

Rio Tinto PLC (RIO.L)

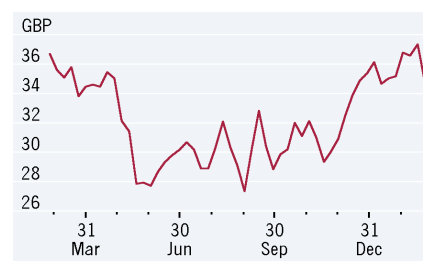
Climbing the Iron Ore Mountain

- **Our only Buy** — Rio Tinto is our only buy amongst the large cap UK diversified miners, and this is based on our expectations for improving returns, increasing cash flow, along with prudent capital allocation and increased cash returns. We expect that this will be a bigger driver to share price performance in the medium term than pure earnings momentum, however the market remains concerned about iron ore prices and in this note we analyze a range of scenarios. We believe our investment case remains intact and we maintain our BUY with £40.00 price target.
- **Cash flow versus Earnings** — Earnings momentum has been the principal driver of mining share price performance over the past decade. However as our [Super Cycle Sunset](#) thesis plays out we believe that cash flow, capital allocation and cash returns will be the biggest driver of alpha and multiple ratings. Assuming a 10x multiple we calculate that Rio Tinto is pricing in around 110/t iron ore price for 2013 and ~\$95/t for 2014, which is a price well below both the forward curve and our forecasts. Moreover a \$95/t iron ore price in 2014 would result in a free cash flow yield of around 8% post all capex, which still raises the potential for cash returns.
- **Iron Ore Market** — In the short term we expect a pull back in spot prices based on lower steel production, a period of destocking and increased volumes in the second half of 2013. Citi is forecasting a delivered price of \$113/t for iron ore in the second half of 2013 versus spot of ~\$154 and four month swap price of \$134/t.
- Rio Tinto is a part of [Citi Focus List Europe](#).

Company Update

Buy	1
Price (25 Feb 13)	£35.11
Target price	£40.00
Expected share price return	13.9%
Expected dividend yield	3.1%
Expected total return	17.1%
Market Cap	£61,822M
	US\$93,738M

Price Performance (RIC: RIO.L, BB: RIO LN)



Rio Tinto PLC (USD)

Year to 31 Dec	2011A	2012A	2013E	2014E	2015E
Sales (\$M)	60,537.0	50,967.0	58,541.2	67,153.7	73,262.8
Profit Before Tax (\$M)	13,016.0	-5,674.0	15,894.5	20,046.4	22,970.1
Diluted EPS (¢)	832.8	505.3	568.7	710.2	813.5
Diluted EPS (Old) (¢)	832.8	505.3	568.7	710.2	813.5
PE (x)	6.4	10.5	9.4	7.5	6.5
EV/EBITDA (x)	3.2	6.4	4.6	3.5	2.9
DPS (¢)	145.0	167.0	193.5	221.7	245.9
Net Div Yield (%)	2.7	3.1	3.6	4.2	4.6

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Fiscal year end 31-Dec	2011	2012	2013E	2014E	2015E
Valuation Ratios					
P/E adjusted (x)	6.4	10.5	9.4	7.5	6.5
EV/EBITDA adjusted (x)	3.2	6.4	4.6	3.5	2.9
P/NTA (x)	1.9	2.1	1.5	1.3	1.1
Dividend yield (%)	2.7	3.1	3.6	4.2	4.6
Per Share Data (US¢)					
EPS adjusted	832.8	505.3	568.7	710.2	813.5
NTAPS	2,814.1	2,545.4	3,547.4	4,060.9	4,753.2
DPS	145.0	167.0	193.5	221.8	245.9
Profit & Loss (US\$m)					
Net sales	60,537	50,967	58,541	67,154	73,263
EBITDA	28,226	15,238	22,609	28,126	31,475
EBIT	23,309	9,878	16,521	20,976	23,769
Net interest expense	-382	-160	-626	-930	-799
Non-operating/exceptionals	-9,911	-15,392	0	0	0
Pre-tax profit	13,016	-5,674	15,895	20,046	22,970
Tax	-6,251	2,670	-4,969	-6,292	-7,283
Extraord./Min.Int./Pref.div.	-939	14	-454	-679	-709
Reported net income	5,826	-2,990	10,471	13,076	14,978
Adjusted earnings	15,549	9,303	10,471	13,076	14,978
Growth Rates (%)					
Sales	0.4	-15.8	14.9	14.7	9.1
EPS adjusted	16.6	-39.3	12.6	24.9	14.5
Cash Flow (US\$m)					
Operating cash flow	20,250	11,677	18,365	22,658	25,300
Depreciation/amortization	4,917	5,360	6,088	7,150	7,706
Net working capital	1,303	3,932	-6,214	-482	-333
Investing cash flow	-17,892	-17,444	-15,399	-11,517	-10,064
Capital expenditure	-11,412	-16,652	-14,740	-10,459	-8,980
Acquisitions/disposals	-6,480	-792	373	0	0
Financing cash flow	-1,449	6,247	-3,181	-11,141	-15,236
Borrowings	5,891	7,888	-280	-7,335	-10,893
Dividends paid	-2,236	-3,038	-2,901	-3,807	-4,343
Change in cash	909	480	-215	0	0
Balance Sheet (US\$m)					
Total assets	119,545	117,573	132,336	136,067	138,982
Cash & cash equivalent	9,670	7,082	6,867	6,867	6,867
Accounts receivable	6,058	5,319	5,319	5,319	5,319
Inventory	5,307	6,136	7,036	8,087	8,815
Net goodwill & intangibles	0	0	0	0	0
Net fixed assets	64,967	75,131	84,061	87,654	89,219
Other assets	33,543	23,905	29,054	28,139	28,762
Total liabilities	67,006	70,708	67,023	61,300	51,468
Accounts payable	9,241	11,474	3,811	4,381	4,775
Total debt	21,850	26,865	26,539	19,205	8,311
Other liabilities	35,915	32,369	36,673	37,715	38,382
Shareholders' funds	52,539	46,865	65,313	74,766	87,513
Profitability/Solvency Ratios					
EBITDA margin adjusted (%)	46.6	29.9	38.6	41.9	43.0
ROE adjusted (%)	28.0	18.7	18.7	18.7	18.5
ROIC adjusted (%)	21.1	14.7	11.8	13.6	15.0
Net debt to equity (%)	23.2	42.2	30.1	16.5	1.7
Interest coverage adjusted (x)	61.0	61.7	26.4	22.6	29.8

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Rio Tinto

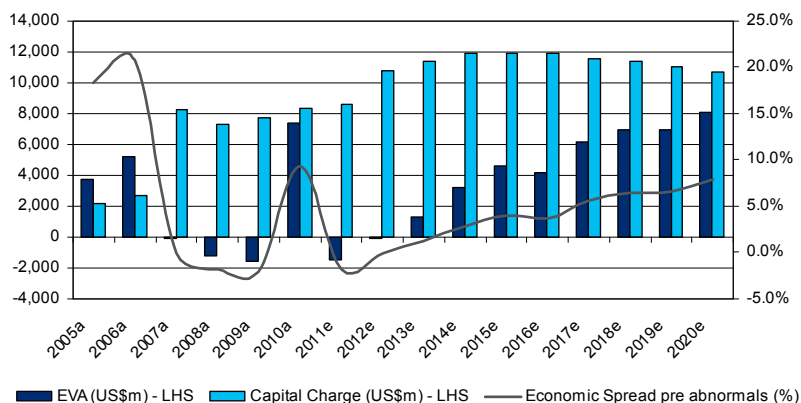
Our buy case on Rio Tinto is predicated on an improving ROIC and free cash flow—post-capex beyond 2013.

