	61,714	69,038	79,132
Rail Freight Income	43,491	45,551	-	-	-
Road Freight Income	1,697	1,605	-	-	-
Handling and Transportation	10,716	10,804	-	-	-
Storage and Warehousing	3,843	3,591	-	-	-
Operating Income (Subsidiary)	321	236	-	-	-
Other Operating Income	1,154	1,276	-	-	-
Other Income	3,545	3,358	3,958	3,696	3,741
Total Income	64,767	66,421	65,671	72,734	82,873
Operating Expenses	50,823	54,859	54,744	59,959	67,191
EBITDA	13,943	11,562	10,928	12,774	15,683
% margins	21.5%	17.4%	16.6%	17.6%	18.9%
Depreciation & Amortisation	4,108	4,027	4,235	4,658	5,124
Gross Interest	180	166	147	128	128
Recurring PBT	13,200	10,727	10,504	11,684	14,172
Extraordinary income	1	5	-	-	-
Less: Taxes	2,640	2,898	2,941	3,155	3,826
Less: Minority Int. & Asso. Profit	14	5	-	-	-
Net Income (Reported)	10,545	7,818	7,563	8,529	10,345

Source: Company data, I-Sec research

Table 12: Balance sheet

(Rs mn. year ending Mar 31)

	FY15	FY16	FY17E	FY18E	FY19E
Assets					
Total Current Assets	37,210	13,938	11,997	11,934	13,985
of which cash & cash eqv.	29,492	11,073	8,987	8,794	10,666
Total Current Liabilities & Provisions	9,231	9,747	9,729	9,975	10,299
Net Current Assets	27,979	4,191	2,268	1,959	3,686
Investments	4,865	6,801	6,801	6,801	6,801
Net Fixed Assets (Including CWIP)	40,706	44,269	50,654	55,996	60,372
Intangible Assets	-	-	-	-	-
Long term loans & advances	6,876	13,365	13,365	13,365	13,365
Other non-current assets	294	16,542	16,542	16,542	16,542
Total Assets	80,721	85,168	89,630	94,662	100,766
Liabilities					
Borrowings	1,650	1,902	1,902	1,902	1,902
Deferred Tax Liability	2,075	1,974	1,974	1,974	1,974
Other Long term liabilities	568	175	175	175	175
Long-term provisions	348	387	387	387	387
Minority Interest	911	978	978	978	978
Equity Share Capital	1,950	1,950	1,950	1,950	1,950
Reserves & Surplus	73,220	77,802	82,264	87,297	93,400
Net Worth	75,169	79,752	84,214	89,246	95,350
Total Liabilities	80,721	85,168	89,630	94,662	100,766

Source: Company data, I-Sec research

Table 13: Cashflow statement*(Rs mn, year ending Mar 31)*

	FY15	FY16	FY17E	FY18E	FY19E
Net Profit before tax & extraordinary items	13,199	10,727	10,504	11,684	14,172
Depreciation	4,109	4,027	4,235	4,658	5,124
Non-Cash Adjustments	(3,051)	(2,690)	147	128	128
Working Capital Changes	1,059	(1,594)	(163)	116	144
Taxes Paid	(3,655)	(3,146)	(2,941)	(3,155)	(3,826)
Operating Cash flow	11,661	7,319	11,782	13,432	15,741
Capital Commitments	(8,479)	(5,019)	(10,620)	(10,000)	(9,500)
Free Cash Flow	3,182	2,301	1,162	3,432	6,241
Other investing cashflow	1,995	(1,803)	-	-	-
Cash flow from Investing Activities	(6,484)	(6,822)	(10,620)	(10,000)	(9,500)
Inc (Dec) in Borrowings	(356)	123	(147)	(128)	(128)
Dividend paid	(3,130)	(3,204)	(3,101)	(3,497)	(4,242)
Cash flow from Financing Activities	(3,486)	(3,081)	(3,248)	(3,625)	(4,369)
Chg. in Cash & Bank balance	1,691	(2,584)	(2,086)	(193)	1,872

