

Ports



Alok Deora - Research analyst (Alok.Deora@MotilalOswal.com)

Saurabh Dugar - Research analyst (Saurabh.Dugar@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Ports: Anchoring solutions | Navigating success

01

Page 2: Summary

02

Page 5: Story in charts

03

Page 8: Overview of the ports sector in India

04

Page 11: Infra development the key to growth for the ports sector

05

Page 12: Major ports vs. nonmajor ports 06

Page 13: Overview of the major ports in India

07

Page 15: Overview of the non-major ports in India

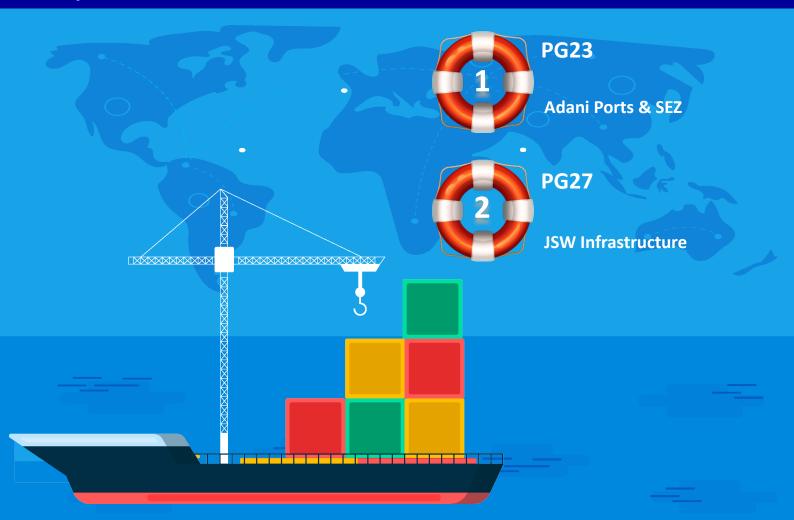
08

Page 16: Capacity additions and utilization of ports in India

09

Page 19: Key risks/challenges in the Indian ports sector

Compaines



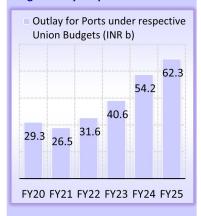
Ports



Major Ports Capacity (MMT)



Budget outlay for ports sector



Anchoring solutions | Navigating success

Growth on a fast-track mode!

- India's ports sector is a vital pillar of its trade and economic framework, managing 95% of the country's export volumes and 70% of its export values. Spanning a coastline of ~7,500km and aided by 20,275km of national waterways across 24 states, the sector benefits from its strategic location in the Indian Ocean. This positioning aligns India with 80% of the global maritime oil trade, underscoring its potential to become a leading maritime player.
- The country's port infrastructure includes 13 major ports and 205 non-major ports, which together handled a cargo volume of 1,539MMT (major ports handled 819MMT in FY24 and 699MMT over Apr'24-Jan'25), backed by an overall capacity of 2,604MTPA.
- The ports operate under diverse management models, such as public-private partnerships in the landlord model, fully state-managed service ports, privately owned service ports, and hybrid tool ports with shared responsibilities.
- The Indian ports sector is poised for significant growth. Between FY23 and FY28, the country's ports are projected to add 500-550MTPA of capacity annually, driven by increased handling of petroleum, oil, lubricants (POL), coal, and containerized cargo. Cargo traffic is expected to grow at a steady annual rate of 3-6%, stabilizing utilization levels at ~55% over the medium term.
- Container traffic growth is anticipated to report an annual growth rate of 4-7% over the next five years, bolstered by rising imports, declining freight costs, and a normalization of global supply chains. Transshipment, which accounts for roughly 25% of India's container throughput, continues to be a crucial segment, with ports like Chennai playing a significant role.
- Adani Ports & SEZ (APSEZ; 15% volume CAGR over FY19-24) and JSW Infrastructure (JSWINFRA; 25% volume CAGR over FY19-24) have outgrown the industry's CAGR of ~5% through aggressive capacity expansion, strategic acquisitions, and integrated logistics solutions. While the industry growth rate is expected to be 4-7% over the next five years, both APSEZ and JSWINFRA are poised for sustained growth of 2-3x the industry, supported by continued organic and inorganic expansions and integrated logistics solutions. Both of these companies are likely to gain market share. Hence, we reiterate our BUY rating on APSEZ and JSWINFRA. JSWINFRA is our top pick in the ports domain.

Major/non-major ports to play pivotal roles in the overall development of the sector

India's port ecosystem comprises major and non-major ports, each playing distinct roles. Major ports, managed by the central government, are primarily located near industrial hubs and handle diverse cargo types based on regional demands. For instance, Paradip and Mormugao handle substantial volumes of coal and iron ore, while Kandla focuses on petroleum products. However, major ports face congestion challenges due to shared access channels.

In contrast, non-major ports, governed by state governments or private operators through public-private partnerships, manage nearly half of India's cargo. These ports benefit from greater flexibility, operational efficiency, and lower congestion. In FY23, non-major ports reported a 7.6% increase in cargo traffic, outperforming the 4.7% growth recorded at major ports.



Policy support and initiatives such as the Sagarmala project bode well for the sector

The Indian government has introduced several policies and initiatives to enhance port capacity and operational efficiency. The Sagarmala Programme, launched in 2016, is a flagship initiative aimed at reducing logistics costs for export-import (EXIM) and domestic cargo. The program seeks to increase port capacity to 3,300 MTPA by 2025, supported by investments totaling INR 6t across 800 projects. It is expected to save INR 350-400b annually by optimizing logistics efficiency and reducing transportation time.

Another transformative initiative, the Maritime Amrit Kaal Vision 2047, aims to develop six mega ports with world-class infrastructure and boost India's total port handling capacity from 2,500 MTPA to 10,000 MTPA by 2047. This vision includes achieving 100% cargo handling at public-private partnership (PPP) berths and integrating advanced digital technologies into port operations.

Valuation and view: Outlook remains bright

India's ports sector is crucial to its trade ambitions and economic growth. With focused policy support, private investments, and infrastructure development under initiatives such as Sagarmala and the Maritime Amrit Kaal Vision 2047, India is well-positioned to emerge as a global maritime hub. However, addressing challenges related to policy delays, connectivity gaps, and environmental concerns will be the key to unlocking the sector's full potential.

India's extensive coastline and increased investments in inland waterways, coastal shipping, and port privatization initiatives by the government are expected to benefit companies like APSEZ and JSWINFRA, enabling them to handle a larger share of volume at Indian ports.

- APSEZ (BUY) The largest private port operator in India: APSEZ continues to gain market share while generating strong cash flows and retaining its leverage position, with a net debt-to-EBITDA ratio of 2x as of Sep'24. We expect APSEZ to register 10% volume growth and a CAGR of 14%/15%/19% in revenue/EBITDA/PAT over FY24-27. With consistent outperformance in cargo volumes, we reiterate our BUY rating with a TP of INR1,400 (based on 15x Sep'26 EV/EBITDA).
- stable growth levers at its existing ports and terminals, a higher share of third-party customers, sticky cargo volume from JSW Group companies, and an expanding portfolio, we expect JSWINFRA to strengthen its market dominance, leading to a 14% volume CAGR over FY24-27. This should drive a 22% CAGR in revenue and a 21% CAGR in EBITDA. We reiterate our BUY rating with a revised TP of INR330 (premised on 22x Sep'26 EV/EBITDA). JSWINFRA is also our top pick in the ports domain.

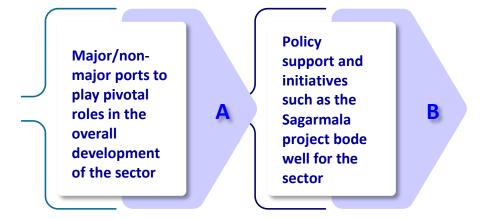
Key risks

- Despite its growth potential, the sector faces several challenges. Policy uncertainty, such as delays in the National Ports Policy, has hindered investment. Infrastructure gaps, including inadequate last-mile connectivity and insufficient dredging, have limited port efficiency and scalability. Environmental and social concerns, such as land acquisition delays and ecological impacts, have slowed project execution.
- Additionally, global economic volatility and commodity price fluctuations pose risks to port traffic, while privatization has raised concerns over revenue-sharing disputes and potential monopolization by large private players.

