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BP WEALTH

MOIL LIMITED

Initiating Coverage



Mining the value beneath

April 2018



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Company Background

MOIL, originally incorporated in the year 1962 was held by the Government under the administrative control of the Ministry of Steel until it got listed in the year 2010. It is a market leader with 42% of market share and fulfills 50% of India's total requirement of dioxide ore. It has been awarded Schedule A Miniratna Category - I status from Government of India. It produces and sells different grades of manganese ore which includes high grade, medium grade, blast furnace grade and manganese dioxide. The business derives ~92% of its revenue from manganese ore and ~5% from ferro manganese alloy and rest from power business. Headquartered in Delhi, MOIL operates 10 mines, six located in the Nagpur and Bhandara districts of Maharashtra and four in the Balaghat district of Madhya Pradesh of which 3 of them are worked through open source method and the rest of the mines are worked through underground method. In order to promote non-conventional energy resources, MOIL has installed 4.8 MW and 15.2 MW Wind Energy Farm in Madhya Pradesh.

Investment Rationale**Leadership position in domestic manganese industry**

MOIL is the largest producer of manganese ore in India by contributing 1.1 million tonnes of manganese for 2016-17 from the total production of the country for 2016-17 at around 2.4 million tonnes, MOIL continues to be the market leader in the manganese industry. MOIL has a total lease area of 1743.77 hectares spread across various states mainly at Madhya Pradesh and Maharashtra and also abundant with its manganese reserves of about 81.5 million tonnes as on 2016-17. The Government has also reserved a total area of 988.181 hectares under various categories prospecting for manganese ore. These includes 311.593 hectares under mining leases in the State of Maharashtra and Madhya Pradesh, 464.98 hectares under prospecting license (PL) and 211.608 hectares under reservation in the State of Maharashtra. In addition, Government of Madhya Pradesh has also reserved a new area of 372.701 hectares in favour of MOIL which is adjacent to its Balaghat mine. Company has planned to enhance its production from present level of around 1.1 million MT to 2 million MT by 2020, 2.5 million MT by 2025 and 3 million MT by 2030. This will further benefit the company to strengthen and capture the market share of the domestic manganese industry.

Operating Leverage benefit to boost margins

MOIL has benefit on cost of production front as the mines in the states of Maharashtra and MP have been allocated to MOIL on lease for long term, owing to such cost are more of fixed in nature than that of variable to sales. The mines are located mainly in central India close to major steel production region which attributes low transportation cost of manganese ore. Given its proven 81.5 million tonnes high grade reserves and resources, low cost mining operations and dominant position helps the Company to capitalize on domestic steel demand growth. The Manganese demand to remain strong with ramp up of existing steel capabilities and commissioning of new capacities. Besides this, anti dumping duty on steel products till FY2021 will aid the demand for manganese ore. Globally driven by tight supply and restocking of the inventories, international prices of manganese ore has rebounded to multi year high of over \$7/dmtu. Backed by high international price, MOIL had increased prices across all grades by 5 - 10% in the month of March, 2018, and thereafter it further hiked prices by 5 - 12% in the month of April 2018. In FY2017, Company had weighted average COGS Rs.5596/ton and in last 12 years manganese price never fell below this level. It has high to medium grade quality of reserves as compared to medium to low grade reserves available across various parts of India.

Stock Rating

BUY	HOLD	SELL
> 15%	-5% to 15%	< -5%

Sector Outlook

Positive

Stock

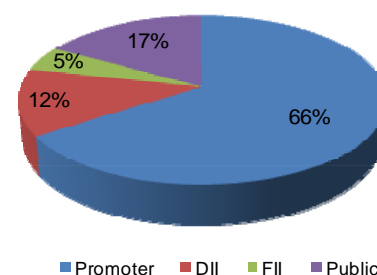
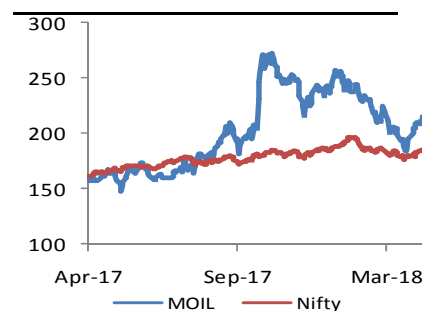
CMP (Rs)	215
Target Price (Rs)	283
BSE code	533286
NSE Symbol	MOIL
Bloomberg	MOIL IN
Reuters	MOIL.BO

Key Data

Nifty	10,561
52 Week H/L (Rs)	285/147
O/s Shares (Mn)	257.6
Market Cap (Bn)	57.8
Face Value (Rs)	10

Average volume

3 months	4,89,870
6 months	8,89,510
1 year	6,05,930

Share Holding Pattern (%)**Relative Price Chart****Research Analyst**

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Owing to this, Company is able to generate better realizations compared to other players as higher purity ore garners better prices. Realizations generated by MOIL are close to Rs. 8489/ton for FY2017. This dual advantage of low cost mining and higher realizations has aided MOIL posting better profitability across cycles. This consistent performance was also tested in FY2016 when prices of manganese ore were dropped by 50% and MOIL was able to successfully post 11% EBITDA margin that year.

Increasing production to cater strong demand

MOIL is in process of increasing its volume to 2.1MTPA by FY21 and to 3 MPTA by FY30 through expansion in existing mines and exploration at new sites. To meet the growing expectations in the market, MOIL has planned investments for development of existing mines, acquisition of new mines within and outside the country, acquisition of areas adjoining the mines, setting up value addition and diversification projects. MOIL has a record of continuous capex every year and currently, investment proposals of around 879 crores have been allotted as part of the strategic management plan for the growth of the company. Out of 879 crores of capex outlay 460 crores will be utilized to set up and commission 75000 metric tonnes of Ferro Alloys manufacturing units by the end of 2021 of which the plant at Balaghat Mine will give an output of 50,000 MTPA and the plant at Gumgaon Mine will give an output of 25,000 MTPA. And balance 419 crores will be utilized to take up various mine development and expansion projects which includes setting up of high speed shaft at Balaghat and Gumgaon Mines. These projects are expected to double production of these mines from about 3.7 lakh tonnes to 7.4 lakh tonnes and will help in sustaining as well as increasing production to a level of 2.0 million tonnes by FY2020. MOIL will utilize the cash reserves and future accruals to provide for the investments.

Financial Performance to improve further

MOIL has made a great comeback in FY2017 with increase in EBITDA margins from 11% and PAT margins from 28% in FY2016 to 30% and 31% respectively. RoCE and RoE have also witnessed significant improvement from 0.5% and 5% respectively in FY2016 to 8% and 10% each in FY2017. Going forward, we expect return ratios (RoCE and RoE) to see further improvement and reach 18% and 16% by FY2020E. MOIL remains one of the strongest balance sheet companies in the Indian mining sector with zero debt, Rs 2200 crores cash on its books as on FY2017 and having track record of consistently positive free cash flows. The cash and cash equivalents account for almost 38% of its current market cap. The company is well placed to fund its capex of Rs. 479 crores going forward backed by its strong cash flow. Besides this, dividend yield is likely to remain in the range of 2 - 3% in coming years. Higher liquidity and attractive dividend yield provide a high margin of safety.

Why we like this stock & valuation methodology

With improvement in ore prices and higher volumes in coming years MOIL is expected to report strong profitability of Rs 607 crores and cash and equivalents to clock Rs.30 billion in FY2020. Given its strong business model backed by low cost operations, robust balance sheet and improvement in demand owing to rising domestic steel production, We estimate Revenue/EBITDA/PAT to clock 20%/37%/26% CAGR during FY2017 - FY2020E. Further, firm rise in global manganese ore prices and visibility of improvement in domestic demand of high to medium grade manganese ore, We believe MOIL will be able to deliver above our expectations, since our estimates are conservative. We initiate coverage on the stock & recommend 'BUY' rating by assigning PE 12x which is 20% discount to 5 year average of 15x to its FY20E earnings. We arrive at a target price of Rs. 283 (potential upside of 32% from CMP) for an investment horizon of 15 - 18 months.