We expect the improving returns profile to drive multiple expansion in the medium term.

In the short term, Rio Tinto is trading in line with its historical PE relative to the UK market at a c15% discount.

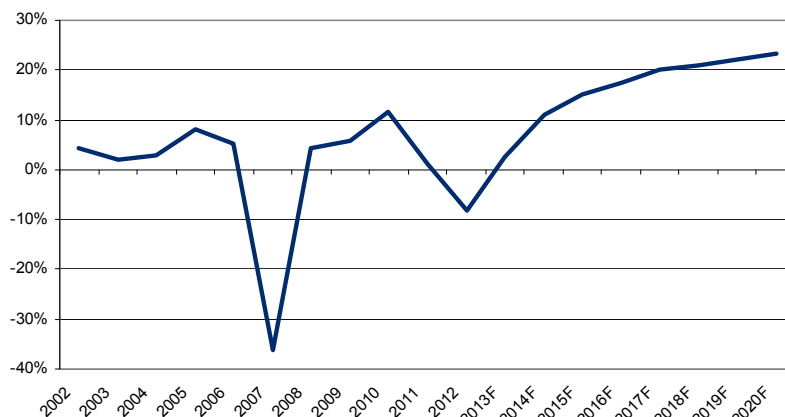
And therefore the delta on cash flow, returns and cash returns are likely to be a bigger driver of share price performance than the E (earnings).

Figure 1. Rio Tinto EVA creation



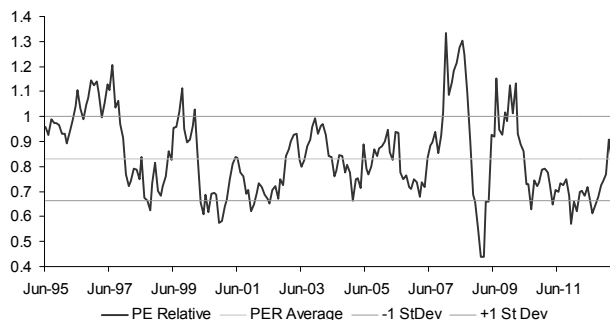
Source: Company Reports, Citi Research

Figure 2. Free cash flow post all capex



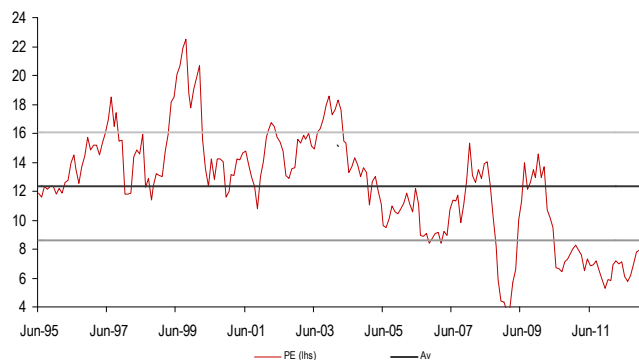
Source: Company Reports, Citi Research

Figure 3. Rio Tinto PE Relative to the UK market



Source: Datastream, dataCentral, Citi Research

Figure 4. Rio Tinto Forward PE multiple



Source: Datastream, dataCentral, Citi Research

HOWEVER, we are quick to highlight that the biggest concern for investors is the forward pricing of iron ore.

Importantly, Citi is forecasting a delivered price of \$113/t for iron ore in the second half. This is predicated on a destocking period post Chinese New Year.

The four month swap prices for iron ore have fallen by around \$13/t over the past ten days. The forward price movement can be attributed to Chinese government plans to curb the real estate sector and the forward price has tracked the fall in Shanghai rebar futures.

Nevertheless, the forward price of iron ore remains above Citi's forecasts for the remainder of the year (Citi is currently forecasting an annual average of \$120/t for 2013 and \$122 for 2014)

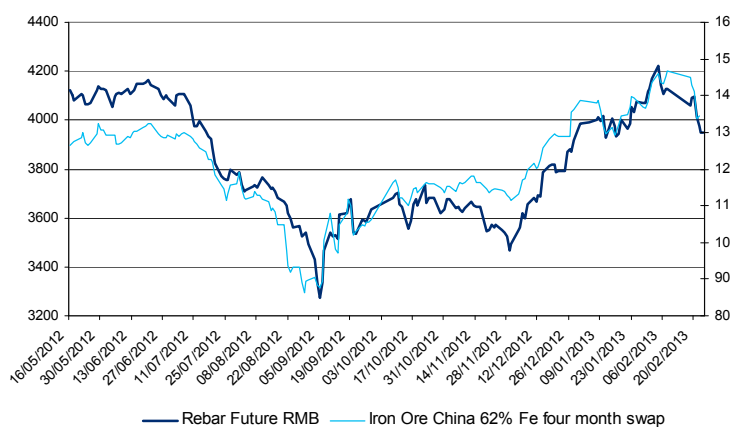
Chinese New Orders / inventory ratio versus steel production is pointing to a near term pull back in steel production and this, coupled with high steel trader inventories, should result in some destocking occurring. Our calculations of iron ore inventory build, through the supply chain, suggest the mills are adequately supplied.

Figure 5. Citi iron ore price forecasts versus the forward curve and Citi



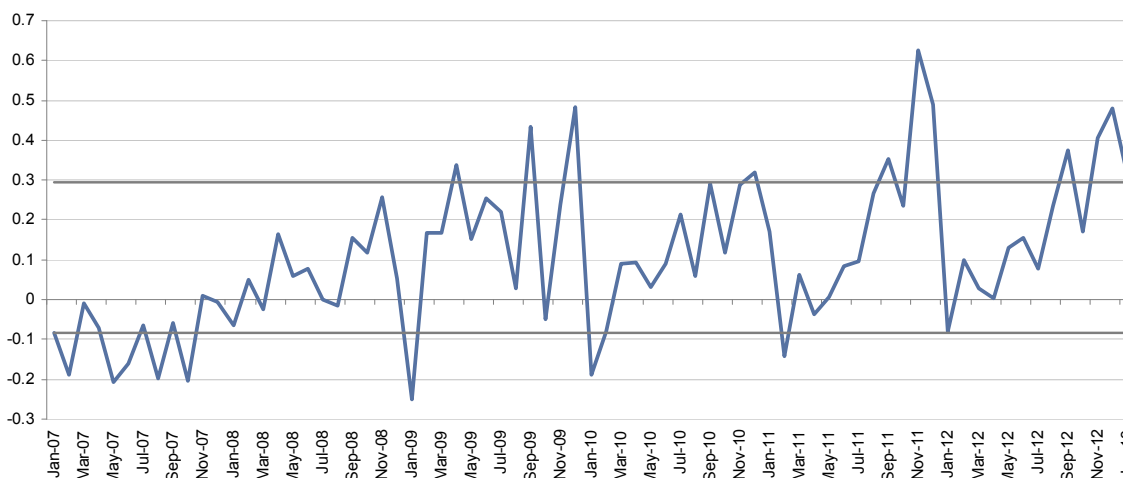
Source: Bloomberg, Citi Research

Figure 6. China Rebar Future Prices (LHS) versus China Iron Ore Four month swap (RHS)