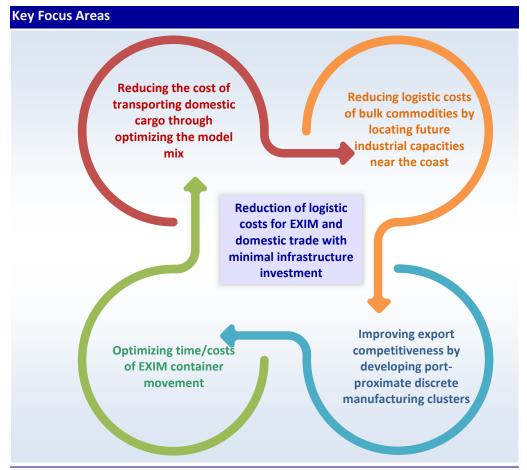


STORY IN CHARTS

Investment argument



Enhancing connectivity
between ports and
hinterland via road, rail,
and inland waterways to
ensure smooth cargo
movement



Source: MOFSL



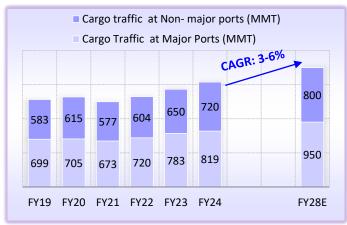
STORY IN CHARTS

Major ports in India

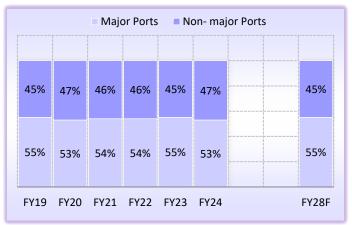


Source: IBEF, MOFSL

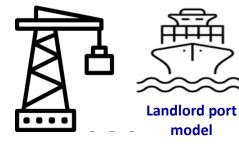
Cargo traffic at major and non-major ports in India



Share of cargo traffic at major and non-major ports in India



Business model of the domestic port sector





Service port model



Private service port model

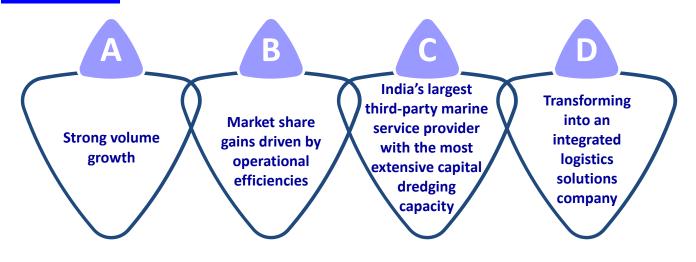


Tool port model



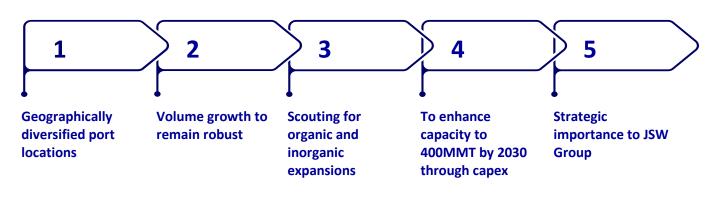
Investment argument

Adani Ports & SEZ

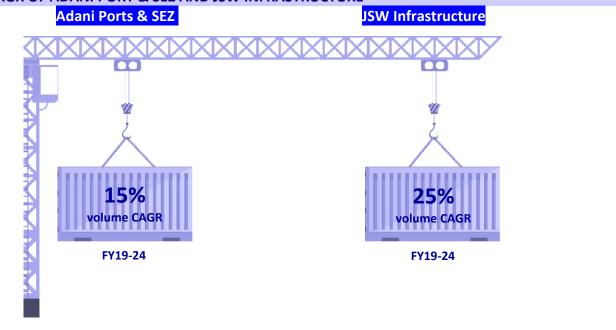


Investment argument

JSW Infrastructure



VOLUME CAGR OF ADANI PORT & SEZ AND JSW INFRASTRUCTURE





Overview of the ports sector in India

The port infrastructure plays a pivotal role in a country's economic success. India, with a coastline spanning ~7,500kms, relies on ports to handle nearly 95% of its export volume and 70% of its export value. Essential commodities such as iron ore, coal, crude petroleum, and other goods are imported via sea routes.

India also has 20,275kms of national waterways across 24 states. Positioned in the Indian Ocean, which supports 80% of global maritime oil trade, India is well-placed to leverage its growing maritime trade. As India targets a USD5t economy, ports will be key to its growth.

Business model of the domestic port sector

There are four important port management and administrative models:

- Landlord port model: The landlord port model involves public-private participation, with the port authority acting as a regulator and landlord while private companies handle operations like cargo handling. It is common in medium and large ports, offering significant opportunities for private players. Indian ports increasingly follow the landlord port model, where private operators are granted concessions to operate ports for periods, typically 30 years.
- Service port model: Under this model, the port authority, governed by the state or central jurisdiction, owns the land and assets, performs regulatory functions, and employs all cargo-handling labor.
- **Private service port model:** In this model, private companies own the land and handle all regulatory and operational activities, with no direct government involvement.
- **Tool port model:** This model splits responsibilities between the port authority and private operators. The port authority owns, maintains, and operates infrastructure and equipment, while private operators handle other operations like stevedoring.

India has 13 major ports. Under the national perspective plan for Sagarmala, six new mega ports will be developed in the country. As of FY24, India's key ports have a capacity of 1,617 MTPA. Total cargo handled at major ports in India was 819 MMT in FY24 (699MMT of cargo handled over Apr'24-Jan'25).



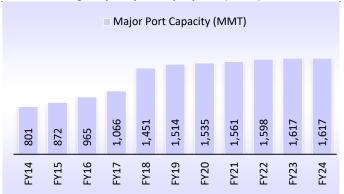
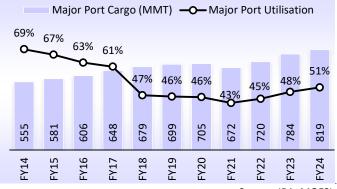


Exhibit 2: Cargo traffic at major ports



Source: IPA, MOFSL Source: IPA, MOFSL



The Government of India
(GoI) has launched
several policy initiatives
to enhance the efficiency
of water and port
transportation, notably
the Maritime Amrit Kaal

2047 vision and the

Sagarmala project

Favorable policies assisting port operations

- The government has allowed FDI of up to 100% under the automatic route for projects related to the construction and maintenance of ports and harbors.
- The cumulative FDI equity inflow in Indian ports was USD1.6b from Apr'00 to Sep'23.
- Private ports enjoy price flexibility as the government allows non-major ports to determine their tariffs in consultation with the State Maritime Boards. At major ports, tariffs are regulated by the Tariff Authority for Major Ports (TAMP).

Maritime Amrit Kaal Vision 2047

India aims to develop six mega-ports with a capacity of over 500 MTPA each by 2047 as part of its ambitious maritime expansion plans, significantly increasing its cargo handling capacity as outlined in the Amrit Kaal Vision 2047. Presently, the nation's port handling capacity is over 2,500 MTPA, with 51% of cargo handled at PPP berths of major ports. The focus is on increasing the port handling capacity to over 10,000 MTPA by 2047 and ensuring 100% of cargo is handled at PPP berths.

Development of Waterways: The Sagarmala Program

The "Sagarmala" initiative was rolled out in Apr'16 by the GoI to reduce logistics costs for both domestic and export-import cargo with optimized infrastructure investment. The Sagarmala Program aims at enhancing India's port capacity to over 3,300 MTPA by 2025. According to the Ministry of Shipping, this would include 2,219 MTPA of capacity at major ports and 1,132 MTPA at non-major ports by 2024-25. As part of this program, more than 574 projects worth INR6t have been identified for implementation during CY15-35.

Sagarmala is aimed at reducing logistics costs for EXIM and domestic cargo, leading to overall cost savings of INR350-400b. Some of this will be direct cost savings, while others are savings from inventory-handling costs, resulting from time and reduced variability in the transportation of goods, particularly containers.

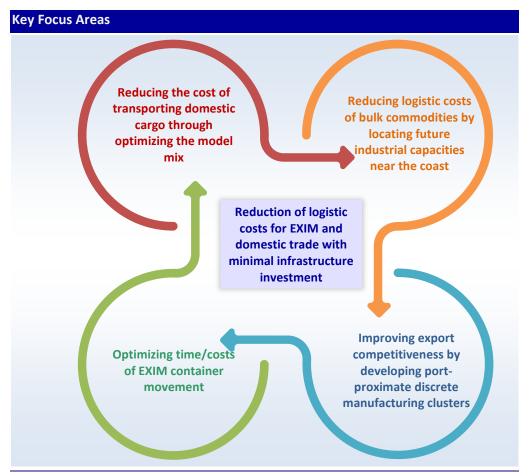
Exhibit 3: The Sagarmala Project - status (as of Apr'24)

	Compl	Completed		lementation	Under De	velopment	Total	
Particulars	Number of Projects	Project Cost (INR b)	Number of Projects	Project Cost (INR b)	Number of Projects	Project Cost (INR b)	Number of Projects	Project Cost (INR b)
Port Modernization	98	321	62	757	74	1826	234	2904
Port Connectivity	91	580	57	680	131	804	279	2064
Port-led Industrialization	9	459	3	93	2	8	14	560
Coastal Community Development	21	16	32	62	28	38	81	116
Coastal Shipping and IWT	43	30	63	47	125	70	231	147
Total	262	1,406	217	1,639	360	2,746	839	5,791

Source: Ministry of Ports, Shipping and Waterways, MOFSL



Enhancing connectivity
between ports and
hinterland via road, rail,
and inland waterways to
ensure smooth cargo
movement



Source: MOFSL

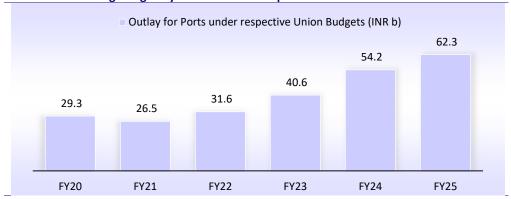


Infra development the key to growth for the ports sector

The GoI has been consistently increasing budgetary support for the Ministry of Ports, Shipping, and Waterways to strengthen maritime infrastructure and enhance India's logistics and trade efficiency. Key focus areas for these investments include:

- 1. **Development of port infrastructure:** Enhancing capacity and operational efficiency of major and minor ports.
- 2. **Modernization of inland waterways:** Promoting inland water transport for cost-effective and sustainable logistics.
- 3. **Maritime connectivity:** Integrating ports with rail and road networks to boost seamless cargo movement.
- 4. **Support for the Sagarmala Program:** Aligning budget outlay with long-term initiatives under the Sagarmala project to reduce logistics costs and promote coastal economic zones.