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Key Financials

YE March (Rs. mn)	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Revenue	10,213	8,233	6,287	9,819	13,077	15,133	16,841
<i>Revenue Growth (Y-o-Y)</i>	5.6%	(19.4%)	(23.6%)	56.2%	33.2%	15.7%	11.3%
EBITDA	5,012	3,790	706	2,983	5,358	6,739	7,618
<i>EBITDA Growth (Y-o-Y)</i>	15.3%	(24.4%)	(81.4%)	322.7%	79.7%	25.8%	13.1%
Net Profit	5,096	4,280	1,730	3,058	4,361	5,414	6,071
<i>Net Profit Growth (Y-o-Y)</i>	18.0%	(16.0%)	(59.6%)	76.8%	42.6%	24.1%	12.1%
Diluted EPS	19.8	16.6	6.7	11.9	16.9	21.0	23.6
<i>Diluted EPS Growth (Y-o-Y)</i>	18.0%	-16.0%	-59.6%	76.8%	42.6%	24.1%	12.1%
No of Diluted shares (mn)	258	258	258	258	258	258	258

Key Ratios

EBITDA (%)	49.1%	46.0%	11.2%	30.4%	41.0%	44.5%	45.2%
NPM (%)	49.9%	52.0%	27.5%	31.1%	33.4%	35.8%	36.0%
RoE (%)	17.3%	13.2%	5.1%	9.8%	14.4%	15.7%	15.7%
RoCE (%)	15.8%	10.3%	0.5%	7.9%	15.8%	17.6%	17.6%
Tax Rate %	33.8%	34.2%	36.0%	33.8%	33.0%	33.0%	33.0%
Book Value Per share (Rs.)	186.2	201.3	206	211	126	142	159

Valuation Ratios

P/E (x)	10.9x	13.0x	32.2x	18.2x	12.8x	10.3x	9.2x
P/BV (x)	1.2x	1.1x	1.1x	1.0x	1.7x	1.5x	1.4x
EV/EBITDA (x)	1.7x	2.1x	11.0x	2.6x	5.8x	4.2x	3.3x
EV/Sales	0.8x	1.0x	1.2x	0.8x	2.4x	1.9x	1.5x
Market Cap./ Sales (x)	3.6x	4.4x	5.8x	2.9x	4.3x	3.7x	3.3x
Dividend Yield (%)	4.1%	4.7%	2.8%	2.8%	2.0%	2.5%	2.8%

Source: Company, BP Equities Research

Global and Domestic manganese industry scenario

Global manganese industry

Most manganese production globally is concentrated in four countries: Australia, China, Gabon, and South Africa. 90% of the world's manganese reserves are found in these four countries, along with Brazil and Ukraine. South Africa's deposits tend to be high-grade. Australia, Gabon, and Brazil, however, feature even higher grade deposits. The global manganese demand is around 40MTPA with China being major producer and consumer of Manganese ore on account of home to 50% of world steel capacity. The quality of ore in China is inferior due to which country ends up importing major part of its demand. In FY2016 due to low manganese prices, some mines were shutdown which has added to further fall in manganese ore supply (close to 11.5 million to of Chinese mines have been closed). United States has no manganese reserves (or some reserves with very low grade manganese make it mining irrelevant), as is the case for many other industrialized developed countries, especially in Europe. All manganese ore consumed is majorly imported. Unlike steel, where demand is notoriously steady, the supply of manganese is declining. This is one of the imbalances that resulted in the recent upward price action in manganese. The price of manganese has risen over 37% since the beginning of FY2017. The recent recovery in manganese ore prices globally has been driven by combination of both supply shortage and inventory shore up by manganese alloy makers. Clearly, the widening gap between supply and demand in the manganese space should lead to a healthy price increase over the next few years. We believe that manganese explorer, in particular, is poised to take advantage of this dynamic situation.

Factors which would drive manganese prices

- ⇒ Increasing demand for Steel due to global recovery and large markets like USA, Europe and India undertaking protection measures to safe guard their domestic steel industry.
- ⇒ Mine closures in China on account of relatively lower prices of manganese as wages & operating cost in China have risen significantly over last decade which has led to losses at mine level.
- ⇒ Increasing use in Electric vehicles as LMD batteries which are used in small EV use Manganese is at 61% while Nickel batteries used in Hybrid vehicles are also using manganese.
- ⇒ Rising gold prices have inverse effect of South African currency ie whenever gold prices appreciate south African currency turns stronger making it non-competitive in global markets. Major manganese reserves are located in South Africa and it is largest exporter of manganese ore globally. With stronger currency South African exports are expected to become costlier leading to more closure on some high cost manganese mines.

Factors which would correct manganese prices

- ⇒ Slowdown in China to affect steel production volumes thus affecting Manganese demand
- ⇒ Sudden spurt in Prices can re-open old mines aiding manganese ore supply

Domestic Manganese Industry

The Indian economy has held up better than other emerging countries to the global economic slow-down and has benefited from Government's infrastructure spending in recent years. India's GDP increased to 7.1 per cent in 2016-17 and is expected to stabilize thereafter. India's GDP is expected to reach US\$ 6 trillion by FY27 compared to the current GDP of US\$2.2 trillion and the infrastructure sector will be key driver for the GDP growth. As about 50% of the steel is utilized by the infrastructure sector, the steel sector is intrinsically linked with the economic growth of a nation. High economic growth in India in the last 10 years has led to an increase in demand for steel and moved the Indian steel industry into a new stage of growth and development. The increase in demand from sectors like construction, infrastructure and automobiles are expected to increase steel consumption going forward. India's crude steel output grew 5.87 per cent year-on-year to 101.2 million tonnes in FY17. India is expected to overtake Japan to become the world's second largest steel producer soon. As per latest National Steel Policy, 2017, India has set a target to achieve 300 million tonnes of annual steel production by 2025-30. This huge scope is supported by India's low per capita consumption of steel of 61kg compared to the global average of 214kg. Moreover, the difference in the per capita consumption of steel in itself reflects opportunities that are bound to occur for Steel Industry which in turn would positively impact the demand for manganese ore.

FY2017
Domestic market size
~Rs. 34,425 mn

Market Share In Manganese Ore (India)

MOIL	23%
Others	28%
Imports	49%

Source: Company

Factors which would trigger Re - rating for the stock

- ⇒ Double digit growth rate in domestic steel industry
- ⇒ Steady rise in global manganese ore prices
- ⇒ Company achieving its volume guidance of 2.0 MTPA by FY2020. This is bigger trigger as we have conservatively accounted only 1.5 MTPA.
- ⇒ Any acquisition would mean more efficient use of large cash balance lying in balance sheet.
- ⇒ Timely completion of on - going projects and environmental approvals will directly adds to incremental volumes.
- ⇒ Company has made 2 buybacks and returned Rs.1070 crores to its shareholders. (19% of current market cap.)

Key Risks which could encapsulate growth in income

- ⇒ Increase in Royalty expense
- ⇒ Further pay revision for employees after 7th pay hike.
- ⇒ Surge in imports of steel from China as it would lead to disadvantage of loss in domestic steel production
- ⇒ Increase in imports of manganese ore from South Africa, Gabon, Australia etc. being there quality of ores are better than that domestically available.

As about 95% of the world's production of manganese is utilized for alloying in steel to increase the strength of steel, manganese is essential for the production of steel. The remaining 5% is used by the non-alloying industries, which include chemical, paint, fertilizer, and battery industries, and in the production of manganese metal. In iron and steel industry, manganese ore is used both directly and in the form of ferroalloys namely, ferromanganese and silicomanganese. The demand for manganese ore and ferro alloy products depends directly on the outlook of the steel industry which, in turn, is dependent on growth of overall economy. With the emerging new applications for steel and more sophisticated steel applications, the global steel market has a potential to grow further between 700 to 1000 million tonnes in the next 50 years which is about 60% larger market than that of today. With the commitment of the Government towards infrastructure development in the country, the demand of steel is expected to increase which, in turn, will provide a great opportunity for the manganese ore industry in the country as well.

Industry	Percentage Share %
Silicomanganese	64.42
Ferromanganese	28.95
Iron & Steel	6.17
Battery	0.35
Lead & Zinc Metallurgy	0.04
Chemical	0.04
Others	0.03
All Industries	100.00

Source: Indian Bureau of Mines, BP Equities Research

As per industry number it takes 36-38kg of Manganese to manufacture one ton of steel. The Overall demand for Manganese ore in FY2017 is around 4MPTA. India has total manganese reserves and resources of 495.87 million ton and MOIL has 16.4% of total domestic reserves.

Demand Forecast of Manganese Ore (FY18 to FY30)

(In million tonnes)

Year	Demand Forecast
FY18	6.12
FY19	6.53
FY20	6.97
FY21	7.5
FY22	8.03
FY23	8.55
FY24	9.13
FY25	9.79
FY26	10.47
FY27	11.22
FY28	11.99
FY29	12.85
FY30	13.72

Source: Indian Bureau of Mines, BP Equities Research

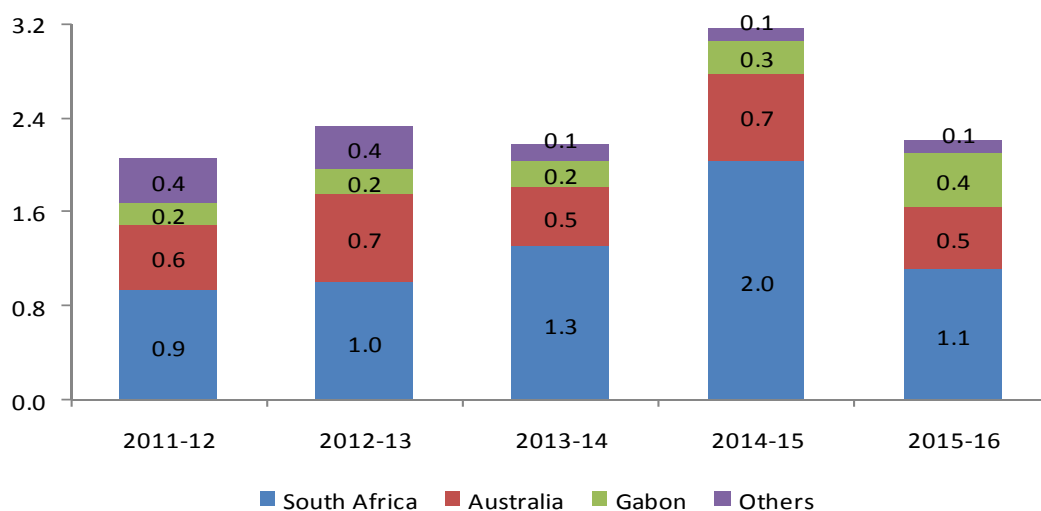
Major mining players are divided state wise with MOIL controlling mines in Maharashtra and MP, Tata steel, Rongta and OMML in Odisha, Sandur Manganese & ore in Karnataka. The mentioned states are home to 87% of total deposits in India and dominated by Odisha & Karnataka with 44% and 22% share respectively.

