Independent Credit Research

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Fortescue Metals Group Ltd

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Andrew Forrest, the Chairman of Fortescue Metals:
"Iron ore is inelastic in demand. That simply means that our customers have a strong need for the product to a point and are not particularly price sensitive up to reaching that point. However, once that need has been realized, any further product offering will see the price collapse. Our customers won't take more iron ore even if our competitors offered to give it away."

We are bullish on Fortescue publicly traded debt, both secured and unsecured. Investors can purchase the company's 1st-lien debt at 15.7% YTW, which should be considered attractive. We believe that the debt part of the company represents a rare "no-brainer" opportunity for distressed investors. Debt investment has a multi-level protection and strong safety margin for error, in our view. We believe that debt of Fortescue at the moment is the most attractive risk-adjusted opportunity in the high yield market we are aware of.

USD	Maturity	Face Value	Market Price	Market Value	Forward Leverage	YTW	Annual Interest Expense
Cash as of Dec 31, 2015		$2,300					
$5,000 mn TL (L+2.75%, 1% L floor)	30-Jun-19	$4,839	*69.8%*	$3,378		*15.7%*	$181
Finance Lease		$461	*100.0%*	$461			$46
Total Bank Debt		$5,300		$3,839			$228
9.75% Senior secured debt	01-Mar-22	$2,160	*88.0%*	$1,901		*12.6%*	$211
Total Secured Debt		$7,460		$5,740	2.1x		$438
Total Net Secured Debt		$5,160		$3,440	1.3x		
8.25% Senior Unsecured Notes	01-Nov-19	$578	*83.3%*	$481		*14.2%*	$48
6.875% Senior Unsecured Notes	01-Apr-22	$478	*60.0%*	$287		*17.8%*	$33
Total Senior Unsecured Notes		$1,056		$768	3.1x		$81
Total Debt		$8,516		$6,508	3.1x		$519
Total Net Debt		$6,216		$4,208	2.2x		
Equity - number shares	3,113.8	$1.33		$4,141	3.9x		
Est. LTM EBITDA as of December 31, 2015		$2,678					

Investors in high yield bonds and equities of metals and mining companies have a tendency to run into extremes with their risk tolerances in conjunction with the market volatility. This irrational behavior opens attractive opportunities for still remaining investors with the archaic habit to perform fundamental research in addition to spending 100% of their time trying to outsmart the market volatility. Fortescue capital structure is not an exception. A simple look at the appropriately constructed capital structure will lead you to believe that the company's balance sheet is grossly mispriced and offers several attractive capital structure arbitrage opportunities. It is a matter of investment style and personal ego of various portfolio managers to be directional on any part of the capital structure or to hedge their alpha views by taking advantage of the existing capital structure opportunities. Our view is that the best risk-adjusted return is offered by the several pair trades described further in this report.

On a more qualitative basis, we have chosen Fortescue as a first name in our dive into the struggling industry because it represents a natural hedge against your potential exposure with North American and European steel companies. The

risk profile of Fortescue is negatively correlated with risks preoccupying minds of North American and European investors. If China devalues (or agrees to watch the market devaluing it) its currency to support high capacity utilization of its steel plants (we assign at least 75% probability to this scenario), China will need more iron ore, which will support Fortescue. If, however, China decides to mothball a large portion of its steel plants, Fortescue will struggle but other steel produces in the U.S. will thrive. Our directional and unhedged view is that China's local demand for steel will remain healthy in the foreseeable future and that the country's Administration will shut down outdated capacity while keeping new capacity full.

Brief Company Background

Fortescue Metals is the world's fourth-largest iron ore miner behind Vale, Rio Tinto and BHP Billiton. During 12 months ended December 31, 2015, it shipped 166.8 million tons of iron ore from its four mines in two hubs in Western Australia (Chichester and Solomon, producing annually in access of 90 million tons and 70 million tons of iron ore, respectively). In addition, the company has recently constructed the fastest heavy haul railway in the world and runs world class shipping facilities at its five berth Herb Elliott Port in Port Hedland, which is located about 620 km from each of the hubs. The company also develops the Iron Bridge Magnetite project 100 km from the Port Hedland together with Baosteel Group from China and with Taiwan's Formosa Group.

Fortescue was founded in 2003 and shipped its first ore in 2008. Founders were fortunate to catch the favorable timing of the industrial revolution in China and to finance the company's development through the period of iron ore demand growth. Since 2008, the company has materially improved its operating efficiency, both by using economy of scale and by improving strip ratios. Strip ratio has declined (improved, since it reflects the number of cubic meters of waste rock to produce one cubic meter of ore) has been declining to 2.3 at Chichester Hub (from 5.4 in 2009) and to 1.7 and the Solomon Hub. In order to preserve the existing production level, Fortescue needs to spend ~$330mm of capital expenditures, which equates to ~$2/ton.

	Production	Workforce	Operations started
Solomon Mine	70 million tons	1,600 including 675 contractors	2013
Christmas Creek	55 million tons	2,400 including 1,750 contractors	2011
Cloudbreak	36 million tons	1,644 including 324 contractors	2012

Fortescue ships majority of its iron ore produced to China (94% of total 2015 sales was derived from China, or ~450,000 tons per day was shipped to China by Fortescue!). Since the foundation of Fortescue in 2003, the company has shipped close to 600 million tons of iron ore to China.

Fortescue's operations revolve around several major issues. Some of them are beyond Fortescue's management control.