Source: Union Budget 2025, MOFSL

The increasing budgetary allocations underscore India's commitment to becoming a global maritime hub and improving its ranking in the global logistics performance index.

The GoI is boosting budgetary support to enhance maritime infrastructure, focusing on ports, waterways, connectivity, and the Sagarmala Program.



Major ports vs. non-major ports

Major and minor ports are the two types of ports in India. Major ports are owned and operated by the Central government, while minor ports are owned and operated by respective state governments/State Maritime Boards.

India has 13 major ports (12 government-owned, one private) and 205 minor/intermediate ports

India has 205 designated minor and intermediate ports that handle a significant amount of cargo, in addition to 13 major (12 government-owned and one private) seaports.

All the 13 major ports are functional. Of the 205 non-major ports, around 65 ports are handling cargo, and the others are "Port Limits" where no cargo is handled. These are used by fishing vessels and by small ferries to carry passengers across the creeks, etc.

Non-major ports typically have lesser congestion levels vis-à-vis major ports, as for major ports the access channel is shared by multiple berths. The cargo ramp-up possibility at non-major ports is also higher as infrastructure can be created as per business planning and strategic partnerships.

Cargo traffic at Non- major ports (MMT) Cargo Traffic at Major Ports (MMT) **CAGR: 3-6%** 800 720 650 583 615 604 577 950 819 720 783 699 705 673 FY19 FY20 FY21 FY22 FY23 FY24 FY28E

Exhibit 5: Cargo traffic at major and non-major ports in India

Cargo traffic at major and non-major ports is expected to grow in the range of 3-6% over FY24-28 Source: IBEF, MOFSL

Exhibit 6: Share of cargo traffic at major and non-major ports in India

	■ Major Ports ■ Non- major Ports							
	45%	47%	46%	46%	45%	47%		45%
	55%	53%	54%	54%	55%	53%		55%
_	FY19	FY20	FY21	FY22	FY23	FY24		FY28F

Source: IBEF, MOFSL



Overview of the major ports in India

Major ports primarily generate revenue through port services, royalties, and revenue shares from terminal operators.

Hinterland consumption patterns heavily influence cargo types handled at ports. For example, ports near industrial hubs in Maharashtra, Tamil Nadu, and Karnataka manage diverse cargo, while those near refineries, such as Kandla and Cochin, handle Petroleum, Oil, and Liquid (POL) traffic. Ports near mining areas, such as Paradip and Mormugao, experience significant coal and iron ore volumes.

Exhibit 7: Major ports in India



Source: IBEF, MOFSL

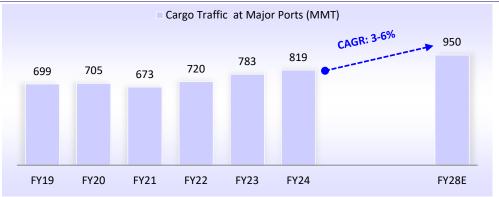


Exhibit 8: Details of the major Indian ports

Minibite of Details of the	major maian porto			
Port East Coast	State	Year of Incorporation	Туре	
Kolkata / Haldia	West Bengal	1970	*	All weather - riverine port
Paradip	Orissa	1966	*	All weather - artificial lagoon port
Vizag	Andhra Pradesh	1933	*	All weather - natural harbor
Chennai	Tamil Nadu	1875	*	All weather - artificial harbor with wet docks
Tuticorin	Tamil Nadu	1974	*	All weather - artificial deep sea harbor
Ennore	Tamil Nadu	2001	*	All weather - artificial harbor
Port Blair	Andaman Island	2010	*	All weather - natural harbor
West Coast			*	
Cochin	Kerala	1936	*	All weather - natural harbor
New Mangalore	Karnataka	1974	*	All weather - artificial lagoon port
Mormugao	Goa	1963	*	All weather - open protected harbor
Mumbai	Maharashtra	1873	*	All weather - natural harbor
JNPA	Maharashtra	1989	*	All weather - tidal port
Kandla	Gujarat	1952	*	All weather - natural harbor

Source: IPA, MOFSL

Exhibit 9: Cargo traffic at major Indian ports



Source: IPA, IBEF, MOFSL



Overview of the non-major ports in India

Non-major ports in India, managed by state governments, play a vital role in the country's maritime trade, handling nearly half of the total cargo traffic. They complement major ports by catering to regional industries and specialized cargo like coal, petroleum, and agricultural products.

Non-major ports, managed by states, handle nearly half of India's cargo, supporting regional industries with PPP-driven efficiency Most of the non-major ports operate under public-private partnership (PPP) models or private ownership, offering greater flexibility and efficiency. Strategically located near industrial hubs and mineral-rich regions, they support regional economic development. However, challenges like smaller capacities, infrastructure gaps, and varying state policies persist. The Sagarmala Programme aims to modernize these ports, enhancing their contribution to India's growing trade ecosystem.

Exhibit 10: Key non-major ports across states

State	Number of non-major ports
Maharashtra	15
Gujarat	19
Andaman & Nicobar	11
Kerala	4
Tamil Nadu	5
Andhra Pradesh	5
Odisha	2
Karnataka	7
Goa	1
Pondicherry	2

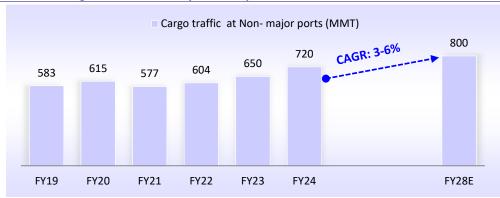
Source: IBEF, MOFSL

The key entry barriers in the port sector include high capital requirements, with greenfield projects demanding significant investments (e.g., INR10-15b for a one-million TEU terminal). Projects also have long gestation periods, often exceeding five years, and require robust hinterland connectivity. Strict regulatory criteria and the dominance of a few established players further limit new entrants, emphasizing the need for technical expertise and operational efficiency.

High entry barriers in the sector pose a significant advantage to existing players

These 205 non-major ports handle \sim 45-50% of the nation's total cargo volume, managing diverse commodities such as coal, petroleum, iron ore, and agricultural products.

Exhibit 11: Cargo traffic at non-major Indian ports



Source: IBEF, MOFSL



Capacity additions and utilization of ports in India

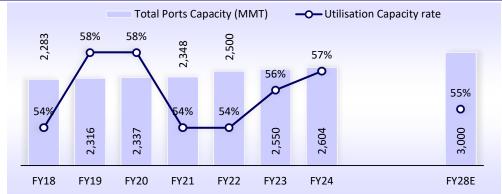
In FY24, port utilization levels remained stable at around 50. Deferred port capacity expansion and capital expenditure from FY21 due to COVID-19 are expected to recover, with capacity additions projected at 2-4% annually over the next five years.

Port traffic is driven by mineral, steel, cement, power, and manufacturing clusters, with key mineral hubs in Odisha, Jharkhand, Chhattisgarh, and Karnataka, and major industries strategically located near resources or ports

Indian ports will add 500-550MMT of capacity during this period, driven primarily by the POL (including LNG and LPG) segment, followed by coal and containers.

Major ports, such as Visakhapatnam, Paradip, Kandla, Ennore, Mumbai, Tuticorin, and JNPT, will contribute 65-70% of the new capacity, with the remainder coming from non-major ports in Odisha, Karnataka, Andhra Pradesh, and Kerala. Utilization is likely to stabilize around 54-58% as capacity expansion aligns with traffic growth.

Exhibit 12: Total capacity and utilization rate at Indian Ports



Source: IPA, IBEF, MOFSL

Key industrial clusters drive cargo traffic at Indian ports

Port traffic is primarily driven by mineral, steel, cement, power, and discrete manufacturing clusters. Key mineral clusters are in Odisha, Jharkhand, Chhattisgarh, and Karnataka, while major steel capacities are located near these mineral sources or end-user markets.

Cement and power plants are positioned based on the availability of limestone and coal. Some coal-import-based power plants are near ports, such as Mundra, Krishnapatnam, and Jaigarh. Discrete manufacturing clusters are mainly situated in Northern and Western India.

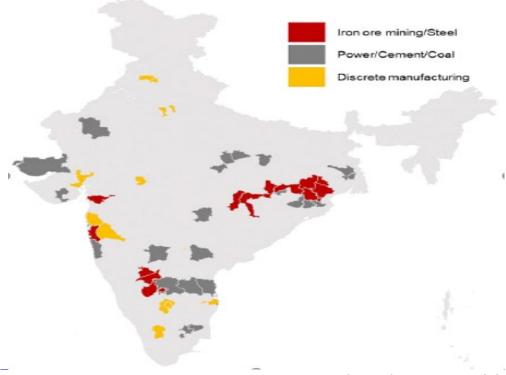


Exhibit 13: Key mineral and manufacturing clusters in India

Source: JSWINFRA DRHP, MOFSL

Privatization of Indian ports

The Indian government has been actively promoting the privatization of ports to enhance efficiency, attract private investment, and modernize infrastructure under the **Maritime India Vision 2030**. By transitioning major ports to a landlord model, the government aims to improve private sector participation in operations while retaining ownership of land and strategic assets.

This policy shift is intended to improve cargo handling efficiency, reduce logistics costs, and boost India's competitiveness in global trade. Privatization initiatives also align with the larger goal of developing world-class infrastructure, fostering economic growth, and increasing capacity to meet the growing demand for cargo handling driven by rising exports and imports.