Company	State
MOIL Ltd	Maharashtra & Madhya Pradesh
Tata Steel Ltd	Odisha
Orissa Manganese & Minerals (P) Ltd	Odisha
Mangilal Rungta	Odisha
Sandur Manganese & Iron Ore	Karnataka
RBSS & FN DAS (Rai Bahadur Seth Shiram Durgaprasad)	Andhra Pradesh

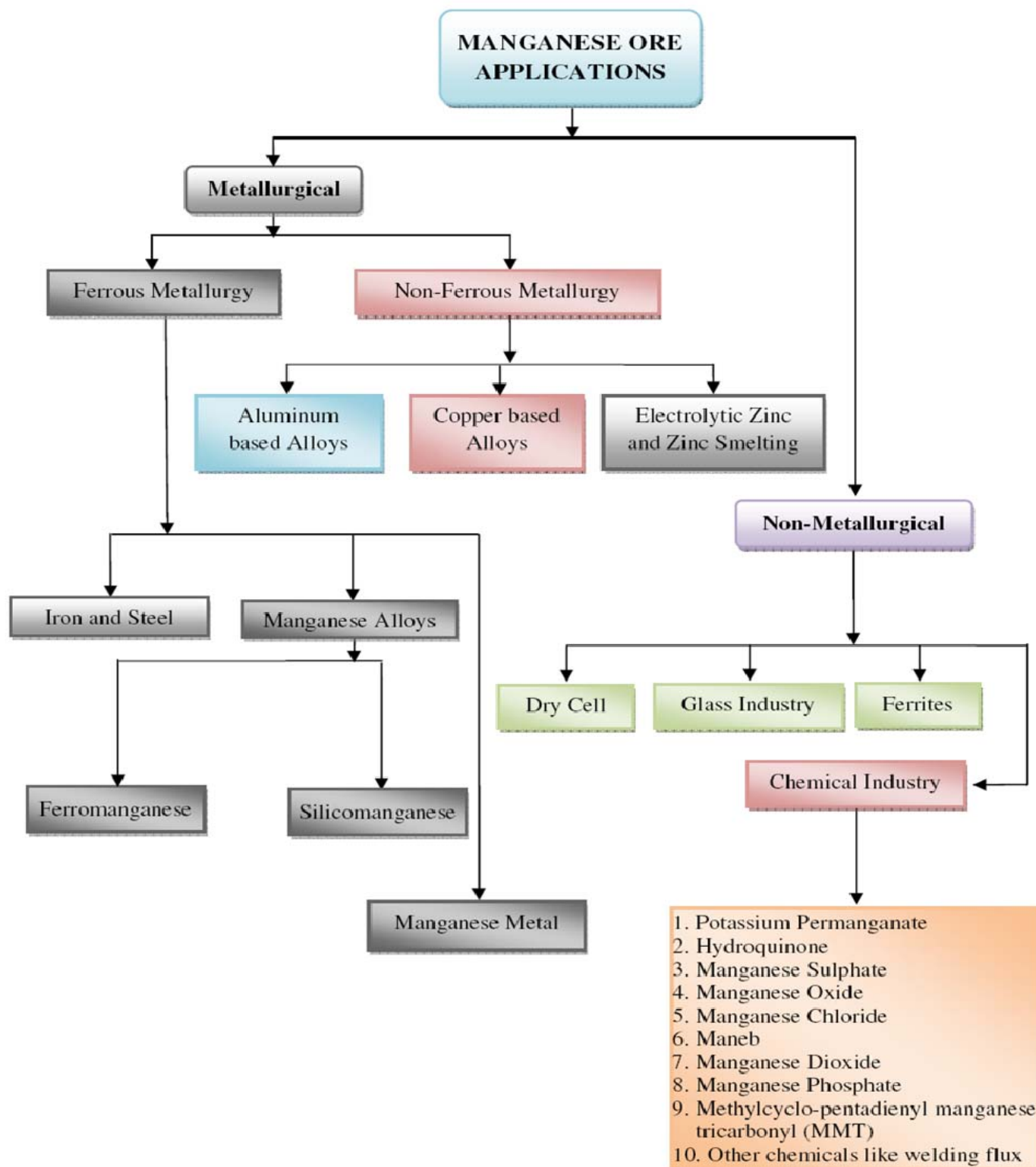
Source: Company Presentation

In 2016-17, 66% of the total production was of lower grade (below 35% Mn), 23% of medium grade (35-46% Mn) and 10% was of high grade (above 46% Mn) Quality of the manganese available in India is poor with only 30-33% of manganese content due to which approx. 50% of the total demand for manganese ore is fulfilled through imports. The major countries exporting ore to India are South Africa (1.1MT), Australia (0.5MT), Gabon (0.44MT). With the demand of steel growing at high single digits in India and the domestic steel industry benefiting from duty protection against cheap Chinese steel imports the growth in steel production in India is expected to rise in more secular way this decade. Hence we expect the overall demand for Manganese ore to continue to grow in-line with steel industry. Companies with better grade reserves like MOIL are expected to grow faster than overall industry growth both in Volume and value terms.

Import of manganese ore in India (in million tonnes)



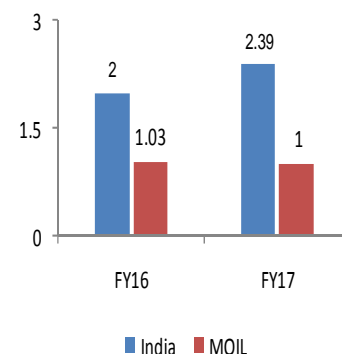
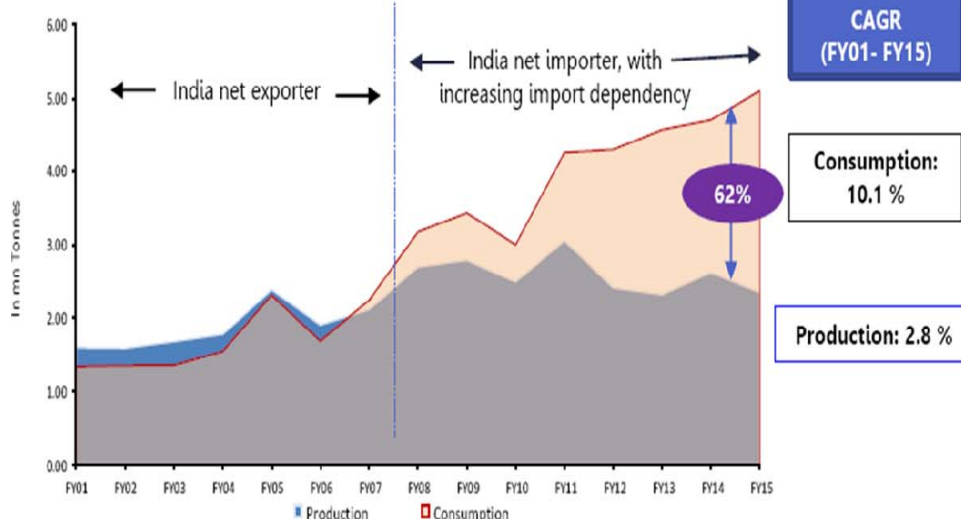
Source: Company Presentation, BP Equities



Source: Company Presentation

Investment Rationale
Leadership position in domestic manganese industry

MOIL is the largest producer of manganese ore in India with a share of about 42% of India's total manganese production. Out of total Indian manganese industry level production of 2.4 million tonnes, MOIL produced 1.1 million tonnes of manganese ore. It produces and sells High grade ores for production of ferro manganese, Medium grade ore for production of silico manganese, Blast furnace grade ore for production of hot metal and Dioxide for dry battery cells and chemical industries. It has set up a plant using indigeneous technology to manufacture 1000 metric tonnes per annum capacity of Electrolytic manganese dioxide (EMD). MOIL produces high quality of EMD and it is well accepted by the industry. Further, it has set up a ferro manganese plant having a capacity of 10000 metric tonnes per annum with an aim for forward integration in a value added products. MOIL has a total lease area of 1743.77 hectares spread across various states mainly at Madhya Pradesh and Maharashtra and also abundant with its manganese reserves of about 81.5 million tonnes for the year 2016-17. The Government has also reserved a total area of 988.181 hectares under various categories for prospecting, mining leases and exploitation of manganese ore. India being deficit in high quality manganese ore, imports was the only option to satisfy demand. Lately, through strategic management plan, MOIL is ramping up high quality manganese ore to reduce India's dependency on imports. In FY2017 imports of manganese ore reduced from 2.21 million tonnes in FY2016 to 1.91 million tonnes in FY2017. MOIL has planned to enhance its production from present level of around 1.1 million MT to 2 million MT by 2020, 2.5 million MT by 2025 and 3 million MT by 2030. This will further benefit the company to strengthen and capture the market share of the domestic manganese industry.

