

15th January 2018



COCHIN SHIPYARD LTD

*An indomitable player
in India's shipyard industry*



JM Financial Institutional Securities Limited

Table of Contents

Contents	Page No.
Focus charts	4
Investment Rationale	6
- Proven track record and healthy order book	6
- Large dock size and strategic location place CSL in a sweet spot	9
- Low-cost structure provides competitive advantage over peers	11
- Investing in both capacity and capability to the pave way for the next leg of growth	12
- New initiatives	15
- Policy-led development	17
- Sturdy financials	16
Brief Comparison of Indian Shipyards	19
Company Overview	20
Industry Overview	21
- Global Shipbuilding/ Repair Industry	21
- Indian Shipbuilding Industry	23
- Indian Ship Repair Industry	26
Financials	27
Valuation	29
Peer Valuation	30
Key risks	31
Key management personnel	32

Cochin Shipyard | BUY

Indomitable player in the Indian shipyard industry

Cochin Shipyard (CSL) is the largest shipyard in India in terms of dock capacity. It is a market leader in ship repair (39% share) and is not only building India's first aircraft carrier (IAC-1) but is also a top contender to build the second indigenous aircraft carrier (IAC-2). In our view, CSL is likely to see sustained double-digit growth based on its robust order book position (12x TTM shipbuilding sales including L1 orders), favourable industry positioning, low-cost structure, conducive government policies, new business partnerships (JVs with Hooghly and Mumbai Port), strong financials (debt free despite high capex) and experienced management (top management's experience is >25 years). The company has outpaced its peers by recording strong growth (FY12-17 sales/EPS CAGR: 8%/14%) in a shrinking industry and is concurrently diversifying its capabilities in areas such as defence (next gen aircraft carrier, corvettes), inland waterways (barges, ferries, ropax) and oil and gas (LNG carriers, oil rigs), which should offer it the next leg of growth. We initiate with BUY and a TP of INR 700, valuing CSL at 12x FY20 EBITDA (INR 555/share) and 1x FY19E cash balance (INR 145/share).

- **Enviably track record, revenue visibility and pipeline:** In contrast to a 32% decline in the industry order book, CSL's revenue posted a 9% CAGR over FY12-16. However, a robust order book of INR 184 bn (including L1 orders) and near-term order pipeline of INR 32bn provide adequate revenue visibility over the next 7-8 years. We expect the inflow momentum to sustain as Indian Navy orders jump 3x to USD 42bn over the next decade, including the award of several large-value tenders such as IAC-2 and next gen Corvettes.
- **Market leader in ship repair with differentiated offerings:** CSL is a leader in the ship repair industry, with a 39% market share. This segment's revenue posted a 30% CAGR over FY12-17 on its strong delivery track record. It has the most competitive cost structure as its employee costs form only 10.5% of sales (vs. the peer average of 23%). Also, with the largest dry dock in India and the only shipyard to have undertaken repair and construction of aircraft carriers, CSL is the top contender for an IAC-2 order.
- **New initiatives and favourable policies:** Favourable government policies (DPP-2016 and Shipbuilding policy) mandate increased indigenous content and provide Indian shipyards with 'first right of refusal' on global tenders. Besides this, the Sagarmala project aims to double the share of inland waterways (6% currently) in domestic cargo transportation, for which CSL has inked a JV with Hooghly and Mumbai Ports and is forming similar JVs in Gujarat, Andaman & Nicobar Islands and Goa to capitalise on these opportunities.
- **Ambitious capex plan paves way for growth:** To set its growth path over the next 2 decades, CSL has charted out an ambitious capex plan of INR 28bn to erect a new dry dock and ship repair facility by FY21-22, to be funded through a mix of IPO proceeds and internal accruals. We believe healthy cash flows and a negative NWC cycle should keep the company debt free, despite its high capex and maintaining its dividend payout ratio.
- **Initiate with BUY rating and TP of INR 700:** While shipbuilding sales are lumpy in nature, we estimate sales and EBITDA CAGR of 18% over FY17-20E. We initiate with a BUY rating and TP of INR700, valuing the stock at 12x FY20 EV/EBITDA (INR 555/share) and cash balance as at end-FY19E at 1x book value (INR 145/share).



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Recommendation and Price Target

Current Reco.	BUY
Previous Reco.	NR
Current Price Target (12M)	700
Upside/(Downside)	25.6%
Previous Price Target	0
Change	NA

Key Data – COCHIN IN

Current Market Price	INR557
Market cap (bn)	INR75.7/US\$1.2
Free Float	25%
Shares in issue (mn)	135.9
Diluted share (mn)	135.9
3-mon avg daily val (mn)	INR223.6/US\$3.5
52-week range	599/435
Sensex/Nifty	34,592/10,681
INR/US\$	63.6

Price Performance

%	1M	6M	12M
Absolute	3.8	0.0	0.0
Relative*	0.4	0.0	0.0

* To the BSE Sensex

Financial Summary

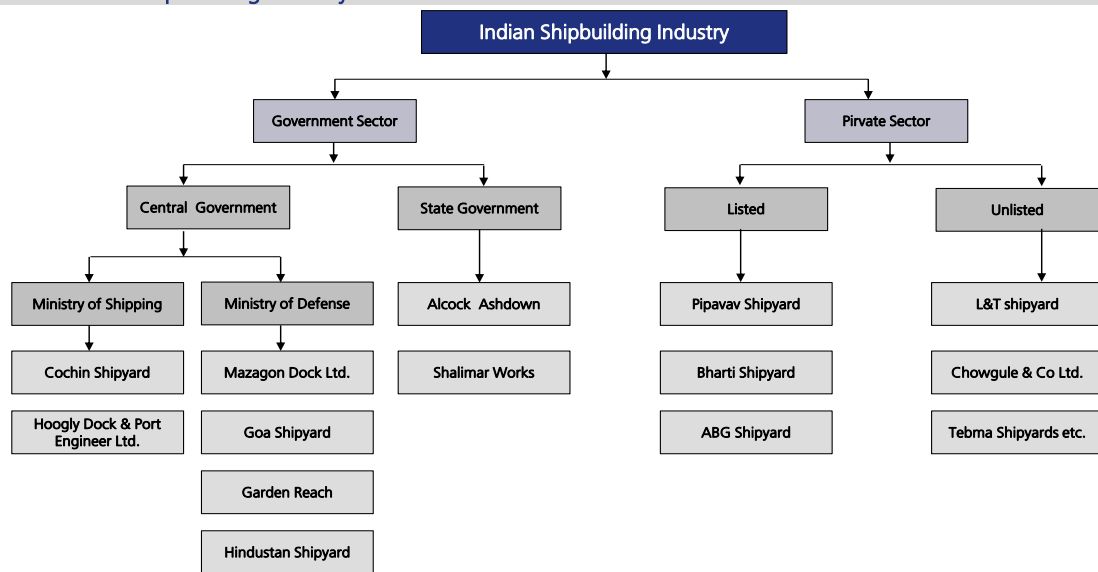
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Net Sales	19,935	20,589	24,243	29,640	33,691
Sales Growth (%)	25.7	3.3	17.8	22.3	13.7
EBITDA	3,549	3,795	3,703	5,136	6,273
EBITDA Margin (%)	17.8	18.4	15.3	17.3	18.6
Adjusted Net Profit	2,727	3,222	3,431	4,192	4,999
Diluted EPS (INR)	24.1	28.4	25.2	30.8	36.8
Diluted EPS Growth (%)	282.8	18.1	-11.2	22.2	19.3
ROIC (%)	107.7	159.1	53.8	28.3	19.2
ROE (%)	16.1	16.8	13.0	12.3	13.4
P/E (x)	22.1	18.7	21.1	17.3	14.5
P/B (x)	3.3	3.0	2.2	2.0	1.9
EV/EBITDA (x)	15.6	14.2	12.6	10.3	9.3
Dividend Yield (%)	0.3	1.4	1.2	1.4	1.7

Source: Company data, JM Financial. Note: Valuations as of 15/Jan/2018

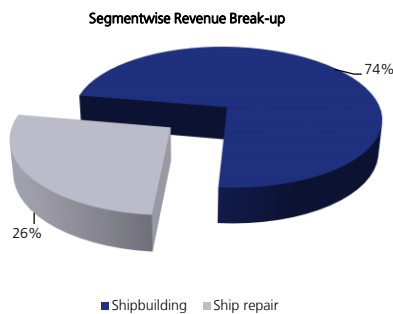
JM Financial Research is also available on:
Bloomberg - JMFR <GO>,
Thomson Publisher & Reuters
S&P Capital IQ and FactSet

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

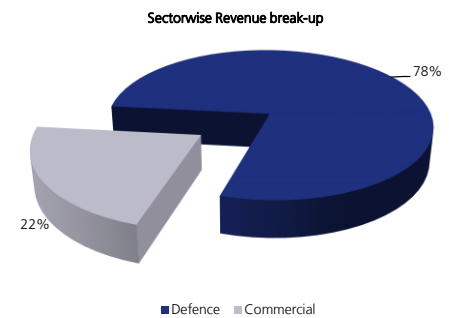
Exhibit 1. Snapshot of Indian shipbuilding industry



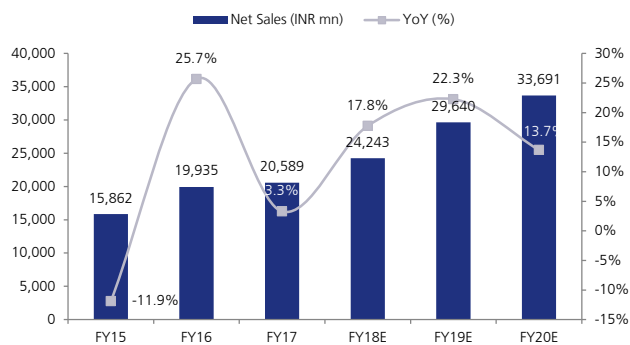
CSL: Segment-wise revenue break-up



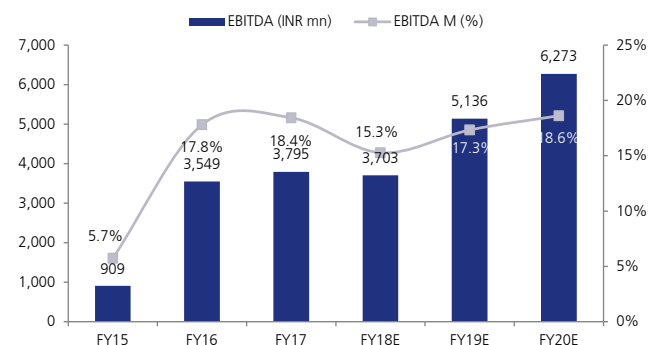
CSL: Sector-wise revenue break-up



Order book to drive revenue growth over FY17-20



To deliver consistent EBITDA growth



Source: Company, JM Financial

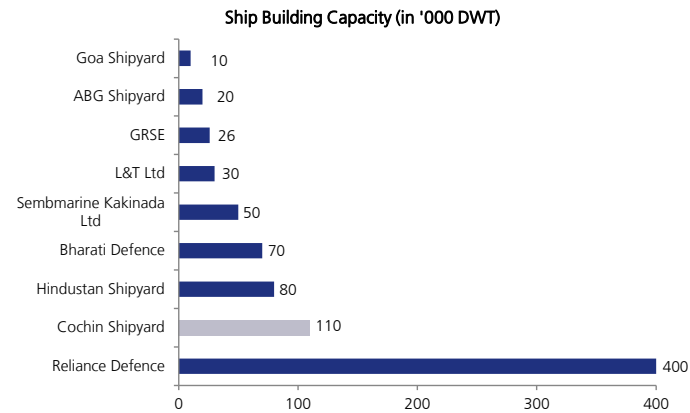
Exhibit 2. Peer Valuation

	CMP	Mkt Cap	EV/E (x)			P/E (x)			EBITDA CAGR %	P/B (x)			RoE (%)			RoCE (%)
	INR	INR bn	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17-19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17
Cochin Shipyard	558	75.9	11.7	13.5	10.9	19.6	22.1	18.1	16.3	3.1	2.3	2.1	16.8	13.0	12.3	16.1
Bharat Electronics	178	437.3	22.7	20.4	16.2	28.3	30.5	24.4	15.1	5.8	5.2	4.6	18.8	18.0	19.9	18.8
BEML*	1,549	64.5	35.0	25.0	18.9	76.4	34.1	25.8	60.5	3.0	2.8	2.6	3.9	8.2	10.3	5.5
Dynamatic Tech.*	2,096	13.3	15.7	13.8	10.1	91.1	40.0	19.6	7.8	5.4	5.3	4.5	5.8	12.5	19.9	18.5
Astra Microwave *	117	10.1	10.0	10.0	8.5	17.9	19.0	15.3	10.0	2.2	2.0	1.8	13.3	11.2	12.7	15.3
Centum Electronics *	738	9.5	21.9	NM	NM	30.0	NM	NM	NM	4.3	NM	NM	15.2	NM	NM	23.5
Solar Industries India *	1,161	105.0	30.2	26.2	21.3	56.6	44.8	35.8	25.4	11.3	9.4	4.6	21.4	22.2	23.0	29.9
Average			22.6	19.1	15.0	50.0	33.7	24.2	23.8	5.3	4.9	3.6	13.1	14.4	17.2	18.6

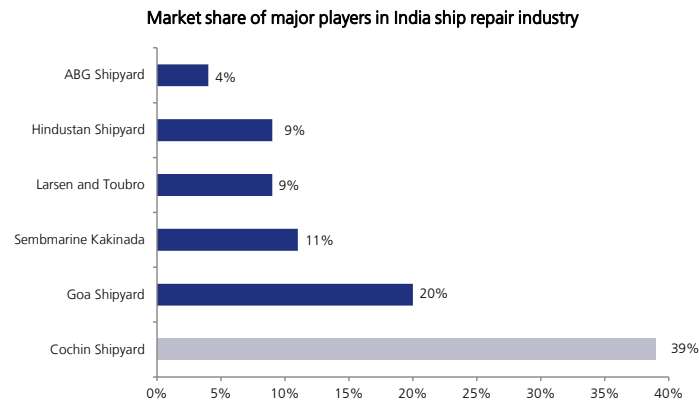
Source: Bloomberg, JM Financial. Note: * denotes BBG estimates.

Exhibit 3. Focus charts

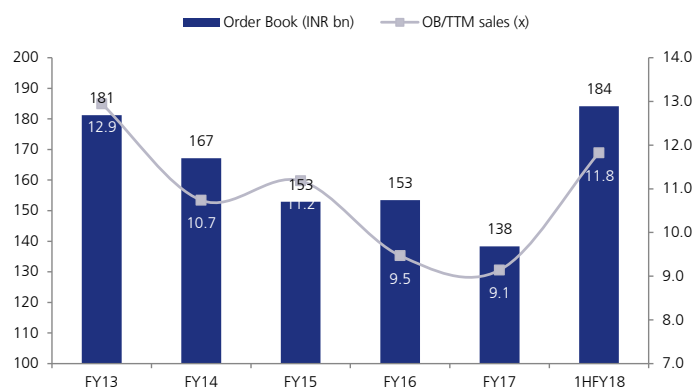
One of India's leading ship-building players...