1) Will Vale – the largest global iron ore producer in Brazil - flood the market with new 90 million tons of capacity from its new S11D mine in Brazil in late 2016? If it does, FOB China prices of iron ore will likely sink again. The new Vale mine will likely have the C1 cost[1] below $10/ton, due largely to the weak Brazil currency. We think that while S11D mine will create some pressure on the iron ore price, the size of the new mine supply is immaterial compared to the overall shipping volume of iron ore to China. In order for Fortescue to start burning cash, iron ore price needs to drop likely below $30/ton. We find it extremely unlikely that the impact of Vale mine will be that substantial. Other major exporters - Rio Tinto and BHP – are not planning to increase shipments in the near-term.

2) Will Fortescue be able to sustain C1 cost at $15/ton? The recent cost improvements have been largely driven by the operational changes at mines. However, the cost of oil and the volatility of the AUSD have been also positively affecting cost reductions. The main uncertainty is related to the sustainability of the low strip ratio. Fortescue belongs to 4 lowest cost iron ore producers globally. Charts below show costs, Capex and EBITDA at Rio Tinto and BHP Billiton. Our analysis show that Fortescue should generate annual EBITDA of at least $1.5bn to be able to pay taxes, at least $350mm of Capex; $520mm of cash interest and to be able to address its 2019 debt maturities without restructuring. Fixed charges account for ~$1.2bn of breakeven EBITDA. However, another $300mm of the EBITDA cushion will be required to facilitate the 2019 debt refinancing. Assuming that total cash cost per ton will remain no more than $22/ton, our analysis shows that realized price per ton should drop below $29/ton for Fortescue's annual EBITDA to drop below $1.5bn.

[1] Cost of mining + cost of rail + cost of rail & port + cost of operating leases

Year ends on June 30	2013	H1 2014	H2 2014	2014	H1 2015	H2 2015	2015	H1 2016	H2 2016e	2016e	2017 low	2017 high	2018 low	2018 high
Average Realization/Ton														
Ore Shipped, excluding JV (million tons)	75.9	50.8	67.6	118.4	80.3	79.9	160.2	81.8	83.2	165.0	165.0	165.0	165.0	165.0
Change	*32.0%*	*47.2%*	*56.1%*	*56.0%*	*58.1%*	*18.2%*	*35.3%*	*1.9%*	*4.1%*	*3.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Revenue from iron ore sale ($ million)	$7,889	$5,762	$5,723	$11,485	$4,734	$3,589	$8,323	$3,289	$2,963	$6,252	$4,785	$6,188	$5,115	$6,353
Change	*21.8%*	*73.3%*	*19.3%*	*45.6%*	*-17.8%*	*-37.3%*	*-27.5%*	*-30.5%*	*-17.4%*	*-24.9%*	*-23.5%*	*-1.0%*	*6.9%*	*2.7%*
Revenue per Ton ($)	*$103.9*	*$113.4*	*$84.7*	*$97.0*	*$59.0*	*$44.9*	*$52.0*	*$40.2*	*$35.6*	*$37.9*	*$29.0*	*$37.5*	*$31.0*	*$38.5*
Avg. Iron Ore Spot Price: AUS-CHI (IOECAU62)	*$129.0*	*$135.0*	*$112.0*	*$124.0*	*$83.0*	*$60.0*	*$70.0*	*$46.0*	*$46.0*	*$46.0*	*$36.0*	*$46.0*	*$38.0*	*$48.0*
Realization %-ge of Iron Ore spot price	*80.6%*	*84.0%*	*75.6%*	*78.2%*	*71.0%*	*74.9%*	*74.2%*	*87.4%*	*77.4%*	*82.4%*	*80.6%*	*81.5%*	*81.6%*	*80.2%*
Cost/Ton														
Ore mined (million Ton)	94.6	66.9	73.5	140.4	86.5	77.6	164.1	89.9	91.0	180.9	165.0	165.0	165.0	165.0
Ore processed (million Ton)	76.1	53.7	72.3	126.0	75.6	78.0	153.6	82.5	83.7	166.2	165.0	165.0	165.0	165.0
Mining cost ($ million)	$2,851	$1,433	$2,009	$3,442	$2,117	$1,648	$3,765	$1,025	$1,050	$2,075	$1,865	$1,865	$1,865	$1,865
Mining cost per ton	*$30.14*	*$21.42*	*$27.33*	*$24.52*	*$24.47*	*$21.24*	*$22.94*	*$11.40*	*$11.54*	*$11.47*	*$11.30*	*$11.30*	*$11.30*	*$11.30*
Rail cost ($ million)	$182	$109	$129	$238	$123	$107	$230	$85	$85	$170	$175	$175	$175	$175
Railing cost per ton	*$2.40*	*$2.15*	*$1.91*	*$2.01*	*$1.53*	*$1.34*	*$1.44*	*$1.04*	*$1.02*	*$1.03*	*$1.06*	*$1.06*	*$1.06*	*$1.06*
Port cost ($ million)	$181	$103	$149	$252	$154	$120	$274	$92	$95	$187	$190	$190	$190	$190
Port cost per ton	*$2.38*	*$2.03*	*$2.20*	*$2.13*	*$1.92*	*$1.50*	*$1.71*	*$1.12*	*$1.14*	*$1.13*	*$1.15*	*$1.15*	*$1.15*	*$1.15*
Opeating leases ($million)	$133	$35	$39	$74	$40	$40	$80	$40	$40	$80	$120	$200	$320	$520
C1 cost = mining+rail+port+lease	$3,347	$1,680	$2,326	$4,006	$2,434	$1,939	$4,375	$1,242	$1,284	$2,526	$2,364	$2,444	$2,564	$2,764
Percenatage of Iron Ore Sales	*42.4%*	*29.2%*	*40.6%*	*34.9%*	*51.4%*	*54.0%*	*52.6%*	*37.8%*	*43.3%*	*40.4%*	*49.4%*	*39.5%*	*50.1%*	*43.5%*
C1 cost per Ton	*$44.1*	*$33.1*	*$34.4*	*$33.8*	*$30.3*	*$24.3*	*$27.3*	*$15.2*	*$15.4*	*$15.3*	*$14.3*	*$14.8*	*$15.5*	*$16.7*
Other costs														
Shipping costs ($ million)	$769	$556	$654	$1,210	$687	$425	$1,112	$287	$300	$587	$590	$590	$590	$590
Per ton	*$10.1*	*$10.9*	*$9.7*	*$10.2*	*$8.6*	*$5.3*	*$6.9*	*$3.5*	*$3.6*	*$3.6*	*$3.6*	*$3.6*	*$3.6*	*$3.6*
Government royalties ($ million)	$499	$386	$389	$775	$298	$218	$516	$195	$190	$385	$380	$380	$380	$380
Per ton	*$6.6*	*$7.6*	*$5.8*	*$6.5*	*$3.7*	*$2.7*	*$3.2*	*$2.4*	*$2.3*	*$2.3*	*$2.3*	*$2.3*	*$2.3*	*$2.3*
Administrative expenses ($ million)	$110	$37	$75	$112	$45	$49	$94	$42	$38	$80	$80	$80	$80	$80
Total other costs	$1,378	$979	$1,118	$2,097	$1,030	$692	$1,722	$524	$528	$1,052	$1,050	$1,050	$1,050	$1,050
Other costs per Ton	*$18*	*$19*	*$17*	*$18*	*$13*	*$9*	*$11*	*$6*	*$6*	*$6*	*$6*	*$6*	*$6*	*$6*
Total delivered cost per Ton	***$62***	***$52***	***$51***	***$52***	***$43***	***$33***	***$38***	***$22***	***$22***	***$22***	***$21***	***$21***	***$22***	***$23***
Exploration expense ($ million), excluding D&A	$45	$7	$31	$38	$36	$16	$52	$35	$35	$70	$70	$70	$70	$70
Sales to 3rd parties	$231	$111	$157	$268	$124	$127	$251	$102	$111	$213	$200	$200	$200	$200
EBITDA adjustments	$225	$13	$11	$24	$82	($1)	$81	$15	$15	$30	$30	$30	$30	$30
EBITDA ($ million)	$3,575	$3,220	$2,416	$5,636	$1,440	$1,068	$2,506	$1,606	$1,242	$2,848	$1,531	$2,854	$1,661	$2,699