Manganese production

Manganese : Demand Supply Gap


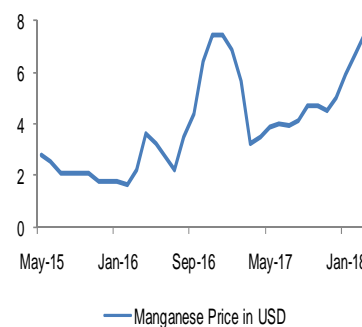
- The key demand drivers have been increasing steel production
- India has only 20% of high & medium grade reserves & the rest account for low grade ore reserves.
- With increasing demand for SiMn, the imports of medium grade ore (35-44% Mn) has increased.

Source: Company Presentation

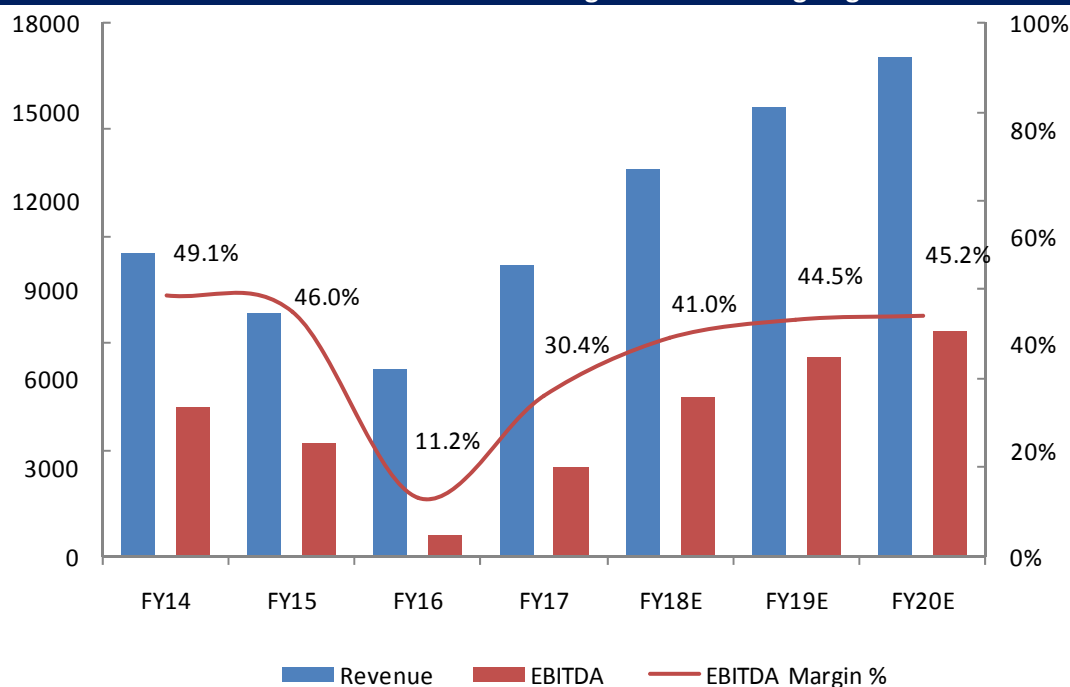
Operating Leverage benefit to boost margins

MOIL has benefit on cost of production front as the mines in the states of Maharashtra and MP have been allocated to MOIL on lease for long term, owing to such cost are more of fixed in nature than that of variable to per rupee of sales. The mines are located mainly in central India close to major steel production region which attributes low transportation cost of manganese ore. Given its proven 81.5 million tonnes high grade reserves and resources, low cost mining operations and dominant position helps the Company to capitalize on domestic steel demand growth. The Manganese demand to remain strong with ramp up of existing steel capabilities and commissioning of new capacities. Besides this, anti dumping duty on steel products till FY2021 will aid the demand for manganese ore. Globally driven by tight supply and restocking of the inventories, international prices of manganese ore has rebounded to multi year high of over \$7.5/dmtu. Backed by high international price, MOIL had increased prices across all grades by 5 - 10% in the month of March, 2018, and thereafter it further hiked prices by 5 - 12% in the month of April 2018. In FY2017, Company had weighted average COGS Rs.5596/ton and in last 12 years manganese price never fell below this level. It has high to medium grade quality of reserves as compared to medium to low grade reserves available across various states in India. Owing to this, Company is able to generate better realizations compared to other players as higher purity ore garners better prices. Realizations generated by MOIL are close to Rs. 8489/ton for FY2017. This dual advantage of low cost mining and higher realizations has aided MOIL posting better profitability across cycles. This consistent performance was also tested in FY2016 when prices of manganese ore were dropped by 50% and MOIL was able to successfully post 11% EBITDA margin that year.

Manganese price trend (USD/DMTU)



Dual Benefit : Revenue and EBITDA Margin to accelerate going forward



Source: Company, BP Equities Research

Increasing production to cater strong demand

MOIL is in process of increasing its volume to 2.1MTPA by FY21 and to 3 MPTA by FY30 through expansion in existing mines and exploration at new sites. To meet the growing expectations in the market, MOIL has planned investments for development of existing mines, acquisition of new mines within and outside the country, acquisition of areas adjoining the mines, setting up value addition and diversification projects. MOIL has a record of continuous capex every year and currently, investment proposals of around 879 crores have been allotted as part of the strategic management plan for the growth of the company. Out of 879 crores of capex outlay 460 crores will be utilized to set up and commission 75000 metric tonnes of Ferro Alloys manufacturing units by the end of 2021 of which the plant at Balaghat Mine will give an output of 50000 MTPA and the plant at Gumgaon Mine will give an output of 25000 MTPA. And balance 419 crores will be utilized to take up various mine development and expansion projects which include setting up of high speed shaft at Balaghat and Gumgaon Mines. These projects are expected to double production of these mines from about 3.7 lakh tonnes to 7.4 lakh tonnes and will help in sustaining as well as increasing production to a level of 2.0 million tonnes by FY2020. MOIL will utilize the cash reserves and future accruals to provide for the investments.

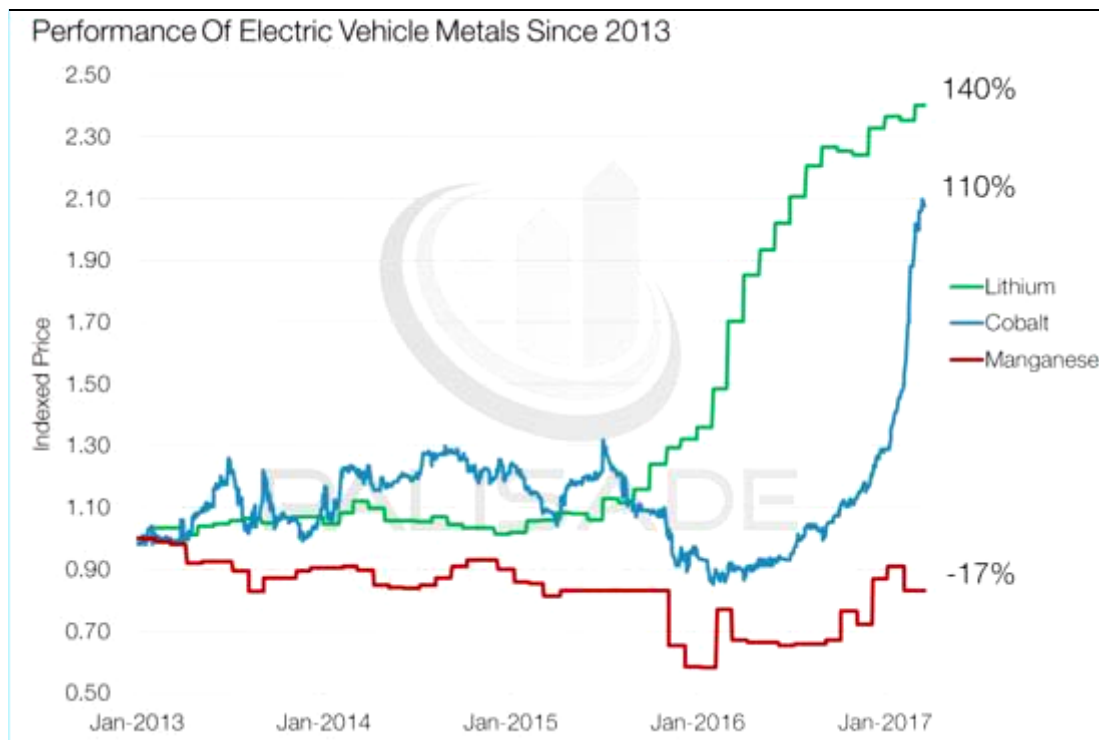
Sr. No.	News Projects	Capex (in Cr.)	Expected year of completion
1	Deepening of Holmes shaft from 12th level to 16.5 level	28.3	2016-17
2	Sinking of 2nd vertical shaft at Chilka mine. The shaft diameter is 4.5 meters, having a depth of 160 meters	48.7	2018-19
3	Deepening of Vertical shaft at Kandri mine by 57 meters	14.8	2018-19
4	Sinking of 2nd vertical shaft at Munsar mine. The shaft diameter is 4.5 meters, having a depth of 160 meters	51.3	2019-20
5	Sinking of 2nd vertical shaft at Ukwa mine. The shaft diameter is 5.5 meters, having a depth of 324 meters	77.1	2020-21

Acquisition of mines

In line Strategic Management Plan of the Company, there are plans to have strategic alliances coupled with offtake agreements with manganese ore producers abroad. An open-ended Expression of Interest (EoI) has been hosted on the website of the company with a view to seek offers in this regard. Evaluation of offers is done as and when the same are received. With the recent amendments in the Mines and Minerals (Regulation and Development) Act, 1957, the company has signed MoU with Government of Madhya Pradesh for exploring of manganese ore deposits in the State. If and when the reserves are established, the company may go ahead with steps resulting in mining of the ores in the near future in terms of the MoU.

