

Equities

20 April 2012 | 80 pages

African Minerals and London Mining

Pumping Iron

- **Iron Maidens in West Africa** – We initiate coverage on African Minerals and London Mining, two iron ore pure plays, both of which are located in Sierra Leone and have recently commenced maiden shipments. African Minerals is ramping up to 20mtpa, while London Mining is increasing volumes to 5mtpa. We rate both stocks Buy but see more upside in London Mining (70% vs. 33%) on a 12 month view.
- **Post-Super-Cycle Alpha** – Mining sector returns have peaked thanks to rising capital costs, wage inflation, currency pressures and resource nationalism. With the easy wins behind us we would prefer exposure to companies that deliver superior returns through the delivery of alpha; efficient capital allocation, cash cost management and value in use are key metrics here. This should drive differentiated returns across the sector, with both African Minerals and London Mining likely to be key winners.
- **London Calling** – On a 6 month basis we expect LOND to outperform AMI; AMI's earlier commencement of production and securing of funding has seen it steal the limelight and outperform LOND by 40%, which has traded in line with the sector. Now that LOND is producing, fully funded for its capital efficient phase 1 (>35% IRR) and has stronger near term catalysts (bankable feasibility study for phase 1 expansion due in Q3), we would argue it is London's turn to shine and catch up.
- **AMI Holds the Cards Long Term** – AMI's large resource base and ownership of its rail and port infrastructure gives it greater optionality than LOND, which leases trucks and barges for shipment of product. In addition, it allows AMI to maintain stable IRRs of c.25% from additional growth phases, while LOND's incremental returns decline to c.15% due to scale and infrastructure restrictions.
- **Important to remember risk** – Africa can be turbulent and investing in the region entails serious risks; events in 2011 have reminded us of this. Political instability, labour disputes and encroaching resource nationalism need to be considered. However, we are comfortable that these risks are appropriately reflected in our valuations. We do not apply "High" risk ratings as we usually reserve these for non-producing stocks.
- **Valuation** – We initiate with Buy recommendations on both stocks. Our target prices are derived from an average of 1x base case NPV (12% WACC) and 4x2013E EBITDA, resulting in target prices of £7.50 for African Minerals and £4.65 for London Mining.

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Ticker	Rating		Target Price		Current Year Earnings Estimates		Next Year Earnings Estimates	
	Old	New	Old	New	Old	New	Old	New
AMIQ.L	NA	1	NA	£7.50	NA	US\$13.9	NA	US\$144.3
LOND.L	NA	1	NA	£4.65	NA	US\$0.42	NA	US\$2.01

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

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LOND near term, AMI long term

Mining returns have peaked with the super cycle and we expect cost pressures and softer demand to limit returns going forward

Iron ore looks vulnerable with low cost supply displacing high cost Chinese price support

Investor returns to be driven more by company-specific drivers or alpha rather than the beta trade of the super cycle

AMI has outperformed the SXPP and LOND by 40% since Jan 2012

We expect LOND's stronger near term catalysts to drive a relative rerating over the course of 2012

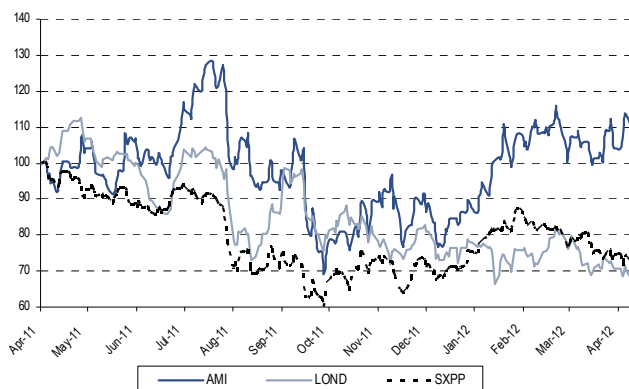
Returns have peaked for the mining sector as rising capital costs, wage inflation, currency pressures and resource nationalism eat into industry margins. While rent-seeking from other members of the value chain is not a new phenomenon, not only is intensity rising but the demand side is seeing pressure as well, as China hits unsustainable purchases of input costs.

While we expect prices for the commodity complex as a whole to trade sideways over the next 5 years iron ore is likely to see substantial inflow into the middle of the cost curve, displacing high cost Chinese production and pressuring prices. We expect spot CIF China to fall from \$149 in 2012 to \$115 in 2016.

Within this context alpha is likely to be the key driver of returns and as a result we believe investors should aim to gain exposure to those companies able to offset declining prices through near term volume growth, defensive cost curve positioning and efficient capital allocation.

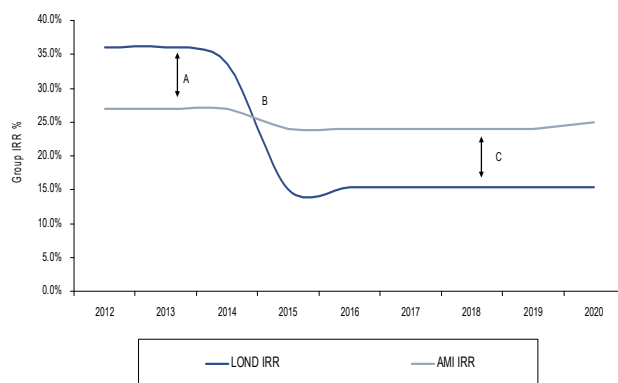
We expect both African Minerals (AMI) and London Mining (LOND) to bring on low cost volume growth at efficient levels of capital intensity generating above average IRRs. LOND's phase 1 Marampa looks particularly attractive at >35% IRR. As Figure 1 shows, since the beginning of the year as the funding deal with SISG has neared completion, de-risking Phase 2, AMI has outperformed the SXPP and LOND by c.40%. Given LOND is now producing, has secured funding for phase 1 and has the advantage of stronger near term catalysts, we expect LOND to outperform in 2012 as it catches up with AMI.

Figure 1. AMI and LOND vs. SXPP



Source: Datastream, CIRA

Figure 2. Change in Group IRR With Additional Phases



Source: Company Reports, Citi Investment Research and Analysis

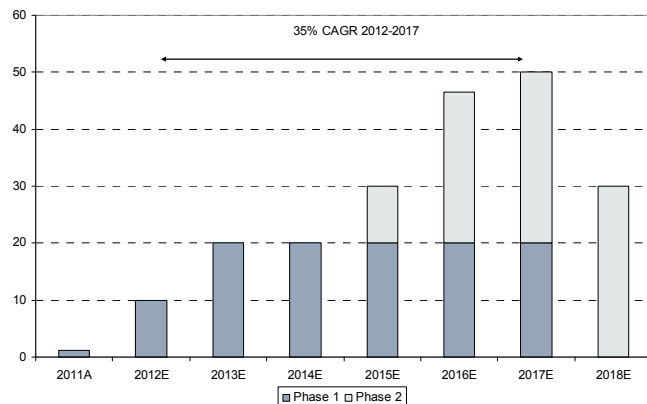
Long-term we prefer AMI which is able to maintain above average IRRs throughout its build out while LOND has relatively limited quality options beyond Phase 1 Marampa. Post 2015 we expect AMI to generate c.10% higher IRR than LOND.

In the long run the key differentiating factor between the two is the sustainability of returns. AMI's ownership of key infrastructure assets allows the company the flexibility to add scale while maintaining control over costs. This enables AMI to sustain returns of c.25% throughout its multiphase build out, well above the 17% industry average. In contrast, while LOND's initial phases at Marampa look very attractive, at 35% and 26% IRR respectively, beyond that growth is constrained and quality options are limited. We expect IRR to fall to as low as 6% for the Isua, Greenland project. This return differential is highlighted in Figure 2, which shows the incremental group IRR over time. LOND is initially set to generate c.10% superior return over AMI, however the degradation in LOND's portfolio as new projects come online drags down group IRR, and post 2015 we expect AMI to generate an IRR c.10% greater than LOND.

The View in Brief

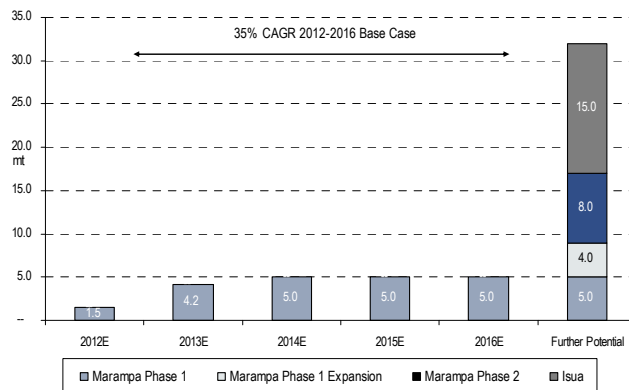
Production – AMI beats on volume

Figure 3. AMI Volume growth at Tonkolili



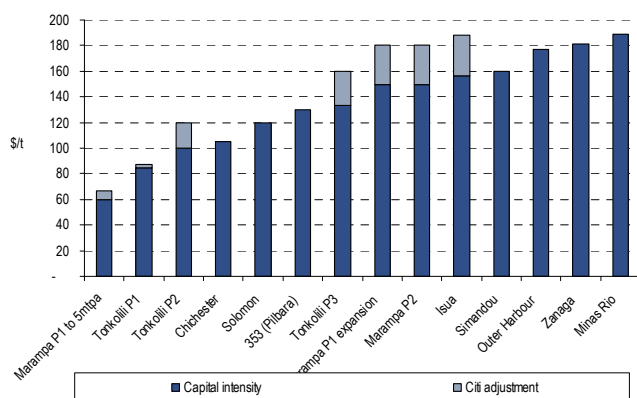
Source: Company Reports, Citi Investment Research and Analysis

Figure 4. LOND volume growth: Base case (Marampa) and potential



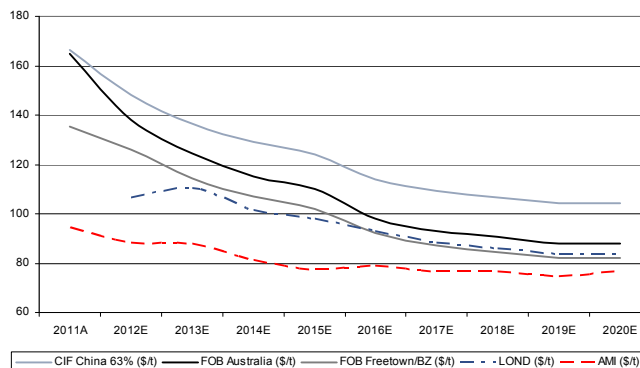
Source: Company Reports, Citi Investment Research and Analysis

Figure 5. Low Capital Intensity at both companies



Source: Company Reports, Citi Investment Research and Analysis

Figure 6. Higher achieved price for LOND due to superior product



Source: Company Reports, Citi Investment Research and Analysis

Catalysts – London has the near term upside

Figure 7. Upcoming catalysts: AMI's key catalyst – Shandong Funding – has taken place, London has catalysts ahead

African Minerals

Q2 2012

Commissioning of wet plant to take run rate up to 20mtpa, upgrade of rail

1H 2013

CCCC to deliver engineering study for phase 2

Ongoing

Move to main board LSE from AIM

London Mining

Q3 2012 Delivery of BFS for expansion for phase 1 to 9mtpa

2H 2012 Loading of Capesize vessels - freight cost savings

Beyond BFS for Marampa phase 2 to >16mtpa

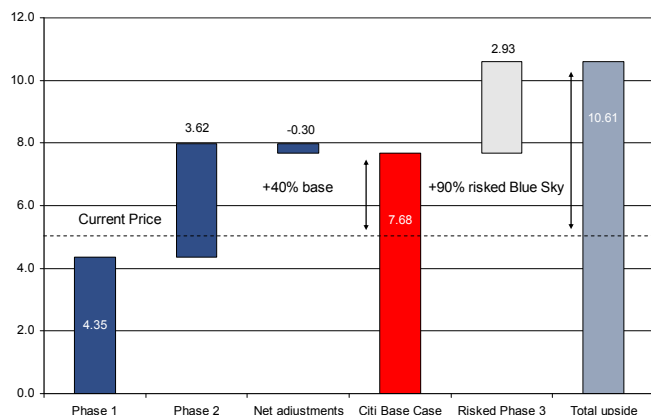
Permitting for Isua

Strategic partner for Isua

Source: Company Reports, Citi Investment Research and Analysis

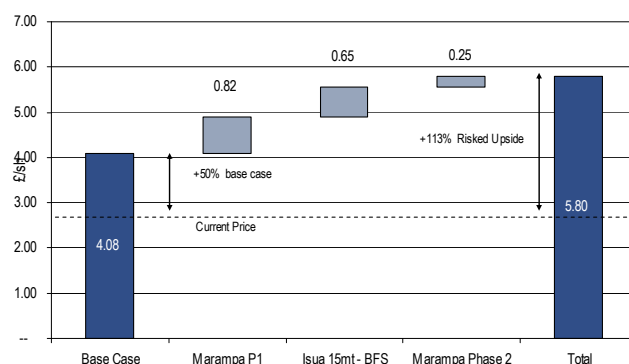
Valuation – Favours London

Figure 8. AMI: Significant upside potential



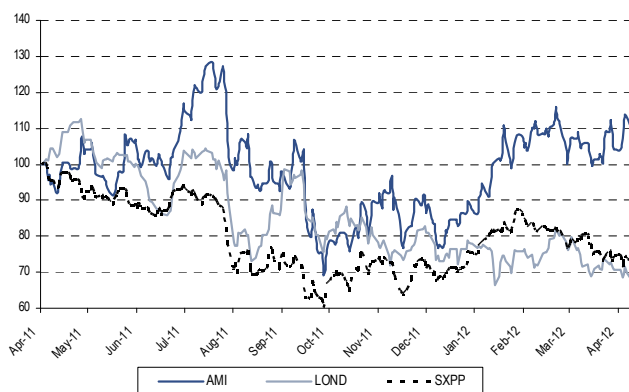
Source: Company Reports, Citi Investment Research and Analysis

Figure 9. LOND: Upside to our Base Case NPV is significant



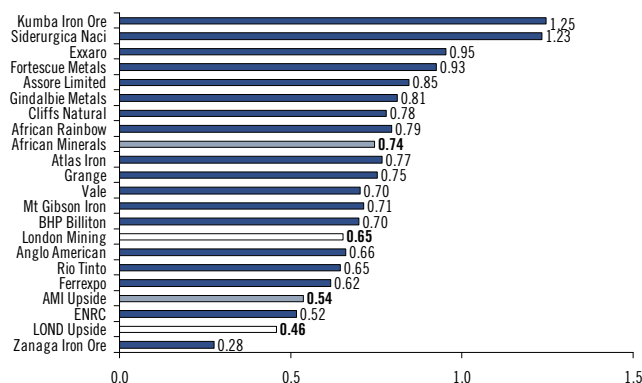
Source: Company Reports, Citi Investment Research and Analysis

Figure 10. AMI has outperformed LOND and the sector by 40%



Source: Datastream, Citi Investment Research and Analysis

Figure 11. P/NPV in context: LOND looks cheap against sector



Source: dataCentral, Citi Investment Research and Analysis

Conclusion – London our pick of the pair

- Both companies now producing iron ore, but London has underperformed
- London is the cheapest on P/NPV and has the greatest upside to our base case
- London has the near term catalysts – BFS for phase 1 expansion to come in Q3. AMI's key catalyst – Shandong funding - has already taken place

One Ore The Other – LOND near term, AMI long term

1. Volumes vs. Value

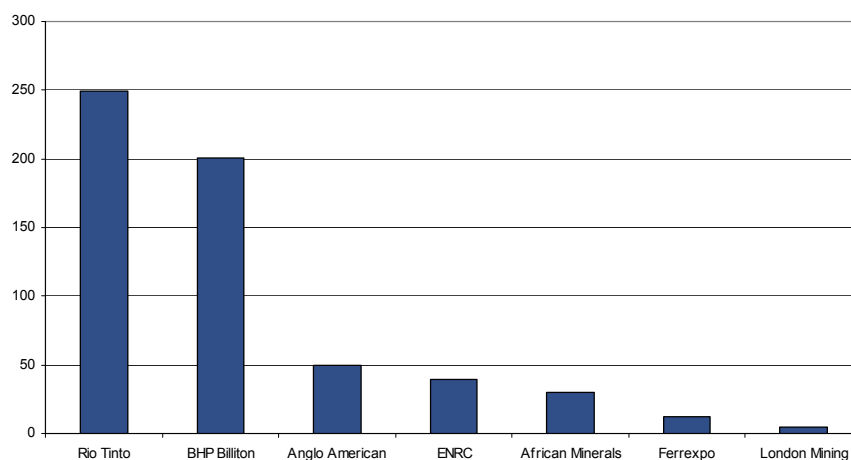
Volume Growth Favours AMI...

As we discuss in more detail later in this report, the golden age of iron ore returns are likely behind us as a confluence of slowing Chinese demand, continuing cost pressures and a declining top line compress margins and lower ROCE. In this environment we believe investors should look for those companies able to compensate for declining prices with material volume growth.

As Figure 12 shows, both AMI and LOND are set to become globally significant iron ore producers by 2015 with AMI producing around 30mt and LOND 5mt on our base case, with significant upside potential to over 10mt. This places AMI within the top 10 largest producers within our coverage universe.

By 2015 AMI is set to produce 30mt and our base case for LOND is 5mt, with significant upside potential.

Figure 12. Projected Production in 2015 (mt)



Source: Company Reports, Citi Investment Research and Analysis

AMI's growth rate is significantly higher than LOND as it adds 9mtpa to capacity from 2012 to 2017 while LOND will plateau at 5mt in 2015

As well as growth rate AMI has the advantage of a heavily front-loaded skew to the production profile extracting the maximum value from the pricing cycle

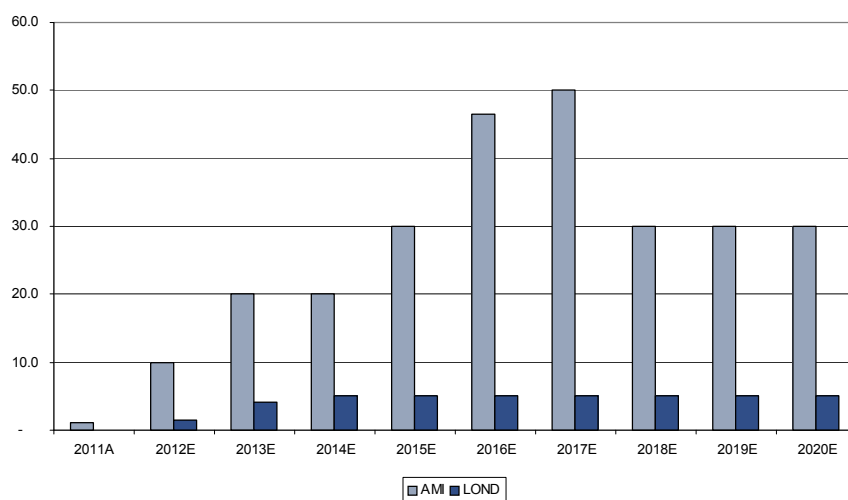
While both companies are growing volumes, the rate of growth at AMI is significantly higher than LOND. As production ramps up from 12mt in 2012 to 50mt in 2017 Tonkolili is set to add on average 9mt every year, while our base case for LOND is for Marampa to plateau at 5mt in 2015 (see Figure 13). We do however note significant upside potential for London mining to be producing over 10mt by 2015.

As important as the absolute growth rate is the distribution of the growth. With iron ore prices in structural decline a near term skew to ramp up enables a company to maximise benefit from the pricing cycle. AMI's production profile is heavily weighted to front end with the combination of phase 1 and phase 2 driving a temporary surge in volumes to 50mt in 2017.

AMI is the clear leader in absolute volume growth – our base case for LOND only includes Marampa phase 1 to 5mtpa. There would be a further 27mt if all future projects were delivered

2018 sees a drop off in volumes at AMI as the DSO resource for Phase 1 is exhausted

Figure 13. Volumes 2011E-2020E (mt) – Citi base case

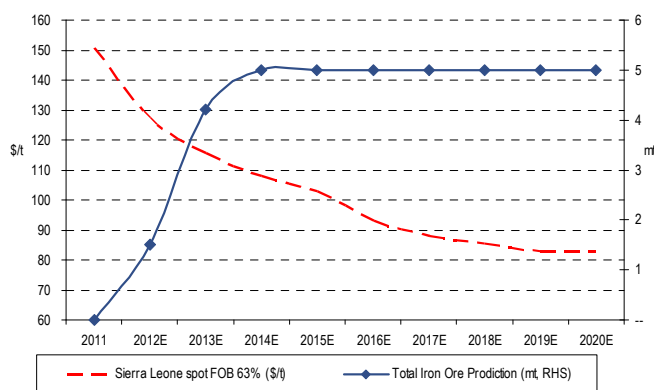


Source: Company Reports, Citi Investment Research and Analysis

By end 2013 AMI will have sold 30mt of product vs. 7mt for LOND

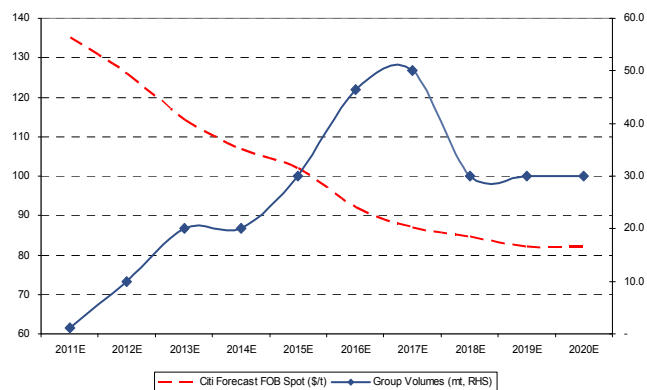
As Figure 15 shows, AMI's strong near term growth puts it in a strong position to withstand margin compression and benefit from the peaking cycle. While both have volume growth by end 2013 AMI will have sold c.30mt of product compared to LOND's 7mt extracting more value from peak pricing.

