

Orient Refractories Ltd.	
No. of shares (m)	120.1
Mkt cap (Rs crs/\$m)	2824/401.8
Current price (Rs/\$)	235/3.3
Price target (Rs/\$)	240/3.4
52 W H/L (Rs.)	280/148
Book Value (Rs/\$)	28/0.4
Beta	1.1
Daily volume NSE (avg. monthly)	106780
P/BV (FY19e/20e)	8.1/6.7
EV/EBITDA (FY19e/20e)	16.7/13.9
P/E (FY19e/20e)	28.3/23.5
EPS growth (FY18/19e/20e)	24.7/16.1/20.5
OPM (FY18/19e/20e)	20.3/17.6/18.3
ROE (FY18/19e/20e)	32.8/31.5/31.2
ROCE(FY18/19e/20e)	32.8/31.5/31.2
D/E ratio (FY18/19e/20e)	-/-/-
BSE Code	534076
NSE Code	ORIENTREF
Bloomberg	ORIENT IN
Reuters	ORRE.NS

Shareholding pattern	%
Promoters	66.5
MFs / Banks / FIs	9.5
Foreign Portfolio Investors	4.7
Govt. Holding	-
Public & Others	19.3
Total	100.0

As on Sep 30, 2018

Recommendation

HOLD

Phone: + 91 (33) 4488 0055 E- mail: research@cdequi.com **Quarterly Highlights**

- First half of current fiscal saw an improvement in finished steel production and consumption, which grew by 6% (yoy) and 7.8% (yoy) to 53.9 mn tons and 47.7 mn tons respectively, compared to a yoy growth of 2.5% and 7.6% respectively in H1FY18, according to CARE Ratings. Riding high on an all-round increase in demand from user industries like construction, infrastructure, automobiles among others, outlook for the Indian steel industry looks encouraging for the second half of FY19, with an estimated production growth of 6%-8% for FY19. Thus, demand for Indian refractory products is expected to remain buoyant.
- Revival in financially stressed steel industry and growth in brick business aided in 25.8% (yoy) growth in ORL's revenue in Q2FY19. Higher raw material cost – up by 32.2% (yoy) constituting 58.9% of sales vs 56.0% in Q2FY18- led to an overall decline of ~289 bps in margins- OPM of 16.8% vs 19.7% in Q2FY18. Higher other income drove PAT by 11.3% in Q2FY19.
- To meet the growing demand for refractory products, ORL expanded its isostatic production capacity to 11,700 tons per year from 9,300 tons per year at Bhiwadi, entailing capex of Rs 17.60 crs, funded through internal accruals. The new plant, which was commissioned in May 2018, started commercial production in June 2018, and has capacity to produce 2400 tons per year, that can be enhanced to 4800 tons per year in second phase.
 - The stock currently trades at 28.3x FY19e EPS of Rs 8.30 and 23.5x FY20e EPS of Rs 10.00. Indian refractory industry is expected to grow at ~6% this fiscal, reckons Sameer Nagpal, Head of Advocacy, Indian Refractory Makers Association (IRMA), due to increasing usage of refractories in iron and steel, cement, glass, and other industries, which would help ORL post topline growth of CAGR of 21.3% during the period FY18-20. Its economic moat emanates from its in house R&D facility fully equipped to carry out testing and development activities with equipment like XRD equipment, TG-DTA, dialotometer-RTE, thermal conductivity apparatus, to name a few, and acceptable product quality worldwide. Yet, recent crackdown on polluting units in China, a major supplier for inputs to refractory material, has disrupted raw material inflow into India, casting doubt on the refractory industry's ability to continue its supply commitments to key industries and taken raw material prices to new high (up by 25-40% in the last one and half years), which might impact ORL's PAT, enabling it to grow at a CAGR of 18.2% in the next two years. However, due to steep valuation, we assign 'hold' rating to the stock with target price of Rs 240 (previous target Rs 201) based on 24x FY20e EPS of Rs 10.00 over a period of 9-12 months.

