

PORTS

A port of entry

India Equity Research | Ports

The Indian ports sector is on the cusp of a renewed growth phase largely due to an intense focus on transportation economics, legacy issues at government-owned ports, and rising demand for minerals and goods. Besides, Indian GDP has a subtle linkage to global trade; hence, we expect the weakening global economy to have a muted impact on the country's cargo growth. With capacity addition at major ports lagging due to delayed approvals/bid-outs by the government, more proficient private ports are reaping the benefits. Initiate coverage on Essar Ports with 'BUY', Gujarat Pipavav Port with 'REDUCE' and maintain our 'BUY' recommendation on Adani Ports.

Soaring consumption to steer port capacity addition

Seaborne trade accounts for ~90% of global trade in terms of volume (~70% in value) due to its cheap economics. Typically, port traffic grows at 1.5-2.0x of the GDP growth rate which India has not realised so far on a sustained basis. Even in its best growth decade between 2002 and 2012, cargo grew by only ~9.2% (CAGR) compared to the average GDP growth of ~7.7%. However, a largely import-driven trade coupled with higher containerisation offers vast growth prospects which could be enhanced further by a rising bulk cargo trade and increase in vessel sizes. With mere 1.1bn tonnes port capacity, India is expected to see sustained growth in port demand and, therefore, capacity addition triggered by soaring consumption of imported fuel/minerals as well as general cargo (led by container cargo growth).

Private sector, minor ports to chart growth map

Due to higher handling costs, ocean transportation in India is ~70% more expensive than the US, according to a study by McKinsey. This can be ascribed to higher capacity utilisation at government-owned ports (at ~80% plus) and the resultant longer turnaround time (~2-3x of international benchmarks), though India's private sector ports are far more efficient. Thus, the private sector is expected to take lead in driving government's ambitious target of more than doubling port capacity to 2.7bn tonnes from 1.1 bn tonnes through a mix of greenfield projects as well as brownfield expansion (terminals) in existing ports.

Outlook: Robust potential; initiate coverage on Essar Ports, GPPL

We believe that the Indian port sector will create greater investment opportunities due to its massive growth prospects, a decoupled model (muted impact from volatile global trade), scope for efficiency improvement, and a potentially large captive consumer base. Regulatory intervention and delay in approval/clearances are major risks. Based on current valuations we initiate coverage on Essar Ports with 'BUY' recommendation (TP of INR 110/share), Gujarat Pipavav Port with 'REDUCE' recommendation (TP of INR43/share) and maintain 'BUY/SO' recommendation/rating (TP of 158/share) on Adani Ports.

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Ports at the heart of national economic development

Easing global trade barriers and globalisation have helped open the world trade market, which has been contributing significantly to the world GDP in recent past. Global trade (exports and imports) as a percentage of GDP has increased to as high as 50% from 20% during early 1970s. Thus, trade is a key driver of the global economy as is apparent in the high correlation between these variables.

Trade as a percentage of GDP for the world has increased to as high as 50% from 20% levels during early 70s.

Chart 1: Global trade as % of GDP

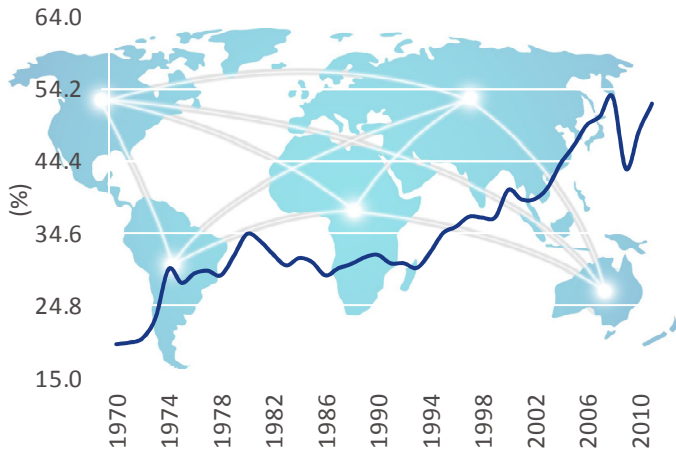
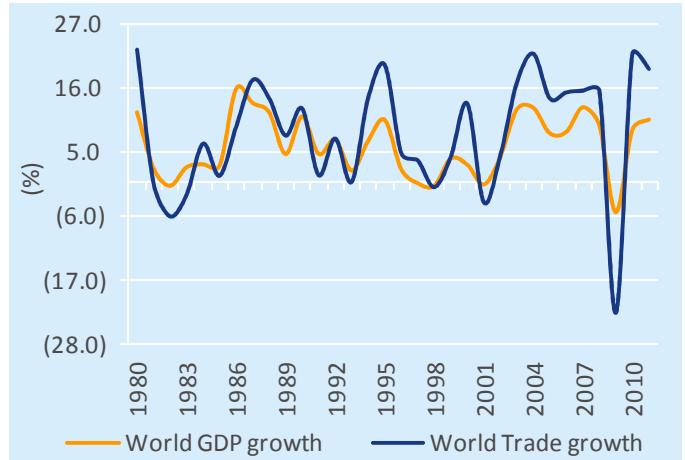


Chart 2: High correlation between GDP and trade

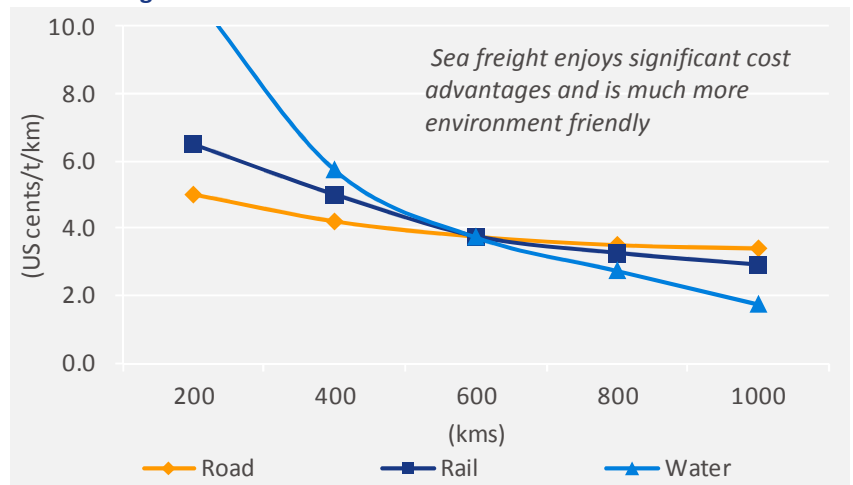


Source: UNCTADstat, Edelweiss research

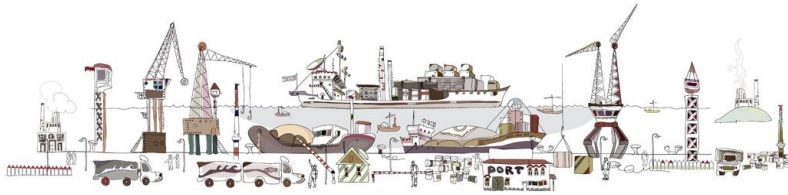


While sea trade has historically flourished, air freight has been a recent phenomenon. Some of the key factors for deciding the mode of shipping are cost, time, reliability, environmental impact, among others. Sea freight enjoys significant cost advantages and is much more environment friendly compared to air, but scores low on time/reliability. Given the nature of trade cargo, most of it takes the sea route and, hence, ocean freight has been at the core of international trade.

Chart 3: Freight cost on different modes

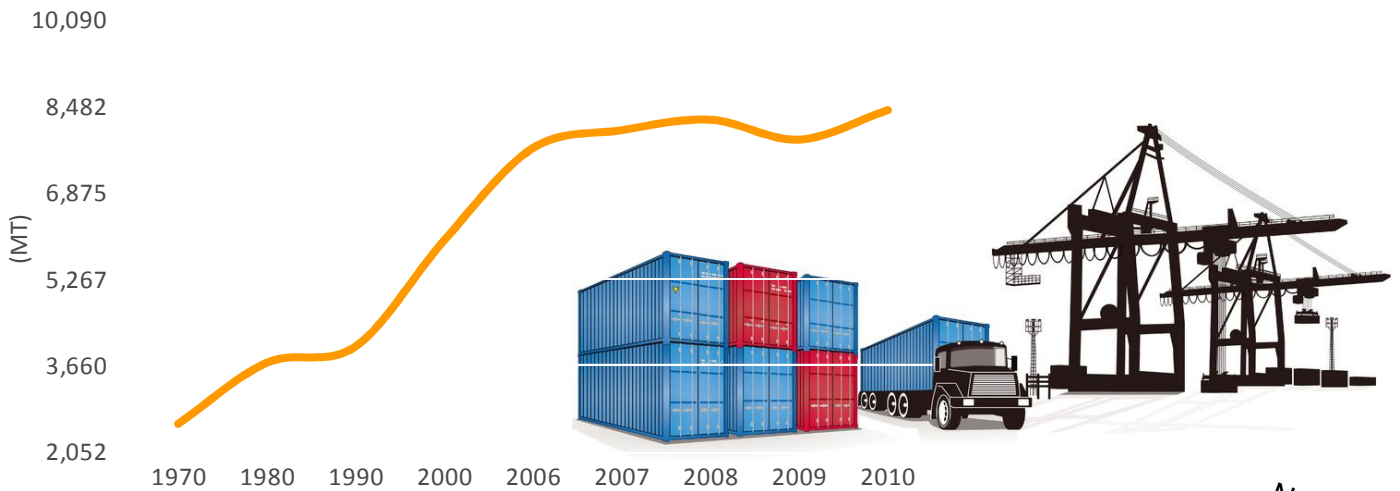


Source: McKinsey report, Edelweiss research



Fortunes of the world seaborne trade, which handles a significant portion of merchandise trade, move in tandem with worldwide macroeconomic conditions. The chart below depicts that the global seaborne trade in 2010 did bounce back from the contraction during the previous year.

Chart 4: World seaborne trade



Source: UNCTADstat, Edelweiss research

India has emerged as a modern economy with an 8% plus growth potential in GDP for the next couple of decades. In order to realise this potential, importance has been placed on the development of physical infrastructure like roads, airports, seaports, railways in general and the port sector in particular.

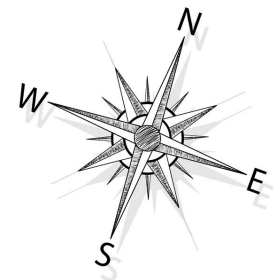
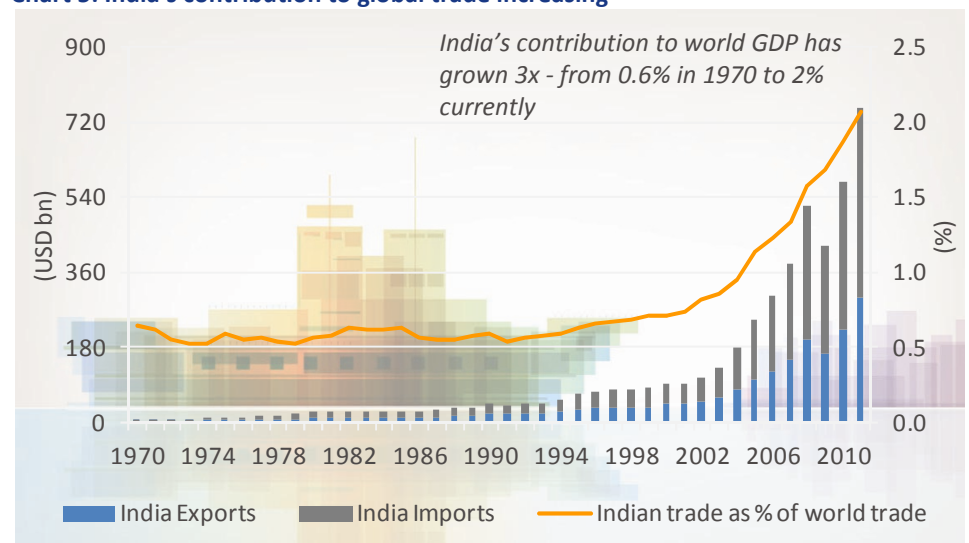


Chart 5: India's contribution to global trade increasing

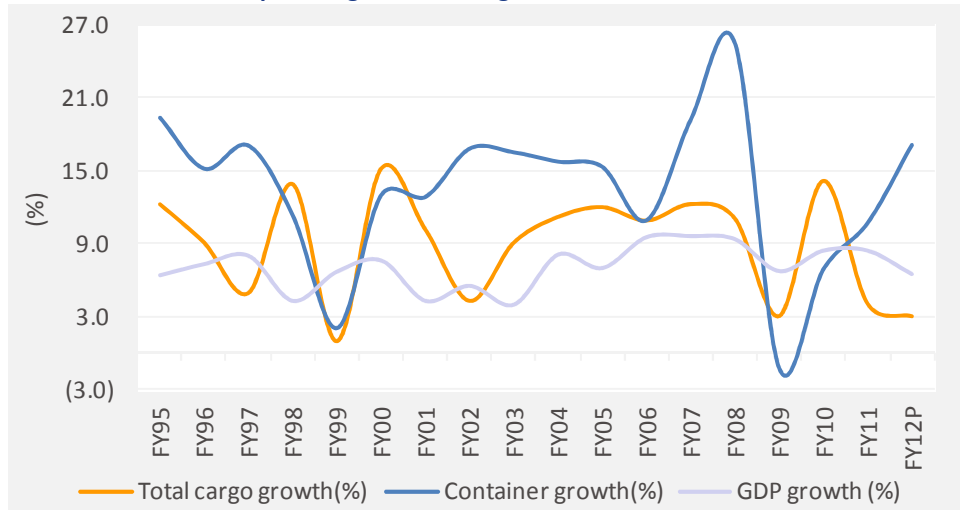


Source: CMIE, Edelweiss research

Indian ports: Beneficiaries of growing trade wave

Indian port cargo, which handles 95% of the merchandise trade by volume (and 70% by value), has exhibited a strong multiplier of 1.35x (average over the past 15 years) to GDP growth. Further, container growth, which has a much stronger multiplier of 2x of GDP, reflects the increased focus on manufacturing sector and the consumption driver in the economy.

Chart 6: India GDP and port cargo/container growth

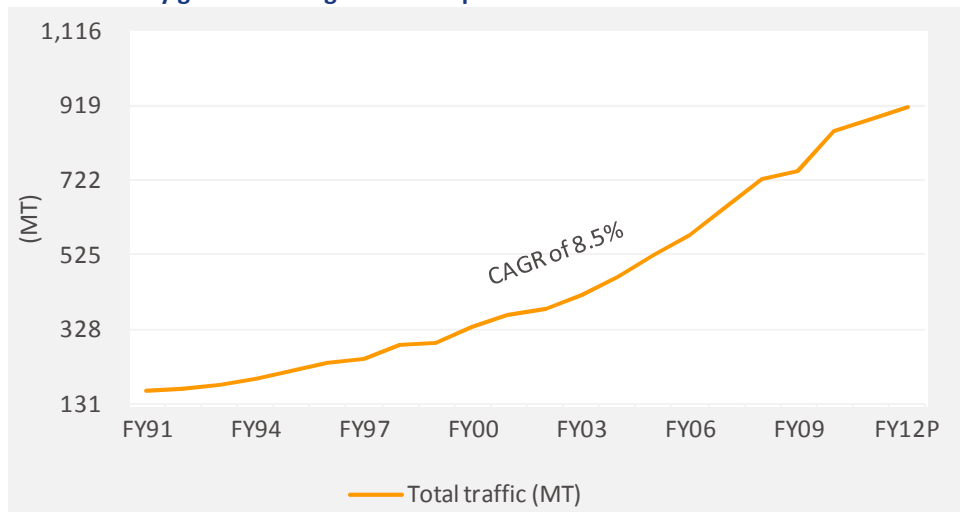


Source: CMIE, Edelweiss research

Ports which facilitate trade form an important part of Indian economy

Thus, ports which facilitate trade, form an important part of the Indian economy’s growth and prosperity. With its long coast line of about 7,517 km along the Western and Eastern mainland, India makes itself a perfect major platform for seaborne trade. Import/export in India has jumped considerably in the past few decades, resulting in a healthy growth (by 5x - from 164MT from 1990-91 to 912MT in 2011-12 at CAGR of 8.5%) in port cargo benefitting port companies. Major reason for this growth is the expansion of the Indian economy, fuelled by increasing trade. Indian seaports at the forefront in the logistics chain play a vital role in the national economic development.

Chart 7: Steady growth in cargo at Indian ports



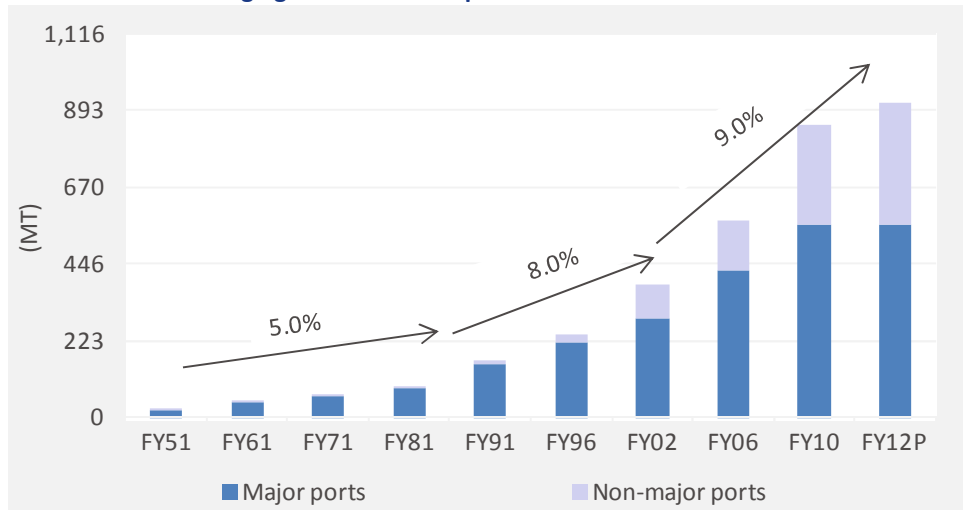
Source: XII Plan WG Ports, Edelweiss research

Ports in India are categorised as major and minor (non-major) depending on the governance structure (not scale/size). Major ports are Central government controlled under respective port trusts while minor (non-major) ports work under concessions from individual state maritime boards/governments.

The evolution of Indian ports can be categorised into three phases as per cargo growth at ports. From the early days of 1950s and till the opening up of the Indian economy in 1991, ports posted a modest 5% CAGR in cargo driven by major ports. However, with the economy/trade opening up, the second leg of 8% CAGR was led by minor ports, growing at an impressive 20% (aided by privatisation and low base) against the mid single digit growth of 6% by major ports. The last decade witnessed a significant growth (9% CAGR) in port cargo on account of a boost in domestic consumption (higher imports) and impetus to the manufacturing sector (setting up of SEZs, incentives, etc., to promote exports). Major ports did witness a healthy CAGR of 8.7% while minor ports consolidated to ~15% growth. Concerns on infinite delays in capacity addition by major ports in the past couple of years coupled with the softness in iron ore exports (ban on iron ore exports and hike in excise duty) have kept volume growth at major ports subdued.

Last decade has witnessed a significant growth in port cargo

Chart 8: Phases of cargo growth at Indian ports

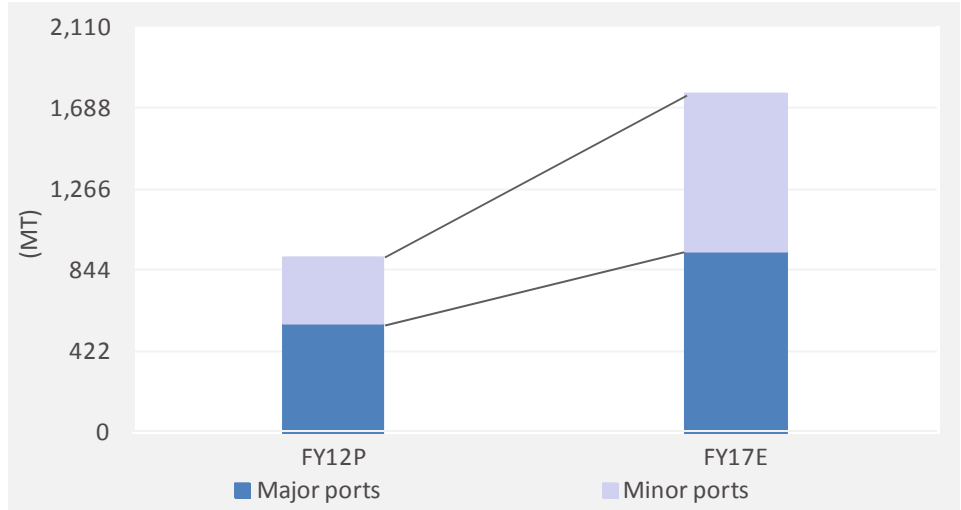


Source: i-maritime, IPA, Edelweiss research

The outlook on cargo growth at Indian ports remains strong. The XIIth Plan working group for ports projects a cargo of 1.75bn tonnes at Indian ports by end FY17 from the FY12P exit cargo of 912MT. It also acknowledges that minor/non-major ports will continue to outperform major ports by continuing to grow at a much faster clip.

Energy deficit India is set to import coal and POL which will drive port volumes

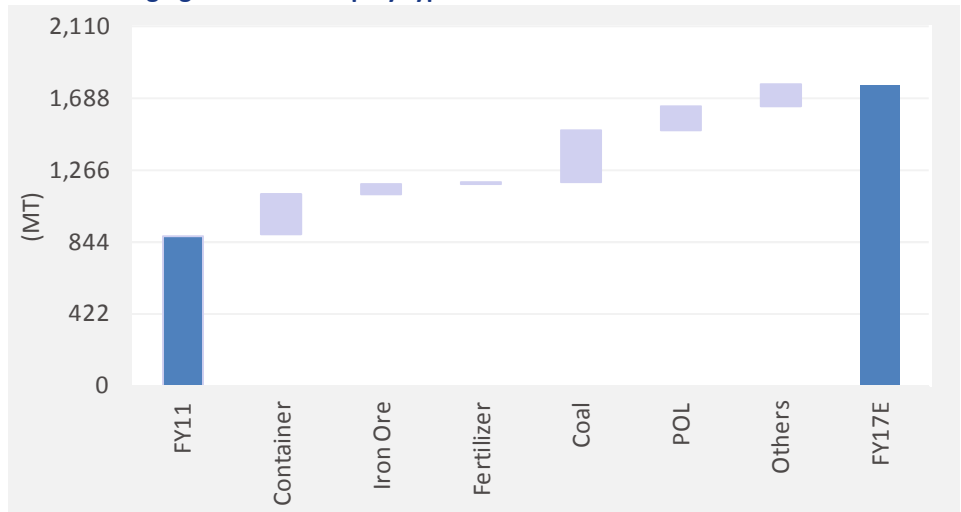
Chart 9: Expected cargo growth at Indian ports



Source: MoS, Edelweiss research

Energy-deficit India is set to import coal and POL, which will contribute significantly to incremental cargo at ports. Further, container cargo will benefit from increased domestic consumption and focus on manufactured exports from India.

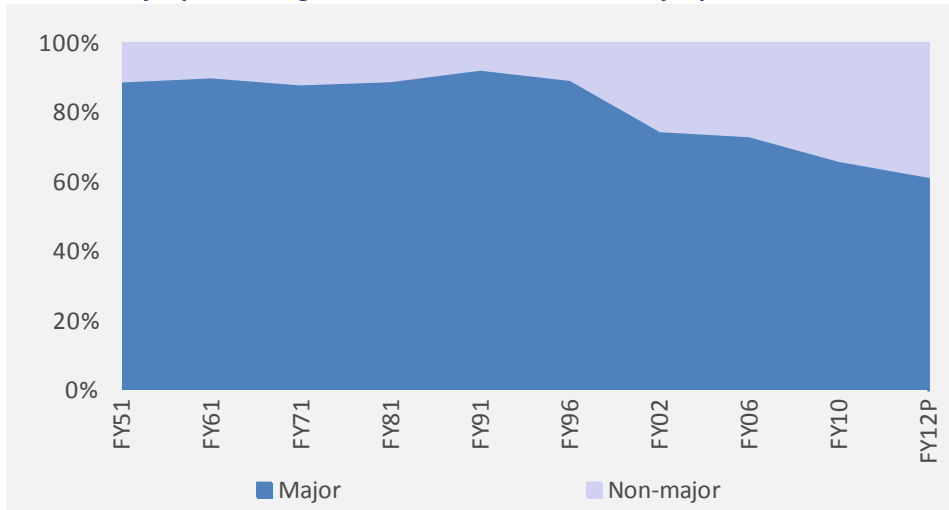
Chart 10: Cargo growth break-up by type



Source: XII Plan WG Ports, Edelweiss research

Minor ports, which handled mere 8% of the total port cargo in 1950s, today handle ~39% cargo and are expected to handle 50% of total cargo by end of XII Plan. Minor ports with state-of-the-art and scalable infrastructure enjoy greater operational and geographical advantages, proven execution capabilities, and a healthy pricing freedom that have enabled them to outperform major ports. This clearly indicates that India's key ports that are continuously facing capacity crunch with their legacy infrastructure, frequent congestions, and increase in logistics costs for shipping lines, are gradually losing clients/market share to non-major ports.

Chart 11: Major ports losing market share to minor/non-major ports

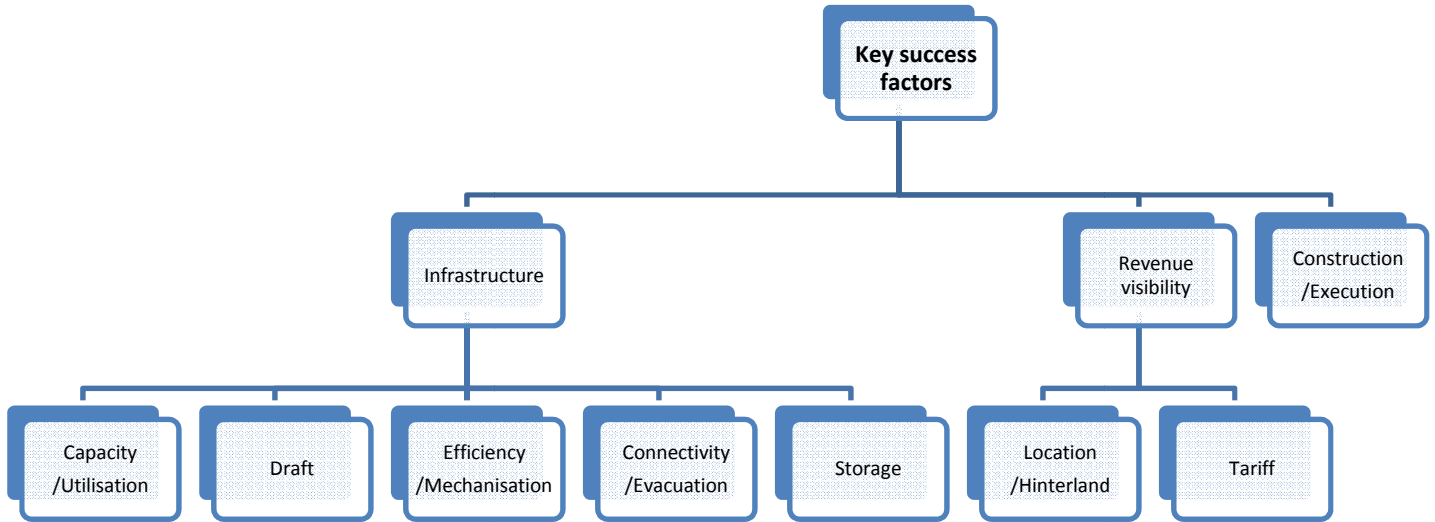


Source: I maritime, MoS, Edelweiss research

There has been structural shift in the cargo traffic from the government controlled major Indian ports to the minor ports

We delve deeper to understand the key success factors which have led to the structural shift in the cargo traffic from government controlled major Indian ports to minor ports. Since minor (most private ports) ports have scored well on these success factors, these have become the preferred ports of call in India.

Fig. 1: Key success factors

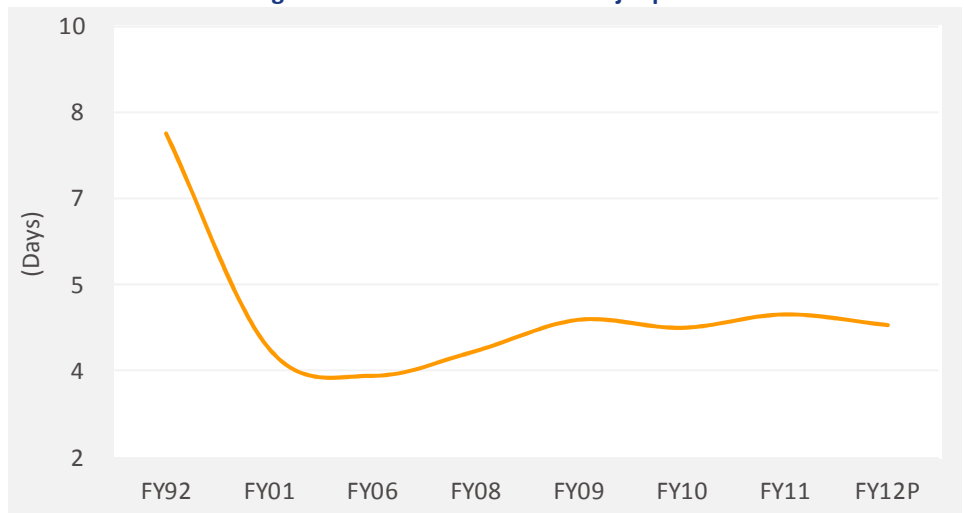


Source: Edelweiss research

Deficient core infrastructure: Turnaround time at major Indian ports rising steadily

Operational performance of a port is one among few key determinant factors in deciding the port of call for shipping lines. The average of pre-berthing delays, turnaround time, and output (per ship/berth day) are major metrics that determine the average time a vessel would need to complete the unloading/loading at a port before it sails out. Higher turnaround time beyond the stipulated levels will spike transaction costs (as demurrage charges, etc.) which will have to be borne by the end customer. This has been a concern at government owned major ports in India. The total turnaround time for major ports has risen steadily over the past decade to be much higher than the international benchmark of less than a day. At major international ports, there is no pre-berthing delay in general as sufficient infrastructure is available to service vessels as and when they arrive and highly mechanised equipments enable faster loading/unloading of cargo.

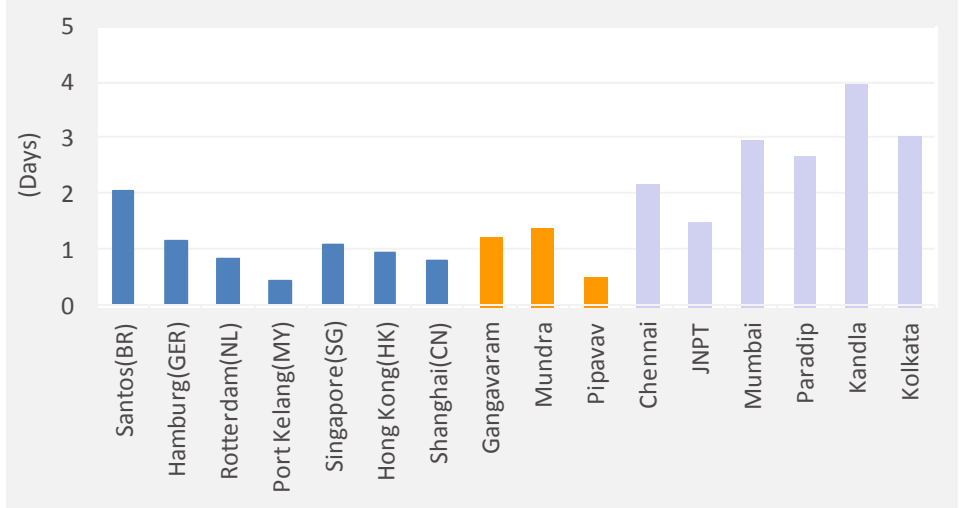
Chart 12: Trend of average total turnaround time at major ports



Source: i-maritime, IPA, Edelweiss research

Total turnaround time at major ports has been on a rise over the last decade

Chart 13: Turnaround time of international and select Indian minor/major ports



Source: Port websites, Edelweiss research

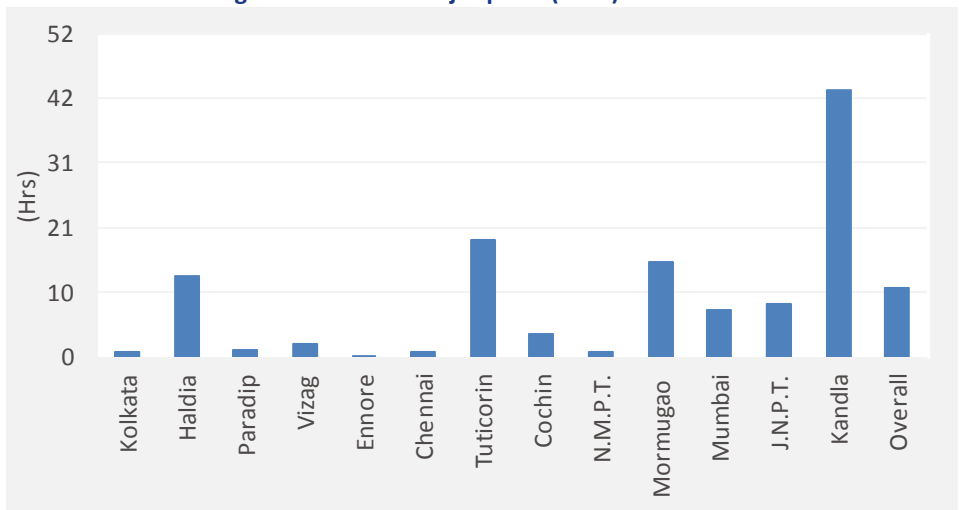
Note: Turnaround time will vary on the type of cargo and size of vessels handled

Major ports rank low on most infrastructure parameters compared with not only their international counterparts, but also some minor ports in India, thus compromising on efficient operations. This is one of the key criteria which led to a gradual shift in traffic from major ports to minor/private ports.

Capacity and utilisation: At peak in India

Globally, ports wait for vessels to occupy their berths to carry out cargo handling activities. However, at major Indian ports, vessels have to wait for their turn till earlier vessels head out before cargo handling activity can begin. Pre-berthing at major Indian ports varies from 2 hours to 40 hours, depending on the port and cargo with the overall average for FY12 being 11 hours. A high utilisation level at major ports has kept the total turnaround time stretched which has been deteriorating further lately.

Chart 14: Pre-berthing time at Indian major ports (FY12)

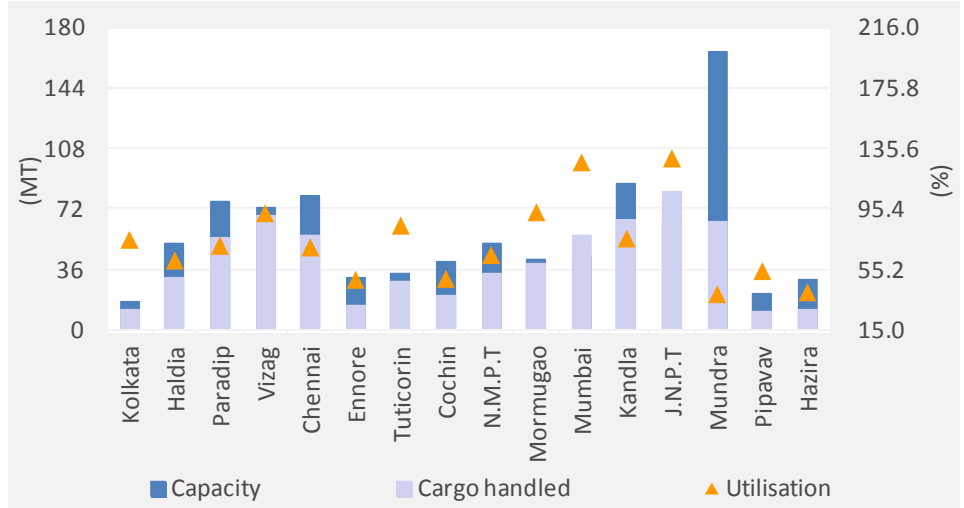


Source: IPA, Company, Edelweiss research

High utilization level at the major ports has kept the total turnaround time stretched

Utilisation at major ports at 80% plus currently is much higher than the optimal level of 70-75%, even though minor ports have maintained healthy levels. Higher utilisation levels beyond the optimal levels lead to queuing up of vessels, awaiting slots for berthing, which in turns increases the total turnaround time.