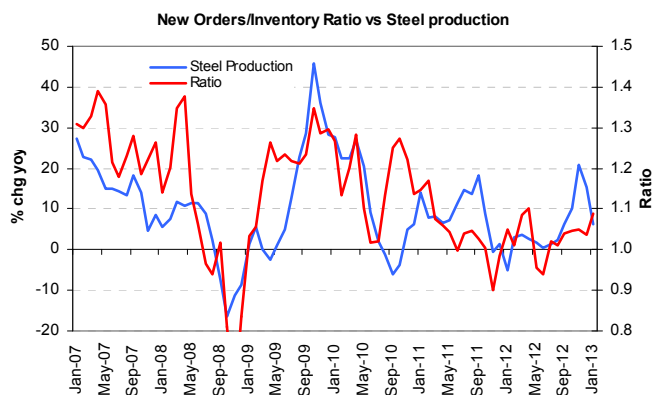
Source: Bloomberg, Citi Research

Figure 7. China Inventory Build - Iron Ore Used (Domestic production + Imports) versus Steel Production



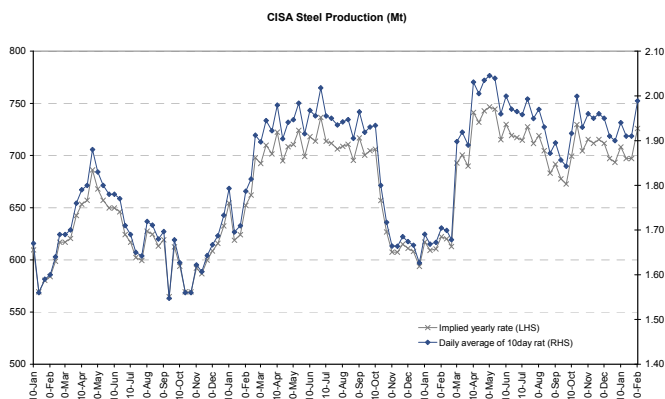
Source: Bloomberg, Citi Research

Figure 8. Chinese New Orders / inventory ratio versus steel production



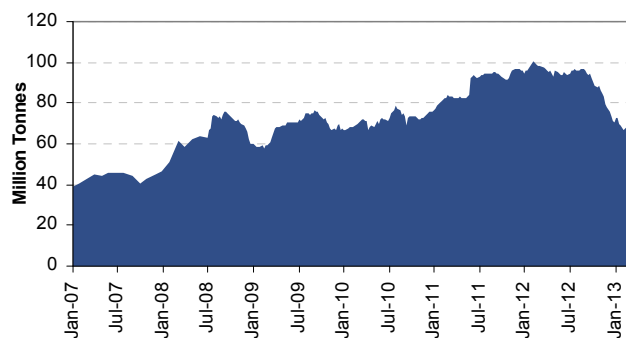
Source: Bloomberg, Company Reports and Citi Research Estimates

Figure 9. CISA steel production data



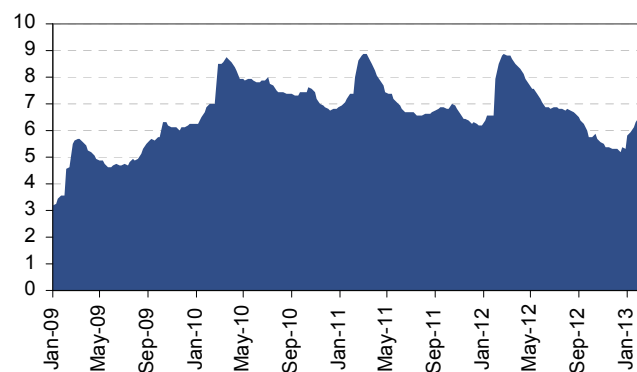
Source: Company Reports and Citi Research Estimates

Figure 10. Chinese Iron Ore Port Inventories



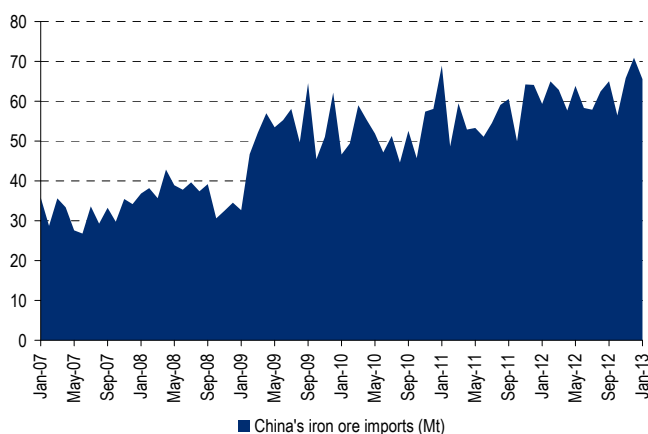
Source: Bloomberg, Company Reports and Citi Research Estimates

Figure 11. Steel Inventory (held by traders)



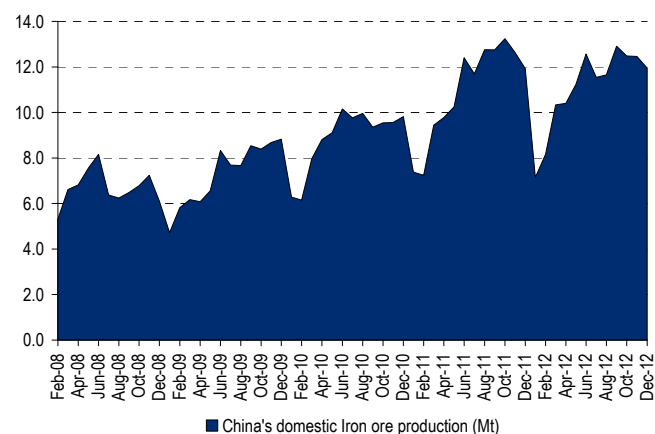
Source: Bloomberg, Company Reports and Citi Research Estimates

Figure 12. China iron ore imports (Mt)



Source: China Customs, Wind, Citi Research

Figure 13. China Domestic iron ore production (Mt)



Source: Bloomberg, Company Reports and Citi Research Estimates

The iron ore market has benefitted from a sharp reduction in Indian exports which, on our calculations will result in the market being in deficit by around 40Mt in 2013

The Karnataka mining ban has been in place since August 2011 and in Goa since September 2012. While some mines were allowed to resume production in 2012, the process to bring the production back has been slow and bureaucratic. We do not expect meaningful volumes from these two states in CY 2013. However with the mining industry being rather more significant for Goa (~35% of state GDP), there could be more pressure to bring mining back.