Consolidated (Rs crs)	FY16	FY17	FY18	FY19e	FY20e
Income from operations	458.88	519.39	626.79	777.94	922.33
Other Income	5.38	8.26	10.62	23.00	23.87
EBITDA (other income included)	90.56	111.62	137.67	160.08	192.26
PAT after EO	55.68	68.93	85.95	99.75	120.17
EPS(Rs)	4.63	5.74	7.15	8.30	10.00
EPS growth (%)	6.1	23.8	24.7	16.1	20.5

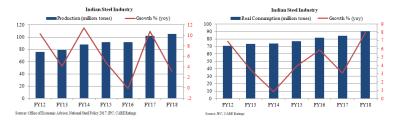


Outlook & Recommendation

Refractories & Steel Industry

According to Markets and Markets, global refractories market is likely to witness a CAGR growth of 3.9% during 2017-2022, to reach \$36.17 bn by end of 2022 from \$28.72 bn in 2016, with CAGR volume growth of 3.5% - 56.83 mn tons compared to 46.28 mn tons in 2016. Sales growth of refractories across various applications should help Indian refractory market to exhibit a CAGR growth of 5.4% over the forecasted period. Refractories applications have been witnessing considerable demand in Asian countries, such as China, Japan, India, Korea and ASEAN due to rising capital investments in setting up of large-scale projects in the infrastructure, steel, mining (impacting metallurgy sector) and cement sectors and subsequent development of distribution & sales network of refractories in the region.

Thanks to its low-cost workforce, India is a competitive market for refractory manufacturing and is also a sourcing base for America and Europe. However, India currently imports 30% of refractories, significant quantity of which comes from China, which has advantage of abundant availability of raw material, especially magnesite. This overdependence is causing supply disruptions as Chinese government's change in environmental policies have led to shortage of key raw materials of refractories in India. Indian refractory industry is hoping for a favorable mining policy addressing key concerns like adverse environmental regulations, legal and taxation regime and trade barriers, which would encourage it to mine key raw materials in India and subsequently reduce its dependence on China.



World Steel Association (WSA) estimates suggest that global steel demand is likely to touch 1.62 bn tons in 2018, registering a growth of 1.8% over 2017, and a further 0.7% growth in 2019 to reach 1.63 bn tons. Continued strengthening of investments in advanced economies, improving manufacturing climate and recovery in commodity prices are expected to be key catalysts to drive global steel demand. However, possible escalation of US-China trade tension poses a significant risk to the outlook-China's steel demand, which accounts for 46% of global steel demand, is expected to be flat at 737 mn tons in 2018, while declining by 2% in 2019.

According to Moody's Investors Service, India is expected to be the brightest spot for the steel sector over the next 12-18 months. Thanks to minimal steel capacity to be commissioned until 2021 in India, robust demand in steel consuming sectors construction, infrastructure and automotive - is expected to keep end-product prices high, with rising cost of key inputs, coking coal and iron ore, putting pressure on profitability. However, India's steel sector consolidation - takeover of Bhushan Steel by Tata Steel, acquisition of Electrosteel Steels by Vedanta - is likely to ease the financial stress and further improve utilization levels within the industry.

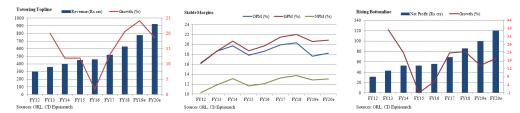
India's steel demand grew by 8.0% (yoy) to 91 mn tons in FY18, and this pace is expected to further accelerate with domestic steel demand pegged at 8.3% to 98.2 mn tons in the current fiscal year (source Joint Plant Committee). With per capita steel consumption of ~65 kg - one third of the global average - government aims to increase it to ~160 kg by FY31 under the National Steel Policy. Governmental measures such as 'Make in India', 'Smart Cities Mission', and focus on rural development are likely to be key facilitators for the growth of domestic steel sector in India.



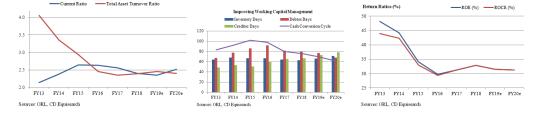
Financials & Valuations

India has witnessed uptick in steel demand in recent years, with production and consumption growth of CAGR 5.9% and 4.3% in five years ending FY18. With steel industry being major end user of refractories, ORL's topline too has registered a CAGR growth of 11.7%, though not without hiccups, when revenue grew by mere 1.7% in FY16, because of dismal growth in Indian steel industry – production down by 0.1% -due to delay in execution of construction projects and lower demand of consumer durables and automobiles.