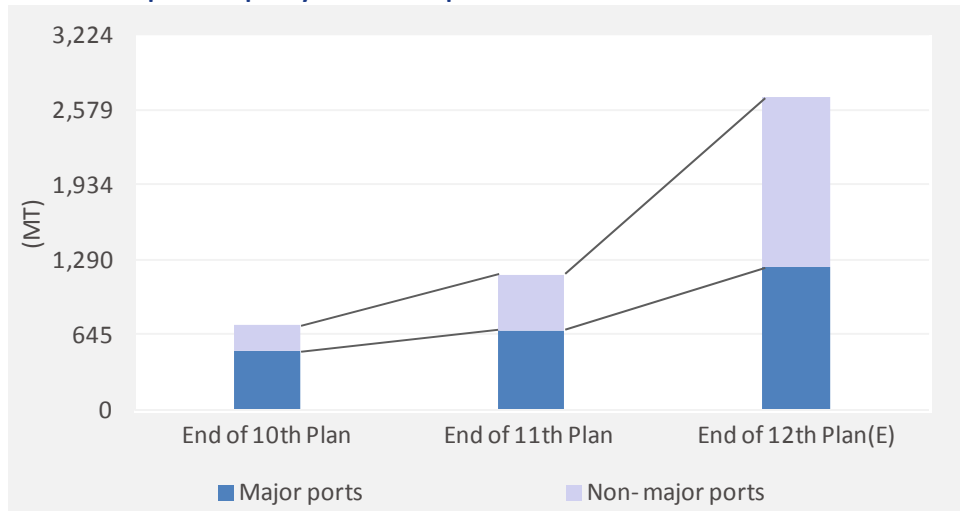
Chart 15: Indian ports - FY12 capacity, cargo and utilisation



Source: IPA, Company, Edelweiss research

One of the prime reasons why major ports have been reeling under high utilisation levels is the snail's pace of capacity addition over the previous decade. In contrast, minor ports have done a good job by adding capacity on time and thus maintaining favourable capacity/utilisation levels, facilitating efficient/faster handling of cargo.

Chart 16: Proposed capacity addition at ports



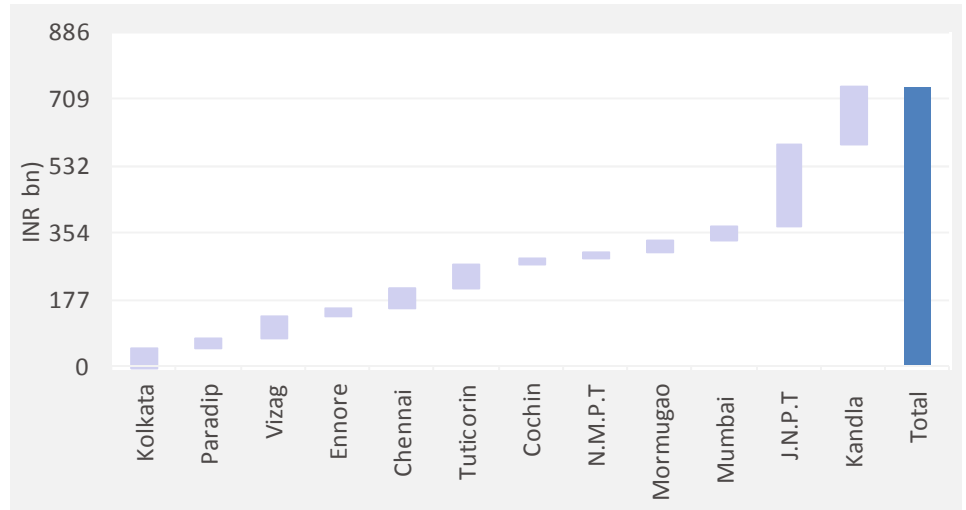
Source: XII Plan WG Ports, Edelweiss research

Capacity at major ports has just doubled over the past 10 years from 345MT at end of IXth Plan to 690MT by end of XIth Plan i.e., CAGR of 7.2%, while the growth in cargo has been 8.7%, which has kept utilisation high. Minor ports, on the contrary, have grown by more than 4x over the past decade, ahead of the cargo growth at these ports. To cope with the burgeoning trade traffic, the Planning Commission has set an aggressive target of more

JNPT and Kandla to see major investments in the XIIth Plan under PPP route

than doubling port capacity from the existing 1173MT (XIth Plan end, i.e., FY12) to 2686MT by end of XIIth Plan. Further, minor ports have the onerous capacity addition task which is double the target set out for major ports.

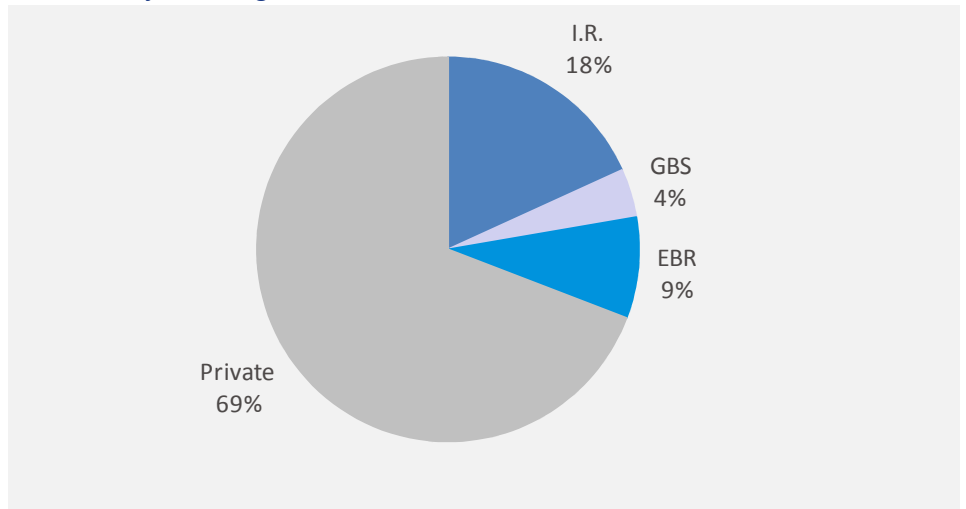
Chart 17: XIIth Plan capex at major ports



Source: XII WG Ports, Edelweiss research

In fact, bulk of the capex for enhancing capacity at major ports is also expected to come from private sector under the PPP route.

Chart 18: Major funding under PPP route

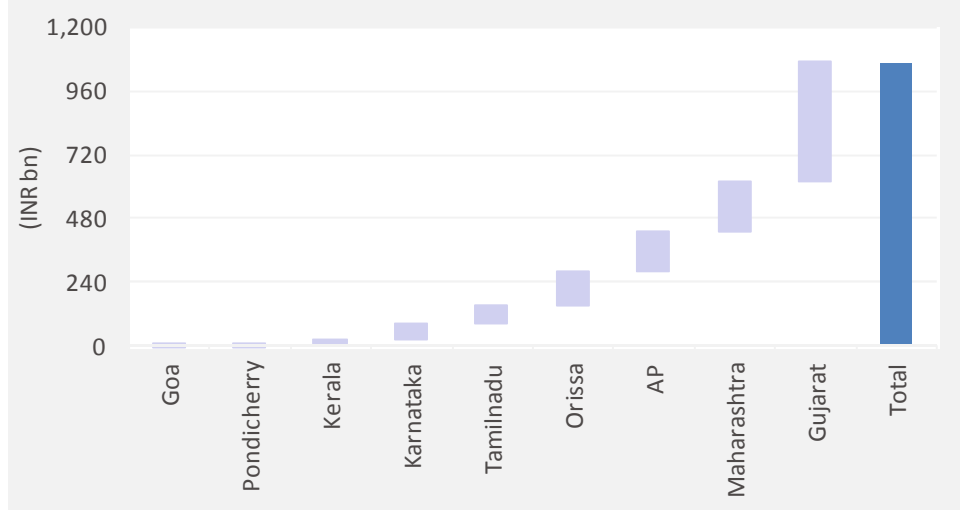


Source: XII WG Ports, Edelweiss research

Gujarat has been a pioneer in the Indian ports industry and has facilitated the development of ports/jetties led by the private-sector to capitalise on the strategic location advantage on account of a long coast-line and the proximity to the northern hinterland. Gujarat under its maritime board (GMB) is expected to play a dominant role in adding capacity at minor ports in the coming five year plan.

Minor ports to witness major investments for capacity addition, led by Gujarat in the XIIth Plan

Chart 19: XIIth Plan capex at minor ports by states



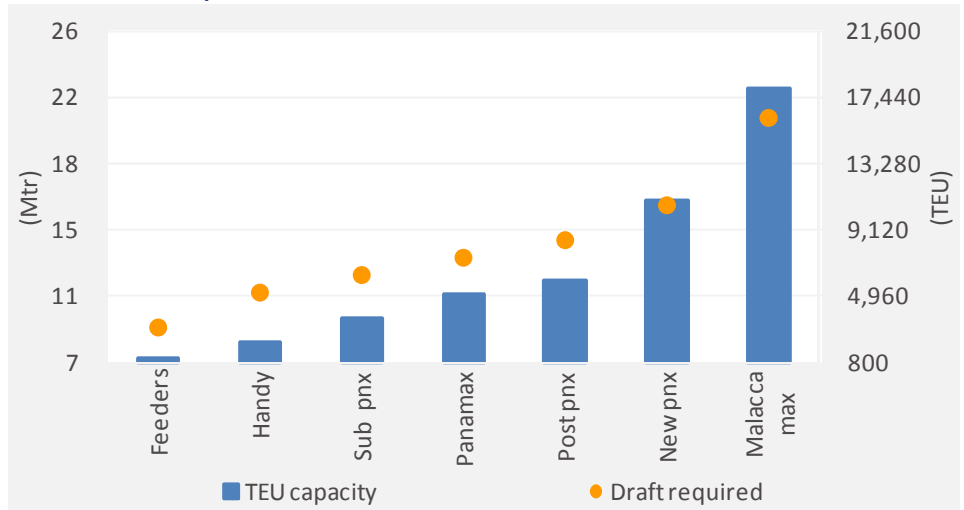
Source: XII WG Ports, Edelweiss research

Draft: A must, as larger cargo ships is the new trend

To provide smooth movement of vessels between anchorage points and berths, ports have to ensure that access channels to dock systems and berths are maintained at their optimum depths so that movement of vessels calling ports is not restricted due to unavailability of adequate draft. It is also imperative that tugs should be engaged for proper placement of vessels at the time of berthing/de-berthing, shifting, turning, and movement through narrow channels.

As ships/vessels grow in size, the depth of the required draft also increases. For a vessel with 2,000 TEU capacity, the draft required would be ~11mtr, whereas for 6,000 TEU the required draft goes upto be ~14mtr.

Chart 20: Draft requirements for different vessel sizes



Source: Clarksons, Edelweiss research

Growing vessel size necessitates deeper drafts

Larger ships in the making

Given the higher share of the sea route in total world trade and the cost and time advantage associated with large sized vessels, much traffic is being shifted to large vessels. From the data of top 10 fleet operators, it can be observed that there is a shift in the average size of ships (TEUs/ship) which indicates the need for higher draft to facilitate their easy movement. The existing fleet size has an average size of ~4,000 TEU/ship, but the orders placed with ship building companies by container liners shows the capacity of upcoming ships to be averaging ~10,000 TEU, which indicates requirement of deeper drafts.

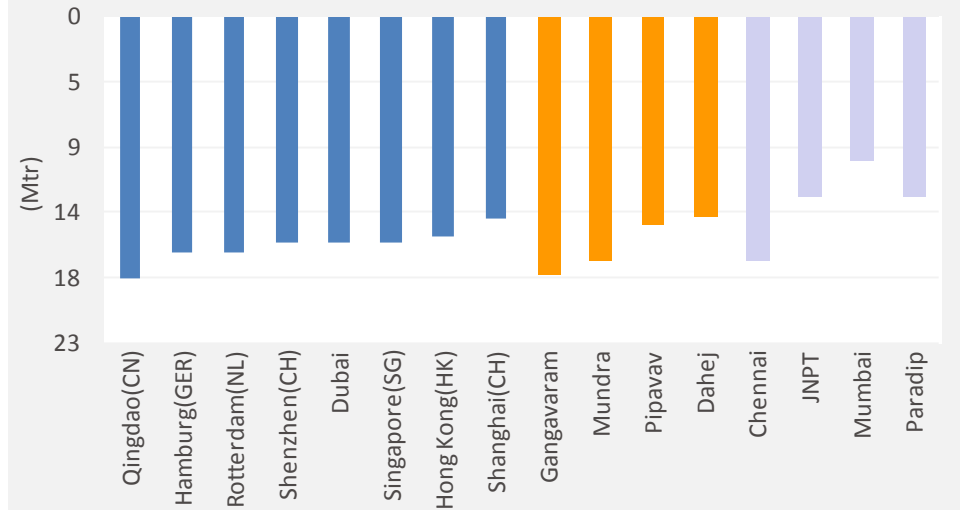
Table 1: World top 10 shipping lines and their fleet size

Rank	Operator	Existing size	Orderbook size
		TEU/ship	TEU/ship
1	APM-Maersk	4,118	13,187
2	Mediterranean Shg. Co.	4,710	10,891
3	CMA CGM Group	3,345	8,869
4	COSCO Container L.	4,509	7,561
5	Evergreen Line	3,768	9,679
6	Hapag-Lloyd	4,510	13,200
7	APL	4,461	10,409
8	CSCL	3,789	7,976
9	Hanjin Shipping	5,161	7,580
10	MOL	4,561	12,457
Average		4,293	10,181

Source: Alphaliner, Edelweiss research

The draft at most Indian ports is inadequate to handle bigger vessels, the use of which is an important component of reducing costs on economies of scale. The pace of dredging has been inadequate and needs to be greatly expanded at most ports. The available draft is higher at select minor ports, which acts as a competitive advantage. Among minor ports there are a number of ports with draft more than 14mtr compared to few major ports who can boast of such available draft.

Chart 21: Draft at international and Indian ports



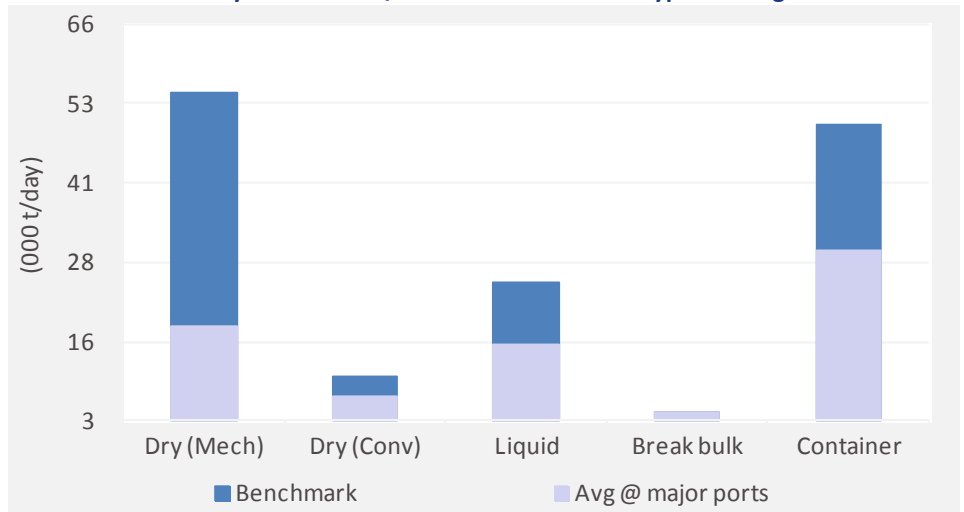
Source: HK Marine report, Port websites, Edelweiss research

Note: Draft at different terminals in a port could differ

Efficiency and mechanisation

High down time of equipment (due to legacy equipments), low labour productivity, and shortage of storage space contribute to the low efficiency of Indian ports as compared to global benchmarks.

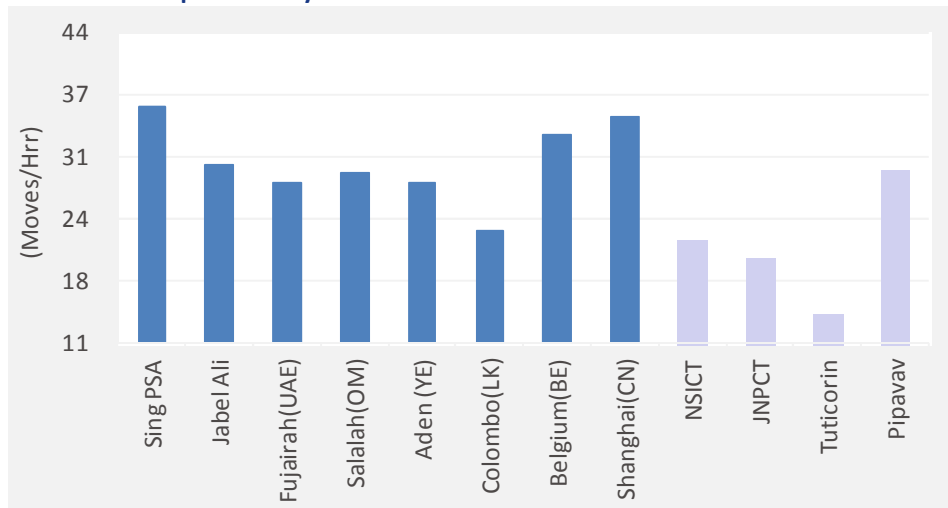
Chart 22: Productivity benchmarks/achieved for different types of cargo



Source: XII plan WG Ports, Edelweiss research

Major ports operate much below global benchmarks

Chart 23: Crane productivity



Source: Maritime Agenda 2020, Port websites, Edelweiss research

Connectivity and evacuation: A key bottleneck at Indian ports

Land-side infrastructure, including connectivity for cargo evacuation and storage, should maintain pace with the waterfront capacity expansion to support free movement of cargo. Otherwise, this could remain a key bottleneck in the entire logistic chain limiting the cargo handling at ports. In fact, inadequate capacities in hinterland transport modes often lead to higher costs and delays on account of sub-optimal mode choices, circuitous routing, and congestion in hinterland transport links. Any efficient port should ensure low operational cost as well as lower working capital by a faster turnaround of raw material/finished products. This could be possible by delivering commodities to customers in a cost efficient way within the minimum possible time.

Port sector development in India is largely driven and affected by hinterland connectivity and location of the port. As the trade rises steadily, the use of ports is expected to increase in the near future. Hence, the need to improve connectivity. Cargo traffic in India is carried largely by railways and roads. The mode of transportation depends on suitability of transport for type of commodity, characteristic of a cargo, distance between connecting hinterlands, and geographical features of a port. While the optimal share of port traffic carried by railways should be about 34%, the actual share in the Indian context is estimated to be lower, whereas traffic movement by road dominates with a higher share against an optimal share of 22%. The most prominent of all modes is the pipeline which is expected to carry 44% of cargo.

Table 2: Share of evacuation modes at Indian ports

Present mode	Port traffic mode	Share (% of tonnes handled)
	share % (2007)	optimal mode share %
Railways	24.0	34.0
Roads	36.0	22.0
Pipeline	30.0	44.0
Other including in land waterways, conveyers etc.	10.0	

Note: Data available as on 2007

Source: Maritime Agenda 2020, Edelweiss research

Evacuation at Indian ports is skewed towards roads

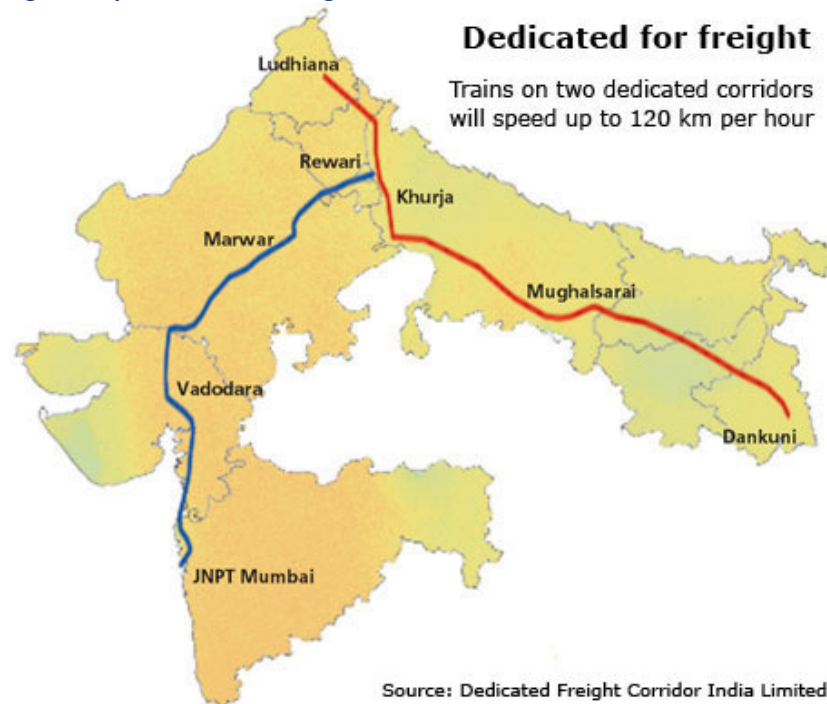
This clearly shows that the railway is currently carrying considerably less than its optimal share of port traffic while road transport, which is considered highly inefficient (more cost effective for shorter leads and smaller package sizes but is both costlier and slower than railways for distances in excess of about 300-500km), takes up a larger share. This indicates the low rail connectivity and lower availability of rakes at ports. More worrisome is the declining share of railways due to inadequate investments in capacity, particularly for freight, the poor quality of service and slow response to various segments of demand.

To provide an impetus to the lagging railway infrastructure for freight logistic, the ambitious Dedicated Freight Corridor (DFC) project, aimed at creating high-capacity, high-speed railway freight corridors, has been envisaged. The first phase of the project entails construction of over 3,300 kms of rail corridor for freight movement along the Delhi-Mumbai (Western corridor) and Delhi-Kolkata (Eastern corridor) rail routes with an estimated investment of USD16bn. This project is expected to reduce the current level of congestion on existing railways network (currently shared among passengers and freight traffic) and help in regaining the lost market share.

Western corridor: This 1,499 km long corridor will consist of a double line electric (2X25 KV) track from JNPT to Dadri via Vadodara-Ahmedabad-Palanpur-Phulera-Rewari and a 32km single line connection from proposed Pirthala Junction Station (on Delhi-Mathura line) to Tughlakabad.

Eastern corridor: At 1,839 km, the corridor will run between Ludhiana and Dankuni. It will consist of an electrified double-track segment of 1,392 km between Dankuni in West Bengal and Khurja in Uttar Pradesh, and an electrified single-track segment of 447 km between Ludhiana in Punjab and Khurja-Dadri in Uttar Pradesh. The corridor is proposed to be extended to serve a new deep sea port in Kolkata area.

Fig. 2: Map of Dedicated Freight Corridor



Source: DFCI, Edelweiss research

Logistic cost in India is 13%-14 % of the GDP against 7%-8% in developed countries

Most major ports being government owned have good connectivity as Indian Railways remains a Central subject while most of the private owned minor ports are forced to ensure the last mile connectivity themselves.

Investments needed in ICDs, CFS, logistic parks

While the capacity addition at the waterfront is crucial for a faster turnaround, without a parallel strategic investment on the landside, any investment to augment capacities will languish due to storage/evacuation bottlenecks. Absence of a concrete plan for the development of much-needed physical infrastructure in the form of CFS (Container Freight Stations) and ICD (Inland Container Depots) to help a free flow of cargo to and from the gateways ports remains a concern area for Indian ports. While most ports have backup areas within port boundaries to setup covered/open storage yards for bulk cargo, container storage areas are concentrated in select pockets in line with the cargo flow. Development of ICDs, CFS, or logistics parks is primarily carried out by private sector (in pockets) instead of the government (as done abroad) leading to an inefficient setup. Due to bottlenecks, the transportation logistic cost is as high as 13%-14% of the GDP in India whereas in developed countries, it varies between 7%-8%. Hence the need of the hour is the creation of adequate storage and linkages with hinterland. Further with the likely growth in containerization due to ongoing projects like the development of new ports and dedicated freight corridors, it is imperative to have more ICDs, CFS, logistics parks, etc spread across the country in a uniform manner to develop an integrated logistic chain.

Revenue visibility: Ports must rope in captive customers

While the linkage of GDP with external trade might be high and provides an opportunity for port developers to enhance capacity, Indian entities, unlike their global peers, need to look inwards to ensure their revenues. Hence it is pertinent to highlight here that a port developer, especially a bulk cargo handling port, should tie up a portion of its capacity with a captive hinterland customer. Container centric ports must constantly strive to provide maximum value (through TAT and hinterland evacuation) to the liners/customers.

Cargo visibility crucial for developer interest in projects

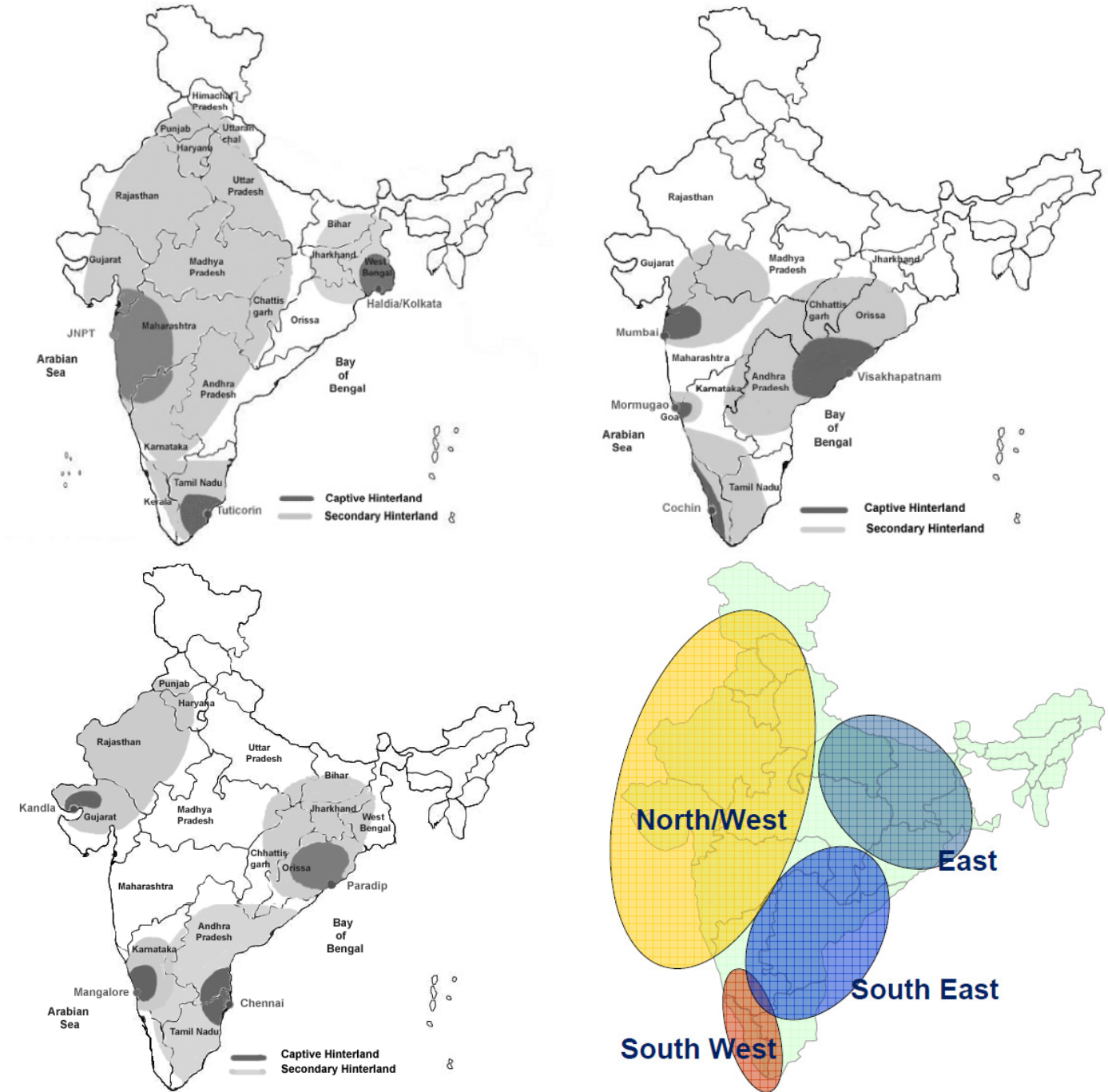
Like most other infrastructure assets, ports too are long gestation (longer payback periods) in nature since they are high capex oriented projects involving high gearing levels. Since most costs for an operational infrastructure asset are fixed, operating/financial leverage is a big value driver for these projects. Hence for a developer, visibility on traffic/capacity utilisation levels are an important consideration while bidding for projects.

Strategic location, catchment hinterland key for success

Proximity to key cargo generating region would improve offtake from ports. Therefore, a strategic location is one of the key success factors for any port. Regions which feed the port are categorized as primary, secondary and tertiary hinterlands, depending on the distance to/from the port.

The ports in Gujarat are at an advantage due to the proximity to large cargo generating hinterland including the state itself, Punjab, Haryana and key northern states whereas for ports in other states, the hinterland works out to be comparatively smaller. For example, for Tamil Nadu ports, the accessible hinterland includes Kerala and Karnataka which also have own ports.

Fig. 3: Hinterland for some key ports



Source: i-maritime, CRISIL, Edelweiss research

Anchor/captive customers provide cargo visibility

Anchor/captive customers shield ports from volatility in cargo

Private port companies have either tied up cargo under some kind of long term, take or pay contracts or have a good proportion of captive cargo (for captive industrial units) which render a fair amount of cargo visibility. This has been widely adopted by most of the minor/private ports to insulate themselves from the risk of volatility in cargo patterns.

Table 3: List of ports with key anchor customers

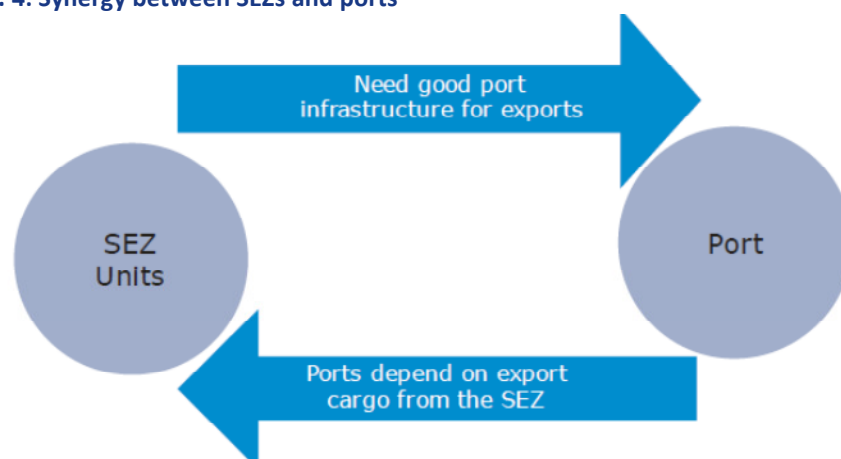
Ports	Cargo	Customers
Mundra	Container, coal, bulk	Adani Enterprises, IOCL, HPCL , TATA Power
Sikka	Crude oil,coal,fuel oil,ammonia, naphtha,phosphoris acid,petrol, LPG	GSFC, Digvijay Cement ,Reliance
Pipavav	Container, coal, fertilizer, other bulk	IFFCO,Ultratech ,Maersk, Safmarine
Essar	POL, coal, iron ore, steel, other dry bulk	Essar Oil, Essar Steel, Essar Power, IFFCO, Ultra tech Cement
Magdalla	Coal, steel,iron ore	RIL, Essar, KRIBHCO,NTPC,ONGC,L&T, Gujarat Ambuja
Kakinada	Crude	BPCL,HPCL,IOCL
Dahej	Coal, chemical, LNG,rock phosphate, urea,container,POL,chemical	Petronet LNG,Hindalco
Rawa	Crude oil, containerized cargo,general multi purpose cargo	HPCL
JNPT	Containers	IFFCO,Maharastra Fertilizer Company
Kandla	POL, coal, iron ore, steel, other dry bulk	GPPL, HPCL, NTPC
Mormugao	Iron ore	Sesa Goa , Chowgule
Chennai	Container, POL and iron ore	Chennai petroluem, TNEB
Paradip	Iron ore	Hindustan Steel, Jindal Steel, TATA Steel, Mittal Steel,Essar Steel

Source: Port websites, Edelweiss research

Ample synergies between SEZs and ports

Ports have synergistic benefits because of the interdependence between the SEZ and the port businesses. The multi-product export oriented units based out of the SEZ would require adequate logistic/port infrastructure for export of manufactured products while the port would need dedicated cargo coming in to maintain healthy utilization levels to be profitable. This combination of an SEZ feeding the port cargo is a win-win proposition for both entities which is why port based SEZs like Shenzhen in China and Chabahar in Iran are hugely successful. This trend is now catching up in India with the government becoming keen on setting up an SEZ at the JNPT port.

Fig. 4: Synergy between SEZs and ports



Source: Edelweiss research

Port based SEZs ensure cargo visibility

Minor ports enjoy flexibility in tariffs but government and major ports are regulated under TAMP

Table 4: Global port based SEZs

SEZ	Country	Size (sq Km)
Shenzhen SEZ	China	327
Suzhou Industrial Park	China	282
Shantou SEZ	China	234
Chabahar Free Zone	Iran	140
Zhuhai SEZ	China	121
Bandar Nusajaya Industrial Park	Malaysia	101

Source: Infrastructure Today, Edelweiss research

Tariff regulations: The unknown devil

While minor/non-major ports enjoy the flexibility of determining their port tariff, the same at government controlled major ports is regulated by an authority called TAMP, setup under the Ministry of Shipping.

TAMP

The Tariff Authority for Major Ports (TAMP) was constituted in April 1997 to provide for an independent regulator to control all port tariffs, both vessel related and cargo related, besides rates for lease of properties in respect of major ports and the private operators located therein. The Major Ports Trust Act, 1963, was amended by Port Laws (Amendment) Act 1997 to constitute the TAMP whose objective is to ensure a level playing field to all stakeholders; balance the interest of port users while providing fair return to operators.

In the Indian port sector, different regimes are followed for the determination of tariffs. The first tariff guidelines for the port sector were introduced in 1998 under which tariff caps were set on the basis of a cost plus approach for services provided by ports and private terminals. The cost plus approach was sustained in the subsequent guidelines introduced in 2005. The government allowed royalty/revenue share to terminals whose bidding process was completed before July 29, 2003, in such a manner so as to avoid a likely loss to the operator on account of the royalty/revenue share not being taken into account. This resulted in creating two categories of private operators under the 2005 tariff regime; one belonging to pre-29th July 2003 and the other post it.

Further, the Government, in an attempt to move towards a normative approach, brought in a new set of guidelines on 26th February 2008. The introduction of 2008 GL resulted in creating a third set of private operators as it stipulated that norms, thus set, will be reviewed every five years and if any changes are introduced, then the revised norms will be applicable for prospective bidders as well. This implies that the tariff regime would change every five years and there would be terminals operating in India under different tariff regimes.

As tariff at present is set under different regimes using totally dissimilar methodologies, there has been a growing feeling that tariff setting should be on a normative approach and (to the extent possible) these norms should be uniformly applied. In order to bring about a normative approach to tariff determination, the Ministry of Shipping felt the need to assess the feasibility of bringing players under the existing cost plus tariff regime of 2005 to a normative cost based regime.

Key rationales under the two approaches were:

2005: Based on actual volumes, actual costs and any gains/losses beyond the regulated return were shared in the ratio of 50:50 between the developer and the consumer by truing up in the next tariff cycle, leaving no incentives to the operator to operate in an efficient manner.

2008: Based on normative cargo volumes, normative costs with efficiency gains to be retained by the operator.

However, based on our interaction with industry sources, we believe that a new set of guidelines is being prepared to supersede existing norms. Recently, the regulator reduced tariffs by 25% - 40% in few projects even as operators were expecting a hike of 10% -25%. In addition, another key concern has been the move to regulate minor ports. While several state governments (including Gujarat) have objected to this (ports like power is a concurrent sector), Ministry of Shipping has initiated a dialogue to have a super monitoring body which would monitor all ports (both major and minor). Given that port charges in India are close to international levels, incremental projects would be bid on a competitive basis. As large scale investments are yet to take place in the sector, our interactions with industry/government officials rule out any unfavourable regulation in this space.

Table 5: TAMP regulations

S.No	Features	2005	2008
1	Approach	Actual cost + regulated returns	Normative cost + regulated returns
2	Applicability	Major port trust and private terminals for which bids were closed prior to 26th Feb. 2008	Terminals coming under PPP projects post 26th Feb. 2008
3	Tariff setting	Tariff is fixed for the existing terminal	Tariff is fixed upfront before the terminal is developed
4	Validity of tariff	3 years	5 years / Concession period of PPP projects
(Tariff Cycle)			
5	Tariff formulation		
	a) Traffic	Projected traffic based on annual / 5-year plans	a) Normative capacity: Based on number of equipments & performance norms
	b) Costs	Actual capex incurred so far and O&M based on the run rate	b) Based on normative levels
	c) Return	RoCE (changing annually) Based on net block (GB-Dep+Wcap) Subject to capacity utilisation of 60%	16% On gross block
	d) Debt : Equity	1:1	
6	Royalty/revenue share	Is allowed as pass through with riders	Is not allowed as pass through
7	Efficiency gains	50% of efficiency gains are retained by operator	All efficiency gain is retained by the operator
8	Escalation	WPI	60% of WPI
9	Additional capex	Allowed	Disallowed
10	Extraordinary exp.	VRS, pension or prior period liability	Allowed on a case to case basis over a specific period

Source: TAMP, Edelweiss research

Construction/execution: Risks galore

Among the infrastructure asset class, ports face the maximum execution risk due to the technical complexity involved in designing a project. The design involves complex structures like breakwaters, quay structures including fenders, heavy duty pavements and underwater dredging to suit technical specifications of different types of ships calling the ports. Hence port projects require expertise/specific skills in designing/oceanographic studies for successful and timely implementation. Thus, it is crucial for projects to get executed on time else they run the risk of time and cost overruns, making them unviable.