Year ends on June 30

USD million	2009	2010	2011	2012	2013	H1 2014	H2 2014	2014	H1 2015	H2 2015	2015	H1 2016e	H2 2016e	2016E	2017 low	2017 high	2018 low	2018 high
Sale of iron ore	1,829	3,168	5,377	6,479	7,889	5,762	5,723	11,485	4,734	3,589	8,323	3,289	2,963	6,252	4,785	6,188	5,115	6,353
Sale of 3rd party products	0	51	65	202	231	111	157	268	124	127	251	102	111	213	200	200	200	200
Total Net Revenue	1,831	3,220	5,442	6,681	8,120	5,873	5,880	11,753	4,858	3,716	8,574	3,392	3,074	6,466	4,985	6,388	5,315	6,553
Growth Y/Y	*1214.5%*	*75.9%*	*69.0%*	*22.8%*	*21.5%*	*76.7%*	*22.6%*	*44.7%*	*-17.3%*	*-36.8%*	*-27.0%*	*-30.2%*	*-17.3%*	*-24.6%*	*-22.9%*	*-1.2%*	*6.6%*	*2.6%*
COGS, excluding D&A	1,262	1,972	2,581	3,748	4,703	2,659	3,419	6,078	3,464	2,587	6,051	1,724	1,774	3,498	3,334	3,414	3,534	3,734
Total Gross Profit	569	1,248	2,861	2,933	3,417	3,214	2,461	5,675	1,394	1,129	2,523	1,668	1,300	2,968	1,651	2,974	1,781	2,819
Gross Margin	*31.1%*	*38.7%*	*52.6%*	*43.9%*	*42.1%*	*54.7%*	*41.9%*	*48.3%*	*28.7%*	*30.4%*	*29.4%*	*49.2%*	*42.3%*	*45.9%*	*33.1%*	*46.6%*	*33.5%*	*43.0%*
Admin expense	35	25	97	104	110	70	42	112	31	63	94	42	38	80	80	80	80	80
Exploration, developments	0	0	0	0	45	7	9	16	36	16	52	35	35	70	70	70	70	70
EBITDA Adjustments	335	84	(44)	206	313	83	6	89	113	16	129	14	16	30	30	30	30	30
EBITDA	870	1,307	2,720	3,035	3,575	3,220	2,416	5,636	1,440	1,066	2,506	1,605	1,243	2,848	1,531	2,854	1,661	2,699
EBITDA Margin	*47.5%*	*40.6%*	*50.0%*	*45.4%*	*44.0%*	*54.8%*	*41.1%*	*48.0%*	*29.6%*	*28.7%*	*29.2%*	*47.3%*	*40.4%*	*44.0%*	*30.7%*	*44.7%*	*31.3%*	*41.2%*
Liquidity																		
EBITDA	870	1,307	2,720	3,035	3,575	3,220	2,416	5,636	1,440	1,066	2,506	1,605	1,243	2,848	1,531	2,854	1,661	2,699
Capex	(962)	(584)	(1,477)	(6,044)	(6,355)	(1,356)	(639)	(1,995)	(578)	(271)	(849)	(125)	(125)	(250)	(350)	(350)	(350)	(350)
Acquisitions, divestitures	220	1	(4)	54	189	456	147	603	71	52	123	0	0	0	0	0	0	0
Interest Expense	(191)	(207)	(464)	(584)	(893)	(454)	(399)	(853)	(290)	(315)	(605)	(260)	(260)	(519)	(500)	(500)	(450)	(450)
Income Taxes	(154)	2	0	(123)	(695)	(60)	(90)	(150)	(664)	135	(529)	(275)	(275)	(550)	(300)	(300)	(300)	(300)
Change in Working Capitlal	(52)	(14)	58	(104)	124	486	276	762	129	(69)	60	(75)	(15)	(90)	90	90	0	0
Free Cash Flow	(268)	504	833	(3,766)	(4,055)	2,292	1,711	4,003	108	598	706	870	569	1,439	471	1,794	561	1,599
Cash flow from operations	473	1,087	2,314	2,224	2,111	3,192	2,203	5,395	615	817	1,432	995	694	1,689	821	2,144	911	1,949
Cash flow from investments	(742)	(583)	(1,481)	(5,990)	(6,166)	(900)	(492)	(1,392)	(507)	(219)	(726)	(125)	(125)	(250)	(350)	(350)	(350)	(350)
Cash flow from financing	701	18	537	3,377	3,882	(1,510)	(2,262)	(3,772)	(879)	249	(630)	(951)	(569)	(1,520)	(471)	(1,794)	(561)	(1,599)
Total cash flow	432	522	1,370	(389)	(173)	782	(551)	231	(771)	847	76	(81)	0	(81)	0	0	0	0