One of the key concerns facing the Indian refractory industry today is lack of raw material, because of which imports have jumped by 40% last fiscal. Hakimuddin Ali, Chairman of Indian Refractory Makers Association (IRMA), in September'18 said, "The domestic refractory makers have to import raw materials. Even finished refractory products are being imported as at times import is cheaper than manufacturing in India." IRMA has requested GOI to take steps to push domestic mining of refractories grade bauxite and manganese to help the industry. ORL too witnessed a decline in its operating margins – 16.6% in H1FY19 vs 18.3% in the same period last year – mainly on account of higher raw material cost (raw material to sales ratio rose to 58.9% vs 56.5% in H1FY18).

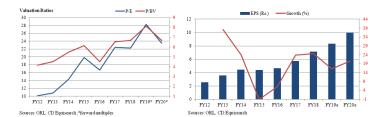


ORL's amalgamations with RHI India and RHI Clasil, which are engaged in manufacturing, marketing and trading of refractories and allied products, aims to enhance business efficiencies, establish a comprehensive product portfolio and facilitate access to better financial resources. The companies have together filed an application with NCLT for directions to conduct meetings of shareholders and creditors of the company for approval of the scheme. Merger through proposed scheme is expected to be completed by June 2019.



The stock currently trades at 28.3x FY19e EPS of Rs 8.30 and 23.5x FY20e EPS of Rs 10.00. Association with RHI AG Group, Austria, world leader in refractories, gives ORL a competitive edge because of its parent's technical expertise, R&D facilities, customized products for steel, cement and glass industries and strong raw material procurement ability (especially bricks), enabling the company to report highest OPM amongst its peers. Orient's well trained group of technical specialists at customer sites service any technical and commercial needs, enabling the company to sell on a Total Refractory Management basis to a large number of its customers. With strong outlook for steel, both in global and domestic market, we expect ORL's revenue to grow by 24.1% and 18.6% in FY19 and FY20 respectively with profit growth at 16.1% and 20.5% respectively over the next two years. Yet, rising trade protectionism, volatile raw material prices (cost of raw material of the industry has gone up by 25-40% in the last one and half years) and import dependency (~16% of ORL's raw material is imported) does not augur well for the refractory industry. The domestic steel industry has set a target of 300 mn tons by 2030 and a small disruption in supply of refractory material could upset the steel industry's growth momentum and affect infrastructure growth. In view of its strong performance, we have largely kept our current fiscal's EPS unchanged (Rs 8.30 vs Rs 8.39 earlier). However, steep valuation pose near term challenges. Therefore we assign 'hold' rating to the stock with target price of Rs 240 (previous target Rs 201) based on 24x FY20e EPS of Rs 10.00 over a period of 9-12 months. For more information, refer to our April 2018 report.







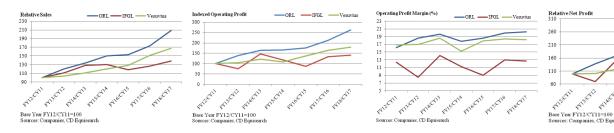
Cross Sectional Analysis

Company	Equity*	CMP	Mcap*	Sales*	Profit*	OPM(%)	NPM(%)	Int cov.	ROE(%)	Mcap/ sales	P/BV	P/E
Orient Refr.	12.0	235	2824	697	94	19.2	13.5	-	30.8	4.0	8.5	30.1
IFGL Refr.	36.0	250	901	895	56	12.8	6.2	19.8	10.6	1.0	1.3	16.2
Vesuvius India	20.3	1134	2301	930	97	16.9	10.4	-	14.3	2.5	3.2	23.8

^{*}figures in crores; calculations on ttm basis; book value adjusted for goodwill where applicable; standalone or consolidated data as available on 30th Sept, 2018.