Manganese - A overlooked Electric Vehicle play

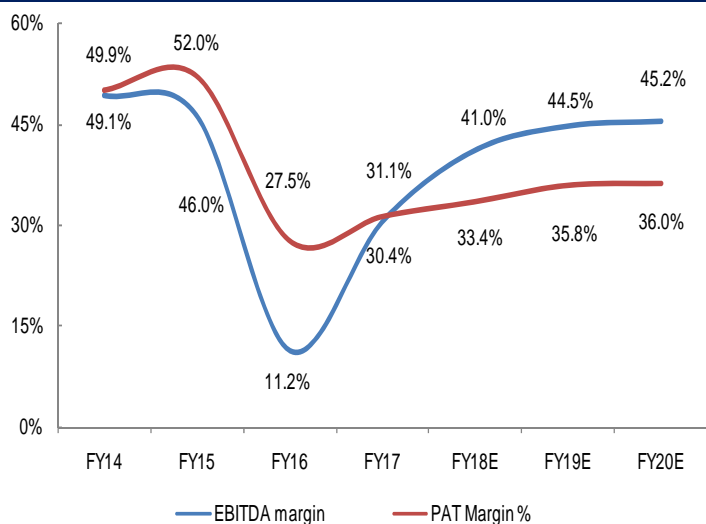
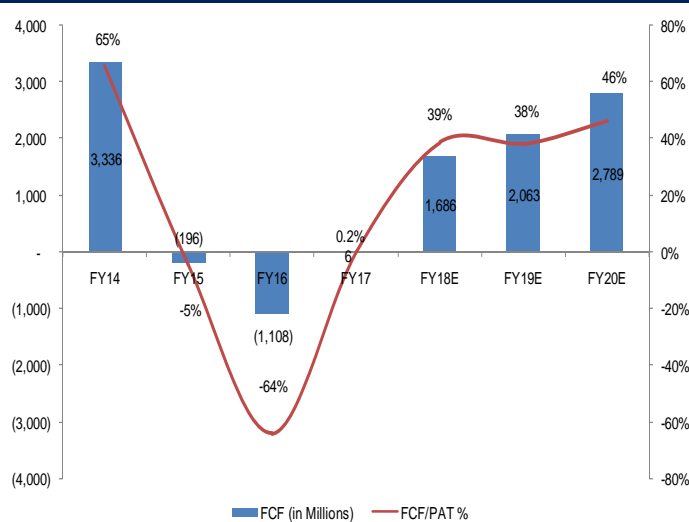
Lithium and cobalt have been on absolute demand, riding the wave of broader electric revolution. There is another metal, however, used widely as a battery component that has received less notice from the markets. The metal is Manganese, a chemical element that is normally used in steel industry. Since the beginning of 2016, cobalt's price has jumped 120%, lithium has moved up 77%, and manganese has recorded a 42% gain. While all three metals have seen their prices rise recently, it appears that manganese has been outshined by its two fellow EV metal counterparts. Moving forward, significant growth in the manganese market is expected due to its applications in clean energy. More specifically, growing use of nickel - metal hydride (NiMH) electric vehicle batteries and lithium - ion (Li - ion) batteries to be major catalysts for manganese demand. NiMH batteries are predominantly used in hybrid vehicles while Li - ion battery, of course, takes centre stage in pure electric vehicles. The newest up coming technology to use manganese is so - called lithiated manganese dioxide (LMD) battery. A typical LMD battery uses 61% of manganese in its mix and only 4% lithium. LMDs have numerous benefits, including providing higher power output, thermal stability, and improved safety compared to regular lithium - ion batteries. In summation, there are several drivers that will support manganese demand going forward.



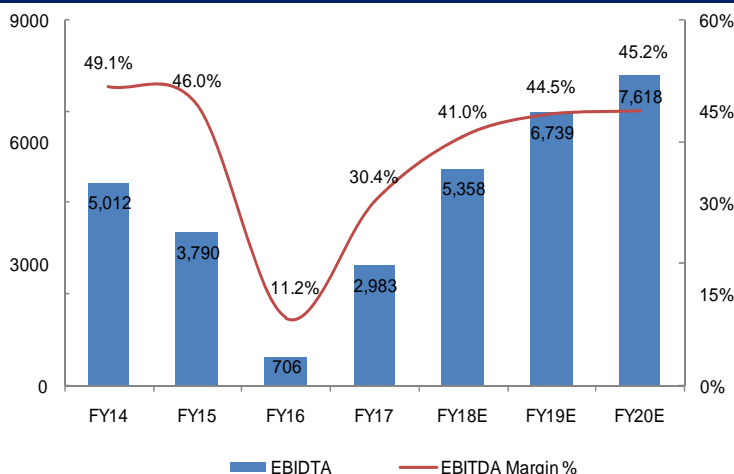
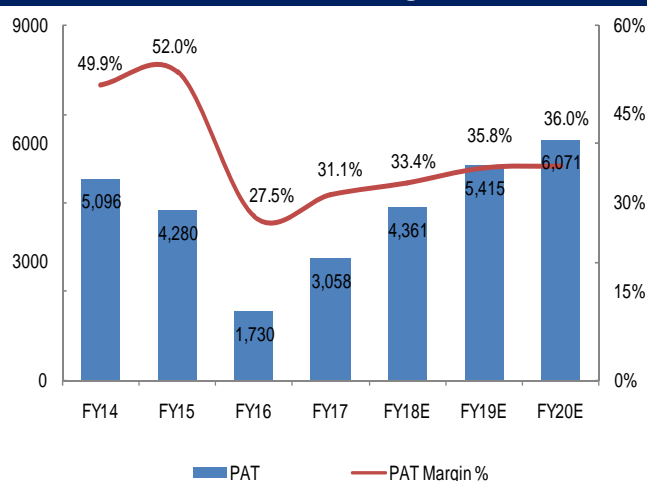
Source: Mining.com

Financial Performance and Balance sheet to remain robust

MOIL has made a great comeback in FY2017 with increase in EBITDA margins from 11% and PAT margins from 28% in FY2016 to 30% and 31% respectively. During FY2016, EBITDA margins of company fall to 11% due to falling manganese ore prices. With the increase in manganese ore prices the margins are expected to recover to 45% by FY2020E as major expenses are fixed in nature. RoCE and RoE have witnessed significant improvement from 0.5% and 5% respectively in FY2016 to 8% and 10% respectively in FY2017. Going forward, we expect return ratios (RoCE and RoE) to see further improvement and reach 18% and 16% respectively by FY2020E. MOIL remains one of strongest balance sheet companies in Indian mining sector with Rs 2200 crores cash on its books as on FY17 and having track record of consistently positive free cash flows. Further it is a debt free company with a robust balance sheet and a healthy liquidity position. Despite the buyback of shares, we expect cash and cash equivalents to be around Rs3000 crores at the end of FY2020E. The strong balance sheet, makes the company better placed to expand its mining capacity and to acquire other mines. The company is well placed to fund its capex of Rs. 479 crores going forward backed by its strong cash flow. Besides this, dividend yield is likely to remain in the range of 2-3% in the coming years. Higher liquidity and attractive dividend yield provide a high margin of safety.