Figure 14. LOND Volumes vs. Citi Spot Forecasts FOB Sierra Leone



Source: Company Reports, Citi Investment Research and Analysis

Figure 15. AMI Volumes vs. Citi Spot Forecasts FOB Sierra Leone



Source: Company Reports, Citi Investment Research and Analysis

...but LOND has a superior product

AMI has the volume growth but LOND's product is better quality and should be more defensive in a declining price environment

In a declining price environment there is more than one way to protect the top line. AMI may have the superior volume growth but LOND has a more defensive product with a higher value in use from lower deleterious elements and a higher Fe grade. Higher specification products are likely to have a more defensive demand profile than those of lower quality which should, in our view, allow its received price to outperform other competitors and AMI in particular as iron ore prices decline.

In 2013 we estimate AMI will receive a net 16% discount to the benchmark as a result of 5% lower Fe content, moisture content and high impurities. LOND's higher grade product will likely be subject to minimal discounts

The expansion of scope at AMI's Phase 1 from 15mtpa to 20mtpa came from the addition of 5mtpa of unscreened lump and fines which will likely attract a 15% discount in the market

LOND's product is 66% vs. benchmark 63% with minimal impurities

LOND's achieved price should continue to outperform AMI's despite a contraction of AMI's discount from 2015 as the higher quality Phase 2 product enters the mix

Figure 16. Value-in-use Comparison vs. Citi FOB Sierra Leone 2012 Forecast

Phase 1 Parameter			Premium/(Discount) To Fines Forecast	
	AMI	LOND	AMI	LOND
Product	DSO	Sinter Concentrate		
Fe Grade %	58.0	65.5	-5%	+3%
Combined SiO2 % + Al2O3 %	6.8	<3.0	-3 \$/t	
Moisture %	8.0	8.0	-8%	-8%
AMI Lump			+10%	
AMI Unscreened product			-15%	
vs. Citi 2013 \$/t			-18	-2
vs. Citi 2013 %			-16%	-2%

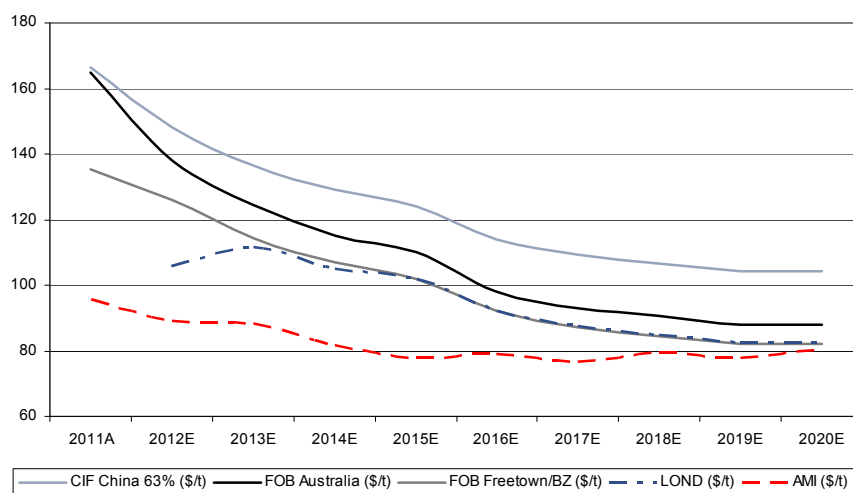
Source: Company Reports, Citi Investment Research and Analysis

As the above table shows, not all volumes are created equal. By opting for a DSO product with minimal beneficiation AMI maximises near term tonnage but sacrifices quality for quantity. For example, the Jan 2012 increase in scope of phase 1 from 15mt to 20mt resulted from the addition of 5mt of unscreened product (mixed lump and fines) where steel mills must incur screening costs in-house and as a result will require a discount. At 58% Fe grade the iron content is low relative to the 63% benchmark while the company expects the high combined Alumina and Silica content to attract a discount of c.\$3/t.

In comparison LOND is set to produce a premium 66% product with low deleterious elements. This benefit is offset somewhat by water content, albeit similar to AMI. Overall we expect LOND to realise a discount of only c.2% vs. our \$114/t FOB price in 2013 compared to 16% for AMI.

Figure 17 illustrates the outperformance over time of LOND's product over AMI. As LOND moves from supermax to capesize vessels in 2013 freight costs should fall from c.\$38/t to \$22/t boosting its received price. Over time LOND should realise a price very close to the Freetown FOB which is similar to Brazil. AMI's discount should contract from 2015 as high grade phase 2 comes on and Fe content rises to 64% and impurities are reduced.

Figure 17. Achieved Price* (\$/t)



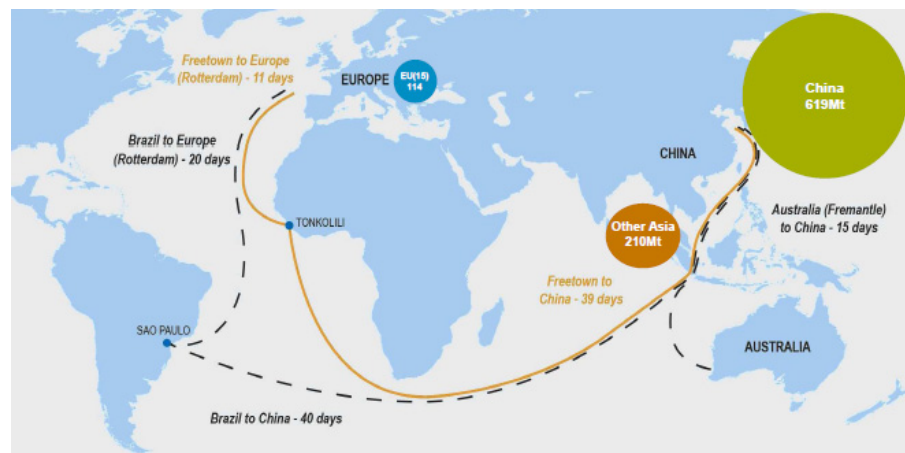
Source: Company Reports, Citi Investment Research and Analysis, *Pre SISG discounts for AMI

The quality of LOND's product may allow the company to tap into the European steel market, potentially reducing freight costs by up to 75%. We expect 20% of production to go to Europe by 2015.

The route from Freetown to Europe takes only 11 days compared to 39 days to China

LOND's product allows it a broader market base as quality tends to have a wider appeal and more defensive customer base. In addition unlike AMI's phase 1 product, LOND's volumes are likely to be of sufficient quality to attract demand from European steel mills. This potentially allows LOND to capture the cheaper cost of freight to Europe. As shown below freight is around 25% of the cost to China, allowing LOND to realise higher prices. In the medium term the company hopes to sell 50% of its product to Europe but sluggish demand is unlikely allow this in the near term. We include 20% of production in 2015 to Europe from 5% in 2013.

Figure 18. Shipping Routes From Sierra Leone



Source: Company Reports, Bubbles represent annual global demand for iron ore

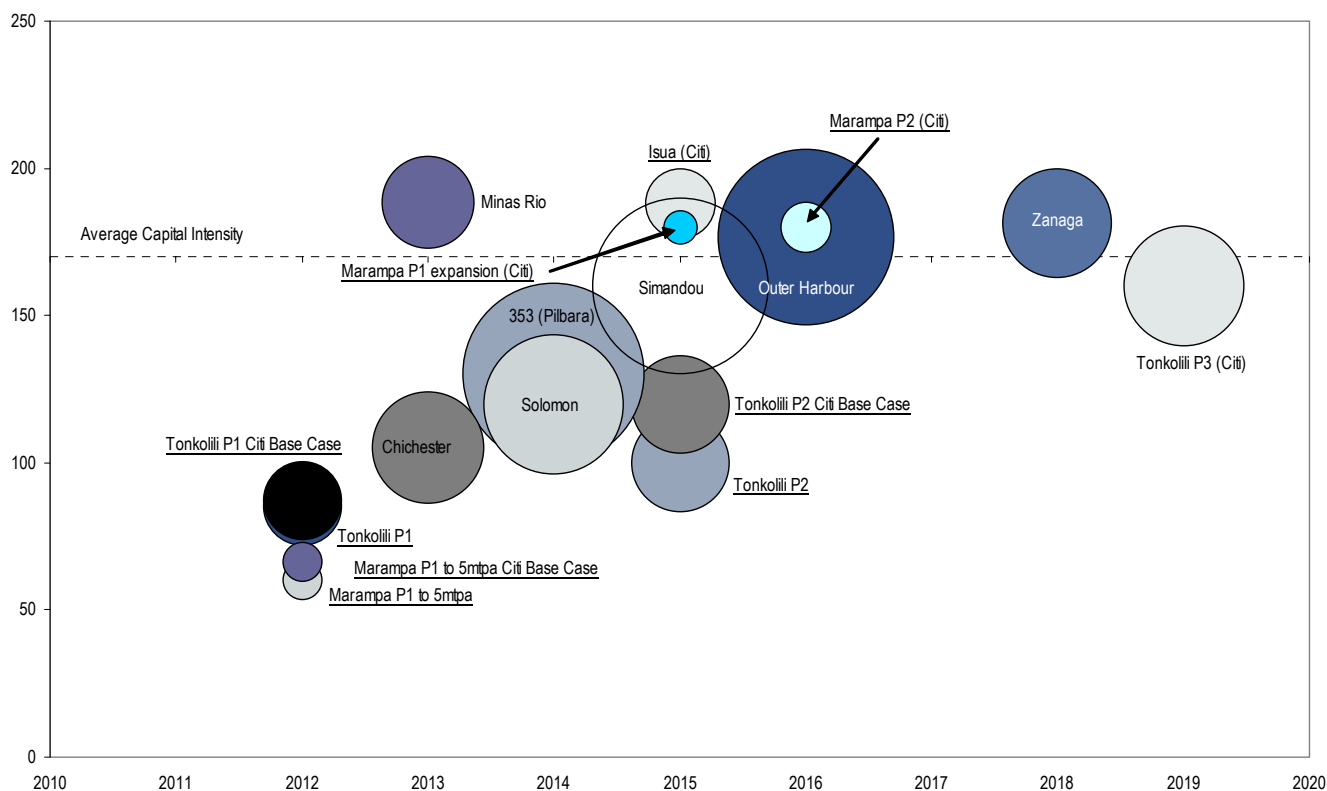
2. Project Alpha

A key theme of Citi's mining team is the focus on alpha in what we see as a post-super-cycle environment. That is, we would prefer exposure to those companies that deliver superior returns through the delivery of alpha – efficient capital allocation, cash cost management and value in use, as mentioned in the previous section. On this basis we think both AMI and LOND screen well; LOND's initial phase is set to be delivered at a very attractive capital intensity of <\$70/t, while in AMI we see long term value through optionality and ownership of its own transport infrastructure. LOND's transport costs are reflected through cash costs since they lease trucks and barges, therefore we see greater risk for London to experience cash cost escalation, while we think AMI's greatest alpha risk lies in capex escalation.

Capital Intensity – AMI more consistent long term

Phase 1 at both AMI and LOND screen well on a capital intensity basis, even after our applied Capex contingency of 20%, with both coming in comfortably under the \$100/t mark and well below the industry average of ~\$170/t as depicted in Figure 19.

Figure 19. Capital intensity of notable iron ore projects (\$/t)



Source: Company Reports, Citi Investment Research and Analysis

Beyond their first phases LOND's capital intensity is set to rise at a faster rate than AMI

Tonkolili phase 2 also looks efficient on a capital basis, being the lowest cost major project scheduled to come online in 2015. It is important to note that beyond their first phases, we expect the two companies to diverge; London's additional phases are expected to be much more capital intensive, while AMI's incremental capital intensity increases at a lower rate. We apply 20% contingencies to all company guided capex estimates.

Cash Costs

We are sceptical of new supply cash costs

The iron ore industry appears to be in a race to the bottom in its cash cost projections from new projects, particularly in frontier territories such as West Africa. Some projects expect cash costs as low as \$16/t. The law of small numbers dictates that any slight change in assumptions can lead to significant percentage increases in cash cost expectations.

Isua BFS results highlight the need for caution

A prime example is London Mining's Isua, Greenland project. The results of the recent BFS increased operating costs to ~\$45/t instead of closer to \$30 as expected previously.

The reason: further drilling has prompted previously inferred resources to now be treated as waste. This has increased the strip ratio from 0.8 to 1.3, which incurs higher costs. Moreover, the ore has been found to be harder than previously anticipated, increasing the work index from around 10kWh/t to 15kWh/t and thus the power requirements needed to liberate the iron content.

The lesson: early stage projections need to be treated with an element of caution. As part of our cautious approach we apply a 20% contingency to all company cash cost projections.

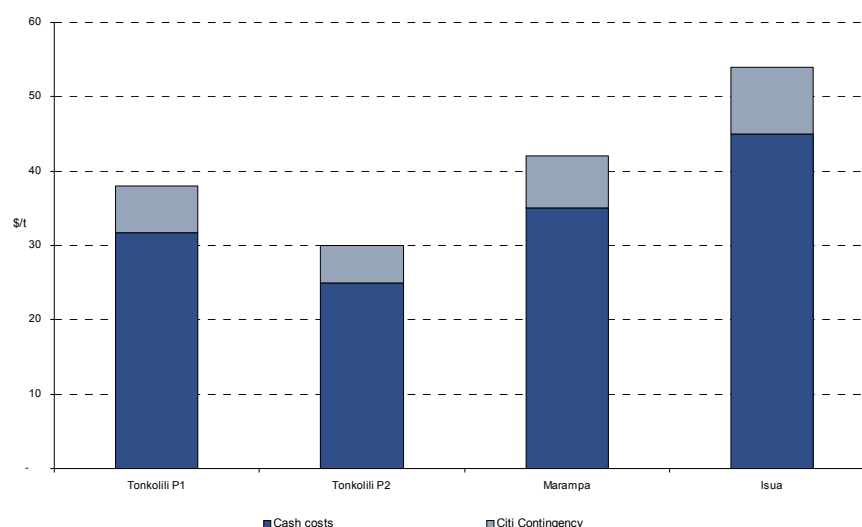
The recent BFS for Isua where opex was raised from ~\$30 to \$45 highlights our caution on expected cash costs

This increase resulted from a higher expected strip ratio

As a result we apply 20% to all cash cost guidance from AMI and LOND

In real terms and including royalties we forecast cash costs at \$37 and \$30 for AMI's Phases 1 and 2. For LOND we estimate \$42 for Marampa and \$54 for Isua

Figure 20. Cash Costs \$/t

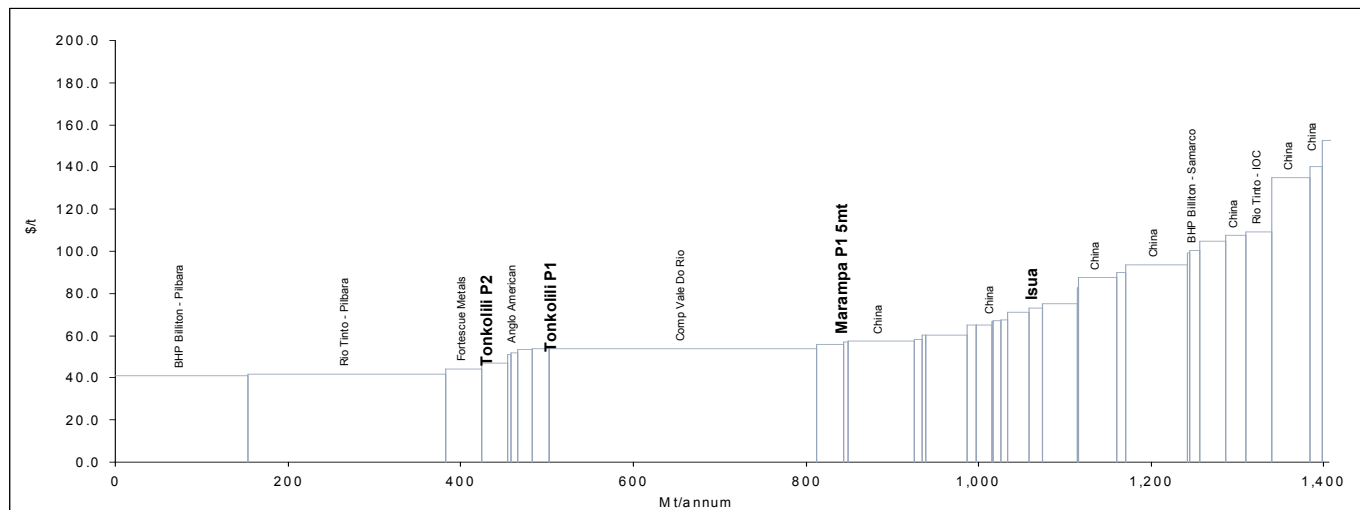


Source: Company Reports, Citi Investment Research and Analysis

On company guidance AMI's Tonkolili sits in the bottom third with LOND's Marampa in the second third and Isua on the verge of the final third. Including our contingencies all edge up while Tonkolili Phase 2 retains a strong position ahead of Vale

Based on company cash cost guidance, AMI's Tonkolili projects sit in the bottom third of the cost curve, while Marampa sits in the second third of the curve. Isua meanwhile now sits on the verge of the final third of the cost curve after the revised BFS guidance in March 2012. It should be noted however that cost curves are discriminatory towards higher quality ores, particularly pellet feed, which requires additional processing and thus incurs higher costs. The cost curve recognizes only the cost of producing one tonne of iron ore, it does not normalize for Fe content, penalties for deleterious elements, moisture and product premiums. In other words, it does not take into account the value of the end product.

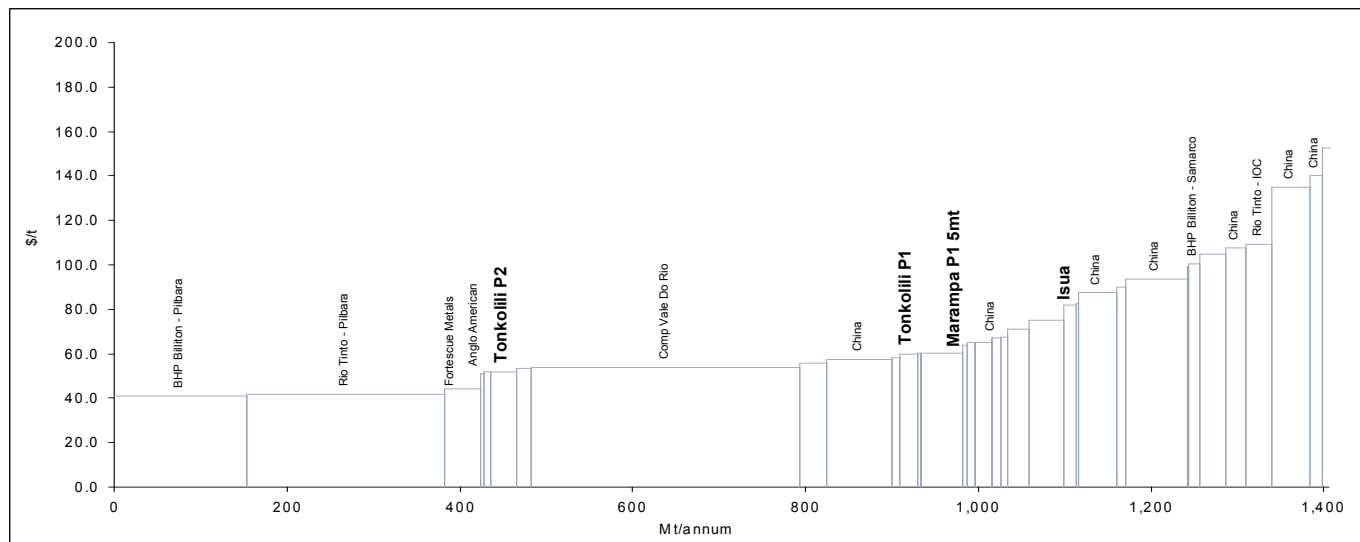
Figure 21. Iron Ore Cost Curve CFR China – Company Guidance



Source: Company Reports, Citi Investment Research and Analysis

Based on our risk adjusted cash cost assumptions, which are, effectively 20% at each of AMI and LOND's projects, all of them edge up on the cost curve. Tonkolili phase two maintains a relatively strong position below Vale.