Increase in infrastructural development and growing demand for refractories from iron and steel industry is driving growth for refractory products, aiding IFGL's revenue growth by 14.9% (yoy) in H1FY19. Controlled expenditure helped it post an uptick of 17.5% (yoy) and 41.3% (yoy) in operating profit and PAT respectively during the same period. IFGL is currently in the midst of capacity expansion at Odisha and Kandla plants entailing total investment of ~Rs 37 crs. In order to provide a total refractory solution to its customers, it is introducing a new product -bricks- and is also expanding pre-cast shapes and monolithic capacities to cater to its overseas customers. It has been allotted a 10 acre land at Visakhapatnam by Andhra Pradesh Government, which should help it take advantages of the port because of its overseas dealings.

Vesuvius recorded topline growth of mere 2.8% (yoy) compared to its peers, while its bottomline de-grew by 1.1% (yoy) in 9MCY18. Higher operating expenses - raw material up by 7.3% - with slowdown in sales led to 6.9% reduction in operating profit. The company's strategy continues to be focus on R&D and to invest in solutions that will enable further automation of customers' production processes. Constant support of the Vesuvius Group in terms of technology, systems and manufacturing should power its business growth and tap growing potential in the refractories industry.



Note: Graphs on standalone or consolidated data as available.





Financials

Quarterly Results Figures in Rs crs

	Q2FY19	Q2FY18	% chg	H1FY19	H1FY18	% chg
Income From Operations	186.70	148.41	25.8	360.79	290.10	24.4
Other Income	5.08	3.05	66.6	11.60	5.54	109.3
Total Income	191.78	151.46	26.6	372.39	295.65	26.0
Total Expenditure	155.32	119.18	30.3	300.88	237.05	26.9
EBITDA (other income incl.)	36.45	32.27	13.0	71.50	58.59	22.0
Interest	-	-	-	-	-	-
Depreciation	2.16	1.75	23.5	4.14	3.39	22.2
PBT	34.29	30.52	12.4	67.37	55.21	22.0
Tax	11.93	10.44	14.4	23.10	18.82	22.8
PAT	22.36	20.09	11.3	44.27	36.39	21.6
Extraordinary Item	-	-	-	-	-	-
Adjusted Net Profit	22.36	20.09	11.3	44.27	36.39	21.6
EPS	1.86	1.67	11.3	3.68	3.03	21.6

Income Statement Figures in Rs crs

	FY16	FY17	FY18	FY19e	FY20e
Income From Operations	458.88	519.39	626.79	777.94	922.33
Other Income	5.38	8.26	10.62	23.00	23.87
Total Income	464.26	527.65	637.41	800.94	946.20
Total Expenditure	373.70	416.03	499.74	640.86	753.94
EBITDA (other income incl.)	90.56	111.62	137.67	160.08	192.26
Interest	0.00	-	-	-	-
Depreciation	5.91	6.31	6.83	8.25	9.35
PBT	84.66	105.32	130.85	151.83	182.91
Tax	28.84	36.41	45.01	52.08	62.74
PAT	55.82	68.91	85.83	99.75	120.17
Extraordinary Item	0.14	-0.02	-0.12	-	-
Adjusted Net Profit	55.68	68.93	85.95	99.75	120.17
EPS (Rs)	4.63	5.74	7.15	8.30	10.00





Balance Sheet				Fig	ures in Rs crs
	FY16	FY17	FY18	FY19e	FY20e
Sources of Funds					
Share Capital	12.01	12.01	12.01	12.01	12.01
Reserves & Surplus	213.61	261.26	310.80	374.40	454.74
Total Shareholders' Funds	225.62	273.27	322.81	386.42	466.76
Long Term Debt	-	-	-	-	-
Total Liabilities	225.62	273.27	322.81	386.42	466.76
Application of Funds					
Gross Block	34.64	43.49	52.98	78.99	90.99
Less: Accumulated Depreciation	0.00	6.24	12.81	21.06	30.41
Net Block	34.64	37.25	40.17	57.93	60.58
Capital Work in Progress	1.57	4.67	14.01	-	-
Investments	0.01	0.00	107.68	-	-
Current Assets, Loans & Advance	ces				
Inventory	64.22	81.38	91.06	140.03	154.03
Trade Receivables	118.50	113.99	159.43	167.40	175.77
Cash and Bank	76.47	110.84	12.72	159.28	230.59
Other Assets	5.10	5.91	15.84	27.75	32.22
Total CA & LA	264.30	312.12	279.04	494.46	592.62
Current Liabilities	79.22	86.03	122.31	167.15	187.41
Provisions-Short term	0.37	0.00	2.73	3.65	4.39
Total Current Liabilities	79.59	86.03	125.04	170.80	191.80
Net Current Assets	184.70	226.08	154.00	323.66	400.82
Net Deferred Tax	0.66	0.37	1.47	-0.40	-0.40
Net long term assets	4.05	4.89	5.48	5.22	5.75
Total Assets	225.62	273.27	322.81	386.42	466.76