Consistently improving EBITDA and PAT Margins

Free Cash Flow to improve going forward


Source: Company, BP Equities Research

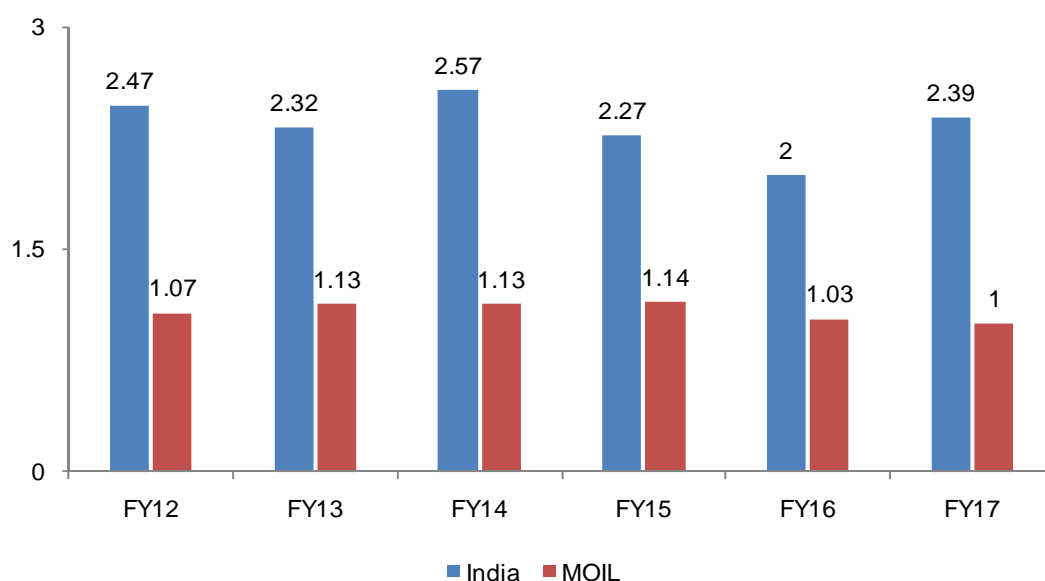
EBITDA and EBITDA Margins %

PAT and PAT Margins %


Source: Company, BP Equities Research

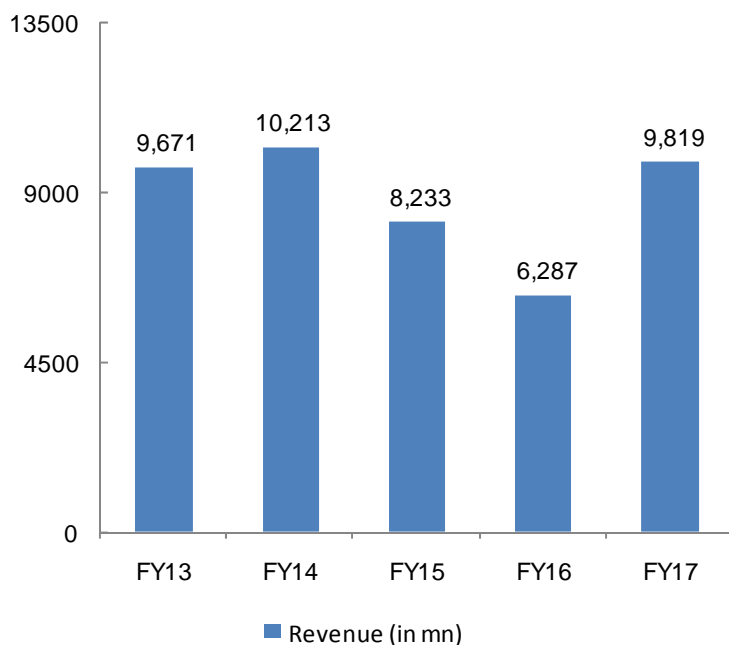
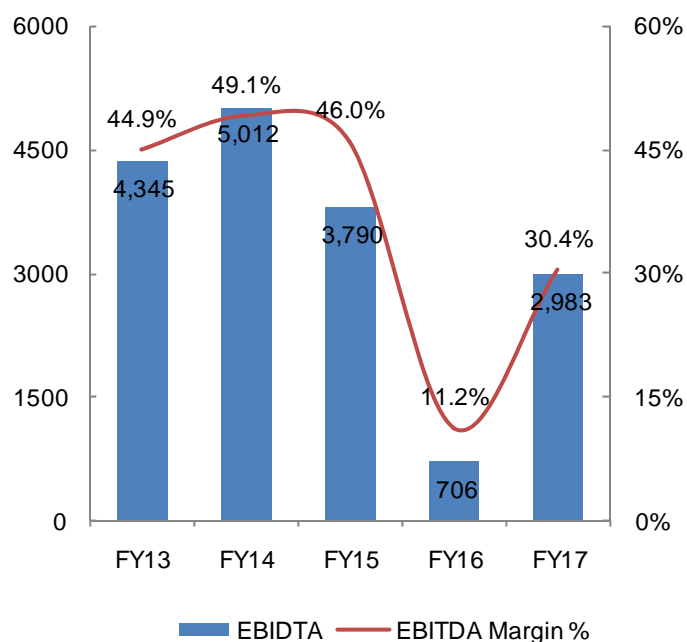
Company Background

MOIL, originally incorporated in the year 1962 was held by the Government under the administrative control of the Ministry of Steel until it got listed in the year 2010. It is a market leader with 42% of market share and fulfills 50% of India's total requirement of dioxide ore. It has been awarded Schedule A Miniratna Category - I status from Government of India. It produces and sells different grades of manganese ore which includes high grade, medium grade, blast furnace grade and manganese dioxide. The business derives ~92% of its revenue from manganese ore and ~5% from ferro manganese alloy and rest from power business. Headquartered in Delhi, MOIL operates 10 mines, six located in the Nagpur and Bhandara districts of Maharashtra and four in the Balaghat district of Madhya Pradesh of which 3 of them are worked through open source method and the rest of the mines are worked through underground method. In order to promote non-conventional energy resources, MOIL has installed 4.8 MW and 15.2 MW Wind Energy Farm in Madhya Pradesh. It produces around 1.1 MTPA which is expected to grow going forward.

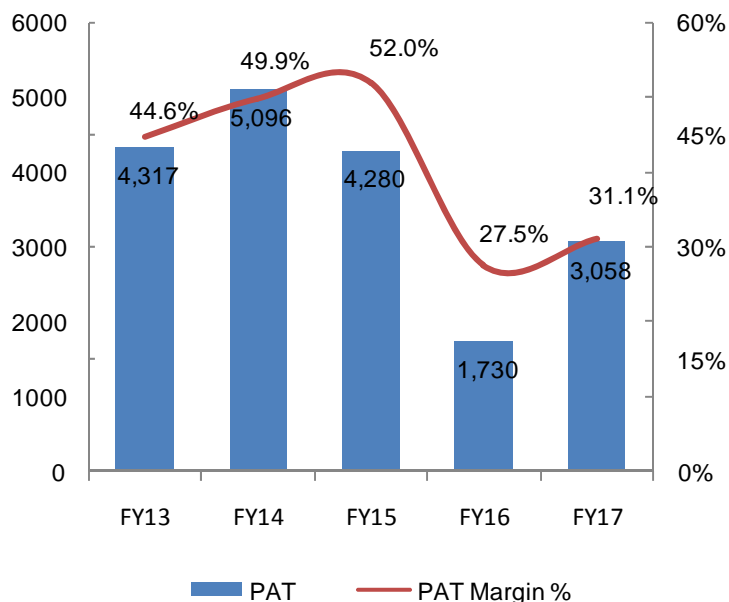
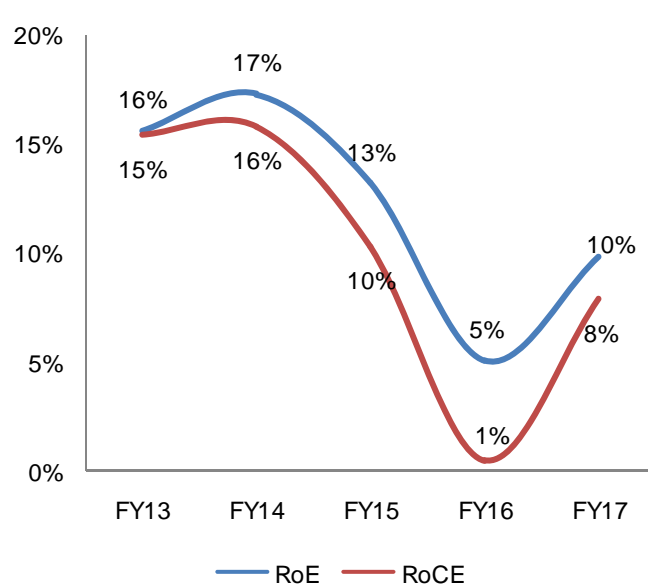
Segment wise revenue break up	(Rs. in million)	% of total revenue
Mining products	8,488	92%
Ferro Alloys	661	7%
Power	110	1%
Total	9,259	100%

Production of manganese ore (in million tonnes)


Source: Company Presentation

Financial Highlights
Revenue (Rs in mn)

EBITDA (Rs in mn) and Margin %


Source: Company, BP Equities Research

PAT (Rs in mn) and Margin %

ROE and ROCE trend


Source: Company, BP Equities Research

Key Milestones

1889	Central Prospecting Syndicate was formed to prospect for manganese deposits.
1889	The First Prospecting License was taken in 1899 at Munsar and work commenced in the same year
1908	The Syndicate was converted in to a Public Company as Central Provinces Manganese Ore Company Limited (CPMO) incorporated in UK.
1908	Later, CPMO acquired mines in Nagpur, Bhandara and Balaghat districts.
1962	On 22nd June 1962, MOIL was incorporated by Government of India.
1962	Through an agreement between the Government of India and the CPMO, the assets were taken over by MOIL and as a result, CPMO held 49% shares and the rest was held by Government of India and the State Governments of Maharashtra and Madhya Pradesh.
1977	The Remaining 49% of shares were acquired by the Government of India from CPMO and MOIL became a 100% Government Company.
2010	The Company got listed in Dec-2010 with divestment of 10% shares by Central Government and 5% each by State Governments of Maharashtra and Madhya Pradesh.
2014	The Company got Schedule 'A' status in January -2014.