Exhibit 14: Privatization of ports in India

PORT	Total no. of projects	FY22	FY23	FY24	FY25E
Paradip Port	4	2			2
Deendayal Port (Kandla)	4	2	2		
JNPT(Mumbai)	3	1	2		
Mormugao Port	3	1	2		
Mumbai Port	2	2			
Shyama Prasad Mookerjee Port Kolkata (Khidderpore)	4	1		1	2
Shyama Prasad Mookerjee Port Kolkata (Haldia)	3	1	1	1	
Visakhapatnam Port	4	1	2	1	
V. O. Chidambaram Port (formerly Tuticorin	3	2	1		
New Mangalore Port	1				1
Total	31	13	10	3	5

Source: IBEF, Industry Reports, MOFSL



A total of 31 privatization projects are planned, with 13 projects completed in FY22, 10 in FY23, and the remaining eight being split across FY25 and FY26. Paradip and Visakhapatnam ports each have four projects planned, with significant progress observed. This reflects India's continued efforts to enhance efficiency and investment in its port infrastructure through privatization.

Regulatory framework of the ports sector in India

The Major Port Authorities Act, 2021 replaced the Major Ports Trust Act, 1963, bringing significant reforms to the governance of major ports in India. Under the new Act, the Port Authority Board holds several key powers. First, the composition and list of board members must be submitted to the central government every five years. The Board is also considered the successor to the previous Board of Trustees of Major Ports.

The Indian government is promoting port privatization under Maritime India Vision 2030, shifting to a landlord model to enhance efficiency, attract investment, and boost global trade competitiveness

Additionally, the Act mandates the formation of an **Adjudicatory Board** within the Port Authority to resolve disputes between ports and PPP concessionaires, taking over the functions of the former **Tariff Authority for Major Ports (TAMP)**. The Port Authority Board is also empowered to manage port assets and funds, develop infrastructure such as new ports and jetties, and grant exemptions from charges on goods or vessels.

Further, the repeal of **TAMP** allows port authorities to set tariffs based on market conditions, improving the competitive positioning of major port terminals relative to non-major ports, which already had this flexibility. In summary, the Act modernizes port governance, enhances dispute resolution, and boosts the attractiveness of the port sector by granting port authorities greater autonomy and enabling competitive tariff-setting.

Central government State governments Ministry of Shipping TAMP State Maritime Boards Major port trusts Ministry of Environment and Forests State government departments Major ports Non-major ports State government controlled ports Public terminals Private terminals Private ports Policy / Regulation Formulation Operations

Exhibit 15: The institutional framework of Indian ports

Source: JSWINFRA DRHP, MOFSL



Key risks/challenges in the Indian ports sector

- Policy and regulatory uncertainty: Frequent changes in government policies and regulations can create uncertainty for private port operators. Delay in finalizing key policies, such as the National Ports Policy and regulatory frameworks for tariff rationalization, hinders investment decisions.
- Infrastructure gaps: Poor last-mile connectivity to ports, including inadequate road and rail infrastructure, hampers seamless cargo movement. Insufficient dredging and maintenance result in shallow drafts at many ports, limiting their ability to handle large vessels.
- **Environmental and social challenges:** Coastal projects face delays due to environmental clearances and social opposition, particularly concerning land acquisition and ecological impact. Rising sea levels and extreme weather events pose long-term risks to port infrastructure.
- Global economic volatility: Fluctuations in global trade volumes due to economic downturns, geopolitical tensions, or protectionist policies can impact cargo throughput. Dependence on certain commodities (e.g., coal, crude oil) makes ports vulnerable to changes in trade dynamics and shifting energy policies.
- Operational efficiency: Major ports often lag in adopting modern technologies, such as automation and digitalization, compared to global counterparts.
 Bureaucratic inefficiencies and outdated labor practices in some ports reduce competitiveness.
- Concerns regarding port privatization: While privatization has attracted investments, disputes over revenue-sharing models and concession agreements have created friction between the government and private operators. Concerns about monopolization by large private players could affect fair competition.
- Geopolitical risks: Proximity to politically sensitive areas (e.g., the Indian Ocean) exposes ports to risks from geopolitical instability. Increasing competition from regional ports in Sri Lanka, Bangladesh, and the Middle East could adversely affect India's share in transshipment cargo.

Market leaders, such as APSEZ and JSWINFRA, well-placed to outpace industry growth

The all-India cargo throughput has posted a CAGR of 5% over FY14-24. APSEZ and JSWINFRA are emerging as dominant players in the Indian port sector, significantly outpacing the overall industry growth.

Key challenges for Indian ports include policy uncertainty, infrastructure gaps, environmental hurdles, and global trade volatility, affecting investment, connectivity, and cargo throughput.

Exhibit 16: All-India cargo throughput has recorded a CAGR of 5% over FY14-24



Source: Company, MOFSL

and FY24, substantially surpassing India's cargo throughput CAGR of 5% during the same period. This growth trajectory has elevated its market share in cargo handling from 10% in FY14 to 27% as of Dec'24. Such growth is fueled by a combination of aggressive capacity expansions—both organic and inorganic. The company's acquisitions of ports on India's west and east coasts, coupled with greenfield and brownfield developments, have cemented its position as a market leader. Additionally, APSEZ's focus on integrating logistics services—spanning container train operations (CTO), warehousing, last-mile delivery, and inland container depots (ICDs)—positions it as a holistic transport utility. This strategy not only captures a greater share of customers' logistics needs but also fosters customer loyalty by making cargo handling more streamlined and efficient.

Exhibit 17: Cargo throughput at APSEZ (MMT)

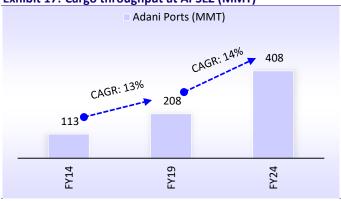
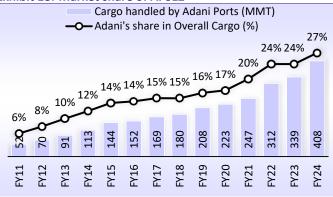


Exhibit 18: Market share of APSEZ



Source: Company, MOFSL Source: Company, MOFSL

JSWINFRA has also demonstrated exceptional growth, achieving a CAGR of 25% in cargo volumes from FY19 to FY24, well above India's growth rate of 5%. This surge has allowed JSWINFRA to command a 7% market share in the Indian port sector. The company's focus on capacity enhancement is evident from its ambitious roadmap to increase capacity to 400MMT by FY30 from 174MMT at present. Further, JSWINFRA's acquisition of a 70% stake in Navkar Corporation highlights its commitment to providing end-to-end logistics solutions, leveraging large land resources and last-mile connectivity. This diversified approach to logistics complements its port operations, ensuring robust growth and sustained competitiveness.

Exhibit 19: Cargo throughput at JSWINFRA (MMT)

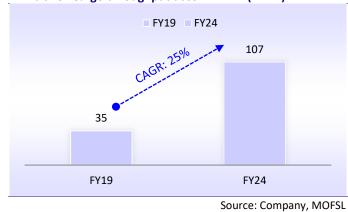
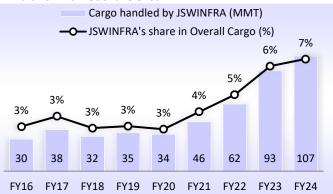


Exhibit 20: Market share of JSWINFRA



Source: Company, MOFSL

Exhibit 21: Valuation assessment

	APSEZ	JSWINFRA
M-cap (INR b)	2,400	500
Rating	BUY	BUY
CMP	1,112	238
EPS FY27E	70	9.8
P/E FY27E	15.9	24.6
Target multiple (x)	15	22
Target	1,400	330
Upside (%)	26%	37%

Exhibit 22: Relative performance comparison

	APSEZ	JSWINFRA
Revenue CAGR (FY24-27E)	14%	22%
EBITDA CAGR (FY24-27E)	15%	21%
PAT CAGR (FY24-27E)	19%	20%
Average RoE (FY24-27E)	19%	17%
Average RoCE (FY24-27E)	13%	14%
EV/EBITDA FY27E	11	14

Compaines



PG23

Adani Ports & SEZ

Largest private port operator in India



PG27

JSW Infrastructure

Scouting for organic and inorganic expansions



Adani Ports & SEZ

BSE SENSEX S&P CNX 22,913 75,736



Logistics

Bloomberg	ADSEZ IN
Equity Shares (m)	2160
M.Cap.(INRb)/(USDb)	2401.4 / 27.7
52-Week Range (INR)	1621 / 994

-1/-18/-18

5813

Financials & Valuations (INR b)

52-Week

1, 6, 12 Rel. Per (%)

12M Avg Val (INR M)

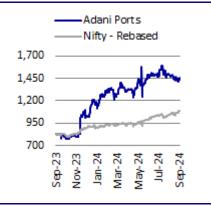
- mandad & value	1, 6,,,,,		
Y/E MARCH	FY25E	FY26E	FY27E
Sales	298.2	341.9	396.2
EBITDA	181.0	209.7	242.0
Adj. PAT	102.9	126.3	151.3
EBITDA Margin (%)	60.7	61.3	61.1
Adj. EPS (INR)	47.7	58.5	70.0
EPS Gr. (%)	15.5	22.7	19.8
BV/Sh. (INR)	286.8	336.5	396.0
Ratios			
Net D:E	0.6	0.5	0.4
RoE (%)	17.9	18.8	19.1
RoCE (%)	11.8	12.8	13.6
Payout (%)	15.4	12.6	10.5
Valuations			
P/E (x)	23.3	19.0	15.9
P/BV (x)	3.9	3.3	2.8
EV/EBITDA(x)	15.3	13.1	11.2
EV/ton (USD)	0.7	0.7	0.7
Div. Yield (%)	2.7	3.4	4.4
FCF Yield (%)	23.3	19.0	15.9

Shareholding pattern (%)

As On	Jun-24	Mar-24	Jun-23
Promoter	65.9	65.9	62.9
DII	12.5	11.8	12.4
FII	15.2	15.0	17.0
Others	6.4	7.3	7.7

FII Includes depository receipts

Stock's performance (one-year)



TP: INR1,400 (+26%) **CMP: INR1,112** Buy

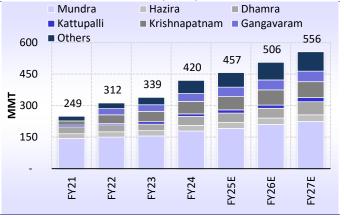
Largest private port operator in India

APSEZ is the largest port developer and operator in India by volume, with an annual capacity of ~633MMT in India. It commenced operations with the Mundra Port in Gujarat under a 30-year concession agreement with the Gujarat Maritime Board (GMB). Since then, the port company has rapidly grown to become the largest in the country in terms of cargo handling capacity, with 15 operational ports/terminals. The ports offer handling services for all kinds of cargo, viz., dry bulk, liquid bulk, crude, and containers. Further, through Adani Logistics (ALL), the company is present in the logistics business, offering container trains, inland container depots (ICDs), warehousing, etc., which it has been expanding to become an integrated transport utility company.