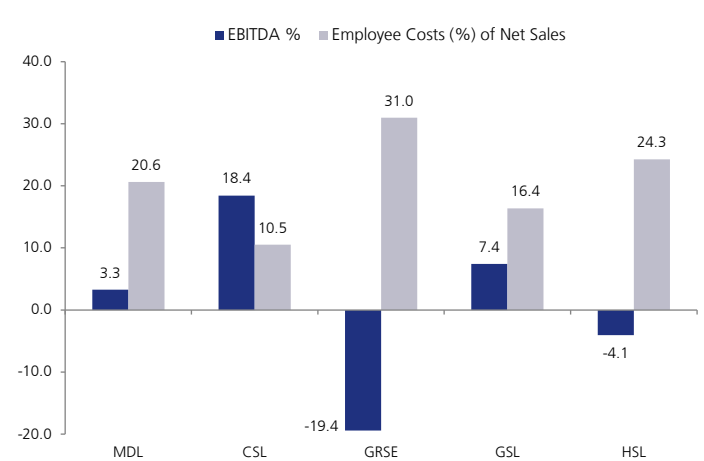
...and the largest ship-repair company



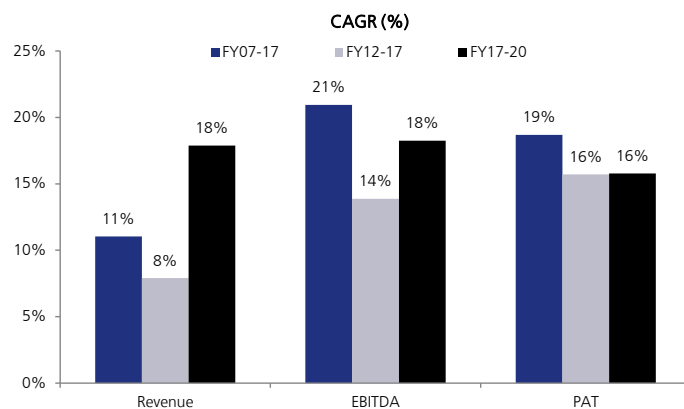
Healthy order book build-up in FY18 improves revenue visibility



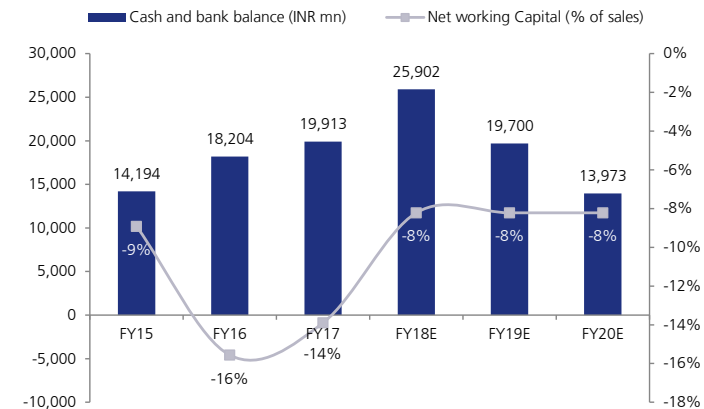
Cost leadership position offers competitive advantage



Sturdy financials



Strong cash balance and negative working capital



Best positioned to capture future opportunities

Indian Navy Acquisition	Cost (INR bn)
6 Nuclear Submarines	400
6 Scorpene Submarines - Project 75I	650
4 - LHD Ships	200
IAC-2	550
Next-Gen Destroyers	500
4 Multi-utility Vessels	28
6 Hi-speed Landing crafts	30
6 - Next-Gen Missile Vessels - Corvettes	140
7 - Next Gen Corvettes - Kamorta Class	210
Total	2,708

Experienced management team

Name	Designation	Years of Experience
Mr. Madhu S. Nair	Chairman and Managing Director	28
Mr. D. Paul Ranjan	Director (Finance) and CFO	32
Mr. Sunny Thomas	Director (Technical)	35
Mr. Suresh Babu N. V	Director (Operations)	31

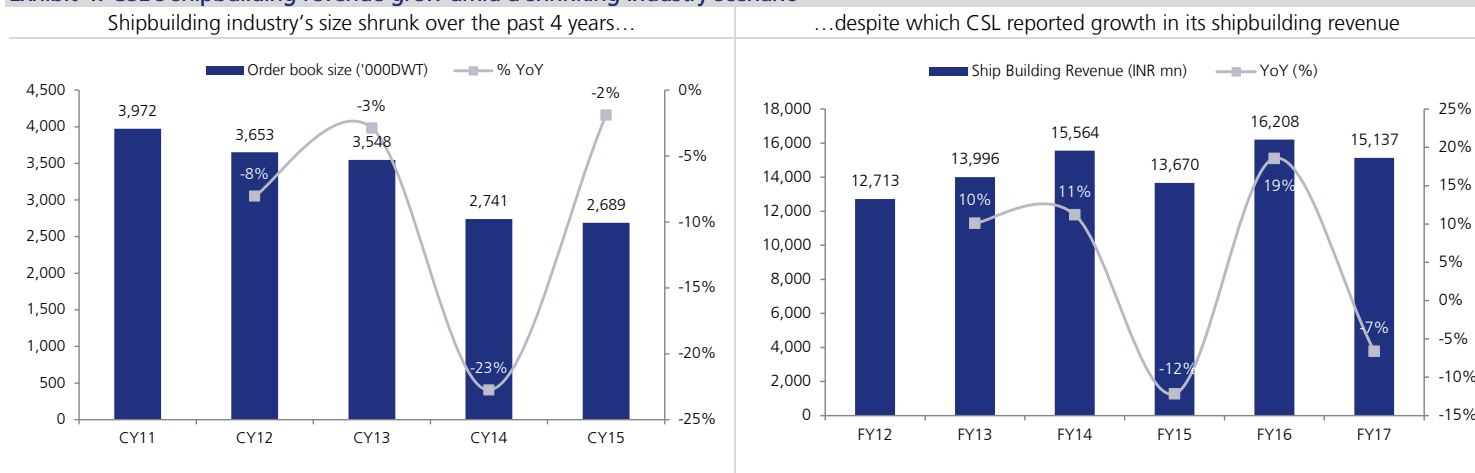
Source: Company, JM Financial

Investment Rationale

Proven track record and healthy order book

- **Revenues rise in a shrinking industry:** CSL reported a consistent growth in revenues (9.1% CAGR) over FY12-16, despite a 32% decline in the industry order book over the same period. The company has done this through consistent order wins from the Indian Navy combined with its leadership position in the ship repair segment (39% market share). Also, a higher share of revenues from the Defence sector (73% of last-5-year average sales) shields it from cyclical fluctuations in the commercial shipbuilding segment.

Exhibit 4. CSL's shipbuilding revenue grew amid a shrinking industry scenario



Source: Company, JM Financial

- **Healthy order book build-up:** While declaring its order book position, CSL excludes 2 key elements of the Indian Aircraft Carrier order i.e. **a)** the cost-plus portion of the contract (64% of total order value) and **b)** the 3rd phase of fixed price portion (to be finalised in FY19). Thus, it causes mismatch when comparing the shipbuilding revenue to its outstanding order book position. In our calculations, we include these aspects to arrive at the total outstanding order book position of INR 130bn (8.7x TTM shipbuilding sales) sales at end-1HFY18 as against the declared order book position of INR 25.7bn. In addition, CSL is L1 in a contract worth INR 54bn for the supply of 8 ASW Shallow Water Corvettes to the Indian Navy. Including this, **the outstanding order book value stands at INR 184bn, representing 11.8x TTM shipbuilding sales.**

Exhibit 5. An enviable order book position

Project	Client	No of Vessels	Total Value (INR bn)	Balance Order (INR bn)
IAC Phase 2	Indian Navy	1	28	11
Technology Demonstration Vessel	Gol	1	4	2
500 Pax cum 150 Ton Cargo Vessel	A&N Administration	2	5	4
1200 Pax cum 1000 Ton Cargo Vessel	A&N Administration	2	8	8
Sub Total			45	26
IAC Phase III			30	30
Cost Plus portion of IAC-1	Indian Navy	1	123	74
Sub Total			199	130
ASW Corvettes	Indian Navy	8	54	54
Grand Total			253	184
TTM shipbuilding sales				15.6
Order book/TTM sales (x)				11.8

Source: Company, JM Financial

- **Healthy order pipeline:** Besides a healthy order book and L1 position, CSL has a healthy pipeline of orders from both near-term and long-term perspectives. It is fairly placed in orders totalling INR 31.6bn, which are likely to be finalised in the next 12 months. These comprise different vessel types including 225 coastal security boats, cement carriers, well stimulation vessels and polar research vessels. However, we believe given its strong order book position, management is unlikely to bid aggressively for these orders.

Exhibit 6. Orders expected in next 12 months

Client	Type of Vessel	Amount (INR bn)
Ministry of Home Affairs	225 boats	10
Overseas Client with India Operations	1 Cement Carrier	2
ONGC	1 well stimulation vessel	10
National Centre for Antarctic & Ocean Research	1 polar research vessel	10
		32

Source: Company, JM Financial

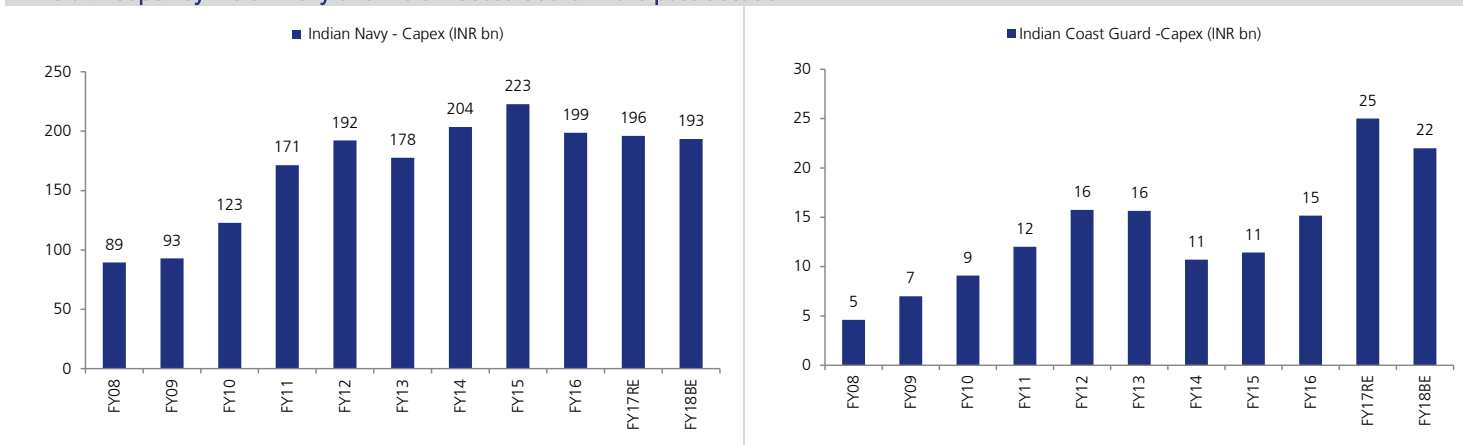
- **Long-term opportunities in defence:** In a bid to diversify its capabilities in the shipbuilding business, CSL has developed expertise in constructing vessels for the Indian Navy and Indian Coast Guard over the last decade. Not only has CSL won orders for patrol vessels and the first indigenous aircraft carrier for the Indian Navy in the past, but also recently bagged orders for different vessel types such as Technology Demonstration Vessels and ASW Shallow Water Corvettes. The outlook for the Defence sector looks promising as both the Indian Navy and Indian Coast Guard are likely to step up ordering. **We estimate order inflows by the Indian Navy to jump 3x to USD 42bn over the next decade compared with USD14bn capex incurred in the last decade (towards its naval fleet).** Furthermore, we expect ordering from the Indian Coast Guard to ramp up as it plans to increase its fleet size by 200 ships over the next decade; it currently has 158 ships.

Exhibit 7. Indian Navy Acquisition Plan 2020-30

Awarded - Tender/Nomination Basis	Company	Cost (INR bn)	Contracts to be awarded	Cost (INR bn)
12 Minesweeper Vessels	GSL	320	6 Nuclear Submarines	400
4 Navy Survey Vessels	GRSE	21	6 Scorpene Submarines - Project 75I	650
2 Midget Swimmer Delivery Vehicle	HSL	20	4 - LHD Ships	200
2 Diving Support Vessels	HSL	20	IAC 2	550
16 - ASW Shallow Corvettes	CSL & GRSE	108	Next-Gen Destroyers	500
Total		489	4 Multi-utility Vessels	28
			6 Hi-speed Landing crafts	30
			6 - Next-Gen Missile Vessels - Corvettes	140
			7 - Next Gen Corvettes - Kamorta Class	210
			Total	2,708

Source: Company, JM Financial

Exhibit 8. Capex by Indian Navy and Indian Coast Guard in the past decade



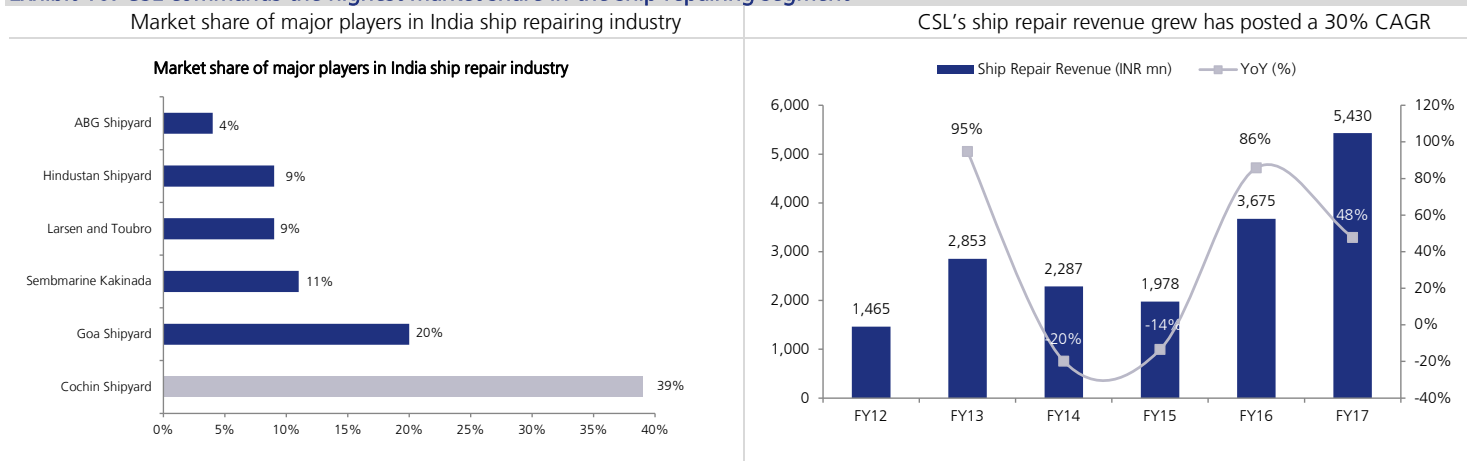
Source: www.indiabudget.nic.in

Exhibit 9. IAC-1 order book and revenue booking details

Particulars	INR mn	% of total contract value
Total Order Value		
Cost Plus	1,23,333	64%
Fixed Price	70,080	36%
- Phase 1	11,600	
- Phase 2	28,480	
- Phase 3	30,000	
Total	1,93,413	100%
Completed till date (Sep'17)		
Cost plus	48,993	25%
Fixed Price	29,440	15%
- Phase 1	11,600	
- Phase 2	17,840	
- Phase 3	0	
Total	78,433	41%
Balance order book (at end-Sep'17)		
Cost Plus	74,340	38%
Fixed Price	40,640	21%
- Phase 1	0	
- Phase 2	10,640	
- Phase 3	30,000	
Total	1,14,980	59%

Source: Company, JM Financial

- **Leading player in Indian ship repair market:** Equipped with one of the largest ship repair capacities among Indian public sector shipyards, CSL commands a leadership position – with a 39% market share – in the Indian ship repair industry, while the second largest player (Goa Shipyard) stands far behind with a 20% share. Its facilities include a ship repair dock measuring 270mx45mx12m and 2 additional quays. Quay I is 290m long with a 15T carnage Quay II is 208m long with a 10T carnage. The Indian ship repair industry size is pegged at INR 5.04bn and has remained fairly stagnant over CY11-15. However, CSL has augmented its ship repair revenues, with a 25.5% CAGR during the same period as it leveraged its strong delivery track record to increase its market share. Besides steady ship repair orders from the Indian Navy at INR 2bn-2.5bn annually, CSL has signed MoUs with various clients including LDCL, DGLL and DCI, to undertake ship repair work for them on a bulk volume basis, which makes revenue in this division relatively steady.