On the seaborne markets there is a large first half / second half skew. We actually forecast a fall in production HoH by around 12Mt and the second half to increase by 26Mt. This is being principally driven out of Australia from expansion by BHPB, Rio and FMG.

Figure 14. Iron Ore summary Sheet

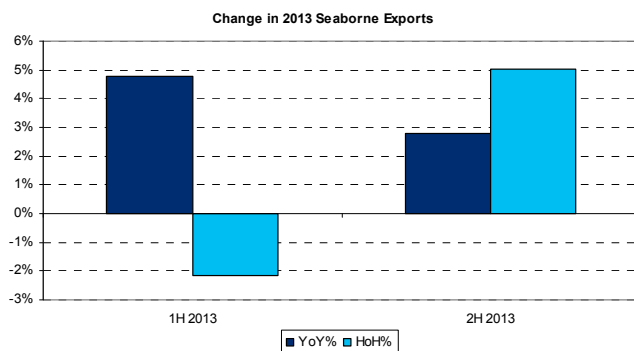
Mt	2011	2012e	2013e	2014e	2015e	2016e	2017e	2018e
Supply: Seaborne Exports								
Australia	437	494	578	638	701	769	818	855
Brazil	331	322	324	358	385	415	415	461
India	90	35	15	35	50	50	50	50
Canada	25	31	34	37	39	39	39	39
Africa	61	71	84	97	104	109	123	140
Other	86	97	51	48	50	45	45	45
Total Seaborne Exports	1,030	1,049	1,086	1,213	1,329	1,427	1,489	1,589
Demand: Seaborne Imports								
Japan	128	133	133	137	133	136	139	141
Korea	66	67	73	74	75	81	86	92
Taiwan	21	19	19	20	20	21	23	24
EEC	94	92	97	97	97	97	97	97
USA	5	9	11	11	12	12	11	11
Other (inc 3G)	40	40	40	49	65	113	147	156
Total Seaborne Imports	354	360	374	388	402	459	502	521
Market balance ex-china	676	689	712	825	926	967	988	1068
China Adjustment								
Available exports for China	676	689	712	825	926	967	988	1,068
Chinese requirements (@63% Fe)	1,087	1,063	1,094	1,117	1,183	1,211	1,238	1,238
Surplus/(Deficit) Pre China Domestic F	-410	-374	-382	-292	-257	-244	-251	-170
Domestic production	424	368	342	348	348	299	299	307
Implied Surplus/(Deficit) (incl China D	14	-6	-40	56	91	56	49	137
% of seaborne+Chinese supply	1%	0%	-3%	4%	5%	3%	3%	7%
Iron Ore Price Forecast	122.0	129.0	120.0	122.0	122.0	105.0	105.0	107.5

Source: Tex Report; Citi Investment Research and Analysis

Mt	2011	2012e	2013e	2014e	2015e	2016e	2017e	2018e
China's Crude Steel Production & Iron Ore Supply								
Crude Steel Production	713	697	718	733	777	795	813	813
Pig Iron Production	685	669	689	704	746	763	780	780
Consumption (Mt Fe)	685	669	690	704	746	763	780	780
Consumption (@ 63% Fe)	1,087	1,063	1,094	1,117	1,183	1,211	1,238	1,238
China Imports (Mt iron ore @63%)	676	689	712	825	926	967	988	1,068
China Imports (Contained iron)	426	434	449	520	583	609	622	673
Inventory (Mt Iron Ore)	93	87	90	92	97	100	102	102
Inventory (Days Cover)	0.1	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Ore Inventory Change (Mt of Ore)	16.4	-5.7	2.6	1.8	5.5	2.3	2.3	0.0
Reported Production (ROM)	1,315	1,180	1,135	1,165	1,177	1,023	1,034	1,069
Domestic Production (Contained iron)	269	232	216	219	219	189	189	193
Average Grade (%)	20%	20%	19%	19%	19%	18%	18%	18%
Domestic Production (@63% Fe)	424	368	342	348	348	299	299	307
Imports (% Share)	62%	65%	65%	74%	78%	80%	80%	86%

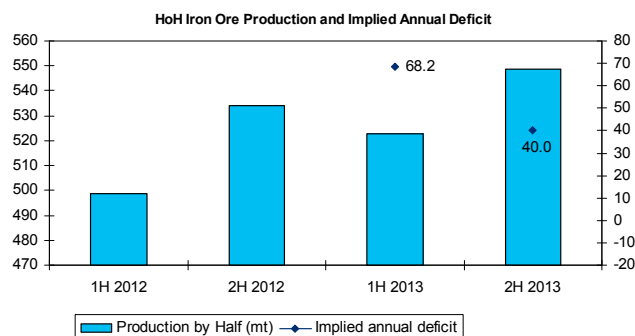
Source: Tex Report; Citi Investment Research and Analysis

Figure 15. Change in Seaborne Exports



Source: Company Reports and Citi Research Estimates

Figure 16. Half on Half iron Ore Production and Implied Deficit



Source: Company Reports and Citi Research Estimates

To test Rio Tinto's earnings and cash flow we have run a number of scenarios through our model.

The key points are we expect Rio Tinto to be cash positive (post all capex, pre dividends) at \$90/t iron ore in 2013.

At \$90/t iron ore free cash flow would be around 5% which would cover dividend payments.

Running the forward curve through our model, Rio Tinto would be trading at a forward PE of around 8.1x for both 2013 and 2014.

Assuming a 10x forward multiple Rio is pricing in a \$110/t iron ore price for 2013 and ~\$95/t for 2014. However we believe this underestimates the cash generation and potential cash returns profile.

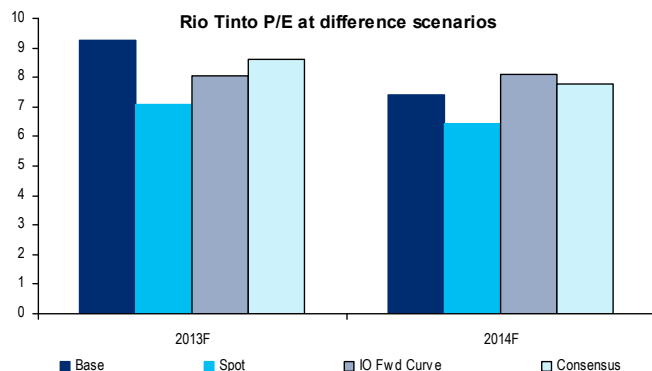
Figure 17. Free cash flow and Yield post all capex