Capex benchmarks

Our interactions with industry officials as well as interpretation of regulatory orders indicate that unlike the power sector, benchmarking of capex costs for a port project is extremely difficult. The key reasons are as follows:

Dredging could be one of the high cost activities in a port capex. This includes creating the draft at the berth as well as at the approach/channel area to the berth. Dredging costs are not uniform across various port locations due to different levels of siltation, rocky bottoms, depth, etc. In addition, the hiring cost of dredgers varies from region to region.

Breakwater, as the term denotes, creates a man built barrier so that the varying sea/ocean currents do not cause disruption to ships at the berth by acting against ocean currents. This is typically built in an arc formation at a distance from the berth but perpendicular to sea/ocean. The breakwater is not required if the port is located at a bay/gulf area as the surrounding land acts as a natural breakwater.

Mechanisation: The equipment installed at the port helps improve the overall turnaround time of ships besides minimizing accidents caused due to non-mechanised cargo evacuation. The cost of these specialised equipments – normally known as cranes – depends on the kind of cargo as well as the extent of automation and speed of movement.

Civil works and other cargo specific structures – These are more land side development costs, largely of civil in nature. While berth costs are uniform, yard side developments could vary based on specific cargo handling needs. For eg: fertiliser/cement needs enclosed areas as well as baggage equipments.

Excluding breakwater and dredging, a greenfield port development would cost INR850mn-1050mn MT while a brownfield project would cost around INR400mn less than greenfield ports at current costs with a fairly advanced stage of mechanisation.

Numerous clearances stretch timeline for project commencement

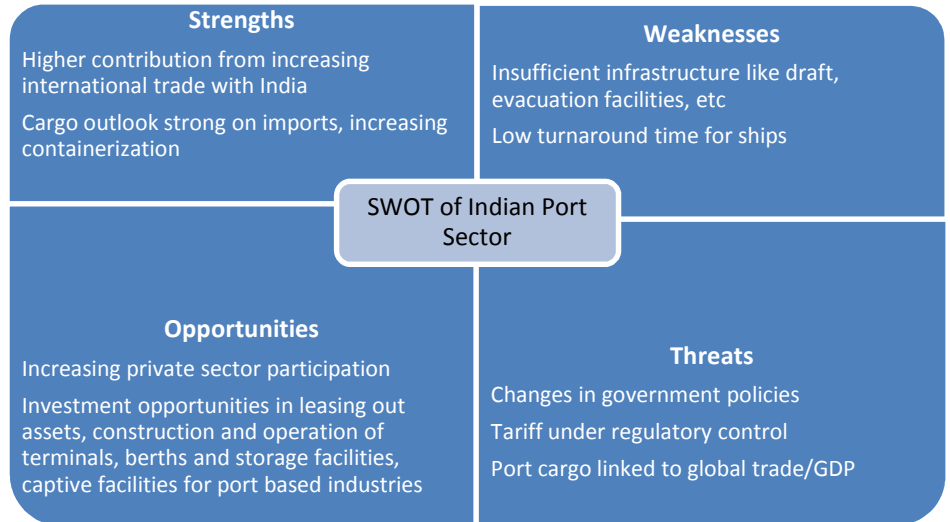
Like most infrastructure projects in India, the time taken from conceptualisation to construction is around five years while the construction itself would entail around three years. The reason for such a long period is the extent of clearances required from various government (both state and Central) agencies. There are around 12 clearances needed from the Central government and 14 from state agencies. Fortunately, many of them are needed prior to construction phase hence most of the paper work for clearances can be pursued simultaneously. Please refer Annexure for the list of prominent clearances, the relevant authorities/agencies and the required timeframe for setting up a port project.

Breakwaters and dredging are highly capex intensive

Construction phase would entail around 2-3 years after receiving the required clearances

The most critical clearance is the environmental/forest clearance from the Central as well as state governments. This, we believe, would take around 18 months under normal circumstances. The second most important clearance is the coastal regulation zone (CRZ) clearance, also issued by MoEF. In addition to these, state pollution control boards also need to clear adherence to emission norms. Normally, most of these clearances are project specific and pertain to specific capacity levels. Any expansion/alteration requires additional clearances even though the same is being pursued within the same land acre/acreage. Also in specific cargo terminals like CNG, separate approvals are required from environmental agencies.

Fig. 5: A SWOT of Indian port sector



Source: Edelweiss research

Key risks for the sector

Infrastructural bottlenecks: Evacuation of cargo through rail or road is the key infrastructure requirement for efficient operations of a port. In India, unlike other countries, evacuation via road is greater than through rail. One of the key reasons for this is that most of the key rail routes are operating at or beyond 100% utilization level and the capex to decongest this is not happening at a faster clip. With sizeable primary hinterland customers/captive cargo, most of the existing ports/terminals are not facing an impact currently though if the capacity does not come up within the next 4-5 years, the sector would face severe growth issues.

Shortage of skilled manpower: As ships expand size and become larger and larger, more and more efficient equipment is required to unload cargo to ensure shorter TAT at Indian ports. However, since these sophisticated equipments are largely imported, the skilled manpower to operate these and achieve optimal results is limited. Even though there have been several moves to setup institutes to train the manpower, the requirement has become significant with the privatisation picking up.

Delay in award of port projects: The capacity expansion programme at major ports, through the PPP route, has not seen a big success since last several years for failing to meet targets. This could be attributed to unending litigations in the award process, regulatory issues and delays in getting environmental/security clearances for the projects. As a result, the government has consistently lagged behind in meeting capacity addition targets.

Increased competition: Given the snail's pace at which projects are getting awarded, developers have gone aggressive in their bids for want of projects, making them commercially unviable in some instances. If the same situation continues then like witnessed in some other infrastructure sectors, investors might shy away ports too.

Lack of single window for approvals: Development of a port in India requires a long list of clearances which is highly time consuming. The sector needs single window clearances so as to expedite approvals which will ensure faster project execution as well.

GDP/trade growth: Port cargo is highly dependent on global trade, having a strong correlation with the global GDP. Even though India is largely an import-oriented market, our cargo growth gets impacted whenever there is a recessionary environment in the Western world. This also affects port charges as developers tend to defer annual hikes which further exert pressure on their earnings/valuations.

Regulations: Ministry of Shipping has often sought to introduce tariff related regulations even for non-major ports. If the same is done, then earnings as well as valuations of all listed companies could get severely impacted.

ADANI PORTS AND SEZ

The growth anchor

India Equity Research | Ports



Adani Ports and SEZ (APSEZ) has laid down the template for success in the Indian port sector. Historically APSEZ's cargo has been impervious to the volatility in global trade which is set to continue given the strong visibility of cargo through upcoming projects and shift in cargo on delay in capacity addition at the major ports. Given that Abbot is likely to breakeven by FY14 and the strong business fundamentals we believe stock trades at attractive valuations. Maintain 'BUY' with TP of INR158.

Flagship Mundra Port's cargo outlook bright

APSEZ's flagship port, Mundra, with a diversified cargo profile and a judicious mix of take-or-pay contracts, captive and spot cargo has excellent revenue visibility. The robust business model is one of the key reasons behind the company tiding over the impact of cargo slowdown and its resilience during the global recession. Commissioning of power/refinery projects bolsters the strong cargo outlook at the flagship port. Further, past container growth momentum will continue going ahead as well on account of the delay in capacity addition at JNPT. We expect the port to handle ~100MT cargo by FY14E (64MT in FY12), i.e., CAGR of 25%.

Abbot breakeven likely by FY14; other ports ready to set sail

The 50mtpa Abbot Point Coal Terminal (APCT), which was acquired for AUD1.8bn, is expected to breakeven/post marginal loss in FY14 on scale up in coal volumes expected to kick in from the take-or-pay agreements. Further, in FY16 the port is expected to handle 50MT cargo, generate revenue of ~AUD300mn and EBITDA of ~AUD200mn. With the company's most under-implementation projects getting operational, we expect them to start contributing to growth going ahead while APSEZ continues to augment capacity to broaden its footprint across India and abroad.

Outlook and valuations: Attractive; maintain 'BUY'

The APSEZ stock has been under pressure on concerns related to security clearance being denied for incremental project bids/awards, profitability of the APCT, and its value to minority shareholders. At CMP of INR113/share, the stock trades at an attractive 12.0x and 9.3x FY13E and FY14E EV/EBITDA, respectively. With a likely PAT CAGR of 25% over FY12-14E, we believe the stock deserves a higher multiple and maintain 'BUY/SO' with SOTP-based target price of INR158/share.

Financials (Consolidated)

Year to March	FY11	FY12	FY13E	FY14E
Revenue (INR mn)	20,001	32,708	46,441	57,881
EBITDA (INR mn)	12,994	20,653	31,184	37,910
Net profit (INR mn)	9,181	11,021	12,292	17,014
EPS (INR)	4.6	5.5	6.1	8.5
P/B (x)	5.4	4.7	3.9	3.1
EV/EBITDA (x)	20.0	18.4	12.0	9.3
ROAE (%)	24.0	24.5	23.0	25.8

EDELWEISS 4D RATINGS

Absolute Rating	BUY
Rating Relative to Sector	Outperformer
Risk Rating Relative to Sector	Medium
Sector Relative to Market	Equalweight

MARKET DATA (R: APSE.BO, B: ADSEZ IN)

CMP	: INR 114
Target Price	: INR 158
52-week range (INR)	: 169 / 105
Share in issue (mn)	: 2,003.4
M cap (INR bn/USD mn)	: 227 / 4,088
Avg. Daily Vol.BSE/NSE('000)	: 1,412.6

SHARE HOLDING PATTERN (%)

	Current	Q4FY12	Q3FY12
Promoters %	77.5	77.5	77.5
MF's, FI's & BK's	4.8	4.9	4.9
FII's	10.5	10.2	10.6
others	7.1	7.4	7.0
* Promoters pledged share (% of share in issue)	:		NIL

PRICE PERFORMANCE (%)

	Stock	Nifty	EW Power Index
1 month	(8.0)	0.1	3.1
3 months	(9.7)	5.8	11.5
12 months	(29.4)	4.2	(13.7)

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September 7, 2012

Laying the growth blue print

APSEZ has laid down the template for success in the Indian business environment. The company began trial operations at its flagship port in 1998 and commenced commercial operations in fiscal 2002 with a 12.5MT multipurpose terminal rather than specific terminals done in any other ports. Further it extended services in crude oil and containers under sub concession to P&O of Australia, now taken over by DP World, which instilled credibility among the international shipping lines. Gradually, it ramped up capacity, on increasing cargo volumes. Cargo-specific terminals were added only subject to long-term agreements with take-or-pay contracts (Tata Power and Adani Power for coal, IOC and HPCL for crude, and MSC for containers). Due to this, we find that the cargo handled by the port will increase from 40MT in FY10 to ~100MT in FY14E, ~26% CAGR.

With an aim to diversify locational risk as well participate in the rising bulk commodities business, the company started bidding for ports / terminals in other parts of India. With limited ports being bidded out at reasonable/attractive levels, the company started exploring overseas markets for growth. Abroad as well, the strategy continues to be in line with India, wherein it undertakes projects where there is cargo visibility / take-or-pay agreements. The acquisition of APCT in 2011 was in line with this strategy.

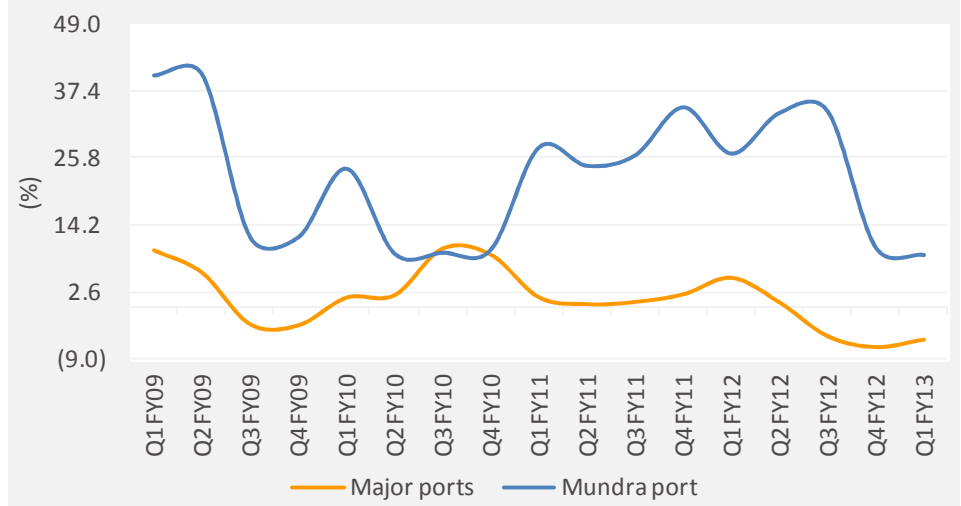
Hence, we believe APSEZ's cargo is impervious to the volatility in global trade because of sizeable volume commitments from its primary customers / take-or-pay contracts. This will not only impart it scale of operations, but also lend significant earnings visibility. Internal accruals should be sufficient to fund expansion of its under-development ports, which are likely to be operational over the next two-three years. The scale up of APCT from 21MT in FY12 to ~34MT in FY14 will also eliminate the negative cash flow impact (due to the leveraged buyout).

This robust business model we believe is one of the key reasons behind the company tiding over the impact of cargo slowdown and showing resilience during global recession.

Cargo outlook at flagship Mundra Port bright

The impact of the global economic recession during FY09 was evident in the slowdown in Indian trade, which was reflected in decline in cargo during Q3/Q4FY09 at major Indian ports. However, Mundra Port's growth, despite handling a fairly high proportion of spot cargo in Q4FY09, continued to be healthy (albeit lower than previous quarters). The trend has been mirrored during the recent global slowdown where major ports have been posting YoY decline in cargo, whereas Mundra Port continues to post double digit growth. One of the key reasons behind the port's out performance is the superior quality of service backed by spare capacity (aiding no pre-berthing delays and faster turnaround while major ports continue to choke due to lack of capacity addition) and strategic location advantages enjoyed by the port. These insulate the port from volatility in global trade.

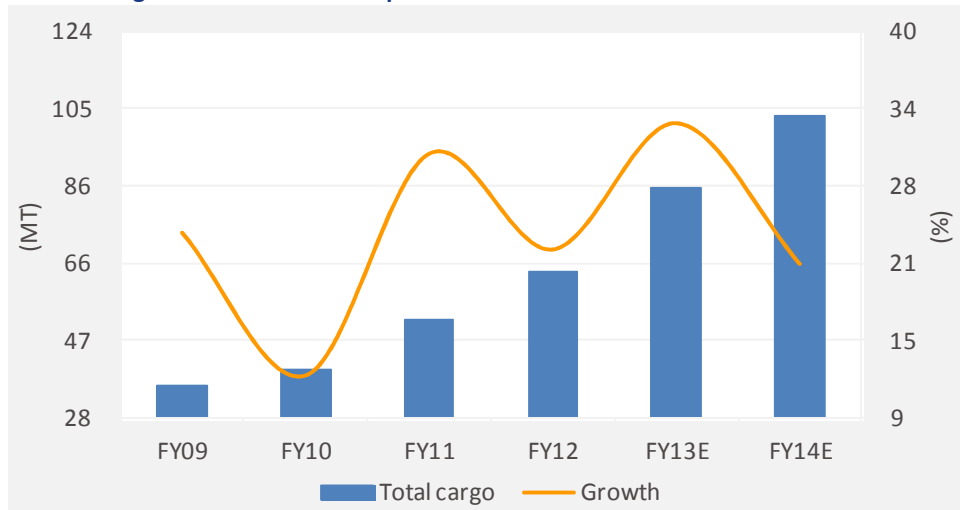
Chart 1: YoY cargo growth at major ports and Mundra port



Source: Company, IPA, Edelweiss research

Further, this flagship port’s cargo outlook is robust on back of commissioning of HPCL’s 8mtpa GGSRL refinery in Bhatinda and Tata Power’s 4,000MW UMPP in Mundra. Container cargo is also expected to maintain growth momentum due to the delay in capacity addition at the JNPT 4th terminal (the terminal, which was awarded to PSA-ABG consortium, has been delayed due to legal issues). To capitalise on this opportunity APSEZ is developing a mega container terminal in the newly developed South basin with annual capacity to handle 1.5mTEUs. These factors will aid cargo growth and we expect the port, which handled 64MT cargo in FY12, to handle ~100MT by FY14E, i.e., 25% CAGR.

Chart 2: Cargo handled at Mundra port



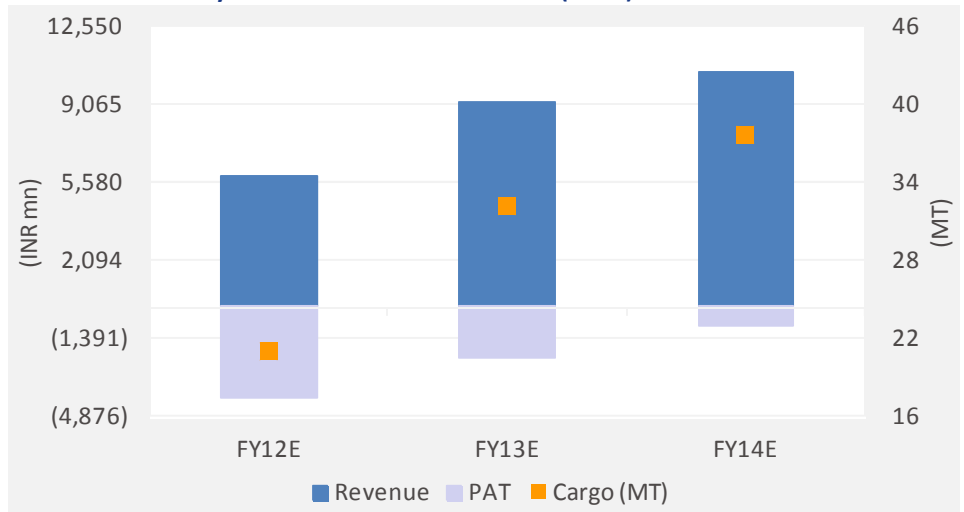
Source: Company, Edelweiss research

Abbot likely to breakeven by FY14; other ports ready to set sail

APSEZ had acquired the 50mtpa (X50 coal terminal) APCT located in Queensland (Australia) in May 2011 for AUD1.8bn. It is a modern highly mechanised, deep-water, high volume, fast turnaround port facility capable of handling capsized vessels over 200K DWT with a commitment to export 50MT coal by FY16 under take-or-pay arrangements. While the port

handled only ~ 12MT of coal during FY12 as against a higher take-or-pay of agreement of ~21MT (lower mine output due to floods, etc) the company has booked revenues against the entire take or pay quantity for the year. But higher depreciation (for entire capacity of 50 mtpa) and interest (entirely on the USD 2bn outstanding for acquiring the asset) outgo has lead to losses at the Abbot port for the year. With higher coal volumes expected to kick in from the take-or-pay agreements, we expect the APCT to breakeven/post marginal loss in FY14. Further, in FY16E the port is expected to handle 50MT cargo and earn revenue of ~AUD300mn and EBITDA of ~AUD200mn.

Chart 3: Profitability of Abbot Point Coal Terminal (APCT)



Source: Company, Edelweiss research

APSEZ, which had embarked on ambitious projects to enhance handling capacity at the flagship port and diversify its regional presence, has successfully commissioned most of the projects in the past six-eight months with a couple of projects (Mormugao and Hazira) ready for operations anytime soon. These projects will start contributing to growth going ahead. Future development projects will continue to augment coal/container handling capacity at existing ports and help the company expand its footprint across India and abroad.

Table 1: APSEZ - Projects and their current status

Project/Port	Current status
Recently operational	
Coal terminal, Mundra port	Commissioning of West Basin berth WB-3 on 15th April 2011 which puts the capacity to 60mtpa
Multi purpose, Mundra port	Commissioning of Berth 9 in August 2011 and 10 in January 2012 at Terminal-3
Dahej port	Phase I which commenced in August 2010 was expanded to 20mtpa in January 2012
HMEL SPM, Mundra port	Commissioned on July 20, 2011, and ready for handling crude for HMEL refinery
Abbot Point, Australia	Successful bidder for 50mtpa port for AUD 1.8bn and refinanced the one year bridge facility
Under construction	
Murmugao port	Coal terminal developed under BOOT to be operational in FY13
Hazira port	Construction of 1 container and 1 multipurpose berth, to begin phase 1 operations by H2FY13
Under development	
Coal terminal, Mundra port	Fourth berth in West Basin capable of handling 250,000 DWT vessels
Container terminal, Mundra port	Phase I facility of South Basin handling 1.5 mnTEUs in JV with MSC
Vizag port	Coal terminal under BOOT
Kandla port	Dry bulk terminal under BOT off Tekra near Tuna

Source: Company, Edelweiss research

Outlook and valuations: Attractive; maintain 'BUY'

The stock has been under pressure on concerns related to security clearance being denied for incremental project bids/awards, profitability of APCT, and its value to minority shareholders. However, given that business fundamentals are intact, we believe the stock price correction has been overdone. At CMP of INR113/share, the stock trades at an attractive 12.0x and 9.3x FY13E and FY14E EV/EBITDA, respectively. With a likely PAT CAGR of 25% over FY12-14E, we believe the stock deserves a higher multiple and maintain 'BUY/SO' with SOTP-based target price of INR158/share.

Table 2: SOTP valuations

	Method	CoE (%)	Value (INR mn)	Stake (%)	Value of stake (INR mn)	Price per share (INR)	% age of SOTP (%)
Mundra Port	DCFE	12.8	222,178	100.0	222,178	110.9	70.3
SEZ	DCFE	18.8	20,903	100.0	20,903	10.4	6.6
Dahej Port	DCFE	13.4	22,211	74.0	16,436	8.2	5.2
Mormugao Terminal	DCFE	13.4	6,005	100.0	6,005	3.0	1.9
Hazira Port	DCFE	13.4	16,759	100.0	16,759	8.4	5.3
Abbot Point	DCFE	14.7	18,439	100.0	18,439	9.2	5.8
ALL	P/BV	2x FY12	6,237	100.0	6,237	3.1	2.0
Cash	FY13E Book		8,947	100.0	8,947	4.5	2.8
Total			321,680		315,905	158	100.0

Source: Edelweiss research

Company Description

APSEZ (Mundra Port SEZ earlier), incorporated as Gujarat Adani Port on May 26, 1998, began commercial operations in October 2001, post entering into concession agreement with GMB to build, operate and maintain the port for 30 years till 2031, extendable by another 20 years. The port provides cargo handling services for bulk, crude, and container cargo. The company has also received approval to develop the adjacent port land as a multi-product SEZ. Notification has been issued to ~16,000 acres of land while the company is in talks to acquire more land to add to its SEZ portfolio. While the company is also bidding for other domestic and international port projects, it has also invested in value-added services like logistics support, container rail services, and inland container depots to diversify from its core port business.

Investment Theme

APSEZ, under the aegis of parent Adani Enterprises, has been instrumental in developing a deep draft gateway port and SEZ strategically on the West coast of India with state-of-the-art infrastructure and capability to handle diversified cargo. Since inception, the company has posted 35% CAGR and handled ~64MT cargo in FY12, higher than most other major Indian ports. Also, it has hedged cargo uncertainty risk by getting into long-term service contracts (45% of total cargo to be handled in FY14E). Such a third generation port acting as one-stop-shop for export/import logistics is in a unique league of ports and one of its kinds in India. The company has a robust portfolio of projects on the Indian West coast other than the flagship Mundra Port. These projects will help the company gain pan-India presence. It has also been scouting for opportunities to go global and has recently evinced interest in port development projects in Australia and Indonesia, in line with its long-term strategy.

Key Risks

Uncertainty in traffic at ports

Since cargo at ports is contingent on international trade, any slowdown in it could affect Mundra Port as well. APSEZ is hedged to some extent from the traffic risk because of the take-or-pay agreements which constitute about 45% of the cargo going ahead.

Regulatory changes regarding SEZs

Government's current SEZ policies and benefits to promote exports are relatively new and are being continuously reviewed. Any changes in the form of reversal of current tax benefits to units under the SEZ umbrella will significantly undermine incentives for industries to set up units in the SEZ, hampering current plans of land sale. Land parcel sale at the SEZ is yet to pick up.

Execution risk in international projects

Although the company has been successful in port projects implemented in India (largely Gujarat), we need to watch out for the execution in and profitability of its international ventures as well the East coast of India. APSEZ is planning to leverage its captive group business—Adani Enterprises' mining operations and Adani Power's coal imports—to provide assured cargo visibility and thereby minimise risks associated with a greenfield venture.

Financial Statements

Key assumptions

Year	FY10	FY11	FY12	FY13E	FY14E
Macro					
GDP(Y-o-Y %)	8.4	8.4	6.5	6.4	7.0
Inflation (Avg)	3.6	9.9	8.8	7.0	6.0
Repo rate (exit rate)	5.0	6.8	8.5	7.3	6.8
USD/INR (Avg)	47.4	45.6	47.9	53.5	50.0
Company					
Mundra cargo handled (MT)	40.2	52.3	64.0	84.9	103.0
Average realisation (INR/t)	291.1	343.1	347.8	355.5	369.1
Consol. EBITDA margin (%)	63.2	64.6	65.0	63.1	67.1
SEZ land sold (Acre)	150.0	10.0	40.0	300.0	100.0

Income statement

(INR mn)

Year to March	FY10	FY11	FY12	FY13E	FY14E
Total revenues	14,955	20,001	32,708	46,441	57,881
Cost of Operations	3,789	5,321	9,015	11,491	15,592
Staff cost	595	798	1,243	1,430	1,672
Other operating expenses	909	888	1,797	2,336	2,708
Total expenditure	5,293	7,007	12,056	15,257	19,972
EBITDA	9,663	12,994	20,653	31,184	37,910
Depreciation and Amortisation	1,868	2,388	4,630	6,937	7,361
EBIT	7,795	10,606	16,022	24,247	30,548
Interest	559	880	4,796	10,756	11,323
Other income	321	309	596	35	35
PBT	7,556	10,036	11,822	13,526	19,260
Provision for tax	601	874	896	1,225	2,059
Core profit	6,955	9,162	10,927	12,301	17,201
Profit after minority interest	6,760	9,181	11,021	12,292	17,014
Shares outstanding (mn)	2,003	2,003	2,003	2,003	2,003
EPS (INR) fully diluted	3.4	4.6	5.5	6.1	8.5
Dividend per share	0.7	0.9	1.0	1.0	1.0
Dividend payout (%)	20.8	19.6	18.2	16.3	11.8

Common size metrics- as % of net revenues

Year to March	FY10	FY11	FY12	FY13E	FY14E
Operating expenses	35.4	35.0	36.9	32.9	34.5
EBITDA margins	64.6	65.0	63.1	67.1	65.5
Net profit margins	46.5	45.8	33.4	26.5	29.7

Growth metrics (%)

Year to March	FY10	FY11	FY12	FY13E	FY14E
Revenues	25.2	33.7	63.5	42.0	24.6
EBITDA	27.9	34.5	58.9	51.0	21.6
Net profit	53.7	31.5	20.0	11.5	38.4
EPS	56.3	35.8	20.0	11.5	38.4

Ports

Balance sheet						(INR mn)
As on 31st March	FY10	FY11	FY12P	FY13E	FY14E	
Share capital	4,035	4,035	4,035	4,035	4,035	
Reserves & surplus	30,504	37,864	44,350	54,638	69,649	
Shareholders funds	34,539	41,899	48,385	58,673	73,684	
Minority interest	822	987	1,349	1,358	1,545	
Secured loans	31,814	35,669	154,462	158,927	157,000	
Unsecured loans	5,248	256	10,052	10,052	10,052	
Borrowings	37,062	35,925	164,514	168,979	167,052	
Deferred Revenue	6,291	6,121	6,187	6,187	6,187	
Deferred Tax Liability	2,817	3,468	15,203	15,203	15,203	
Sources of funds	81,629	88,400	235,638	250,401	263,672	
Gross block	56,342	73,738	188,014	214,504	238,626	
Less : Depreciation	7,842	10,229	14,860	21,796	29,157	
Net block	48,500	63,508	173,154	192,708	209,469	
Capital work in progress	19,183	21,174	36,377	23,901	6,602	
Total fixed assets	67,682	84,683	209,531	216,610	216,071	
Investments	2,219	666	697	697	697	
Inventories	316	423	691	881	1,195	
Sundry debtors	1,764	2,849	3,339	4,832	6,022	
Cash and equivalents	9,997	2,515	11,184	22,443	42,488	
Loans and advances	4,471	2,444	14,105	14,105	14,105	
Other current assets	643	1,201	8,526	8,526	8,526	
Total current assets	17,191	9,433	37,844	50,785	72,335	
Sundry creditors and others	4,754	5,736	19,794	25,050	32,791	
Provisions	740	1,050	3,960	3,960	3,960	
Total CL & provisions	5,494	6,786	23,754	29,010	36,752	
Net current assets	11,698	2,647	14,090	21,775	35,584	
Uses of funds	81,629	88,400	235,638	250,401	263,672	
Adjusted book value per share (BV)(INR)	17	21	24	29	37	

Free cash flow						(INR mn)
Year to March	FY10	FY11	FY12P	FY13E	FY14E	
Net profit	6,760	9,181	11,021	12,292	17,014	
Depreciation	1,868	2,388	4,630	6,937	7,361	
Deferred tax	521	651	0	0	0	
Others	37	(2,262)	(8,204)	10,731	11,475	
Gross cash flow	9,185	9,958	7,447	29,959	35,850	
Less: Changes in W. C.	(1,309)	(2,127)	(4,550)	(3,574)	(6,237)	
Operating cash flow	10,495	12,085	11,997	33,533	42,087	
Less: Capex	18,287	19,388	129,479	14,015	6,823	
Free cash flow	(7,792)	(7,303)	(117,482)	19,518	35,264	

Cash flow metrics					
Year to March	FY10	FY11	FY12P	FY13E	FY14E
Operating cash flow	10,495	12,085	11,997	33,533	42,087
Financing cash flow	6,949	(5,279)	129,763	(8,294)	(15,253)
Investing cash flow	(18,057)	(9,704)	(138,760)	(13,980)	(6,788)
Net cash flow	(613)	(2,899)	3,000	11,258	20,046
Capex	(18,287)	(19,388)	(129,479)	(14,015)	(6,823)
Dividends paid	(1,404)	(1,803)	(2,003)	(2,003)	(2,003)

Profitability & liquidity ratios

Year to March	FY10	FY11	FY12P	FY13E	FY14E
ROAE (%)	21.9	24.0	24.5	23.0	25.8
ROACE (%)	10.8	12.7	9.9	10.0	11.9
Current ratio	3.1	1.4	1.6	1.8	2.0
Debtors (days)	50	42	35	32	34
Average fixed assets t/o (x)	0.4	0.4	0.3	0.3	0.3
Average working capital t/o (x)	14.8	21.8	21.5	41.5	(15.3)
Average capital employed t/o (x)	0.2	0.2	0.2	0.2	0.2
Debt / Equity	1.1	0.9	3.4	2.9	2.3
Debt/EBITDA	3.8	2.8	8.0	5.4	4.4
Adjusted Debt/Equity	1.1	0.9	3.4	2.9	2.3

Operating ratios

Year to March	FY10	FY11	FY12P	FY13E	FY14E
Total asset turnover	0.2	0.2	0.2	0.2	0.2
Average fixed assets t/o (x)	0.4	0.4	0.3	0.3	0.3
Equity turnover	0.5	0.5	0.7	0.9	0.9

Valuation parameters

Year to March	FY10	FY11	FY12P	FY13E	FY14E
Diluted EPS (INR)	3.4	4.6	5.5	6.1	8.5
Y-o-Y growth (%)	56.3	35.8	20.0	11.5	38.4
CEPS (INR)	4.2	5.5	7.8	9.6	12.2
Diluted P/E (x)	33.5	24.6	20.5	18.4	13.3
Price/BV(x)	6.6	5.4	4.7	3.9	3.1
EV/Sales (x)	16.8	13.0	11.6	8.0	6.1
EV/EBITDA (x)	26.1	20.0	18.4	12.0	9.3
Dividend Yield (%)	0.6	0.8	0.9	0.9	0.9

Peer comparison

Name	Price (INR)	Market cap (INR mn)	P/BV(x)		EV/EBITDA(x)		RoE (%)	
			CY12/FY13	CY13/FY14	CY12/FY13	CY13/FY14	CY12/FY13	CY13/FY14
Adani Ports and SEZ	113	226,267	3.9	3.1	12.0	9.3	23.0	25.8
Gujarat Pipavav port	49	23,689	1.2	1.1	14.0	12.3	7.1	9.3
Essar Ports	87	37,082	1.5	1.3	8.9	6.9	11.8	14.6

Source : Edelweiss research

ESSAR PORTS

Berthing for growth

India Equity Research | Ports



Edelweiss
Ideas create, values protect

Essar Ports (EP) is set to deliver 41% adjusted earnings CAGR over FY12-14E fuelled by scale up in capacity of its group companies Essar Steel, Essar Oil and Essar Power, with whom it has take-or-pay contracts. Robust operational performance has helped the company deliver superior margins. Additionally, benefits of financial leverage and external cargo handling will propel the port's earnings in FY15. Initiate coverage with 'BUY'.

Pure play port assets with steady cash flow on captive cargo

Essar Shipping Ports & Logistics demerged from the highly cyclical shipping business, making it one of the pure play port asset companies in India with steady cash flow backed by strong take-or-pay contracts with group companies. With the timely scale up of group company capacities, cargo handled is expected to more than double from 43MT in FY12 to 106MT by FY15E, i.e. CAGR of 35% in the coming years, making it the second largest port company in India. EP is strategically present on both East (Paradip-2 berths) and West (Hazira, Vadinar, and Salaya) coasts handling (inward and outward) diverse set of cargo including iron ore, finished steel, coal, petroleum related products.

Robust operations; third party cargo to facilitate diversification

EP has been consistently reporting superior EBITDA margin on account of high mechanisation and captive nature of cargo handled at its ports. While group company cargo imparts long-term visibility, the possibility of handling third party cargo at Hazira, Salaya, and Paradip, that are close to the highly industrialised area, will help the company capitalise on diversifying its customer base.

Outlook and valuations: Robust; initiate coverage with 'BUY'

We believe the business model, which entails low routine capex, take-or-pay contracts, and increase in cargo handled (through both captive and third party), will support robust return ratios going forward. With most port capex being concluded and ramp up of capacities of sister companies, EP's earnings growth is expected deliver 41% adjusted earnings CAGR over FY12-14E. At CMP of INR87/share, the stock trades at an attractive 8.9x and 6.9x FY13E and FY14E EV/EBITDA, respectively. We initiate coverage on the stock with a 'BUY' recommendation and SOTP based TP of INR110/share.