- Strong volume growth: APSEZ ended FY24 with 24% volume growth in FY24 volumes, taking the total volumes to 420 MMT (YTDFY25 volumes registered growth of 7% YoY at 372MMT). About 27% of the all-India cargo volume was routed through APSEZ ports in FY24 and 9MFY25. For FY25, the company is targeting cargo volumes of 460-470 MMT.
- Market share gains driven by operational efficiencies: APSEZ achieved 3x higher growth than the industry, growing its market share to ~27% as of Dec'24 from 10% in FY13. This growth was driven by the incorporation of new cargo classes at Mundra and Dhamra ports and a pickup in coal & coastal coal cargo at Gangavaram and Dhamra (aided by robust economic growth). Additionally, the advantages of an integrated port-cum-logistics service have significantly helped gain market share.
- Transforming into an integrated logistics solutions company: ALL has expanded its services to cover container train operations, container handling in logistic parks, and warehouses offering storage and trucking solutions. With 12 multi-modal logistics parks, 132 trains, 3.1m sq. ft. of warehousing space, and 1.2mmt of grain silos, ALL aims to establish a nationwide presence by further developing logistic parks and warehouses.
- India's largest third-party marine service provider with the most extensive capital dredging capacity: APSEZ is the largest marine service provider in the country and has recently acquired an 80% stake in Astro for USD185m. Founded in 2009, Astro is a leading global offshore support vessel (OSV) operator with a fleet of 26 vessels, providing services across the Middle East, India, Far East Asia, and Africa.
- Volume growth trajectory to continue; reiterate BUY: APSEZ continues to gain market share while generating strong cash flows and maintaining its leverage position, with a net debt-to-EBITDA ratio of 2x as of Sep'24. We expect APSEZ to register 10% volume growth and a CAGR of 14%/15%/19% in revenue/EBITDA/PAT over FY24-27. With consistent outperformance in cargo volumes, we reiterate our BUY rating with a TP of INR1,400 (based on 15x Sep'26 EV/EBITDA).

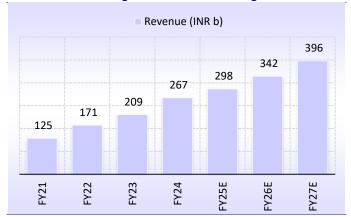


Exhibit 23: APSEZ – volumes (MMT)



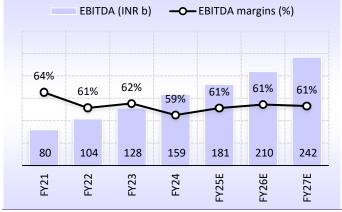
Source: Company, MOFSL

Exhibit 24: Revenue growth to remain strong



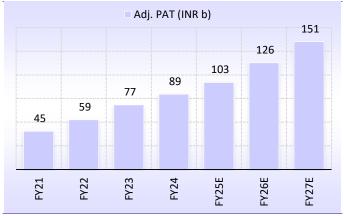
Source: Company, MOFSL

Exhibit 25: Margin to stabilize at ~60%



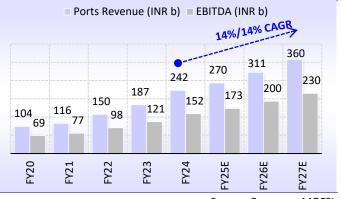
Source: Company, MOFSL

Exhibit 26: Strong operating performance to drive PAT



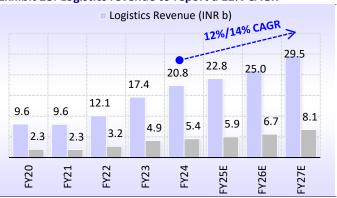
Source: Company, MOFSL

Exhibit 27: Ports revenue to report a 14% CAGR



Source: Company, MOFSL

Exhibit 28: Logistics revenue to report a 12% CAGR



Source: Company, MOFSL



Financials and valuation

Y/E March (INR b)	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Net Sales	125	171	209	267	298	342	396
Change in Net Sales (%)	5.7	36.4	21.8	28.1	11.6	14.7	15.9
Total Expenses	46	67	80	108	117	132	154
EBITDA	80	104	128	159	181	210	242
Margin (%)	63.6	60.7	61.5	59.4	60.7	61.3	61.1
Depn. & Amortization	21	31	34	39	43	47	52
EBIT	59	73	94	120	138	163	190
Net Interest	21	26	26	28	29	27	27
Other income	20	22	16	15	13	15	16
РВТ	57	70	84	107	122	150	180
EO expense	-6	13	29	4	-4	0	0
PBT after EO	63	57	54	103	126	150	180
Tax	12	8	1	20	20	24	29
Rate (%)	19.7	13.4	1.8	19.4	16.0	16.0	16.0
PAT before JV, MI	51	49	53	83	106	126	151
Share of loss from JV, MI	-1	0	0	-2	-0.1	-0.1	0.0
Reported PAT	50	49	53	81	106	126	151
Adjusted PAT	45	59	77	89	103	126	151
Change (%)	-9.6	30.3	29.8	16.5	15.5	22.7	19.8
Margin (%)	36.0	34.4	36.7	33.4	34.5	36.9	38.2

Source: MOFSL, Company

	'n	250	lid	ator	l Bal	lance	Ch	oot
•	.UI	130	IIU	ıaıcı	ı va	ialice	311	CCL

Y/E March (INR b)	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Share Capital	4	4	4	4	4	4	4
Reserves	302	416	452	525	615	723	851
Net Worth	306	420	456	529	620	727	856
Minority Interest	15	4	13	16	17	18	19
Total Loans	344	455	498	463	458	448	438
Deferred Tax Liability	3	17	10	23	23	23	23
Capital Employed	668	895	977	1,031	1,117	1,215	1,335
Gross Block	552	700	782	848	938	1,033	1,128
Less: Accum. Deprn.	111	142	148	179	222	269	321
Net Fixed Assets	441	558	634	669	715	763	807
Capital WIP	37	40	68	109	109	109	109
Investments	22	32	101	56	76	106	136
Curr. Assets	244	353	324	335	353	377	427
Inventories	10	4	5	4	5	6	6
Account Receivables	24	22	32	37	45	56	71
Cash and Bank Balance	47	107	42	76	84	95	129
-Cash and cash equivalents	42	87	9	16	24	34	68
-Bank balance	5	20	33	61	61	61	61
Loans & advances	21	19	20	3	3	4	4
Other current assets	143	201	225	215	216	216	217
Curr. Liability & Prov.	76	88	150	139	138	141	144
Account Payables	10	12	18	22	20	23	27
Provisions	1	1	17	13	13	13	13
Other current liabilities	65	75	114	105	105	105	105
Net Curr. Assets	168	265	175	196	216	236	282
Appl. of Funds	668	895	977	1,031	1,117	1,215	1,335

Source: MOFSL, Company



Inc/(Dec) in Debt

Cash from financing activity

Opening cash balance

Closing cash balance

Net change in cash & equi.

change in control of subs.