Exhibit 10. CSL commands the highest market share in the ship repairing segment

Source: Company, JM Financial

Large dock size and strategic location place CSL in a sweet spot

- **Top contender to build the next aircraft carrier:** Both capability and credentials peg CSL as the top contender to build India's next aircraft carrier, which is likely to be ordered by FY23. The new dry dock is under construction and measures 310x75/60x13m, making it the only public sector shipyard capable of accommodating the new aircraft carrier (INS Vishal), which is likely to measure 262x61x9m, based on current estimates. Also, CSL is currently constructing the first indigenous aircraft carrier (IAC-1), which is likely to be delivered by FY21 and is the only domestic shipyard to have undertaken dry dock repairs of existing aircraft carriers INS Viraat and INS Vikramaditya.

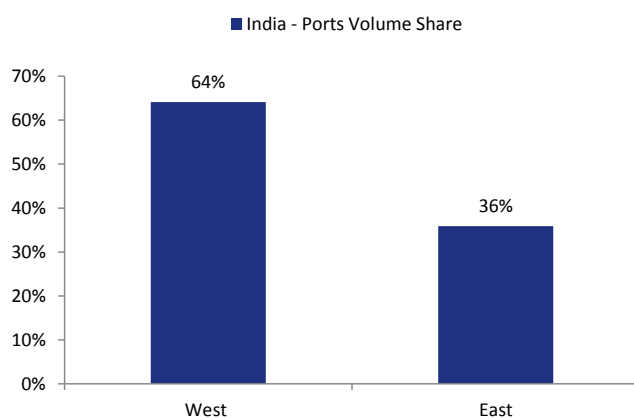
Exhibit 11. Largest Dry dock with Indian Shipyards

Largest Slipway/Dry dock	Length (mtrs)	Width (mtrs)	Draft (mtrs)
MDL	216	19	6
CSL (new dock)	310	75	13
GRSE	180	29	8
RDEL	662	65	
GSL	144	20	10
HSL	195	27	
Bharati Shipyard	250	45	6
ABG Shipyard	155	30	8
Alcock Ashdown	128	25	
L&T Shipyard	160	27	9.5
Chowgule & Co	90	16	3.3

Source: Company, JM Financial

- **Strategically located on a busy maritime route:** CSL is located on India's West coast, which accounts for 60% of India's ship repair capacity. It is also mid-way on the main sea route connecting Europe, West Asia and the Pacific Rim, a busy international maritime route. The geographical advantage of being strategically located on a busy maritime route bolsters its chances of gaining business from ships frequenting West India ports, offshore oil fields and the Middle East. The proposed expansion of capabilities through the International Ship Repair Facility will provide CSL with the requisite repair slot availability and allow it to aggressively market its ship repair services to international clients that frequent Indian ports. The company is also targeting frame agreements with major fleet operators based on pre-allocated slotting, preferential terms, etc.

Exhibit 12. West India commands a higher share in cargo volume



Source: Ministry of Shipping

- **Expertise in building differentiated vessels:** As at end-FY17, CSL had built and supplied a total of 120 shipping vessels including 15 large vessels, 50 small & medium vessels, 35 offshore support vessels and 20 defence vessels. Its capabilities include various vessel types such as oil tankers, bulk carriers, offshore support vessels, launch barges, dredgers, buoy tender vessels, FPVs, passenger vessels, anchor handling tug supply vessels, and aircraft carriers for both Indian as well as foreign clients. However, it has increased its focus on defence vessels over the past 5 years due to a continued slump in the global commercial shipbuilding industry. Over the last decade, CSL also has evolved from constructing bulk carriers to building smaller vessels such as platform supply vessels and anchor handling vessels for its commercial clients.

Exhibit 13. Type of vessels undertaken

Defence	Commercial
IAC	Double Hull Tankers
Fast Patrol Vessels	Bulk Carriers
Corvettes	Dredgers
Technology Demonstration Vessel	Platform Supply Vessels
	Buoy Tender vessel
	Anchor Handling Vessels

Source: Company, JM Financial

- **CDR of private sector shipyards reduces competitive intensity for PSU shipyards:** Over the past 5 years, competitive intensity has reduced as three private sector shipyards – ABG Shipyard, Reliance Naval and Bharati Shipyard – are currently facing financial stress and are thus unable to able participate in recent bids. Therefore, competition from the private sector for large ships is limited to L&T Shipyard. We also observe that among the large public sector shipyards, Hindustan Shipyard and Garden Reach are currently incurring losses at the operating level, straining their financial capability.

Exhibit 14. Financials of Private Shipyards

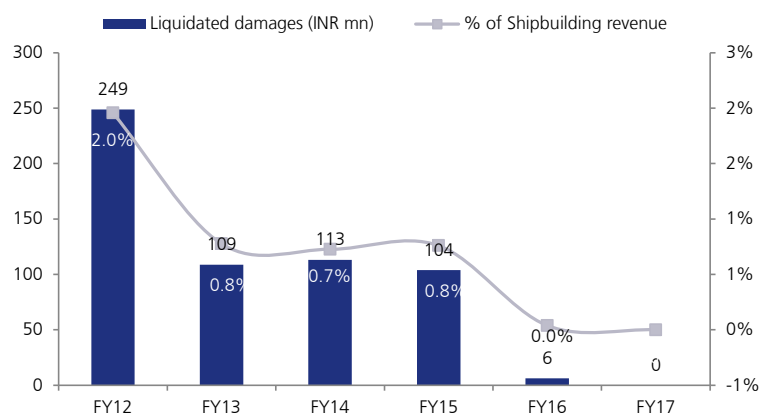
INR mn	ABG Shipyard	Bharati Defence	Reliance Naval	L&T Shipbuilding
Networth	-28,222	-33,871	14,469	-8,294
Net- Debt	91,956	76,634	88,327	28,573
EBITDA	-27,890	-21,761	342	-2,530
PAT	-37,047	-22,077	-5,773	-3,484
NWC	33,072	8,239	-5,373	2,409
Interest Cover (x)	-0.5	-1.3	-0.2	0.4
Net- Debt / Equity (x)	-3.3	-2.3	6.1	-3.4

Source: Company, Capitaline. Note: ABG Shipyard and Bharati Defence is FY16 reported numbers

Low-cost structure provides competitive advantage over peers

- **Proven track record of short-delivery schedules:** CSL has an admirable track record of short-delivery schedules, which helps prove its expertise and secure additional bonuses over and above the cost of the ship. For instance, CSL delivered 7 fast-patrol vessels to the Indian Coast Guard on 30Dec'16 ahead of the contractual delivery schedule date of Mar'17. Also, the deck cargo cum launch barge order for NPCC was delivered ahead of schedule. This has helped CSL secure additional bonuses over and above the cost of the ship (Clipper Group) as well as repeat order from clients. It also helps CSL undertake rectification works for defects and non-compliance as per customer orders and reduces its exposure towards liquidation and other damages under shipbuilding contracts.

Exhibit 15. No liquidated damages in last 2 years

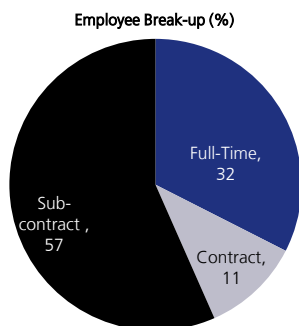


Source: Company, JM Financial

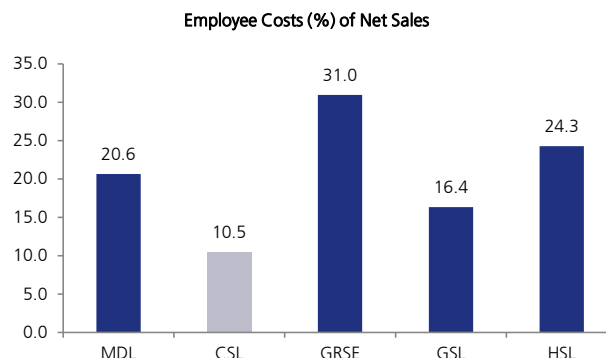
- **Flexible workforce and competitive employee cost base:** Given the cyclical nature of the shipbuilding industry, it is imperative to have a flexible workforce, with a higher share of contracted and sub-contracted employees. CSL has been managing its employee costs through a similar strategy where it employs 1,824 full time employees, 612 contract employees and an additional 3,178 sub-contract workers. Of the 1,824 full-time employees, 73% constitute of workmen, while the remaining are executives and supervisors. Further, a comparison of employee costs against other public sector companies reveals that **CSL has the most competitive cost structure among peers. An analysis of the PSU shipyard peer set shows that CSL's employee costs are at 10.5% of net sales, the lowest among peers.**

Exhibit 16. Flexible workforce with 68% on a contract basis

CSL has a total 5614 employees, of which 68% are on contract



Helping keep employee costs low



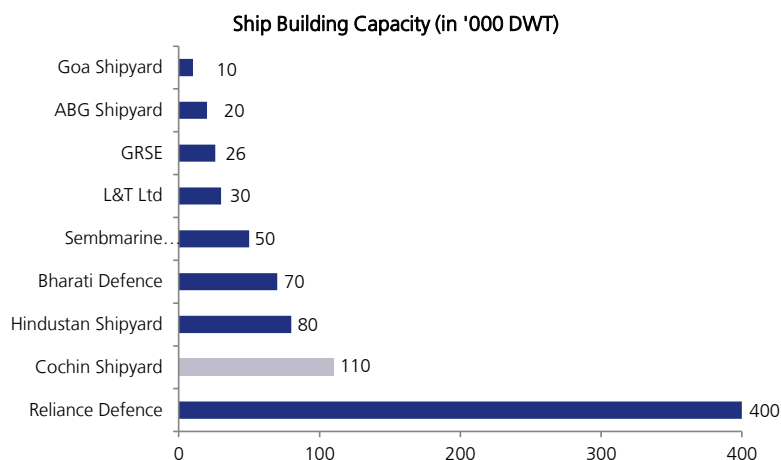
Source: Company, JM Financial

- **Sources equipment directly from manufacturer, avoiding intermediaries:** In a typical large shipbuilding contract, **35-40% of total costs** comprise bought-out items such as propulsion engines, auxiliary engines, electronics, pumps, boilers and navigation systems. Thus, CSL has adopted a strategy to minimise the cost of bought-out items by procuring this equipment directly from manufacturers, forging long-term relationships wherever possible. This helps it obtain better pricing terms and avoids intermediaries for future contracts, thus improving its competitive positioning.

Investing in both capacity and capability to the pave way for the next leg of growth

- **One of the largest ship building and ship repair facilities:** CSL is the largest public sector shipyard (as per CRISIL Research) in terms of dock capacity and has 2 docks: dock 1 for ship repair and dock 2 for ship building. Its ship repair dock is one of the largest in the country and can accommodate vessels with a maximum capacity of 125,000DWT, while the shipbuilding dock can accommodate vessels with a maximum capacity of 110,000DWT. In the past, the company has delivered two of India's largest double hull oil tankers with capacity of 92,000DWT each to Shipping Corporation of India.

Exhibit 17. Capacity of Major Shipyards in India



Source: Company, JM Financial

- **Operating at full capacity utilisation in ship repair:** CSL's ship repair dock undertakes repair work of 80-100 ships a year and is operating at nearly 100% capacity utilisation; where turned away a few jobs in FY17. With the construction of the International Ship Repair Facility (expected to be complete by FY20), the company will be able to significantly expand its ship repair revenue. The company has undertaken dry dock repairs of aircraft carriers INS Viraat and INS Vikramaditya and can undertake complex and sophisticated repairs of all types of vessels including oil rigs, naval and coast guard vessels, offshore vessels, dredgers, fishing vessels, passenger ships, port crafts and all other merchant vessels.

Exhibit 18. Details of some ship repair jobs in the last five years

FY13	FY14	FY15	FY16	FY17
INS Viraat	TSHD Cauvery	INS Guldar	INS Shardul	INS Viraat
INS Sagardhwani	MVSagarDeep II	INS Cheetah	INS Aditya	INS Vikramaditya
TSHD Cauvery	INSTir (Phase II)	ICGS Sanmar	INS Sukanya	INS Sarvekshak
GHD Nehru Shatabdi	MV Kavaratti	DSV Samudra Prabha	INS Viraat	GTV Samudra Sarvekshak
DCIDredge VIII	MV Thinnakkara	MV Bharat Seema	Dredgers	DCI
	TugThiruvalluvar		LDCL Vessels	Dredge XXI

Source: Company, JM Financial

- **Investments in new facilities to improve both capacity and capability:** The company has earmarked an aggressive capex plan to construct **a)** a new 'stepped' dry dock (estimated cost of INR 18bn) which will enable construction of larger sized vessels such as new generation aircraft carriers, LNG carriers, jack up rigs, drill rigs, semi-submersibles, large dredgers as well as undertake repair work of wider vessels at the wider part and **b)** International Ship Repair Facility (estimated cost of INR 9.7bn) which includes setting up a ship lift and transfer system and assist in undertaking repair of a broader range of vessels as well as nearly double the ship repair capacity of the company. While the ship repair facility is expected to be complete by FY20, CSL is already utilising small dry dock and other facilities at ISRF and is contributing to increased revenues from FY17.