US\$m unless stated	2013F	2014F	2015F	2016F	2017F	2018F	2019F	2020F
Free Cash Flows after all Capex								
Base Case	2,593	11,141	15,236	17,523	20,199	21,228	22,228	23,403
Iron Ore at \$160/t	8,899	17,043	21,676	24,867	28,959	31,195	32,680	34,289
Iron Ore at \$150/t	7,596	15,580	19,988	22,975	26,990	29,223	30,704	32,169
Iron Ore at \$140/t	6,292	14,197	18,457	21,253	25,083	27,080	28,495	29,900
Iron Ore at \$130/t	5,093	12,815	16,850	19,325	23,037	24,904	26,576	27,999
Iron Ore at \$120/t	3,788	11,359	15,188	17,649	21,318	23,082	24,433	25,766
Iron Ore at \$110/t	2,563	10,150	13,829	15,819	19,300	20,977	22,346	23,595
Iron Ore at \$100/t	1,283	8,635	12,130	13,850	17,086	18,770	20,033	21,206
Iron Ore at \$90/t	-80	7,122	10,383	11,812	14,815	16,320	17,700	18,880
Iron Ore at \$80/t	-1,469	5,539	8,705	9,891	12,707	13,980	15,355	16,428
Iron Ore at \$70/t	-2,803	4,045	6,912	7,830	10,435	11,549	12,758	13,938
Free Cash Flow Yield								
Base Case	3%	11%	15%	17%	20%	21%	22%	23%
Iron Ore at \$160/t	9%	17%	21%	25%	29%	31%	32%	34%
Iron Ore at \$150/t	8%	15%	20%	23%	27%	29%	30%	32%
Iron Ore at \$140/t	6%	14%	18%	21%	25%	27%	28%	30%
Iron Ore at \$130/t	5%	13%	17%	19%	23%	25%	26%	28%
Iron Ore at \$120/t	4%	11%	15%	17%	21%	23%	24%	26%
Iron Ore at \$110/t	3%	10%	14%	16%	19%	21%	22%	23%
Iron Ore at \$100/t	1%	9%	12%	14%	17%	19%	20%	21%
Iron Ore at \$90/t	0%	7%	10%	12%	15%	16%	18%	19%
Iron Ore at \$80/t	-1%	5%	9%	10%	13%	14%	15%	16%
Iron Ore at \$70/t	-3%	4%	7%	8%	10%	11%	13%	14%

Source: Datastream, Citi Research

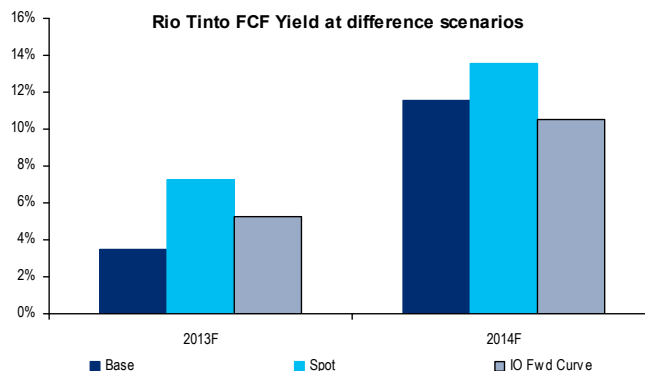
Forward Curve – Multiples

Figure 18. Rio Free P/E at various scenarios



Source: dataCentral, Bloomberg, Citi Research

Figure 19. Rio Free cash flow yield at various scenarios



Source: dataCentral, Bloomberg, Citi Research

Figure 20. Large Cap miners PE multiples

PE Multiples		RIC	Rating	Listing	Price	Target	Citi Base Case				Spot Fx/Prices				IBES Consensus			
Calendar Years				Ccy	22/2/13		2012E	2013E	2014E	12E-14E CAGR	2012E	2013E	2014E	12E-14E CAGR	2012E	2013E	2014E	12E-14E CAGR
Diversified																		
Anglo American PLC		AAL.L	Neutral	GBP	19.42	21.00	13.1	11.6	10.2	13%	13.1	10.6	11.8	5%	13.1	11.5	9.9	15%
BHP Billiton PLC		BLT.L	Neutral	GBP	20.94	23.00	11.4	12.0	10.1	6%	13.1	10.2	9.3	19%	10.9	11.0	9.7	6%
ENRC		ENRC.L	Sell	GBP	3.65	2.70	11.0	10.3	6.2	33%	11.1	8.3	5.1	47%	10.8	10.0	6.9	25%
Rio Tinto PLC		RIO.L	Buy	GBP	34.76	40.00	10.4	9.3	7.4	19%	10.4	7.1	6.4	27%	10.5	8.6	7.8	16%
Vale		VALE.N	Buy	USD	18.09	22.00	8.7	9.2	8.1	4%	8.7	5.3	5.3	29%	9.1	7.9	7.6	10%

Source: dataCentral, Citi Research

Figure 21. Rio Tinto multiples at various iron ore prices.