Interest

Dividend

Others

Financials and valuation

Ratios	FY21	FY22	EV22	EV24	EV2EE	EV26E	EV27F
Basic (INR)	FYZI	F1ZZ	FY23	FY24	FY25E	FY26E	FY27I
EPS	22.3	27.9	35.4	41.3	47.7	58.5	70.0
EPS Growth	-9.6	25.4	26.9	16.5	15.5	22.7	19.8
Cash EPS	32.6	42.6	51.3	59.3	67.8	80.2	93.9
BV/Share	150.7	198.8	211.0	245.1	286.8	336.5	396.0
Payout (%)	22.5	17.9	14.1	14.5	15.4	12.6	10.5
Dividend yield (%)	0.5	0.5	0.5	0.6	0.7	0.7	0.7
Valuation (x)	0.5	0.5	0.5	0.0	0.7	0.7	0.7
P/E	49.9	39.8	31.4	26.9	23.3	19.0	15.9
Cash P/E	34.0	26.1	21.7	18.7	16.4	13.9	11.8
P/BV	7.4	5.6	5.3	4.5	3.9	3.3	2.8
EV/EBITDA	33.5	25.6	21.5	17.2	15.3	13.1	11.2
Dividend Yield (%)	0.5	0.5	0.5	0.5	0.7	0.7	0.7
Return Ratios (%)	0.5	0.5	0.5	0.5	0.7	0.7	0.,
RoE	16.1	16.2	17.5	18.1	17.9	18.8	19.1
RoCE (post-tax)	10.3	10.4	10.9	11.1	11.8	12.8	13.6
RoIC (post-tax)	9.5	9.9	12.5	12.4	14.1	15.6	17.2
Working Capital Ratios	3.3	3.3	12.5	12	17.1	13.0	17.2
Fixed Asset Turnover (x)	0.3	0.3	0.3	0.3	0.4	0.4	0.5
Asset Turnover (x)	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Debtor (Days)	69	47	57	50	55	60	65
Creditors (Days)	29	25	32	30	25	25	25
Inventory (Days)	29	8	8	6	6	6	
Leverage Ratio (x)							
Current Ratio	3.2	4.0	2.2	2.4	2.6	2.7	3.0
Interest Cover Ratio	3.7	3.7	4.2	4.8	5.3	6.5	7.8
Net Debt/EBITDA	3.7	3.3	3.6	2.4	2.1	1.7	1.3
Net Debt/Equity	1.0	0.8	1.0	0.7	0.6	0.5	0.4
Cash Flow Statement (INR b)							
, ,	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
OP/(Loss) before Tax	63	57	55	101	127	151	181
Depreciation	21	31	34	39	43	47	52
Direct Taxes Paid	-9	-10	-8	-13	-20	-24	-29
(Inc)/Dec in WC	4	8	-9	0	-11	-10	-13
Other Items	-4	18	47	23	15	12	10
CF from Operations	76	104	119	150	154	177	202
(Inc)/Dec in FA	-19	-36	-89	-74	-90	-95	-95
Free Cash Flow	56	68	30	76	64	82	107
Acquisitions/Divestment	-150	-7	-144	-31	0	0	(
Change in Investments	6	-28	23	-5	-20	-30	-30
Others	22	18	15	41	13	15	10
CF from Investments	-141	-53	-196	-69	-97	-110	-109
Share issue	0	9	9	2	0	0	(
La - //D\ i - D - la t			-		-	4.0	

Source: MOFSL, Company

-10

-27

-19

-56

10

24

0

34

0

-10

-27

-23

0 **-59**

34

34

0

February 2025 26

55

-20

0

0

35

-31

72

1

42

75

-26

-10

-54

-6

46

43

-2

87

3

-24

-11

-6

-27

-104

87

27

9

-41

-28

-11

-78

0

3

11

2

16

-5

-29

-16

-49

0

8

16

0

24

JSW Infrastructure

 BSE SENSEX
 S&P CNX

 75,736
 22,913



Bloomberg	JSWINFRA IN
Equity Shares (m)	2100
M.Cap.(INRb)/(USDb)	500.4 / 5.8
52-Week Range (INR)	361 / 211
1, 6, 12 Rel. Per (%)	-18/-17/-3
12M Avg Val (INR M)	1050

Financials & Valuations (INR b)

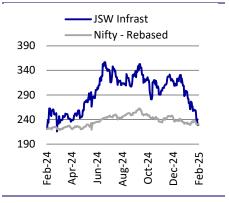
Y/E MARCH	FY25E	FY26E	FY27E
Sales	45.3	55.0	67.8
EBITDA	23.0	28.2	35.0
Adj. PAT	14.0	16.2	20.5
EBITDA Margin (%)	50.7	51.4	51.5
Adj. EPS (INR)	6.7	7.7	9.8
EPS Gr. (%)	15.3	15.5	26.5
BV/Sh. (INR)	43.2	49.0	56.3
Ratios			
Net D:E	-0.0	0.0	-0.0
RoE (%)	16.4	16.7	18.5
RoCE (%)	12.9	13.3	15.0
Payout (%)	0.0	0.0	0.0
Valuations			
P/E (x)	35.9	31.1	24.6
P/BV (x)	5.6	4.9	4.3
EV/EBITDA(x)	21.9	17.9	14.4
EV/ton (USD)	0.0	0.0	0.0
Div. Yield (%)	51.0	0.1	64.9
FCF Yield (%)	35.9	31.1	24.6

Shareholding pattern (%)

As On	Dec-24	Sep-24	Dec-23
Promoter	85.6	85.6	85.6
DII	2.7	2.5	4.1
FII	5.4	5.6	5.1
Others	6.3	6.3	5.2

FII Includes depository receipts

Stock's performance (one-year)



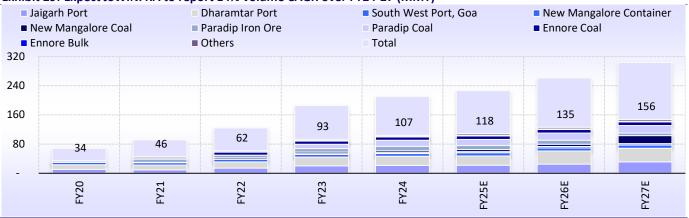
CMP: INR238 TP: INR330 (+37%) Buy

Scouting for organic and inorganic expansions

JSWINFRA, incorporated in 2006, is a part of the JSW Group and is engaged in the business of developing infrastructure and operations for ports across India. As of Dec'24, JSWINFRA has a total operational capacity of around 174 MMTPA. It has also entered into an agreement with the Port of Fujairah for the operation and maintenance of the bulk handling system for cargo at two berths in the Fujairah Port. In Oct'23, JSWINFRA completed its IPO of INR28b.

- Geographically diversified port locations: JSWINFRA has two minor ports (Jaigarh and Dharamtar) on the western coast, while it has seven operational terminals on major ports. Among seven port terminals, four are located on the eastern coast and three on the western coast, leading to a geographically diverse presence for JSWINFRA. The ports are located in the vicinity of JSW Group companies.
- Volume growth to remain robust: Cargo volumes grew 15% YoY in FY24 to 106.5MMT from 93MMT in FY23 (three-year CAGR of 33% over FY21-24). With capacity ramp-up at existing ports, along with a higher share of volumes from third-party customers, we expect the growth momentum to continue.
- Scouting for organic and inorganic expansions: JSWINFRA has been actively scouting for growth opportunities (organic/inorganic) as the management aims to maintain a ~15% CAGR in volume over the long term. In FY24, JSWINFRA signed a concession agreement with the Karnataka Maritime Board to develop a 30 MTPA greenfield port in Keni, Karnataka. Additionally, it emerged as the winning bidder for a 7MTPA dry bulk terminal in Tuticorin through a PPP model. Furthermore, JSWINFRA signed a concession agreement with JNPA for two liquid berths with a capacity of 4.5MTPA.
- To enhance capacity to 400MMT by 2030 through capex: In line with its long-term growth outlook, the management has guided a capex of INR300b over FY24-30E, which will increase overall capacity by 85MMT in the next three years, and to 400MMT by 2030 (current capacity is 174MMT).
- On track to deliver robust performance; reiterate BUY: Considering stable growth levers at its existing ports and terminals, a higher share of third-party customers, sticky cargo volume from JSW Group companies, and an expanding portfolio, we expect JSWINFRA to strengthen its market dominance, leading to a 14% volume CAGR over FY24-27. This should drive a 22% CAGR in revenue and a 21% CAGR in EBITDA. We reiterate our BUY rating with a revised TP of INR330 (premised on 22x Sep'26 EV/EBITDA).

Exhibit 29: Expect JSWINFRA to report 14% volume CAGR over FY24-27 (MMT)



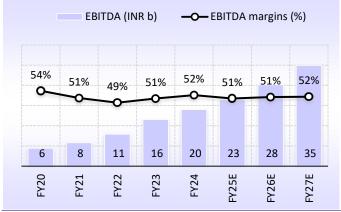
Source: Company, MOFSL

Exhibit 30: Revenue growth to remain strong



Source: Company, MOFSL

Exhibit 31: Margin to improve with higher volumes



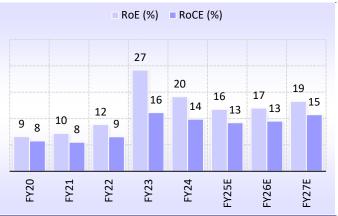
Source: Company, MOFSL

Exhibit 32: Strong operating performance to drive PAT



Source: Company, MOFSL

Exhibit 33: Return ratios to remain stable



Source: Company, MOFSL



Financials and valuation

Y/E March (INR m)	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Net Sales	16,036	22,731	31,947	37,629	45,297	54,987	67,848
Change in Net Sales (%)	40.3	41.7	40.5	17.8	20.4	21.4	23.4
Total Expenses	7,871	11,636	15,746	17,983	22,309	26,743	32,889
EBITDA	8,164	11,094	16,202	19,646	22,988	28,244	34,960
Margin (%)	50.9	48.8	50.7	52.2	50.7	51.4	51.5
Depn. & Amortization	2,707	3,695	3,912	4,365	5,452	7,797	9,024
EBIT	5,458	7,399	12,290	15,281	17,536	20,447	25,936
Net Interest	2,522	3,480	2,819	2,892	3,248	2,961	2,974
Other income	747	1,057	1,781	2,694	3,314	3,347	3,380
PBT	3,683	4,976	11,252	15,083	17,602	20,832	26,342
EO expense	-244	716	3,142	433	118	0	0
PBT after EO	3,926	4,260	8,110	14,650	17,484	20,832	26,342
Tax	1,080	955	615	3,043	3,497	4,583	5,795
Rate (%)	27.5	22.4	7.6	20.8	20.0	22.0	22.0
PAT before JV, MI	2,846	3,304	7,495	11,607	13,987	16,249	20,547
Share of loss from JV, MI	68	-25	-97	-48	-48	-48	-48
Reported PAT	2,914	3,279	7,398	11,559	13,939	16,201	20,499
Adjusted PAT	2,731	3,817	9,755	11,884	14,022	16,201	20,499
Change (%)	9.3	39.7	155.6	21.8	18.0	15.5	26.5
Margin (%)	17.0	16.8	30.5	31.6	31.0	29.5	30.2