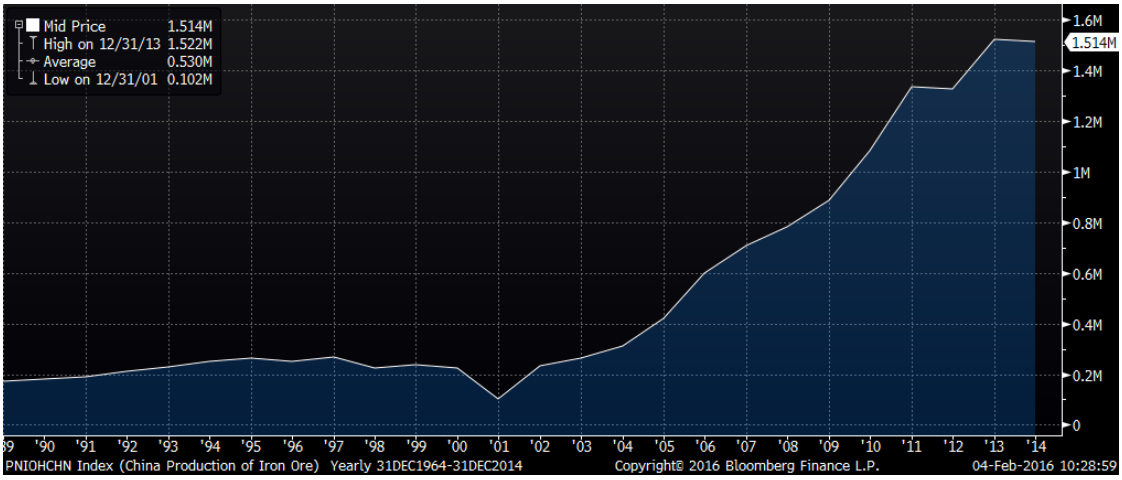
USD million	2009	2010	2011	2012	2013	H1 2014	H2 2014	2014	H1 2015	H2 2015	2015	H1 2016e	H2 2016e	2016E	2017 low	2017 high	2018 low	2018 high
Balance Sheet																		
Cash and Marketable Sec.	655	1,236	2,663	2,343	2,158	2,924	2,398	2,398	1,574	2,381	2,381	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Accounts Receivable	183	212	401	588	409	402	585	585	397	291	291	280	270	270	291	291	291	291
Days Accounts Receivable	*36.0*	*23.7*	*26.5*	*31.7*	*18.1*	*12.3*	*17.9*	*17.9*	*14.7*	*14.1*	*12.2*	*14.9*	*15.8*	*15.0*	*21.0*	*16.4*	*19.7*	*16.0*
Inventories	121	188	417	617	961	1,401	1,467	1,467	1,201	773	773	650	675	675	773	773	773	773
Days Inventory (CGS)	*34.6*	*34.4*	*58.1*	*59.3*	*73.6*	*94.8*	*77.2*	*86.9*	*62.4*	*53.8*	*46.0*	*67.9*	*68.5*	*69.5*	*83.5*	*81.5*	*78.8*	*74.5*
Deferred Taxes & Other CA	2	9	15	102	134	137	27	27	76	84	84	85	85	85	84	84	84	84
Days other assets	*0.3*	*1.0*	*1.0*	*5.5*	*5.9*	*4.2*	*0.8*	*0.8*	*2.8*	*4.1*	*3.5*	*4.5*	*5.0*	*4.7*	*6.1*	*4.7*	*5.7*	*4.6*
Accounts Payable	339	406	813	1,303	1,043	978	1,338	1,338	944	739	739	650	650	650	739	739	739	739
Days Accounts Payable	*96.7*	*74.1*	*113.3*	*125.2*	*79.8*	*66.2*	*70.4*	*79.2*	*49.1*	*51.4*	*44.0*	*67.9*	*66.0*	*66.9*	*79.8*	*77.9*	*75.3*	*71.3*
Accrued Liabilities	31	16	91	551	166	902	1,778	1,778	925	794	794	675	675	675	794	794	794	794
Days Accrued Liabilities	*9.0*	*3.0*	*12.7*	*52.9*	*12.7*	*61.1*	*93.6*	*105.3*	*48.1*	*55.2*	*47.2*	*70.5*	*68.5*	*69.5*	*85.7*	*83.7*	*80.9*	*76.6*
Debt																		
Total Debt	2,570	4,662	4,872	8,501	12,691	11,553	9,557	9,557	9,051	9,569	9,569	8,516	7,847	7,847	7,375	6,053	6,814	5,776
Net Debt (net of excess cash)	1,915	3,427	2,209	6,158	10,533	8,629	7,159	7,159	7,477	7,188	7,188	6,216	5,546	5,546	5,075	3,752	4,513	3,476
LTM EBITDA	870	1,307	2,720	3,035	3,575	5,839	5,431	5,636	3,856	5,431	2,506	2,671	2,848	2,848	1,531	2,854	1,661	2,699
Ratios																		
Leverage	3.0x	3.6x	1.8x	2.8x	3.5x	2.0x	1.8x	1.7x	2.3x	1.8x	3.8x	3.2x	2.8x	2.8x	4.8x	2.1x	4.1x	2.1x
Net Leverage (net of excess)	2.2x	2.6x	0.8x	2.0x	2.9x	1.5x	1.3x	1.3x	1.9x	1.3x	2.9x	2.3x	1.9x	1.9x	3.3x	1.3x	2.7x	1.3x