Figure 22. Iron Ore Cost Curve CFR China – Citi Base Case



Source: Company Reports, Citi Investment Research and Analysis

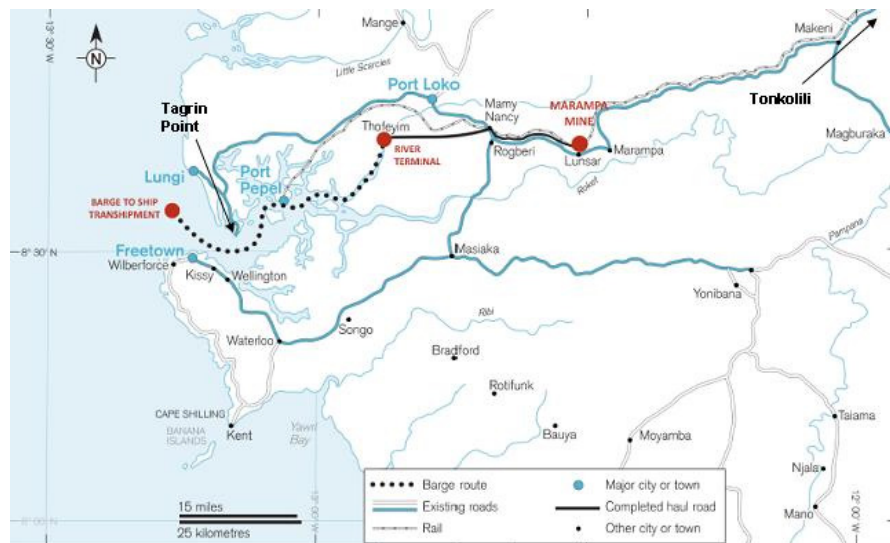
3. Project Returns

Transport infrastructure is the key differentiator to returns

Alongside the mining asset at Tonkolili AMI owns the key infrastructure through a 99 year lease over the rail corridor, the current port at Pepal and the future deepwater port at Tagrin Point (Phase 2).

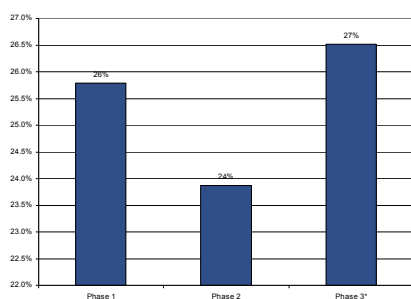
AMI has a 99 year lease over the current port at Pepal, the proposed new deepwater port at Tagrin Point and the rail corridor from Tonkolili in the north to both

Figure 23. AMI in Charge of the Gateway Out of Sierra Leone



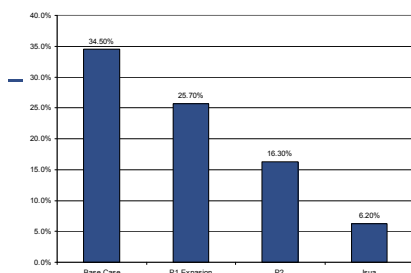
Source: Company Reports

Figure 24. AMI Incremental IRR



Source: Company Reports, CIRA. *Phase 3 not included in base case

Figure 25. LOND Incremental IRR



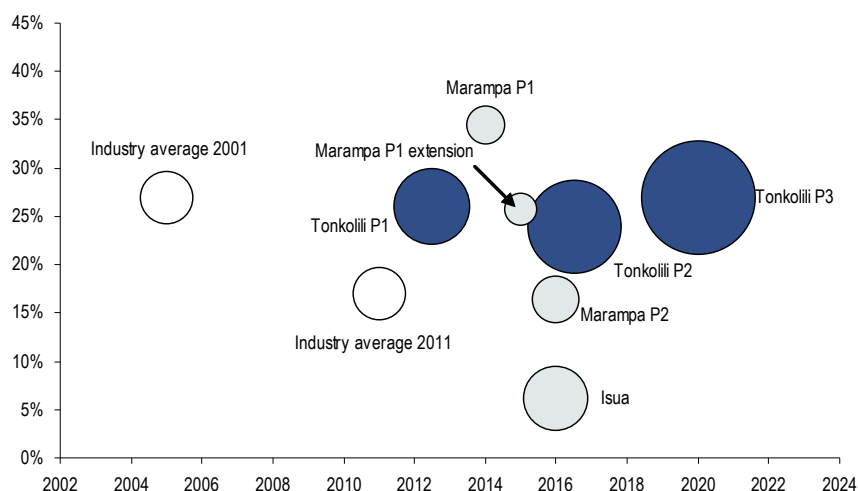
Source: Company Reports, CIRA

This allows AMI two key advantages over LOND:

- Ownership enables AMI to restrict access and allows the company greater control over costs helping to reduce inflationary pressures. For example while the rail line from Tonkolili runs right past the Marampa mine site LOND there is no agreement for LOND to have access, meaning it must engage in a trucking and barge operation that adds c.\$3/t to transport costs vs. AMI. Furthermore with all transport effectively leased via third parties LOND is more exposed to exogenous inflationary shocks. Cape Lambert (18% AMI owned) however, which holds the mining license surrounding LOND's Marampa, has the right to 2mtpa of capacity in AMI's phase 1 and 5mtpa when Phase 2 comes online.
- Most importantly, being long infrastructure allows AMI the flexibility to add low cost scale to the project and realise future potential upside. This scalability enables the company to maintain consistently strong IRRs in each build out phase (Figure 24) in excess of the 17% industry average and keep a low cost option on high value Phase 3. In contrast, while LOND's initial phases looks attractive at 35% and 26% IRR respectively, beyond that growth is constrained and on our assumptions (20% contingencies on Opex and Capex) returns fall to 16% for Marampa phase 2 and as low as 6% if the company proceeds with the greenfield Isua option. This lower quality growth portfolio is highlighted in Figure 26.

LOND's additional projects have significantly lower IRR than attractive first phase at Marampa. AMI maintains stable IRR from additional projects. We see infrastructure ownership as a key feature to AMI's superior long term returns

Figure 26. LOND and AMI Phase IRR vs. Industry Average



Source: Company Reports, Citi Investment Research and Analysis

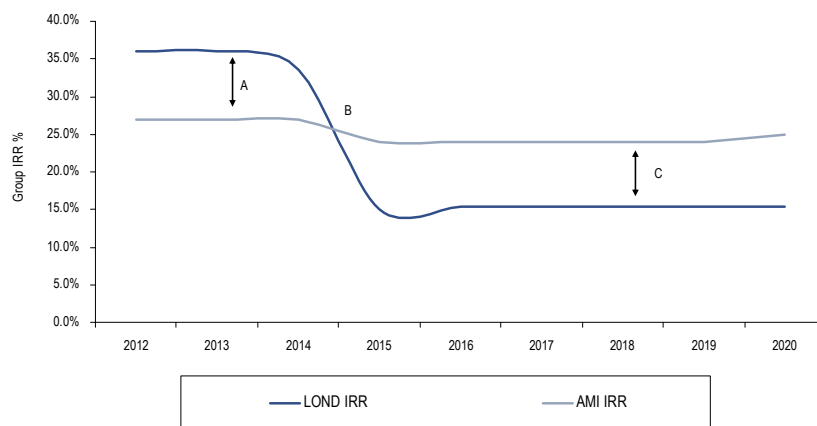
As Figure 27 shows, there is minimal degradation in portfolio returns at AMI with the addition of new phases. On the other hand the initially superior returns at LOND's Marampa P1 are diluted over time by the less attractive Marampa Phase 2 and Isua.

A: Initial phase period, LOND returns c.10% in excess of AMI

B: Addition of AMI Phase 2 and LOND new projects, returns cross over

C: From 2015 AMI returns c.10% in excess of LOND

Figure 27. Change in Group IRR With Additional Phases



Source: Company Reports, Citi Investment Research and Analysis

This supports our view that in the near term LOND is likely to offer superior upside, however in the long run AMI's strategic advantage from infrastructure puts it in pole position.

The Vulnerabilities of Iron Ore

The golden age of iron ore returns is past

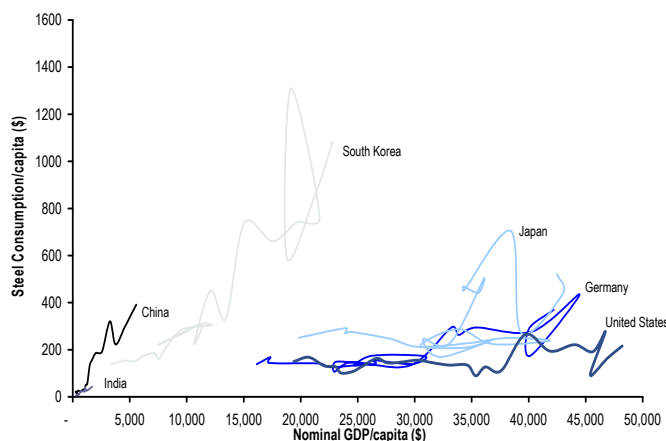
China's emergence has driven commodity prices up over 300% since 2005

This price appreciation has now pushed input costs to unsustainable levels, China is spending 7% of its GDP on steel

The emergence since 2003 of China as an economic powerhouse and the ensuing super cycle in commodities has driven significant price appreciation throughout the sector as supply has failed to keep pace with rapid demand growth. From 2005 to 2011 (period B in Figure 30) commodity prices advanced more than 300%.

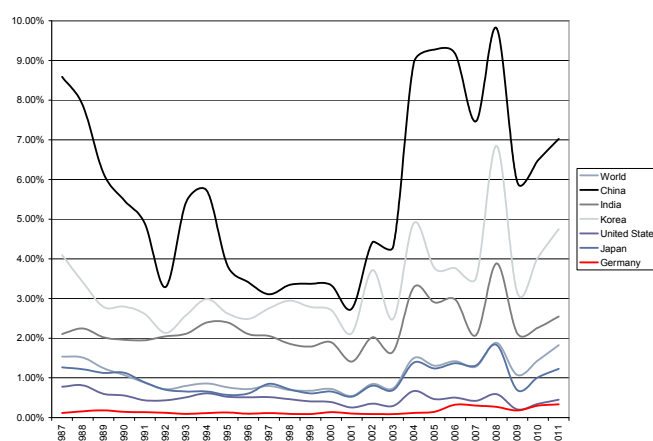
Looking ahead, the picture looks decidedly less rosy. As highlighted in our recent report, [Super Cycle Sunset](#), we believe this price escalation has elevated costs for raw material inputs to unsustainable levels relative to Chinese GDP.

Figure 28. \$ value of steel consumption/capita greater than US...



Source: Company Reports, Citi Investment Research and Analysis

Figure 29. ...and stands at 7% of GDP

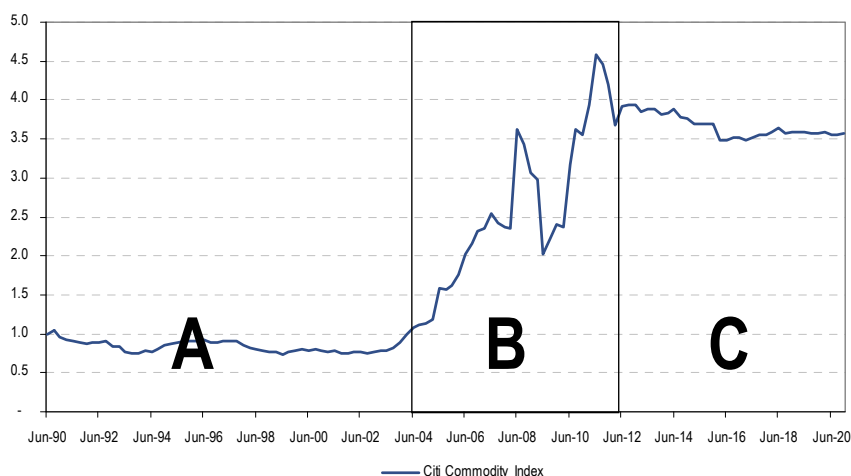


Source: Company Reports, Citi Investment Research and Analysis

While the intensity of use on a kg basis may play out as the bulls envisage, further price appreciation will be limited and we expect the commodity complex to trade sideways

As a result while kg intensity of use may continue to rise, the offsetting impact is limited upside to prices. We expect prices in our forecast period C, to mirror those of period A, trending sideways albeit with greater volatility (Figure 30).

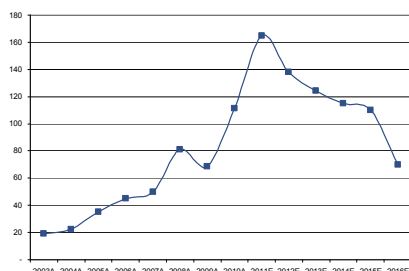
Figure 30. Citi commodity price index (bulks, base and precious) – unique periods



Source: Company Reports, Citi Investment Research and Analysis

We expect iron ore to underperform the broader commodity complex with low cost production set to increase seaborne supply by 40% on 2011 to 1.4bt by 2016

Figure 31. Iron Ore Forecasts (Brockman Fines FOB \$/t)



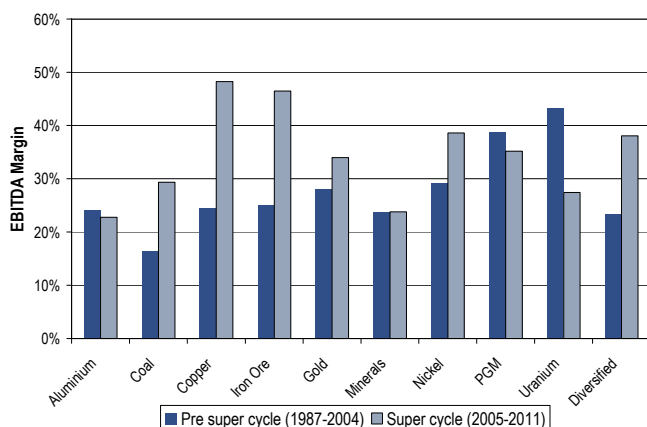
Source: Company Reports, Citi Investment Research and Analysis

Within the broader commodity complex iron ore is likely to underperform with a significant supply response over the remainder of the decade, mainly from West Africa (including AMI and LOND). Unlike commodities such as copper, there is no physical shortage of iron ore deposits, rather the limitation to supply derives from lack of infrastructure and resulting high capital intensity. Many of these projects may not get built as project financing remains a problem, however we still expect seaborne supply to increase c.40% on 2011 to 1.4bt in 2016.

Given the relatively low cost nature of this inflow into the seaborne market high cost domestic Chinese production is likely to be displaced resulting in a flattening of the cost curve (by c.40%). The steepness of the cost curve is the biggest determinant of ROCE ([The drivers of differential commodity returns](#)) insulating those at the bottom end from any price weakness as high cost producers cut supply, stabilising the price. In a flat cost curve environment there is no buffer and less price support, resulting in greater margin compression. We expect 2011 to represent the peak of the iron ore pricing cycle.

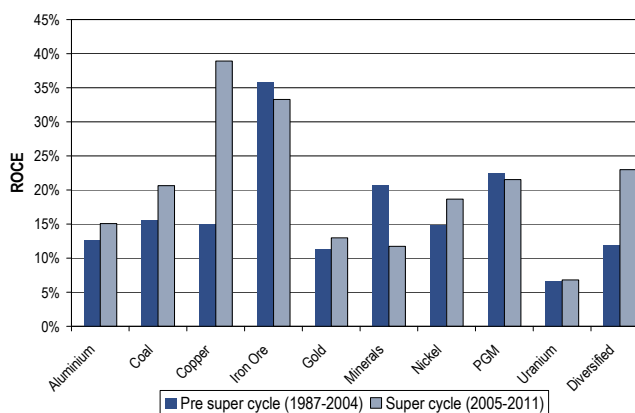
As Figure 33 highlights, ROCE within iron ore has been relatively stable in the super cycle as a five fold increase in capital intensity has blunted the impact of margins expanding from c.25% to c.45%. A 40% flattening of the iron ore cost curve will remove this margin support and could see ROCE for the industry fall from c.35% to 20%. Iron ore has been a microcosm of the Chinese story and remains one of the most exposed commodities, with China representing c.65% of seaborne demand and 110% of incremental demand in 2012 as Europe slows. The golden age of iron ore returns looks set to be behind us.

Figure 32. EBITDA margins pre and super cycle years



Source: Bloomberg, Company Data, IRESS, CIRA

Figure 33. ROCEs pre and super cycle years



Source: Bloomberg, Company Data, IRESS, CIRA

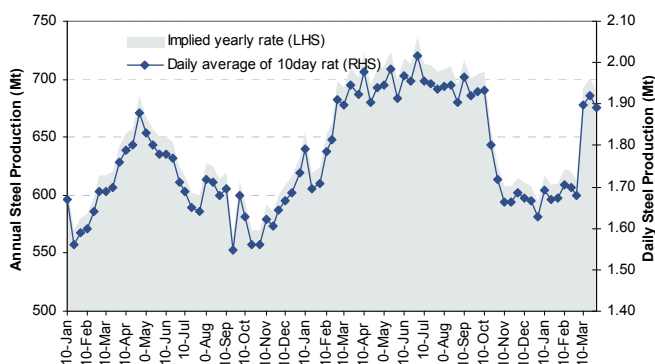
Near term outlook

This is an extract from our Q2 commodity quarterly ([Unfolding Tail Risks...](#))

Major Chinese steel mills have stopped cutting capacity with annualised production at 690-700mt in the last 10 days of March. Inventories are also being worked down at mills as utilisation rates rise

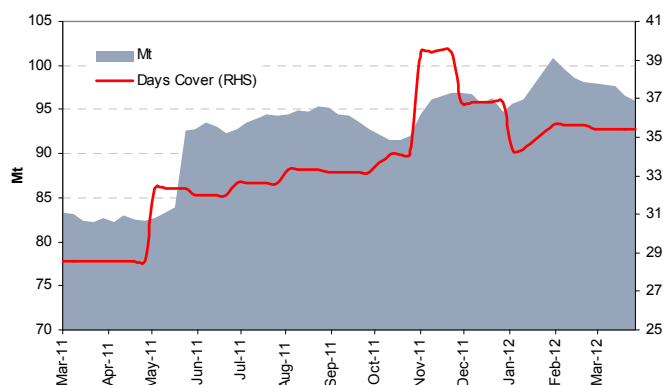
The outlook for the iron ore market is steadily improving and iron ore prices are expected to continue to rise over the course of 2Q12. After several months of weak steel output lead by a collapse in Chinese housing & construction sectors, there are signs that things are turning around. Major steel mills have stopped cutting capacity; which has shown up in the latest steel production figures issued by China's CISA showing that daily production in the last 10 days of March was 1.89Mt (equivalent to 690-700Mtpy, see Figure 34). Steel mills in Hebei have reported that utilisation rates have been rising since February and mill inventory is decreasing.

Figure 34. Chinese steel output has jumped significantly in March



Source: Company Reports, Citi Investment Research and Analysis

Figure 35. Iron ore inventories are high but beginning to be drawn

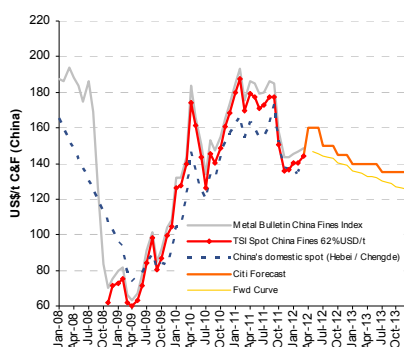


Source: Company Reports, Citi Investment Research and Analysis

There remain headwinds in the form of a weak construction market and slowing FAI and elevated inventory levels at port.

A stronger than expected pick up in Chinese steel production drives our Q2 \$160/t forecast, well above the forward curve.

Figure 36. Iron Ore Prices & Forecasts



Source: Company Reports, CIRA

The iron ore market is not out of the woods. The Chinese housing and construction sectors are still weak and the government has showed no signs that it will lift restrictions on the sector. FAI growth continues to fall and is headed for 20% YTD growth (compared with 35% last year), amid increasing signs of weakening investment activity for commodity housing, including sluggish new starts and land acquisition. High inventory could also curb appetite for imported ore. Hebei mills have some 2 months inventory in-house (against normalised levels of 4-6 weeks). Elsewhere, the total inventory at port is 98 Mt, which equates to over 36 days of cover (well above the normal range of 28-32 days). The likely scenario is for inventories to be slowly worked down before any significant pick up in imports resumes.

At the same time, the market seems to be over the worse of the supply disruptions that kept the market relatively tight in 1Q12. Lower than normal Indian iron ore exports remain in place but Australian & Brazilian supply is recovering and should post solid 6-8% qoq growth in 2Q12.

To what level Chinese steel production rebounds is the key to how the iron ore market will perform in 2012. We expect a similar scenario to 2010, with a pick up in Q2, peak production in May and production beginning to tail off in Q4. This would imply full year production of ~693mn tons, up 1.5% yoy. This seems to marry up with what the market sees in the latest CISA data (Figure 34)

All this should keep the market relatively tight but prevent prices from spiking. The 2Q12 forecast of \$160/t is significantly higher than the forward curve on the basis of a stronger than expected recovery in the Chinese steel market and thus highlights the one main risk in the short term. But the forecasts essentially track the curve downwards as the market tightness eases.

Please see appendix for supply and demand balances and price forecast details

Risks

1. Politics

LOND and AMI face significant political risk through their operations in Sierra Leone, increased by the general election in November

Ernest Koroma, the incumbent, is expected to secure a second term at the polls in the November elections

Parties are split along ethnic lines with the APC drawing support from the Temne communities in the north and west. The opposition Sierra Leone People's Party are focused on the Mende ethnic group in the south and east. Tonkolili and Marampa are situated in Temne territory, the current government's heartland

Outbreaks of violence have been reported and the UN has warned the government over its imports of weapons ahead of the polls

The UN envoy was recently removed following pressure from the government

Political risk, particularly in Africa, has always been an issue for mining companies but 2011 was a particularly troubled year, with unrest in Mali and the Ivory Coast, and the Arab Spring foremost. With general elections due in Sierra Leone in November of this year, only the third since the end of the civil war, we explore the risks investors in AMI and LOND face and the potential stock implications.