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Cash Flow Statement		Figure	s in Rs. crs
	FY18	FY19e	FY20e
Net Income (a)	85.83	99.75	120.17
Non cash Expenses (b)	2.22	-1.68	-7.91
Depreciation	6.83	8.25	9.35
Interest Income	-1.68	-11.80	-17.26
Others	-2.92	1.87	-
Adjustments in NWC and others (c)	-30.82	-23.44	-7.12
Inventories	-9.68	-48.97	-14.00
Other assets (net of liabilities)	-21.14	25.53	6.88
Cash Flow from Operating Activities (a+b+c)	57.24	74.63	105.15
Net Investments	-104.61	107.67	-
Purchase of fixed assets	-19.48	-12.00	-12.00
Interest received	1.68	11.80	17.26
Others	1.44	-0.77	-
Cash Flow from Investing activities	-120.98	106.70	5.26
Net Borrowings	-	-	-
Dividend paid (including CDT)	-35.28	-35.53	-39.09
Cash Flow from Financing Activities	-35.28	-35.53	-39.09
Net Change (a+b+c+d+e)	-99.02	145.80	71.31





Key Financial Ratios

Key Financial Ratios					
	FY16	FY17	FY18	FY19e	FY20e
Growth Ratios (%)					
Revenue	1.7	13.2	20.7	24.1	18.6
EBITDA	6.8	23.6	23.5	16.1	20.1
Net Profit	6.1	23.8	24.7	16.1	20.5
EPS	6.1	23.8	24.7	16.1	20.5
Margins (%)					
Operating Profit Margin	18.7	19.9	20.3	17.6	18.3
Gross profit Margin	19.7	21.5	22.0	20.6	20.8
Net Profit Margin	12.1	13.3	13.7	12.8	13.0
Return (%)					
ROCE	29.3	31.2	32.8	31.5	31.2
ROE	29.7	31.2	32.8	31.5	31.2
Valuations					
Market Cap/ Sales	2.0	3.0	3.1	3.6	3.1
EV/EBITDA	9.4	12.9	13.0	16.7	13.9
P/E	16.6	22.5	22.3	28.3	23.5
P/BV	4.5	6.5	6.7	8.1	6.7
Other Ratios					
Interest Coverage	42221.0	-	-	-	-
Debt Equity	-	-	-	-	-
Current Ratio	2.6	2.6	2.4	2.3	2.5
Turnover Ratios					
Fixed Asset Turnover	13.5	14.4	16.2	15.9	15.6
Total Asset Turnover	2.5	2.4	2.4	2.5	2.4
Debtors Turnover	4.0	4.5	4.6	4.8	5.4
Inventory Turnover	5.5	5.7	5.8	5.5	5.1
Creditor Turnover	6.1	5.6	5.5	5.0	4.7
WC Ratios					
Debtor Days	91.9	81.7	79.6	76.7	67.9
Inventory Days	66.4	63.9	63.0	65.8	71.2
Creditor Days	60.3	65.6	66.5	73.0	78.0
Cash Conversion Cycle	98.0	80.0	76.1	69.5	61.1
Cash Flows					
Operating cash flow			57.2	74.6	105.1
FCFF			41.8	74.4	110.4
FCFE			41.8	74.4	110.4