Source: Company data, I-Sec research

Table 14: Key ratios*(Year ending Mar 31)*

	FY15	FY16	FY17E	FY18E	FY19E
Per Share Data (Rs)					
EPS	54.1	40.1	38.8	43.7	53.1
Cash EPS	75.2	60.7	60.5	67.6	79.3
OCF per share	59.8	37.5	60.4	68.9	80.7
Dividend per share (DPS)	16.1	16.4	15.9	17.9	21.8
Book Value per share (BV)	386	409	432	458	489
Growth (%)					
Net Sales	15.1	3.0	(2.1)	11.9	14.6
EBITDA	21.0	(17.1)	(5.5)	16.9	22.8
PAT	11.7	(25.9)	(3.3)	12.8	21.3
Valuation Ratios (x)					
P/E	22.7	30.6	31.6	28.0	23.1
P/BV	3.2	3.0	2.8	2.7	2.5
EV / EBITDA	15.2	19.9	21.2	18.2	14.7
Return/Profitability Ratios (%)					
EBITDA Margins	22.8	18.3	0.2	0.2	0.2
Net Income Margins	17.2	12.4	0.1	0.1	0.1
RoCE	19.2	10.2	7.5	8.6	10.5
RoE	14.0	9.8	9.0	9.6	10.8
Other Key Ratios					
Effective Tax Rate (%)	20.0	27.0	28.0	27.0	27.0
Total D/E Ratio (x)	0.0	0.0	0.0	0.0	0.0
Net D/E Ratio (x)	(0.4)	(0.1)	(0.1)	(0.1)	(0.1)

Source: Company data, I-Sec research

Annexure 1: Company profile

Management

- **Sh. V. Kalyana Rama (Chairman & Managing Director):** Shri V. Kalyana Rama was appointed as Chairman & Managing Director Container Corporation of India Limited (CONCOR) w.e.f. 01.10.2016. He is B. Tech (Mech.) with ICWA. He is an Ex-Railway officer of 1987 batch. Prior to joining Board, he was holding the post of Executive Director, South Central Region of CONCOR. He had worked in BHEL, BHPV before joining Indian Railways. He was instrumental in development of container depots in South Central and Southern regions of CONCOR. He has been involved in all the developmental planning and operational activities of EXIM and Domestic cargo at the various dry port terminals of CONCOR.
- **Dr. P. Alli Rani (Director (Finance)):** Dr. P. Alli Rani, Director (Finance) completed her education in economics at the university level in a M. Phil Degree in economics. Subsequently she acquired twin Post Graduate Degrees in Management specializing in Finance & Marketing and PhD in Economics. Her career began with the Indian Economic Service (IES), a specialized cadre of the Government of India recruited to conduct economic analysis in the Central Ministries and adjunct offices. Subsequently, she joined the Indian Railway Accounts Service in 1986, a specialized cadre for handling the Finances of the Indian Railways. She joined the Telecom Sector in the early years of her career and spent six years in the sector initially in the DoT and the last two years in BSNL. She once again joined the Railways in 2001 but this time as part of its Corporate Business, taking over as Group General Manager/ Finance of CONCOR. Subsequently elevated as Executive Director, she was elected to the Board of Directors of the company in the year 2009 by the Public Enterprises Selection Board (PESB) and took over as Director Finance of the company.
- **Sh. Pradip Kumar Agrawal (Director Domestic):** Sh. Pradip Kumar Agrawal has taken over the charge of Director (Domestic Division) from 1st July, 2016. He belongs to Indian Railway Traffic Service. He has worked for Indian Railways for more than 17 years on various important assignments, both at Divisional and Zonal Headquarter level covering operations, commercial, marketing and safety of Indian Railways. He joined Container Corporation of India Ltd. (CONCOR) in the year 2006 as GGM (Ops)/Western Region, thereafter, worked as Chief General Manager, Western Region for four years. During his tenure, he has successfully managed Container Train Operations for the Region which includes JN Port and various CFSs and ICDs in the Region. He has also worked as Chief Executive Officer for APM Terminals, Mumbai (GTIPL) for five years before joining as Director (Domestic Division), CONCOR. During his tenure as CEO/GTIPL, he has taken various landmark initiatives towards improving productivity, efficiency and safety of the terminals. He has simplified various operating procedures in the terminal and pioneer in introducing paperless gate-transactions, which was a step towards ease of doing business. The Terminal has also consecutively achieved performance of 2 million TEUs p.a. and recognized as best Container Terminal by the maritime fraternity during last five years.

- **Sh. Sanjay Swarup (Director International Marketing & Operations):** Sh. Sanjay Swarup took over as Director (International Marketing & Operations), CONCOR w.e.f. 01.9.2016. He has done B.E. (Honors) Electronics & Communication from IIT Roorkee (formerly University of Roorkee) and PG Diploma (MBA) in Public Policy & Management from IIM Bangalore. He belongs to IRTS 1990 Batch and has worked in BHEL before joining Indian Railways. He has held various challenging assignments in his career with Indian Railways and CONCOR. He has served as Chief Manager in Tughlakabad and Dadri, largest and second largest terminals of CONCOR. He has introduced innovative marketing policies like Volume based incentives, Credit policy and Agreements with large customers that have helped in increasing the business of CONCOR. He has been instrumental in intermodal services in our neighboring countries. Sh. Sanjay Swarup has rich experience in Railway Operations, Commercial, Safety and I.T. He has expertise in design, operations, marketing and management of Container terminals in India. Prior to joining as Director, he was holding the post of Executive Director (International Marketing) in Corporate Office, CONCOR.

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