2012 general election

In November this year Sierra Leone will hold only its third general election since the end of the civil war in 2002 and the second since the UN peacekeeping mission withdrew in 2005. The Economist Intelligence Unit (EIU) expects the incumbent, Ernest Bai Koroma of the All People's Congress (APC) party, to secure a second term at the polls, with an enlarged majority following a relatively strong policy record including re-opening the much delayed Bumbuna hydroelectric plant and introducing a bill for free healthcare.

While the country ranks relatively well on the EIU's *electoral process* (7/10) the independent ethnic support bases of both main parties increases the risk that tensions arising from the campaign trail fuel social unrest. Both African Minerals and London Mining's primary assets are situated in the north of the country, predominantly populated by the Temne ethnic group, from which current president Ernest Bai Koroma and his APC party draws its support. The Temne ethnic group makes up just over 30% of Sierra Leone's population, while the other main ethnic group the Mende make up a roughly similar proportion. The opposition Sierra Leone's people party draws most of its support from the Mende people, who populate the South and East of the country.

There have already been sporadic outbreaks of violence and intimidation from both sides, including an attack on the convoy of opposition leader Julius Maada Bio. In addition, last week the UN Security Council warned the government not to over-react to security threats as it imported millions of dollars worth of weapons to equip police and army ahead of the November elections.

A contentious poll result could be worsened by the lack of a neutral counterweight following the controversial removal of the UN envoy, Michael von der Schulenburg, after pressure from Mr Koroma. According to the Economist Intelligence Unit, Mr von der Schulenburg was known for being even-handed in his treatment of political disputes and his absence could prove costly.

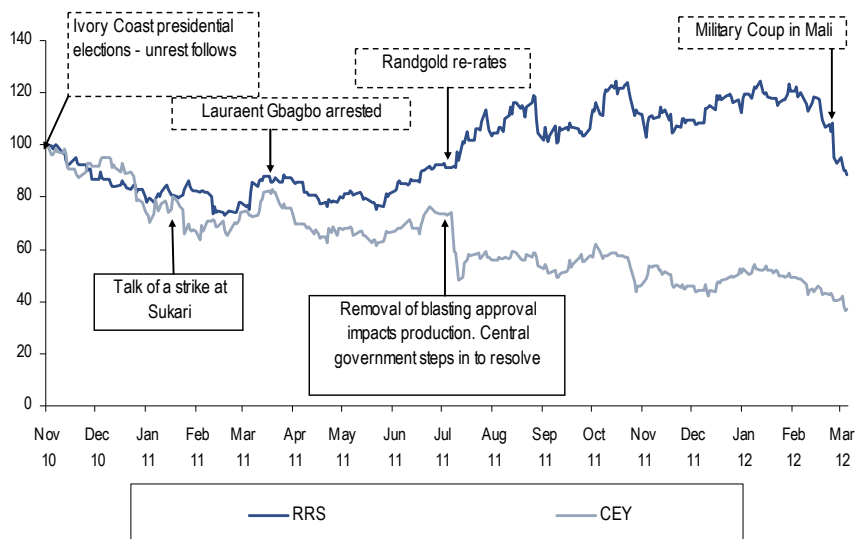
There is clearly potential for social unrest around the election period. We have seen how the market tends to react to news of unrest and political upheaval, with a 'sell first ask questions later' mentality evidenced by Centamin and Randgold last year.

Centamin and Randgold in 2011 – a stark reminder of African political risk

Over the last year Africa has given us a stark reminder of the importance of political risk. Randgold and Centamin both bear testament to the impact of social/political unrest on operations or, even if not initially on operations, then certainly on market sentiment towards the stock.

Things get messy when there is unrest: Even if operations are running normally, speculation and market sentiment weigh on the share price. Eventually however there can be a tangible impact on operations, followed by a re-evaluation of the riskiness of the company's assets

Figure 37. Randgold and Centamin Key Examples of Political Risk



Source: Company Reports, Citi Investment Research and Analysis

Impact of social unrest

The market can punish a stock even before any tangible impact on operations. 'Sell first, ask later'

A tangible impact can eventuate; delays to deliveries and disruption to the regulatory process have been experienced in the last year in Africa

Does the company still deserve this valuation? Was there a miscalculation of risk? These are questions investors can ask in the medium/longer term

- Events in the country or at the mine site can have an instant and significant impact on the share price. For example, on 18th February 2011, a press article suggested a strike had taken place at Centamin's Sukari mine. This turned out to be largely misinterpreted, but the stock finished down over 12% on the previous day's close.
- A protracted environment of uncertainty can eventually have a tangible impact on operations. In December 2010, the uncertainty following the presidential elections in Ivory Coast caught up with Randgold, which issued a statement guiding to over 50% lower gold production at its recently opened Tongon mine. The political impasse had delayed equipment deliveries to the mine.
- Even once the tangible operational impact has been resolved, there is the medium/longer term issue of investors re-evaluating their risk assessment of the asset or company and therefore the valuation they are willing to apply. Centamin is down around 60% since the beginning of the Arab Spring uprisings in January 2011, suggesting the market is not yet satisfied that the uncertainty has been removed, or it is no longer willing to apply the same valuation to the assets. Randgold typically traded at a premium to its UK gold peers. Following the Ivory Coast unrest and then the recent military coup in Mali – much more significant since 60% of Randgold's production comes from its Mali operations – there is the possibility of longer term damage to Randgold's premium valuation.

2. Resource Nationalism

The total tax burden for AMI and LOND at 28-29% is in the middle of the global range of 22-37% and as such we see limited potential for significant tax hikes

However both companies have achieved concessions vs. the prescribed mining legislation creating the potential for some 'creep' in these terms

Globally the trend in the mining sector has been one of increased resource nationalism as governments attempt to take a greater share of the economic rent - Zambia recently doubled its royalties from 3% to 6% for example. The 28.2% effective total tax burden for AMI (29% for LOND), composed of 25% corporation tax, 3% royalty, 0.1% environmental tax and 0.1% social development tax, falls in the middle of the global range of 22%-37%. As a result any significant value-grab via tax legislation is a low probability event, in our view.

However we believe investors should not discount some level of wealth transfer. The 2011 IMF report cited 'significant tax concessions' granted to AMI (and LOND) relative to those prescribed in mining legislation including (i) lower corporate tax - 25% vs. 30% (ii) 100% carry forward of losses vs. 50% and (iii) lower withholding tax at 5% vs. 10%. As a result there is scope, in our view, for some incremental 'creep' in these terms which would impact our valuation particularly given the pressure from a key debtor.

Both AMI and LOND are more sensitive to royalty changes than the tax regime as royalties are levied on the top line.

Figure 38. AMI \$NPV sensitivity to royalty and tax regime

	20%	21%	22%	23%	24%	25%	26%	27%	28%	29%	30%
0%	4,609	4,552	4,494	4,437	4,380	4,322	4,265	4,207	4,150	4,093	4,035
1%	4,511	4,455	4,398	4,342	4,285	4,229	4,173	4,116	4,060	4,003	3,947
2%	4,413	4,357	4,302	4,247	4,191	4,136	4,080	4,025	3,970	3,914	3,859
3%	4,315	4,260	4,206	4,151	4,097	4,043	3,988	3,934	3,879	3,825	3,771
4%	4,217	4,163	4,110	4,056	4,003	3,949	3,896	3,843	3,789	3,736	3,683
5%	4,118	4,066	4,014	3,961	3,909	3,856	3,804	3,751	3,699	3,647	3,594
6%	4,020	3,969	3,917	3,866	3,814	3,763	3,712	3,660	3,609	3,558	3,506

Source: Company Reports, Citi Investment Research and Analysis

Figure 39. AMI % sensitivity to royalty and tax regime

	20%	21%	22%	23%	24%	25%	26%	27%	28%	29%	30%
0%	14%	13%	11%	10%	8%	7%	5%	4%	3%	1%	0%
1%	12%	10%	9%	7%	6%	5%	3%	2%	0%	-1%	-2%
2%	9%	8%	6%	5%	4%	2%	1%	0%	-2%	-3%	-5%
3%	7%	5%	4%	3%	1%	0%	-1%	-3%	-4%	-5%	-7%
4%	4%	3%	2%	0%	-1%	-2%	-4%	-5%	-6%	-8%	-9%
5%	2%	1%	-1%	-2%	-3%	-5%	-6%	-7%	-8%	-10%	-11%
6%	-1%	-2%	-3%	-4%	-6%	-7%	-8%	-9%	-11%	-12%	-13%

Source: Company Reports, Citi Investment Research and Analysis

Figure 40. LOND: Marampa \$NPV sensitivity to royalty and tax regime

	20%	21%	22%	23%	24%	25%	26%	27%	28%	29%	30%
0%	977	967	957	947	937	927	917	907	897	887	877
1%	951	942	932	922	912	903	893	883	873	864	854
2%	926	916	907	897	888	878	869	859	850	840	831
3%	900	891	881	872	863	854	844	835	826	817	807
4%	874	865	856	847	838	829	820	811	802	793	784
5%	848	840	831	822	813	805	796	787	778	770	761
6%	822	814	806	797	789	780	772	763	755	746	738

Source: Company Reports, Citi Investment Research and Analysis

Figure 41. LOND: Marampa % sensitivity to royalty and tax regime

	20%	21%	22%	23%	24%	25%	26%	27%	28%	29%	30%
0%	14%	13%	12%	11%	10%	9%	7%	6%	5%	4%	3%
1%	11%	10%	9%	8%	7%	6%	5%	3%	2%	1%	0%
2%	8%	7%	6%	5%	4%	3%	2%	1%	0%	-2%	-3%
3%	5%	4%	3%	2%	1%	0%	-1%	-2%	-3%	-4%	-5%
4%	2%	1%	0%	-1%	-2%	-3%	-4%	-5%	-6%	-7%	-8%
5%	-1%	-2%	-3%	-4%	-5%	-6%	-7%	-8%	-9%	-10%	-11%
6%	-4%	-5%	-6%	-7%	-8%	-9%	-10%	-11%	-12%	-13%	-14%

Source: Company Reports, Citi Investment Research and Analysis

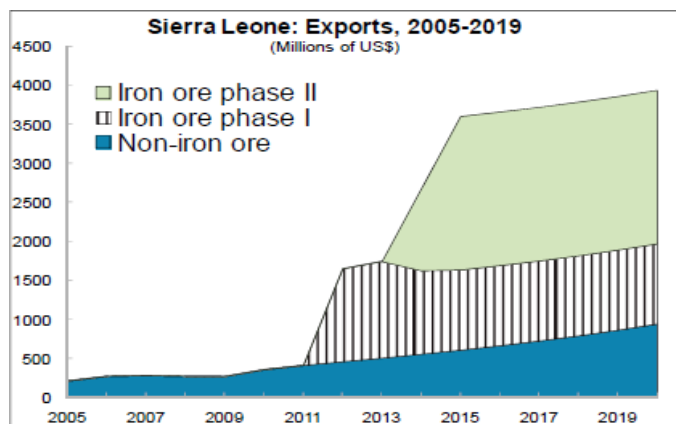
There is a risk that the government may seek a stake in the mining assets, in line with other nations

However production from both assets should be highly beneficial to the economy, tripling exports in 2012E and increasing GDP by 52%

Additionally it should be noted that the government does not have an equity interest in either company's mining asset (there is a 10% stake in AMI's rail and port). As operations ramp up and cash flow is generated there is the risk that they seek to take a stake, in line with other mining jurisdictions.

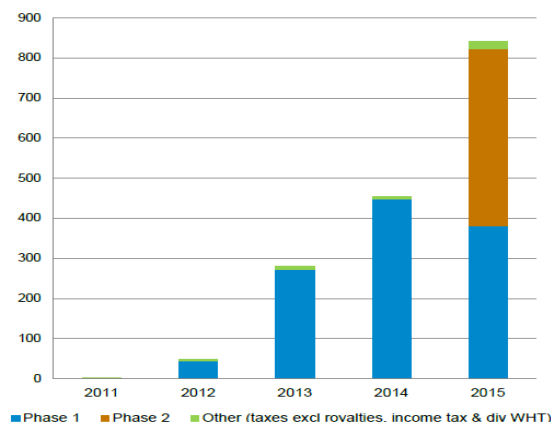
Offsetting these risks is the GDP uplift resulting from the commissioning of both Tonkolili and Marampa. The IMF estimates phase 1 production from AMI and LOND to more than triple the value of the country's exports from c.\$500m in 2011 to >\$1,500m in 2012 (Figure 42) and lead to rapid growth in government tax revenues. As a result Sierra Leone is likely to be the fastest growing economy in the world this year, with a one-off fillip of 51.9% in real GDP. This clear benefit to the country should help to mitigate somewhat the risk of resource nationalism.

Figure 42. Sierra Leone Exports (US\$m)



Source: IMF

Figure 43. AMI Derived Incremental Government Revenue (US\$m)



Source: Company Reports

3. Wet Season

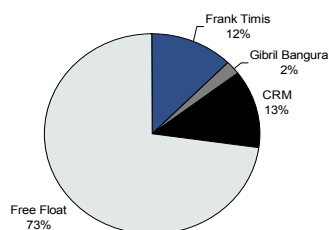
2012 will be the first time both companies have been in production during the wet season, increasing the risk for delays

The wet season for Sierra Leone is from July to October and has in the past caused significant disruption to ramp up. In 2011 heavy rains caused subsidence along the rail line from Tonkolili impacting ramp up and reducing ore shipped for the year from an expected 2.5mt to 1.2mt. 2012 will be the first year that both LOND and AMI have been producing throughout the wet season and given this lack of experience there is the risk of delays and production slippage in our view.

4. Acquisition Risk

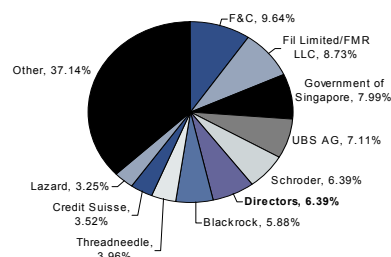
Both companies have an open share register, which could make them susceptible to acquisition risk, as reported by various media outlets.¹

Figure 44. AMI Shareholder Base



Source: Company Reports, Citi Investment Research and Analysis

Figure 45. LOND Shareholder base



Source: Company Reports, Citi Investment Research and Analysis

¹ FT 24th March 2011 (<http://www.ft.com/cms/s/0/1e936228-5573-11e0-a2b1-00144feab49a.html#axzz1sVl0dr>)
resources-investment.com Sep 2011 (<http://resources-investment.com/top-mining-takeover-candidates>)

5. Iron Ore Pricing and Production

Key sensitivities

Below we provide sensitivities for both LOND and AMI to our key assumptions for iron ore pricing and production.

Figure 46. LOND £/sh NPV Sensitivity to Fe (row) and volume (column)

	80%	85%	90%	95%	100%	105%	110%	115%	120%
80%	1.48	2.53	3.55	4.61	5.67	6.72	7.77	8.79	9.86
85%	1.85	2.96	4.03	5.15	6.26	7.37	8.47	9.55	10.66
90%	2.18	3.34	4.45	5.61	6.76	7.91	9.06	10.17	11.29
95%	2.52	3.74	4.91	6.12	7.34	8.55	9.74	10.89	12.07
100%	2.77	4.01	5.20	6.44	7.68	8.92	10.11	11.27	12.48
105%	3.09	4.38	5.63	6.92	8.21	9.47	10.71	11.93	13.18
110%	3.29	4.59	5.86	7.17	8.45	9.71	10.96	12.19	13.45
115%	3.59	4.93	6.25	7.60	8.91	10.22	11.52	12.79	14.10
120%	3.80	5.16	6.50	7.84	9.16	10.48	11.79	13.08	14.40

Source: Company Reports, Citi Investment Research and Analysis

Figure 47. AMI % sensitivity to Fe (row) and production (column)

	80%	85%	90%	95%	100%	105%	110%	115%	120%
80%	-81%	-67%	-54%	-40%	-26%	-12%	1%	15%	28%
85%	-76%	-61%	-47%	-33%	-19%	-4%	10%	24%	39%
90%	-72%	-57%	-42%	-27%	-12%	3%	18%	32%	47%
95%	-67%	-51%	-36%	-20%	-4%	11%	27%	42%	57%
100%	-64%	-48%	-32%	-16%	0%	16%	32%	47%	62%
105%	-60%	-43%	-27%	-10%	7%	23%	39%	55%	72%
110%	-57%	-40%	-24%	-7%	10%	26%	43%	59%	75%
115%	-53%	-36%	-19%	-1%	16%	33%	50%	67%	84%
120%	-51%	-33%	-15%	2%	19%	36%	54%	70%	87%

Source: Company Reports, Citi Investment Research and Analysis

LOND is by far the most levered to prices with a 5% shift up across the curve increasing NPV by up to 37% vs. 13% for AMI. Both companies are less sensitive to production variances with a 5% increase impacting NPV by just 5% for AMI and 17% for LOND.

Figure 48. LOND \$/sh NPV Sensitivity to Fe (row) and volume (column)

	80%	85%	90%	95%	100%	105%	110%	115%	120%
80%	0.68	1.21	1.75	2.28	2.82	3.36	3.89	4.43	4.96
85%	0.85	1.42	1.99	2.56	3.14	3.71	4.28	4.85	5.42
90%	1.03	1.64	2.24	2.85	3.45	4.06	4.66	5.27	5.87
95%	1.21	1.85	2.49	3.13	3.77	4.41	5.05	5.69	6.33
100%	1.39	2.06	2.73	3.41	4.08	4.76	5.43	6.10	6.78
105%	1.56	2.27	2.98	3.69	4.40	5.11	5.82	6.52	7.23
110%	1.74	2.49	3.23	3.97	4.71	5.46	6.20	6.94	7.69
115%	1.92	2.70	3.47	4.25	5.03	5.81	6.58	7.36	8.14
120%	2.10	2.91	3.72	4.53	5.35	6.16	6.97	7.78	8.59

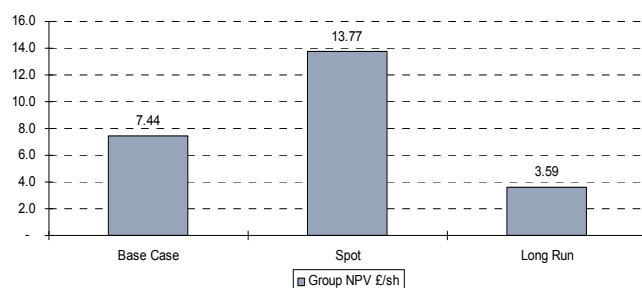
Source: Company Reports, Citi Investment Research and Analysis

Figure 49. LOND % NPV Sensitivity to Fe (row) and volume (column)

	80%	85%	90%	95%	100%	105%	110%	115%	120%
80%	-83%	-70%	-57%	-44%	-31%	-18%	-5%	9%	22%
85%	-79%	-65%	-51%	-37%	-23%	-9%	5%	19%	33%
90%	-75%	-60%	-45%	-30%	-15%	0%	14%	29%	44%
95%	-70%	-55%	-39%	-23%	-8%	8%	24%	39%	55%
100%	-66%	-50%	-33%	-16%	0%	17%	33%	50%	66%
105%	-62%	-44%	-27%	-10%	8%	25%	43%	60%	77%
110%	-57%	-39%	-21%	-3%	15%	34%	52%	70%	88%
115%	-53%	-34%	-15%	4%	23%	42%	61%	80%	100%
120%	-49%	-29%	-9%	11%	31%	51%	71%	91%	111%

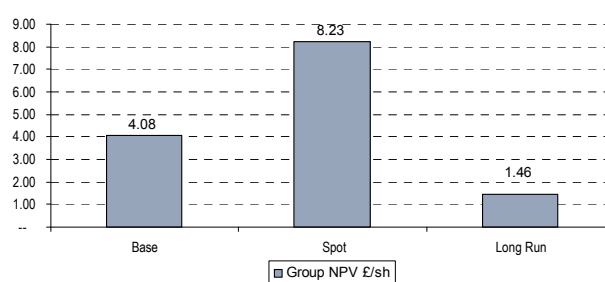
Source: Company Reports, Citi Investment Research and Analysis

Figure 50. AMI sees 85% Upside on Spot and 52% Downside to LR



Source: Company Reports, Citi Investment Research and Analysis

Figure 51. LOND sees 100% Upside on Spot and 65% Downside to LR



Source: Company Reports, Citi Investment Research and Analysis

Labour disputes are common, 700 workers at AMI staged a protest on 18th April for example

Both companies have ample free float, with AMI at 73% and 93% for LOND

AMI must compensate SISG should they fail to produce 10mt in 2012. A 1mt shortfall equates to around \$13m to SISG we estimate

LOND is in a dispute over royalties with maximum upside risk an additional 2% on Marampa's rate

6. Labour Disputes

Labour disputes are a relatively common occurrence across the mining sector, with the threat of strike action and disruption to operations a possibility. For example on 18th April 700 locals from AMI's temporary workforce staged a protest near Bumbuna, demanding increased pay and benefits.

7. Stock Liquidity

London Mining is potentially more subject to liquidity risk, with an average daily volume of £2m, while AMI's volume has increased significantly from a similar level since 2010 to well over £6m in 2011. As a result London Mining's share price could be more volatile as it takes longer to build/unwind large positions.

Figure 52. 30 day moving average daily volume (£m)



Source: Company Reports, Citi Investment Research and Analysis

AMI specific - Compensation for SISG

In the event that AMI is unable to produce 10mt in 2012, the agreement signed with SISG as part of their equity injection gives the Chinese company compensation up to the value of the missing tonnage. We have minimal further details but a 1mt shortfall could imply a cash payment of c.\$13m (approximate value of 25% of 1mt at net profit level).