Base Case	2013F	2014F	2015F	2016F	2017F	2018F	2019F	2020F
Free Cash Flow	2,593	11,141	15,236	17,523	20,199	21,228	22,228	23,403
FCF Yield	2.6%	11.0%	15.1%	17.4%	20.0%	21.0%	22.0%	23.2%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	6.2%	6.7%	7.1%	7.4%
P/E	9.6	7.7	6.7	6.9	6.6	6.2	6.2	5.7
EV/EBITDA	5.9	4.6	3.8	3.4	2.9	2.5	2.0	1.5
Iron Ore at \$160/t								
Free Cash Flow	8,899	17,043	21,676	24,867	28,959	31,195	32,680	34,289
FCF Yield	8.8%	16.9%	21.5%	24.6%	28.7%	30.9%	32.4%	34.0%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	8.5%	9.8%	10.9%	11.4%
P/E	6.5	5.6	4.9	4.7	4.4	4.0	3.9	3.7
EV/EBITDA	4.3	3.4	2.7	2.2	1.6	1.1	0.7	0.2
Iron Ore at \$150/t								
Free Cash Flow	7,596	15,580	19,988	22,975	26,990	29,223	30,704	32,169
FCF Yield	7.5%	15.4%	19.8%	22.8%	26.7%	28.9%	30.4%	31.9%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	8.0%	9.1%	10.1%	10.7%
P/E	7.0	6.0	5.3	5.1	4.7	4.3	4.2	4.0
EV/EBITDA	4.6	3.6	2.9	2.4	1.9	1.4	0.9	0.4
Iron Ore at \$140/t								
Free Cash Flow	6,292	14,197	18,457	21,253	25,083	27,080	28,495	29,900
FCF Yield	6.2%	14.1%	18.3%	21.0%	24.8%	26.8%	28.2%	29.6%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	7.5%	8.4%	9.3%	9.8%
P/E	7.6	6.5	5.7	5.5	5.1	4.7	4.6	4.3
EV/EBITDA	4.9	3.9	3.2	2.7	2.1	1.6	1.2	0.7
Iron Ore at \$130/t								
Free Cash Flow	5,093	12,815	16,850	19,325	23,037	24,904	26,576	27,999
FCF Yield	5.1%	12.7%	16.7%	19.1%	22.8%	24.7%	26.3%	27.7%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	6.9%	7.7%	8.5%	9.0%
P/E	8.3	7.0	6.2	6.1	5.6	5.2	5.0	4.7
EV/EBITDA	5.2	4.2	3.5	3.0	2.4	1.9	1.4	1.0
Iron Ore at \$120/t								
Free Cash Flow	3,788	11,359	15,188	17,649	21,318	23,082	24,433	25,766
FCF Yield	3.8%	11.2%	15.0%	17.5%	21.1%	22.9%	24.2%	25.5%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	6.4%	7.1%	7.8%	8.2%
P/E	9.1	7.7	6.8	6.7	6.2	5.7	5.5	5.1
EV/EBITDA	5.6	4.5	3.8	3.3	2.8	2.2	1.8	1.3
Iron Ore at \$110/t								
Free Cash Flow	2,563	10,150	13,829	15,819	19,300	20,977	22,346	23,595
FCF Yield	2.5%	10.1%	13.7%	15.7%	19.1%	20.8%	22.1%	23.4%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	5.8%	6.4%	7.0%	7.4%
P/E	10.1	8.4	7.4	7.5	6.9	6.4	6.1	5.7
EV/EBITDA	6.1	4.9	4.1	3.7	3.2	2.6	2.2	1.6
Iron Ore at \$100/t								
Free Cash Flow	1,283	8,635	12,130	13,850	17,086	18,770	20,033	21,206
FCF Yield	1.3%	8.6%	12.0%	13.7%	16.9%	18.6%	19.8%	21.0%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	5.2%	5.6%	6.2%	6.5%
P/E	11.5	9.5	8.3	8.6	8.0	7.3	7.0	6.5
EV/EBITDA	6.6	5.3	4.6	4.2	3.7	3.1	2.6	2.1
Iron Ore at \$90/t								
Free Cash Flow	-80	7,122	10,383	11,812	14,815	16,320	17,700	18,880
FCF Yield	-0.1%	7.1%	10.3%	11.7%	14.7%	16.2%	17.5%	18.7%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	4.6%	4.8%	5.3%	5.5%
P/E	13.3	10.8	9.6	10.1	9.6	8.6	8.2	7.5
EV/EBITDA	7.3	5.9	5.1	4.8	4.3	3.7	3.2	2.7
Iron Ore at \$80/t								
Free Cash Flow	-1,469	5,539	8,705	9,891	12,707	13,980	15,355	16,428
FCF Yield	-1.5%	5.5%	8.6%	9.8%	12.6%	13.8%	15.2%	16.3%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	4.0%	4.0%	4.3%	4.6%
P/E	16.0	12.8	11.2	12.2	11.7	10.6	10.0	9.0
EV/EBITDA	8.1	6.5	5.7	5.6	5.0	4.4	4.0	3.4
Iron Ore at \$70/t								
Free Cash Flow	-2,803	4,045	6,912	7,830	10,435	11,549	12,758	13,938
FCF Yield	-2.8%	4.0%	6.8%	7.8%	10.3%	11.4%	12.6%	13.8%
Dividend Yield	2.9%	3.8%	4.3%	4.7%	3.3%	3.2%	3.4%	3.5%
P/E	19.9	15.5	13.6	15.8	15.4	13.8	13.0	11.2
EV/EBITDA	9.1	7.3	6.5	6.5	6.0	5.4	4.9	4.3

Source: Datastream, Citi Research

Rio Tinto PLC

Company description

Rio Tinto is a diversified metals and mining company. Wholly-owned subsidiaries include Borax, Rio Tinto Alcan, Hamersley, Rio Tinto Coal Australia, Kennecott Utah Copper and Rio Tinto Iron & Titanium. There are also partly-owned subsidiaries (Coal & Allied) and non-managed joint ventures (Escondida and Grasberg).

Investment strategy

We rate Rio Tinto Buy as we believe the recent management changes along with substantial impairments should result in long-term positives. The strong iron ore price rebound from <\$90/t in 3Q 2012 to >\$150/t is also very helpful for Rio as iron ore represents 70-80% of group earnings. While the long-term outlook for Chinese steel consumption remains somewhat uncertain, recent economic signals have indicated a greater degree of stabilisation in the environment in the near to medium term.

Valuation

Our rounded RIO target price is £40. Our RIO valuation (NPV) of £43.2 per share is based on DCF analysis using a 7.8% real, after-tax, unlevered discount rate and a beta of 1.1. Long-term equilibrium commodity prices and key assumptions are available in our Metals & Mining Strategy reports. We calculate our one-year target price using a combination of: 1) a valuation based on 15% discount to NPV; and 2) a multiple-based £43.30 valuation (a combination of 10x PE and 6x EV/EBITDA multiples for FY13E and FY14E weighted equally); with a 50/50 weighting between each methodology.

Risks

We consider a number of risks to our investment thesis, driven by the high financial leverage in the company offset by operational and geographical diversification. Key risks to our projected earnings, cash flows and target price relate to weaker-than-expected commodity prices/economic growth and currency fluctuations.

Country risk is a consideration with about 20% of operations by NPV in Africa and South America and Indonesia.

Operating risk in RIO is lower than in smaller metals and mining companies with fewer operations.

If the impact on the company from any of these factors proves to be more or less negative than we currently anticipate, the stock price might fail to reach or rise above our target price.

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

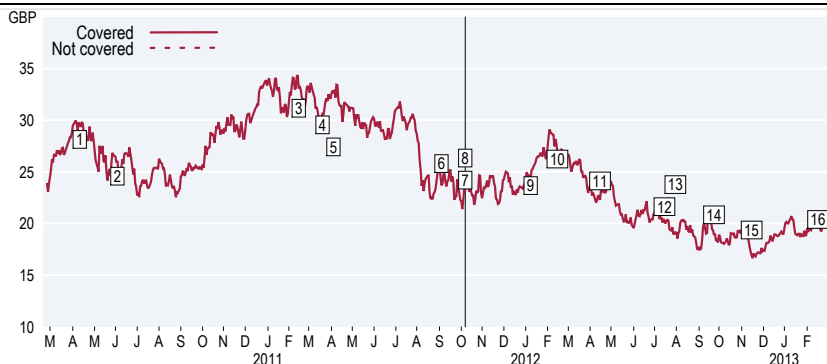
IMPORTANT DISCLOSURES

Anglo American PLC (AAL.L)

Ratings and Target Price History Fundamental Research

Analyst: Heath R Jansen

Covered since May 24 2010



	Date	Rating	Target Price	Closing Price
1	12-Apr-10	1M	*38.00	29.48
2	3-Jun-10	1M	*36.00	26.05
3	15-Feb-11	*2M	*37.00	33.07
4	21-Mar-11	*1M	37.00	30.62
5	5-Apr-11	1M	*38.00	32.73
6	4-Sep-11	1M	*35.00	24.58

* Indicates change

	Date	Rating	Target Price	Closing Price
7	7-Oct-11	Stock rating system changed		
8	7-Oct-11	*1	35.00	23.30
9	8-Jan-12	1	*33.00	24.69
10	15-Feb-12	*2	*30.00	26.90
11	16-Apr-12	2	*25.00	22.28
12	16-Jul-12	2	*22.00	20.22