Financials (Consolidated)

Year to March	FY11	FY12E	FY13E	FY14E
Revenue (INR mn)	7,050	11,088	14,678	17,999
EBITDA (INR mn)	5,094	8,910	10,681	12,722
Net profit (INR mn)	285	1,931	2,745	3,841
EPS (INR)	0.7	4.5	6.4	9.0
P/B (x)	1.6	1.7	1.5	1.3
EV/EBITDA (x)	15.6	9.8	8.9	6.9
ROAE (%)	0.5	8.8	11.8	14.6

EDELWEISS RATINGS

Absolute Rating	BUY
Investment Characteristics	Growth

MARKET DATA (R: ESRS.BO, B: ESRS IN)

CMP	: INR 87
Target Price	: INR 110
52-week range (INR)	: 103 / 46
Share in issue (mn)	: 427.9
M cap (INR bn/USD mn)	: 37/ 668
Avg. Daily Vol.BSE/NSE('000)	: 198.4

SHARE HOLDING PATTERN (%)

	Current	Q4FY12	Q3FY12
Promoters %	80.3	83.7	83.7
MF's, FI's &	0.1	0.1	0.1
FII's	8.0	8.3	8.3
others	11.6	7.9	7.9
* Promoters pledged share: (% of share in issue)	:		10.4

RELATIVE PERFORMANCE (%)

	Sensex	Stock	Stock over Sensex
1 month	0.5	(12.4)	3.0
3 months	5.8	(2.8)	18.0
12 months	3.0	(18.0)	15.0

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September 7, 2012

Investment Rationale

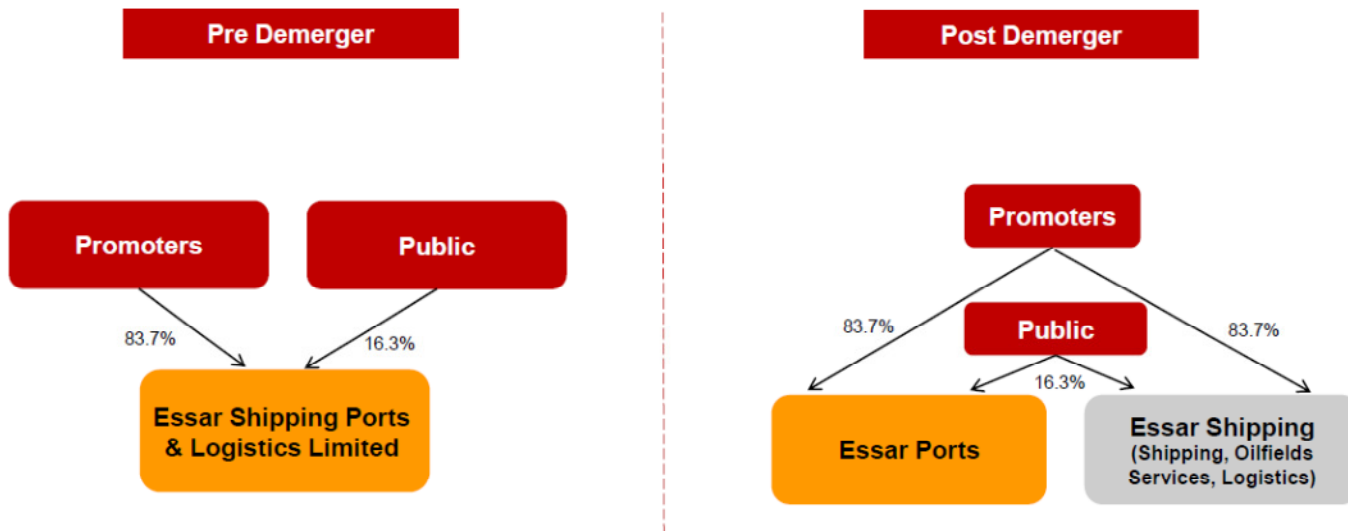
In the right place at the right time

In line with our thematic argument, we find that EP is ideally placed to encash the growth opportunity in India. With largely bulk cargo-centric across its five ports, the company has assured cargo visibility due to its take-or-pay contracts with group firms (Essar Steel, Essar Oil and Essar Power), which will account for ~80% of cargo handled in FY15E. From current capacity of 88MT, the scale up to 158MT by FY15E is rightly timed to meet expansions at each of its sister companies, leading to volume CAGR of 35% between FY12 and FY15E. Encashing on its presence on both East and West coasts of India handling (inward and outward) diverse set of cargo including iron ore, finished steel, coal, petroleum related products, the company plans to handle external cargo and thereby maximise RoEs.

Pure play port assets with steady cash flows

Essar Shipping Ports & Logistics, pre-demerger, was the logistics arm of the Essar Group providing end-to-end logistic support to the group’s steel, oil refining, and power arms. While the core businesses thrived, the logistics business, being the enabler (on account of increasing movement of raw material and finished products) of the growing scale became one of the prominent companies in the group’s portfolio. The company at the time of demerger had port assets (76 mtpa of capacity), a fleet of shipping vessels, rigs (submersible and jack up) and inland logistic infrastructure. Given the cyclical nature of the shipping business earnings tend to be volatile due to the uncertainty in revenue (dependent on BDI which is a global index driven by supply/demand in vessel/commodity capacity) and costs (majority of which is linked to crude prices).

Fig 1: Essar Shipping Ports & Logistics pre and post demerger



Source: Company, Edelweiss research

The demerger of Essar Shipping Ports & Logistics into a port company, EP, and a shipping company, Essar Shipping, has helped create a pure-play port company which has a predictable cost and steady cash flow. The demerger has also helped the company unlock value in the highly stable ports business on account of stable port tariffs and high operating

leverage nature of the business, which benefits with growing scale. The demerger has provided increased flexibility which has enabled the company to focus on the ports and terminals business which has tremendous growth and profitability potential.

From second largest private port to second largest port company

EP, which handled 43MT cargo in FY12, is the second largest private port company in India after APSEZ (Adani ports). Cargo handled at its ports is expected to more than double to 106MT by FY15E, i.e., 35% CAGR volume growth, on back of robust growth in group companies' cargo and new capacities coming on stream.

Chart 1: FY12 rank of ports by cargo volume

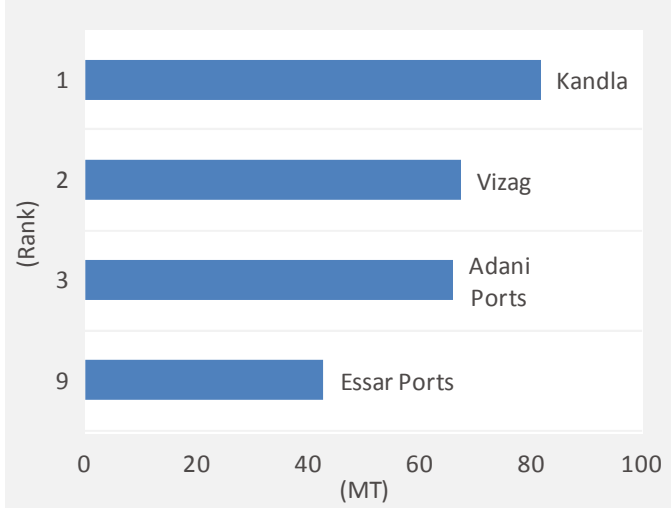
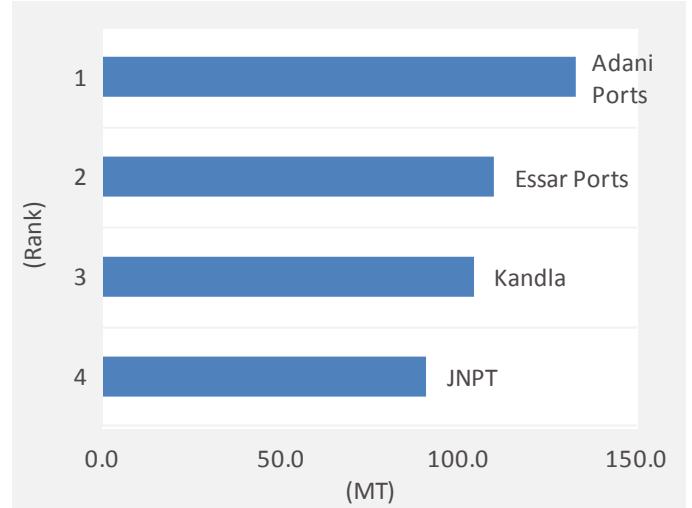
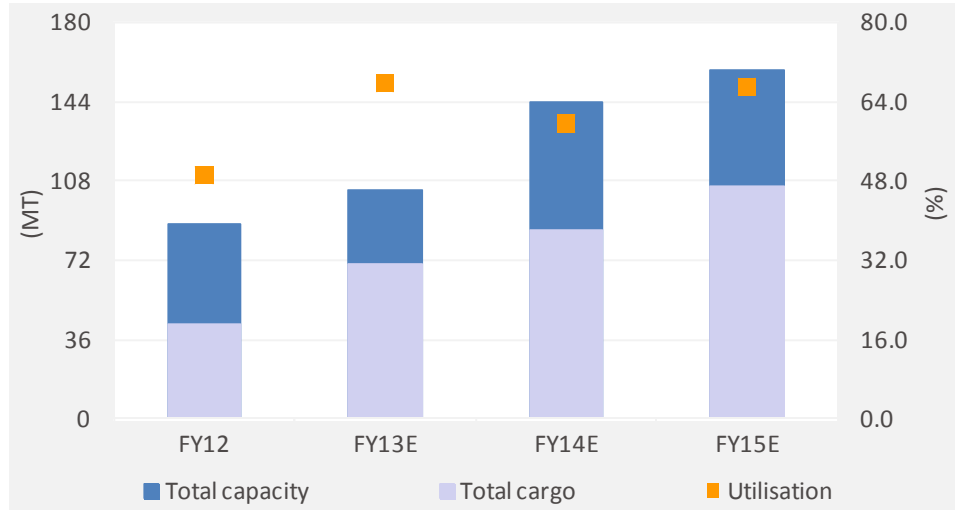


Chart 2: FY15E rank of ports by cargo volume



Source: Company, MoS, Edelweiss research

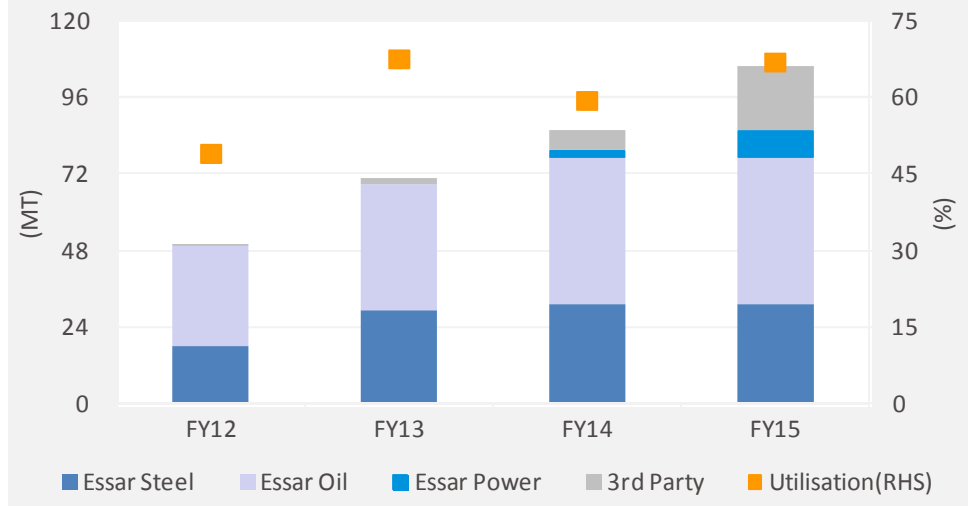
Chart 3: Capacity and cargo growth at Essar Ports



Source: Company, Edelweiss research

Additionally, what is more comforting is that most of this cargo off take is structured under take-or-pay contracts, which reduces the risk of any delay in group company projects.

Chart 4: Take-or-pay contracts with group companies

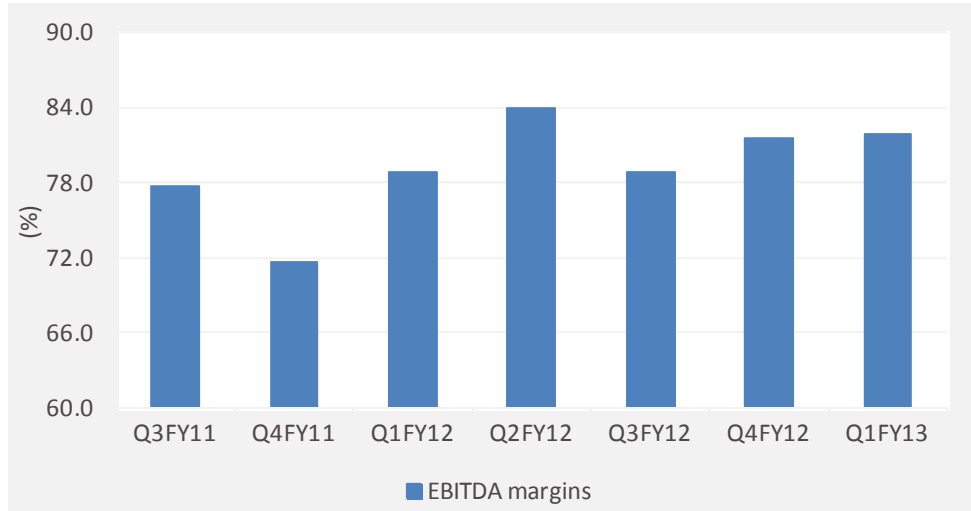


Source: Company, Edelweiss research

Robust operations; third party cargo to facilitate diversification

Given the type of cargo (largely liquid and bulk cargo) handled and high level of mechanisation at its ports, EP has consistently reported superior EBITDA margin vis-à-vis the industry average. Further, the captive nature of cargo which is transported to group companies located in the vicinity of the port (either via pipelines or conveyor belts) has aided margin expansion. However, with third party share of cargo set to increase going forward, we believe there is a possibility of moderation in margins unless higher realisations offset the increase in costs.

Chart 5: Superior EBITDA margins

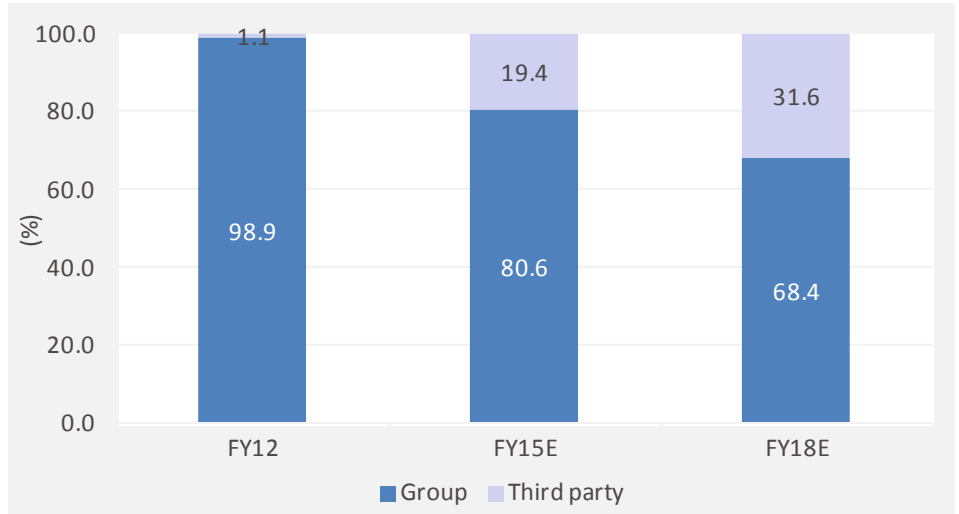


Source: Company, Edelweiss research

While most of the operational/under-development projects were envisaged to meet the cargo handling requirement of group companies, project concession agreements individually have provision of handling third party cargo to the extent of 50% of the rated port capacity. Given that some of these ports like Hazira, Salaya, among others, are in the proximity of highly industrialised areas of Gujarat, which will need efficient private ports (as

government owned major ports struggle to add capacity), EP's ports are better positioned to meet this surging demand. Hence, the company plans to capitalise on this opportunity to diversify its customer base by handling third party cargo. We expect third party cargo, which was a meager 1% of FY12 cargo, to rise as high as 20% by FY15E while the balance 80% group cargo continues to impart strong revenue visibility.

Chart 6: Third party cargo to help in diversification of customer mix



Source: Company, Edelweiss research

Valuations

We have valued EP by computing the NPV of FCFE (free cash flow to equity) for each of the individual projects for the concession period. At CMP of INR87/share, the stock trades at an attractive 8.9x and 6.9x FY13E and FY14E EV/EBITDA, respectively. We initiate coverage on the stock with a 'BUY' recommendation and a TP of INR 110/share.

Table 1: SOTP valuation

SOTP	Method	Multiple/Ke	Value (INR mn)	Stake (%)	Stake value (INR mn)	INR/Share
Vadinar	NPV	Ke = 14%	12335	99.0	12,212	28.5
Hazira	NPV	Ke = 14%	28893	99.0	28,604	66.8
Salaya	NPV	Ke = 14%	6882	99.0	6,813	15.9
Paradip I (Iron ore)	NPV	Ke = 14%	4760	99.0	4,712	11.0
Paradip II (Coal)	NPV	Ke = 14%	556	99.0	550	1.3
Less net corporate debt			5712		(5,712)	(13.3)
Total					47,179	110.2

Source: Edelweiss research

Table 2: Key cargo and margin assumptions across different ports

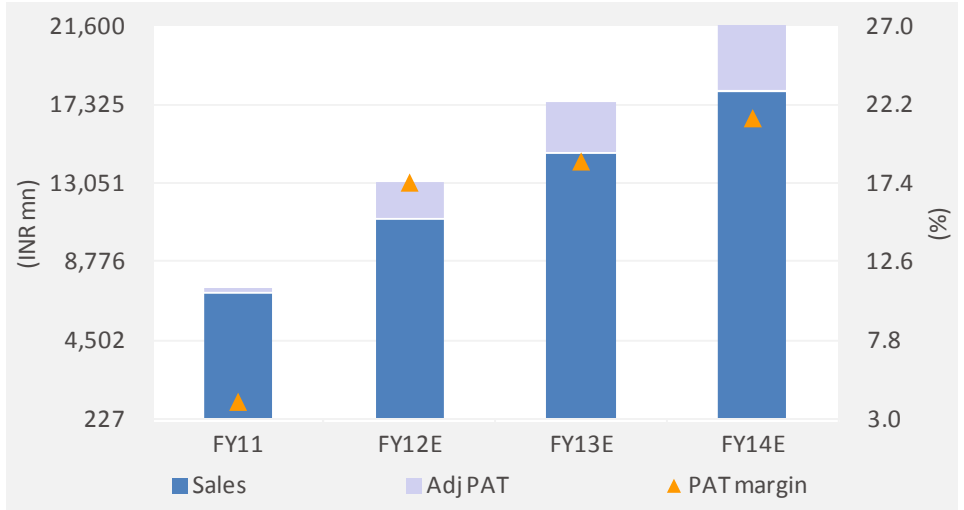
	FY13	FY14	FY15	FY16	FY17
Vadinar					
Cargo handled (MT)	39.86	45.86	45.86	45.86	45.86
Avg realisation (INR/t)	179.1	163.6	168.2	169.0	173.6
EBITDA margin (%)	80.0	80.0	80.0	80.0	80.0
Hazira					
Cargo handled (MT)	24.25	25.75	27.75	32.75	35.75
Avg realisation (INR/t)	233.9	259.8	270.0	284.6	296.3
EBITDA margin (%)	75.0	73.0	71.0	70.0	70.0
Salaya					
Cargo handled (MT)		2.55	11.27	12.27	16.27
Avg realisation (INR/t)		262	256	260	267
EBITDA margin (%)		65.0	65.0	65.0	65.0

Source: Company, Edelweiss research

Financial Outlook

High operating leverage port business is set to drive margin expansion as utilization levels improve. With utilisation levels set to improve from 50% in FY12 to 70%, we expect EP’s PAT margin to expand from 4% in FY11 to 22% by FY14E.

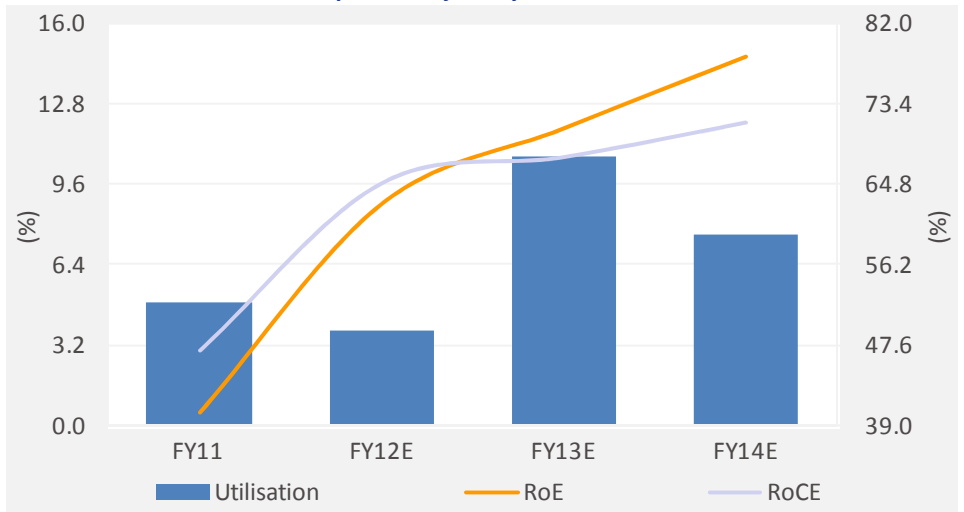
Chart 7: Higher utilisation to aid in PAT margin expansion



Source: Company, Edelweiss research

Hence EP’s return ratios are expected to post a sharp uptick going ahead.

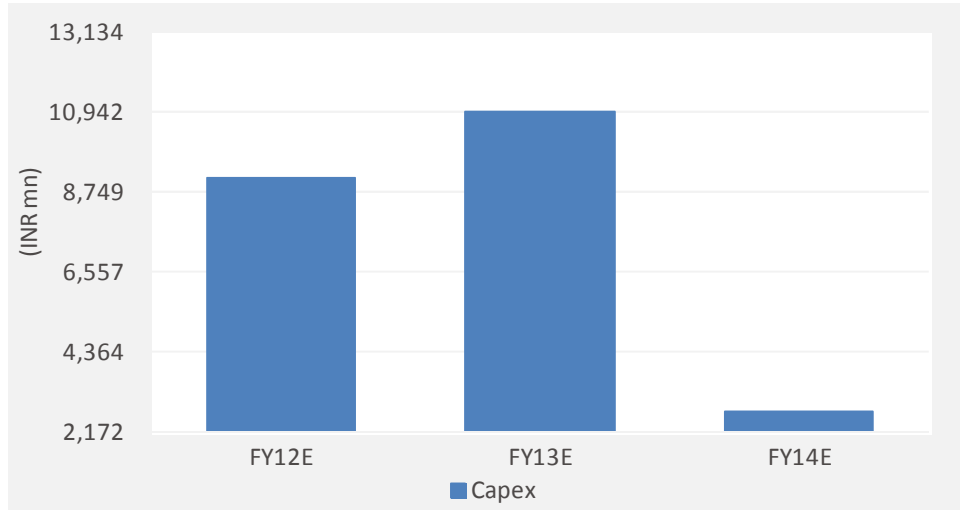
Chart 8: RoE and RoCE on an upward trajectory



Source: Company, Edelweiss research

We expect capex to peak in FY13 for 158 mtpa capacity, unless EP takes up any brown field expansion or new port projects.

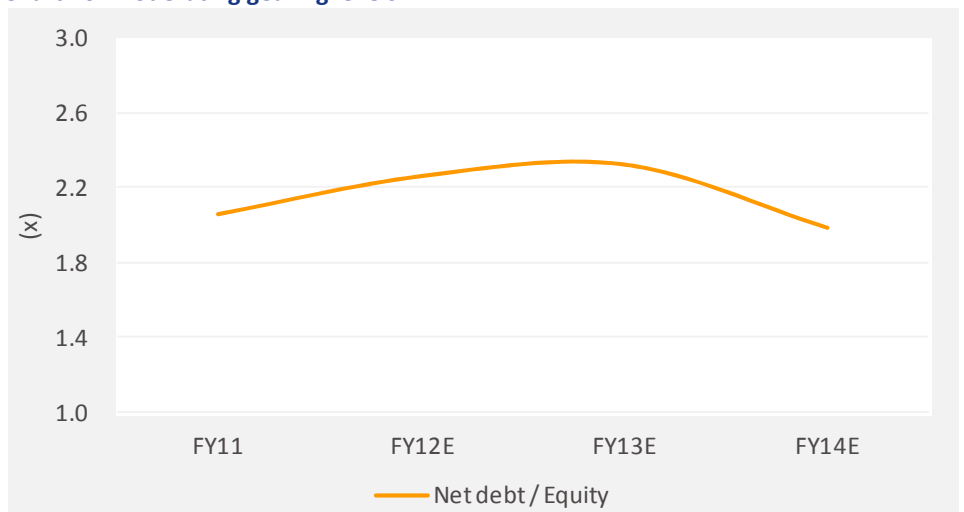
Chart 9: Capex cycle to peak in FY13 for 158 mtpa capacity



Source: Company, Edelweiss research

Post the capex cycle for setting up 158mtpa capacity across different ports the incremental cash flows should aid in reducing net debt levels for the company.

Chart 10: Moderating gearing levels



Source: Company, Edelweiss research

Key Risks

Execution delay

Slower-than-expected execution of the proposed capacity additions of ports could delay the ramp up in volumes handled, and consequently impede EPS growth. Any delay in the development of peripheral infrastructure (rail/road connectivity) will also limit its ability to attract merchant cargo.

Delay in nod for capacity expansion

EP's 54mtpa capacity expansion is awaiting environmental clearance/approvals for the construction of new terminals. Any delay in the same will impact the company's revenue and profit growth.

Risk of change in take-or-pay contract terms

The port has take-or-pay contracts for about 85mtpa (FY15) with various group companies. If the contracts are altered or not honoured, it could affect the company's profitability.

Delay in scale-up of third party/merchant cargo

We have assumed 1/3rd share of total cargo handled in FY18 to be coming from third party/merchant, hence any delay in scale-up of such volumes is a risk to our valuation.

Costs related to third party cargo

Any incremental capex if required to handle third party cargo and margin dilution on account of handling third party cargo will lead to lower than expected cash flows and valuations.

High competitive intensity

As the port is situated in Gujarat, which has the highest number of ports in India, EP will be largely affected by competition from existing and new ports in the region. This will affect the port's operating and financial performance.

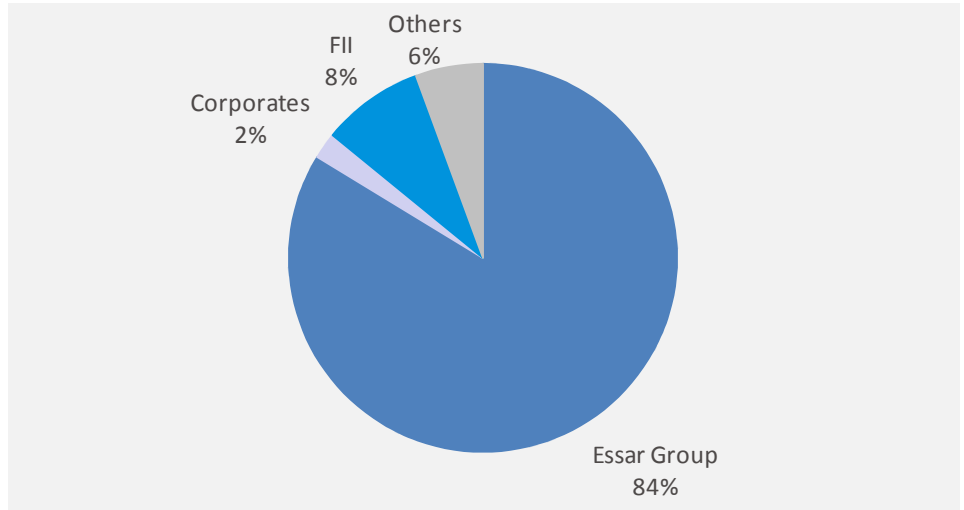
Rise in interest rates

Any increase in interest rates will adversely impact the port's profitability.

Company Description

EP is the second largest private sector port and terminal in India, and provides port as well as terminal services for liquid, break bulk, dry bulk and general cargo. The company has three standalone ports on the West coast and two terminals on the East coast of India. Current capacity of 88MTPA is expected to rise to 158MTPA by FY14E. The company’s ports are strategically located on the East and West coast, with further scalability possible at most locations. The Essar Group owns ~83.7% stake in the company, which gives it access to strong project execution capabilities, experienced management and captive cargo.

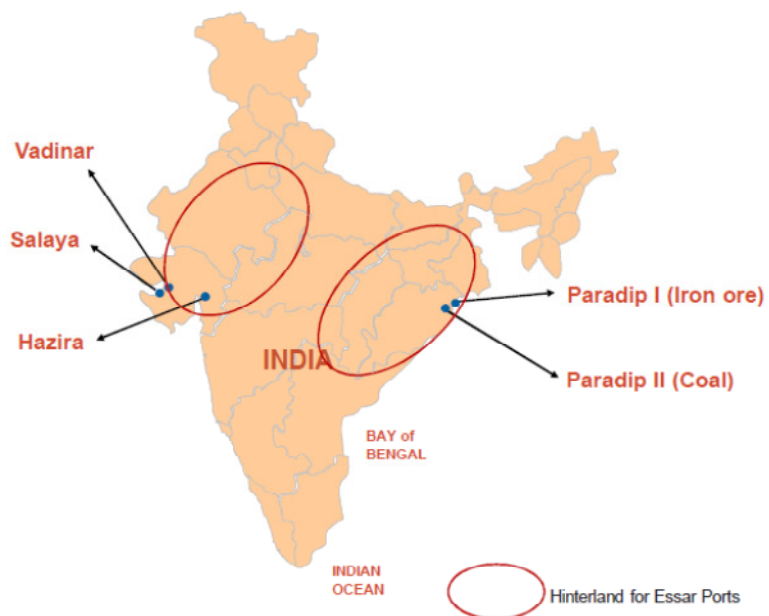
Chart 11: Share holding of Essar ports



Source: Company, Edelweiss research

Fig 2: Essar Ports assets

Operational
<ul style="list-style-type: none"> 58 MTPA Liquid Terminal at Vadinar 30 MTPA Dry Bulk / General Cargo Terminal at Hazira
Under Construction
<ul style="list-style-type: none"> 16 MTPA Iron Ore Berth at Paradip 20 MTPA Dry Bulk Terminal at Salaya
Under Development
<ul style="list-style-type: none"> 20 MTPA General Cargo Terminal (expansion) at Hazira 14 MTPA Coal Terminal at Paradip Liquid Storage Terminal (expansion) at Vadinar

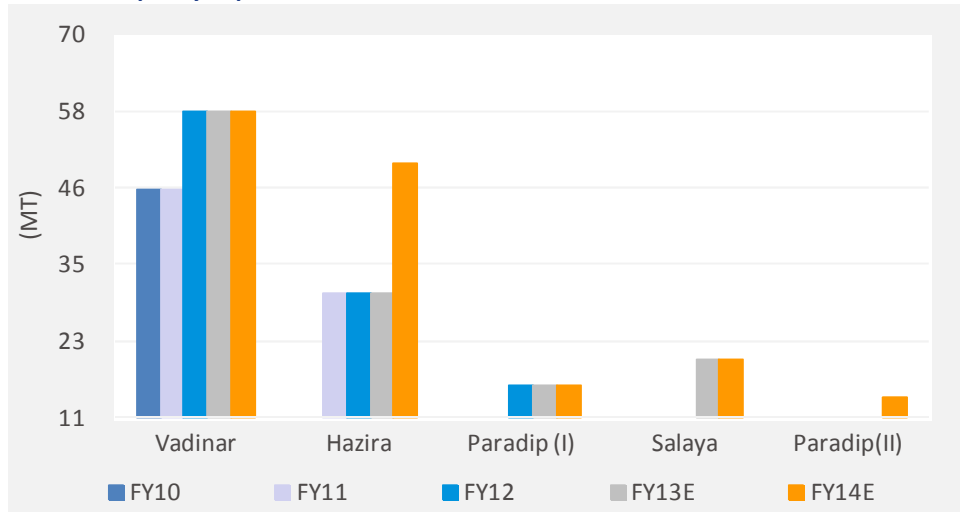


Source: Company, Edelweiss research

The company has two operational ports at Vadinar and Hazira in Gujarat, on India’s West coast, with a cumulative capacity of 88MTPA. It is undertaking expansion (new berths at Hazira, Salaya, Paradip ports) which will add another 70MTPA capacity boosting total capacity to 158MTPA by FY14E.

The Vadinar (58MMTPA) facility provides handling, storage and terminalling services for crude oil and petroleum products to refineries and traders. The Hazira (30MMTPA) facility is an all-weather deep draft bulk terminal for import of iron ore, pellets, coal, limestone, and export of finished steel products. The company has begun brownfield expansion projects at Vadinar and Hazira, adding a new port at Salaya in Gujarat and adding two terminals at Paradip in Orissa on the East coast.

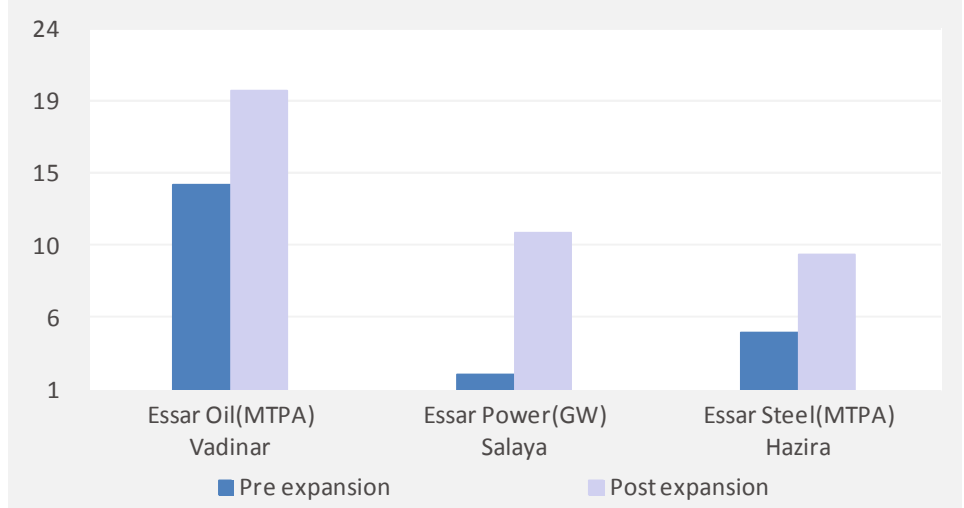
Chart 12: Capacity expansion at Essar Ports



Source: Company, Edelweiss research

Considerable capacity expansion at the Essar Group’s companies’ capacity in the years has been completed requiring more of cargo handling capacity at EP. Essar Oil at Vadinar has expanded capacity to 20 MTPA from earlier 14MTPA. Essar Power will increase capacity to 11GW from the existing 2GW. Essar Steel is also expanded capacity from 4.9MTPA to 10 MTPA in FY13.

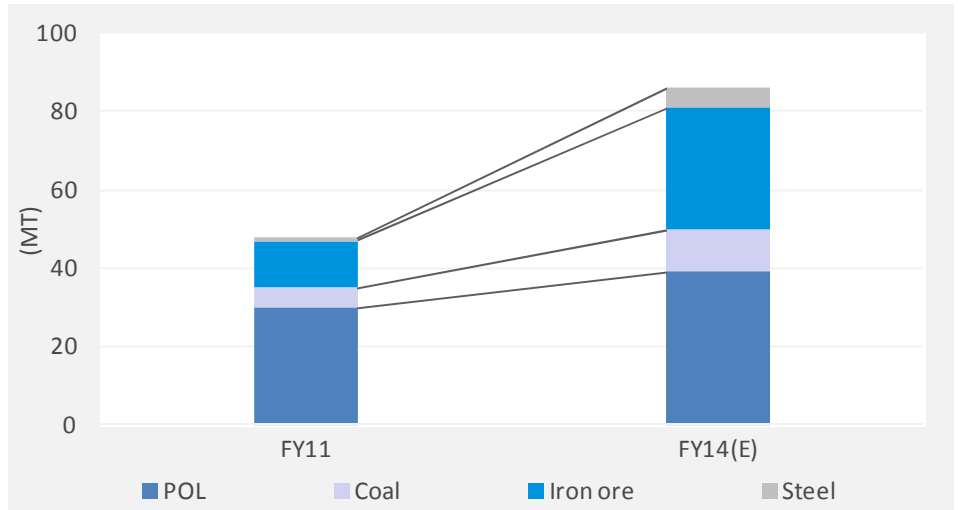
Chart 13: Capacity expansion at Essar Group companies



Source: Company, Edelweiss research

We estimate about 75% of its peak cargo will be derived from the expansion plans of Essar Group companies. Captive cargo is expected to increase considerably at its port terminals. In FY11, Captive POL handled at the Vadinar port was around 30MT, which is expected to reach 39MT in FY13E. Similarly, an increase in iron ore and the steel captive cargo is expected from 9.5MT in FY11 to ~30MT by FY13E (Hazira and Paradip put together). The captive coal for power plants should start with 1MT by FY14E and scale up to 12MT by FY16E.

Chart 14: Cargo growth at Essar Ports



Source: Company, Edelweiss research

EP's current capacity is about 88MT and cargo handled by the port in FY12 was 43.5MT, which is expected to reach 125MT of cargo handled with capacity of 158MT by FY15E.