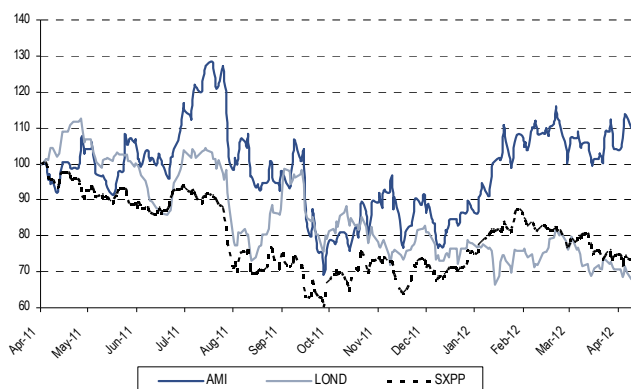
LOND specific – Litigation and infrastructure risk

LOND is engaged in litigation regarding the payment of a royalty in excess of the state royalty and up to 5% (see asset summary for details). While LOND believes the case is without merit, the maximum risk is a further 2% royalty from Marampa.

LOND's shipment of iron ore from Marampa depends upon lease agreements for trucking and barging, which are expressed through cash costs. While this has contributed to the efficient capital allocation of phase one and quick ramp up, it does place LOND at greater risk of exogenous inflationary or operational shocks which could impair shipments from the mine and/or affect cash costs.

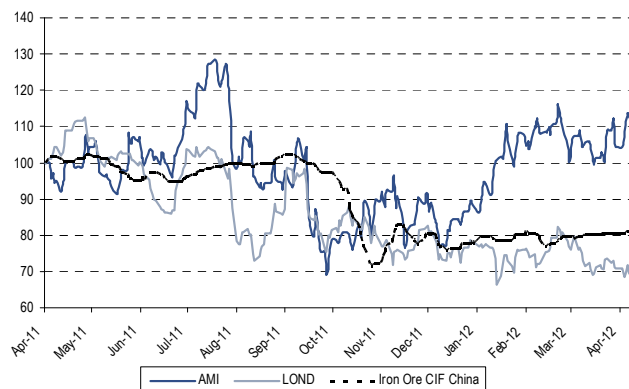
Valuation

Figure 53. Equity performance vs the sector



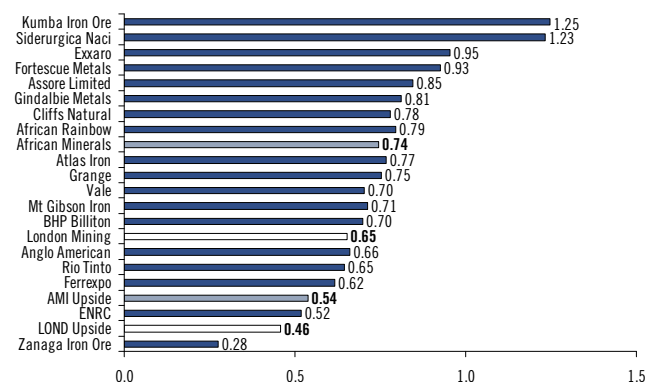
Source: Datastream, Citi Investment Research and Analysis

Figure 54. Equity performance vs Iron Ore



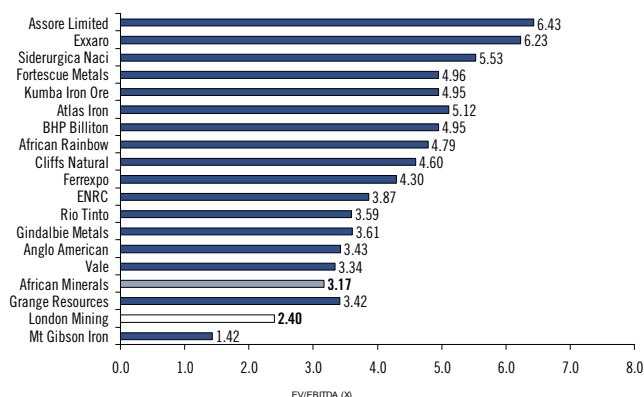
Source: Datastream, Citi Investment Research and Analysis

Figure 55. P/NPV vs industry peers



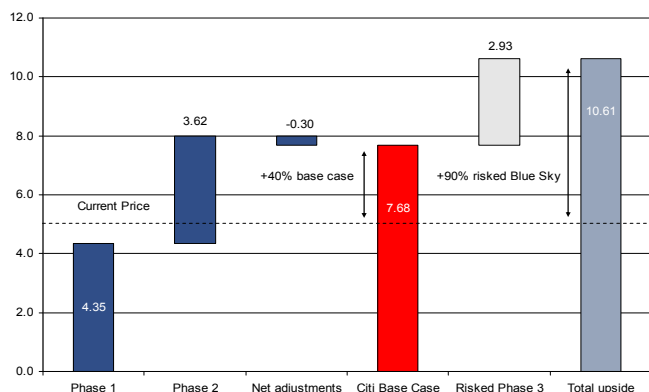
Source: DataCentral, CIRA

Figure 56. 2013E EV/EBITDA vs industry peers



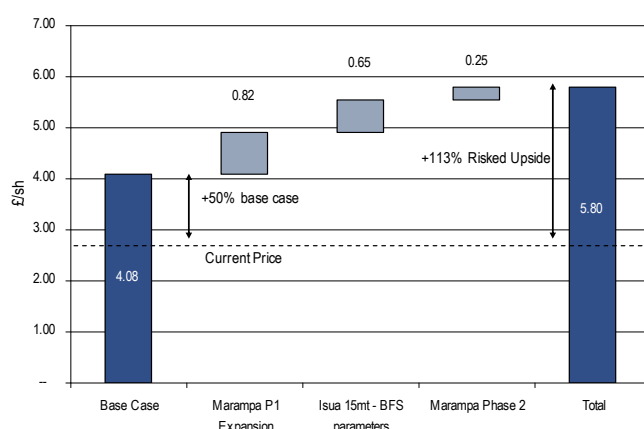
Source: DataCentral, CIRA

Figure 57. AMI Upside to Base Case



Source: Company Reports, Citi Investment Research and Analysis

Figure 58. LOND Upside to Base Case



Source: Company Reports, Citi Investment Research and Analysis

Company Focus

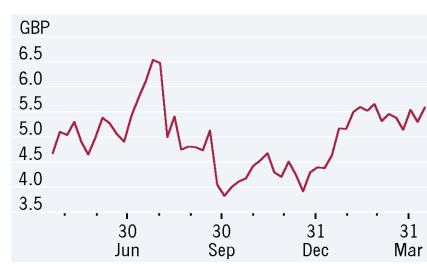
- Company Update
- Initiation of Coverage

Michael E Flitton

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michael.flitton@citi.com

Buy	1
Price (17 Apr 12)	£5.52
Target price	£7.50
Expected share price return	35.9%
Expected dividend yield	0.0%
Expected total return	35.9%
Market Cap	£1,818M
	US\$2,890M

Price Performance (RIC: AMLq.L, BB: AMI LN)



African Minerals Ltd (AMLq.L) Set F-ore the End of the Super Cycle

- **Ticking all the boxes** – We initiate on African Minerals with a Buy rating and target price of £7.50, implying >30% upside. We believe we have seen the end of the super cycle in iron ore as increasing supply, slowing Chinese demand and endemic industry cost inflation pressure returns. We think investors should look to gain exposure to stocks that offer best-in-class capital allocation, low cost volume growth and upside optionality. AMI ticks all these boxes, however given recent outperformance and minimal catalysts, we expect LOND to outperform on a 6 month view.
- **Protection from the pricing cycle** – AMI's flagship Tonkolili project is set to add 9mtpa to capacity over the next 5 years from 10mt in 2012 to 50mt in 2017, a 35% CAGR. The scale of this volume growth, combined with progressively higher quality, lower cost product should enable the company to withstand sector-wide margin compression. We forecast a relatively stable EBITDA of c.55% in contrast to iron ore peers, including LOND, where declining prices and cost inflation are set to compress margins to c.35% by 2020.
- **Iron ore Alpha** – As a team we have stressed the importance of capital allocation to shareholder returns. Iron ore capex costs have surged by 5x over the last 10 years from \$35/tonne of capacity to \$170. At \$87/t AMI's Phase 1 will be c.50% the cost of BHP's Outer Harbour with Phase 2 also well below the average at \$120/t. As a result project IRRs for the first 2 stages are on average 25%, well in excess of average industry returns of c.17%
- **Chinese catalyst out the bag** – Resolution of the \$1.5bn investment by Chinese state owned steel producer SISG, which has enabled the company to self-fund Phase 2, has driven a 40% outperformance vs. SXPP and 30% vs. iron ore since Jan 2012. However we see limited further catalysts over the next 12 months relative to LOND.
- **Holding the infrastructure cards** - Ultimately, control over infrastructure drives long run value in a bulk commodity such as iron ore. AMI's ownership of key port and rail assets increases its ability to manage costs, restrict other users' access, and efficiently build out capacity to support future development.
- **Valuation** – We value AMI using an equal weighted blend of 4x discounted 2013E EBITDA for £7.22 and 1x NPV of £7.68. The stock trades on 3x 2013E EBITDA and 0.74x NPV, historically a good entry point to mining stocks.

African Minerals Ltd (USD)

Year to 31 Dec	2010A	2011A	2012E	2013E	2014E
Sales (\$M)	0.0	0.0	595.4	1,893.6	1,767.0
Profit Before Tax (\$M)	-51.0	-99.4	421.1	843.7	527.5
Diluted EPS (¢)	-10.7	-12.1	13.9	144.3	90.2
Diluted EPS (Old) (¢)	-10.7	-12.1	13.9	144.3	90.2
PE (x)	-82.1	-72.6	63.3	6.1	9.7
EV/EBITDA (x)	-50.3	-29.1	5.0	3.0	4.2
DPS (¢)	0.0	0.0	0.0	0.0	0.0
Net Div Yield (%)	0.0	0.0	0.0	0.0	0.0

Volumes, Options, Funding

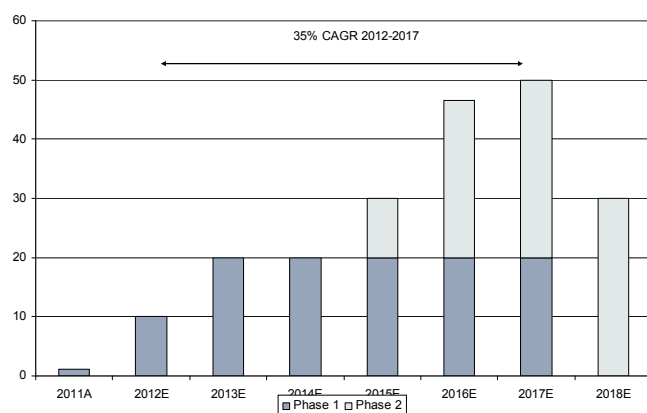
With returns in the mining sector having peaked we believe African Minerals offers investors 1) protection from the pricing cycle through front loaded volume growth 2) limited funding risk 3) optional upside in the form of Phase 3 and 4) alpha generation through low operating costs and efficient capital deployment. We forecast the company to generate a stable 55% EBITDA and 25% IRR while the rest of the sector sees margin compression and decreasing returns.

1. Protection from the pricing cycle

**AMI set to bring on 9mtpa of capacity
2012-2017 or 35% CAGR**

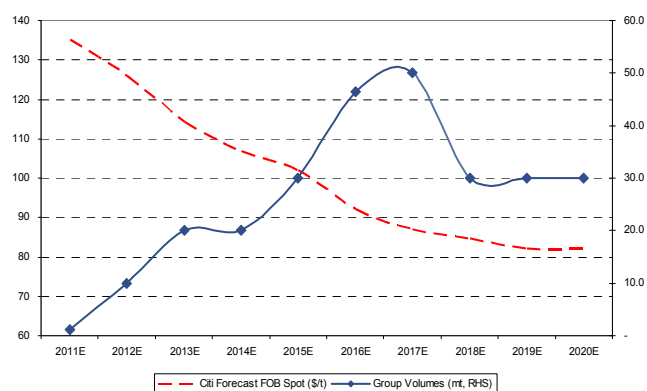
From 2012 to 2017 AMI is set to bring on an average 9mt every year representing a CAGR of 35%. This rapid volume growth is front end loaded enabling the company to maximise cash flow given a structurally declining iron ore price. As Figure 60 shows, volumes should be able to more than compensate for lower per unit prices.

Figure 59. AMI Volume Growth at Tonkolili



Source: Company Reports, Citi Investment Research and Analysis

Figure 60. AMI Volumes vs. Citi Spot Forecasts FOB Sierra Leone

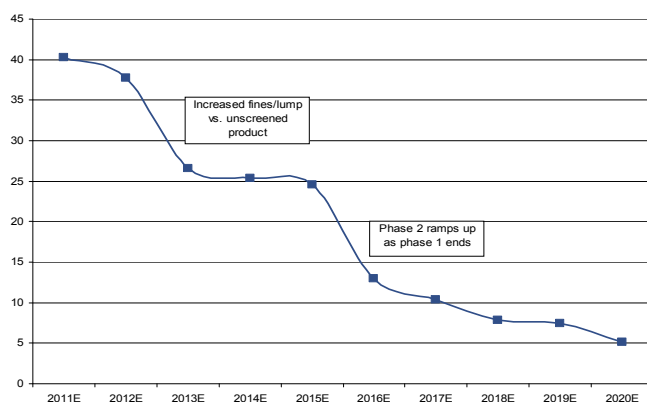


Source: Company Reports, Citi Investment Research and Analysis

With the addition of a decreasing discount to the benchmark we expect EBITDA profile be a steady 55% to the end of the decade 55% vs. a sector decline to 35%

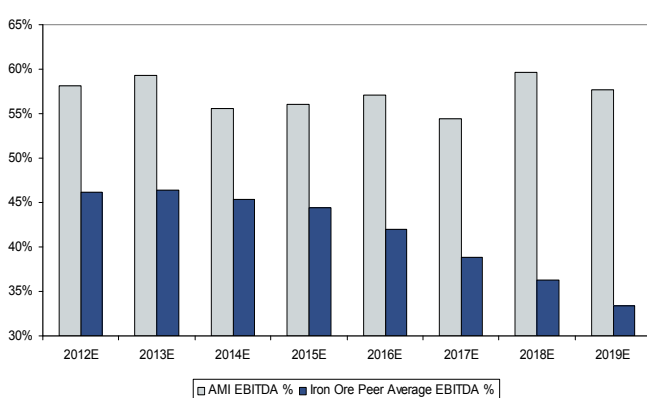
In addition to this volume effect margins will be supported by a decreasing discount to the benchmark as production from the higher grade, low impurity phase 2 ramps up. As a result, unlike iron ore peers, including LOND, where falling prices are set to compress margins to sub 35% by the end of the decade, AMI has a relatively stable EBITDA profile with margins maintained c.55%.

Figure 61. Premium of Sierra Leone to AMI Received Price*



Source: Company Reports, Citi Investment Research and Analysis, *pre SISG off-take

Figure 62. AMI vs. Peers on EBITDA %



Source: Company Reports, Citi Investment Research and Analysis

2. Key funding hurdle cleared

In March 2012 SISG completed its \$1.5bn funding injection in return for 25% of AMI's subsidiary assets and a discounted off-take agreement

SISG deal clears the key funding hurdle facing new mining projects de-risking Phase 2

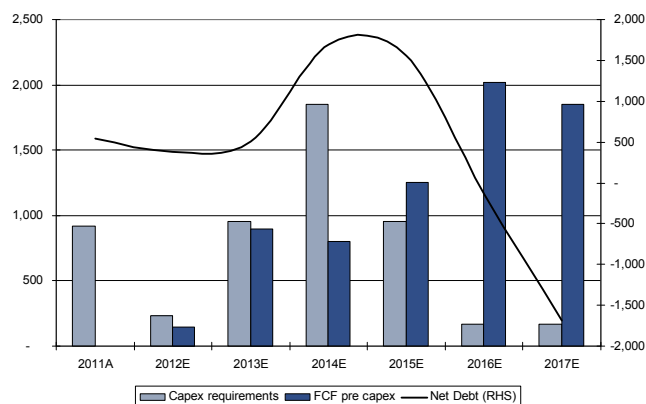
Pre-SISG we note a \$2bn shortfall in internally generated FCF and capex

The closure of the SISG deal in March put an end to a protracted saga which, in our view, had negatively impacted market sentiment on the stock. The agreement, which sees the Chinese steel producer inject \$1.5bn into the project in return for a 25% stake at the asset level, was originally mooted in July 2010 but delays in Chinese government approval have repeatedly stalled its completion.

With project funding in the current macro environment a key constraint on start up production the deal represents a significant de-risking event. While it is possible that AMI could have self funded phase 2 through a mixture of internally generated cash and external financing, this would more than likely have entailed some slippage in the ramp up schedule.

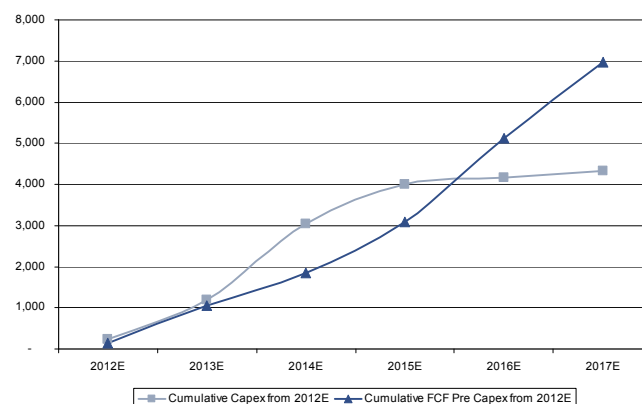
As the below figures highlight, 2013-2014E represents the highest risk period for AMI with c.2bn shortfall between internally generated FCF and capex requirements.

Figure 63. Net Debt*, Capex and FCF (\$m)



Source: Company Reports, Citi Investment Research and Analysis, *Pre SISG transaction

Figure 64. External Funding Gap (\$m)



Source: Company Reports, Citi Investment Research and Analysis

Without the cash injection we doubt AMI would have been able to secure full funding for Phase 2 given the implied leverage on 2012 EBITDA. We estimate this would have resulted in delays costing c.\$200m per year to NPV

In the absence of funding from SISG, 2012 leverage would be well beyond the 2.5x 'rule of thumb', suggesting external debt financing would be hard to raise or prohibitively expensive. With the company aiming to begin work on Phase 2 during the dry season at the end of this year funding constraints would likely have caused delays. On our estimates every year of delay reduces phase 2 NPV by c.\$200m or £0.4 a share.

Figure 65. AMI Capacity to Self-Fund

	Unit	With SISG	Ex SISG
Est. FCF Shortfall 2013-2015	\$m	2,000	2,000
Shandong Cash	\$m	1,500	-
Debt pay down	\$m	-418	-
Remaining Shandong Cash	\$m	1,082	-
Addtl debt funding required	\$m	918	2,000
ND end 2011 less pay down	\$m	126	544
Total net debt	\$m	1,044	2,544
adj EBITDA in 2012*	\$m	650	650
ND/EBITDA		1.61	3.91
EBITDA in 2013	\$m	1,122	1,122
ND/EBITDA		0.93	2.27

Source: CIRA, *u/l EBITDA - adjusted for company policy of capitalising opex and revenue in 1H 12

AMI owns the infrastructure, enabling it to manage costs, restrict unwanted access and add cost effective scale

LOND has no access to the rail or port adding \$3/t to costs vs. AMI

AMI has allowed access to Cape Lambert however for 2mtpa in Phase 1 and 5mtpa in Phase 2

3. Holding the infrastructure cards – upside potential

Alongside the mining asset at Tonkolili AMI owns the key infrastructure through a 99 year lease over the rail corridor, the current port at Pepal and the future deepwater port at Tagrin Point (Phase 2). This allows the company two key advantages a) control over access and costs b) flexibility to add future scale

Control

Ownership of the infrastructure enables AMI to restrict access and allows the company greater control over operating costs potentially reducing inflationary pressures.

London Mining does not have access to any part of the infrastructure network despite the key rail line from Tonkolili to Pepal running directly past the Marampa mine site. As a result the company must use a system of truck and river barge to deliver its product to the port adding c.\$3/t over AMI's transport costs.

In contrast Cape Lambert, which owns the license surrounding London Mining and is c.18% owned by AMI, has the right to 2mtpa on AMI's network during AMI's Phase 1 and 5mtpa once Phase 2 is commissioned.

Figure 66. AMI in Charge of the Gateway Out of Sierra Leone



Source: Company Reports

Future flexibility drives upside

Infrastructure ownership means AMI's project is easily scaleable, resulting in an IRR of c.25% throughout its build out whereas LOND is limited post Phase 1 and returns fall to as low as 6% with Isua

This allows AMI the ability to maintain a low cost option to develop Phase 3

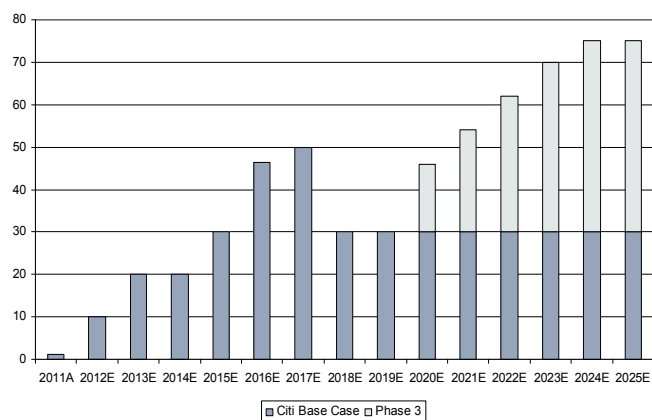
Most important is the development flexibility ownership brings. Being long infrastructure allows AMI not only to add scale to the project but bring on capacity in a cost effective, phased manner resulting in a consistently high IRR at each stage (see Investment Case 4). In contrast while LOND's initial phase looks attractive, beyond that growth is constrained and returns are likely to fall in subsequent stages.