	Date	Rating	Target Price	Closing Price
13	31-Jul-12	2	*20.00	19.00
14	24-Sep-12	2	*21.00	18.88
15	15-Nov-12	2	*20.00	16.91
16	18-Feb-13	2	*21.00	19.83

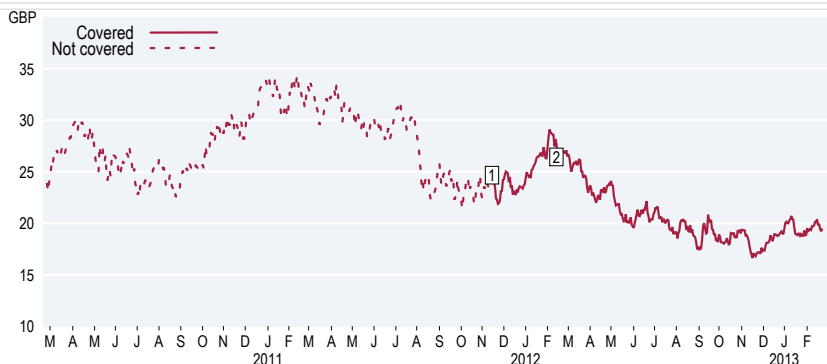
Rating/target price changes above reflect Eastern Standard Time

Anglo American PLC (AAL.L)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Heath R Jansen

Covered since May 24 2010



	Date	Rating	Target Price	Closing Price
1	15-Nov-11	*ADD MP	-	24.54

* Indicates change

	Date	Rating	Target Price	Closing Price
2	14-Feb-12	*REM MP	-	27.72

Rating/target price changes above reflect Eastern Standard Time

Eurasian Natural Resources Corporation PLC (ENRC) (ENRC.L)

Ratings and Target Price History Fundamental Research

Analyst: Michael E Flitton
Covered since January 21 2013



	Date	Rating	Target Price	Closing Price
1	14-Apr-10	1M	*14.20	12.45
2	19-Aug-10	*2M	*10.00	8.86
3	18-May-11	*1H	10.00	8.41
4	7-Oct-11	Stock rating system changed		
5	7-Oct-11	*1	10.00	6.29
6	9-Jan-12	1	*9.30	6.98

* Indicates change

	Date	Rating	Target Price	Closing Price
7	26-Jan-12	1	*9.10	7.39
8	13-Mar-12	1	*8.60	6.83
9	22-Mar-12	1	*8.00	6.28
10	16-Apr-12	1	*7.60	5.60
11	10-May-12	1	*7.50	5.37
12	16-Jul-12	1	*5.70	4.03

	Date	Rating	Target Price	Closing Price
13	21-Aug-12	*2	*4.00	3.70
14	3-Sep-12	2	*3.50	3.02
15	11-Dec-12	*3	*1.70	2.66
16	7-Feb-13	3	*2.10	3.71
17	18-Feb-13	3	*2.70	3.90

Rating/target price changes above reflect Eastern Standard Time

Eurasian Natural Resources Corporation PLC (ENRC) (ENRC.L)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Michael E Flitton
Covered since January 21 2013



	Date	Rating	Target Price	Closing Price
1	11-Feb-11	*ADD LP	-	10.15

* Indicates change

	Date	Rating	Target Price	Closing Price
2	16-Aug-11	*REM LP	-	6.32

Rating/target price changes above reflect Eastern Standard Time

BHP Billiton PLC (BLT.L)

Ratings and Target Price History Fundamental Research

Analyst: Heath R Jansen
Covered since May 24 2010



	Date	Rating	Target Price	Closing Price
1	12-Apr-10	1M	*30.00	22.71
2	3-Jun-10	1M	*27.00	18.40
3	16-Feb-11	1M	*30.00	24.64
4	5-Sep-11	1M	*24.05	19.54

* Indicates change

	Date	Rating	Target Price	Closing Price
5	7-Oct-11	Stock rating system changed		
6	7-Oct-11	*1	24.05	18.68
7	9-Jan-12	1	*23.00	19.48
8	16-Jul-12	1	*22.00	17.95

	Date	Rating	Target Price	Closing Price
9	3-Sep-12	1	*21.00	18.55
10	24-Sep-12	1	*22.00	19.49
11	21-Feb-13	*2	*23.00	20.97

Rating/target price changes above reflect Eastern Standard Time

BHP Billiton PLC (BLT.L)

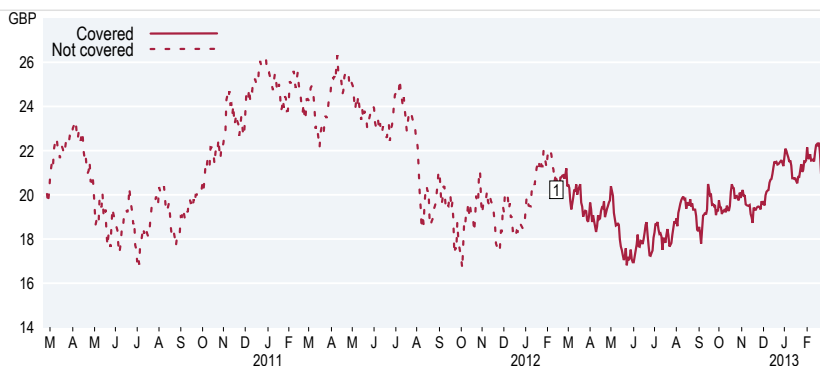
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Heath R Jansen

Covered since May 24 2010



	Date	Rating	Target Price	Closing Price
1	14-Feb-12	*ADD MP	-	20.72

* Indicates change

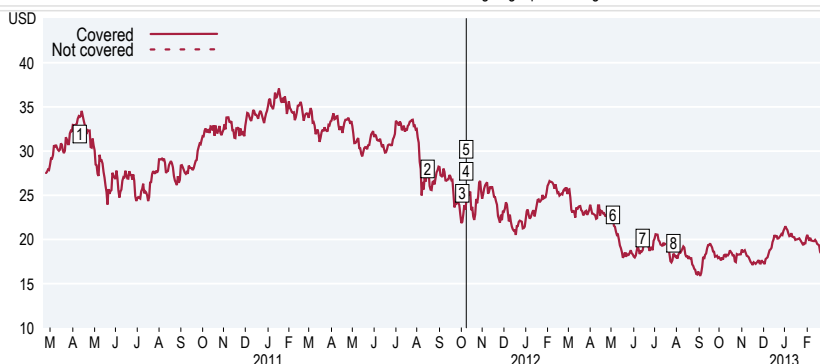
Rating/target price changes above reflect Eastern Standard Time

Vale (VALE.N)

Ratings and Target Price History

Fundamental Research

Analyst: Alexander Hacking, CFA



	Date	Rating	Target Price	Closing Price
1	12-Apr-10	1M	*42.00	33.86
2	16-Aug-11	1M	*40.00	27.05
3	4-Oct-11	1M	*33.00	21.99