	30-Jun 2010	30-Jun 2011	30-Jun 2012	30-Jun 2013	30-Jun 2014	30-Dec H1 2015	30-Jun H2 2015	30-Jun 2015	30-Dec H1 2016
BHP production	124,962	134,406	159,478	169,856	207,340	123,577	118,275	241,852	118,275
Change						*32%*	*4%*	*17%*	*4%*
BHP realized price	$89	$152	$142	$119	$103	$70	$53	$61	$43
BHP Iron Ore Sales	$11,139	$20,412	$22,601	$20,215	$21,356	$8,193	$6,560	$14,753	
BHP EBITDA	$6,496	$13,946	$15,027	$12,186	$13,531	$4,778	$3,870	$8,648	
Margin	*58.3%*	*68.3%*	*66.5%*	*60.3%*	*63.4%*	*58.3%*	*59.0%*	*58.6%*	
BHP C1 cash cost/ton					$27	$20	$17	$19	
BHP total cash cost/ton	$37	$48	$47	$47	$38	$28	$23	$25	
BHP Capex	$3,944	$3,627	$5,634	$6,255	$2,949	$1,269	$661	$1,930	

	30-Dec 2010	30-Dec 2011	30-Dec 2012	30-Dec 2013	30-Dec 2014	30-Jun H1 2015	30-Dec H2 2015	30-Dec 2015
Rio Tinto production	184,629	191,767	198,869	208,966	233,557	123,305	139,743	263,048
Change								*12.6%*
Rio Tinto Realized Price	$114.11	$140.04	$111.56	$113.09	$91.98	$57		
Rio Tinto Ore sales	$21,068	$26,855	$22,185	$23,633	$21,482	$7,004		
Change		*27.5%*	*-17.4%*	*6.5%*	*-9.1%*	*-40.0%*		
Rio Tinto Ore EBITDA	$15,169	$20,026	$15,143	$16,511	$13,701	$4,059		
Margin	*72.0%*	*74.6%*	*68.3%*	*69.9%*	*63.8%*	*58.0%*		
Rio Tinto Capex	$1,449	$3,351	$6,410	$6,480	$4,038	$836		

Industry Issues

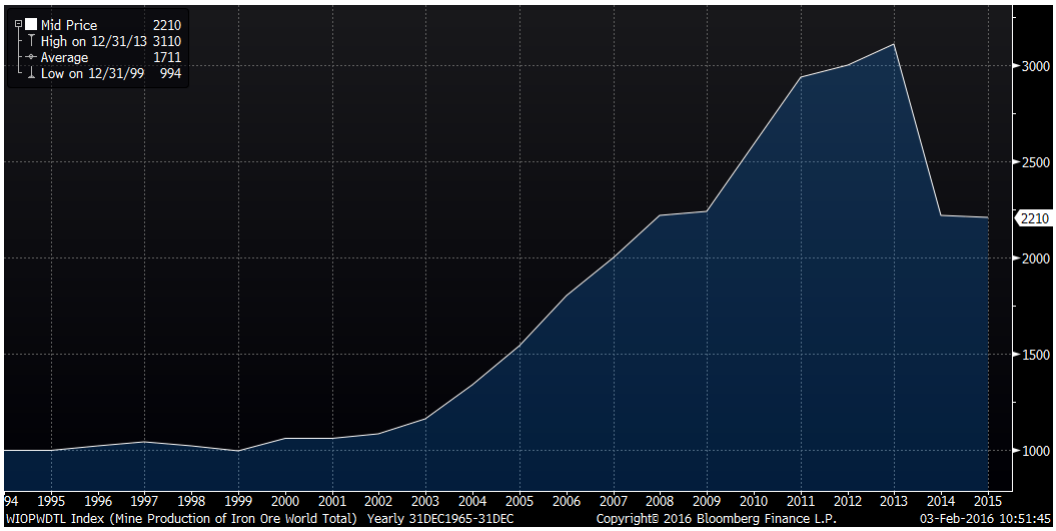
Despite declining steel production in China, ore imports in China have been stable. The reason for this phenomena is related to the fact that steel production in China has been mainly affecting local ore suppliers, since the quality of local ore is inferior to the one supplied by major producers outside China. Despite being the largest producer of iron ore, Chinese ore has an average Fe content between 17 % and 20%, compared to other countries. As such, although China produced more than 1.4bn tons of iron ore in 2013, it accounted for the equivalent of only 325 million metric tons of 62% Fe grade ore. Charts below show information on global iron ore production and ore production in China.