This flexibility enables AMI to maintain the option to develop the third phase of the project which could see volumes rise to 75mt with the addition of 45mt of high grade 70% magnetite concentrate pushing AMI into the world's top five producers.

We estimate a risked upside of £2.93/sh from the addition of Phase 3

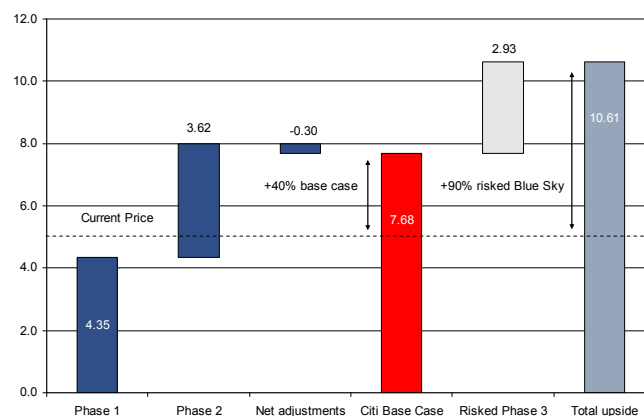
We currently do not include this in our base case; there are limited details and commissioning is not expected until 2020, however the economics of the project look attractive and we see the potential for significant upside to NPV. Using long run pricing (\$81/t real), a 14% WACC vs. 12% for Phases 1 and 2, capex of \$7.2bn, opex of \$40/t we estimate an NPV of £5.86/share with a payback of 4 years. We risk this valuation by 50% to arrive at a risked 'blue sky' of an additional £2.93.

Figure 67. Potential Phase 3 Volumes



Source: Company Reports, Citi Investment Research and Analysis

Figure 68. Phase 3 Offers Significant Upside to Base Case (£/sh)



Source: Company Reports, Citi Investment Research and Analysis

Additionally funding and energy are surmountable:

Funding should be achievable with internal FCF and external debt

- Cumulative FCF by 2018 when lead items would need to be ordered is likely to total c.\$4bn. This leaves \$3bn to fund externally (SISG are obligated to fund their share of the capex) approximately 2x expected EBITDA.

AMI is currently working with the Sierra Leone government and C-CCC to design an expansion of the Bumbuna dam beyond the planned 400MW in 2017

- While Phase 2 requires 80-120MW, achievable via heavy fuel oil, Phase 3's higher processing intensity and transport expansion will need closer to 550MW two thirds of which is likely to be hydroelectric from the nearby Bumbuna dam. The dam is currently under expansion to 400MW by 2017 from 50MW currently. We think the political will is there, recently AMI, C-CCC and the Sierra Leone government agreed to establish a JV to design a further expansion for Phase 3, not least from the boost the GDP such an expansion would bring.

Infrastructure ownership gives AMI a key strategic advantage making Phase 3 more achievable and upside more realistic compared to LOND

In the long run AMI has a strategic advantage over the competition with its combination of resource size and infrastructure assets making the company master of its own destiny. Thus while Phase 3 is long dated, it is not 'pie in the sky' as the key hurdles of transport and funding have been cleared. As a result the additional upside is also more achievable and realistic, in our view, than for other projects.

4. Efficient capital deployment at low unit cost

The capex intensity of iron ore projects has gone up 5x since 2001 from \$35/t of capacity to \$170. As shown in Figure 33 this has limited growth in ROCE even while margins have expanded. This has resulted in iron ore IRRs falling from c.27% to c.17% over the last ten years (Figure 70), the largest fall in the commodity space. With the margin cycle now also turning we expect these returns to come down further. In this context the efficient deployment of capital is likely to be the key driver of value creation in the sector.

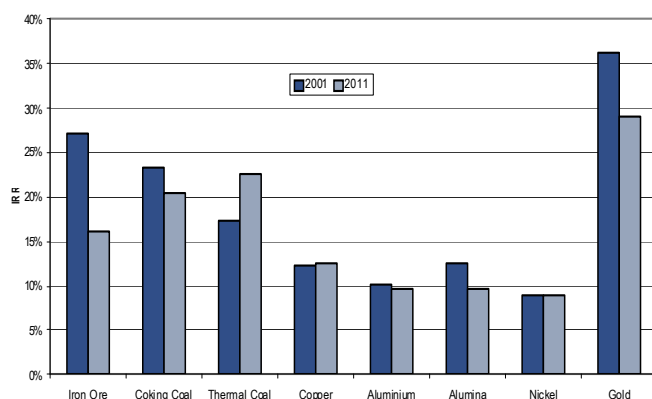
The capex intensity of phases 1 and 2 are better than the majority of the projects under construction at \$90/t and \$120/t respectively. This enables AMI to buck the industry trend with Phase 1 IRR at 25% and Phase 2 at 23%.

Figure 69. AMI Phase IRRs

Phase	IRR
Phase 1	25%
Phase 2	23%
Phase 3*	27%

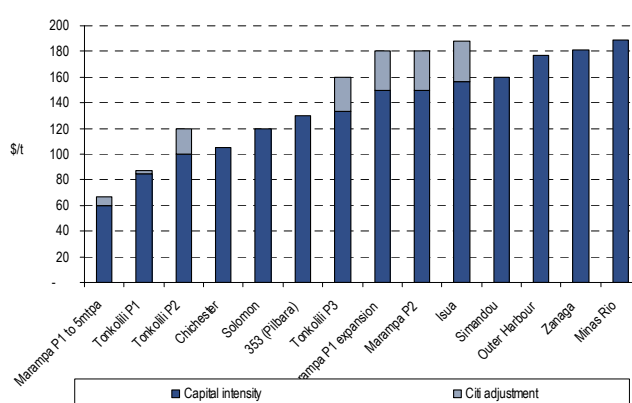
Source: Co Reports, CIRA. *excl from base case

Figure 70. Project IRR – 2001 vs. 2011



Source: Company Reports, Citi Investment Research and Analysis

Figure 71. Capital Intensity of selected iron ore projects (\$/t prod)



Source: Company Reports, Citi Investment Research and Analysis

Figure 72. Citi Opex FOB (Real, Pre Royalty)

Phase	\$/t
Phase 1	34
Phase 2	27
Phase 3*	36

Source: Co Reports, CIRA. *excl from base case

Returns are also boosted by AMI's ownership of port and rail infrastructure which enables the company to achieve relatively low operating costs in particular in Phase 2 (see Figure 22). This should provide a buffer to margins as the curve flattens over the next 3-5 years, boosting returns relative to peers.

Included in our estimates is a 20% contingency on company estimates (for both capex and opex). We believe this is prudent and reflects the risks of endemic cost inflation within the industry and the stage of ramp up. As noted at the beginning of this report, at the recent BFS for LOND's Isua expected operating costs were increased by 50%.

As the below sensitivities show, there is c. 30% upside to our NPV if the company is able to deliver on its estimates. As the project moves into full production we would expect some of this upside to be crystallised.

Figure 73. NPV (£) sensitivity to opex (row) and capex (col) contingency

	0%	5%	10%	15%	20%
0%	9.89	9.55	9.20	8.84	8.49
5%	9.69	9.35	9.00	8.64	8.29
10%	9.49	9.15	8.80	8.44	8.08
15%	9.29	8.95	8.59	8.24	7.88
20%	9.09	8.75	8.39	8.04	7.68

Source: Company Reports, Citi Investment Research and Analysis

Figure 74. NPV% sensitivity to opex (row) and capex (col) contingency

	0%	5%	10%	15%	20%
0%	29%	24%	20%	15%	11%
5%	26%	22%	17%	13%	8%
10%	24%	19%	15%	10%	5%
15%	21%	17%	12%	7%	3%
20%	18%	14%	9%	5%	0%

Source: Company Reports, Citi Investment Research and Analysis

Valuation

Figure 75. Blended Citi TP

	Weighting	£/share
Disc 2013 EV/EBITDA	50%	7.22
NPV	50%	7.68
Blended		7.45
Citi TP		7.50

Source: Company Reports, CIRA

We exclude Phase from our base case given limited details and its long dated nature. We arrive at an NPV per share of £7.68

We rate African Minerals Buy with a £7.50 target price. Our valuation is derived from an equal weighting of a 1.0x DCF derived NPV of £7.68 and 4x discounted 2013E EBITDA of £7.22. Our 1.0x NPV multiple is in line with other iron ore stocks in the sector. In our view this blend captures both the long term upside of the stock as well as its near term earnings potential. In addition we see the potential for a further £2.93 representing incremental upside of 38% to our NPV.

NPV: Upside on base case...

Given the phased approach adopted by AMI we have modelled the individual stages of the build out, applying a risk adjustment. We include Phase 2 as it is now fully funded but exclude Phase 3 given its long dated nature, limited details and lack of an energy solution. Further details of our assumptions can be found in the appendix however we believe we have taken a conservative approach, adding 20% contingencies to capex and opex. As a result we derive a total NPV valuation £7.68.

Figure 76. Base Case NPV

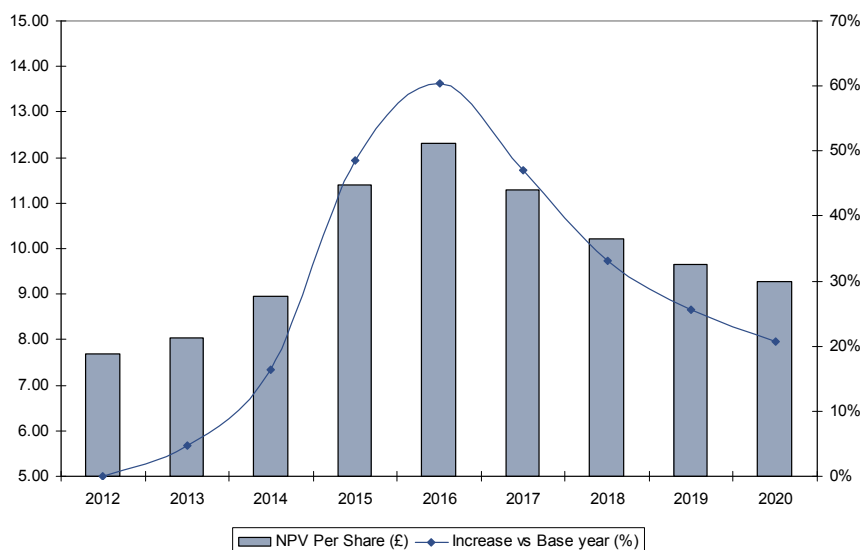
NPV Summary	WACC	Risk Adjustment	Adj NPV \$m	NPV per share £
Phase 1	12%	100%	2,291	4.35
Phase 2	12%	100%	1,907	3.62
Phase 3	14%	0%	-	-
- Net Debt			-377	-0.72
+ Investments			68	0.13
+ SISG cash			1,500	2.85
Total			5,389	10.24
-SISG stake			-1,347	-2.56
Value to AMI Equity			4,042	7.68

Source: Company Reports, Citi Investment Research and Analysis

AMI's aggressive production profile necessitates front-loading capex, depressing NPV at the project outset. However, as Figure 77 shows, as the project ramps up there is a substantial NPV uplift. This estimated uplift of 50% to 2015 and up to 60% in 2016 provides additional support to our long term positive view on the stock.

AMI's NPV sees substantial uplift over time as near term capex falls away.

Figure 77. Riding the NPV Uplift



Source: Company Reports, Citi Investment Research and Analysis

...with valuable optionality

With our bearish mid to long term outlook on the mining sector and specifically iron ore it is important, in our view, for investors to be adequately compensated for shouldering risk at this stage in the cycle. As shown above there is upside on our conservative base case not only in the near term but for investors with a longer time horizon. Alongside this fundamental support investors in AMI also gain valuable optional upside.

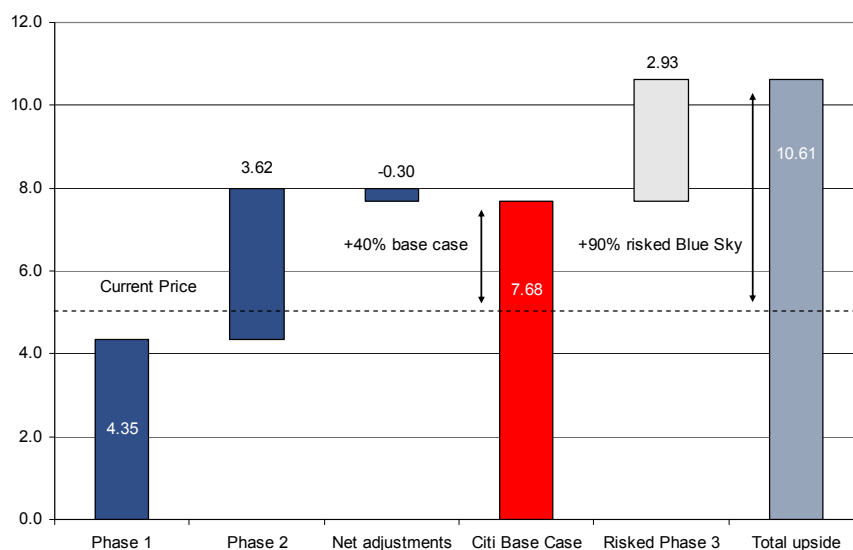
On 14% WACC and long run iron ore assumptions we estimate a full upside from Phase 3 at £5.86 which we risk by 50% to arrive a risked 'blue sky' upside of £2.93

An investor in AMI today gains exposure to 65% of Phase 2 representing 40% upside while acquiring an option worth a further 50% in the form of Phase 3

While the parameters for a potential Phase 3 remain uncertain, and there is not at this point adequate power, its commissioning by the end of the decade is in our view realistic (see Investment Case 3). Given the uncertainties to assess Phase 3 we use a 14% WACC in addition to the 20% contingencies of our base case and our long run real price assumption of \$81/t. This results in an NPV of £5.40/sh which we risk by 50% to account for uncertainties that may derail its commissioning.

An investor in AMI today is in effect paying up for phase 1 while gaining exposure to c.65% of phase 2 representing c.40% upside and acquiring a 'free' option for a further 50% in the form of phase 3. This looks an attractive package and while we acknowledge that the market is unlikely to credit the company with this value in the near term, incremental news flow should see some up uplift.

Figure 78. Significant upside potential



Source: Company Reports, Citi Investment Research and Analysis

EV/EBITDA: Peak multiples for trough earnings

For our multiples calculation we use 4x 2013E EBITDA discounted back one year at 12% WACC to arrive at a valuation of £7.22

For near term earnings we use a multiple of 4.0x 2013E EBITDA discounted back one year using our group WACC of 12%. With 2012 a ramp up year, earnings in 2013 provide a more realistic picture of the value of the business, in our view, as EBITDA almost doubles on 2012.

While this 4.0x multiple in line with the current trading levels of iron ore peers including Rio Tinto and Ferrexpo it is low by historical standards. Iron ore stocks have traditionally traded on 4-7x but with the pricing cycle peaking the market appears unwilling to ascribe higher valuations. We would note however that AMI is set for a period of rapid earnings growth and thus a peak multiple may be unduly harsh. As shown below we derive a valuation of £7.22.

Figure 79. Multiples Based Valuation

EV/EBITDA	Unit	2012	2013
EBITDA		627	1,122
On 4x Multiple	US\$m	2,507	4,488
- Net debt	US\$m	- 377	- 377
+ Investments	US\$m	68	68
Pre SISG Value	US\$m	2,198	4,178
+ SISG Cash	US\$m	1,500	1,500
Value pre minority	US\$m	3,698	5,678
Less SISG Stake	US\$m	- 925	- 1,420
Value post minority	US\$m	2,774	4,259
Shares Out	m	328.9	
GBPUSD		1.60	
Equity Value	US\$	8.4	12.9
Per Share	GBP	527	809
Discounted to 2012	GBP	527	722

Source: Company Reports, Citi Investment Research and Analysis

Project Overview and Asset Summary

Figure 80. Sierra Leone Country Map

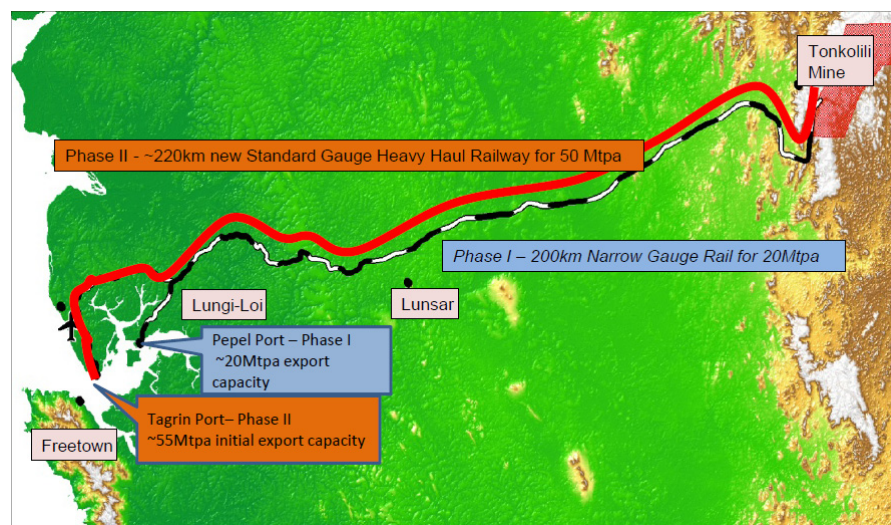


Source: Company reports

African Minerals holds mining rights to the Tonkolili iron ore project in central Sierra Leone located approximately 200km northeast of the capital, Freetown. The company has delineated a 12.8bt ore body and plans to use a three-phased approach targeting progressively lower grade layers of duricrust, saprolite and magnetite (Figure 83).

Phase 1 will exploit the high grade oxidised ore (duricrust), using rehabilitated existing port and rail infrastructure for a 20mtpa direct shipping ore (DSO) operation. Phase 2, part-funded by cash from phase 1 and contributing an incremental 30mt, is more capital intensive requiring a new standard heavy gauge rail line from the mine to a new port at Tagrin as well as a concentrating process. Finally phase 3, estimated at 45mt incremental capacity, will target the low grade magnetite which forms the bulk of the resource however with limited details and no power solution we do not include this in our valuation.

Figure 81. Tonkolili Mine Location and Infrastructure Development



Source: Company Reports

The mineralisation at Tonkolili was discovered in 2008 and has since been expanded over subsequent studies to over 12bnt with an average Fe content of 31.3%, the largest magnetite resource in the world.

Figure 82. Tonkolili JORC Resource

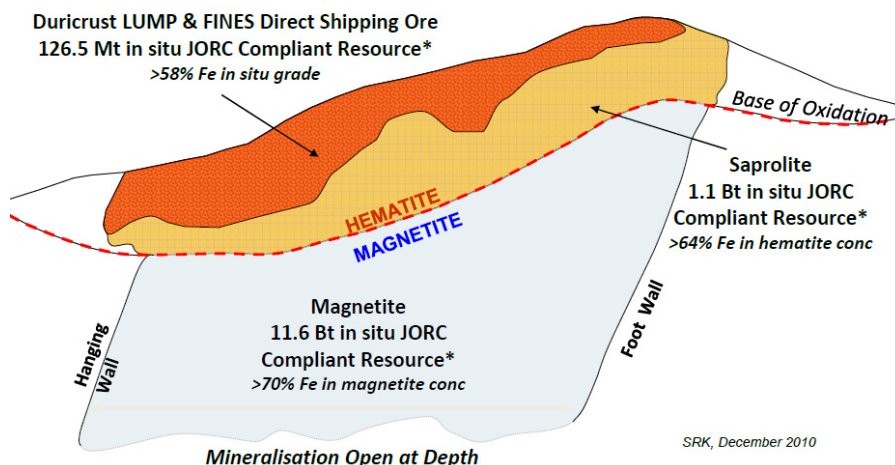
Category	mt	Fe%	SiO ₂ %	Al ₂ O ₃ %	P%
Measured	2,532	30.5	44.4	4.8	0.07
Indicated	3,859	31.2	43.4	5.1	0.06
M&I	6,390	30.9	43.8	5.0	0.06
Inferred	6,361	31.5	41.1	6.3	0.06
Total	12,751	31.3	42.5	5.6	0.06

Source: Company Reports

While the ore body as a whole is relatively low grade with a high Silica content it is non-uniform with an enriched hematite cap (58% Fe in situ grade) overlaying the lower grade magnetite (30% Fe in situ grade). In between lies an intermediate layer of saprolite (40% Fe).

For Phase 1 the company is targeting the high grade hematite cap for a 20mtpa DSO operation. In Phase 2 the saprolite ore will be extracted for a 64% concentrate product and Phase 3 will produce 70% concentrate from main magnetite ore body

Figure 83. Tonkolili Mineralisation



Source: Company Reports

The 126.5mt oxidised high grade hematite zone has been found to be suitable for a DSO product given relatively low levels of SiO₂ albeit with elevated alumina in line with the ore body average. The company plans on targeting this layer first through a simple crush and screen operation before exploiting the harder, lower grade zones beneath. As Figure 84 shows the company plans to produce a 64% concentrate product in phase 2 followed by a high grade 70% product in phase 3.