Source: Company Presentation

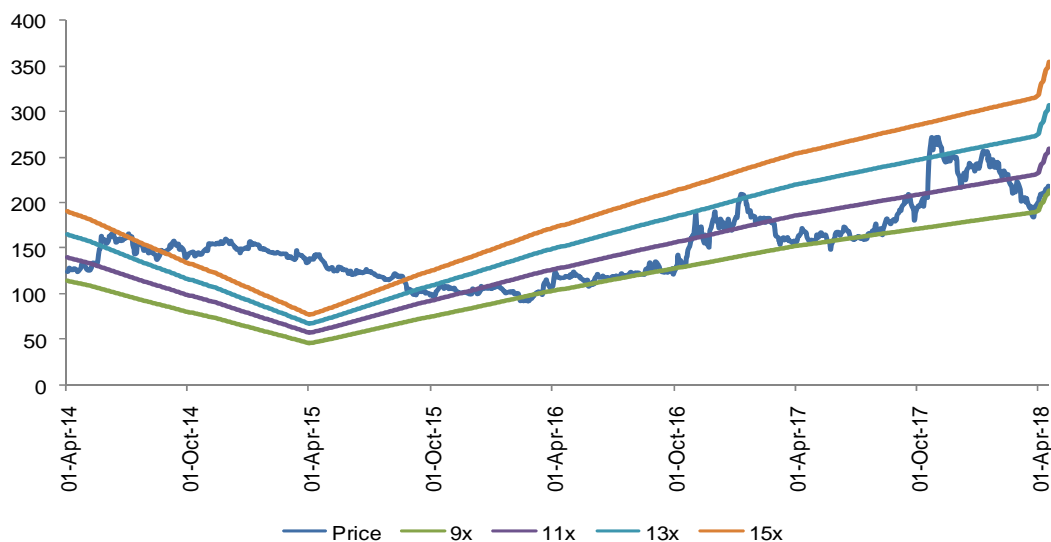
MOIL Ltd. - Management Details

Name	Designation	Details
Shri G S Grover	Independent Director	Holds B.E. (Electrical), 1970 First Class with Honors PGDIP Education IIT, Delhi. 1971 First Class First. He has worked as Sr. DDG (Vigilance) & CVO and Member (Services) Telecom Commission & Ex. Off. Secretary to Government of India, Department of Telecom, Ministry of Communication & IT, New Delhi, Director (Commercial & Marketing) BSNL Board, New Delhi. He has vast knowledge in the field of telecommunications, vigilance, personal management, and administration.
Smt. Sunanda Prasad	Independent Director	Holds B.A. (Honors), M.A. (Human Geography). She is a retired IAS Officer of 1974 Batch of Uttar Pradesh Cadre. She holds various positions such as Chairperson of Board of Revenue, Lucknow, Principal Secretary of various departments of Government of Uttar Pradesh, Managing Director, Financial Corporation, Kanpur, Commissioner and Administrator Ramganga Area Development Project, Kanpur, Chairperson U.P. Small Industries Corporation, Kanpur and various other positions.
Shri J P Dange	Independent Director	Holds M.Sc. (PG Diploma), MBA, LLB. He is a Retired IAS Officer and has worked at various positions like Secretary, Principal Secretary, and Additional Chief Secretary to Government of Maharashtra. He also held the position of Managing Director of Maharashtra State Seed Corporation. He has vast knowledge of Mining, Administration, Management, Legal, Finance and Labour etc.
Ms. Sangita Gairola	Independent Director	Holds B.A. (Hons), M.A. She is a retired I.A.S. officer of 1977 Batch (Raj. Cadre). She had served as an I.A.S. officer in the State Govt. of Rajasthan in various capacities like Secretary, Dept. of Women and Child Development Principal Secretary, Dept. Tourism, Art & Culture, Chief Electoral Officer and also served in Govt. of India as Joint Secretary, Ministry of Home Affairs, Addl. / Spl. Secy., Ministry of Social Justice & Emp., Secretary, Ministry of Culture, Secretary, Ministry of Defense (D/o ESW). She possesses work experience of administration and management.

Source: Company, BP Equities Research

⇒ PE Band

PE Band – MOIL Ltd



Source: BP Equities Research, Ace Equity

⇒ Returns to Shareholder

Year	Corporate actions	Dividend/Buyback/Bonus per share		Total amount paid (in millions)	Dividend yield
2012-13	Dividend	5.5		840	2.5%
2013-14	Dividend	7.5		924	3.0%
2014-15	Dividend	8.5		1,260	3.1%
2015-16	Dividend & Buyback	5.0	248	10,061	2.3%
2016-17	Dividend & Bonus	11.0	1:1	840	3.5%
2017-18	Interim Dividend & Buyback	3.0	240	2,903	
Total				16,828	

Source: BP Equities Research, Ace Equity

MOIL Ltd.
Initiating Coverage
Valuation and Outlook

Valuation	Basis	FY18E	FY19E	FY20E
MOIL Ltd				
EPS		16.9	21.0	23.6
Growth in EPS (YoY %)		43%	24%	11%
Implied PE				
Assigned PE	(12x PE)			12x
Target Price				283
(Implied PEG Ratio considering next 3 years: 0.48)				
CMP				214
Upside Potential (%)				32%

Source: Company, BP Equities Research

We have valued this stock by assigning PE 12x to its FY20 earning estimates. We arrive at a target price of Rs 283 (potential upside of 32% from CMP) for an investment horizon of 15-18 months.

MOIL is expected to enter a phase of high volume growth over next decade on back of 7% sustained demand & domestic production of steel. New mines and increasing output in existing mines are expected to increase the market share which would drive realization structurally higher thus directly increasing margins. The prices of Manganese ore have doubled in recent past but still they are yet to reach their previous highs of 2008 when company had hit operating margins of 80% and realization of Rs15,000/ton. We believe that we are at early stages of cycle as far as manganese ore is concerned and prices can improve further from levels of Rs. 11,000/ton where they are presently. . With improvement in ore prices and higher volumes in coming years profitability is expected to improve to Rs 607cr by FY2020. Given its strong business model backed by low cost operations, robust balance sheet and improvement in demand owing to rising domestic steel production, We estimate Revenue/EBITDA/PAT to clock 20%/37%/26% CAGR during FY17-FY20E. Further, firm rise in global manganese ore prices and visibility of improvement in domestic demand of high to medium grade manganese ore, We believe, MOIL will be able to deliver fairly above our expectations, being our estimates are conservative. We initiate coverage on the stock & recommend 'BUY' rating by assigning PE 12x which is 20% discount to 5 year average of 15x to its FY2020E earnings. We arrive at a target price of Rs. 283 (potential upside of 32% from CMP) for an investment horizon of 15-18 months.



Profit & Loss A/c							
YE March (Rs. mn)	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Revenue	10,213	8,233	6,287	9,819	13,077	15,133	16,841
Growth %	5.6%	-19.4%	-23.6%	56.2%	33.2%	15.7%	11.3%
Total Revenue	10,213	8,233	6,287	9,819	13,077	15,133	16,841
Less:							
Raw Material Consumed	325	(820)	(51)	615	703	798	862
Employee Cost	2,561	2,628	3,012	3,077	3,625	3,987	4,386
Other Expenses	264	304	322	345	0	0	0
Total Operating Expenditure	5,201	4,442	5,582	6,837	7,719	8,394	9,223
EBITDA	5,012	3,790	706	2,983	5,358	6,739	7,618
Growth %	15.3%	-24.4%	-81.4%	322.7%	79.7%	25.8%	13.1%
Less: Depreciation	352	451	525	547	611	723	836
EBIT	4,660	3,340	181	2,435	4,748	6,015	6,782
Growth %	16.1%	-28.3%	-94.6%	1245.6%	94.9%	26.7%	12.7%
Interest Paid	0	0	0	28	0	0	0
Non-operating Income	3,033	3,166	2,522	2,211	1,762	2,066	2,279
Extraordinary Income	0	0	0	0	0	0	0
Profit Before tax	7,693	6,506	2,703	4,619	6,510	8,081	9,061
Tax	2,598	2,226	973	1,561	2,148	2,667	2,990
Net Profit	5,096	4,280	1,730	3,058	4,361	5,414	6,071
Adjusted Profit	5,096	4,280	1,730	3,058	4,361	5,414	6,071
Reported Diluted EPS Rs	19.8	16.6	6.7	11.9	16.9	21.0	23.6
Growth %	18.0%	-16.0%	-59.6%	76.8%	42.6%	24.1%	12.1%
Adjusted Diluted EPS Rs	19.8	16.6	6.7	11.9	16.9	21.0	23.6
Growth %	18.0%	-16.0%	-59.6%	76.8%	42.6%	24.1%	12.1%