Table 3: Profile of Essar ports

Port	Cargo Type	Capacity FY12 (MT)	Cargo FY12 (MT)	Commissioning Date	Infrastructure	Key Customers	Capex (USD mn)	Debt (USD mn)	Equity (USD mn)	Connectivity	Concession
Vadinar	Crude & product tankages	58.0	31.2	July FY08	Spm: Draft: 32m Berth A: 305m; Draft: 20m Berth B: 295m; Draft: 16m Rail/road gantries crude, product and intermediate tankages (2.94 Mn Kl)	Essar Oil	793	581	211	Essar Oil Refinery is located adjacent to port 1) A 12.5 Km spur line connects to Modpur railway station 2) Jamnagar Is the nearest airport. 3) Connected to SH-25	Till 2027 From Kandla Port Trust
Hazira -1	Iron ore, coal, limestone, finished steel products, project cargo, containers	30.0	18.0	May FY10	Berth 550m, Draft 14m	Essar Steel	270	200	70	Essar Steel plant is located adjacent to port 1) 43km From Mumbai-Delhi railway line via Vadodara 2) Surat Is the nearest airport. 3) Connected to NH -08 and NH -06	From GMB, Till 2035
Hazira-2	General cargo, coal, containers, petrochemicals	20.0	NA	FY14	Berths 1,100m; Draft 16m	Essar Steel, Merchant	170	127	43		To be signed with GMB (Till 2035)
Salaya	Coal	20.0	NA	FY14	Berth: 385m; Draft: 14m	Essar Power, third party	219	153	66	Essar Power is connected via a conveyor to the port 1) 13kms from the Jamnagar-Okha line. 2) Jamnagar will be the nearest airport. 3) Connected to SH-25	To be signed with GMB (30 years)
Paradip-Iron Ore (CQ3)	Iron ore	16.0	NA	FY13	Berth: 230m; Draft: 12.5m	Essar Steel, third party	103	77	26		from PPT, till 2020
Paradip-Coal	Coal	14.0	NA	FY15	Berth: 370m; Draft 17m	third party	112	89	22	1) Closest rail Is Paradip railway station 2) The nearest airport Is at Bhubaneswar 3) Connected to NH 5	from PPT (30 years)

Source: Company, Edelweiss research

Vadinar Port

Vadinar Port is located within the Kandla Port Trust conservancy, in the Jamnagar district of Gujarat. The terminal's marine facilities consist of two single-point mooring (SPM) product berths and cross-country pipelines.

The port handles almost all cargo for Essar Oil's refinery. It has adequate infrastructure to handle refinery expansion, which was completed in FY13 to 20 MTPA capacity. The port already has a 27MTPA SPM, which handles crude imports, and two product berths of 7MTPA each. It also has 7MTPA of rail and road gantries and 5MTPA of product handling capabilities.

Chart 15: Capacity expansion of Vadinar refinery

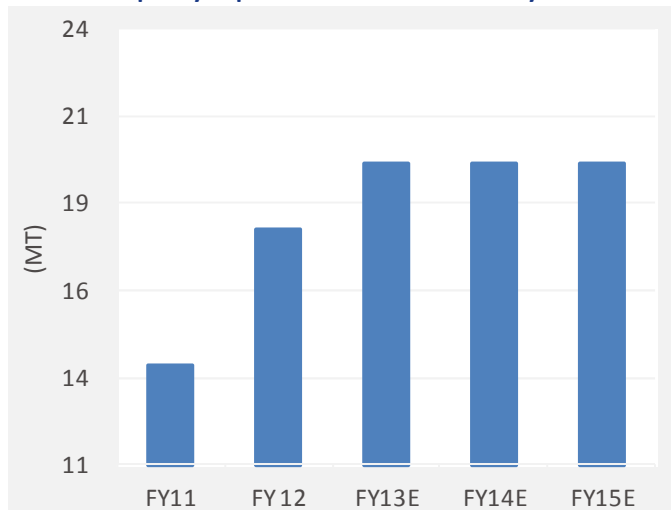
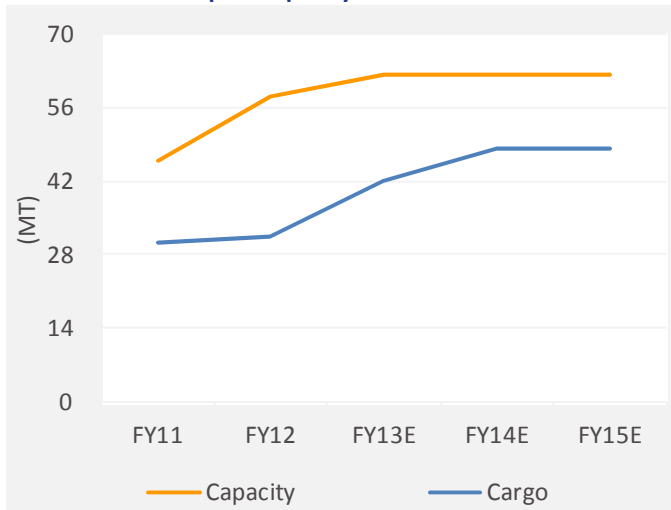


Chart 16: Vadinar port capacity and traffic



Source: Company, Edelweiss research

Essar Oil has already expanded its capacity to 20MTPA from earlier 14MTPA. Vadinar Port has carried out the required expansion to cater to this increasing demand. The port's current capacity is 58MTPA. Further, this could increase to 62MTPA by FY17 once the ongoing storage capacity expansion is complete. The company plans to invest in crude tankages for traders and National oil companies which will help in better utilization of excess capacity at SBM.

Table 4: Vadinar Oil Terminal specifications

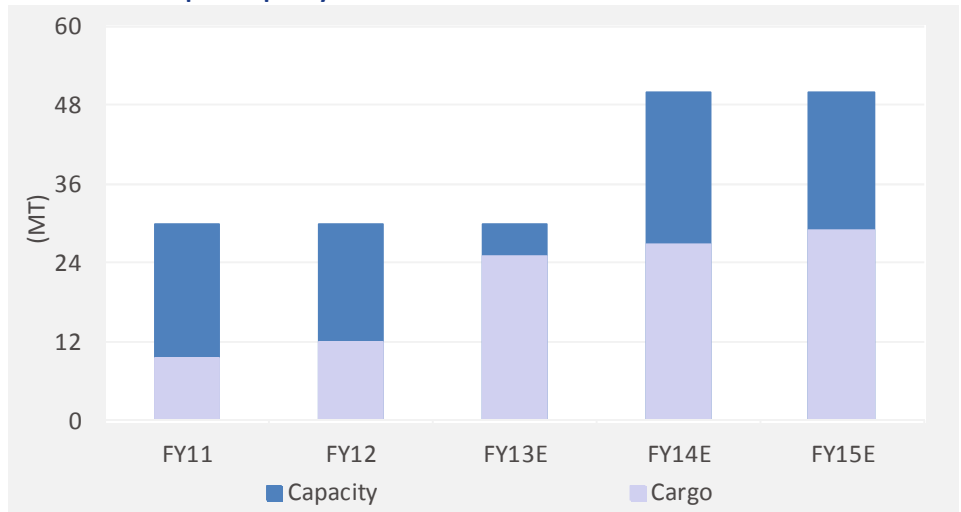
Infrastructure	SPM: Draft: 32mtr Berth A: 305m; Draft: 20mtr Berth B: 295m; Draft: 16mtr Rail/Road Gantries Crude, product and intermediate tankages (2.94 mn KL)
Investment	USD793mn Debt: USD581mn Equity: USD211mn
Capacity	58 MMTPA
Cargo	Crude oil, petroleum products
Project status	Operational since July 2007
Concession	Till 2027 from Kandla Port Trust

Source: Company, Edelweiss research

Hazira Port

The Hazira Port is located in the Gulf of khambatt, Gujarat. Hazira is an all-weather, deep water terminal with a berth length of 550m and operational draft of 14m with tide. The main channel is 7km long, has a depth of 10m below CD and bottom width of 300m with a turning radius of 600m along the berths.

Chart 17: Hazira port capacity and traffic



Source: Company, Edelweiss research

Essar Steel already has a 10mtpa steel plant at Hazira. For this plant, the port handles iron ore imports (from the East coast), coking coal imports and hot rolled and cold rolled steel exports. Total traffic from these segments was 9.5MTPA in FY11 and expected to be about 25MTPA from FY13E. The steel plant expanded to 10MTPA in FY12 from 4.6MTPA. Coal traders currently using near smaller jetties for unloading of coal have approached EBTL for handling their cargo. Opportunity of handling clinker cargo for cement companies and project cargo for companies like L&T is also being explored. This should give the company 12 – 15 MMTPA of 3rd party cargo opportunity at Hazira Bulk Terminal.

Table 5: Hazira Bulk Terminal specifications

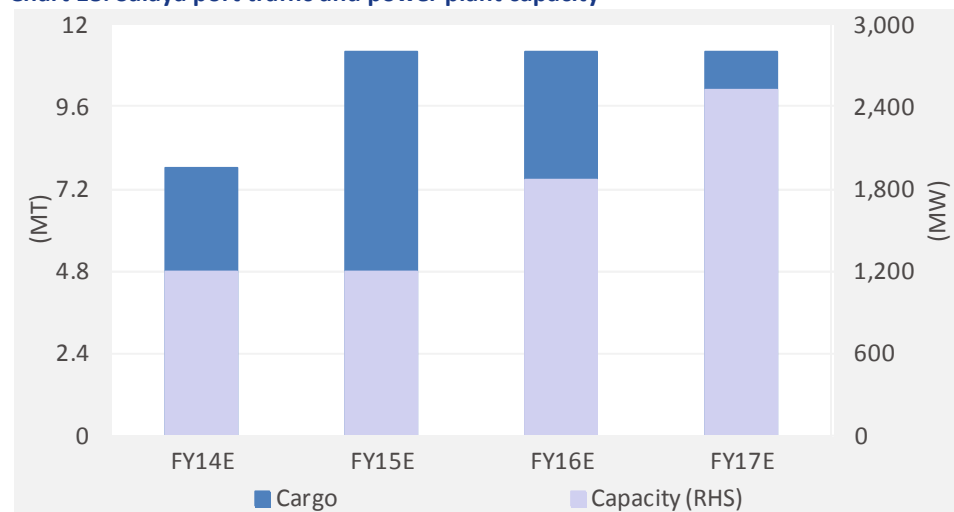
	Hazira-1	Hazira-2
Infrastructure	Berth 550m, Draft 14mtr	Berths 1,100m; Draft 16mtr
Investment	USD270mn Debt: USD200mn Equity: USD70mn	USD170mn Debt: USD127mn Equity: USD43mn
Capacity	30 MMTPA	20 MMTPA
Cargo	Iron ore, coal, limestone, finished steel products, project cargo, containers	General cargo, coal, containers & petrochemicals
Project status	Operational since May 2010	Under development
Concession	From GMB, till 2035	To be signed with GMB

Source: Company, Edelweiss research

Salaya Port

The company is setting up its world-class marine infrastructure project with a state-of-the-art material handling facility at Salaya, Gujarat. It will be capable of handling 20MMTPA cargo. The jetty is located in the Salaya harbour, which is naturally protected by two islands – Kalubhar Tapu and Dhani Be.

Chart 18: Salaya port traffic and power plant capacity



Source: Company, Edelweiss research

Essar Power is implementing 1200MW (2x600) imported coal based power plant at Salaya of which one unit is already commissioned. Post commissioning of the entire capacity the plant would require ~ 8 MMTPA of imported coal which would be shipped on conveyors from the port. Currently 4 to 5 MMT of coal is being handled through shallow draft jetties in the nearby region. The Salaya port also plans to handle coal and bauxite for industries and coal traders in the region. The expected potential of third party cargo is around 8 MMTPA

Table 6: Salaya Coal Terminal specifications

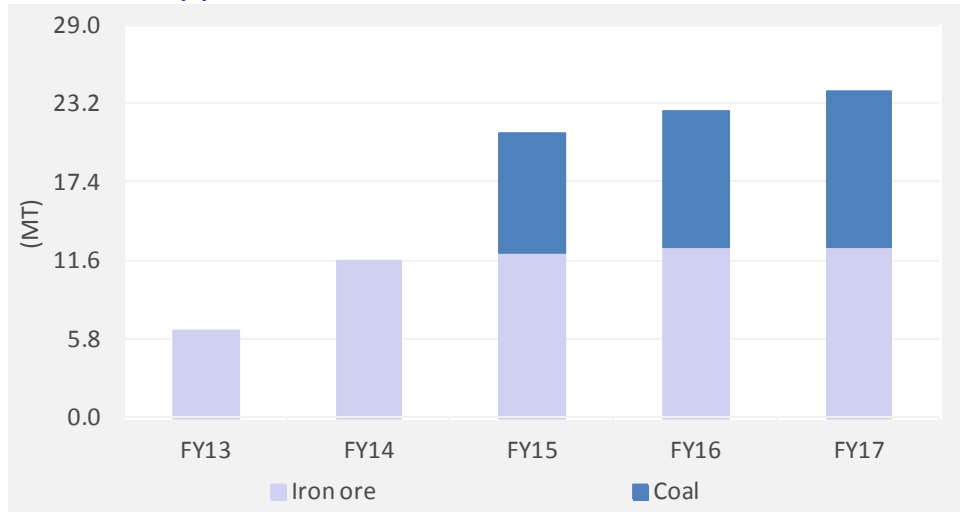
Infrastructure	Berth: 385m; Draft: 14mtr
Investment	USD219mn Debt: USD153mn Equity: USD66mn
Capacity	20 MMTPA
Cargo	Coal
Project status	To be commissioned by March 2014
Concession	To be signed with GMB

Source: Company, Edelweiss research

Paradip bulk terminals

Essar Ports is setting up two terminals in Paradip port, one each for handling iron ore and coal. The 16mtpa iron ore project is a mechanization project with conveying of cargo to yards, loading of wagons through reclaiming and wagon loaders. The company is setting up ~8 MT pellet plant to be shipped from the Paradip port and used as raw material for the 10 mtpa Hazira steel plant. The 14 mtpa coal terminal being developed under the PPP on revenue shared offered to the port trust. ~12 MMT of coal is currently being imported at Paradip via non-mechanized berths which will be shifted to Essar’s deep draft coal berth upon commissioning as per the concession agreement.

Chart 19: Paradip port traffic



Source: Company, Edelweiss research

Table 7: Paradip bulk terminals specifications

	Paradip I (CQ3)	Paradip II (Coal Berth)
Infrastructure	Berth: 230mtr; Draft: 12.5mtr	
Investment	USD103mn Debt: USD77mn Equity: USD26mn	USD112mn Debt: USD89mn Equity: USD22mn
Capacity	16 MMTPA	14 MMTPA
Cargo	Iron Ore and other dry bulk cargo	Coal
Project status	To be commissioned by Q3FY12	Under development
Concession	From PPT, till 2020	From PPT (30 years)

Source: Company, Edelweiss research

Financial Statements

Key assumptions

Year	FY11	FY12	FY13E	FY14E
Macro				
GDP(Y-o-Y %)	8.4	6.5	6.4	7.0
Inflation (Avg)	9.9	8.8	7.0	6.0
Repo rate (exit rate)	6.8	8.5	7.3	6.8
USD/INR (Avg)	45.6	47.9	53.5	50.0
Company				
Total cargo handled (MT)	39.6	43.2	70.4	85.7
Average realisation (INR/t)	178	256	209	210
Consol. EBITDA margin (%)	72.3	80.4	72.8	70.7

Income statement

	(INR mn)			
Year to March	FY11	FY12	FY13E	FY14E
Total revenues	7,050	11,088	14,678	17,999
Cost of Operations	1,360	1,756	2,798	3,694
Staff cost	0	220	400	528
Other operating expenses	596	202	799	1,055
Total expenditure	1,956	2,179	3,997	5,277
EBITDA	5,094	8,910	10,681	12,722
Depreciation and Amortisation	1,705	2,202	2,509	2,810
EBIT	3,389	6,707	8,171	9,912
Interest	3,254	4,208	4,700	5,346
Other income	411	222	14	234
PBT	546	366	3,485	4,800
Provision for tax	134	(622)	740	959
Core profit	412	988	2,745	3,841
Profit after minority interest	285	1,931	2,745	3,841
Shares outstanding (mn)	411	428	428	428
EPS (INR) basic	0.7	4.5	6.4	9.0
Diluted shares (mn)	411	411	428	428
EPS (INR) fully diluted	0.7	4.7	6.4	9.0
Dividend per share	-	0.5	0.6	0.9
Dividend payout (%)	0.0	10.6	10.0	10.0

Common size metrics- as % of net revenues

Year to March	FY11	FY12	FY13E	FY14E
Operating expenses	27.7	19.6	27.2	29.3
EBITDA margins	72.3	80.4	72.8	70.7
Net profit margins	4.0	17.4	18.7	21.3

Growth metrics (%)

Year to March	FY12	FY13E	FY14E
Revenues	57.3	32.4	22.6
EBITDA	74.9	19.9	19.1
Net profit	124.3	329.4	39.9
EPS	550.1	42.2	39.9

Ports

Balance sheet				(INR mn)
As on 31st March	FY11	FY12E	FY13E	FY14E
Share capital	4,106	4,106	4,280	4,280
Reserves & surplus	17,700	17,918	20,214	23,671
Shareholders funds	21,806	22,023	24,494	27,951
Minority interest	634	644	644	644
Secured loans	37,778	49,640	56,764	55,194
Unsecured loans	7,037	176	176	176
Borrowings	44,815	49,816	56,940	55,370
Deferred Tax Liability	2	(821)	(821)	(821)
Sources of funds	67,256	71,663	81,257	83,144
Gross block	32,186	62,596	60,666	76,256
Less : Depreciation	-	-	2,509	5,319
Net block	32,186	62,596	58,156	70,936
Capital work in progress	21,252	-	12,875	-
Total fixed assets	53,438	62,596	71,031	70,936
Investments	11	11	11	11
Goodwill	14,611	16,132	16,132	16,132
Inventories	226	69	115	152
Sundry debtors	832	1,586	2,011	2,466
Cash and equivalents	1,569	275	78	5,780
Loans and advances	3,729	4,748	4,748	4,748
Other current assets	11	608	608	608
Total current assets	6,366	7,286	7,560	13,754
Sundry creditors and others	7,016	14,024	13,139	17,351
Provisions	166	338	338	338
Total CL & provisions	7,183	14,362	13,478	17,689
Net current assets	(816)	(7,076)	(5,917)	(3,935)
Uses of funds	67,256	71,663	81,257	83,144
Adjusted book value per share (BV)(INR)	53	51	57	65

Free cash flow				(INR mn)
Year to March	FY12E	FY13E	FY14E	
Net profit	1,931	2,745	3,841	
Depreciation	2,202	2,509	2,810	
Others	3,043	4,686	5,112	
Gross cash flow	7,176	9,941	11,763	
Less: Changes in W. C.	(5,563)	1,356	(3,719)	
Operating cash flow	12,739	8,585	15,482	
Less: Capex	9,158	10,945	2,715	
Free cash flow	3,581	(2,360)	12,767	

Cash flow metrics			
Year to March	FY12E	FY13E	FY14E
Operating cash flow	12,739	8,585	15,482
Financing cash flow	588	2,149	(7,300)
Investing cash flow	(8,936)	(10,931)	(2,481)
Net cash flow	4,391	(197)	5,702
Capex	(9,158)	(10,945)	(2,715)
Dividends paid	(205)	(275)	(384)

Profitability & liquidity ratios

Year to March	FY11	FY12E	FY13E	FY14E
ROAE (%)	0.5	8.8	11.8	14.6
ROACE (%)	3.0	9.7	10.7	12.1
Current ratio	0.9	0.5	0.6	0.8
Debtors (days)	156	40	45	45
Average fixed assets t/o (x)		0.2	0.2	0.3
Average working capital t/o (x)	2.7	(2.3)	(2.2)	(2.3)
Average capital employed t/o (x)	0.1	0.2	0.2	0.2
Debt / Equity	2.1	2.3	2.3	2.0
Debt/EBITDA	8.8	5.6	5.3	4.4
Adjusted Debt/Equity	2.1	2.3	2.3	2.0

Operating ratios

Year to March	FY11	FY12E	FY13E	FY14E
Total asset turnover		0.2	0.2	0.2
Average fixed assets t/o (x)		0.2	0.2	0.3
Equity turnover	0.1	0.5	0.6	0.7

Valuation parameters

Year to March	FY11	FY12E	FY13E	FY14E
Diluted EPS (INR)	0.7	4.7	6.4	9.0
Y-o-Y growth (%)		577.6	36.4	39.9
CEPS (INR)	4.8	6.6	12.3	15.5
Diluted P/E (x)	124.9	18.4	13.5	9.7
Price/BV(x)	1.6	1.7	1.5	1.3
EV/Sales (x)	11.3	7.9	6.4	4.9
EV/EBITDA (x)	15.6	9.8	8.9	6.9
Dividend Yield (%)	-	0.6	0.7	1.0

Peer comparison

Name	Price (INR)	Market cap (INR mn)	P/BV(x)		EV/EBITDA(x)		RoE (%)	
			CY12/FY13	CY13/FY14	CY12/FY13	CY13/FY14	CY12/FY13	CY13/FY14
Adani Ports and SEZ	113	226,267	3.9	3.1	12.0	9.3	23.0	25.8
Gujarat Pipavav port	49	23,689	1.2	1.1	14.0	12.3	7.1	9.3
Essar Ports	87	37,082	1.5	1.3	8.9	6.9	11.8	14.6

Source : Edelweiss research

GUJARAT PIPAVAV PORT

Choppy waters

India Equity Research | Ports



Gujarat Pipavav Port (GPPL) is predominantly a container port with ~43% shareholding by AP Moller Maersk Group (which also owns Maersk shipping line) through APM Terminals. Post the CY11 turnaround in financial performance, the global economic slowdown along with reallocation of a liner by its sister concern in March 2012, we expect limited improvement in cargo growth and operating leverage till CY14. In addition, while INR8bn capex programme will improve efficiencies in CY15, near-term earnings growth as well as valuations will be under pressure. Initiate coverage with 'REDUCE'.

Single port play with a turnaround story

AP Moeller (APM) Terminals, GPPL's parent company, after taking over the port has invested significantly in building port infrastructure and remains focused on GPPL's growth by bringing in experienced management over the past few years to lead the company. Cargo volumes (both container and bulk) grew a healthy 25% YoY in CY11 to 11MT, fueling margin expansion, which, in turn, has led to a turnaround of the port's operations. The outlook for Gujarat's minor ports remains strong given their strategic location to serve India's northern hinterland, propelling significant container volume growth at ports located on the West coast.

Capex imperative, but likely to dent valuations

The company is undertaking capex of atleast ~INR8bn to build a container berth to handle larger ships with state-of-the-art equipment. While we admit that investment is critical to scale up EBITDA margin from the current ~45% to 60% plus, the lower capacity utilisation of ~60% is likely to impact valuations.

Outlook and valuations: Expensive; initiate coverage with 'REDUCE'

GPPL, with the advantage of its parentage, is ideally placed to capitalise on the rising container cargo port growth, especially due to congestion in key major ports. However, capacity utilisation is likely to remain depressed in the short term, especially post the recent cargo decline due to withdrawal of a liner by Maersk, gradual EBITDA margin scale up, and our estimate of ~INR3.8bn of terminal value (PV) at INR8/share. At CMP of INR 49/share the stock is expensive at 14.0x CY12E and 12.3x CY13E EV/EBITDA. Hence, we initiate with 'REDUCE' recommendation and SOTP based TP of INR 43/share. Cargo tie up, better yields, increase in operating leverage are key risks to our call.

Financials

Year to March	CY10	CY11	CY12E	CY13E
Revenue (INR mn)	2,839	3,968	4,111	4,728
EBITDA (INR mn)	1,144	1,828	1,812	2,174
Net profit (INR mn)	(547)	571	714	1,185
EPS (INR)	(1.3)	1.3	1.5	2.5
P/B (x)	1.3	1.3	1.2	1.1
EV/EBITDA (x)	22.7	13.9	14.0	12.3
ROAE (%)	(10.5)	7.5	7.1	9.3

EDELWEISS RATINGS

Absolute Rating	REDUCE
Investment Characteristics	None

MARKET DATA (R: GPPL.BO, B: GPPV IN)

CMP	: INR 49
Target Price	: INR 43
52-week range (INR)	: 74 / 49
Share in issue (mn)	: 423.6
M cap (INR bn/USD mn)	: 21/ 372
Avg. Daily Vol.BSE/NSE('000)	: 326.3

SHARE HOLDING PATTERN (%)

	Current	Q4FY12	Q3FY12
Promoters %	43.0	43.0	43.0
MF's, FI's &	21.1	19.7	18.8
FII's	26.1	26.0	27.8
others	9.8	11.2	10.4
* Promoters pledged shares : (% of share in issue)			43.0

RELATIVE PERFORMANCE (%)

	Sensex	Stock	Stock over Sensex
1 month	0.5	(6.5)	(7.0)
3 months	5.8	(18.1)	(23.8)
12 months	3.0	(26.8)	(29.8)

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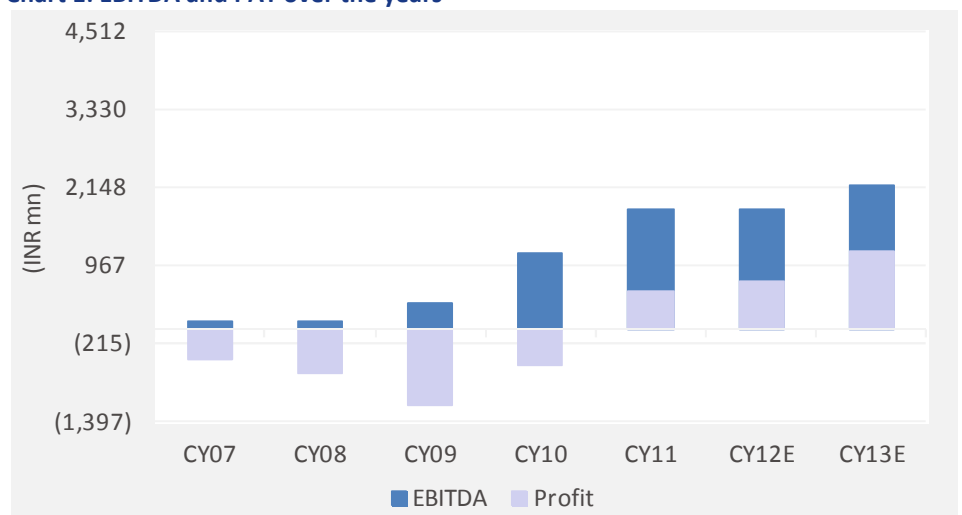
Investment Rationale

Single port play with a turnaround story

Commercial operations commenced at Pipavav port in 2002, post which APM Terminals acquired 13.5% strategic stake in GPPL. However, the port continuously posted losses, until recently, due to lack of economies of scale. In 2005, APM Terminals hiked its stake to 58%, enthused by GPPL'S potential.

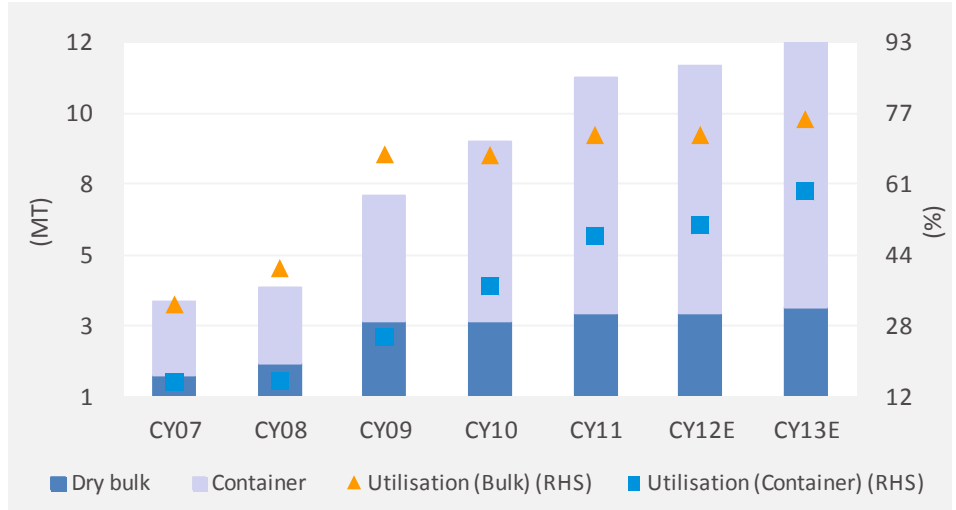
The port, after changing hands, has invested significantly in machinery and infrastructure expansion, which will enable it to offer superior services. The parent company, APM Terminals, remains focused on GPPL's growth and has brought in experienced management over the past few years to lead the company. Its cargo volumes (both container and bulk) grew a healthy 25% YoY in CY11 to 11MT. This has fuelled margin expansion, which, in turn, has led to a turnaround of the port's operations—reported PAT of INR571mn in CY11 for the first time since it commenced operations. With strong momentum in traffic growth and cost rationalisation, GPPL is expected to continue to post double digit growth in the coming years.

Chart 1: EBITDA and PAT over the years



Source: Company, Edelweiss research

Chart 2 : Cargo volume & utilisation

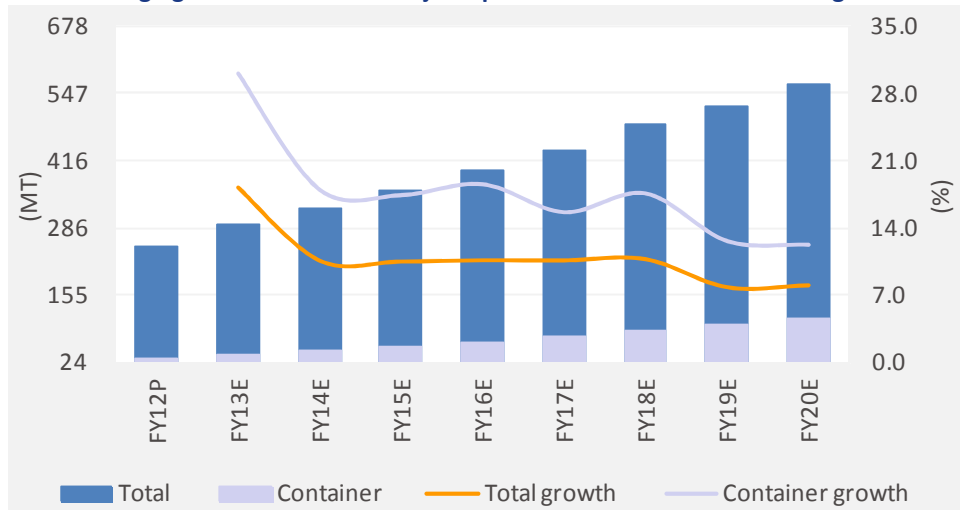


Source: Company, Edelweiss research

Brighter cargo forecast, strategic location to benefit the port

Pipavav port is in proximity of major agriculture-based product export markets of the Saurashtra region, which does not have any other prominent port. The port is in a strategic position (closer than JNPT, India’s container hub) to serve the landlocked northern and northwestern regions of India, which have posted and are expected to continue to register significant manufacturing and trade growth. These regions generated majority of the total container throughput in India, propelling significant container volume growth at the ports located on the West coast.

Chart 3 : Cargo growth forecast for Gujarat ports continues to remain strong



Source: Company, Edelweiss research

Table 1 : Incremental container cargo to benefit as JNPT delays capacity addition

	FY10	FY11	FY12	FY13E	FY14E	FY15E	FY16E
Total container cargo (MT)	116.3	134.3	146.9	158.6	171.3	185.0	199.8
YoY increase (%)	10.3	15.4	9.4	8.00	8.00	8.00	8.00
Absolute increase (MT)	10.9	17.9	12.6	11.7	12.7	13.7	14.8
Major ports (MT)	7.9	12.6	6.5	5.9	6.3	6.9	7.4
Major ports share (%)	72.0	70.1	51.5	50.00	50.00	50.00	50.00
Mundra port (MT)	1.5	3.6	4.4	3.5	3.8	4.1	4.4
Mundra port share (%)	14.1	20.2	34.8	30.00	30.00	30.00	30.00
Pipavav port (MT)	1.5	1.7	1.7	2.3	253.8	274.1	3.0
Pipavav port share (%)	13.9	9.7	13.7	20.00	20.00	20.00	20.00
Pipavav edel est				0.4	1.2	1.8	2.1

Source: Company, Edelweiss research

Fig. 1: Location of Pipavav port

Source: Company, Edelweiss research

Table 2: Distance and sailing time from key ports of the world

	APM Terminal Pipavav		Mundra		Mumbai/JNPT	
	Distance (Nautical Miles)	Time	Distance (Nautical Miles)	Time	Distance (Nautical Miles)	Time
Felixstowe(Europe)	6,193	25 days 18 hours	6,120	25 days 11hours	6,251	26 days
Rotterdam (Europe)	6,277	26 days 2 hours	6,204	25 days 19 hours	6,320	26 days 7 hours
Shanghai port(China)	4,679	19 days 11 hours	4,858	20 days 5 hours	4,672	19 days 12 hours
Singapore port	2,571	10 days 16 hours	2,751	11 days 11 hours	2,435	10 days 3 hours
Jebeli ali(Dubai)	1,004	4 days 4 hours	863	3 days 14 hours	1,122	4 days 17 hours
Houston(USA)	9,686	40 days 7 hours	9,613	40 days	9,727	40 days 12 hours
Mumbai (India)	145	14 hours	415	1 day 12 hours	NA	NA

Source: GPPL QIP doc, Edelweiss research

Pipavav port is strategically located at the entrance of the Gulf of Khambat trade route, which caters not only to the highly industrialised state of Gujarat, but also to India’s North and North-West hinterlands. It will benefit from proximity to the country’s container shipping hub and the congested JNPT port (average total turnaround time of 1.5-2.0 days against GPPL’s 10 hours and virtually no pre-berthing time) as a viable alternative to shipping lines. JNPT, which has lagged in capacity augmentation, is planning to double its capacity to ~120MTPA and this could take atleast three-four years. GPPL, till then, stands to benefit from this as it is the nearest port to JNPT at 150 nautical miles (278 km).

Capex imperative

Given the bright outlook for cargo growth at the port and uptick in utilisation level, GPPL is planning to be ready for the next leg of growth by enhancing capacity and improving operational efficiency. In order to meet the potential requirements, it is planning to construct an additional container berth capable of deploying post-Panamax cranes which will enable simultaneous handling of two post-Panamax vessels. Further, subject to execution of long-term take-or-pay commercial contracts with potential customers, the company proposes to enhance bulk cargo services by extending existing bulk berth by 110 meters (providing a contiguous berth of 800 meters for handling bulk cargo) and adding a Gottwald crane for bulk cargo services. To support this waterfront capacity addition, it will also set up back up infrastructure at the port.

Table 3: Details of the planned capex program

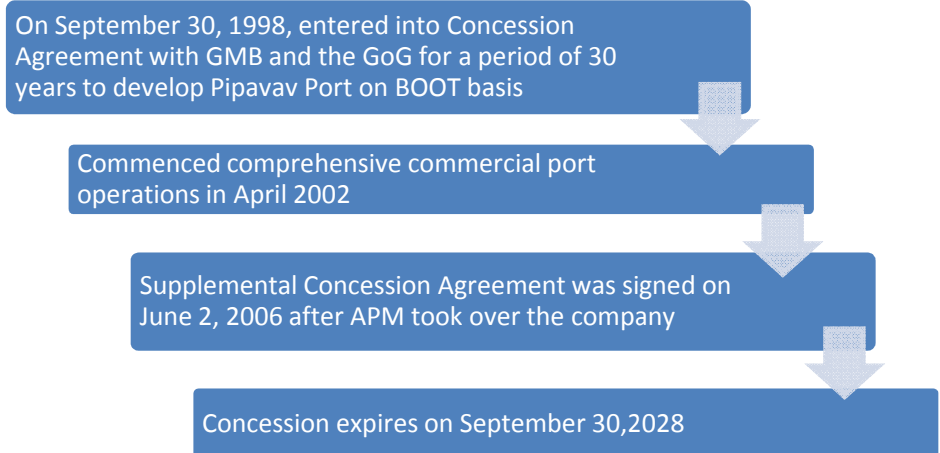
	Capex	Timeline	Existing infrastructure	Infrastructure post capex
Container	INR8bn with D/E of 40:60	Starting from Q4CY12 to be completed by CY14 end	1.2 mTEU at waterfront and 850 kTEU at the container yard	1.5 mTEU at waterfront and container yard capable of handling two post-Panamax vessels simultaneously
Bulk	INR3bn with D/E of 40:60	Contingent on executing commercial contracts with customers	5 mtpa capacity on 3 multi- purpose berths with total berth length of ~700 mtr	10 mtpa capacity on 3 multi-purpose berths with extended contiguous berth of ~800 mtr
Total	INR 11bn , INR 3.5bn from QIP/preferential equity, INR4.5bn Debt & INR3bn internal accruals	Container capex to start by end of CY12, however, bulk would be aligned with customer requirements	~ 20 mtpa (15mtpa of container and 5mtpa of bulk)	28 mtpa (18 mtpa of container and 10mtpa of bulk)

Source: Company, Edelweiss research

Further upon expiry of the Concession Agreement, all assets will be transferred to the Gujarat Maritime Board (GMB) based on the valuation provided by an independent appraisal team. The latter will be guided by asset valuation practices detailed in the Concession Agreement, which are as follows:

Valuation of immovable contracted assets and essential movable contracted assets based on the Depreciated Replacement Value of assets shall be carried out in accordance with the most recent guidelines of the Asset Valuation Standards Committee, Statements of Asset Valuation Practices and Guidelines Notes, the Royal Institution of Chartered Surveyors, United Kingdom, publication dated January 1995 or as amended from time to time. For the valuation of immovable contracted assets and essential movable contracted assets based on the depreciated historical cost, depreciation shall be calculated on straight line basis.

Fig. 2: Concession is valid till 2028



Source: Company, Edelweiss research

We believe that upon expiry of the concession agreement, the port will be transferred back to GMB at a value based on the Depreciated Replacement Value as stated above. Once taken over by GBM, either it could go for rebidding or owned and operated by itself.