China Production of Iron Ore

Global production of iron ore graph shown below reflects that global iron ore production has started to decline after 2013 (it looks confusing from the first glance, since we are showing charts to account for both low quality ore in China and standard 62% Fe ore):

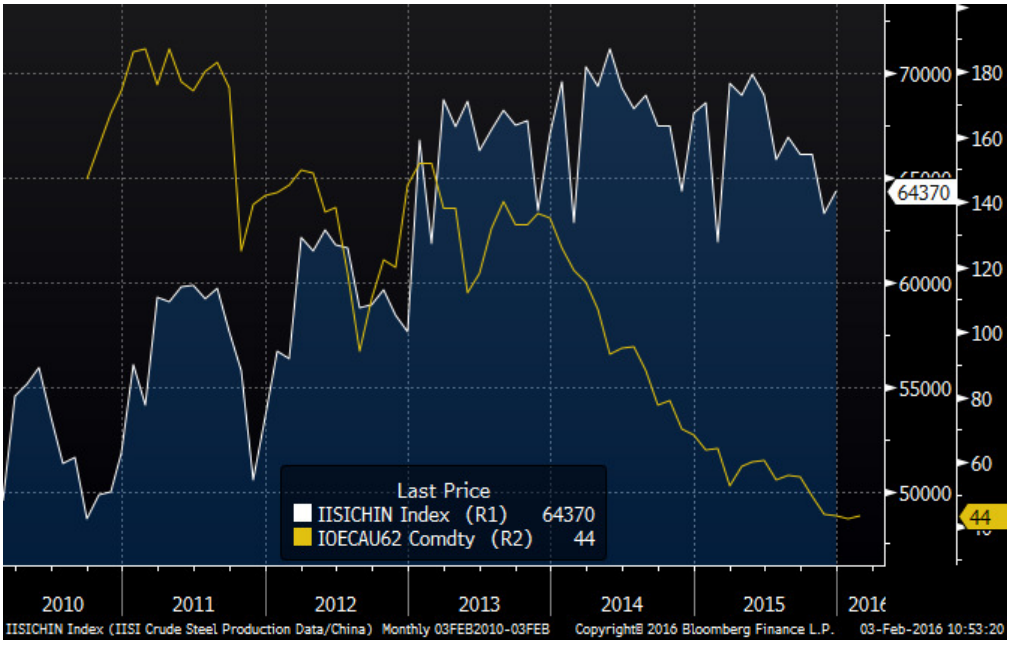
	Iron Ore Production				2015
million tons	2013	2014	2015		Reserves
U.S.	53	56	43		11,500
Australia	609	774	824		54,000
Brazil	317	411	428		23,000
Canada	43	44	39		6,300
China (*)	325	309	264		23,000
India	150	129	129		8,100
Iran	50	33	33		2,700
Kazakhstan	26	25	25		2,500
Russia	105	102	112		25,000
South Africa	80	81	80		1,000
Sweden	26	37	37		3,500
Ukraine	80	68	68		6,500
Other	289	153	125		18,000
Total	2,153	2,222	2,207		185,100
Total China	1,450	1,500	1,450 est.		