Cumulative Financial Data

Cumulative Financial Dat				
Rs crs	FY13-14	FY15-16	FY17-18	FY19-20e
Income from operations	764	910	1146	1700
Operating profit	147	166	231	305
EBIT	145	164	236	335
PBT	143	164	236	335
PAT	96	108	155	220
Dividends	32	41	72	83
Sales growth (%)	-	19.1	25.9	48.3
PAT growth (%)	-	13.0	43.2	42.0
OPM (%)	19.2	18.3	20.1	18.0
GPM (%)	19.7	19.2	21.8	20.7
NPM (%)	12.5	11.9	13.5	12.9
ROE (%)	45.0	31.6	31.5	31.0
ROCE (%)	41.3	31.1	31.5	31.0
Debt-Equity ratio*	0.0	0.0	0.0	0.0
Fixed asset turnover	13.3	14.0	15.3	16.9
Total asset turnover	3.6	2.7	2.3	2.4
Debtors turnover	4.7	4.2	4.1	5.1
Creditors turnover	7.3	6.1	5.2	5.1
Inventory turnover	5.7	5.8	5.9	5.7
Debtor days	77.1	87.4	88.5	72.0
Creditor days	50.3	60.2	70.3	72.0
Inventory days	64.4	62.6	61.9	64.1
Cash conversion cycle	91.2	89.7	80.1	64.1
Dividend payout ratio (%)	33.6	37.9	46.7	37.9

FY13-14 implies two year period ending fiscal14;*as on terminal year.

Largely aided by growth in steel industry - major consuming industry of ORL's products - ORL recorded 1.5x rise in revenue in FY17-18 compared to two year period ending FY14. Although margins suffered during FY15-16 period (see table) due to rise in operating costs and global slowdown in steel demand - emanating from China in FY15- it resurrected during FY17-18, thanks to increase in steel production and demand and company's continual programs for improving efficiency in manufacturing processes, leading to 43.2% rise in cumulative after tax profits. Better working capital management further helped improve cash conversion cycle – 80.1 days in FY17-18 vs 89.7 days in FY15-16 period.

With the demand outlook for steel expected to remain higher- as per WSA, Indian steel demand is expected to grow at 6-7% per annum in the next two years- we foresee topline to rise by 48.3% in FY19-20 period (see table). The new Chinese environment tax policy is expected to pose a challenge to availability and pricing of raw material, restricting ORL's profit growth to 42.0% with OPM of 18.0% in the forecasted period. Return ratios (ROE and ROCE) would stand at 31.0% in two years ending FY20.





Financial Summary- US Dollar denominated

Financial Summary- US Donar denominated									
million \$	FY16	FY17	FY18	FY19e	FY20e				
Equity capital	1.8	1.9	1.8	1.7	1.7				
Shareholders funds	30.9	36.6	44.1	49.3	60.2				
Total debt	=	-	=	-	-				
Net fixed assets (including CWIP)	5.5	6.5	8.3	8.2	8.6				
Investments	0.00	0.00	16.6	0.00	0.00				
Net current assets	24.7	29.3	18.1	40.4	50.8				
Total assets	30.9	36.6	44.1	49.3	60.2				
Revenues	70.1	77.4	97.3	110.7	131.2				
EBITDA	13.8	16.6	21.4	22.8	27.4				
PBDT	13.8	16.6	21.4	22.8	27.4				
PBT	12.9	15.7	20.3	21.6	26.0				
PAT	8.5	10.3	13.3	14.2	17.1				
EPS(\$)	0.07	0.09	0.11	0.12	0.14				
Book value (\$)	0.26	0.30	0.37	0.41	0.50				
Operating Cash Flow			8.8	10.6	15.0				
Investing Cash Flow			-18.6	15.2	0.7				
Financing Cash Flow			-5.4	-5.1	-5.6				
Net Cash Flow			-15.2	20.7	10.1				

Income statement figures translated at average rates; balance sheet at year end rates; projections at current rates (Rs 70.28/\$). All dollar denominated figures are adjusted for extraordinary items.



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Exchange Rates Used- Indicative

buy: >20%

Rs/\$	FY15	FY16	FY17	FY18
Average	61.15	65.46	67.09	64.45
Year end	62.59	66.33	64.84	65.04

accumulate: >10% to \leq 20% hold: \geq -10% to \leq 10%

All \$ values mentioned in the write-up translated at the average rate of the respective quarter/year as applicable. Projections converted at current exchange rate. Cumulative dollar figure is the sum of respective yearly dollar value.

reduce: \geq -20% to <-10%

sell: <-20%