Figure 84. Typical Product Specification

Material	Process	Product	Mass Pull %	Fe%	SiO ₂ %	Al ₂ O ₃ %	P%
DSO	Direct	DSO	85	58	1.0	5.8	0.05
Sapolite	Spiral Classification	Hematite concentrate	40	64	1.9	2.0	0.06
Magnetite	LIMS & Flotation1	Magnetite concentrate	26	70	3.0	0.4	0.01

Source: Company Reports

The mining lease is valid for 25 years with the option to extend it thereafter in 15 year slots. The company also has a 99 year lease on the rail and port.

Phasing to maximise cash flow

The company intends to develop the ore body through a phased approach in order to maximise cash flow with the low intensity DSO phase part-funding subsequent expansions. The key parameters for each phase are provided in Figure 85. Given the greenfield nature of the project and industry-wide cost escalation issues we apply a 20% risking to both capex and opex in our base case valuation.

Figure 85. 3 Phase Expansion Detail

Production	Incr Cap (Mtpa)	Commence (Citi est)	Infrastructure	Company Capex \$bn	Citi Capex \$bn	Intensity \$/t	Company Opex \$/t (pre royalty)	Citi Opex \$/t (real, ex royalty)	Life yrs
Phase I (DSO)	20	Started Q4 11	Pepel Port + Transshipment Narrow gauge rail	c.1.7bn	1.74	87	27.5	34	6
Phase II (Saprolite)	30	1H 2015	Tagrin Port Standard gauge rail	c.3.0	3.6	120	c.21	27	16
Phase III (Magnetite)	45	c.2020	Tagrin Port Standard gauge rail	TBD	7.2	160	c.23	36	60

Source: Company Reports and CIRA Estimates

In addition to the operating costs of rail and port a service charge will be payable on the 10% of the infrastructure not owned by the company (see Figure 91). This will be in part offset by the revenue from Cape Lambert's third party tonnage (2mt phase 1, 5mt when phase 2 comes on). This charge is not included by the company as the details have not yet not been finalised with the government, but we estimate \$0.42 in phase 1 and \$0.71 in phase 2.

We expect the AMI to have a small additional rail service charge for the 10% it does not own. Negotiations are currently ongoing with the government but we assume \$0.42/t

Figure 86. Rail Charge Estimate For Phase 1

Component	Unit		
Citi rail and port capex	\$m	951	
Expected Life	years	10	
Capital cost p.a.	\$m	95	
Expected load (incl Marampa)	mtpa	22	
Depreciation charge	\$/t	4.32	
IRR required		15%	
Return	\$m	143	
Return component	\$/t	0.65	
Net return on capital	\$/t	4.97	
Citi rail and port opex	\$/t	13.90	
Assumed margin at 30%	\$/t	4.17	
Total Rail Service Charge	\$/t	23.03	
AMI Rail Charge Out	\$/t	23.03	Pay 100%
AMI Rail Charge Back	\$/t	20.73	Receive 90%
Revenue from Marampa 2mt	\$/t	1.88	Receive 90%
Net Cost impact	\$/t	0.42	

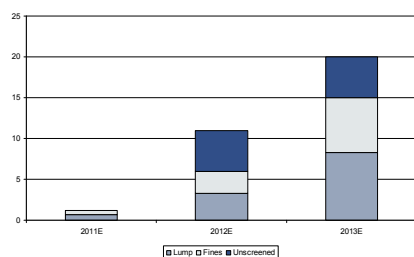
Source: Company Reports, Citi Investment Research and Analysis

Phase 1 – low intensity, high cash flow

Phase 1 is designed to exploit the high grade hematite cap (shown in Figure 83) in order to fast track cash flow and maximise returns from the current iron ore pricing cycle. Production at mine will be via a simple crush and screen operation producing a 55:45 lump:fines product with an average Fe grade of 58% (other specs see Figure 84).

The company plans to refurbish the existing port at Pepal, constructing a new unloading station and double dockyard to expand its capacity from 7.5mtpa to 22mtpa. Depth is only around 12m however allowing only handymax so transshipment to capesize vessels will be needed. For the 200km journey from mine-site the 74km narrow-gauge rail connecting Lunsar to the port will be reconstructed with a 126km extension from Lunsar to Tonkolili.

Figure 87. Phase 1 Tonnage Breakdown (mt)



Source: Company Reports, CIRA

From 1.2mt in 2011 we expect ramp up to 10mt in 2012 with capacity of 20mt reach in 2013. Production is composed of; lump (8.3mt), fines (6.8mt) and an unscreened combined product (5mt). Given the size of the resource mine life is just 6 years.

Given the simplicity of the production process and ability to utilise existing infrastructure phase 1 is low intensity on both a capex and opex basis. We expect a capital cost per tonne of capacity of \$87, well below the industry average of \$170. Operating costs (breakdown Figure 90) are also expected to come in around \$34/t (including 3.2% royalty) equating to c.\$56/t CIF China.

On the top line, we apply a range of adjustments to our CIF China forecasts including freight, moisture, alumina and Fe% to back out an expected price FOB at Pepal port. We estimate the received price in 2012 at \$35-61/t below CIF China.

Figure 88. 2012 Pricing Flow

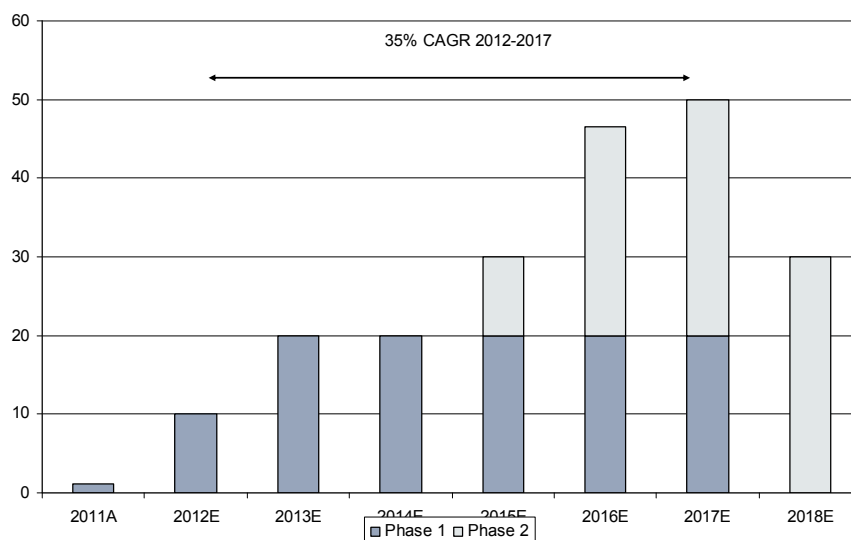
	unit	Lump	Fines	Unscreened
Iron Ore CIF China at 63.5%	\$/t	149	149	149
	c/dmtu	235	235	235
Less freight	c/dmtu	35	35	35
Add lump premium	%	10%		
Less moisture discount	%	-8%	-8%	-8%
Less alumina discount	c/dmtu	-5	-5	-5
FOB price at Pepal	c/dmtu	198	179	179
Fe content adjustment	%	58%	58%	58%
Less discount for unscreened product	%			-15%
FOB price at Pepal	\$/t	115	104	88
Total Discount to CIF	\$/t	35	45	61

Source: Company Reports, Citi Investment Research and Analysis

Phase 2 – volumes up costs down

The second phase, due to commission in 2015, 30 months from funding, will expand capacity by 30mt. As a result production is set to rise to 50mt in 2017 before the expiration of phase 1 in 2018 sees volumes fall to a sustainable 30mt.

Figure 89. Volume Growth to 2018



Source: Company Reports, Citi Investment Research and Analysis

In this phase the company will mine the 30-60m thick saprolite zone above the magnetite BIF. Given the grade, 40% in situ, the ore will require beneficiation to upgrade to a 64% concentrate. The company plans on using grinding and crushing followed by spiral classification (gravity separation) to separate unwanted elements.

While the ore is partially weathered and therefore has a lower work index than the harder magnetite, mass yield is expected to fall to 40% from 85% in Phase 1 implying more waste per tonne of product and high cost per unit than Phase 1. As a result we expect mining and processing costs to increase from c.\$13 to c.\$17.

Offsetting this are cost savings from more efficient infrastructure and pre stripping benefits:

- Phase 2 will require the construction of a new deepwater port at Tagrin which will enable the direct loading of capesize vessels saving c.\$5/t on transhipment.
- Further savings are possible with the construction of a 55mtpa heavy gauge rail running the full 220km from mine site to port. This should enable efficiency savings of some \$2-3/t.
- Phase 1 will have generated a pre-strip 'dividend' allowing c.\$5/t lower mining costs for the first 7 years.

Overall we expect opex of c.\$30/t until 2021 when the pre-strip effect ends and costs rise to \$40.

Given the infrastructure spend we expect capex to double to \$3.6bn (company \$3bn) however the intensity remains very low relative to peers at \$120/t (Figure 19).

Phase 3 – too long term

Phase 3 will aim to exploit the bulk of the mineralisation; the 11.5bt magnetite zone. Given the long timeframe (post 2020) however the company has provided no official cost or capex estimates with commissioning dependent on market conditions.

The most likely form will be an additional 45mt taking the company's total production to 75mt (prior to the exhaustion of phase 2 in 2030). We estimate capex of \$7bn (\$160/t) with the bulk of the cost accounted for by port and rail capacity expansion and a large scale magnetic concentrator. Processing is likely to be fine grinding followed by Low Intensity Magnetite separation and a further flotation stage to remove high levels of silica and alumina. Opex could come in around \$39/t.

We do not include this phase in our valuation in part due to uncertainty on key parameters but also the lack of a power solution. The beneficiation process is highly power-intensive with operations requiring some 550MW compared to 80-120MW in phase 2 and 10MW in phase 1. While the company plans on using diesel and heavy fuel oil in prior phases at least 2/3 of phase 3 power is dependent on the expansion of the Bumbuna hydroelectric dam 20km away. In May 2011 the government signed an MOU for the expansion from current installed capacity of 50MW to 400MW with Joule Africa however further capacity will be needed for phase 3. To that end AMI, C-CCC and the Sierra Leone government have agreed to create a JV to design it.

Figure 90. Real Opex Estimates (\$/t)

Parameters	Phase 1	Phase 2
Mining	7.7	7.0
Processing	4.8	10.1
Rail	5.1	4.2
Port	8.8	3.7
Indirect Cost	6.6	1.1
Net Rail charge impact	0.4	0.7
Royalty	3.2	2.8
Total	36.6	29.6

Source: Company Reports, CIRA

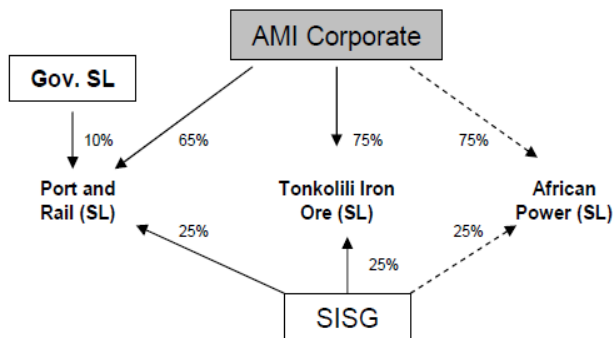
The most likely form of Phase 3 is a 45mtpa concentrate product at 70% Fe. We expect commissioning post 2020 however with no energy solution we do not include this in our valuation.

Off-takes and relationships

Shandong Iron & Steel Group (SISG)

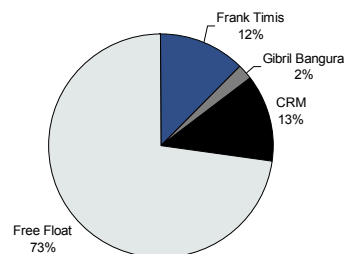
On 30 March 2012 SISG completed its \$1.5bn investment in return for a 25% shareholding in AMI's three project subsidiaries; Tonkolili Iron Ore, African Railway & Port Services and African Power (shell company for phase 3).

Figure 91. African Minerals Post Shandong



Source: Company Reports, CIRA

Figure 92. AMI Corporate Shareholding



Source: Company Reports, CIRA

As a private company, the information on SISG limited. SISG is a state-owned Chinese steel producer in the process of capacity expansion from 25mtpa to 45mtpa, implying an incremental 32mtpa of iron ore requirements.

As a result the company is seeking guaranteed supply and this drives additional elements of the agreement with AMI:

- Off-take for 2mtpa in phase 1 rising to 10mtpa in phase 2 at discounts ranging from 0-15% depending on the received price of iron ore.

Figure 93. SISG Discounts Over Time

Shandong Discount		2012	2013	2014	2015	2016	2017	2018	2019	2020
Net discount	%	13%	10%	10%	10%	8%	8%	8%	8%	8%
Phase 1 lump discount	%	13%	13%	11%	10%	10%	8%	8%	8%	8%
	\$/t	14.2	12.8	10.8	9.1	8.2	5.8	5.6	5.5	5.5
Phase 1 fines discount	%	13%	10%	10%	10%	8%	8%	8%	8%	8%
	\$/t	12.9	9.3	8.7	8.3	5.6	5.3	5.1	5.0	5.0
Phase 2 concentrate discount	%	11%	10%	10%	10%	8%	8%	8%	8%	8%
	\$/t	12.5	10.0	9.4	9.0	6.1	5.7	5.6	5.4	5.4

Source: Company Reports, Citi Investment Research and Analysis

- SISG also holds the option to acquire up to 25% of the annual production from each of the three phases with reference to benchmark rates.
- SISG may also elect to receive iron ore in lieu of its share of any dividends declared from mining operations.

As part of the deal Mr Cui Jurong, currently VP of SISG, has been nominated to the board of AMI. At a corporate level SISG is prevented from acquiring more than 12.49% of AMI's shares in the public market except in the event of a takeover bid when it is able to make a competing bid.

China Railway Materials Corporation (CRM)

CRM took a 12.5% stake in AMI at the corporate level in June 2010. The company also has an off-take and marketing agreement in place.

Standard Bank

As part of a \$100m standby facility in 2011, Standard Bank obtained an off-take, based on benchmark prices, for 8mt over 3 years starting in 2012.

China Communications Construction Company (C-CCC)

In May 2011 AMI signed an MOU with C-CCC to self-fund the Final Engineering Study for phase 2 and phase 3. In return C-CCC would gain the opportunity to bid for the engineering contract to build both phases.

Cape Lambert (CFE AU)

AMI holds c.18% of Cape Lambert, the company has third party rights to use AMI rail and port for 2mtpa in phase 1 and a further 3mtpa once phase 2 commences.

Undisclosed

The company has a number of other off-take agreements for as yet undisclosed amounts with, among others, Shanghai Icosteel.

Management

Frank Timis (Executive Chairman, 12.4% ownership) - Frank Timis was the founder and former Executive Chairman, President and CEO of European Goldfields Ltd. He was also the founder and Executive Chairman of both Regal Petroleum, which is listed on AIM and Gabriel Resources, which is listed on the Toronto Stock Exchange.

Alan Watling (CEO) - Mr Watling has nearly 30 years experience of the iron ore industry. Prior to joining AMI Mr Watling was COO at Fortescue helping to take a greenfield port, rail and mine into large scale production within a 5 year period. He also worked at Rio Tinto for 20 years managing infrastructure facilities with a particular focus on port and heavy haul rail for iron ore operations.

Miguel Perry (CFO) - Mr Perry joined the board in 2010 and was most recently the CFO and member of the board at ENRC where he helped manage the 2007 float. Prior to joining AMI he was a partner at PwC.

Gibril Bangura (Executive Chairman, AML Sierra Leone, 2.4% ownership) - Mr Bangura is a founding shareholder of AMI and is the in-country head.

Company Focus

- Company Update
- Initiation of Coverage

Thomas O'Hara

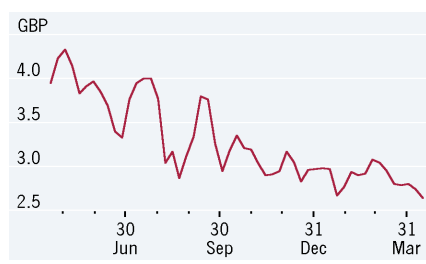
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thomas.joseph.ohara@citi.com

Buy	1
Price (17 Apr 12)	£2.62
Target price	£4.65
Expected share price return	77.3%
Expected dividend yield	0.0%
Expected total return	77.3%
Market Cap	£359M
	US\$570M

Price Performance

(RIC: LOND.L, BB: LOND LN)



London Mining (LOND.L) London Calling

- **Developer to Producer** — We initiate on London Mining with a Buy rating and £4.65 target price. London's primary asset is the Marampa iron ore mine in Sierra Leone, from which it has recently commenced shipments and is ramping up to 5mtpa by 2014. This first phase is now fully funded.
- **Attractive growth phase** — Phase 1 of Marampa should see a more than threefold increase in volumes from 1.5mt in 2012 to 5mt capacity in 2014 and is set to be delivered at a very attractive capital intensity of <\$70/t of annual capacity, with an industry leading IRR of over 35%. Moreover Marampa is producing a high quality sinter concentrate of 65-66% Fe and low deleterious elements, which should see it achieve a higher price per tonne than key peer African Minerals.
- **London's turn to shine** — LOND has underperformed African Minerals by 40% since December 2011, as AMI secured funding and began shipments in late 2011. AMI outperformed the sector, while LOND has traded in line. Given that LOND is now producing and fully funded for phase 1, AMI's key catalysts are behind us and LOND has near term catalysts ahead (bankable feasibility study for phase 1 expansion due in Q3), we would argue that London Mining should outperform over the next 6-12 months.
- **Significant upside to play for** — We have applied extremely conservative assumptions in building our valuation, with our base case assuming that the company delivers only phase 1 at Marampa to 5mt. Significant upside exists in the extension of Marampa phase 1 to 9mtpa (BFS due in Q3), an additional ~8mt from phase 2 and the successful delivery of the 15mtpa Isua project in Greenland. On a probability adjusted basis we see a further 40% upside potential from these.
- **Buy rated** — Our £4.65 rounded TP is derived from 50% base case NPV (12% WACC) of £4.08/sh and 50% 2013E EBITDA on a 4x multiple, discounted back one year to give £5.22/sh. LOND currently trades on 0.65xNPV and 2.4x2013E EBITDA, significantly below traditional iron ore trading multiples of 4-7x EBITDA.

London Mining (USD)

Year to 31 Dec	2010A	2011A	2012E	2013E	2014E
Sales (\$M)	0.0	0.0	212.2	541.4	598.0
Profit Before Tax (\$M)	-100.8	-41.6	52.5	242.8	253.2
Diluted EPS (\$)	-0.92	-0.54	0.42	2.01	1.69
Diluted EPS (Old) (\$)	-0.92	-0.54	0.42	2.01	1.69
PE (x)	-4.5	-7.8	9.9	2.1	2.5
EV/EBITDA (x)	-13.3	-14.2	7.9	2.2	1.8
DPS (\$)	0.00	0.00	0.00	0.00	0.00
Net Div Yield (%)	0.0	0.0	0.0	0.0	0.0

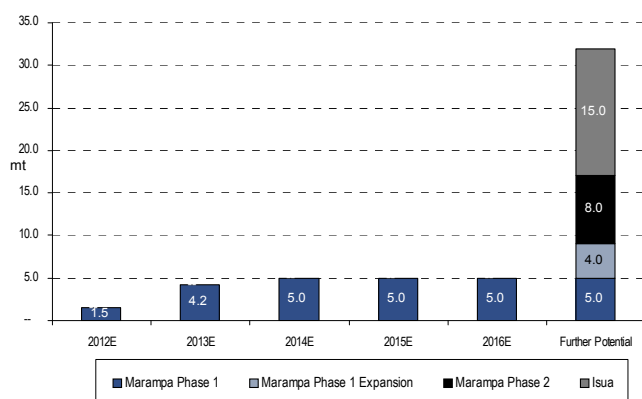
Attractive Growth, Catalysts and Valuation

We admire London Mining's frugal and flexible approach to its ramp up options; this gives us confidence that the company is committed to efficient capital allocation rather than growth at any cost. In much the same spirit, we take a comparable approach to valuing London Mining. We expect London Mining to outperform on a 6-12 month basis due to; 1) Attractive returns from phase one at Marampa; 2) recent 40% underperformance vs AMI, which we expect to reduce now that Marampa is fully funded and operational; 3) stronger near term catalysts; 4) Significant further upside of ~40%, in our view, in addition to the fully funded phase 1 we use as our base case.

1) Phase 1: Growth, quality and leading returns

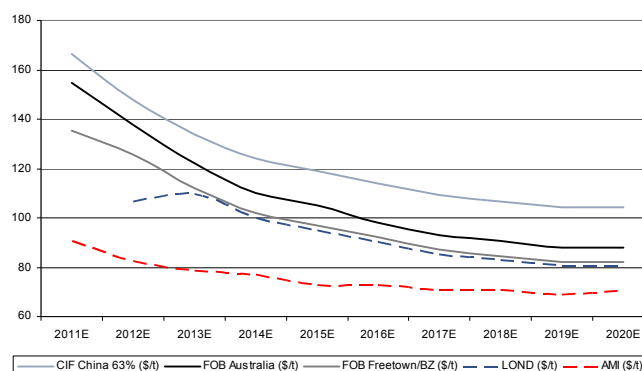
Our base case includes only phase one of Marampa – the ramp up to 5mt. If London Mining were to deliver nothing after the 5mt ramp up, we still see significant upside to the share price. However, the company has the optionality to increase production to over 30mtpa by 2016-2017 through the expansion of Phase 1 at Marampa, Phase 2 at Marampa and Isua.