Exhibit 19. Details of current and upcoming infrastructure

Existing Infrastructure	Dimensions	DWT	Cranes
Dry Dock 1	255mx43mx9m	110,000	60T
Dry Dock 2	270mx45mx12m	125,000	500T
Quay 1	290m		15T
Quay 2	208m		10T
Quay 3	630m		40T & 20T
Upcoming Infrastructure	Dimensions	Total Lifting Capacity	
Dry Dock	310mx75mx60m		
ISRF	Up to 130m		6,000T

Source: Company, JM Financial

Exhibit 20. Planned capex**Dry Dock**

Year	Cost INR mn	Course of Work
FY18	2,871	Commencing Construction Activities ;
FY19	6,500	Starting RCC Piling Works ; Starting Dock Wall works
FY20	6,000	Completion of Dock Wall and associated works ; Completion of Dock Floor
FY21	2,619	Completion of Mechanical & Electrical Works ; Dock Commissioning
	17,990	

ISRF

Year	Cost INR mn	Course of Work
		Award of contract for shiplift & transfer system; Commencement of construction activities
FY18	817	
FY19	2,500	
FY20	3,500	Casting of RCC piles
FY21	2,000	Completion of Shiplift & transfer system, yard for 2 vessels and berths for afloat repair
FY22	800	Complete Additional yard for 2 more vessels
FY23	77	Complete Additional yard for 2 more vessels
	9,694	

Source: Company, JM Financial

- **Long servicing employee base provides strong credentials and relationships:** The average experience of CSL's key management team is three decades, indicating high loyalty and commitment, low attrition, improved skills, understanding of complex jobs undertaken and increased productivity. Many among the senior management team have grown within the organisation from a trainee position to heads in their respective departments. This culture has helped CSL achieve a low cost structure, consistently high profitability, efficient operations, shorter delivery cycles and few employee disputes. **The company frequently boasts about the fact that it has not witnessed a single workers' strike in the past 25 years.**

Exhibit 21. Experience of top management

Name	Designation	Years of Experience
Mr. Madhu S. Nair	Chairman and Managing Director	28
Mr. D. Paul Ranjan	Director (Finance) and Chief Financial Officer	32
Mr. Sunny Thomas	Director (Technical)	35
Mr. Suresh Babu N. V	Director (Operations)	31

Source: Company, JM Financial

- **Technological and business partnerships further boost CSL's profile:** CSL has inked business partnerships with leading technology players such as Techcross (for technical support and engineering) and Wartsila (for propeller metallurgical repairs) and worked with several leading technology firms in the past such as Rolls Royce Marine (Norway) and GTT. Besides this, CSL has signed MoUs with various clients including LDCL, DGLL and DCI, to undertake ship repair work for these organisations on a bulk volume basis. Also, the company has an MoU with CUSAT that provides two seats in their M. Tech degree course for marine engineering for executives or officers sponsored by CSL.

Exhibit 22. Technological and business partnerships

Business Partner	Date	Scope of Work
LDCL	Apr-13	Undertake dry-dock and afloat repairs of their vessels
CUSAT	May-14	CUSAT has reserved two seats in their MTech degree course in marine engineering for our executives. We provide lab facilities and internships to CUSAT students under the MoU.
DGL	Oct-15	Undertake dry-dock repairs of their vessels on a nomination basis.
DCI	Nov-15	Undertake repair of DCI's dredgers on a nomination basis.
Techcross	Nov-15	Receive technical support and engineering and provide shipyard support services to Techcross such as office, warehousing and installation services. We also operate a joint marketing framework with Techcross for marketing of various BWTS products and operate a preferential price tier system to allow our customers access to Techcross' BWTS products at competitive rates.
Wartsila	Jan-16	Wartsila has set up a containerised, self-sufficient workshop within our shipyard, primarily catering to propeller metallurgical repairs. We derive rental income from this workshop. Wartsila also provides training to our personnel in relation to repair of Wartsila engines.

Source: Company, JM Financial

- **Several accreditations to its merit:** CSL boasts of several accreditations such as NABL for its material testing division and laboratory. Apart from building initial momentum with clients, it also improves product quality and operational efficiency. The secondary benefits include the development of Kochi as a naval hub, which would attract more talent from around the world. The marine training institute also stands to indirectly benefit from the enhanced profile.

New initiatives

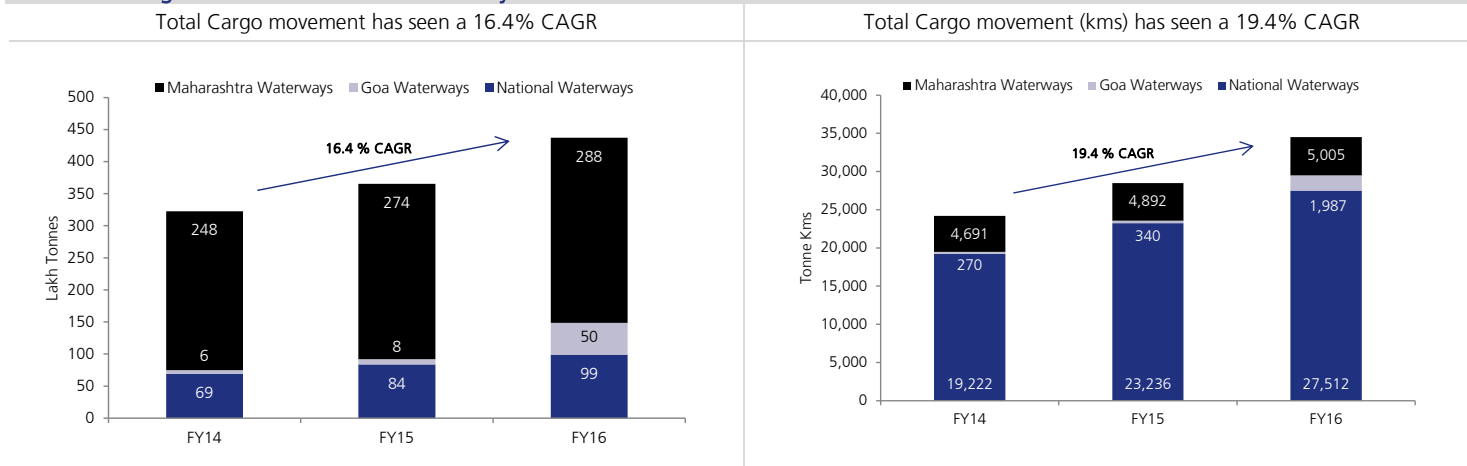
- **Inland Waterways:** India has 12,800 km of navigable inland waterways, of which only 3,000 km is used, through five national waterways. A minuscule 6% of trade is done through waterways in India as against 24% in China, 17% in Australia and 11% in Germany. With an aim of reducing transportation costs, there is a proposed plan to develop 106 new national waterways, which will serve as a big opportunity for the Indian shipbuilding industry in the form of developing dredgers, high speed ferry crafts, ropax vessels, small bulk carrier vessels and passenger vessels. CSL has entered a JV with Hooghly Dock & Port Engineers Ltd, where CSL has a 76% stake and will be able to use two facilities, in Salkia and Nazirgaunge. The facilities can be used to build barges, small ships and hovercraft apart from repairing work. **Management estimates the total demand from inland waterways at 3,000-4,000 ships over the next decade.**

Exhibit 23. Navigable length of waterways in India

	Total length of waterways (km)	Navigable length (km)	%
Andhra Pradesh	3,579	804	22%
Assam	5,290	1,682	32%
Bihar	2,229	1,391	62%
Goa	274	249	91%
Gujarat	653	102	16%
Karnataka	2,862	1,215	42%
Kerala	2,779	845	30%
Maharashtra	631	462	73%
Orissa	1,378	508	37%
Nagaland	937	375	40%
Mizoram	790	155	20%
Tamil Nadu	27	12	44%
Uttar Pradesh	2,345	425	18%
West Bengal	4,741	4,593	97%
Total	28,515	12,818	45%

Source: Ministry of Shipping

Exhibit 24. Cargo Movement in Inland Waterways



Source: Ministry of Shipping

- **Inking new partnerships at Kolkata, Gujarat, Andaman and Mumbai:** CSL has recently inked a JV with Hooghly Dock & Port Engineers (HDPE) and signed an MoU with Mumbai Port Trust to expand its ship repair operations. It will hold a 76% stake in the JV with HDPE for the upgrade and modernisation of shipbuilding infrastructure at two shipyard sites: Salkia and Nazirgaunge in Kolkata. The total capital expenditure for modernisation of these shipyards (Hooghly and Mumbai) is estimated at INR 1.5bn-2bn, which will help drive future orders. In addition to this, the company intends to have similar JVs with ports at Andaman & Nicobar, Gujarat (Kandla) and Goa. These facilities will significantly upsize CSL's ship repair capabilities and capacities.

Exhibit 25. Ship Repair facilities available at Major Ports

Port	Dry Dock Dimensions	Current Occupancy %
Hooghly Dock & Port Engineers	94mx13.4mx8.6m	NA
Mumbai Port Trust	305mx31mx13m	82
Kolkata Port Trust		
Netaji Subhash Dry Dock 1&2	172mx 23m	67
Kidderpore No.1	160mx20m	67
Kidderpore No.2	143mx20m	67
Kidderpore No.3	102mx15m	67
Mormugao Port Trust	180m	Leased to WISL which expires in May-18
Kandla Port Trust	95mx4.5mx5.5m	NA

Source: Ministry of Shipping

- **Replacement of deep-sea fishing boats in Tamil Nadu:** The Tamil Nadu government aims to kick-start the deep-sea fishing project in FY18, which was conceptualised four years ago. As per the project, 2,000 deep-sea fishing boats with long lines and gill nets will replace trawlers over a 3-year period ending FY20, replacing 500 boats in FY18, 500 in FY19 and the remaining 1,000 in FY20. Each long-liner-cum-gill-netter costs INR 8mn, of which 70% will be provided in the form of a subsidy by the government, 20% through institutional funding and the remaining 10% by the beneficiary. While the initial order size stands at INR 16bn, CSL will bid selectively for these ships and undertake construction work in collaboration with smaller shipyards.
- **To add new capabilities such as LNG carriers, rig buildings and repair:** Construction of the new dry dock (55m longer and 32m wider) and the new repair facility is likely to improve CSL's capability to construct and repair larger-sized ships namely LNG carriers, semi-submersibles, jack-up rigs, drill ships, large dredgers and also undertake repair work for the same vessel types. GAIL has inked contracts to purchase 5.8 million tonnes of US LNG per annum for 20 years and will require specialised LNG carriers for this. Industry estimates indicate that under the 'Make in India' initiative, 1/3rd of these carriers will be built by Indian shipyards. Similarly, CSL's experience in the upgrade and repair of oil rigs for ONGC, Bombay High and others improves its prospects to receive orders from the offshore segment.

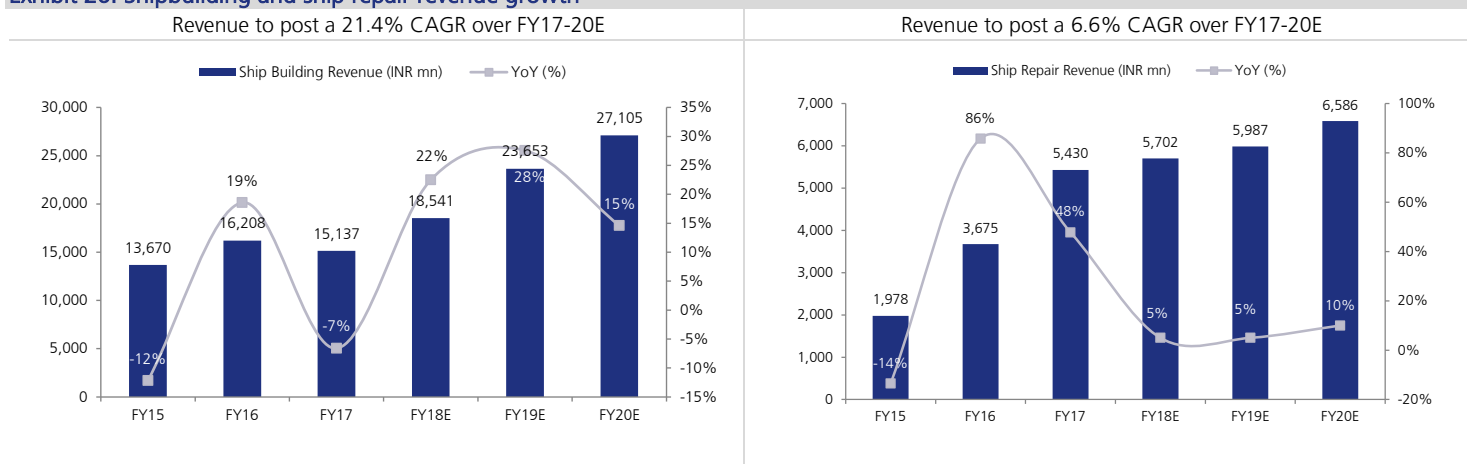
Policy-led development

- **Government policies to enable sustained flow of orders:** Various policies have been enabled by the Indian Government in the past 3 years to increase the opportunity basket for Indian Shipyards and improve their competitiveness against global companies. Some key highlights are as follows:
 - **DPP 2016 designed to provide impetus to indigenous industries:** The Defence Procurement Policy (DPP 2016) has initiated a new procurement regime for defence equipment that is designed to promote indigenous industries. The introduction of a new procurement category with the highest priority, Buy (Indian Indigenously-Designed, Developed and Manufactured), or 'Buy (Indian-IDDM)', which warrants indigenously designed equipment with a 40% Indigenous Content (IC), or equipment not necessarily designed in-house but having a 60% IC, is intended for procurement from the domestic industry. Consequently, domestic players such as CSL are expected to be direct beneficiaries of the Government's defence push.
 - **Shipbuilding Policy provides RFOR to Indian Shipyards:** Under the Shipbuilding Policy unveiled in Jun'16, Indian shipyards have right of first refusal to build/repair ships for government departments, provided they match the lowest price offered by overseas entities. This is likely to provide a big boost to domestic shipyards which have been reeling under pressure from Chinese/Korean shipyards due to cost differentials.
 - **Increase in Foreign Direct Investment limit for defence:** In August 2014, the foreign direct investment limit was increased from 26% to 49% to cut imports by indigenising defence production. India is among the top ten defence spenders in the world and such a move to encourage domestic manufacturing bodes well for Indian shipbuilders with a presence in the defence segment.
 - **INIP 2015-2030 expected to provide further impetus:** In line with the Indian government's vision of 'Make in India', the Indian Navy has prepared a guideline document, the Indian Naval Indigenisation Plan (INIP) 2015-2030, to enunciate the need for developing various advanced systems for its platforms. This plan recognises that the industry, including the private-sector, can play a vital role in meeting the sophisticated needs of the armed forces through cost-effective utilisation of its know-how and existing infrastructure, in pursuance of the government of India's vision of 'Make in India'.
- **Promotion of inland water transport (Sagarmala project) and coastal shipping to drive orders:** India has a vast coastline of 7,500 kms covering 14 states and is located on a key international trade route. Further, 14 states have reported river length of 27,962 km constituting 131 rivers, of which 45.6% or 12,820 km is navigable length. Yet, only 6% of total freight movement in India (in tonne km terms) takes place through water transport. This is abysmally low compared with China (24%), Australia (17%) and Germany (11%). Under the Ministry of Shipping's Sagarmala project, the government intends to double the share of waterways (inland and coastal) over the medium term.