Recent developments: A matter of concern

Volume growth takes short term hit due to change in Maersk stance

Maersk, post March 2012, has replaced a larger container vessel with a smaller vessel Pipavav port. Management cited the limited berth size to be the key reason for the sister concern's shift to Mundra Port. In addition, post the expiry of the earlier MoU, wherein Pipavav was the exclusive port of call by Maersk (~25% cargo handled in each of the previous three years), starting Q2CY12 the situation is diluted as the port will be one of the ports to be called in India.

APM to charge a marginal fee for each tonne/TEU handled

GPPL has entered into a fresh agreement with its parent (APMT) wherein it will pay USD0.20/16 tonne of bulk cargo and USD1/TEU as a monthly fee. While this does not impact margin significantly, it has to be seen in light of the levy without commitment of any take / pay agreements.

Gross block addition by 55%, while five year EBITDA CAGR only 22%

The upgradation of facilities will augur well for GPPL due to the state-of-the-art facilities, but its timing, in the backdrop of weak economic environment, is expected to strain earnings over the medium term. The INR8bn capex translates into ~55% increase in gross block (for 3MT capacity) and since full benefits of the same are expected to be realised in CY15, EBITDA CAGR would be a meager ~22% between CY11 and CY15, highlighting capex to be value dilutive in nature.

EBITDA margin yet to scale up

GPPL's operating leverage is yet to kick in as reflected in the EBITDA margin at ~45%. The capacity addition is expected post CY13 and is also contingent on improvement in the economy. Till then, due to congestion at major ports like JNPT and Kandla, GPPL could gain some cargo growth. However, the 20% dip in cargo growth due to liner withdrawal by Maersk will be difficult to bridge. Also, management's focus on quality service as well as operational efficiencies will impact margin till optimal capacity utilisation is not achieved. Hence, the uptick in EBITDA margin and reaching the optimal level of ~60-65% could take atleast another three-four years.

Valuations

We have assumed cargo growth to be flat in CY12 mainly due to the liner withdrawal by sister concern, which is being offset by normal growth in container traffic (GDP led) as well as some shift from congestion at major ports. However, post CY13 we have factored in 20% container growth rate to peak at 16.55 MT by CY16. We are also assuming 3% tariff increase annually till 2028. Considering the weak business environment we believe EBITDA margins to scale up only post the capex phase and peak by CY16-CY17 at 60%.

Table 4: Key assumptions for GPPL earnings model

	CY12	CY13	CY14	CY15	CY16
Cargo handled (MT)					
Bulk	3.6	3.8	4.0	4.2	4.2
Container	7.7	8.8	10.6	12.7	15.3
Average realisation (INR/t)	371	382	394	405	418
EBITDA margin (%)	43.4	45.1	47.1	51.9	59.8
Capex (INR mn)	1,800	3,200	4,000	500	500

Source: Company, Edelweiss research

In terms of capex we have factored in only the container led capex now and hence not built in the bulk cargo related capex of additional INR3bn. The funding for this has been anticipated to be in the ratio of 40% debt and balance through equity/internal accruals.

Considering the fact that the concession period is valued only 2028 we have valued GPPL by computing the NPV of FCFE (free cash flow to equity) for the period of concession agreement (till FY28) and adding the terminal value of INR31bn (PV of INR 3.8bn i.e. INR8/share) at the expiry of the concession period separately. Since there is limited clarity on the extension of concession period, we have valued the termination value as per the terms mentioned in the agreement. Hence, we have computed the present value of “depreciated replacement value” of the port. This value is based on the gross block post the capex and routine annual capex of INR 500 mn which is adjusted for inflation and depreciation rates and discounted by Ke.

Table 5: SOTP valuation

	Method	Multiple(x) /CoE	Value (INR mn)	Stake (%)	Value of stake (INR mn)	Price per share (INR)	% age of SOTP (%)
Pipavav Port	DCF	14.0%	18,894	100.0	18,894	39.1	90.8
PRCL	P/BV	1.0	830	100.0	830	1.7	4.0
Cash/other investments	FY13E Book		1,084	100.0	1,084	2.2	5.2
Total			20,808		20,808	43.0	100.0

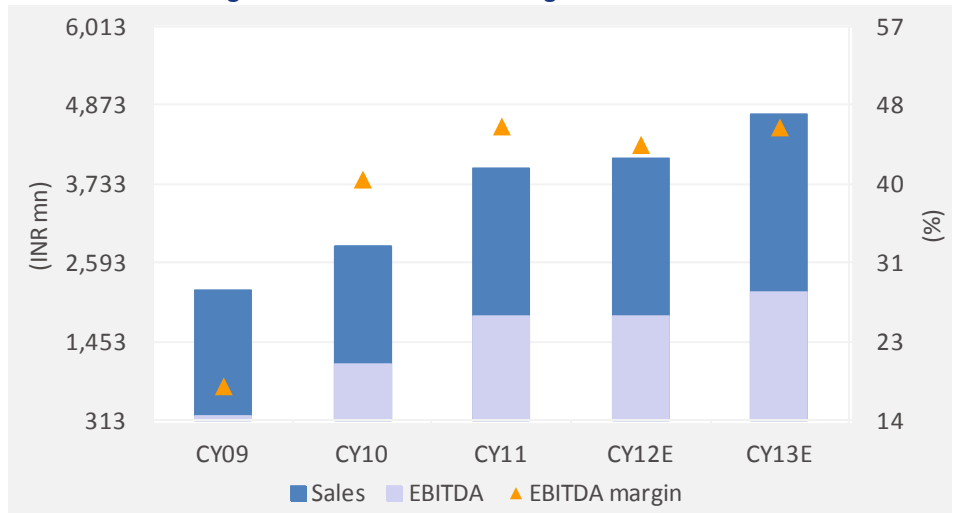
Source: Edelweiss research

We have valued investments in the rail company (38% held by GPPV) as well as cash + equivalents at book value. At CMP of INR 49/share the stock is expensive at 14.0x CY12E and 12.3x CY13E EV/EBITDA. Hence, we initiate with ‘REDUCE’ recommendation and a TP of INR 43/share. Cargo tie up, better yields, increase in operating leverage are key risks to our call.

Financial Outlook

Given the near term setback on cargo growth and frontended capex program for augmenting capacity we believe EBITDA margins will continue to remain in the current range before looking up closer to the end of the capex cycle.

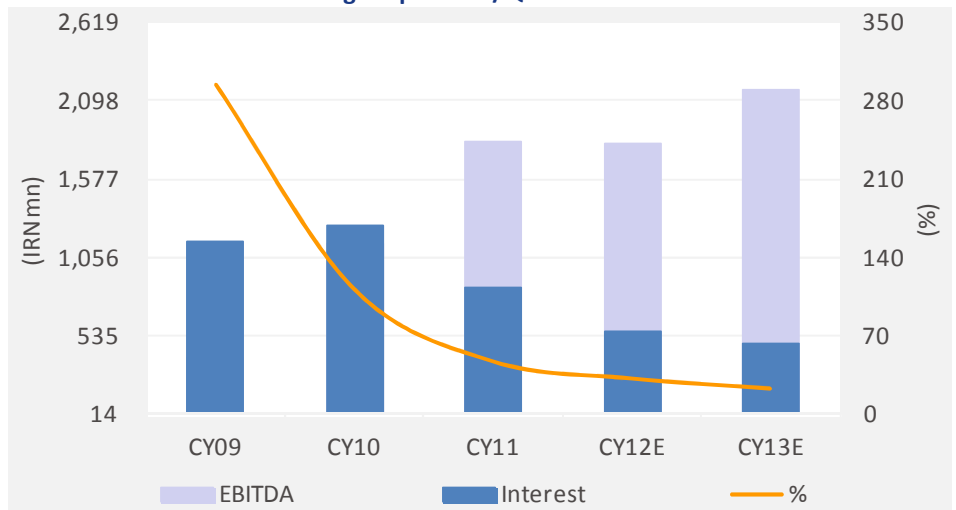
Chart 4: EBITDA margins to remain in current range



Source: Company, Edelweiss research

Interest cost, which formed a significant portion of EBITDA contribution, dragged down GPPL’s profits in the past. Post the IPO, the company has pre-paid some high cost debt, which has reduced its interest burden. It is currently exploring options of replacing existing high cost INR debt with low cost ECB, which should further trim the interest cost, aiding profitability.

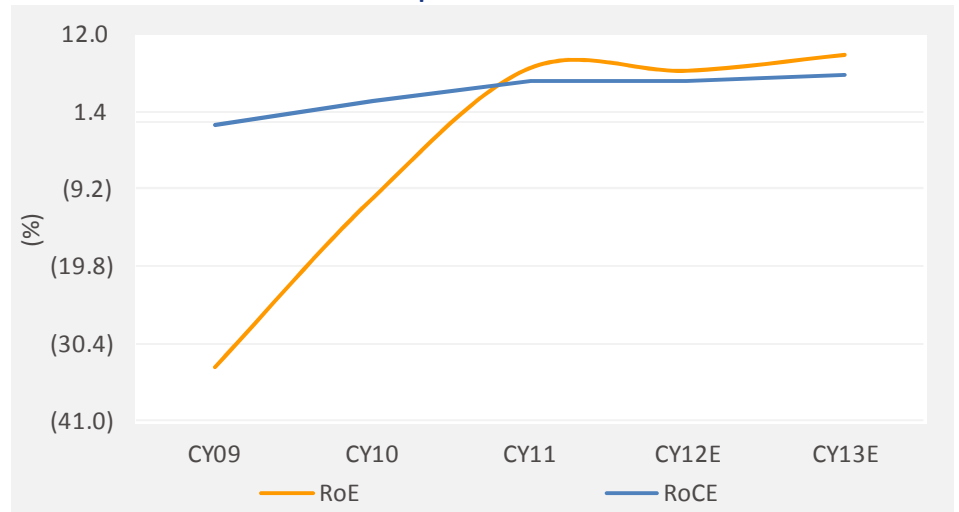
Chart 5: Interest burden coming off post IPO/QIP



Source: Company, Edelweiss research

Falling interest cost, rising operational efficiency, and higher utilisation have turned the company profitable in CY11 for the first time since it began commercial operations in 2002 which has led to a sharp uptick in return ratios. However the near term range bound margin outlook and back ended utilisation levels (against impending capex) to leave limited room for expansion of the return ratios.

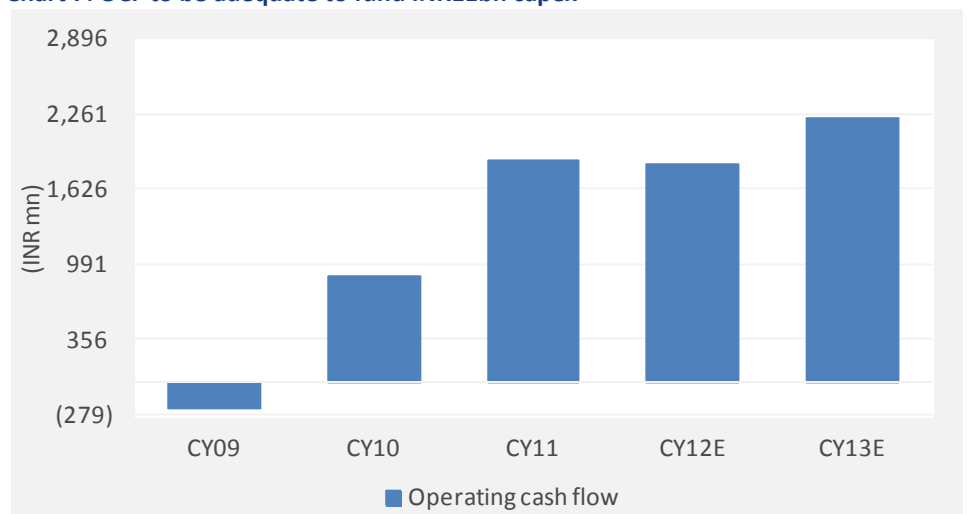
Chart 6: RoE and RoCE closer to their peaks



Source: Company, Edelweiss research

The company has been generating adequate operating cash (ballooning repayment for the existing INR debt, hence free cash flows available) flows post the turnaround which should help comfortably fund the INR 11bn capex outlined (Internal accruals of INR 3bn, 4.5bn ECB debt and INR 3.5bn QIP/Equity issuance).

Chart 7: OCF to be adequate to fund INR11bn capex



Source: Company, Edelweiss research

Key Risks

Ramp up in cargo at a faster clip

Despite the weak macro economic weakness, we have assumed GPPL to achieve peak container handling of 16.55MT by CY16 (20% CAGR) and bulk cargo achieving peak capacity of 4.3MT in CY14. We have not factored INR3bn capex planned by the company (contingent on firm cargo commitments from clients) towards augmenting bulk capacity from existing 5mtpa to 10mtpa. Hence, any cargo upsides from this are a risk to our valuation call. While we factor in shift from some major ports as well as benefits from the on-going talks for long term tie up, if cargo growth is faster than our estimates then there could be upside risks to our valuations.

Table 6: TP sensitivity to cost of equity (Ke) and cost of debt

		Average cost of debt				
		8.0%	9.0%	10.0%	11.0%	12.0%
Cost of Equity	12.0%	53	52	51	50	49
	13.0%	49	48	47	46	46
	14.0%	45	45	44	43	42
	15.0%	42	42	41	40	39
	16.0%	40	39	38	37	37

Source: Edelweiss research

Improving yields

We have factored in 3% tariff increase every year. If actual yield is higher due to higher yielding cargo or take-or-pay contracts or rupee depreciation, then such improved realisations could narrow the valuation gap.

Table 7: TP sensitivity to YoY tariff increase and cargo growth rate

		YoY container growth rate				
		10.0%	15.0%	20.0%	25.0%	35.0%
YoY tariff increase	2.0%	33	37	39	40	42
	3.0%	37	41	43	44	46
	4.0%	41	45	48	49	51
	5.0%	46	50	53	54	56

Source: Edelweiss research

Margin expansion

We have assumed flat EBITDA margin in CY12 at 44% expanding by 200bps during the capex phase till CY14, post which we expect considerable expansion, and subsequently stabilising around 63% during the balance concession period. If management is able to report superior margin and also at a faster clip then both earnings as well as valuations will be higher.

Terminal value

As per the agreement with GMB, post the expiry of the concession period in 2028, GPPL is eligible for “depreciated replacement value of asset”. We have estimated INR31.3bn (PV of INR 3.8bn) towards this based on 4% inflation, 3.33% depreciation, INR 500mn recurring capex, and 14% Ke.

Table 8: Terminal value/share sensitivity table to inflation and cost of equity (Ke)

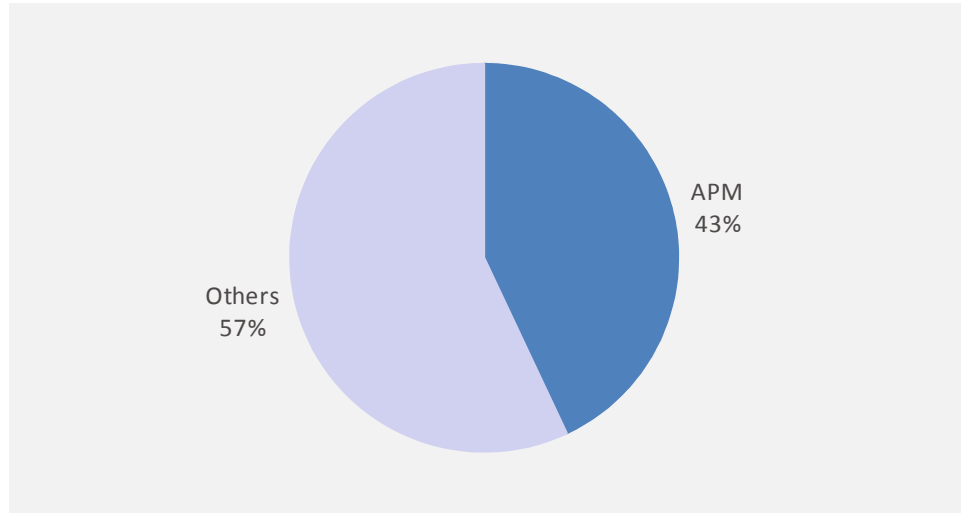
		Inflation				
		2.0%	3.0%	4.0%	5.0%	6.0%
Cost of Equity	12.0%	8	9	11	12	14
	13.0%	7	8	9	10	12
	14.0%	6	7	8	9	10
	15.0%	5	6	7	8	9
	16.0%	5	5	6	7	8

Source: Edelweiss research

Company Description

GPPL is operated by APM Terminals, part of the AP Moller-Maersk (APMM) Group, one of the largest container terminal operators in the world. APM Terminals is one of the largest container terminal operators in the world with an interest in approximately 63 ports and terminals and 155 inland terminal locations in 64 countries and five continents. During the year ended December 31, 2011, it handled 33.5mn TEUs and had revenue of over USD4.6bn. APM Terminals through APM Terminals Mauritius Limited (ATML) holds 43% of company's current paid-up share capital.

Chart 8: Share holding post QIP/ preferential allotment to APMT Mauritius

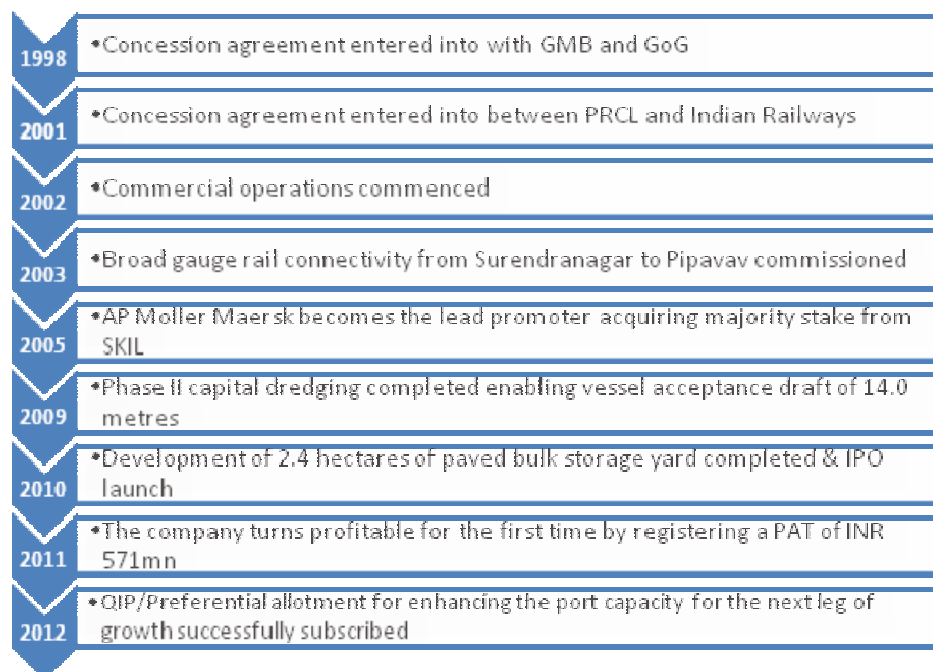


Source: Company, Edelweiss research



GPPL was incorporated on August 5, 1992, to build, construct, operate, and maintain the port at Pipavav, district Amreli, in Gujarat (India). The company entered into a concession agreement with Gujarat Maritime Board and the Government of Gujarat on September 30, 1998, and a supplementary concession agreement dated June 2, 2006, pursuant to which it has been granted the right to develop and operate APM Terminals Pipavav for a period of 30 years until September 2028. GPPL is one of the principal gateways on the West coast of India and is located in the Saurashtra region of Gujarat. It is an all weather port and is protected by two islands, which act as a natural breakwater maximising port safety. The port is strategically located near the entrance of the Gulf of Khambhat (formerly known as the Gulf of Cambay) on the main maritime trade routes, which helps serve imports from and exports to the Middle East, Far East, US, Europe and other international destinations.

Fig. 3: Key milestones

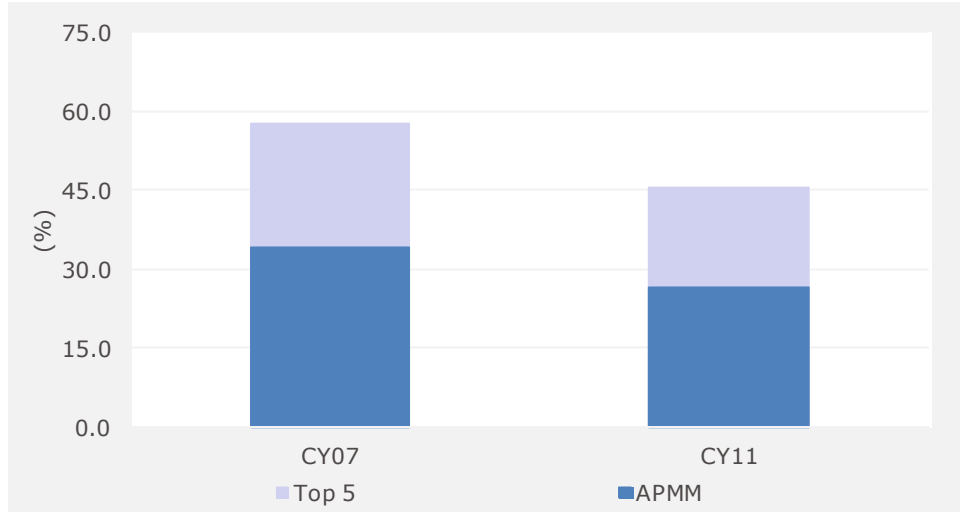


Source: Company, Edelweiss research

APMM parentage an advantage; broad basing clientele

APM Terminals (subsidiary of AP Moller Maersk group) is one of the largest container terminal operators in the world with an interest in approximately 63 ports and terminals. This parentage lends Pipavav strong credibility among shipping lines who are its major customers. Thus, GPPL tends to receive benefits such as developing business with shipping lines and assistance in developing relationships with third parties in the shipping industry which will aid its port's volumes. Infact, Maersk Line (including Safmarine Container Lines), part of the APMM Group and strategic customer of APM Terminals, is also among the largest customers at the port and operates regular cargo shipping services to international destinations. Pipavav's client base is also getting broad based with new shipping lines making a call at the port, which has reduced the share of APM's contribution from ~35% in CY07 to ~27% in CY11.

Chart 9: Percentage share of APMM/Top 5 clients



Source: Company, Edelweiss research

Table 9: Infrastructure at the port

Category	Infrastructure	Capacity
Container handling	Dedicated jetty + multi-purpose jetty; 3 Panamax + 5 post-Panamax rail-mounted quay cranes	1.2 m TEUs
Stackyard/CFS	18 RTG cranes including 10 eco-friendly RTG cranes +11,000 square metres of covered warehousing space for CFS facilities	2,540 TEU slots, (520 powered ground slots + 526 reefer)
Bulk handling	Two bulk cargo berths and one multi-purpose berth. Cranes and mechanised coal handling facilities	5 MTPA
Coal yard	Perimeter of 2,000 metres connected to berths via conveyor belts	300,000 MTs
LPG cargo	Dedicated berth and two storage tanks	
Bulk storage	15 warehouses	Covered 51,000 square metres area

Source: Company, Edelweiss research

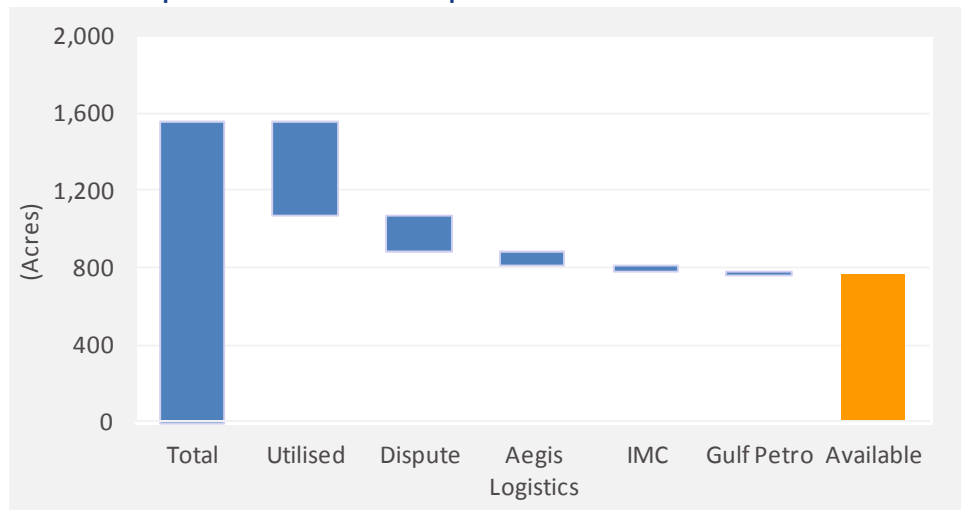
Fig 4: Pipavav port layout



Source: Company, Edelweiss research

The port layout allows for expansion by way of construction of additional jetties. The company has the right to develop approximately 1,561 acres of land at the port. It also has the right to sub-lease the land and infrastructure at port premises to various users. Pipavav port has entered into agreements with Gulf Petrochemical India, Aegis Gas, and IMC for lease of land and development of tankage facilities, which will yield lease rental income and also marine-related income post commencement of operations. Beyond sub-leasing of land to third party consumers, the port has adequate surplus land left which can be developed for creating new facilities.

Chart 10: Adequate land available for expansion

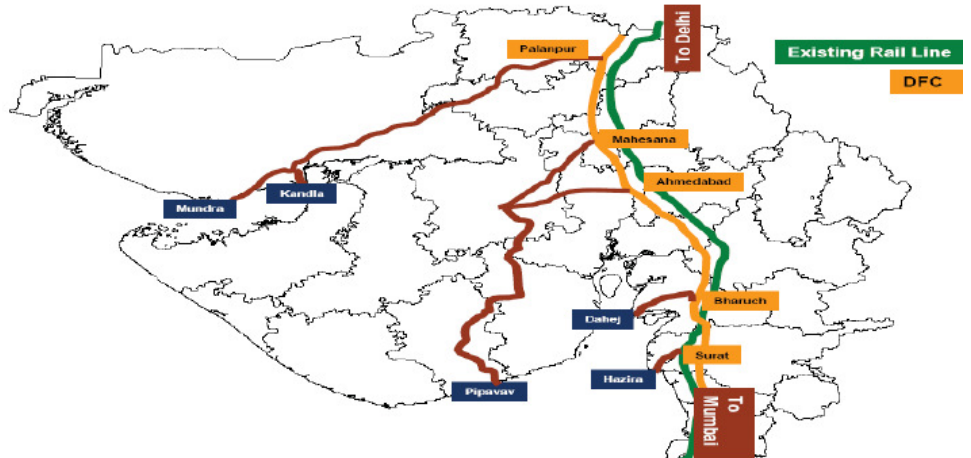


Source: Company, Edelweiss research

Improving volumes help fulfill traffic guarantee pact with PRCL

The port is connected to the Indian Railways network via an approximately 269 km long dedicated broad gauge railway link maintained by Pipavav Rail Corporation Ltd (38.8% owned by GPPL in JV with Indian Railways). The western DFC from Dadri to Mumbai which passes through the states of Delhi, Haryana, Rajasthan, Gujarat and Maharashtra is well connected through the broad gauge line between Pipavav port and Surendranagar district. The port also has a four lane road link of approximately 10 km to National Highway-8E for transporting cargo to and from the port.

Fig 5: Rail connectivity to the port



Source: Company, Edelweiss research

The company entered into a Traffic Guarantee Agreement on January 10, 2003, with the Ministry of Railways/Western Railways and PRCL to provide rail freight traffic of 1MT in the first year of operation, 2MT in the second year and 3MT from the third year until June 2034. In the past, GPPL did not meet its obligations of minimum guaranteed volumes, for which it has paid penalty. However, with improved volumes at the port it has achieved the Minimum Guaranteed Quantity of 3MT avoiding penalty and improving operational performance.

Chart 11: PRCL traffic in FY12



Source: Company, Edelweiss research

Financial Statements

Key assumptions

Year	FY10	FY11	FY12	FY13E	FY14E
Macro					
GDP(Y-o-Y %)	8.4	8.4	6.5	6.4	7.0
Inflation (Avg)	3.6	9.9	8.8	7.0	6.0
Repo rate (exit rate)	5.0	6.8	8.5	7.3	6.8
USD/INR (Avg)	47.4	45.6	47.9	53.5	50.0
Company					
	CY09	CY10	CY11	CY12E	CY13E
Total cargo handled (MT)	7.2	9.0	11.0	11.4	12.7
Average realisation (INR/t)	305	317	360	371	382
EBITDA margin (%)	17.8	40.3	46.1	43.4	45.1

Income statement

	(INR mn)				
Year to December	CY09	CY10	CY11	CY12E	CY13E
Total revenues	2,207	2,839	3,968	4,111	4,728
Cost of Operations	1,106	1,140	1,505	1,620	1,835
Staff cost	240	272	341	365	387
Other operating expenses	469	283	293	313	332
Total expenditure	1,815	1,695	2,140	2,299	2,554
EBITDA	392	1,144	1,828	1,812	2,174
Depreciation and Amortisation	458	493	558	602	621
EBIT	(65)	651	1,270	1,210	1,553
Interest	1,157	1,271	852	566	482
Other income	117	111	153	71	114
Exceptional items	(58)	(38)	-	-	-
PBT	(1,163)	(547)	571	714	1,185
Core profit	(1,164)	(547)	571	714	1,185
Shares outstanding (mn)	314.9	423.6	423.6	483.4	483.4
EPS (INR) basic	(3.7)	(1.3)	1.3	1.5	2.5
Diluted shares (mn)	314.9	423.6	423.6	483.4	483.4
EPS (INR) fully diluted	(3.7)	(1.3)	1.3	1.5	2.5

Common size metrics- as % of net revenues

Year to December	CY09	CY10	CY11	CY12E	CY13E
Operating expenses	82.2	59.7	53.9	55.9	54.0
EBITDA margins	17.8	40.3	46.1	44.1	46.0
Net profit margins	(52.7)	(19.3)	14.4	17.4	25.1

Growth metrics (%)

Year to December	CY09	CY10	CY11	CY12E	CY13E
Revenues	31.9	28.6	39.7	3.6	15.0
EBITDA	208.6	191.5	59.8	(0.9)	20.0
Net profit	172.2	47.0	(104.3)	125.1	165.9
EPS	72.2	(65.1)	(204.3)	9.6	65.9

Ports

Balance sheet					(INR mn)
As on 31st March	CY09	CY10	CY11	CY12E	CY13E
Share capital	3,149	4,236	4,236	4,834	4,834
Reserves & surplus	7,731	11,440	11,440	15,055	16,240
Shareholders funds	10,880	15,675	15,675	19,889	21,074
Secured loans	10,559	7,654	6,759	3,540	6,508
Borrowings	10,891	7,973	6,759	3,540	6,508
Sources of funds	21,771	23,648	22,434	23,429	27,582
Gross block	16,883	16,883	17,515	18,636	18,636
Less : Depreciation	4,052	4,280	4,817	5,419	6,040
Net block	12,830	12,603	12,698	13,217	12,596
Capital work in progress	156	304	121	800	4,000
Total fixed assets	12,986	12,907	12,819	14,017	16,596
Investments	830	830	830	830	830
Inventories	52	75	57	64	74
Sundry debtors	217	295	295	331	381
Cash and equivalents	798	1,949	1,272	1,084	2,706
Loans and advances	645	530	560	560	560
Total current assets	1,711	2,848	2,184	2,039	3,721
Sundry creditors and others	1,199	868	759	817	925
Provisions	326	385	386	386	386
Total CL & provisions	1,526	1,253	1,144	1,202	1,310
Net current assets	186	1,595	1,040	837	2,411
Others	7,769	8,316	7,745	7,745	7,745
Uses of funds	21,771	23,648	22,434	23,429	27,582
Adjusted book value per share (BV)(INR)	35	37	37	41	44

Free cash flow					(INR mn)
Year to December	CY09	CY10	CY11	CY12E	CY13E
Net profit	(1,164)	(547)	571	714	1,185
Depreciation	458	493	558	602	621
Others	(498)	685	614	525	466
Gross cash flow	(1,204)	631	1,743	1,841	2,272
Less: Changes in W. C.	(972)	(258)	(122)	15	49
Operating cash flow	(232)	889	1,864	1,827	2,223
Less: Capex	3,845	149	448	1,800	3,200
Free cash flow	(4,077)	740	1,416	27	(977)

Cash flow metrics					
Year to December	CY09	CY10	CY11	CY12E	CY13E
Operating cash flow	(232)	889	1,864	1,827	2,223
Financing cash flow	2,397	641	(2,125)	(285)	2,486
Investing cash flow	(3,064)	(380)	(416)	(1,729)	(3,086)
Net cash flow	(899)	1,151	(677)	(188)	1,622
Capex	3,845	149	448	1,800	3,200
Share issuance/(buyback)	0	5,000	0	3,500	0

Profitability & liquidity ratios

Year to December	CY09	CY10	CY11	CY12E	CY13E
ROAE (%)	(33.7)	(10.5)	7.5	7.1	9.3
ROACE (%)	(0.4)	3.0	5.7	5.5	6.3
Current ratio	1.1	2.3	1.9	1.7	2.8
Debtors (days)	24	33	27	28	28
Average fixed assets t/o (x)	0.2	0.2	0.3	0.3	0.4
Average working capital t/o (x)	(2.1)	(5.9)	(13.5)	(17.2)	(17.4)
Average capital employed t/o (x)	0.1	0.1	0.2	0.2	0.2
Debt / Equity	1.0	0.5	0.4	0.2	0.3
Debt/EBITDA	27.8	7.0	3.7	2.0	3.0
Adjusted Debt/Equity	1.0	0.5	0.4	0.2	0.3

Operating ratios

Year to December	CY09	CY10	CY11	CY12E	CY13E
Total asset turnover	0.1	0.1	0.2	0.2	0.2
Average fixed assets t/o (x)	0.2	0.2	0.3	0.3	0.3
Equity turnover	0.3	0.2	0.3	0.2	0.2

Valuation parameters

Year to December	CY09	CY10	CY11	CY12E	CY13E
Diluted EPS (INR)	(3.7)	(1.3)	1.3	1.5	2.5
Y-o-Y growth (%)	72.2	(65.1)	(204.3)	9.6	65.9
CEPS (INR)	(2.2)	(0.1)	2.7	2.7	3.7
Diluted P/E (x)	(13.3)	(37.9)	36.3	33.2	20.0
Price/BV(x)	1.4	1.3	1.3	1.2	1.1
EV/Sales (x)	11.2	9.1	6.4	6.2	5.6
EV/EBITDA (x)	62.9	22.7	13.9	14.0	12.3

Peer comparison

Name	Price (INR)	Market cap (INR mn)	P/BV(x)		EV/EBITDA(x)		RoE (%)	
			CY12/FY13	CY13/FY14	CY12/FY13	CY13/FY14	CY12/FY13	CY13/FY14
Adani Ports and SEZ	113	226,267	3.9	3.1	12.0	9.3	23.0	25.8
Gujarat Pipavav port	49	23,689	1.2	1.1	14.0	12.3	7.1	9.3
Essar Ports	87	37,082	1.5	1.3	8.9	6.9	11.8	14.6

Source : Edelweiss research

Appendix

Fig. 1: Layout of a large multipurpose artificial port

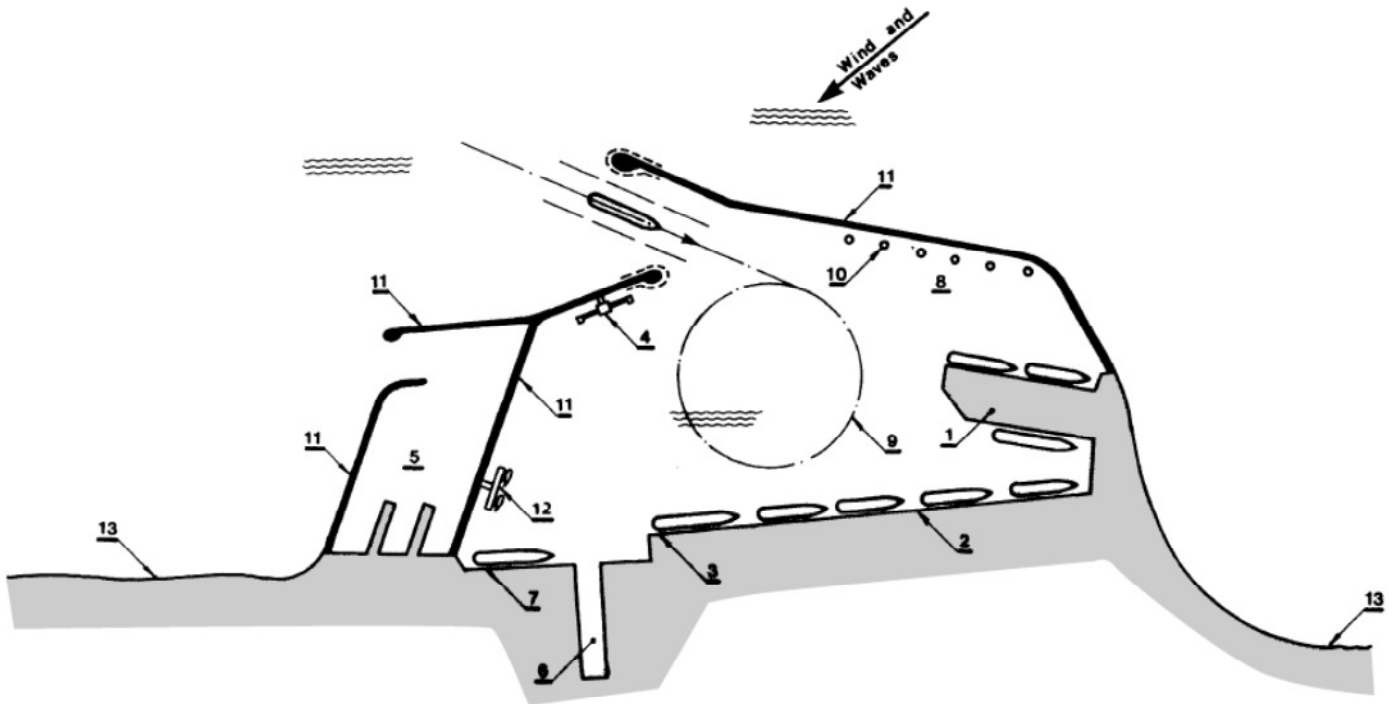


Figure 1.6 Layout of a large multipurpose artificial port. 1, General cargo terminal; 2, container terminal; 3, passenger terminal; 4, oil berth; 5, fishing port; 6, dry dock; 7, ship repair area; 8, anchorage area; 9, maneuvering circle; 10, mooring dolphins; 11, breakwater; 12, tugboat berth; 13, coastal line.