Source: Company, BP Equities Research

Common Sized Profit & Loss Account							
YE March (Rs. mn)	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Total Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Less:							
Raw Material Consumed	3.2%	-10.0%	-0.8%	6.3%	5.4%	5.3%	5.1%
Employee Cost	25.1%	31.9%	47.9%	31.3%	27.7%	26.3%	26.0%
Other Expenses	2.6%	3.7%	5.1%	3.5%	0.0%	0.0%	0.0%
Total Operating Expenditure	50.9%	54.0%	88.8%	69.6%	59.0%	55.5%	54.8%
EBITDA	49.1%	46.0%	11.2%	30.4%	41.0%	44.5%	45.2%
Depreciation	3.4%	5.5%	8.3%	5.6%	4.7%	4.8%	5.0%
Interest Paid	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%
Non-operating Income	29.7%	38.5%	40.1%	22.5%	13.5%	13.7%	13.5%
Extraordinary Items	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Profit Before Tax	75.3%	79.0%	43.0%	47.0%	49.8%	53.4%	53.8%
Current tax	25.4%	27.0%	15.5%	15.9%	16.4%	17.6%	17.8%
Profit After Tax	49.9%	52.0%	27.5%	31.1%	33.4%	35.8%	36.0%
Adjusted Profit	49.9%	52.0%	27.5%	31.1%	33.4%	35.8%	36.0%

Source: Company, BP Equities Research



Balance Sheet							
YE March(Rs. mn)	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Liabilities							
Equity Capital	1,680	1,680	1,680	1,332	2,576	2,576	2,576
Reserves & Surplus	29,593	32,137	32,854	26,722	29,949	33,956	38,469
Equity	31,273	33,817	34,534	28,054	32,525	36,532	41,045
Net Worth	31,273	33,817	34,534	28,054	32,525	36,532	41,045
Minority Interest							
Net Deferred tax liability/(Asset)	1,009	213	201	192	192	192	192
Total Loans	0	0	0	0	0	0	0
Capital Employed	32,282	34,030	34,734	28,245	32,717	36,723	41,237
Assets							
Gross Block	5,101	6,107	6,719	7,346	8,146	9,646	11,146
Less: Depreciation	2,777	3,168	3,610	4,084	4,695	5,418	6,254
Net Block	2,323	2,939	3,109	3,262	3,451	4,228	4,892
Capital WIP	688	526	676	1,162	1,162	1,162	1,162
Investments	627	834	663	464	500	500	500
Others	48	9	134	6	2	2	2
Current Assets							
Inventories	491	1,442	1,630	1,222	1,627	1,883	2,095
Sundry Debtors	1,132	1,072	1,420	2,413	3,213	3,718	4,138
Cash and Bank Balance	27,928	28,299	28,501	20,911	24,438	27,158	30,630
Loans and Advances	58	38	38	52	68	79	88
Other Current Assets	1,258	1,320	1,109	1,243	1,462	1,720	2,024
Total Current Assets	30,867	32,171	32,698	25,840	30,808	34,558	38,975
Less: Current Liabilities & Provisions							
Sundry Creditors	70	35	253	417	798	923	1,027
Provisions	707	875	746	409	443	481	521
Other Current Liabilities	1,494	1,539	1,546	1,663	1,965	2,323	2,745
Total Current Liabilities & Provisions	2,270	2,450	2,546	2,488	3,206	3,726	4,294
Capital Applied	32,282	34,030	34,734	28,245	32,717	36,723	41,237

Source: Company, BP Equities Research



Cash Flows Statement							
YE March (Rs. Mn)	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
PAT	5,095.6	4,280.1	1,729.8	3,058.3	4,361.4	5,414.4	6,071.1
(Less)/Add: Extraordinary Income/Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less: Non Operating Income	(3,033.2)	(3,166.1)	(2,521.6)	(2,211.3)	(1,762.0)	(2,065.9)	(2,279.2)
Add: Depreciation	351.8	450.8	524.7	547.1	610.9	723.4	835.9
Add: Interest Paid	0.0	0.0	0.0	27.8	0.0	0.0	0.0
Tax Adjustment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Profit before Working Capital Changes	2,414.2	1,564.9	(267.1)	1,421.9	3,210.3	4,071.9	4,627.8
(Inc)/Dec in Current Assets	1,680.4	17.2	(137.1)	(1,139.8)	(1,036.3)	(773.7)	(732.0)
Inc/(Dec) in Current Liabilities	(481.2)	179.4	95.9	(57.2)	717.6	520.3	567.3
Changes in Inventory	23.8	(951.2)	(187.6)	408.1	(405.4)	(255.8)	(212.5)
Net Cash Generated From Operations	3,637.2	810.3	(495.9)	633.1	2,486.2	3,562.7	4,250.6
Cash Flow from Investing Activities							
(Inc)/Dec in Fixed Assets	(301.6)	(1,006.5)	(611.6)	(626.8)	(800.0)	(1,500.0)	(1,500.0)
(Inc)/Dec in Capital Work In Progress	(418.5)	162.8	(150.8)	(485.3)	0.0	0.0	0.0
(Inc)/Dec in Investment (Strategic)	0.5	(1.5)	(124.6)	127.6	4.0	0.0	0.0
(Inc)/Dec in Investment (Others)	504.4	(207.7)	171.5	199.0	(36.2)	0.0	0.0
Add: Non Operating Income	3,033.2	3,166.1	2,521.6	2,211.3	1,762.0	2,065.9	2,279.2
(Inc)/Dec in Intangible Assets	0.0	40.0	0.0	0.0	0.0	0.0	0.0
Net Cash Flow from/(used in) Investing Activities	2,818.0	2,153.2	1,806.1	1,425.8	929.8	565.9	779.2
Cash Flow from Financing Activities							
Inc/(Dec) in Total Loans	222.4	(796.4)	(12.1)	(9.0)	0.0	0.0	0.0
Inc/(Dec) in Reserves & Surplus	0.0	(22.9)	(0.0)	(8,388.9)	0.0	0.0	0.0
Inc/(Dec) in Equity	0.0	0.0	0.0	(348.1)	1,244.3	0.0	0.0
Dividend Paid	(1,478.7)	(1,713.5)	(1,013.1)	(801.5)	(1,134.0)	(1,407.7)	(1,558.0)
Less: Interest Paid	0.0	0.0	0.0	(27.8)	0.0	0.0	0.0
Adjustments	(38.3)	(60.1)	(82.9)	(73.3)	(0.0)	(0.0)	(0.0)
Exceptional Item	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Cash Flow from Financing Activities	(1,294.6)	(2,592.9)	(1,108.2)	(9,648.6)	110.3	(1,407.7)	(1,558.0)
Net Inc/Dec in cash equivalents	5,160.5	370.6	202.1	(7,589.7)	3,526.3	2,720.9	3,471.8
Opening Balance	22,767.8	27,928.3	28,298.9	28,501.0	20,911.3	24,437.5	27,158.4
Closing Balance Cash and Cash Equivalents	27,928.3	28,298.9	28,501.0	20,911.3	24,437.5	27,158.4	30,630.3

Source: Company, BP Equities Research



Key Ratios

YE March (Rs. mn)	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Key Operating Ratios							
EBITDA Margin (%)	49.1%	46.0%	11.2%	30.4%	41.0%	44.5%	45.2%
Tax / PBT (%)	33.8%	34.2%	36.0%	33.8%	33.0%	33.0%	33.0%
Net Profit Margin (%)	49.9%	52.0%	27.5%	31.1%	33.4%	35.8%	36.0%
RoE (%)	17.3%	13.2%	5.1%	9.8%	14.4%	15.7%	15.7%
RoCE (%)	15.8%	10.3%	0.5%	7.9%	15.8%	17.6%	17.6%
Current Ratio (x)	13.6x	13.1x	12.8x	10.4x	9.6x	9.3x	9.1x
Dividend Payout (%)	29.0%	40.0%	58.6%	58.6%	58.6%	58.6%	58.6%
Book Value Per Share (Rs.)	186.2	201.3	205.6	210.6	126.3	141.8	159.3

Financial Leverage Ratios

Debt/ Equity (x)	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x
Interest Coverage (x)	0.0x	0.0x	0.0x	107.4x	0.0x	0.0x	0.0x

Growth Indicators %

Growth in Gross Block (%)	6.3%	19.7%	10.0%	9.3%	10.9%	18.4%	15.6%
Sales Growth (%)	5.6%	(19.4%)	(23.6%)	56.2%	33.2%	15.7%	11.3%
EBITDA Growth (%)	15.3%	(24.4%)	(81.4%)	322.7%	79.7%	25.8%	13.1%
Net Profit Growth (%)	18.0%	(16.0%)	(59.6%)	76.8%	42.6%	24.1%	12.1%
Diluted EPS Growth (%)	18.0%	(16.0%)	(59.6%)	76.8%	42.6%	24.1%	12.1%

Turnover Ratios

Debtors Days	40	48	82	90	90	90	90
Creditors Days	2	2	15	22	22	22	22
Inventory Days	18	64	95	45	45	45	45

Source: Company, BP Equities Research



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Disclaimer Appendix

Analyst (s) holding in the Stock : Nil**Analyst (s) Certification:**

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