Sturdy financials

- **IAC execution to improve revenue growth profile:** Over FY17-20E, we expect revenue to grow at a healthy pace, posting a 17.8% CAGR, primarily driven by the shipbuilding segment (21.4% CAGR), as execution of IAC-1 execution picks up pace. Nearly 60% of the project stands unexecuted, while the project is slated to be completed by end-FY21. Hence, we expect the back-ended execution to drive strong revenue growth in FY20-21. On the other hand, the existing ship repair facility is operating at nearly 100% capacity utilisation. However, we factor in 6.6% revenue CAGR during FY17-20E in the ship repair segment, as the new facility will be commissioned in phases and has already started contributing to revenue from FY17.

Exhibit 26. Shipbuilding and ship repair revenue growth



Source: Company, JM Financial

- **Strong balance sheet position:** The shipbuilding industry in India typically operates on a negative working capital cycle due to adequate advances received from Indian Navy. This helps CSL maintain a healthy cash balance as the net working capital (NWC) stood at an average of -47days during FY15-17. We assume higher NWC days at -30 due to a reduction in advances received against the IAC order as execution picks up.
- **Will continue to remain debt free despite high capex:** CSL has historically maintained healthy liquidity as 90% of capital employed (average during FY15-17) stood in the form of cash. While a bulk of company's cash balance will be utilised towards capex, we still expect the company to remain debt free by end-FY20, as it is likely to generate annual operational cash of INR 5bn-6bn per annum. We estimate the total cash balance to reduce from INR 20bn at end-FY17 to INR 14bn at end-FY20.
- **Return ratios may decline in the interim:** CSL's return ratios are likely to drop from 16.8% in FY17 to 13.4% in FY20 as a majority of cash will be deployed towards capacity building, while these new facilities will start contributing to revenue from FY21. While we may see a dip in return ratios in the interim period of 3 years, they are likely to pick up after FY21, as capacity utilisation builds up. However, we expect the dividend payout to sustain as the healthy cash generation is unlikely to incur any pressure on the company's liquidity position.

Exhibit 27. Brief Comparison of large Indian Shipyards

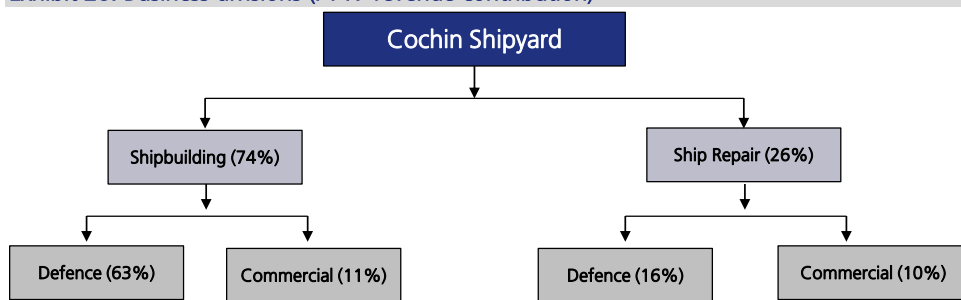
	MDL	CSL	GRSE	GSL	HSL	RDEL	Bharati	ABG
Ownership	Ministry of Defence	Ministry of Shipping	Ministry of Defence	Ministry of Defence	Ministry of Defence	Private	Private	Private
Type of vessels built Lately	Submarines, Destroyer Class Ships, Frigates	IAC, Anchor Handling Vessels, Platform Supply Vessels, Fast Patrol Vessels	Frigates, Corvettes, Patrol Vessels, LCU, Survey Vessels	Offshore Patrol Vessels, Fast Patrol Vessel, Fast Interceptor Boats	In-shore patrol vessel, Bollard Pull tugs, LPD's, Patrol Vessels, Bulk-carriers, Cargo Liners	Patrol Vessels	NA	Tug Vessels, Interceptor Boats, Cement Carriers, Diving Support Vessel
Key Financial Data (INR mn)								
Revenue	35,305	20,589	9,228	10,555	5,848	5,641	1,569	4,503
EBITDA	1,157	3,795	-1,792	782	-238	342	-21,761	-27,890
EBITDA %	3.3	18.4	-19.4	7.4	-4.1	6.1	NM	NM
Order Book	455,000	184,000	215,010	32,983	11,867	NA	NA	NA
OB/sales (x)	13.2	8.9	23.3	3.1	2.0	NA	NA	NA
Revenue Contribution (%)								
Ship Building	100	74	98	99	72	71	82	80
Ship Repair	0	26	2	1	28	29	18	20
Infrastructure								
Ship Building Capacity (DWT)	286,000	110,000	26,000	10,000	80,000	400,000	70,000	20,000
Ship Repair Capacity (DWT)		125,000	26,000	10,000	80,000	400,000	20,000	20,000
Dry Docks	3	2	2	NA	NA	1	NA	2
Slipway/Dry Dock Dimensions	216mx19mx6m ; 130mx17mx5m ; 41mx10mx3m	255mx43mx9m	180mx27mx8m ; 180mx29mx8m	115mx20mx10m ; 100mx24mx18m ; 144mx20mx10m ; 96mx27mx15m	195mx27m ; 195mx27m ; 140mx23m	662mx65m	250mx45mx5.50	122mx23mx6m ; 155mx30mx8m
Largest Dock / Slipway	216mx19mx6m	255mx43mx9m	180mx29mx8m	144mx20mx10m	195mx27m	662mx65m		155mx30mx8m
Other Infrastructure								
	Wet Basin - 274mx9m	13,000sqm Steel stockyard	1 Building Berth	4 Building Bays	3 Slipways	1 wet basin		2 Building berths - 120mx65m ; 60mx30m
	3 Slipway - 70,000DWT	Hull Blocks upto 50T	1 Inclined Berth	4 slipways	Covered Building Dock - 80,000DWT	1 dry dock		2 dry dock
		3 Quays	Wet Basin - 109mx25mx8m	180m long and 4.5m draft - Outfitting Jetty	Outfitting Quay - 460m	Lifting Capacity - 1200T		1 slipway - 70mx35m
			River Side Jetty - 26mx11m	Ship Lift Facility - 6000T ; 120mx25m	2 Wet Basins - 80,000 DWT	Offshore Yard - 750mx265m		

Source: Company, JM Financial. Note: HSL, Bharati and ABG Shipyard Financials are FY16 reported

Company Overview

- **Company Description:** CSL has one of the largest ship building and ship repair facilities in India: 110,000 DWT ship build and 125,000DWT ship repair capacity. It was incorporated on 29Mar'72 as a Private Limited company. It became a deemed Public Limited company under section 43A of the Companies Act, 1956 on 1 Jul'82 but again became a Private Limited company on 16Jul'85. Finally, on 8Nov'16, the company became a Public Limited company on a fresh Certificate of Incorporation consequent upon conversion to a Public Limited company that was issued by the Registrar of Companies, Ernakulam. It is a government company as per sub-section (45) of section 2 of the Companies Act, 2013. As a Miniratna company, it is eligible to some enhanced delegation of powers to the Board, including having greater autonomy to incur capital expenditure for projects without the Government of India's approval.
- **Business Divisions:** CSL's operations can be broadly classified under three business divisions: i) Ship building, ii) Ship repair, and iii) Marine Engineering Training Institute. Over the last five fiscals, shipbuilding has, on an average, accounted for 74% of revenue, while ship repair has accounted for 26%.

Exhibit 28. Business divisions (FY17 revenue contribution)



Source: Company, JM Financial

- **Capability:** CSL currently has two docks – Dock 1 is used primarily for ship repair with a maximum capacity of 125,000 DWT, and Dock 2 is used primarily for shipbuilding with a maximum capacity of 110,000 DWT. Shipbuilding facilities include a dry dock, steel stock yard, hull shop, assembly shop, pipe and sheet metal shop, quality control and testing laboratory and a marine coating shop. In order to achieve sound and efficient construction of vessels, an Integrated Hull Outfit and Painting (IHOP) system of construction, which is followed in Japanese yards, has been put in place.

Exhibit 29. Notable clients and delivered products

Defence		Commercial	
Clients	Products	Clients	Products
Indian Navy Indian Coast Guard	Indigenous Aircraft Carrier (IAC) Fast Patrol Vessel (FPV)	Clipper Group Shipping Corporation of India NPCC DGLL A&N administration	Double hull tankers Bulk Carriers Dredgers Buoy Tender Vessels Platform Supply Vessel Anchor Handling Tugs

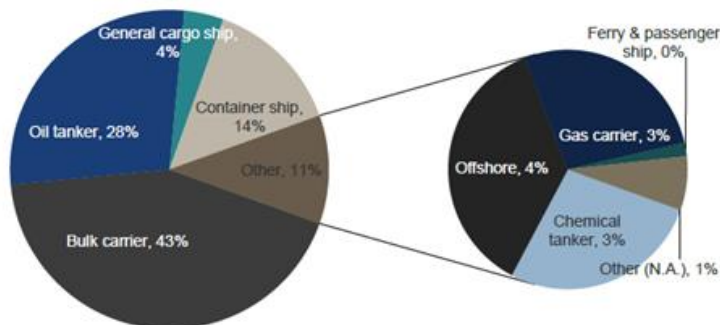
Source: Company, JM Financial

Industry Overview

Global Shipbuilding/ Repair Industry

- **Global seaborne trade:** According to a 2016 UNCTAD report, global seaborne trade increased 2.1% to 10,048 million tonnes in 2015. Dry bulk cargo comprised the largest share at 54%. Developing economies accounted for the largest share of seaborne trade, in volume terms, at an estimated 60%. Developing countries have become global manufacturing centres with growing demand for capital and consumer goods, and are no longer viewed as only suppliers of raw materials. In terms of a regional comparison, Asia was the largest loading and unloading region, followed by the Americas, Europe, Oceania and Africa. As of January 2016, the global commercial fleet stood at 90,917 vessels, totalling 1.8 billion DWT. Dry bulk carriers comprised the largest share at 43.1% followed by the oil tanker segment with a share of approximately 27.9%.

Exhibit 30. Global fleet mix

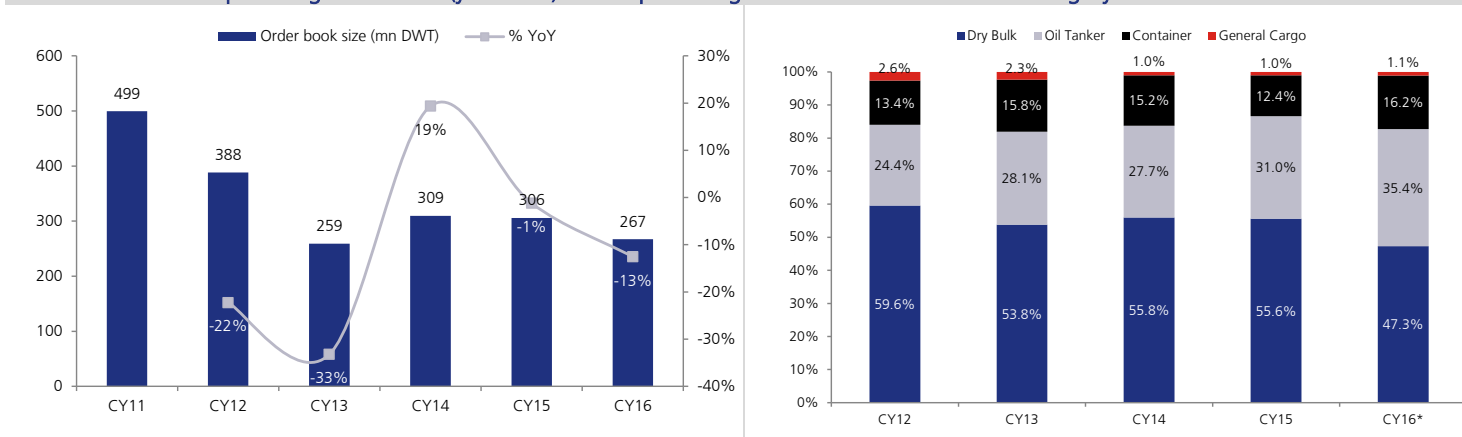


Source: UNCTAD - Review of Maritime Transport published in 2016, CRISIL Research

Source: UNCTAD - Review of Maritime Transport in 2016, CRISIL Research

The respective shares of oil tankers and general cargo vessels in the global fleet have declined over the years, while those of dry bulk carriers and container ships have increased. As of January 2016, dry bulk carriers, with a 43% contribution in terms of gross registered tonnage (GRT), were the largest vessel category in the global fleet. The share of oil tankers, which made up for 50% of the global fleet in 1980, has declined to 28% in 2016. Over this period, the share of container vessels' increased from 2% to 14%, following China's manufacturing-led growth as well as the shipping industry's strategy to reduce costs using economies of scale. The fall in the oil tanker share was due to a change in the pattern of trade and demand, primarily due to a decline in the refining capacity in Europe and a corresponding increase in Asia and the Middle East.

- **Declining global order book for ship building:** In line with falling shipyard capacity and the stretched finances of owners and banks, the global order book declined for most vessel types in 2015 and 2016. Between 2012 and 2016, the global order book declined by 31%. The order books for container ships, oil tankers, dry bulk carriers and general cargo have declined 46%, 51%, 61% and 82%, respectively, from their peak values in 2008 and 2009. According to CRISIL, the sluggishness was primarily due to a combination of excess supply and low demand, especially in the dry bulk and container segments.