Source: Edelweiss research

- **Breakwater:** Structures constructed to ensure calmest possible conditions, particularly against wind-generated waves, to protect vessels anchored at berth for loading/unloading operations. Breakwaters reduce the intensity of wave action in inshore water current, providing safe harbourage. Most natural harbours have some barriers which act as natural breakwaters, but artificial harbours have to be created with the help of sea walls made up of large pieces of concrete.
- **Turning circle:** The vessel entering the harbour basin has to reduce its speed and position itself appropriately for berthing position which has been determined beforehand. The area of the harbour which is earmarked for maneuvering the vessel is called the turning circle which is designed based on dimensions of vessels expected to call on port.
- **Draft:** The minimum depth of water for safely navigating vessels in and out of the harbour. Adequate depth has to be maintained at the channel, turning circle and also at the berths which is generally determined by the maximum draft of the vessel designed to be served. A safety factor of about 15% of the design vessel draft is considered sufficient for purpose of defining the minimum depth. Alternatively, a margin of about 1.5-2.0 m over the draft of a loaded vessel gives a safe water depth for a port. Dredging

is an excavation activity or operation usually carried out partly underwater with the purpose of increasing the draft, thereby keeping waterways navigable.

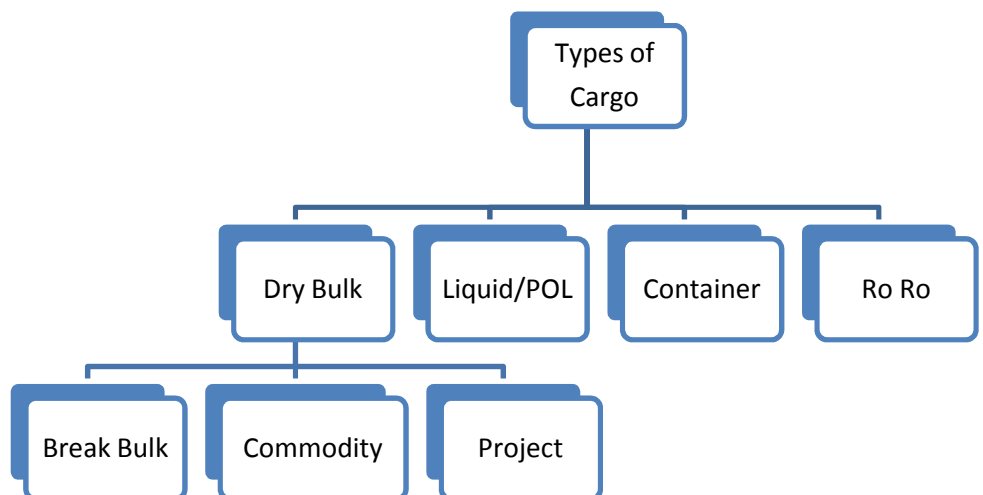
- **Cargo berth:** Specific locations (civil structure) in ports where a vessel can be berthed for carrying out loading and unloading operations.
- **Tug boat:** Boats that maneuver large vessels into the harbour for berthing from the channel either by pushing or towing them. This process called towage is when the vessel's engines are usually stopped and the vessel moves in sync with tug boats.
- **Channel:** The port entrance demands careful consideration to ensure quick and safe entry of vessels in the harbour. The entrance is formed by a suitable alignment of the protection works, whose structure heads are suitably marked with navigation lights.

Types of port cargo

There are broadly four major categories of cargo handled at any port:

- Dry bulk cargo comprising largely of break bulk cargo, typically material stacked on pallets, bulk cargo, such as iron ore, coal, etc., usually defined as commodities that are neither on pallets nor in containers and project cargo which is large dimension in size.
- Containers are the largest and fastest growing cargo category at most ports worldwide. Containerised cargo includes everything from auto parts, machinery and manufacturing components to shoes and toys to frozen meat and seafood.
- Liquid/POL cargo that is carried and stored in specialised tankers largely to handle crude and petroleum cargo.
- Automobiles are handled at many ports and are usually carried on specialised roll-on/roll-off ships.

Fig. 2: Types of cargo at ports

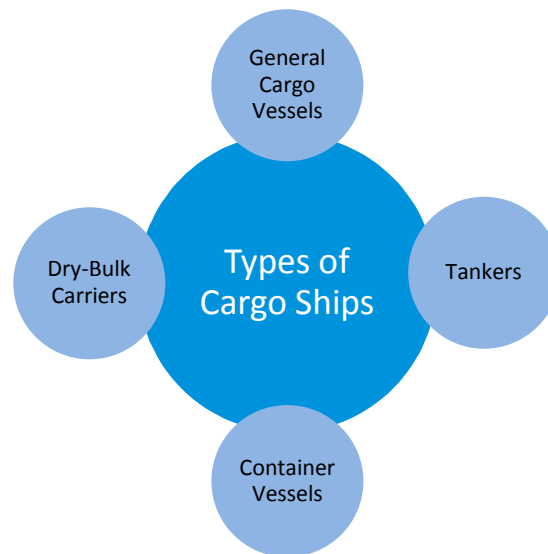


Source: Edelweiss research

Types of cargo ships

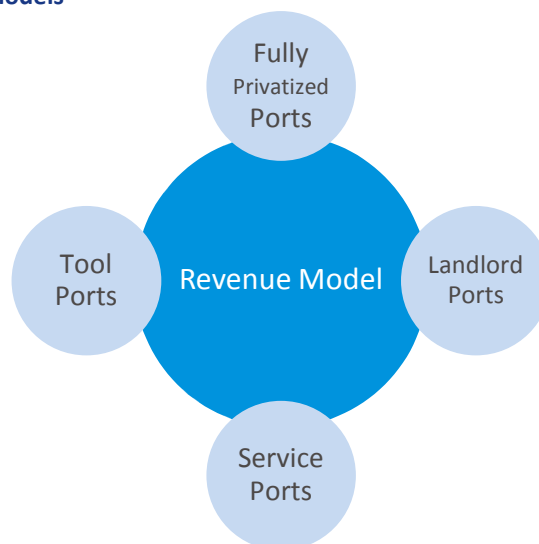
- **General cargo vessels:** They carry packaged items like chemicals, food, furniture, machinery, motor vehicles, footwear, garments, etc.
- **Liquid bulk cargo:** Tankers carry petroleum products or other liquid cargo. It includes POL and its products, crude oil, LPG and other non hazardous chemicals, etc.
- **Dry bulk cargo:** Dry bulk carriers carry coal, grain, ore and other similar products in loose form. Major commodities transported in dry bulk are coal, iron ore, food grains, phosphate, steel, cement, fertilizers, among others.
- **Container vessels:** These are specialised ships to carry containers.

Fig. 3: Types of cargo at ports



Source: Edelweiss research

Fig. 4: Revenue models



Source: Edelweiss research

The port sector follows several models for efficient administration. These models are distinguished by characteristics like:

- Public, private, or mixed provision of service.
- Local, regional, or global orientation.
- Ownership of infrastructure (including port land).
- Ownership of superstructure and equipment (particularly ship-to-shore handling equipment, sheds, and warehouses).

Based on the following characteristics, there are four major models:

- Service ports
- Tool ports
- Landlord ports
- Fully Privatised ports

Service ports

Service ports have a predominantly public character. The number of service ports is declining. Many former service ports are changing over to the landlord port structure. However, some ports in developing countries are still managed according to the service model. Under it, the port authority offers complete range of services required for functioning of the seaport system. The port owns, maintains, and operates every available asset (fixed and mobile), and cargo handling activities are executed by labour employed directly by the port authority. Service ports are usually controlled by (or even part of) the ministry of transport (or communications) and the chairman (or director general) is a civil servant appointed by or directly reporting to the minister concerned. Among the primary functions of a service port is cargo handling activity. In some developing countries, cargo handling activities are executed by a separate public entity often referred to as the cargo handling company. Such public companies usually report to the same ministry as the port authority. To have public entities with different and sometimes conflicting interests reporting to the same ministry, and forced to cooperate in the same operational environment, constitutes a serious management challenge.

Tool ports

In the tool port model, the port authority owns, develops, and maintains the port infrastructure as well as the superstructure, including cargo handling equipment such as quay cranes and forklift trucks. Port authority staff usually operates all equipment owned by the port authority. Other cargo handling on board vessels as well as on the apron and on the quay is usually carried out by private cargo handling firms contracted by shipping agents or other principals licenced by the port authority.

The Port of Chittagong (Bangladesh) is a typical example of the tool port. Ports Autonomies in France is also an example, in particular the container terminals, which are managed and operated along the principles of the tool port. In more recent terminals, private terminal operators have invested in gantry cranes. This arrangement has generated conflicts between port authority staff and terminal operators, which has impeded operational efficiency.

The above-mentioned division of tasks within the tool port system clearly identifies the essential problem with this type of port management model—split operational responsibilities. Whereas the port authority owns and operates the cargo handling equipment, the private cargo handling firm usually signs the cargo handling contract with the ship owner or cargo owner. The cargo handling firm, however, is not able to fully control cargo handling operations itself. To prevent conflicts between cargo handling firms, some port authorities allow operators to use their own equipment (at which point it is no longer a true tool port). The tool port shares a number of similarities with the service port, both in terms of its public orientation and the way the port is financed.

Under tool port model, the port authority makes land and superstructures available to cargo handling companies. In the past, these companies tended to be small, with few capital assets. Their costs were almost entirely variable. The cost of underuse of port facilities was usually absorbed by the port authority, which minimised the risk for cargo handling companies. Often, the provision of cargo handling services was atomised; companies were small with activity fragmented over many participants. Lack of capitalisation of cargo handling companies constituted a significant obstacle to the development of strong companies that could function efficiently in the port and be able to compete internationally.

A tool port does have its advantages, particularly when it is used as a means of transition to a landlord port. Using the tool port model as a catalyst for transition can be an attractive option in cases where the confidence of the private sector is not fully established and investment risk is considered high. A tool port may mitigate this by reducing initial capital investment requirements. Another example could include a government looking to expedite port reform initiatives, but requires extensive amount of time for legal statutes to be established. Laws and regulations for establishing a tool port may be less extensive since no state assets are being transferred to the private sector, and therefore make it an easier model to adopt in the first phase of reform.

Landlord ports

Landlord port is characterised by its mixed public-private orientation. Under this model, the port authority acts as regulatory body and as landlord, while port operations (especially cargo handling) are carried out by private companies. Today, the landlord port is the dominant port model in large and medium sized ports.

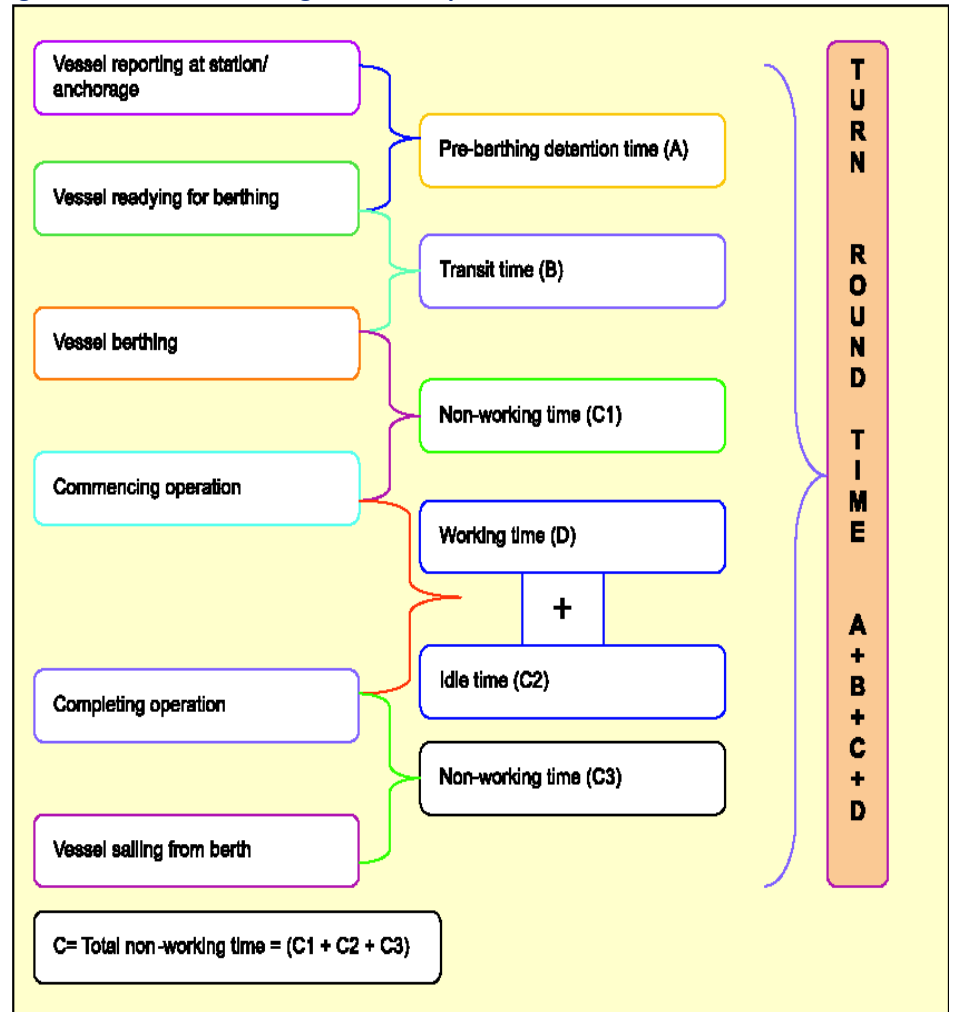
Under this model, infrastructure is leased to private operating companies or to industries such as refineries, tank terminals, and chemical plants. The lease to be paid to the port authority is usually a fixed sum per square meter per year, typically indexed to some measure of inflation. The level of the lease amount is related to the initial preparation and construction costs (for example, land reclamation and quay wall construction). Private port operators provide and maintain their own superstructure including buildings (offices, sheds, warehouses, container freight stations, workshops). They also purchase and install their own equipment on terminal grounds as required by their business. In landlord ports, dock labour is employed by private terminal operators, although in some ports part of the labour may be provided through a port-wide labour pool system.

Fully privatised ports

Fully privatised ports (which often take the form of a private service port) are few in number. Full privatisation is considered by many as an extreme form of port reform. In fully

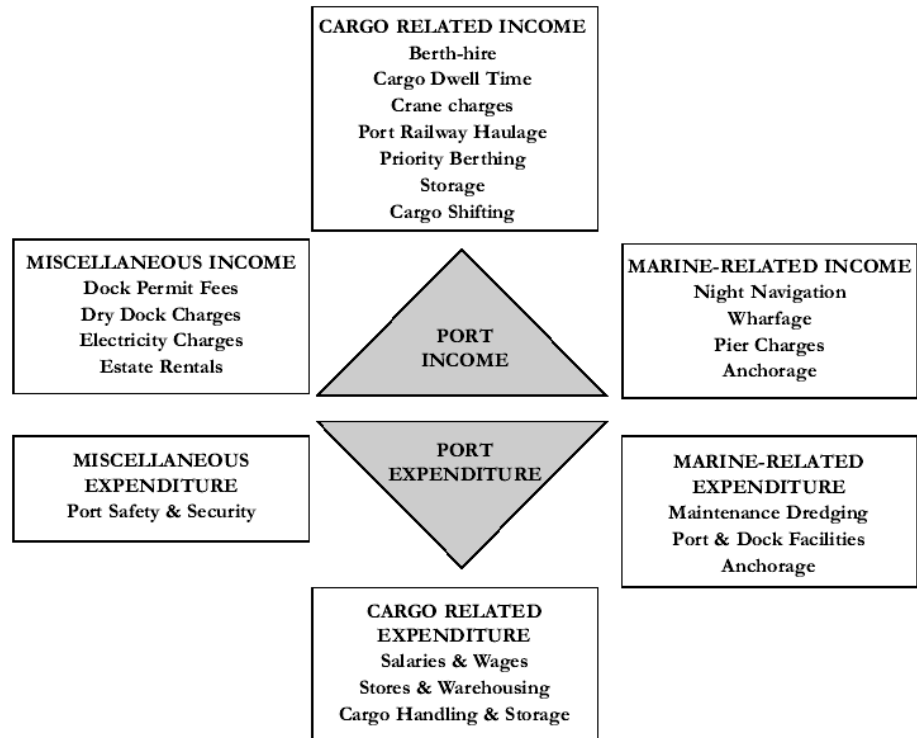
privatised ports, port land is privately owned, unlike in other port management models. This requires the transfer of ownership of such land from the public to the private sector. In addition, along with the sale of port land to private interests, some governments may simultaneously transfer regulatory functions to private successor companies.

Fig. 5: Turnaround time diagrammatic representation



Source: Secretariat for Infrastructure, Edelweiss research

Fig. 6: Structure and Components of port income and expenditure



Source: i-maritime, Edelweiss research

Table 1: Options for private sector participation in infrastructure

	Asset Ownership	Operations & Maintenance	Capital Investment	Commercial Risk	Duration	Areas where implemented
Service contract	Public	Public / Private	Public	Public	1-2 years	Towage, Dredging, equipment and crafts,
Management contract	Public	Private	Public	Public	3-5 years	Canteen operations
Concession	Public	Private	Public and/	Private	10-30 years	Terminals, Channels. Entire Greenfield port
Build Own, Operate (BOO)	Public and Private	Private	Private	Private	Indefinite	Terminals, Channels, Entire port complex
Divesture	Private	Private	Private	Private	Indefinite	

Source: i-maritime, Edelweiss research

Table 2: World port rankings 2010

Total cargo volume				Container traffic			
000 tonnes				TEUs - Twenty-Foot Equivalent Units			
Rank	Port	Country	Tonnes	Rank	Port	Country	TEUS
1	Shanghai	China	534,371	1	Shanghai	China	29,069,000
2	Singapore	Singapore	501,566	2	Singapore	Singapore	28,431,100
3	Rotterdam	Netherlands	429,926	3	Hong Kong	China	23,669,242
4	Guangzhou	China	425,600	4	Shenzhen	China	22,509,700
5	Ningbo	China	408,150	5	Busan	South Korea	14,194,334
6	Tianjin	China	400,000	6	Ningbo	China	13,144,000
7	Qingdao	China	350,120	7	Guangzhou	China	12,486,900
8	Qinhuangdao	China	276,282	8	Qingdao	China	12,012,000
9	Hong Kong	China	267,815	9	Dubai Ports	United Arab Emirates	11,575,775
10	Busan	South Korea	262,963	10	Rotterdam	Netherlands	11,145,804

Source: American association of port authorities, Edelweiss research

Indian Maritime Landscape

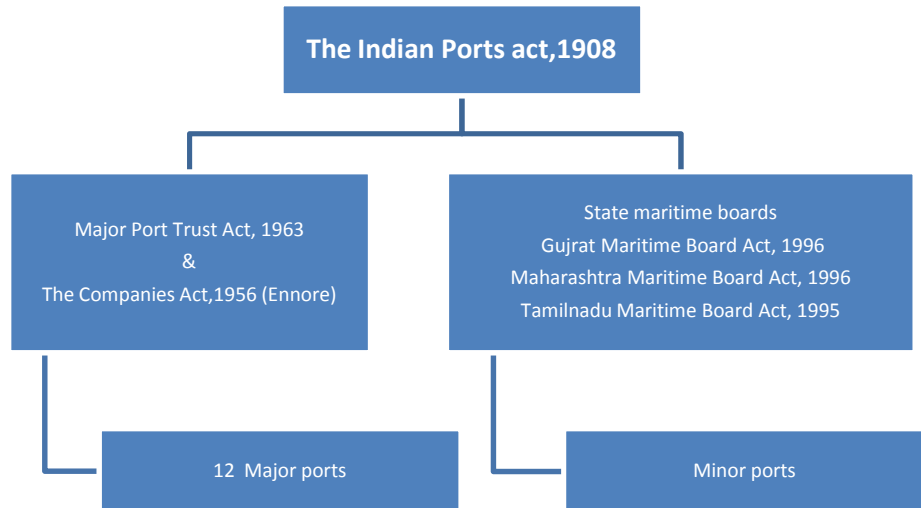
India has 12 major ports which are administered by the central government under the Ministry of Shipping and 176 minor ports administered by nine states and three Union Territories along their coast lines. Out of the 12 major ports, six are along the West coast and the balance six are along the East coast. Further, tariffs at all major ports are governed by the Tariff Authority for Major Ports (TAMP), while minor ports, which are regulated by respective state governments (in case of state-owned ports) or by private players (in case of private or captive ports), are free to operate under market determined rates.

Fig. 7: Map of maritime states and ports of India



Source: NMDP, Edelweiss research

The Indian government has a federal structure, and according to its Constitution, maritime transport falls under the "Concurrent List", to be administered by both Central and state governments. While the Central Shipping Ministry administers major ports, minor and intermediate ports are administered by relevant departments or ministries in the nine coastal states—West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra, and Gujarat.

Fig. 8: Acts governing Indian port sector

Source: MoS, Edelweiss research

Major ports of India are regulated under the Indian Ports Act (1908), Major Ports Trust Act (1963), and the Companies Act (1956; Ennore).

Indians Port Act, 1908: The Indian Ports Act 1908 is applicable to both major and minor ports. All ports derive their definition and status from the provisions of this act. It lays down rules on safety of shipping and conservation of ports for the entire port sector. It also regulates matters pertaining to the administration of port duties, pilot age, and other charges.

The act clearly defines the powers of Central and state governments with respect to ports.

The act enables the government to:

- **Fix and revise tariffs:** In case of major ports, the authority constituted under the major Port Trust Act, Tariff Authority for Major Ports (TAMP) will be responsible for fixing and revising tariff and its collection.
- In case of minor ports, the state government appoints an officer or a body of persons at every port to collect port dues on behalf of the government.
- Set rules for safety of shipping and conservation of ports.
- Provide co-operation to be extended by port officials for defence activities.
- Levy port dues and wharfage charge from time to time.
- Grant licence to persons engaged in providing cargo handling and other facilities at ports.
- Appoint an officer or a body of persons as a conservator for each port. A conservator has the authority to give and enforce directions for certain specified purposes mentioned in the act.

Major Port Trust Act 1963: It is an act to make provision for the constitution of port authority for certain major ports in India and to vest the administration, control, and management of such ports. All ports defined as “major ports” under this act fall under the jurisdiction of the Central government.

- The board can enter into any contract necessary for the performance of its functions. However, no contract whereof the value or amount exceeds limits as prescribed by the Central government can be entered into without the prior approval of the government.
- For each of these ports, the Centre appoints a board of trustees to undertake the administration and management of respective ports. The board is under the control of the Central government.
- The board can request the government to acquire land under provisions of the Land Acquisition Act, 1894, when required.

Key regulations governing investments in ports

- 100% FDI for owning and operating ports.
- Concession period of 30 years under the PPP route.
- Bids sought under two stage process involving RFQ (Request for Qualification) for technical aspects and price bids for offering revenue share.
- 10-year tax holiday in a block of 15 years under Section 80IAB for port infrastructure projects.

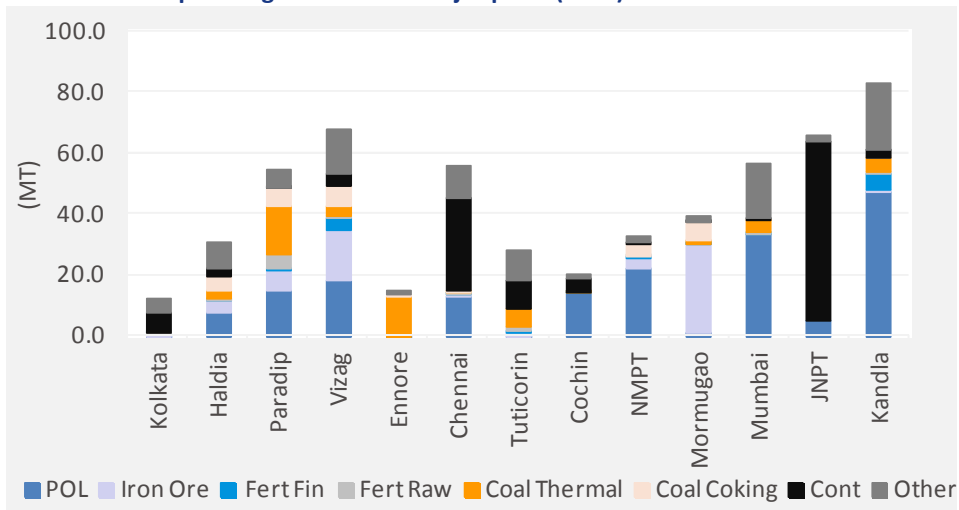
Table 3: Major ports of India

Ports	State	Type	Capacity (MT)	Cargo handled (FY 2012 MT)	Capacity utilisation
East coast					
Kolkata/Haldia	West Bengal	All weather- Riverine Port	67.1	43.2	64.4
Paradip	Orissa	All weather- Artificial lagoon port	76.5	54.3	71.0
Vizag	Andhra Pradesh	All weather- Natural harbour	72.9	67.4	92.4
Chennai	Tamil Nadu	All weather - Artificial harbour with	79.7	55.7	69.9
Tuticorin	Tamil Nadu	All weather - Artificial deep sea har	33.3	28.1	84.3
Ennore	Tamil Nadu	All weather-Artificial harbour	31.0	15.0	48.2
West coast					
Cochin	Kerala	All weather- Natural harbour	41.0	20.1	49.0
New Mangalore	Karnataka	All weather- Artificial lagoon port	51.0	32.9	64.5
Mormugao	Goa	All weather - Artificial lagoon port	41.9	39.0	93.1
Mumbai	Maharashtra	All weather- Natural harbour	44.5	56.2	126.2
JNPT	Maharashtra	All weather-Tidal port	64.0	65.7	102.7
Kandla	Gujarat	All weather- Natural harbour	86.9	82.5	94.9

Source: IPA, Edelweiss research

Kandla ranks No1 by cargo volume handled while Vizag/JNPT follow at 2/3

Chart 1: Breakup of cargo handled at major ports (FY12)



Source: IPA, Edelweiss research

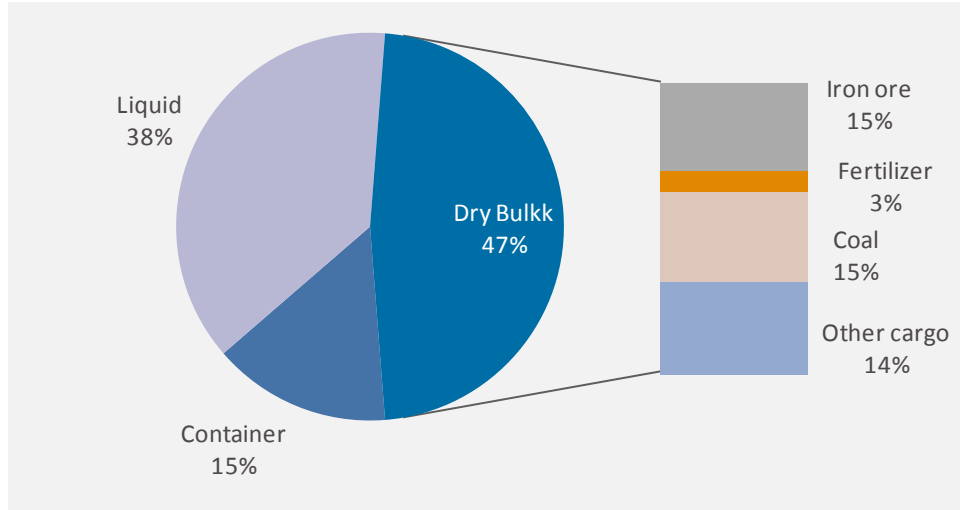
Table 4: Key minor ports of India

Ports	State	Type	Capacity (MT)
Mundra	Gujarat	All weather	165.0
Vadinar	Gujarat	All weather	58.0
Hazira	Gujarat	All weather	30.0
Pipavav	Gujarat	All weather	21.0
Dahej	Gujarat	All weather	20.0
Jaigad	Maharashtra	All weather	26.0
Dighi	Maharashtra	All weather	30.0
Dhamra	Orissa	All weather	20.0
Gangavaram	AP	All weather	16.5
Krishnapatnam	AP	All weather	25.0
Karaikal	TN	All weather	21.0

Source: Maritime boards, Port websites, Edelweiss research

Crude/liquid cargo is the most widely handled cargo at Indian ports on account of large quantum of imports by refineries. With increased demand for iron ore globally, India with a rich deposit of this ore has been a significant exporter. However, in FY12, due to a ban on exports from some locations and increase in excise duty, volumes have taken a beating. Thermal and coking coal imports in recent past have been on the rise due to shortage in domestic supply for power and steel plants.

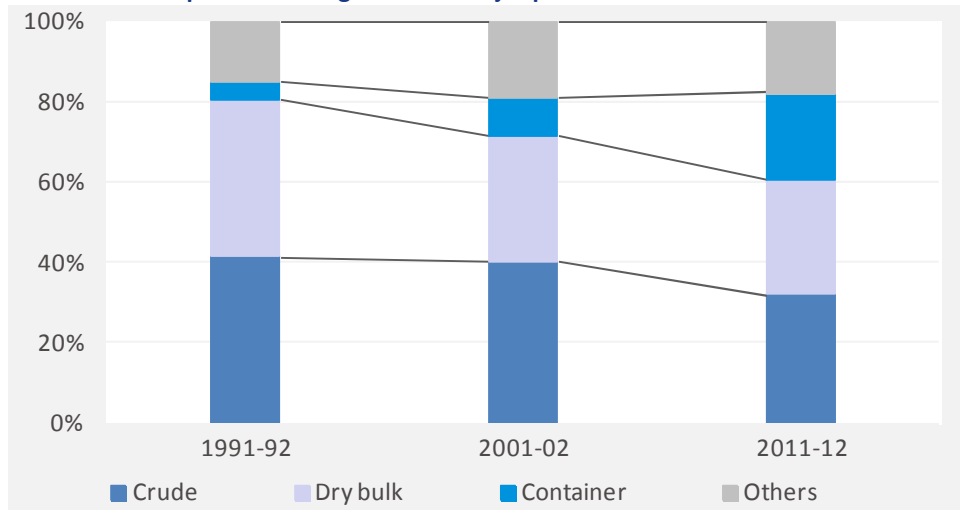
Chart 2: Breakup of cargo handled at Indian ports in FY12



Source: MoS, Edelweiss research

However, there is a shift in the pattern of cargo handled over the years. Historically, crude and dry bulk dominated the cargo mix comprising 80% of the total cargo while container was merely 4%. A consistent growing trend in containers has seen its share jump to 21% of cargo handled in a span of 20 years.

Chart 3: Shift in pattern of cargo tariff at major ports

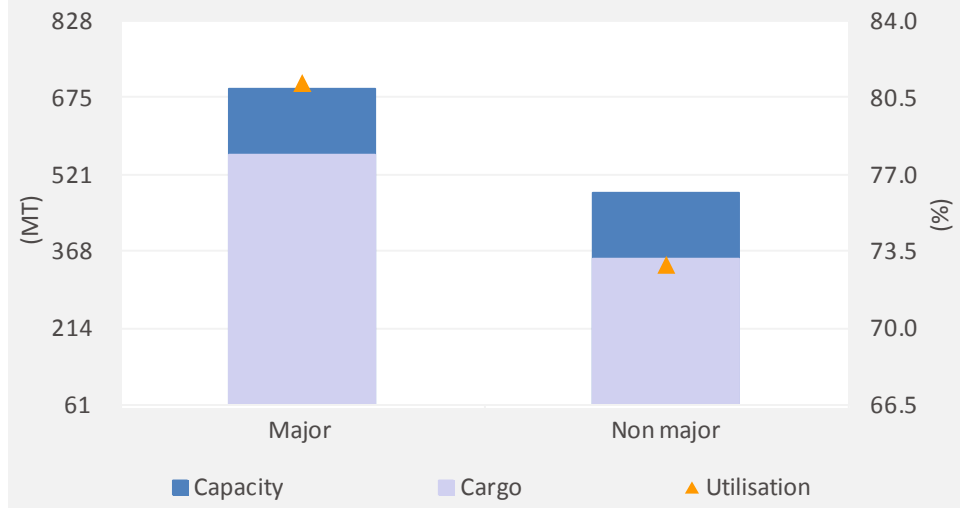


Source: Planning Commission, Edelweiss research

While cargo at Indian ports is a good mix of bulk and container cargo, ports on the East coast, which are closer to the resource rich belt of iron ore/coal deposits and power/steel/fertilizer plants, handle majority of the bulk commodity cargo. Those on the West coast are more skewed towards container and POL cargo due to proximity to the industrialised western states and connectivity to the highly industrialised northern hinterland and oil refineries.

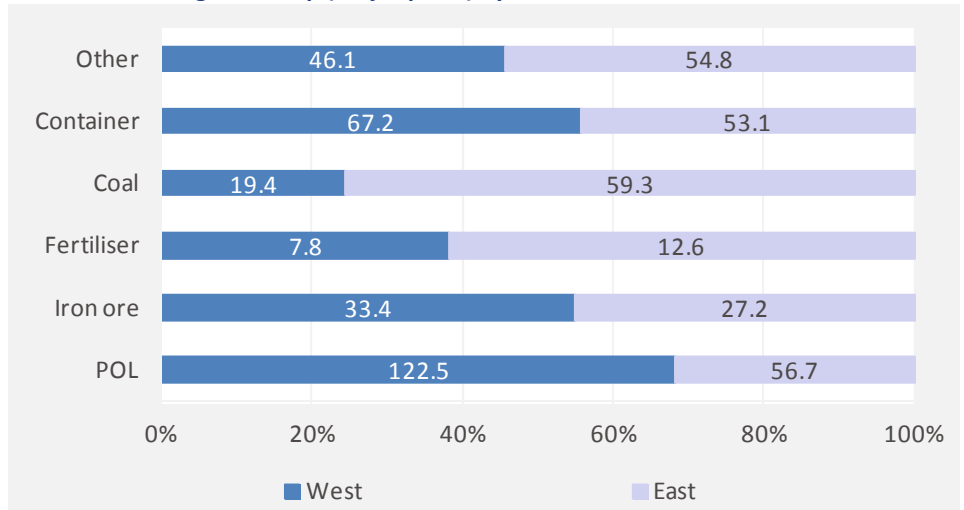
Share of container cargo going up over the years

Chart 4: Indian ports capacity, cargo and utilisation (FY12)



Source: IPA, Edelweiss research

Chart 5: FY12 cargo breakup (Major ports) by coast



Source: IPA, Edelweiss research

West coast is POL/container dominated while east is more bulk centric

JNPT, on the West coast, handles majority of the container cargo while Kandla, Mumbai, and New Mangalore ports are largely dominated by POL cargo. On the East coast, Chennai is a container hub, Vizag is dominant in POL & iron ore, Paradip and Ennore volumes are driven by coal cargo.

The indicative mode of evacuation / transportation suggests entire (100%) crude oil to be evacuated through pipelines, entire coking coal to be moved through railways, while container cargo in a 50-50 combination of rail and road.