Source: MOFSL, Company

Consol	idated I	Balance	Shoot
CULISUI	luateu	Daialice	Jucer

Y/E March (INR m)	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Share Capital	599	599	3,596	4,103	4,103	4,103	4,103
'	28,312	32,122	36,350	76,161	86,615	98,766	
Reserves		•		· · · · · · · · · · · · · · · · · · ·	•		1,14,140
Net Worth	28,912	32,721	39,946	80,264	90,718	1,02,869	1,18,243
Minority Interest	1,973	1,998	942	2,047	2,094	2,142	2,190
Total Loans	34,807	44,087	42,437	43,807	42,807	41,807	40,807
Deferred Tax Liability	-764	-969	-2,121	-1,916	-1,916	-1,916	-1,916
Capital Employed	64,927	77,837	81,205	1,24,201	1,33,704	1,44,902	1,59,324
Gross Block	45,158	47,405	48,886	64,231	79,231	1,04,231	1,24,231
Less: Accum. Deprn.	6,995	8,693	10,435	13,103	18,554	26,352	35,376
Net Fixed Assets	38,163	38,712	38,451	51,128	60,677	77,879	88,855
Capital WIP	11,239	701	450	1,089	1,089	1,089	1,089
Investments	2,955	2,830	3,070	2,445	2,445	2,445	2,445
Curr. Assets	28,112	48,563	49,029	80,359	82,335	78,279	83,487
Inventories	991	854	1,022	1,117	1,345	1,482	1,643
Account Receivables	4,115	6,013	4,024	6,768	5,585	6,026	7,435
Cash and Bank Balance	3,145	10,382	16,316	40,902	43,819	39,169	42,790
-Cash and cash equivalents	1,514	5,288	6,187	7,234	10,150	5,500	9,122
-Bank balance	1,631	5,094	10,130	33,668	33,668	33,668	33,668
Loans & advances	2,889	2,478	585	74	77	81	85
Other current assets	16,972	28,834	27,082	31,497	31,509	31,521	31,532
Curr. Liability & Prov.	15,542	12,969	9,796	10,819	12,841	14,789	16,551
Account Payables	2,615	2,748	3,016	3,562	5,585	7,532	9,294
Provisions	82	89	79	132	132	132	132
Other current liabilities	12,845	10,132	6,701	7,125	7,125	7,125	7,125
Net Curr. Assets	12,571	35,594	39,234	69,540	69,493	63,489	66,936
Appl. of Funds	64,927	77,837	81,205	1,24,201	1,33,703	1,44,902	1,59,324