Exhibit 31. Global shipbuilding order book (year-wise) and ship building order book for each vessel category

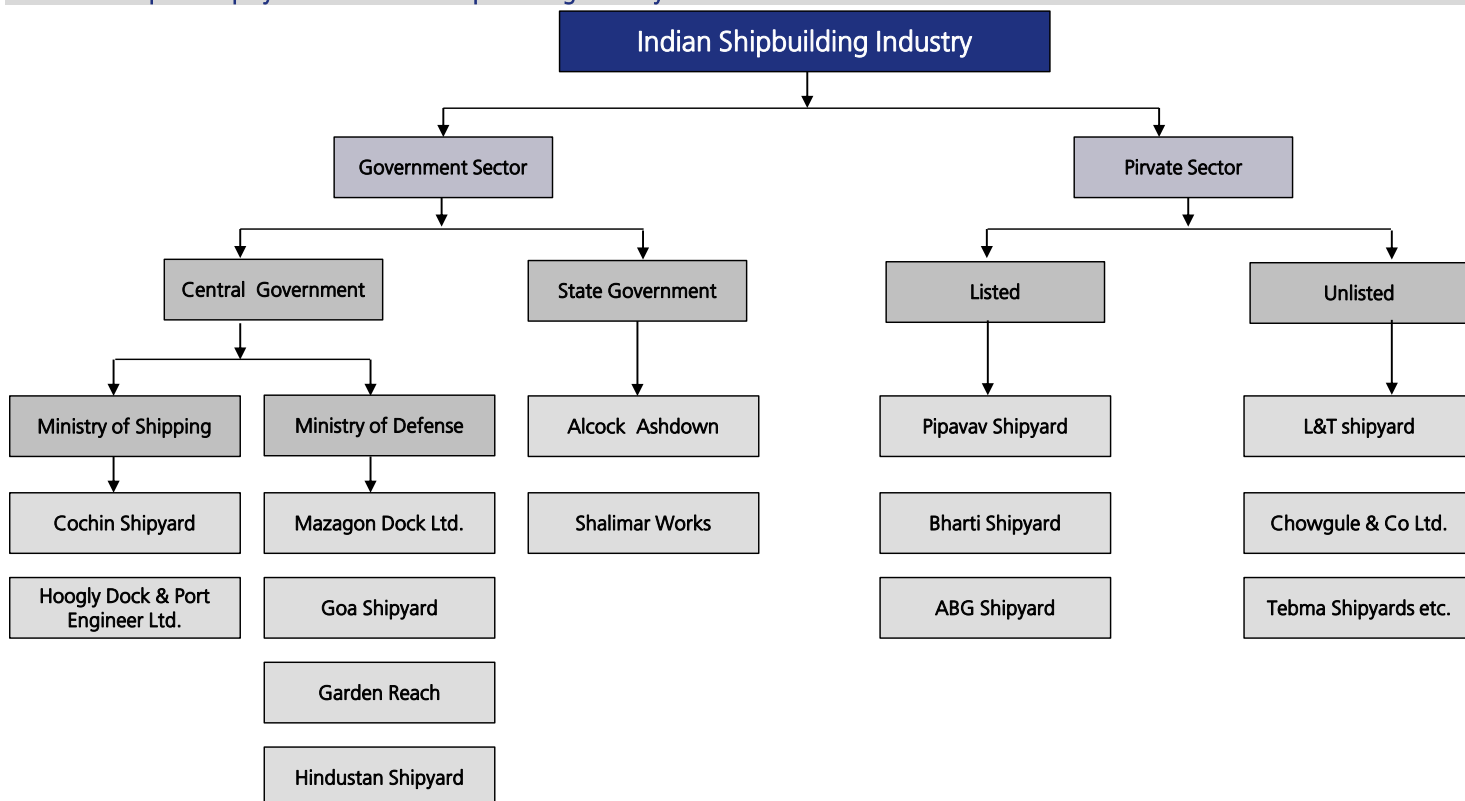
Source: Statistics of India's shipbuilding and ship repairing industry (2014-15); CRISIL Research; UNCTAD – Review of Maritime Transport in 2016, CRISIL Research

- Shipbuilding revenues under pressure globally:** South Korea's large shipbuilders, Hyundai Heavy Industries Co. and Daewoo Shipbuilding & Marine Engineering Co., reported heavy losses in 2015. This was largely because South Korea's shipyards bid aggressively in recent years for overseas oil rigs and energy platforms to fill their order books and to avoid direct competition with Chinese shipbuilders, who had the advantage of cheap labour to make low-profit tankers. The global recession dented overall demand for shipping, thus lowering demand for new ships. A fall in the price of crude oil resulted in a challenging business environment for global shipbuilders as international oil companies reduced capital expenditure, and delayed or cancelled orders for drill ships and offshore production facilities. These factors, along with considerable excess capacity, resulted in a recession in the shipbuilding industry.
- Global ship repair industry:** According to a report published by the Ministry of Shipping at the India Maritime Summit 2016, the global ship repair market is approximately USD 12bn. Shipyards in Singapore, Bahrain, Dubai and the Middle East account for a major share of this market. These locations have achieved a dominant position despite higher cost of ship repair services compared to other Asian countries, largely due to the availability of a skilled workforce and the latest technology, which allows these shipyards to attract demand from other low cost locations such as India, Malaysia and Indonesia. According to the Ministry of Shipping at the India Maritime Summit 2016, Indian ship repair industry's market potential is approximately USD 1.5bn (INR 102bn).

Indian Shipbuilding Industry

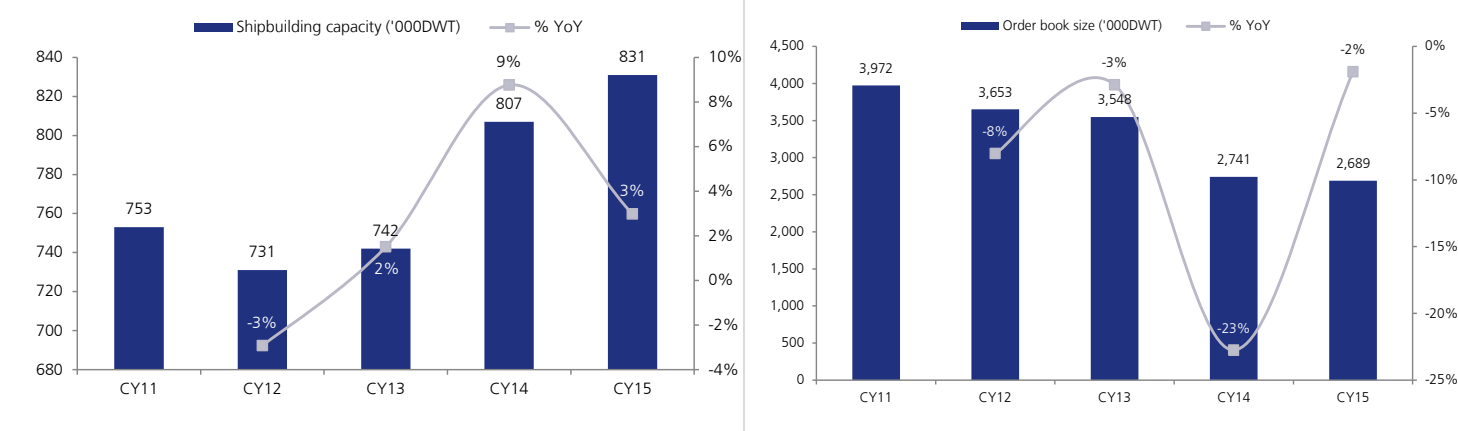
- **Utility and ownership-based classification:** Based on the end utility, ships can be divided into three segments: (i) Large ocean-going vessels catering to overseas as well as coastal trade; (ii) Medium-sized specialised vessels such as port crafts, fishing trawlers, offshore vessels, inland and other smaller crafts and; (iii) Defence/naval crafts and vessels for the coast guard. Players in the shipbuilding industry are classified based on their ownership as either public or private sector owned.

Exhibit 32. Important players in the Indian ship building Industry



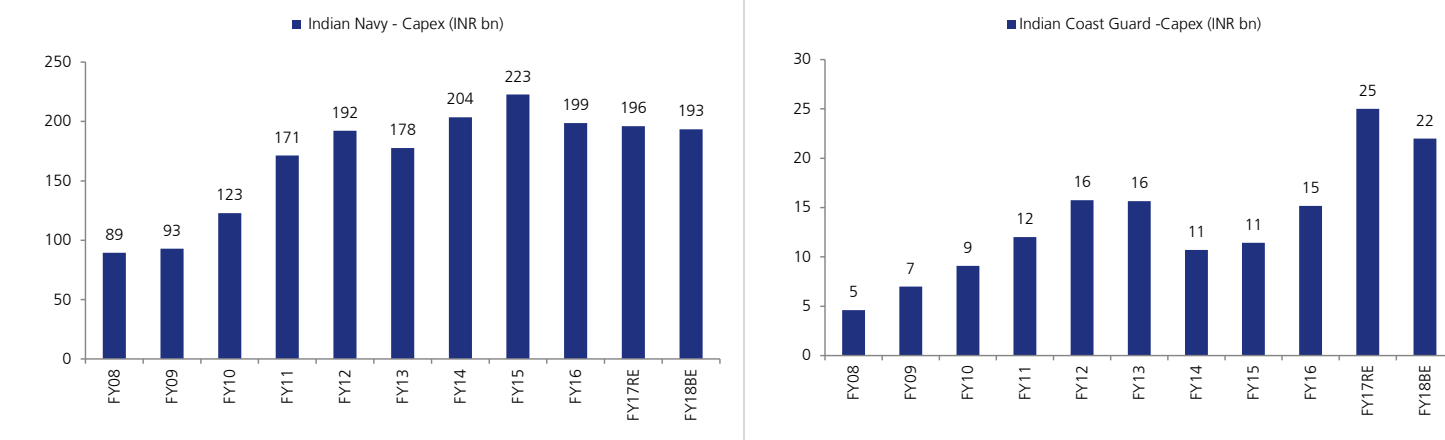
Source: CSL DHRP

- **Declining order book restricts capacity expansion:** The ship building capacity of public-sector shipyards marginally declined between FY11 and FY15. In FY15, Goa Shipyard increased its capacity by more than double from 4,500 DWT to 10,000 DWT. The private-sector's shipbuilding capacity, on the other hand, posted a CAGR of c.3% between FY11 and FY15. The capacity enhancement of the private sector was due to new shipyards such as Larsen & Toubro who entered in 2014 with a capacity of 30,000 DWT, Sembmarine Kakinada who started operations in 2015, with a capacity of 50,000 DWT, and Chidambaranar Shipcare who set up a shipbuilding facility with a capacity of 3,500 DWT. The ship building order book position declined during FY14 and FY15 due to a number of factors such as persistent excess supply and limited capacities of shipyards to accept new orders.

Exhibit 33. Shipbuilding capacity in India and shipbuilding order book

Source: Statistics of India's shipbuilding and ship repair industry (2014-15); CRISIL Research

- **Public sector outpaces private sector deliveries:** The number of ships delivered by the private-sector, as well as in DWT terms, declined after FY12. With the exception of FY14, public sector deliveries outpaced those of private sector shipyards in DWT terms. Among public sector shipyards, GRSB delivered the most ships, in DWT terms, from FY11 to FY15.
- **Increasing contribution of the domestic shipbuilding industry to defence fleet:** Naval shipbuilding is a sub-segment of the Indian shipbuilding sector. It is characterised by a value addition of 65% during the construction of ships, which is contributed by ancillary industries including steel producers, main engine builders and equipment suppliers. Growth of the domestic shipbuilding sector, which imports 45% of its input requirement, can become a significant factor for large-scale indigenisation of heavy-engineering products and ancillaries. Traditionally, even as naval ancillary components have been acquired from outside India, the shipbuilding activity has been carried out indigenously. However, over the years, the Indian government has pursued a policy towards greater indigenisation of defence equipment. The defence fleet has seen significant additions from the domestic shipbuilding industry in the past two years.

Exhibit 34. Capex of the Indian Navy and Indian Coast Guard

Source: www.indiabudget.nic.in

Exhibit 35. Indian Navy current and future strength

Indian Navy Strength	Current	Under Construction	Future	Total Additions
Aircraft carriers	1	1	1	2
Frigates	14	7	4	11
Destroyers	11	4	-	4
Corvettes	24	1	29	30
Submarines	15	8	12	20
Patrol Crafts (Vessels+Boats)	139	5	-	5
Warfare Ships	1	-	-	-
Landing Ships & Crafts	16	-	10	10
Mine counter measure/Torpedo Vessels	5	12	-	12
Others	66	4	4	8
Total Naval assets	292	42	60	102

Source: Company, JM Financial

Exhibit 36. Indian Navy: Ships under construction

Particulars	Company	Value (INR bn)
3 - Arihant-Class submarines	Navy Shipbuilding Centre	189
6 Scorpene Submarines - Kalavri Class	MDL	237
INS Vikrant	CSL	193
4 - Destroyers - Vishakapatnam class	MDL	293
5 Offshore Patrol Vessels - Project 21-class	RDL	25
5 Offshore Patrol Vessels	GSL	20
Kamorta-class corvette - Project 28	GRSE	75
5 Fast Patrol Vessels	GRSE	4
8 - MK 4 - Landing Craft Utility Ships	GRSE	25
7 Stealth Frigates - Project 17A	MDL & GRSE	420
10 Inshore Patrol Vessels	HSL	6
Bollard Pull Tugs	HSL	3
VC 11184 -ocean surveillance ship	HSL	15
Technology Demonstration Vessel	CSL	4
Cargo Vessel	CSL	13
Total Naval assets		1,521

Source: Company, Media Articles

- **Coast Guard:** The Government of India recently sanctioned INR 320bn for the upgrade of the Coast Guard, which will involve improving the fleet count from 130 to 175 surface units and ordering of new helicopters/aircrafts. CSL's proven expertise for constructing patrol ships/boats for the Coast Guard will help the company get a large share of the ordering pie.