Table 5: Mode of evacuation for cargo types

Commodity	Railway	Road	Pipeline/ Conveyors	Coastal/Inland waterway
Crude oil	–	–	100%	–
Petroleum products	25%	25%	50%	–
LPG	50%	25%	50%	–
LNG	–	–	100	–
Thermal coal	100 % (Loading port), 20% unloading		80% (unloading)	–
Coking coal	100%		–	–
Iron ore	20 % (Mormugao) 100 % (Tamil Nadu) 100% (Andhra Pradesh) 100 % (Orissa, West Bengal)		100% (New Mangalore)	80% (Mormugao)
Food grains	100%			
Fertilisers	70%	30%		
Fertilizer raw materials	30%	70%		(IWT handles small negligible quantities)
Other dry bulks	30%	70%		
Other liquid bulk	20%	60%	20%	
Containers	50 % (share of rail goes up as traffic/distance increases)	50%		
Break Bulk	30%	70%		

Source: Secretariat for Infrastructure, Edelweiss research

Table 6: Prominent GOI and state government clearances for a port project

Clearance GOI and its agencies	Agency which would issue clearance	When required
1) Promoter company Registration	Registrar of Companies	Company formation stage
2) Clearance following consideration of Environmental impact Assessment (EIA) and Environment Management plan(EMP) in respect of the project pursuant to section 3(1) and 3(2) (iv)of the Environment (protection) act, 1986 and Rule 5 (3) (a) of the Environment (protection) Rules,1986.	Ministry of Environmental & Forests	Before project implementation
3) Physical Chief /Mathematical modeling of the LNG terminal Marine structures	Central Water & Power research station	Before project implementation
4) Clearance of Detailed Design of LNG berth.	Controller of Explosives	Before project implementation
5) Clearance of Detailed Design of LNG berth.	Ministry of surface Transport	Before project implementation
6) Clearance to the scheme pursuant to the sec-29 of the Electricity (supply) Act,1948	Central Electricity Authority(CEA)	Project Implementation
7) Clearance for the Fire equipment for fighting	Tariff Advisory committee	Project Implementation
8) Coastal Regulation Zone(CRZ) Clearance	Relevant port Authority	Before Project Implementation
9) Clearance in connection with the height of the chimney.	National Airports Authority	Project Implementation
10) Confirmation fromDGTD/CCI&E that there is automatic clearance for the import of capital Goods and Raw materials.	Director General of Technical Development/ Director General of Foreign Trade	Project Implementation
11) Confirmation from Department of Economic affairs , Ministry of Finance that the company is permitted to enter into Financing Agreements.	Ministry of Finance	Project implementation
12) Confirmation from RBI that the company is permitted to Remit principal & Interest to the Lenders	Reserve Bank of India	Project implementation
Create security over Assets of the company in favour of Non resident lenders under Financing agreements pursuant to FERA,1973.		
Consent of RBI to opening by the company of US Dollar bank accounts pursuant to Section of FERA,both inside and outside India.		
Approval by RBI of provision of any gurantee by Indian entities of any Loans extended by overseas lenders to the company.		
GoG and its Agencies		
1) Clearance that the Land comprising the project site and the Green Belt relating to the site contains no land deemed to be 'reserved forest' land as per Forest (Conservation) Act, 1980.	Gujarat Forest Department(GFD) & Ministry of Environment and Forests(MOEF)	
2) Clearance under Section 18A of the Electricity Supply Act.	Government of Gujarat	
3) For allocation of requisite amount of water to the proposed project and for abstraction of sea water	Department of Irrigation GOG /Relevant Authority	
4) Permission for use of ground water.	Chief conservator of Ground water Dpartment(GoG)	Project Implementation
5) Confirmation for water supply of required quantity for the proposed port site.	Gujarat Water Supply and Sewerage Board(GWSSB)	Pre Project Implementation
6)Approval pursuant to sec.21 of the Air(Prevention & control of Pollution)Act, 1981 in connection with emissions	Gujarat Pollution Control Board (GPCB)	Pre Project Implementation
7)Confirmation that Electricity will be made available during project construction period.	Gujarat Electricity Board (GEB)	Construction period
Clearance under section 44 of Electricity (Supply) Act, 1948.		
8) Confirmation relating to project and green belt	Collector/Directorate of Town planning,GoG	Before Construction period
9) Approval of proposed design and construction of the project pursuant to section 6 of the factories act,1948.	Chief Inspector of Factories , GoG	Before Construction period
10) Consent relating to Fire fighting capability under the Factories Act,1948.	Chief Inspector of Factories , GoG	Before Project Implementation
11) License required for construction Labour pursuant to section 7 of the contract labour (Regulation and Abolition) Act, 1970 before the start of construction	Labour Commissioner	Before Construction period
12) Registration of workers pursuant to section 2-A of the Employees state insurance Act, 1948 , before construction or exemption to be claimed if other group insurance is taken.	Labour Commissioner	Construction period
13) Clearance for transportation of heavy material /machinery by ships, onroads/bridge	Relevant Authority	Project Implementation
14) Clearance from electrical inspector for electrical installation	Chief Electrical Inspectorate of GoG	Construction period

Source: GMB, Edelweiss research

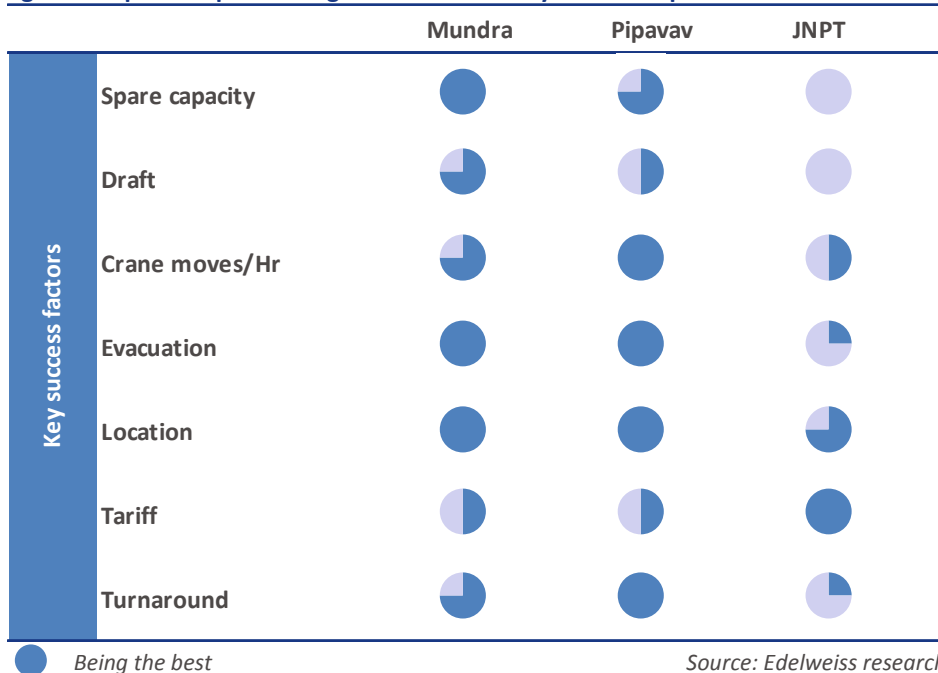
Table 7: Target for award of PPP projects during 2012-13

Sl.no.	Port	Name of the Projects	Cost (INR bn)	Capacity (MTPA)	Target
A					
Spill-Over PPP Projects from 2011-12					
1	Vizag	Development of WQ 7 for handling Import Dry cargo	2.3	4.6	Quarter 1
2	Vizag	Installation of Mechanised Iron Ore Handling facilities at WQ-1 in the northern arm of Inner harbour of VPT for handling Dry bulk cargo	2.8	9.0	Quarter 1
3	Cochin	International Bunkering Terminal – Construction of Multi-purpose Liquid Terminal	2.1	4.1	Quarter 1
4	VOCPT, Tuticorin	Construction of Shallow draft berth for handling cement	0.9	2.3	Quarter 1
5		Upgradation of mechanical handling equipments in berth no. 1 to 6 and berth no. 9	0.5	5.0	Quarter 1
6	Mormugoa	Development of 7.2 MMTPA Iron ore export Bulk Handling Terminal west of breakwater	7.2	7.2	Quarter 2
7	Chennai	Creation of Mega Container Terminal	36.9	48.0	Quarter 2
8	VOCPT, Tuticorin	Development of NCB-III for handling thermal coal & rock phosphat	4.2	7.3	Quarter 2
9	VOCPT, Tuticorin	Development of NCB-III for handling thermal coal & Copper concentrate.	3.6	7.3	Quarter 2
10	VOCPT, Tuticorin	Conversion of berth no-8 as Container Terminal	3.1	7.2	Quarter 2
11	Vizag	Development of WQ8 for handling break bulk cargo and export bulk			Quarter 2
12	Chennai	Development of RO-RO cum multi-purpose berth & car parking at Bharthi Dock	1.0	1.0	Quarter 2
13	Chennai	Development of Barge jetty at Bharthi Dock	0.3	1.0	Quarter 2
14	Mormugoa	Development of 2 MMTPA mechanised Coal Import Terminal at Berth No. 11	2.0	2.0	Quarter 2
15	Kandla	Setting up of Single Point Mooring (SPM) and allied facilities off Veera in Gulf of Kutch	6.2	12.0	Quarter 2
16	Kandla	Upgradation of Barge Handling Facilities at Bunder Basin	1.1	3.3	Quarter 2
B					
New PPP Capacity Addition Projects for 2012-13					
17	JNPT	Development of standalone container handling facility with a quay length of 330 m North of NSICT Terminal	6.0	10.0	Quarter 1
18	VOCPT, Tuticorin	Constn. Of shallow draught Berth (2 Nos) for handling construction materials	0.6	2.0	Quarter 1
19	Cochin	Development of Ship repair facility for 90 small and 120 medium size	7.9	0.0	Quarter 2
20	Kandla	Berth No14,	1.9	2.0	Quarter 3
21	Kolkatta	Development of Haldia Dock II (North)	7.3	8.5	Quarter 3
22	Kolkatta	Development of Haldia Dock (South)	7.9	8.5	Quarter 3
23	Cochin	Development of General Cargo Terminal at Q8-Q9 Berths	4.5	1.0	Quarter 3
24	Kolkatta	Construction of Outer Terminal 1 upstream of 3rd Oil Jetty with ancillary facilities on PPP basis	2.9	4.5	Quarter 4
25	Vizag	Container Terminal Expansion	3.0	3.0	Quarter 4
C					
Non PPP Projects (Capacity addition projects to be completed in 2012-13)					
26	JNPT	Acquisition of 3 nos new Super Post panamax size RMQC from MCB to SDB Allied electrical work	0.8	2.6	Quarter 2
27	Paradip	Mechanisation of Berth CQ 3	0.4	4.0	Quarter 2
28	Cochin	Procurement of Electrical Level Luffing cranes (ELL cranes)/ Mobile Harbour Cranes	0.2	2.8	Quarter 3

Table 8: Target for award of PPP projects during 2012-13 (contd.)

Sl.no.	Port	Name of the Projects	Cost (INR bn)	Capacity (MTPA)	Target
29	JNPT	Acquisition of one no. new super post panamax size RMQC at MCB	0.3	1.8	Quarter 3
30	Kolkata	Installation of Two Mobile Cranes in KDS Berth No. 5,	0.5	2.5	Quarter 3
31	Kandla	Modification and strengthening of existing berth no. 1 to 6	0.4	0.8	Quarter 4
32	Vizag	Small Jetties 130-170 m Length	0.2	1.0	Quarter 4
33	JNPT	Replacement of 1 RMGC on line No. 1&2	0.2	0.0	Quarter 4
34	NMPT	Construction of POL Berth	0.8	7.8	Quarter 4
35	Mormugoa	Mobile Harbour Cranes Project	0.4	0.3	Quarter 4
Total			120.0	184.3	

Source: Planning Commission, Edelweiss research

Fig. 9: Competitive positioning of some of the key container ports in India

Source: Edelweiss research

Fig. 10: Competitive positioning of some of the key bulk ports in India

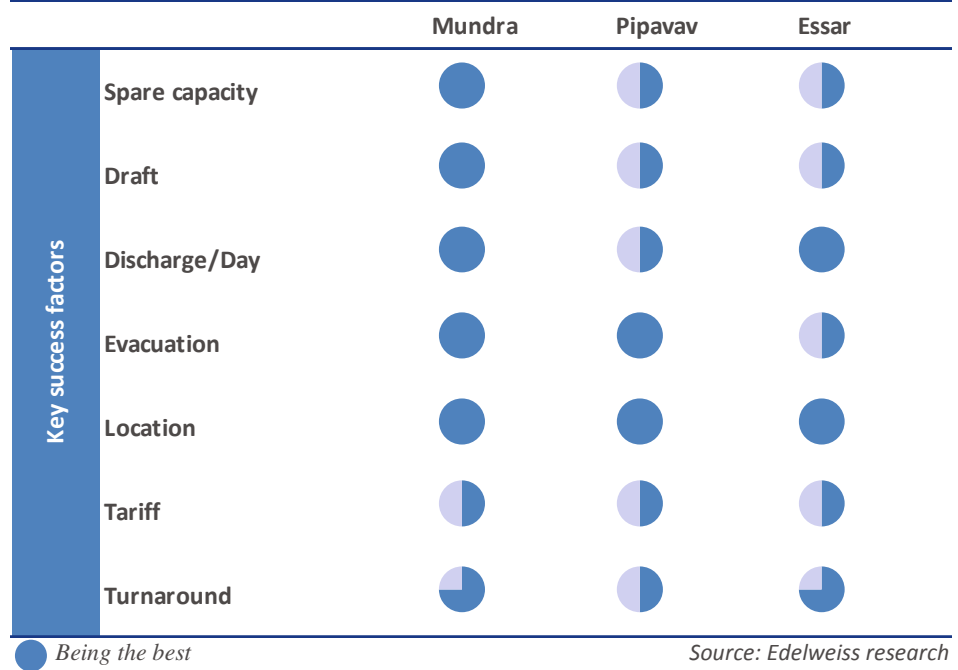


Table 9: Significant interest in the sector from PE community

Target	Acquirer	Deal value (USD mn)
Krishnapatnam Port Co	3I Group	161.0
JSW Infrastructure	Eton Park Capital	125.0
Mundra Port	3I Group, GIC Real Estate	100.0
Gangavaram Port	Warburg Pincus	34.0
Karaikal Port	IDFC Project Equity	32.6
Gujarat Pipavav Port	IDFC	28.5
Continental Warehousing	Aureos India Fund, Eplanet	16.4
Nhava Sheva	Venture	
Karaikal Port	Ascent Capital	40.0
Karaikal Port	Jacob Ballas	40.0

Source: ibef, Edelweiss research

Krishnapatnam port

Company profile

Krishnapatnam is a port town in Nellore’s Muthukur Mandal, the southern most coastal district in Andhra Pradesh. In 1960s, iron ore was exported by wooden boats from this port and in early 1980s the Government of India declared it a minor port. Krishnapatnam port is promoted by Hyderabad-based **C.V.R. Group**. Navayuga Engineering Company (NECL) is the flagship entity of the group and the port’s EPC contractor. Krishnapatnam Port Company (KPCL) was formed by winning the mandate from the Government of Andhra Pradesh to develop the existing minor port into a modern, deep water, and high productivity port on BOST (Build–Operate–Share–Transfer) concession basis for 50 years.

Location

The port is located in Nellore, Andhra Pradesh, on NH 5 (Chennai–Kolkata), 26 km from Venkatachalam, the nearest rail head on the Chennai–Kolkata main line. It has a vast hinterland covering, southern Andhra Pradesh, district of Rayalseema, North Tamil Nadu, and eastern Karnataka.

Connectivity

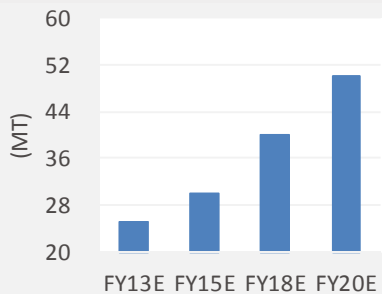
Krishnapatnam Rail Company (KRCL) is a special purpose vehicle comprising the Government of Andhra Pradesh, Krishnapatnam Port Company, and Rail Vikas Nigam, formed to provide rail connectivity to the port. The port is connected to a dedicated 19km rail line connecting the port to the Chennai–Kolkata main line and a 91 km new broad gauge line between the port and Obulavaripalle. It has a dedicated 26km four-lane road connecting the port to NH 5 (Chennai–Kolkata Highway) which will be upgraded to a six-lane road in the future, for which land acquisition has been completed.

Facilities

The port currently has 10 operational berths and 3 more are under construction. It has a deep draft of 18mtr alongside berths, which will be increased to 20mtr by 2012.

Future plans

Krishnapatnam port is currently executing Phase II development which has an outlay of INR40bn. 13 dedicated cargo-wise rail sidings inside the port are being developed with multiple loops for faster evacuation of cargo. Phase II will involve construction of 7 additional berths—4 dedicated for coal, 2 for general cargo, and 1 for container. 10 dedicated coal berths with 2 ship unloaders per berth and 3 general cargo multipurpose berths are planned. Mechanisation with conveyor system, stackers, reclaimer, ship unloader and wagon tippers, iron ore loading capacity of 120000 MT / day, coal discharge capacity of 96000MT/day is planned.



Dighi port

Company profile

Dighi port, a green field port in Maharashtra, is being developed under a 50-year (till 2052) Build-Own-Operate-Share-Transfer (BOOST) concession agreement signed with Maharashtra Maritime Board (MMB) as an all weather, multi purpose, multi cargo, deep draft port. Balaji Infra Projects, a leading infrastructure player in the country, is the developer.

Location

The port is located in the Rajpuri creek in Maharashtra’s Raigad district on the West coast. The port’s unique feature is its ideal location within a natural harbour and exclusive channel offering a depth of 14.5mtr, making it one of the deepest channels in the state. Fabulous planning from the onset with cargo handling terminals on either banks of the creek, gives the port a unique advantage of handling all types of cargo in all weather conditions.

Connectivity

The port is located at a distance of 42 nautical miles from Mumbai port and 170km South of Mumbai by road. It is connected by state highways to National Highway 17, which is 50km away. Both the port’s banks are connected to National Highway 17 (Mumbai–Goa Highway) via four state highways—North bank is connected via state highways 90, 92, and 96, whereas the South bank is connected via state highways 97 and 98. Dighi port has signed a Memorandum of Understanding with Konkan Railway Corporation (KRCL) for development, operation, and maintenance of port railway line. Development of the dedicated port railway line connecting Dighi port to the main Konkan Railway line at Mangaon–Indapur is being carried out by Indian Railways.

Facilities

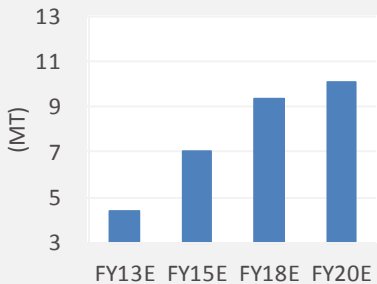
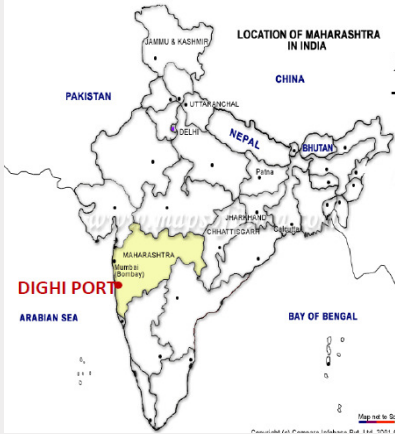
The port has a waterfront of 5km (both banks combined) with a capacity to build up to 16 berths. There is uniform depth of 14.5mtr with a Phase I capacity to handle 30MT cargo.

Future plans

The port is undergoing development; it is planning to build additional container, liquid, LNG, RO-RO and multipurpose berths. The port is planning to add capacity of 60MT in Phase II and 90MT in Phase III.

Anchor customers

Anchor customers for the port are Hiranandani, IMC, Essar, Aditya Birla Group, Bhushan Power & Steel, Jaypee Group, Maruti Suzuki, Tata Power, Uttam, Welspun, MMTC, Posco India, MSEB, etc.



Jaigad port

Company profile

The port is located at about 110 nautical miles South of Mumbai. The concession agreement was signed in June 2008 with JSW Jaigarh Port, a constituent company of Jindal Group. It is developed and operated on a 50-year concession from Maharashtra government on BOOST basis. The port was inaugurated on August 22, 2009, and currently has two berths with capacity to handle 20MT cargo. The current draft of 14.0mtr makes it the deepest water port on the Maharashtra coast.

Location

Located on India's West coast, JSW Jaigarh port is the new port of choice for all customers in Maharashtra and northern Karnataka. It is located in the protected surroundings of Jaigarh head in Ratnagiri district of Maharashtra, between the two major ports (Mumbai-356km, Goa – 250 km) occupying a strategic position on the West coast, 42km off NH 17.

Connectivity

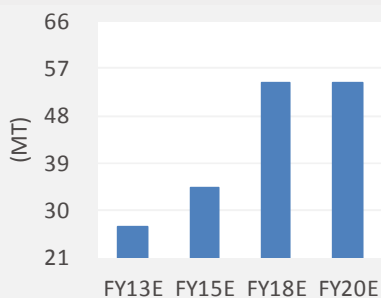
Nearest railway link is at Ratnagiri (55km), which is on the Konkan Railway network. Plans are on to link the port with Konkan Railway's existing network and wider Indian Railway network under R3I policy of the Indian Railways to enhance the port's connectivity. First leg of connectivity i.e., from JSW Jaigarh port to a suitable location on Konkan Railway will tentatively be ready by mid 2013. The port is connected to NH 17 (Mumbai- Goa Highway) at Nivali through SH 106 (43km). NH 17 connects to important industrial centers near Mumbai, Pune, and Goa. NH 204 provides connectivity to central Maharashtra and northern Karnataka industrial centres.

Facilities

The port is located in the protected lee of Jaigarh head with 512mtr long breakwater which ensures safe port operations all round the year. It currently has two berths with a total quay length of 550mtr and draft of 14mtr. The berths are completely mechanised to handle imported coal.

Future plans

The company is in the process of adding 8 more berths with a dedicated container, RORO terminal, liquid terminal & multipurpose cargo berths and mechanised wagon loading and unloading systems. On completion, there will be a total of 10 berths with aggregate capacity of 50mtpa draft of 19.8mt depth enabling berthing of Cape size vessels (180,000 DWT). CFS and logistics parks are also planned to give competitive advantage to establish food processing zones, edible oil refineries, and port related industries.



Gangavaram port

Company profile

Gangavaram port concession was awarded to Mr. DVS Raju-led consortium through an international bidding process. The concession agreement was signed in August 2003. The port has the unique distinction of being one of the few greenfield port projects in India which has been implemented on schedule. Construction commenced in December 2005 and the port commenced trial operations in August 2008.

Location

The port is located at Visakhapatnam, Andhra Pradesh’s industrial nerve center, about 15km South of Visakhapatnam port. With its deep draft berths and efficient operations, Gangavaram has become the gateway port for a hinterland spread over 8 states across eastern, western, southern, and central India.

Connectivity

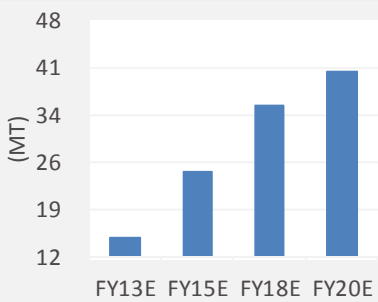
Railway connectivity has been established, connecting the port to the main broad gauge national network of Chennai-Visakhapatnam-Howrah rail corridor. The port has its own independent railway sidings with main salient features as follows—R&D yard with seven sidings for receipt and dispatch of rakes (Coal-3; Iron Ore-2; Other bulk-1; Bagged) with dedicated coal and iron ore sidings for mechanised loading and unloading operations. Road connectivity to the port has been provided by a 4-lane expressway of 3.8km connecting the port with NH 5 (Chennai-Kolkata).

Facilities

The port has cargo handling facilities of 5 berths with up to 19.5mtr water depth and breakwaters to provide tranquility with in the harbour. The harbour’s depth is 20.2mtr which can accommodate maximum vessel size of up to 200,000DWT. Mechanised storage facilities and state-of-the-art material handling systems enable world standard operational efficiency. The port provides efficient cargo handling services for a variety of bulk and break bulk cargo groups including coal, iron ore, fertilizer, limestone, bauxite, raw sugar, project cargo, alumina, steel products, etc.

Future plans

Cargo handling capacity to be enhanced to 42MMTPA with 1 fully mechanised coal berth (capable of handling Cape-size vessel up to 200000DWT) and 3 multipurpose berths (capable of handling Panamax-size vessels) with state-of-the-art mechanised bulk material handling systems. Additional rail sidings, additional mechanised stock yards, and other improvements/additions are being planned in the existing infrastructure at the port.



Dhamra port

Company profile

The existing port was identified by the Government of Orissa for development into a modern deep port based on a pre-feasibility study done by RITES. A concession agreement was signed between the Government of Orissa and International Seaports (ISPL) on April 2, 1998, to expand and develop the minor port of Dhamra on BOOST basis. The Dhamra Port Company (DPCL) is a 50:50 joint venture between L&T and Tata Steel. It has been awarded a concession by the Government of Orissa to build and operate a port North of the mouth of river Dhamra in Bhadrak district on BOOST basis for 34 years including a period of 4 years for construction. The lease period may be renewed or extended for two additional periods of 10 years each on mutually agreed terms and conditions. Construction of Phase I commenced in March 2007 and was completed in 4 years. The port became commercially operational on May 6, 2011.

Location

Situated between Haldia and Paradeep, the port will be one of the deepest ports of India with a depth of 18mtr, which can accommodate super Cape-size vessels up to 180,000 DWT. Being in close proximity to the mineral heartland of India, viz. Orissa, Jharkhand, and West Bengal, setting up of this port is expected to result in substantial cost savings for steel, power, and mining industries.

Connectivity

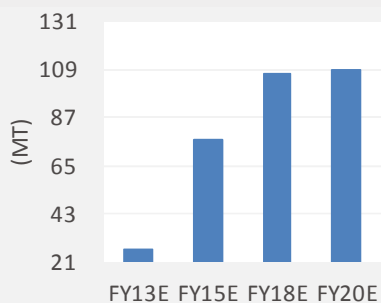
Dhamra port is connected by road with Bhadrak (82km), the nearest major town on NH 5. The distance between Dhamra and Bhubaneswar is 205km. The nearest railway station is Bhadrak which is 62km away from Dhamra on the Chennai-Howrah line. A single track broad gauge line has been constructed by DPCL from Bhadrak/Ranital Link Cabin to Dhamra.

Facilities

Capacity during Phase I will be 12.00mn MT per annum of coal and 6.50mn MT per annum of iron ore. Two fully mechanised berths of 350mtr each capable of berthing two Cape-size vessels at any given point of time wherein discharging and loading operations can be carried out simultaneously. Fully mechanised berths with efficient cargo handling system capable of discharging vessels at the rate of 60,000 MT/day.

Future plans

DPCL is in the process of augmenting the export capacity of iron ore by another 6.50mn MT per annum with the help of an additional wagon tippler by 2012. The master plan provides for 13 berths, capable of handling more than 100mn MT per annum of dry bulk, liquid bulk, break bulk, containerised and general cargo.



Gopalpur port

Company profile

Gopalpur, a natural port of Orissa, is one of the ideally located and topographically suited deep sea ports on the East coast of India. The task of developing the port was awarded to Sara International and Orissa Stevedores by the Government of Orissa.

Location

Gopalpur is located on the East coast of India in Orissa and is known as one of the most environment friendly ports in the region. The port is on a 4km stretch where there is absolutely no vegetation. Paradip and Visakhapatnam ports are located 160km North and 260km South, respectively, of Gopalpur.

Connectivity

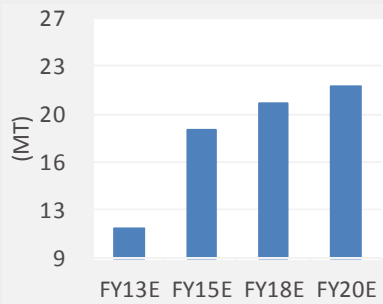
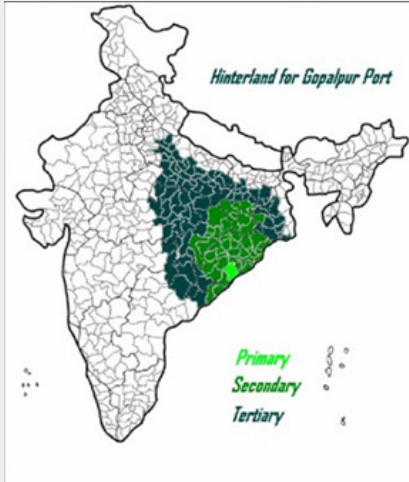
The port is blessed with excellent rail connectivity having its own railway siding and is only 6km inside from the main Howrah-Vishakhapatnam-Chennai broad gauge railway line. This railway siding is broad enough to handle a total cargo of more than 35MT. NH 5 (Kolkata-Chennai) passes about 6km from Gopalpur port site. State highways 7 and 17 are also connected with NH 5 and provide good road network in the region. There are two access roads connecting Gopalpur port area to NH 5.

Facilities

The first phase of development will have three deep water berths with two dry bulk cargo berths and one for break bulk cargo berth. All berths will be capable of handling 120,000DWT vessels. The channel will have a depth of 18.5mtr and a width of 200mtr while the turning circle will have a depth of 17.5mtr and a diameter of 600mtr. The berths will be 18.5mtr deep. To protect the berths and harbour facilities, a 2,400m long South East breakwater and a 425mtr long North breakwater are being developed to ensure required tranquility in the harbour for all weather operations.

Future plans

The master plan envisages 15-20 berths with three separate harbours to enable segregation of cargo as needed. Later stages of development would see a 3,500mtr breakwater for protection of all harbours. The port will also be able to reclaim land South of the breakwater and use it for bulk storage.



Vizhinjam Seaport

Company profile

The Government of Kerala, as part of its various state development programmes has identified development of Vizhinjam International Deepwater Multipurpose Seaport. It has formed a separate company, viz., Vizhinjam International Seaport (VISL) as a special purpose government company (fully owned by Government of Kerala) that will act as implementing agency for development of the greenfield port at Vizhinjam in Thiruvananthapuram (Kerala). The port development is proposed to follow the Landlord port model where the dredging, reclamation as well as basic external infrastructure work like construction of break water and quay wall will be taken up by VISL. Further, the company is also expected to monitor land pick up, road, rail connectivity, water and power supply required for the construction and operations of the port on behalf of Government of Kerala.

Connectivity

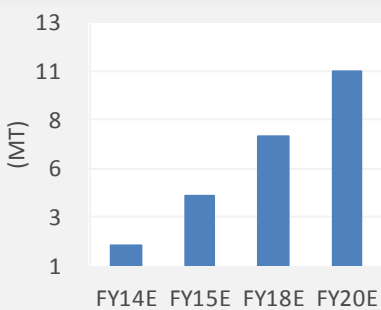
The NH 47 bypass is in close proximity (bypass 3km and NH 10km) and national rail network is less than 12km from the proposed port site. These routes can be connected making for excellent road/rail connectivity for the port.

Advantage

Located on the southern tip of the Indian Peninsula it is only 10 nautical miles from major international sea route and East-West shipping axis. The natural water depth of more than 20mtr within a nautical mile from coast minimises the dredging cost. These factors make it ideal as a trans-shipment port to be positioned against the Colombo and Singapore ports in international sea trade.

Development plan

The port terminal is proposed to be developed under the Public Private Partnership (PPP) model wherein construction and operation of the port terminal will be on BOT basis. Port development along with external infrastructure work is envisaged to be carried out in phases with cumulative cost estimated to be around INR6,595crore. The port is envisaged to provide in total 2,000mtr of quay length in three phases and is designed to cater primarily for containers trans-shipment, besides providing for other type of cargo such as multipurpose, break bulk. The construction of basic civil infrastructure viz., dredging, land reclamation, construction of breakwaters and quay wall, as also land acquisition, road/rail connectivity and other external infrastructure required in Phase 1 and the cost for the same is estimated to be INR3,040crore. The said project cost is proposed to be funded through INR1,130crore as equity from the state government and balance amount is proposed to be raised as debt via loans from banks/ institutions and bonds.



Kakinada Seaport

Company profile

Kakinada deepwater port was constructed with a quay length of 610mtr by the Government of Andhra Pradesh (GoAP) and commissioned in November 1997. In line with the national port privatisation policy, GoAP has given concession to operate the port under OMST scheme in 1998. The port has the distinction of catering to Navratna company Indian Oil Corporation.

Location

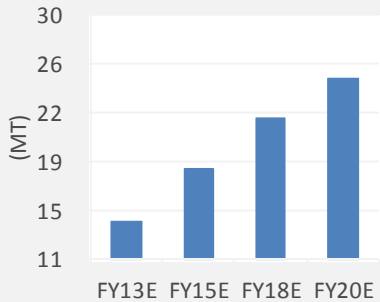
The port is located in East Godavari district of Andhra Pradesh on East coast of India between Visakhapatnam and Chennai ports. Its advantageous position gives it the unique opportunity to handle a mix of bulk, liquid, break bulk, containers, project cargoes, service offshore oil & gas exploration activities of the Krishna–Godavari basin.

Facilities

The main jetty at the port has five cargo berths and one OSV berth with a total quay length of 1.2km and a width of 25mtr. Draft of 14mtr is available to service Panamax vessels calling the port. The port has been catering to this ship-to-ship transfer operations since 2001-02 for Indian Oil Corporation. Lightering the crude oil from Ultra Large Crude Carriers and Very Large Crude Carriers off Kakinada into smaller daughter tankers and delivering it at Chennai and Haldia has been a major activity carried out at the port.

Future plans

The port has recently received environmental and CRZ clearance for development of multipurpose berths V, VI & VII in existing premises. The company will be reclaiming the back up area for these berths by carrying out dredging activity and is also looking to strengthen the existing railway line.



Karaikal port

Company profile

Karaikal Port (KPPL) is a subsidiary of MARG, a leading infrastructure and real estate developer along the Chennai IT corridor. Under private sector participation in the development and operation of the Karaikal deepwater port project, concession was awarded to MARG through a tendering process on BOOT basis. The concession agreement between Government of Puducherry and MARG was executed on January 25, 2006.

Location

The port is situated on the East coast of India in the Karaikal district of Puducherry state located 300km along the southern coast of Chennai and around 300km along the northern coast of Tuticorin port. The vision behind the port is to create a gateway to central Tamil Nadu, a strategic location where a major chunk of the state's industrial belt is located.

Connectivity

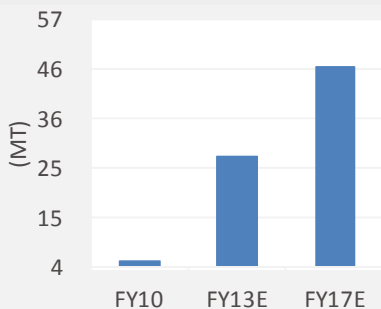
KPPL lies in the southern railway network. The nearest railhead to the port is at a distance of about 3km at Nagore. The port is connected with power plant, cement, steel, chemical aluminum, textiles, and other major manufacturing industries in Ariyalur, Trichy, and Salem districts, and upcoming industrial nodes around Mayiladuturai, enabling heavy freight movement in the near future. MARG's Karaikal port is connected by major roads to NH 67 at Nagapattinam, which is about 10km from the port.

Facilities

The port is capable of handling all types of cargo such as dry bulk, break bulk, liquid bulk, and containerised cargo in different independent zones. Currently, the port has five berths—three for general cargo and two for coal. Current handling capacity is 28.0MMTPA.

Future plans

The port is envisaged to have a total of 9 berths capable of handling 47MTPA by 2018. The development is to be carried out in three phases starting with Phase 1 having a capacity of 5.2MTPA which was commissioned in 2010. Phase 2A and 2B are set to add 23MTPA and 19MTPA of capacity each by FY13 and FY17, respectively, to have final rated capacity of 47MTPA. The port then will be capable of handling all types of cargo such as dry bulk, break bulk, liquid bulk, and containerised cargo in different independent zones. The total investment of the project, for all three phases, is envisaged to be around INR4,500crores.



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Coverage group(s) of stocks by primary analyst(s): Power

Adani Power, Adani Enterprises, Adani Ports and Special Economic Zone, CESC, GMR Infrastructure, GVK Power and Infra, JSW Energy, Lanco Infratech, Marg, Navabharat Ventures, NTPC, PTC India, Power Grid Corp of India, Reliance Infrastructure, Tata Power Co

Recent Research

Date	Company	Title	Price (INR)	Recos
16-Aug-12	PTC India	Toll projects aid recovery; <i>Result Update</i>	60	Buy
16-Aug-12	Reliance Infra.	Earnings in line; <i>Result Update</i>	528	Buy
14-Aug-12	Lanco Infratech	Cashflows under strain; <i>Result Update</i>	12	Buy

Distribution of Ratings / Market Cap

Edelweiss Research Coverage Universe

	Buy	Hold	Reduce	Total
Rating Distribution*	104	60	18	183
* 1 stocks under review				
	> 50bn	Between 10bn and 50 bn	< 10bn	
Market Cap (INR)	114	58	11	

Rating Interpretation

Rating	Expected to
Buy	appreciate more than 15% over a 12-month period
Hold	appreciate up to 15% over a 12-month period
Reduce	depreciate more than 5% over a 12-month period

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