* Indicates change

	Date	Rating	Target Price	Closing Price
4	8-Oct-11	Stock rating system changed		
5	8-Oct-11	*1	33.00	23.36
6	3-May-12	1	*32.00	22.25

	Date	Rating	Target Price	Closing Price
7	14-Jun-12	1	*26.00	18.79
8	27-Jul-12	1	*22.00	18.39

Rating/target price changes above reflect Eastern Standard Time

Vale (VALE.N)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Alexander Hacking, CFA



	Date	Rating	Target Price	Closing Price
1	21-Apr-11	*ADD MP	-	33.54
2	9-Jan-12	*REM MP	-	22.50

* Indicates change

	Date	Rating	Target Price	Closing Price
3	18-Jun-12	*ADD MP	-	19.36
4	24-Sep-12	*REM MP	-	18.61

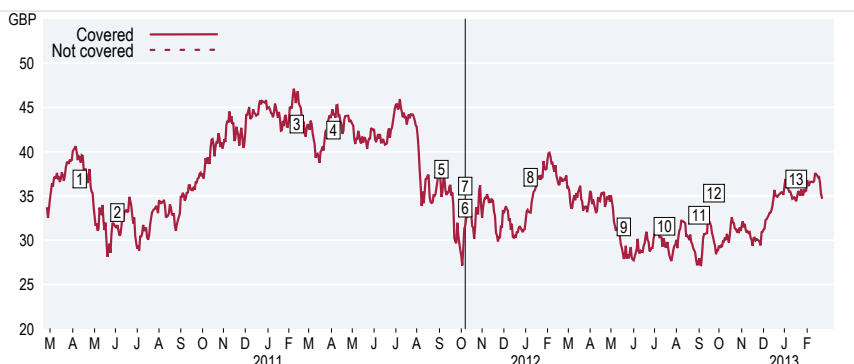
Rating/target price changes above reflect Eastern Standard Time

Rio Tinto PLC (RIO.L)

Ratings and Target Price History

Fundamental Research

Analyst: Heath R Jansen
Covered since May 24 2010



	Date	Rating	Target Price	Closing Price
1	12-Apr-10	1M	*50.00	39.40
2	3-Jun-10	1M	*42.00	31.71
3	11-Feb-11	1M	*50.00	46.24
4	5-Apr-11	1M	*52.00	44.13
5	5-Sep-11	1M	*53.00	34.89

* Indicates change

	Date	Rating	Target Price	Closing Price
6	7-Oct-11	Stock rating system changed		
7	7-Oct-11	*1	53.00	31.64
8	9-Jan-12	1	*49.00	33.11
9	18-May-12	1	*45.00	27.88
10	16-Jul-12	1	*43.50	29.86

	Date	Rating	Target Price	Closing Price
11	3-Sep-12	1	*39.00	27.96
12	24-Sep-12	*2	*33.00	29.80
13	17-Jan-13	*1	*40.00	34.40

Rating/target price changes above reflect Eastern Standard Time

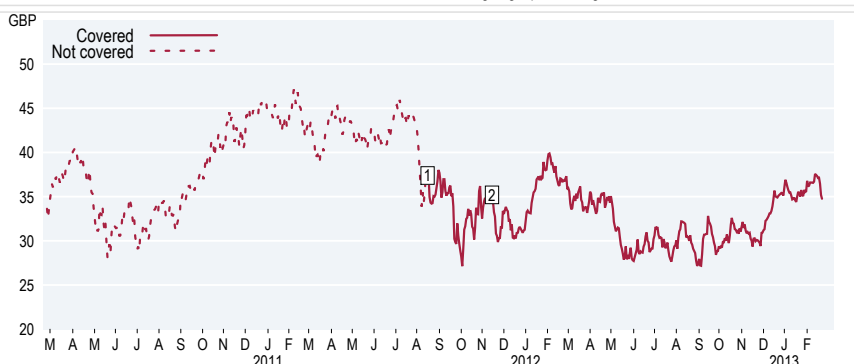
Rio Tinto PLC (RIO.L)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Heath R Jansen
Covered since May 24 2010



	Date	Rating	Target Price	Closing Price
1	16-Aug-11	*ADD MP	-	37.29

* Indicates change

	Date	Rating	Target Price	Closing Price
2	15-Nov-11	*REM MP	-	34.58

Rating/target price changes above reflect Eastern Standard Time

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BEST IDEAS UNIVERSE: The best ideas universe from which Rio Tinto PLC (covered by Heath R Jansen) were chosen comprises: BHP Billiton PLC (BLT.L, US\$20.94), Anglo American PLC (AAL.L, US\$19.42), Rio Tinto PLC (RIO.L, US\$34.76), Lonmin PLC (LMI.L, US\$3.5), Hochschild Mining Plc (HOC.M.L, US\$3.68), Klöckner & Co. (KCOGn.DE, €11.18), African Barrick Gold Plc (ABGL.L, US\$2.68), Randgold Resources Ltd (RRS.L, US\$53.9), Ferrexpo PLC (FXPO.L, US\$2.41), Aquarius Platinum Ltd (AQP.L, US\$0.57), Petropavlovsk PLC (POG.L, US\$3.01), Gem Diamonds (GEMD.L, US\$1.68), New World Resources (NWRRL, €2.62), Vedanta Resources Plc (VED.L, US\$12.15), Centamin Egypt Limited (CEY.L, US\$0.54), Fresnillo Plc (FRES.L, US\$14.88), Petra Diamonds (PDL.L, US\$1.16), African Minerals Ltd (AMlq.L, US\$2.9), Nyrstar NV (NYR.BR, €4.38), Zanaga Iron Ore Company (ZIOC.L, US\$0.24), Boliden AB (BOL.ST, SKr110.7), Nordgold (NORDNq.L, US\$4.1), London Mining (LOND.L, US\$1.58), Polymetal (POLYP.L, US\$9.83), Eurasian Natural Resources Corporation PLC (ENRC) (ENRC.L, US\$3.65), ArcelorMittal (ISPA.AS, US\$11.52), Antofagasta (ANTO.L, US\$10.84), Salzgitter AG (SZGG.DE, €35.22), First Quantum Minerals Ltd (FQM.L, US\$12.24), voestalpine AG (VOES.VI, €25.32), SSAB (SSABa.ST, SKr50.8), Kazakhmys Plc (KAZ.L, US\$6.78) and Norsk Hydro ASA (NHY.OL, Nkr26.36). All prices as of 22 Feb 2013.

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Citi Research Equity Ratings Distribution

<i>Data current as of 31 Dec 2012</i>	12 Month Rating			Relative Rating		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage	49%	38%	12%	7%	86%	7%
% of companies in each rating category that are investment banking clients	53%	49%	45%	60%	49%	55%

Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

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Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings**, which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of the Citi Research expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

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Citigroup Global Markets Inc

Heath R Jansen; Jatinder Goel, CFA; Jon H Bergtheil; Michael E Flitton; Thomas O'Hara
Alexander Hacking, CFA

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