Exhibit 37. Indian Coast Guard Fleet Strength

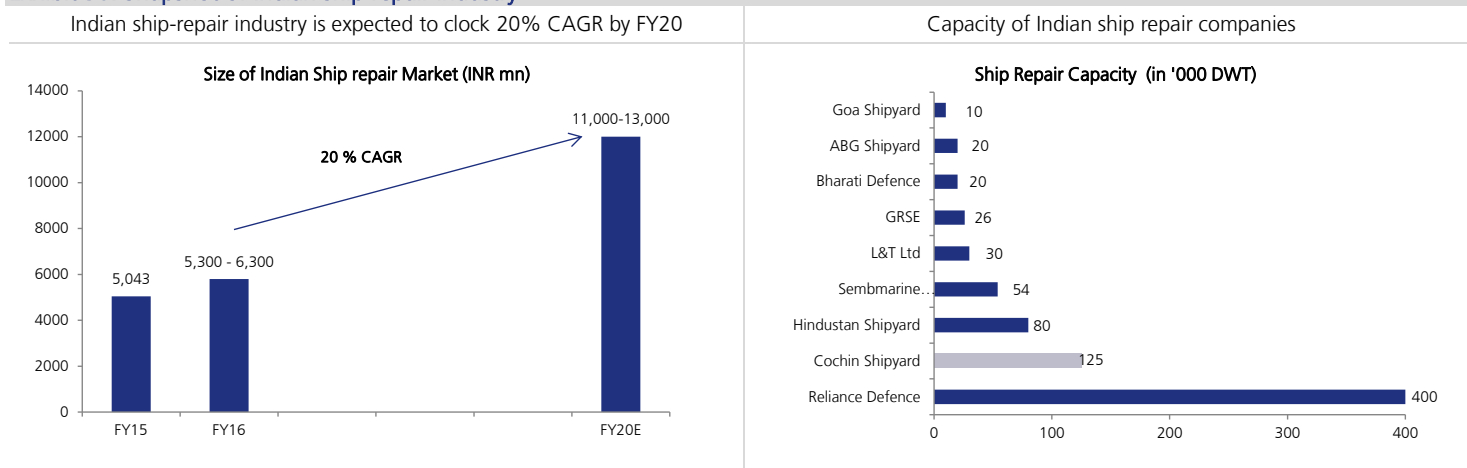
	Current Fleet	Future
Pollution control vessels	3	
Offshore patrol vessels	16	
Patrol vessels	42	
Ships	61	45
Patrol boats/ Interceptor Boats	52	20
Hovercraft	18	
Total Surface Units	131	65
Patrol craft	27	
Total	158	65

Source: Company, JM Financial

Indian Ship Repair Industry

- **Market has seen flattish growth:** According to "Statistics of India's Ship Building and Ship Repair Industry", published by the Ministry of Shipping, the total market size of the Indian ship repair industry in CY15 was approximately INR 5 bn. From FY11 to FY15, the market size has remained constant except during FY13, when it crossed the INR 10 bn level in part due to Mazagaon Dock's high-value orders. This was an isolated case, as Mazagon Dock does not typically undertake ship repair.
- **Public sector dominates revenue through higher realisation:** The share of the public sector in the revenues earned through ships repaired is much higher compared with the private-sector. The average realisation per ship repaired by the public sector is higher compared with that of the private sector. CSL, accounting for approximately 39% of the total revenues earned in FY15 through ship repair, is the leading shipyard in the ship repair industry. It is followed by Goa Shipyard with a share of approximately 20% in the revenues earned in FY15 through ship repair. The private sector shipyards in this segment are Sembmarine Kakinada, Larsen & Toubro and ABG Shipyard. In terms of market size, the share of the public sector remained higher than the private sector from FY11 to FY15. The number of ships repaired by the public and private sectors posted a CAGR of 18% and 52%, respectively, during this period.

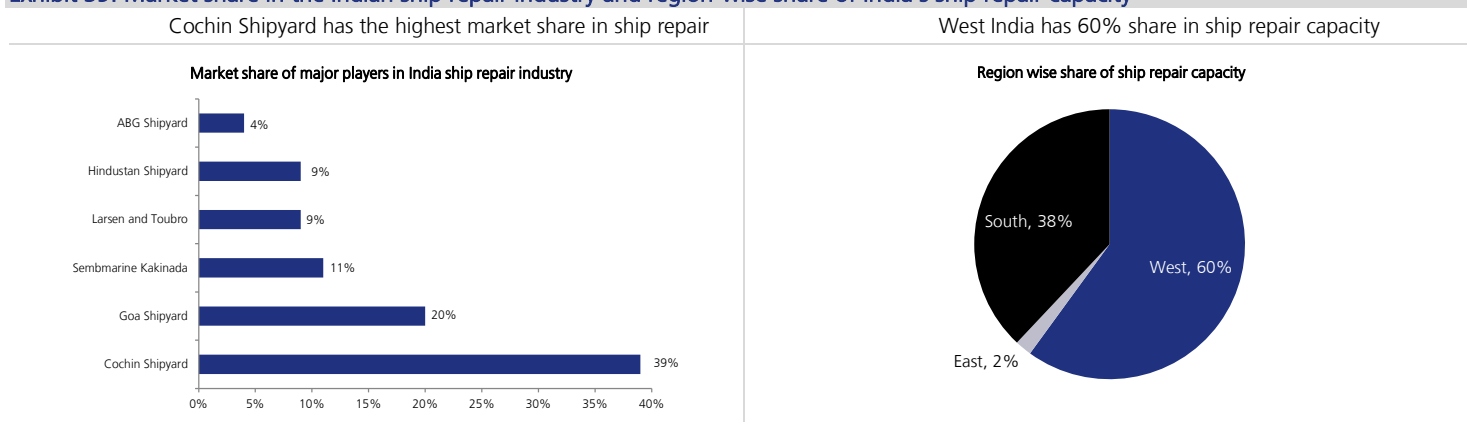
Exhibit 38. Snapshot of Indian ship repair industry



Source: CSL DRHP, JM Financial

- **West and South account for 98% of ship repair capacity:** The western coast of India houses almost 60% of the overall ship repair capacity of the country. As the shipyards are located along the sea, there are no shipyards in northern India. The majority of the shipyards on the western coast are located in Gujarat, Maharashtra and Goa while major shipyards in the east are concentrated in West Bengal.

Exhibit 39. Market share in the Indian ship repair industry and region-wise share of India's ship repair capacity

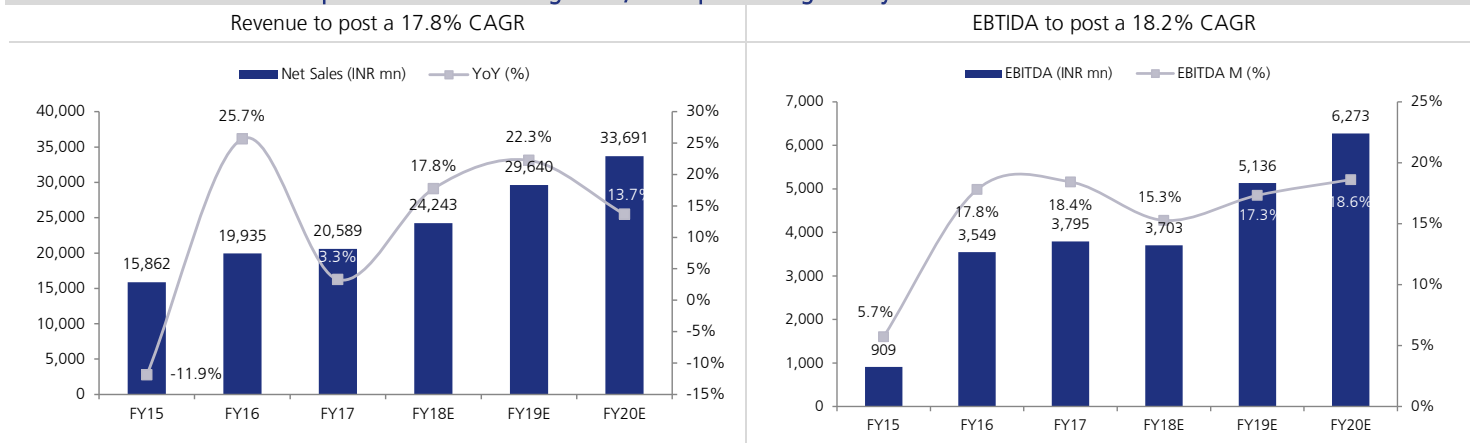


Source: CSL DRHP

Financials

- Consistent sales growth, despite cyclical nature of industry:** Led by a few large-order wins and resultant increase in market share, CSL has reported a consistent increase in sales and profitability over the past decade. Over FY07-17, revenue and EBITDA posted an 11% and 20.9% CAGR, respectively. This was achieved despite shrinkage in Indian shipbuilding industry (down by 30% in the last 5 years). The ship repair segment (26% of sales) saw a robust 30% CAGR over FY12-17, despite the overall industry's stagnant performance. CSL enjoys a healthy order book (INR 184bn, including L1) which will drive sturdy revenue CAGR of 18% over FY17-20E.

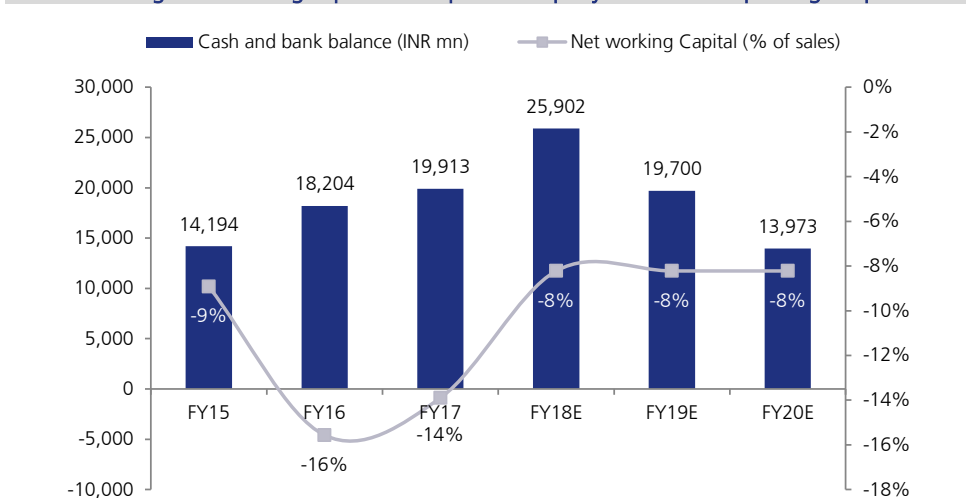
Exhibit 40. Robust order book position to drive sales growth, while profit margins may remain stable



Source: Company, JM Financial

- Strong balance sheet and negative working capital:** While private sector shipyards such as Reliance Defence, ABG Shipyard and Bharati Shipyard are reeling under high debt, CSL is cash surplus and has net cash balance of INR 18.7bn (91% of FY17 sales) at end-FY17. Further, healthy increase in order inflows resulted in a proportionate increase in advances received for these orders, thus resulting in a negative working capital cycle (average of FY15-17 was -47 days).

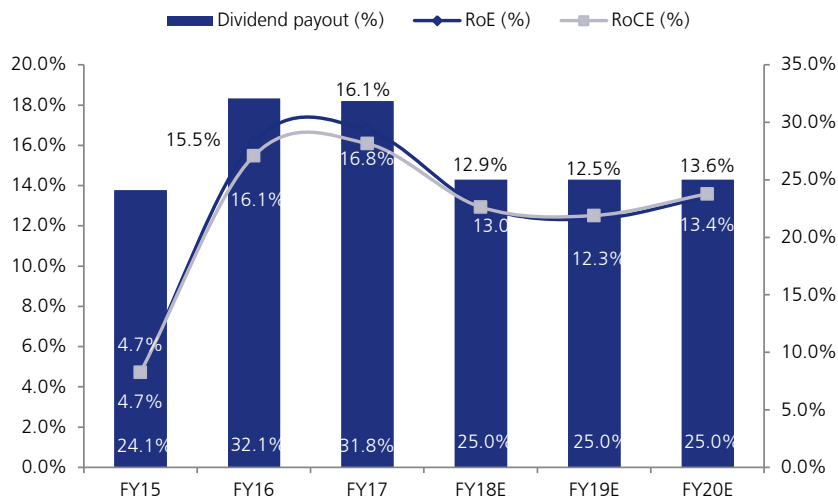
Exhibit 41. Negative working capital to keep the company debt free despite high capex



Source: Company, JM Financial

- **Healthy return ratios and dividend payout:** Despite a high cash balance, the company reports healthy return ratios as RoE/RoCE stood at 16.8%/16.1% at end-FY17. The cost efficiency has helped the company deliver high net profit margins (14-16% range), while the company is operating at nearly full capacity (fixed asset turnover at 3.0x). Despite higher profitability, we expect RoEs to dip in FY18/19 to 13%/12.3%, on account of higher cash balance in FY18 and a large capex planned for the next 4 years. CSL had a healthy dividend payout of 32% in FY17, which we expect will be 25% in the coming years.

Exhibit 42. Return ratios and dividend payout



Source: Company, JM Financial

Valuation

Despite a global slowdown in the commercial shipbuilding industry, CSL has delivered a healthy CAGR of 11%/21% in sales/EBITDA in the last 10 years. This took place on account of diversification and capability building in the defence segment, where capital expenditure is fairly steady and devoid of business cycles. In a bid to diversify its capabilities further, the company is targeting additional opportunities in areas such as Defence (new generation aircraft carriers, corvettes, destroyers, frigates) and commercial (LNG carriers, oil rigs) and inland waterways (ropax, cargo carriers). With a healthy order book of INR 184bn at end-Sep'17, CSL provides adequate revenue visibility over the next 7-8 years and with a healthy capital expenditure pipeline of the Indian Navy and Coast Guard, we believe the company is set to deliver consistent growth over the next decade.

We value the company at 12x FY20E EBITDA and 1x FY19E closing cash balance, as we forecast 18% EBITDA CAGR over FY17-20E. The EV/E multiple represents 25%/21% discount to 1-year forward EVE for global/domestic peers, due to lack of domestic comparison. Return ratios are likely to decline in the interim period as the company enters an investment phase during FY18-21. However, they are likely to bounce back from FY21 once capacity utilisation picks up at the new facilities. Implied PE at our target price stands at 23x FY19E and 19x FY20E earnings, while the stock currently trades at 17x FY19E and 15x FY20E earnings. **We initiate with BUY rating and TP of INR 700/share (Mar'19), valuing the core business at 12x FY20E EBITDA (INR 555) and 1x FY19E cash balance of INR 19.7bn (INR 145).**

Exhibit 43. Calculation of cash balance at end-FY20

Particulars	Value (INR mn)
Cash balance at end-FY17	19,913
IPO proceeds	9,785
<u>Operating cash flow:</u>	
FY18E	2,967
FY19E	5,060
Capex (FY18-19E)	-14,500
Est. dividend payout (FY18-19)	-2,295
Loan repaid (assumed)	-1,230
Cash balance at end-FY19E	19,700