Global Iron Ore Production, including low quality ore in China

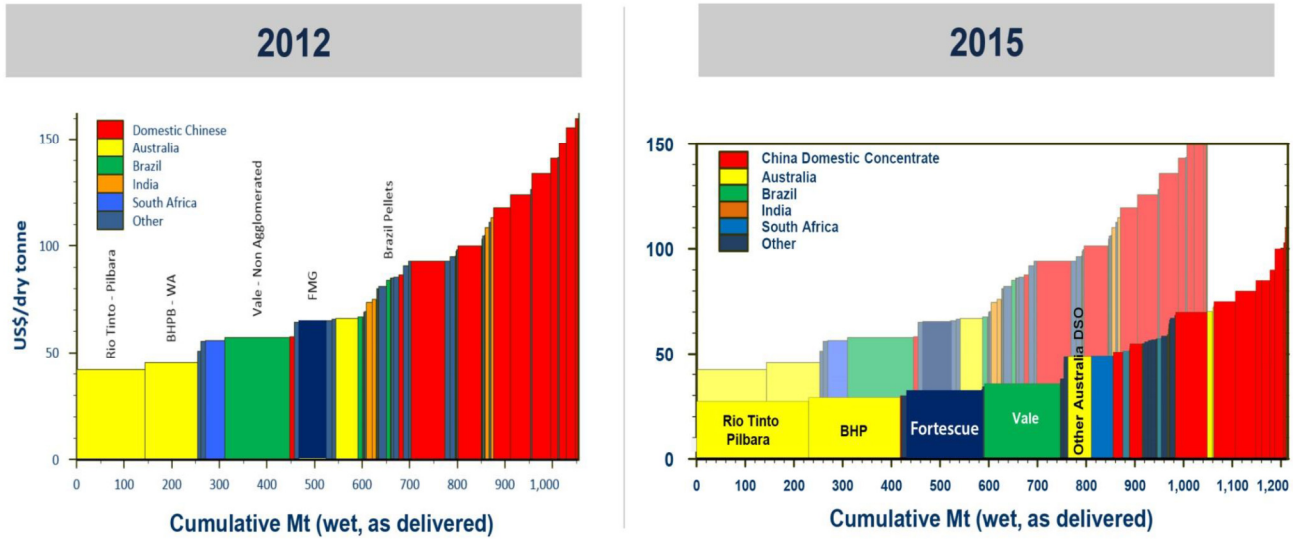
On the other hand, steel production in China has been declining slowly (see charts below), and this trend does not seem to be sustainable in the long-term. At least, the recent decline of iron ore prices FOB China shown at the same chart has been disproportional to the dynamics of steel production in China. The conclusion is that we believe that iron ore prices FOB China will likely stay in the mid 40's for the next 3-4 years. However, we believe that the new Vale 90 million tons capacity will not make a significant difference for iron ore prices. We find it extremely unlikely that the industry largest competitors will continue trying to corner the industry by reducing prices further. Vale, Rio Tinto, Fortescue and BHP have the best cost structure in the industry. However, in order to sustain current production levels, these companies still need to spend substantial cash for Capex. By lowering iron prices further, the Big 4 will further deteriorate their credit metrics (Vale BBB- rated 2019 bonds are trading at 10.5% YTM and should be also purchased!). As such, we believe that the market share gain by the Big 4 has been accomplished.

The complexity of the problem has been amplified by the speculation of the China's currency depreciation. We believe that this depreciation will be irrelevant to the issue of iron ore pricing – China's government has been expressing determination to shut down the majority of local ore producers supplying low quality ore with no more tolerable level of pollution. Shortly, the charts and the recent flow of news lead us to a pretty strong confidence to conclude that the probability of further significant price deterioration for iron ore prices is low. They need to decline by another 50% in order for Fortescue to start burning cash.



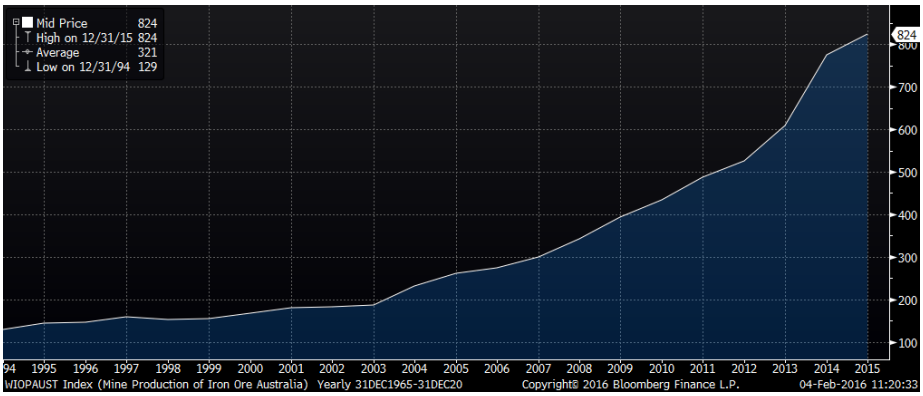
White line shows crude steel production in China; while yellow line shows the import price of iron ore in USD in China.

The company has recently included industry projections in its presentation saying that by 2019 major ore suppliers will account for 90% of China's ore supply, compared to 70% in 2013. Indeed, if you look at the chart below, the trend is clear – supply by local producers is doomed to continue declining.

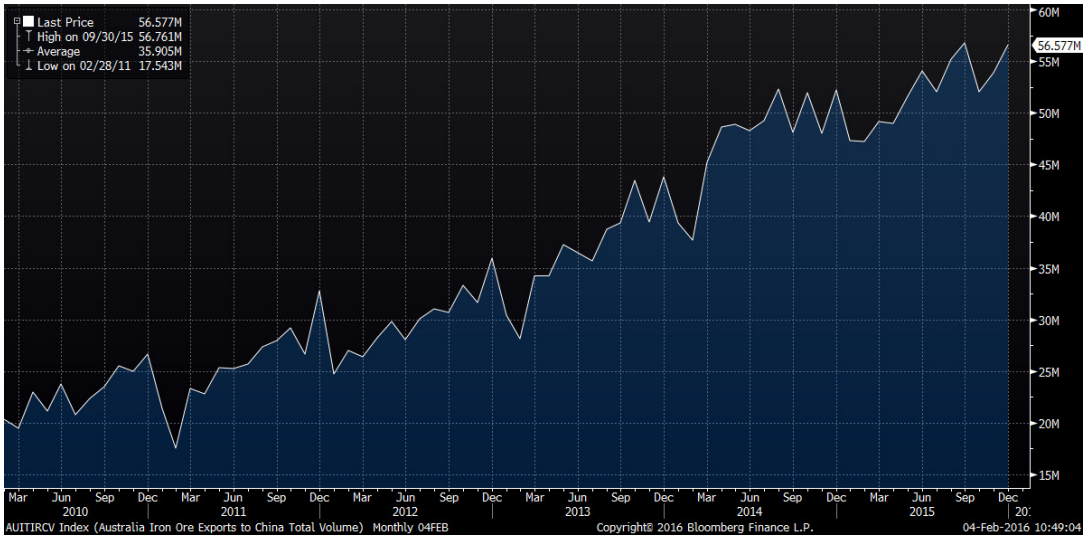


The real issue related to the declining ore prices is actually related to the current oversupply situation in Australia. And more importantly, Fortescue is the party mainly responsible for this oversupply, since it increased its annual production from 40 million tons to 165 million tons in 5 years. The chart below shows changes in iron ore production for BHP, Rio Tinto and Fortescue since 2010:

	Annual increase since 2010	
000's tons		
Fortescue	120,107	*38.1%*
BHP	116,890	*37.1%*
Rio Tinto	78,419	*24.9%*
Total	315,416	



Iron Ore Production in Australia



Monthly Iron Ore Export from Australia to China

Capital Structure

USD	Maturity	Face Value	Market Price	Market Value	Forward Leverage	YTW	Annual Interest Expense
Cash as of Dec 31, 2015		$2,300					
$5,000 mn TL (L+2.75%, 1% L floor)	30-Jun-19	$4,839	*69.8%*	$3,378		*15.7%*	$181
Finance Lease		$461	*100.0%*	$461			$46
Total Bank Debt		$5,300		$3,839			$228
9.75% Senior secured debt	01-Mar-22	$2,160	*88.0%*	$1,901		*12.6%*	$211
Total Secured Debt		$7,460		$5,740	2.1x		$438
Total Net Secured Debt		$5,160		$3,440	1.3x		
8.25% Senior Unsecured Notes	01-Nov-19	$578	*83.3%*	$481		*14.2%*	$48
6.875% Senior Unsecured Notes	01-Apr-22	$478	*60.0%*	$287		*17.8%*	$33
Total Senior Unsecured Notes		$1,056		$768	3.1x		$81
Total Debt		$8,516		$6,508	3.1x		$519
Total Net Debt		$6,216		$4,208	2.2x		
Equity - number shares (USD ADR)	3,113.8	$1.27		$3,955	3.8x		
Est. LTM EBITDA as of December 31, 2015		$2,671					

As of December 31, 2015, Fortescue's cash position was $2.3bn – more detailed information will be available on February 24, when the company issues its H1 2016 financials. Fortescue needs between $1.2 and $1.5bn of cash on balance sheet for normal operations. The company has been using cash generated from operations to repurchase debt in the open market. During 12 months ended December 31, 2015, Fortescue repurchased $1.134bn of face value of debt reducing its annual cash interest by $88mm. Fortescue has been opportunistically repurchasing all bonds in the market. In our analysis of the second half of 2016 (ending on June 30), we are assuming in our projections that $569mm of free cash flow will be used to the debt will be repurchased debt at an average price of 85 cents.

Fortescue debt does not have any maintenance financial covenants materially limiting the company's ability to operate normally, despite changing pricing environment in the industry. The company's first lien bonds are essentially *pari passu* with the Term Loan, and the next material possible trigger event for the company's capital is related to the refinancing of the company's term loan in March 2019, followed by the 8.25% of the senior unsecured notes. We have created a low case and high case projections of the company's operations through June 2018. Under the low case scenario, we estimate that the company's net debt on June 2018 will be $4.5bn, which implies that the company will reduce the face value of its debt by $1.7bn. That included the entire unsecured debt and a portion of the 1st-lien bonds.

The relevant question that any investor should be asking himself at this point is: "How is that possible? What can go wrong?" The only scenario under which Fortescue's debt will be in trouble (also temporary, since it will need to be equitized in case it cannot refinance it in 2019) is related to the possibility of super-draconian iron ore price decrease by Vale, Rio Tinto and BHP. Under this case, if you believe in this possibility, you should consider shorting their stocks as a hedge to your long position in Fortescue debt. In addition, the company's bonds are still in hands of traditional HY investors with the relative value duration-based framework built in their mentality. As a result, we see the absurd trading yield spreads between the secured term loan, secured bonds and unsecured bonds. We think that it should be considered a crime to avoid taking advantage of these discrepancies.

The real question, however, that investors should be asking is:" How do we play this?" Indeed, the first trade that comes to your mind is to buy the lower-prices unsecured bonds and to short the equity. Where did you the market capitalization of the stock equal to the market value of the debt? It does not happen every day and looks ridiculous. However, most of arbitrageurs are scared of the different volatility and convexity patterns for the company's stock and the bonds.

Any trading position hedge to your long position to the bonds (we actually prefer to buy a combination of the term loan and the lower-priced unsecured bonds) should be dynamic. That implies that you should change the short amount of the stock aggressively. At the current point, we think that the pendulum will be changing in the negative direction for the stock, since the company has been on a road show actively promoting its bright future. However, overall, you should be overwhelmingly bullish and overall long taking a relatively small short position in the stock. Alternatively, you should consider buying the 6.875% unsecured notes and shorting the small amount of the 9.75% secured notes. In order to understand the trade, you should see that <u>the yield to June 30, 2019 (the next refinancing event) for the 1st-lien bonds is 14.4%, while the yield to the same day of the 6.875% notes is 25.0% - a huge difference compared to the seemingly low spread between yields to maturity of these bonds.</u>

Overall, the opportunity in Fortescue debt is as attractive as it can be… We encourage every stressed and distressed investor to take advantage of it.

Disclosure Regarding Research Report

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