Source: MOFSL, Company



Financials and valuation

PY21 PY22 PY23 PY24 PY25 PY26 PY276 PY276 PY276 PY276 PY276 PY276 PY277 PY277 PY277 PY278 PY	Ratios							
FPS	1000	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
EPS Growth	Basic (INR)							
Cash IPS 90.7 11.23 7.6 7.9 9.3 11.4 14.1 By/Share 482.4 546.0 22.2 39.1 43.2 49.0 56.0 Payout (%) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Dividend yeld (%) 0.0 0.0 0.0 0.0 0.0 0.0 Valuation (x) V V V V V V PfE 5.3 3.8 44.2 41.4 35.9 31.1 24.6 EyfBITDA 5.3 4.1 28.1 25.1 21.0 17.7 PfW 0.5 0.4 10.8 6.1 5.6 4.9 4.3 EyfBITDA 5.3 4.1 28.1 25.1 21.9 17.9 14.5 EyfBITDA 0.5 0.7 0.0 0.0 0.0 0.0 0.0 Rety (FBITDA 0.5 0.7 0.0 0.0 0.0 0.0	EPS	45.6	63.7	5.4	5.8	6.7	7.7	9.8
BV/Share	EPS Growth	9.3	39.7	-91.5	6.8	15.3	15.5	26.5
Payout (%)	Cash EPS	90.7	125.3	7.6	7.9	9.3	11.4	14.1
Dividend yield (%) 0.0 0	BV/Share	482.4	546.0	22.2	39.1	43.2	49.0	56.3
Valuation (x) Valuation (x	Payout (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P/E	Dividend yield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash P/E 2.6	Valuation (x)							
P/BV	P/E	5.3	3.8	44.2	41.4	35.9	31.1	24.6
P/BV	Cash P/E	2.6	1.9	31.6	30.3	25.9	21.0	17.1
EV/EBITOA 5.3 4.1 28.1 25.1 21.9 17.9 14.4 Dividend Yield (%) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	P/BV	0.5	0.4	10.8		5.6	4.9	
Dividend Yield (%) 0.0			4.1		25.1	21.9	17.9	14.4
Return Ratios (%) Rote 10.0 12.4 26.8 19.8 16.4 16.7 18.5 13.8 12.9 13.3 15.0 15.5 13.8 12.9 13.3 15.0 15.5 13.8 12.9 13.3 15.0 15.5 15.0 15.5 13.8 12.9 13.3 15.0 15.5 15.0 15.5 15.0 16.9 18.8 15.0 1	Dividend Yield (%)							
RoE 10.0 12.4 26.8 19.8 16.4 16.7 18.5 RoE RoE (post-tax) 7.7 9.1 15.5 13.8 12.9 13.3 15.0 RoE (post-tax) 9.0 10.3 18.1 17.2 16.9 16.9 16.9 18.8	· · · · · ·							
RoCE (post-tax) 7.7 9.1 15.5 13.8 12.9 13.3 15.0 RoC (post-tax) 9.0 10.3 18.1 17.2 16.9 16.9 18.8 Working Capital Ratios Fixed Asset Turnover (x) 0.4 0.5 0.7 0.7 0.7 0.8 Asset Turnover (x) 0.2 0.3 0.4 0.3 0.3 0.4 0.4 Debtor (Days) 94 97 46 66 45 40 40 Creditors (Days) 60 44 34 35 45 50 50 Inventory (Days) 23 14 12 11 10 9 Leverage Ratio (x) 2 2.4 5.0 6.2 6.4 8.0 9.9 Net Debt/EBITDA 3.9 3.0 1.6 0.1 0.0 0.1 -0.1 Net Debt/Eguity 1.1 1.0 0.7 0.0 0.0 0.0 0.0 Cash Flow	· · · · · · · · · · · · · · · · · · ·	10.0	12.4	26.8	19.8	16.4	16.7	18.5
RolC (post-tax) 9.0 10.3 18.1 17.2 16.9 16.9 18.8								
Norking Capital Ratios Fixed Asset Turnover (x)								
Fixed Asset Turnover (x)		3.0	20.0	20.2				
Asset Turnover (x)		0.4	0.5	0.7	0.7	0.7	0.7	0.8
Debtor (Days) 94 97 46 66 45 40 40								
Creditors (Days) 60 44 34 35 45 50 50 Inventory (Days) 23 14 12 11 11 10 9 Leverage Ratio (x) 2.5 2.4 5.0 6.2 6.4 8.0 9.9 Net Debt/Eguity 1.1 1.0 0.7 0.0 0.0 0.1 0.1 Cash Flow Statement (INR m) FY21 FY22 FY23 FY24 FY25E FY26E FY27E CP/(Loss) before Tax 3,926 4,260 8,110 14,650 17,484 20,832 26,342 Depreciation 2,707 3,695 3,912 4,365 5,452 7,797 9,024 Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 -4,583 -5,795 (Inc/)Cec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176	• • • • • • • • • • • • • • • • • • • •							
Inventory (Days) 23								
Current Ratio (x) Current Ratio 1.8 3.7 5.0 7.4 6.4 5.3 5.0 Interest Cover Ratio 2.5 2.4 5.0 6.2 6.4 8.0 9.9 Net Debt/EBITDA 3.9 3.0 1.6 0.1 0.0 0.1 0.1 Net Debt/Equity 1.1 1.0 0.7 0.0 0.0 0.0 0.0 Cash Flow Statement (INR m)								
Current Ratio 1.8 3.7 5.0 7.4 6.4 5.3 5.0 Interest Cover Ratio 2.5 2.4 5.0 6.2 6.4 8.0 9.9 Net Debt/EBITDA 3.9 3.0 1.6 0.1 0.0 0.1 -0.1 Net Debt/Equity 1.1 1.0 0.7 0.0 0.0 0.0 0.0 Cash Flow Statement (INR m) FY21 FY22 FY23 FY24 FY25E FY26E FY27E CP/(Loss) before Tax 3,926 4,260 8,110 14,650 17,484 20,832 26,342 Depreciation 2,707 3,695 3,912 4,365 5,452 7,797 9,024 Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 4,583 -5,795 (Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953		23	14	12	11	11	10	9
Interest Cover Ratio 2.5 2.4 5.0 6.2 6.4 8.0 9.9 Net Debt/EBITDA 3.9 3.0 1.6 0.1 0.0 0.1 -0.1 Net Debt/Equity 1.1 1.0 0.7 0.0 0.0 0.0 0.0 Cash Flow Statement (INR m)		1 0	2.7	F 0	7.4	6.1	E 2	F 0
Net Debt/EBITDA 3.9 3.0 1.6 0.1 0.0 0.1 0.0								
Net Debt/Equity 1.1 1.0 0.7 0.0 0.0 0.0 0.0 Cash Flow Statement (INR m) FY21 FY22 FY23 FY24 FY25E FY26E FY27E OP/(Loss) before Tax 3,926 4,260 8,110 14,650 17,484 20,832 26,342 Depreciation 2,707 3,695 3,912 4,365 5,452 7,797 9,024 Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 -4,583 -5,795 (Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953 2,192 406 -66 -385 -406 CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,406 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow								
FY21 FY22 FY23 FY24 FY25E FY26E FY27E								
OP/(Loss) before Tax 3,926 4,260 8,110 14,650 17,484 20,832 26,342 Depreciation 2,707 3,695 3,912 4,365 5,452 7,797 9,024 Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 -4,583 -5,795 (Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953 2,192 406 -66 -385 -406 CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Net Debt/Equity	1.1	1.0	0.7	0.0	0.0	0.0	0.0
OP/(Loss) before Tax 3,926 4,260 8,110 14,650 17,484 20,832 26,342 Depreciation 2,707 3,695 3,912 4,365 5,452 7,797 9,024 Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 -4,583 -5,795 (Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953 2,192 406 -66 -385 -406 CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Cook Election of (NR)	. 1						
OP/(Loss) before Tax 3,926 4,260 8,110 14,650 17,484 20,832 26,342 Depreciation 2,707 3,695 3,912 4,365 5,452 7,797 9,024 Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 -4,583 -5,795 (Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953 2,192 406 -66 -385 -406 Other Items 2,098 3,953 2,192 406 -66 -385 -406 Other Items 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 0 0 0	Cash Flow Statement (link in	•	EV22	EV22	EV24	EV2EE	EVACE	EV27E
Depreciation 2,707 3,695 3,912 4,365 5,452 7,797 9,024 Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 -4,583 -5,795 (Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953 2,192 406 -66 -385 -406 CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 (Inc)/Dec in FA -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 <td>OP//Loca) hafara Tay</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	OP//Loca) hafara Tay							
Direct Taxes Paid -252 -1,222 1,807 -248 -3,497 -4,583 -5,795 (Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953 2,192 406 -66 -385 -406 CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0							•	
(Inc)/Dec in WC 1,630 1,077 1,952 -1,141 2,963 1,354 176 Other Items 2,098 3,953 2,192 406 -66 -385 -406 CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0	<u> </u>							
Other Items 2,098 3,953 2,192 406 -66 -385 -406 CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 0 0 0 0 0 0 0 Change in Investments 820 125 -168 1,182 0 0 0 Others -1,262 -3,070 -3,350 -40,739 3,314 3,347 3,380 CF from Investments -16,368 -8,013 -6,208 -42,047 -11,686 -21,653 -16,20 Share issue 0 0 0 28,000 0 0 0 Inc/(Dec) in Debt 8,676 3,908 -5,054 14 <th< td=""><td></td><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td></th<>						•		
CF from Operations 10,108 11,762 17,972 18,032 22,336 25,015 29,340 (Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 0 0 0 0 0 0 0 Change in Investments 820 125 -168 1,182 0								
(Inc)/Dec in FA -15,925 -5,068 -2,690 -2,489 -15,000 -25,000 -20,000 Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 0 0 0 0 0 0 0 Change in Investments 820 125 -168 1,182 0 0 0 Others -1,262 -3,070 -3,350 -40,739 3,314 3,347 3,380 CF from Investments -16,368 -8,013 -6,208 -42,047 -11,686 -21,653 -16,620 Share issue 0 0 0 28,000 -1,000 -1,000 -1,000 -1,000 -1,000 -1,000 -1,000 -1,000 -1,000 -1,000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Free Cash Flow -5,817 6,694 15,282 15,543 7,336 15 9,340 Acquisitions/Divestment 0 0 0 0 0 0 0 0 Change in Investments 820 125 -168 1,182 0 0 0 Others -1,262 -3,070 -3,350 -40,739 3,314 3,347 3,380 CF from Investments -16,368 -8,013 -6,208 -42,047 -11,686 -21,653 -16,620 Share issue 0 0 0 28,000 0 0 0 0 Inc/(Dec) in Debt 8,676 3,908 -5,054 14 -1,000 -1,000 -1,000 Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
Acquisitions/Divestment 0 0 0 0 0 0 0 Change in Investments 820 125 -168 1,182 0 0 0 Others -1,262 -3,070 -3,350 -40,739 3,314 3,347 3,380 CF from Investments -16,368 -8,013 -6,208 -42,047 -11,686 -21,653 -16,620 Share issue 0 0 0 28,000 0 0 0 0 Inc/(Dec) in Debt 8,676 3,908 -5,054 14 -1,000 -1,000 -1,000 Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012								
Change in Investments 820 125 -168 1,182 0 0 0 Others -1,262 -3,070 -3,350 -40,739 3,314 3,347 3,380 CF from Investments -16,368 -8,013 -6,208 -42,047 -11,686 -21,653 -16,620 Share issue 0 0 0 28,000 0 0 0 0 Inc/(Dec) in Debt 8,676 3,908 -5,054 14 -1,000 -1,000 -1,000 Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917								
Others -1,262 -3,070 -3,350 -40,739 3,314 3,347 3,380 CF from Investments -16,368 -8,013 -6,208 -42,047 -11,686 -21,653 -16,620 Share issue 0 0 0 28,000 0 0 0 0 Inc/(Dec) in Debt 8,676 3,908 -5,054 14 -1,000 -1,000 -1,000 Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288								
CF from Investments -16,368 -8,013 -6,208 -42,047 -11,686 -21,653 -16,620 Share issue 0 0 0 28,000 0 0 0 Inc/(Dec) in Debt 8,676 3,908 -5,054 14 -1,000 -1,000 -1,000 Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0								
Share issue 0 0 0 28,000 0 0 0 Inc/(Dec) in Debt 8,676 3,908 -5,054 14 -1,000 -1,000 -1,000 Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0								
Inc/(Dec) in Debt 8,676 3,908 -5,054 14 -1,000 -1,000 -1,000 Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0		-16,368		-6,208		-11,686	-21,653	-16,620
Interest -2,242 -3,621 2,727 2,479 -3,248 -2,961 -2,974 Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0	Share issue				28,000			
Dividend 0 0 0 0 -3,485 -4,050 -5,125 Others -231 -262 -8,539 -5,454 0 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0								
Others -231 -262 -8,539 -5,454 0 0 0 Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0			-3,621		2,479			
Cash from financing activity 6,202 26 -10,866 25,039 -7,733 -8,012 -9,099 Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0						-3,485	-4,050	-5,125
Net change in cash & equi. -57 3,775 899 1,024 2,917 -4,650 3,622 Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0				-8,539				
Opening cash balance 1,571 1,514 5,288 6,210 7,234 10,150 5,500 change in control of subs. 0 0 0 0 0 0 0 0	Cash from financing activity	6,202	26	-10,866	25,039	-7,733	-8,012	-9,099
change in control of subs. 0 0 0 0 0 0 0 0	Net change in cash & equi.	-57	3,775	899	1,024	2,917	-4,650	3,622
· · · · · · · · · · · · · · · · · · ·	Opening cash balance	1,571	1,514	5,288	6,210	7,234	10,150	5,500
Closing cash balance 1,514 5,288 6,187 7,234 10,150 5,500 9,122	change in control of subs.	0	0	0	0	0	0	0
	Closing cash balance	1,514	5,288	6,187	7,234	10,150	5,500	9,122

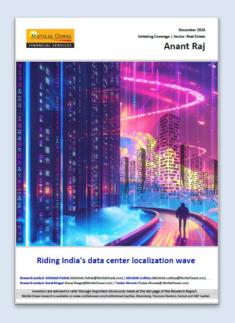
Source: MOFSL, Company

Investment in securities market are subject to market risks. Read all the related documents carefully before investing

REPORT GALLERY

RECENT INITIATING COVERAGE REPORTS

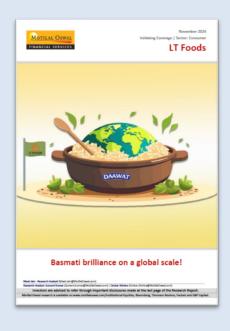






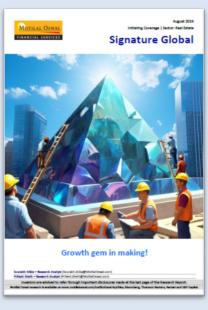














NOTES



Explanation of Investment Rating					
Investment Rating	Expected return (over 12-month)				
BUY	>=15%				
SELL	< - 10%				
NEUTRAL	< - 10 % to 15%				
UNDER REVIEW	Rating may undergo a change				
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation				

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall be within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend. Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at http://onlinere

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage pending Proceedings Motilal Oswal Limited transactions. Details of Enquiry Financial Services available of are https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg. No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the 1934 act) and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In relates on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets (Singapore) Pte. Ltd. ("MOCMSPL") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore. This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to grievances@motilaloswal.com.

Nainesh Rajani

Email: nainesh.raiani@motilaloswal.com

Contact: (+65) 8328 0276

Specific Disclosures

- MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- Research Analyst has not served as director/officer/employee in the subject company
- MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- MOFSL has not received compensation for investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- MOFSL has not received any compensation or other benefits from third party in connection with the research report MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions, however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report



The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures. **Analyst Certification**

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays. This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025, Tel No.: 022 - 71934200 / 71934263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal,

Email Id: na@motilaloswal.com, Contact No.:022-40548085. Grievance Redressal Cell:

Contact Person	Contact No.	Email ID					
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com					
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com					
Mr. Ajay Menon	022 40548083	am@motilaloswal.com					

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN .: 146822. IRDA Corporate Agent - CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.