Source: Company, JM Financial

Peer Valuation

Exhibit 44. Peer Valuation: Global Companies

		CMP	Mkt. Cap.	EV/E (x)			P/E (x)			EBTDA CAGR %	P/B (x)			RoE (%)			RoCE (%)
Country		(USD)	(USD mn)	CY16	CY17E	CY18E	CY16	CY17E	CY18E	CY16-18E	CY16	CY17E	CY18E	CY16	CY17E	CY18E	CY16
Global Companies																	
Daewoo Shipbuilding	South Korea	17.2	1,830	14.9	3.3	7.7	NM	1.1	10.3	NM	0.4	0.5	0.5	NM	63.6	4.9	20.7
Colombo Dockyards	Sri-Lanka	0.6	42	NM	NM	9.9	NM	NM	82.3	NM	0.6	NM	NM	NM	NM	0.8	NM
Hyundai Heavy Industries	South Korea	126.9	7,191	5.9	11.8	14.7	NM	4.5	120.5	-50.6	0.7	0.7	0.7	19.7	13.3	0.8	2.0
Hyundai Mipo Dockyard	South Korea	100.1	2,002	0.4	0.4	0.5	11.4	7.1	27.4	-20.7	0.9	0.9	0.8	8.1	13.0	3.1	10.6
Samsung Heavy Industries	South Korea	8.6	3,351	14.2	NM	44.4	350.9	NM	NM	-9.7	0.5	0.6	0.7	0.6	(4.4)	(1.9)	3.2
Mitsubishi Heavy Industries	Japan	38.1	12,839	7.7	7.3	6.6	11.9	15.9	13.3	8.5	0.8	0.8	0.7	7.0	4.9	5.4	12.1
Keppel Corp	Singapore	6.1	11,029	23.3	20.3	17.3	17.2	18.8	15.8	11.1	1.2	1.2	1.2	7.4	6.3	7.4	10.5
Sembcorp Marine	Singapore	1.4	2,991	27.9	22.9	19.9	48.6	73.5	43.4	-2.7	1.6	1.5	1.5	3.3	2.3	3.5	2.9
Mitsui Engineering & Shipbuilding	Japan	14.8	1,230	NM	15.8	13.1	NM	31.7	12.6	10.2	NM	0.5	0.5	1.0	1.5	3.9	5.7
Fincantieri SPA	Italy	1.7	2,869	18.1	13.6	11.3	93.8	28.3	19.1	34.8	2.2	2.1	1.9	2.3	7.3	10.4	NA
Global Average				14.0	11.9	14.5	89.0	22.6	38.3	-2.4	1.0	1.0	0.9	6.2	12.0	3.8	8.4

Source: Bloomberg

Exhibit 45. Peer Valuation: Indian companies

	CMP	Mkt Cap	EV/E (x)			P/E (x)			EBITDA CAGR %	P/B (x)			RoE (%)			RoCE (%)
Indian Companies	INR	INR bn	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17-19E	FY17	FY18E	FY19E	FY17	FY18E	FY19E	FY17
Cochin Shipyard	558	75.9	11.7	13.5	10.9	19.6	22.1	18.1	16.3	3.1	2.3	2.1	16.8	13.0	12.3	16.1
Bharat Electronics	178	437.3	22.7	20.4	16.2	28.3	30.5	24.4	15.1	5.8	5.2	4.6	18.8	18.0	19.9	18.8
BEML*	1,549	64.5	35.0	25.0	18.9	76.4	34.1	25.8	60.5	3.0	2.8	2.6	3.9	8.2	10.3	5.5
Dynumatic Tech.*	2,096	13.3	15.7	13.8	10.1	91.1	40.0	19.6	7.8	5.4	5.3	4.5	5.8	12.5	19.9	18.5
Astra Microwave *	117	10.1	10.0	10.0	8.5	17.9	19.0	15.3	10.0	2.2	2.0	1.8	13.3	11.2	12.7	15.3
Centum Electronics *	738	9.5	21.9	NM	NM	30.0	NM	NM	NM	4.3	NM	NM	15.2	NM	NM	23.5
Solar Industries India *	1,161	105.0	30.2	26.2	21.3	56.6	44.8	35.8	25.4	11.3	9.4	4.6	21.4	22.2	23.0	29.9
Average			22.6	19.1	15.0	50.0	33.7	24.2	23.8	5.3	4.9	3.6	13.1	14.4	17.2	18.6

Source: Bloomberg, JM Financial. Note: * denotes BBG estimates

Key risks

- **Business risk:** The commercial shipping business has been declining over the past few years. Worldwide demand and pricing in the commercial shipbuilding industry are highly dependent on global economic conditions. If the global economy fails to grow at an adequate pace, it may adversely impact the commercial shipbuilding industry, which may negatively affect CSL's sales, ordering outlook and growth prospects.
- **Concentration risk:** CSL's top two customers – including the Indian Navy and the Indian Coast Guard – accounted for 82.4%, 82.9% and 84.6% of revenue in FY15, FY16 and FY17, respectively. The loss of any major customer or a reduction in their orders, or failure to succeed in tendering for shipbuilding or ship repair projects for the Indian Navy in the future, despite its previous track record, will have a material adverse impact on its business, financial condition and growth prospects.
- **Contract risk:** CSL could incur losses under fixed price contracts as a result of cost overruns, delays in delivery or failures to meet contract specifications. Delivery of IAC – which forms a significant portion of company's current order book – has been delayed, leading to disagreements with the Indian Navy on its progress and delivery date. Any future disagreements or disputes may significantly adversely affect financials.
- **Disruption in operation:** CSL's entire business operation is based out of a single shipyard in Kochi. It is subject to stringent labour laws and its workmen are unionised under a number of trade unions. Labour disputes could lead to loss of production and increased costs. CSL is dependent on the Cochin Port Trust (CoPT) for certain basic services required for daily operations, hence operations may be hampered if the relationship with CoPT is negatively affected in any manner or if CoPT is unable to provide these services. The loss or shutdown of CSL's operations at its shipyard in Kochi will have a material adverse effect on its business, financial condition and results of operations. Trade unions under which majority of its workmen are unionised have objected to the proposed stake sale. This may lead to strikes, lock-down or work stoppages.
- **Uncertainty over expansion plans:** The proposed dry dock or International Ship Repair Facility will become operational as scheduled and operate as efficiently as planned. However, if commissioning of new facilities are delayed or faces cost overruns, it may lead to negative impact on CSL's financial condition. CSL's future growth and expansion is limited by its production capacities and the location at which they operate.
- **Legal and regulatory risk:** Certain legal proceedings and regulatory actions involving CSL are underway. Any adverse decision in such proceedings may expose the company to liabilities or penalties that may adversely affect its business. The Competition law in India and any adverse application or interpretation of the Competition Act could in turn adversely affect its business. Changing laws, rules and regulations and legal uncertainties, including adverse application of tax laws and regulations, may adversely affect its business and cash flows.

Exhibit 46. Key Management Personnel

Mr. Madhu S. Nair	<ul style="list-style-type: none"> - He is the Chairman and Managing Director - Holds a Bachelor of Technology degree in Naval Architecture and Ship building from Cochin University of Science and Technology, India and a Master of Engineering degree with specialisation in Naval Architecture and Ocean Engineering from Osaka University, Japan - He is a member of the Royal Institute of Naval Architects, London - He has worked with CSL for approximately 28 years -
Mr. D. Paul Ranjan	<ul style="list-style-type: none"> - He is a Director (Finance) and Chief Financial Officer - Holds a Bachelor of Commerce degree from Madurai Kamraj University. He is a Chartered Accountant and has completed a post qualification course in information systems audit from the Institute of Chartered Accountants of India - He has worked with CSL for approximately 32 years -
Mr. Sunny Thomas	<ul style="list-style-type: none"> - He is a Director (Technical) - He holds a Bachelor of Technology degree in Naval Architecture and Ship building from University of Cochin and an MBA with specialisation in finance from Indira Gandhi National Open University, India. He also holds a certificate in project risk management from the Institute of Project Management Certification - He has worked with CSL for approximately 35 years -
Mr. Suresh Babu N. V	<ul style="list-style-type: none"> - He is a Director (Operations) - He holds a Bachelor of Engineering (mechanical) degree from the University of Kerala. - He has worked with CSL for approximately 31 years -
Mr. Barun Mitra	<ul style="list-style-type: none"> - He is a Part-time Official (Nominee) Director - He holds Bachelor of Arts and Master of Arts degrees with specialisation in History from Delhi University. He also holds a Bachelor of Law degree from Delhi University and a Post-graduate Diploma in Patent Law from the National Academy of Legal Studies and Research, Hyderabad, India - He is from the 1987 batch of the Indian Administrative Services (Manipur cadre) - He has about 27 years of work experience in administration in a wide array of fields -
Mr. Elias George	<ul style="list-style-type: none"> - He is a Part-time Official (Nominee) Director - He holds a Bachelor's degree in Naval Architecture - He belongs to the 1982 batch of the Indian Administrative Service (Kerala Cadre) -
Mr. Krishna Das E	<ul style="list-style-type: none"> - He is a Non-official Part-time (Independent) Director - -
Mr. Radhakrishna Menon	<ul style="list-style-type: none"> - He is a Non-official Part-time (Independent) Director - He holds a Bachelor's degree in Legal and Social Science from Bharati Vidyapeeth's New Law College, Pune - He is the president of Travancore Travel and Tourism Co-operative Society Limited - He is also the Vice President of the World Malayalee Organisation -
Ms. Roopa Shekhar Rai	<ul style="list-style-type: none"> - She is a Non-official Part-time (Independent) Director - She holds a Bachelor's degree in Science from Nagpur University and Master's in Public Administration

Source: Company, JM Financial

Financial Tables (Standalone)

Income Statement (INR mn)					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Net Sales	19,935	20,589	24,243	29,640	33,691
Sales Growth	25.7%	3.3%	17.8%	22.3%	13.7%
Other Operating Income	0	0	0	0	0
Total Revenue	19,935	20,589	24,243	29,640	33,691
Cost of Goods Sold/Op. Exp	12,319	13,141	16,243	19,563	21,899
Personnel Cost	2,267	2,167	2,600	2,866	3,160
Other Expenses	1,799	1,486	1,697	2,075	2,358
EBITDA	3,549	3,795	3,703	5,136	6,273
EBITDA Margin	17.8%	18.4%	15.3%	17.3%	18.6%
EBITDA Growth	290.6%	6.9%	-2.4%	38.7%	22.1%
Depn. & Amort.	372	385	404	425	446
EBIT	3,177	3,410	3,299	4,712	5,827
Other Income	1,139	1,636	1,917	1,630	1,711
Finance Cost	120	105	95	85	77
PBT before Excep. & Forex	4,197	4,940	5,121	6,256	7,462
Excep. & Forex Inc./Loss(-)	0	0	0	0	0
PBT	4,197	4,940	5,121	6,256	7,462
Taxes	1,470	1,719	1,690	2,065	2,462
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	2,727	3,222	3,431	4,192	4,999
Adjusted Net Profit	2,727	3,222	3,431	4,192	4,999
Net Margin	13.7%	15.6%	14.2%	14.1%	14.8%
Diluted Share Cap. (mn)	113.3	113.3	135.9	135.9	135.9
Diluted EPS (INR)	24.1	28.4	25.2	30.8	36.8
Diluted EPS Growth	282.8%	18.1%	-11.2%	22.2%	19.3%
Total Dividend + Tax	205	1,043	1,033	1,262	1,505
Dividend Per Share (INR)	1.5	7.6	6.3	7.7	9.2

Source: Company, JM Financial

Balance Sheet (INR mn)					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Shareholders' Fund	18,143	20,311	32,494	35,424	38,919
Share Capital	1,133	1,133	1,359	1,359	1,359
Reserves & Surplus	17,010	19,178	31,135	34,065	37,560
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	1,230	1,230	0	0	0
Def. Tax Liab. / Assets (-)	-327	-243	-243	-243	-243
Total - Equity & Liab.	19,046	21,298	32,251	35,181	38,676
Net Fixed Assets	3,944	4,245	8,341	17,916	27,471
Gross Fixed Assets	6,622	6,943	11,443	21,443	31,443
Intangible Assets	0	0	0	0	0
Less: Depn. & Amort.	2,920	3,236	3,641	4,065	4,511
Capital WIP	242	539	539	539	539
Investments	1	1	1	1	1
Current Assets	29,178	28,676	37,193	33,505	29,665
Inventories	2,316	1,865	2,657	3,248	3,692
Sundry Debtors	4,818	3,070	3,985	4,872	5,538
Cash & Bank Balances	18,204	19,913	25,902	19,700	13,973
Loans & Advances	18	19	0	0	0
Other Current Assets	3,821	3,809	4,649	5,684	6,461
Current Liab. & Prov.	14,076	11,624	13,284	16,241	18,461
Current Liabilities	2,099	1,613	1,993	2,436	2,769
Provisions & Others	11,978	10,011	11,291	13,805	15,692
Net Current Assets	15,101	17,052	23,909	17,264	11,204
Total - Assets	19,046	21,298	32,251	35,181	38,675

Source: Company, JM Financial

Cash Flow Statement (INR mn)					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Profit before Tax	4,197	4,940	5,121	6,256	7,462
Depn. & Amort.	326	317	404	425	446
Net Interest Exp. / Inc. (-)	0	0	0	0	0
Inc (-) / Dec in WCap.	1,688	-241	-869	444	333
Others	0	0	0	0	0
Taxes Paid	-1,619	-1,635	-1,690	-2,065	-2,462
Operating Cash Flow	4,591	3,381	2,967	5,060	5,778
Capex	-367	-618	-4,500	-10,000	-10,000
Free Cash Flow	4,223	2,763	-1,533	-4,940	-4,222
Inc (-) / Dec in Investments	1	0	0	0	0
Others	0	0	0	0	0
Investing Cash Flow	-366	-618	-4,500	-10,000	-10,000
Inc / Dec (-) in Capital	0	0	9,785	0	0
Dividend + Tax thereon	-205	-1,043	-1,033	-1,262	-1,505
Inc / Dec (-) in Loans	0	0	-1,230	0	0
Others	-10	-11	0	0	0
Financing Cash Flow	-215	-1,054	7,522	-1,262	-1,505
Inc / Dec (-) in Cash	4,010	1,709	5,989	-6,202	-5,727
Opening Cash Balance	14,194	18,204	19,913	25,902	19,700
Closing Cash Balance	18,204	19,913	25,902	19,700	13,973

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Net Margin	13.7%	15.6%	14.2%	14.1%	14.8%
Asset Turnover (x)	1.1	1.0	0.9	0.9	0.9
Leverage Factor (x)	1.1	1.1	1.0	1.0	1.0
RoE	16.1%	16.8%	13.0%	12.3%	13.4%
Key Ratios					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
BV/Share (INR)	160.2	179.3	239.1	260.6	286.3
ROIC	107.7%	159.1%	53.8%	28.3%	19.2%
ROE	16.1%	16.8%	13.0%	12.3%	13.4%
Net Debt/Equity (x)	-0.9	-0.9	-0.8	-0.6	-0.4
P/E (x)	22.1	18.7	21.1	17.3	14.5
P/B (x)	3.3	3.0	2.2	2.0	1.9
EV/EBITDA (x)	15.6	14.2	12.6	10.3	9.3
EV/Sales (x)	2.8	2.6	1.9	1.8	1.7
Debtor days	88	54	60	60	60
Inventory days	42	33	40	40	40
Creditor days	47	35	35	36	37

Source: Company, JM Financial

APPENDIX I

JM Financial Institutional Securities Limited

Corporate Identity Number: U65192MH1995PLC092522

Member of BSE Ltd. and National Stock Exchange of India Ltd. and Metropolitan Stock Exchange of India Ltd.

SEBI Registration Nos.: BSE - INZ010012532, NSE - INZ230012536 and MSEI - INZ260012539, Research Analyst – INH000000610

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Definition of ratings	
Rating	Meaning
Buy	Total expected returns of more than 15%. Total expected return includes dividend yields.
Hold	Price expected to move in the range of 10% downside to 15% upside from the current market price.
Sell	Price expected to move downwards by more than 10%

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