Figure 94. Base case production vs potential



Source: Company Reports, Citi Investment Research and Analysis

Figure 95. Achieved Price* (\$/t)



Source: Company Reports, Citi Investment Research and Analysis, *Pre SISG discounts for AMI

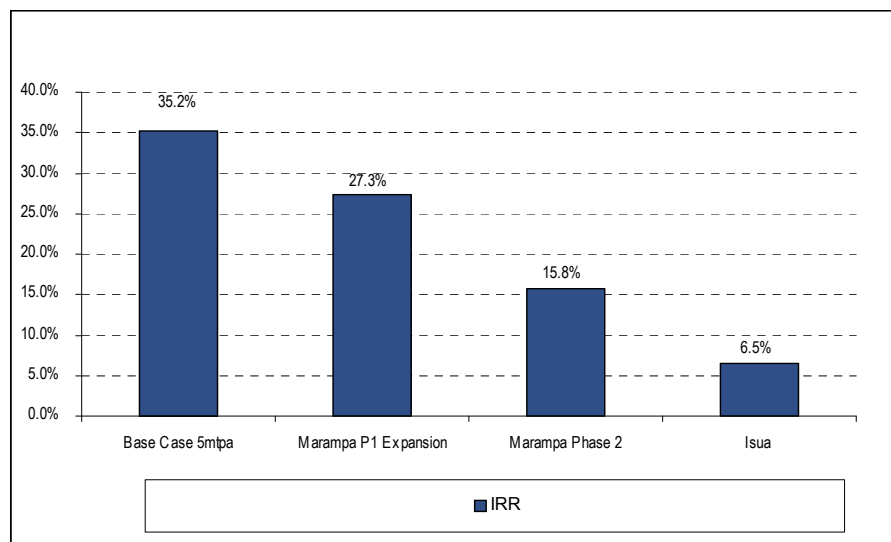
In addition, London is producing a high quality 65-66% Fe product, with low deleterious elements. This is superior to African Minerals' 58% DSO, meaning London should achieve a higher price for its product. Moreover, the higher quality product could entail a higher proportion of sales to the European market, thereby yielding a pricing benefit due to lower shipping costs. London aims for a 50/50 split between sales to China and Europe. We take a more conservative stance and assume 20% of sales to Europe at steady state.

Industry leading returns for phase 1

We expect LOND to deliver phase 1 of Marampa at an industry leading IRR of >35%, thanks to attractive capital intensity of <\$70/t of annual capacity. Key to this is LOND's focus on capital efficiency and returns rather than scale. In addition LOND's ability to arrange a shipment solution whereby trucks and barges are leased means that the ramp up could get underway without significant investment into building out a full, company-owned infrastructure solution. It does however mean that LOND's transport costs are borne through unit cash costs and are also potentially more susceptible to exogenous shocks which could impact shipments and/or cash costs.

The return on phase 1 at Marampa is amongst the highest in the sector, while a phase one expansion to 9mt would also be attractive. Phase 2 and Isua, Greenland look less attractive on our assumptions

Figure 96. LOND nearer term projects have attractive IRR



Source: Company Reports, Citi Investment Research and Analysis

Subsequent phases have lower returns

We note that the attractiveness of LOND's additional projects beyond the phase one expansion, declines as infrastructure and scale issues emerge. Marampa has the potential to be a capital efficient mine in its initial phases, but to achieve scale would require significant investment in infrastructure such as a power station and a slurry pipeline, which have been touted for phase 2. This goes some way to explain why the IRR of phase 2 is significantly lower than the preceding phases (Figure 94).

But Marampa as a whole is still very attractive

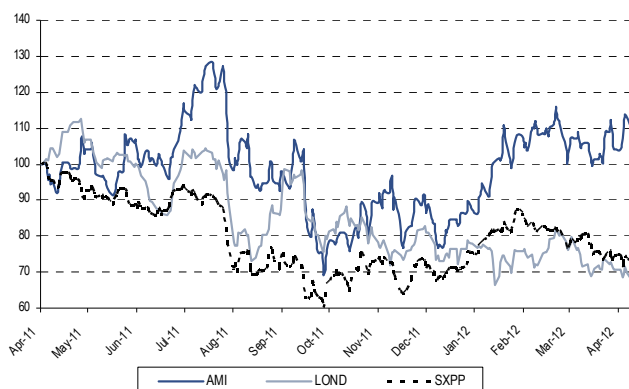
However, assuming that Marampa is expanded to over 16mt through phase one expansion to 9mt (BFS due in Q3) and phase 2 (BFS to be conducted), then the combined IRR of Marampa as a whole is over 25% - above the iron ore industry average of c.17% and in line with AMI.

2) London has the near term catalysts and momentum

Performance

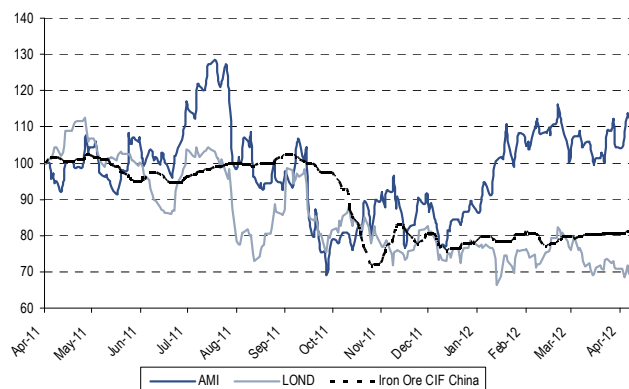
AMI has outperformed LOND by 40% over the last year, with the last three months being the largest divergence in performance.

Figure 97. LOND vs. AMI and sector



Source: Company Reports, Citi Investment Research and Analysis

Figure 98. LOND vs. AMI and iron ore price



Source: Company Reports, Citi Investment Research and Analysis

Why has it underperformed?

The divergence in performance began in earnest in late 2011 when AMI commenced production and provided guidance on the timing of the Shandong funding. AMI was first past the post in achieving production and had a more visible outlook. We think this allowed AMI to steal the limelight in some respects and left LOND trading in line with the sector.

We expect LOND's performance to catch up with AMI

We see LOND closing this 40% gap in 2012 now that it has commenced shipments from Marampa and has recently achieved full funding for phase 1. In addition we believe the near term catalysts for LOND are stronger than AMI, whose key catalysts – production and funding - are behind it. LOND has potential catalysts in the form of BFS due in Q3 considering the further ramp up of phase 1 at Marampa to 9mt. We see this expansion delivering an IRR of 27.3% with further upside if LOND delivers the expansion at lower cash costs and capital intensity than our forecasts. In addition the commissioning of the offshore transshipment vessel later this year will enable Capesize vessels to be loaded, cutting shipping costs and increasing the average price achieved per tonne.

A positive BFS for expansion to 9mt, expected in Q3, could act as a strong catalyst and would provide further upside to our base case

3) Significant upside to play for

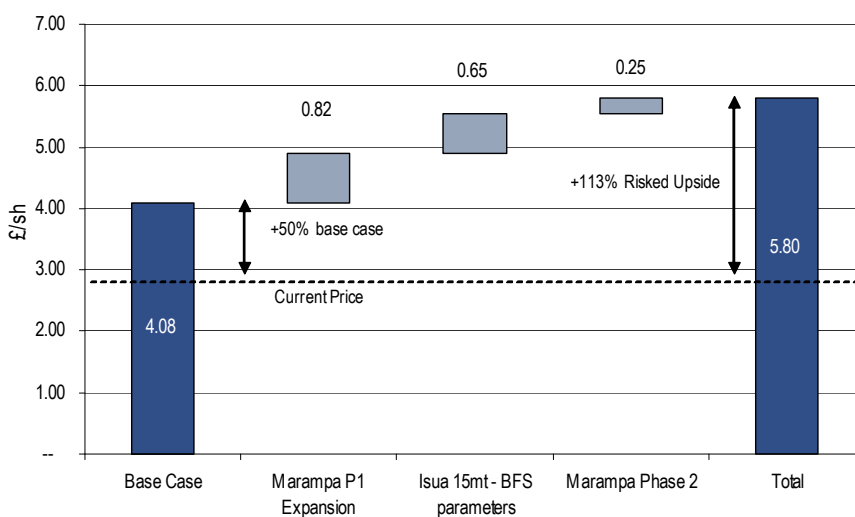
As mentioned above, our Base case is a conservative one which assumes that only the currently producing assets are ramped up successfully. Marampa phase 1 to 5mt is now fully funded following a further off-take agreement and prepayment facility with Vitol secured in March. From this phase alone we see significant value. However, we feel that there is a strong possibility of a positive BFS delivered in Q3 which would lead to further expansion to 9mt. Additional upside could come from successful delivery of Isua at BFS parameters rather than our more conservative parameters, as well as phase 2 at Marampa taking the mine's total production to over 16mt. On a risk adjusted basis our upside NPV is £5.80, implying over 100% upside to the current share price.

Figure 99. Probability adjusted upside to NPV

NPV Upside	NPV \$m	Probability	Adjusted £/sh
Base Case	733	100.0%	4.08
Marampa P1 Expansion	210	70.0%	0.82
Isua 15mt - BFS parameters	388	30.0%	0.65
Marampa Phase 2	150	30.0%	0.25
Total	1,481		5.80

Source: Company Reports, CIRA

Figure 100. Upside potential to our Base Case NPV is significant



Source: Company Reports, Citi Investment Research and Analysis

As Figure 99 and Figure 100 highlight, we apply probabilities to additional projects in calculating our upside. The 30% probabilities we apply to the Isua project and phase 2 at Marampa are consistent with discounts we apply to other pre-funded projects in the sector

Other Points of View

Isua looks precarious to us

We choose to exclude Isua from our base case as it yields a negative NPV once we apply our 20% contingencies to Capex and Opex. We feel this is justified given the escalations we have already seen for the project (See asset summary for details). There is potential upside if London delivers the project in line with BFS parameters, however.

Figure 101. Isua key parameters

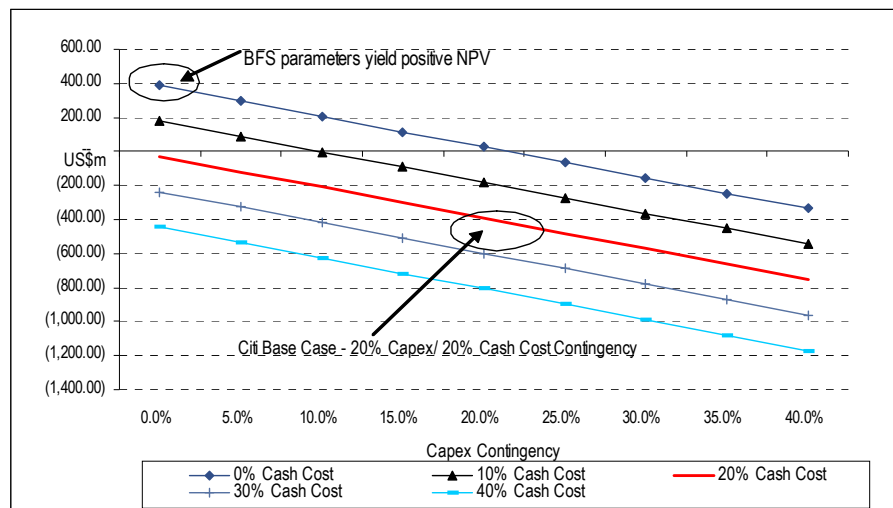
Study date	Scoping Study February 2011	BFS March 2012	Citi assumptions
Annual production (Mtpa)	15	15	15
Mine life (years)	15	10 with possible extension to 15	10
Operating cost (US\$/t concentrate)	30	46	54
Capital expenditure (US\$ billions)	2.05	2.35	2.82
Capital Intensity (US\$/tpa)	136	157	188

Source: Company Reports, Citi Investment Research and Analysis

Capex increased by 15%, while Opex increased 50% due to harder order than previously envisaged and a higher strip ratio (inferred resources now considered waste). The harder ore takes the Bond Work Index - a metric that measures the amount of power required to grind one tonne of ore to a specified size – from 10kWh/t to ~15kWh/t

Isua's NPV is significantly negative on our assumptions, which are 20% higher on Capex and Opex than the recent BFS. This highlights to us that London does not have much more breathing room for cost escalations

Figure 102. Isua NPV sensitivity to Capex and Opex escalations



Source: Company Reports, Citi Investment Research and Analysis

Colombian Coke

The company has recently started producing coke from its coking batteries in Colombia, sourcing coking coal from a third party while it continues to drill for coking coal deposits in the area. The operation is ramping up to 200ktpa of blast furnace coke, to be sold to North American and Brazilian steel mills primarily.

A working capital risk

Coking batteries cannot be switched off in weak demand environments. Producers have to be prepared to finance inventories...

Coke conversion is a notoriously volatile business, since a standalone coke producer tends to provide swing capacity for the steel mills, which often have their own capacity. Moreover, Coke batteries are essentially a fixed cost business since they cannot be switched off as and when required – to switch off is to decommission, due to the damage to the lining that occurs from cooling off. Furthermore, coking batteries do not operate optimally below around 80% capacity. They therefore pose a working capital risk; theoretically sales volumes could be zero, but the batteries would still be producing at around 80% of capacity, requiring the financing of an inventory build.

Unsuitable for a junior miner

...A cash constrained junior miner doesn't need the risk, especially if the synergies are scarce

This appears to us to be an unsuitable business for a junior iron ore miner which is focused on efficient capital allocation and flexibility depending on cash flows. We acknowledge the complimentary steel making raw materials argument, but the customer base for the group's Colombian coke is not the same as that for iron ore from Sierra Leone or Greenland, so we see little potential synergies from a cost or revenue point of view.

A candidate for rationalisation

We think London Mining should sell the asset and focus on iron ore

Given the potential working capital risk, modest estimated EBITDA margins of 17-20% (due to reliance on third party coal) and little scope for synergies with other operations, we struggle to see the value here and think the group would be better off divesting the Colombian assets and focusing on building out its iron ore division.

Valuation

We initiate on London Mining with a Buy recommendation and £4.65 target price. We value London mining using a base case NPV of £4.08 and 2013E EBITDA on a multiple of 4x (£5.22), discounted back by one year using our 12% WACC.

Figure 103. Summary of Valuation

Metric	Weighting	Value £/Sh
NPV	50.0%	4.08
4x2013E EBITDA (discounted 1yr)	50.0%	5.22
Target Price		4.65

Source: Company Reports, Citi Investment Research and Analysis

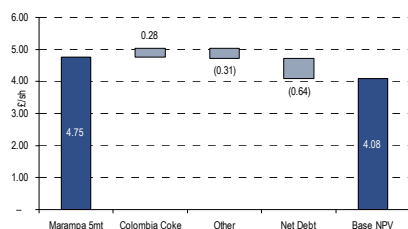
Our Base Case NPV

Figure 104. LOND Base NPV Summary

NPV Table	WACC	Risk Adjustment %	Adjusted NPV \$m	per Share £/sh
Marampa	12.0%	100.0%	854	4.75
Isua	12.0%	0.0%	--	--
Wadi Sawawin	12.0%	0.0%	--	--
Colombia Coke	12.0%	100.0%	50	0.28
Other	12.0%	100.0%	(56)	(0.31)
Net Debt		100.0%	(115)	(0.64)
Total	12.0%		733	4.08

Source: Company Reports, Citi Investment Research and Analysis

Figure 105. Base Case NPV Construction



Source: Company Reports, CIRA

We take only those assets that are currently producing in our valuation, to form a base case – one which we are confident the company can deliver on. These are:

Marampa phase one – The company is currently processing tailings and weathered ore to ramp up to 5mtpa. The mine is currently producing at a run rate on average of 3500kt per day, or 1.28mt per year. It expects to reach its 5mtpa run rate by 2014. We are confident it will deliver this and as such it forms part of our base case. We do however apply 20% capex and cash cost contingencies to allow for potential cost escalations.

Colombia Coke – The company has started producing metallurgical coke at its batteries in Colombia, ramping up to 200kt per year. It sources third party coking coal as feedstock, while the company drills for coking coal deposits. We don't see much value in this asset as we don't think coke is a suitable business for a cash constrained junior miner (see previous section), nonetheless we do think the ramp up is deliverable, so we include it in our base case.

Significant potential upside to NPV

There is plenty of potential upside to our base case, including:

Figure 106. Probability adjusted upside to NPV

NPV Upside	NPV \$m	Probability	Adjusted £/sh
Base Case	733	100.0%	4.08
Marampa P1 Expansion	210	70.0%	0.82
Isua 15mt - BFS parameters	388	30.0%	0.65
Marampa Phase 2	150	30.0%	0.25
Total	1,481		5.80

Source: Company Reports, CIRA

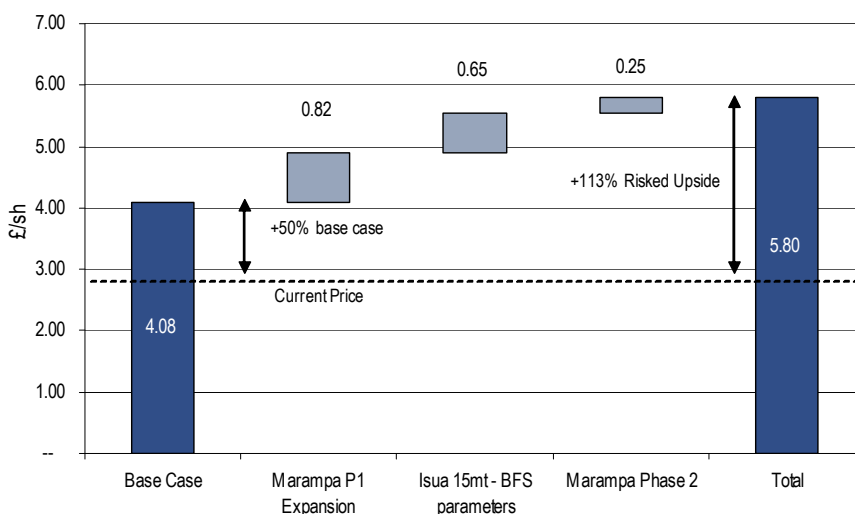
Marampa phase one expansion to 9mt – The company can add an incremental 4mtpa for around \$500-600m by re-configuring its processing plant and installing additional crushing, grinding and concentrating facilities. The company is due to deliver a BFS on this project in 3Q 2012. Initial indications suggest a 2015 ramp up for this. We currently apply a 70% probability to this and do not include it in our base case. A positive BFS could act as a strong catalyst for the stock

Marampa phase 2 additional 8mt – The company is due to begin another BFS later this year to consider a further expansion to over 16mtpa, by processing unweathered ore. This would require additional processing facilities, a slurry pipeline to the river port and additional power facilities. Early indications project a capital cost of ~\$1.2bn, with ramp up potentially in 2016. We apply a 30% probability to this project.

Isua, Greenland – London mining recently delivered a BFS on their 15mtpa Isua project, expected to start up in 2015. The BFS increased capex by 15% and opex by 50% and, after our 20% contingencies, derives a negative NPV for us, hence we do not include it in our NPV. If this project were actually delivered to BFS parameters, there would be significant upside for the stock. London is undertaking the permitting process whilst looking for potential sources of funding and a strategic partner. We apply a 30% probability to this project.

Saudi Arabia – London Mining owns a 25% stake in the Wadi Sawawin project in Saudi Arabia, which envisages a 5mtpa pellet operation at a cost of \$2.2bn and cash costs of \$48.3/t. We do not ascribe any upside value to this given it has yet to secure funding and project economics could yet be significantly altered by agreements with power, water and port authorities. Nonetheless, investors should be aware of this project.

Figure 107. Upside to our Base Case NPV is significant



Source: Company Reports, Citi Investment Research and Analysis

EV/EBITDA: Conservative 4x multiple

To reflect near term earnings potential we use a multiple of 4x 2013E EBITDA discounted back one year using our group WACC of 12%. We standardize this methodology across both AMI and LOND, as 2012 constitutes a ramp up period for both companies.

We use a conservative 4x EV/EBITDA multiple and discount 2013E EBITDA back one year. We believe 2013E EBITDA more accurately reflects the earnings potential of the group since 2012 is a ramp up year.

Figure 108. LOND EV/EBITDA valuation

EV/EBITDA	2012E	2013E	2014E	2015E	2016E
EBITDA	84	291	310	289	237
TARGET MULTIPLE	4X	4X	4X	4X	4X
EV	336	1,164	1,241	1,157	948
MINUS DEBT	(183)	(183)	(183)	(183)	(183)
ADD CASH AND EQUIVALENTS	68	68	68	68	68
EQUITY VALUE \$m	221	1,049	1,127	1,042	833
TARGET PRICE £/sh	1.23	5.84	6.28	5.80	4.64
DISCOUNTED TARGET PRICE £/sh	1.23	5.22	5.00	4.13	2.95

Source: Company Reports, Citi Investment Research and Analysis

Our 4x multiple is in line with the current trading range of UK iron ore peers, namely Rio Tinto and Ferrexpo.

Iron ore equities have traditionally traded between 4-7x EBITDA. We set our LOND target multiple at 4x, the lower end of the range

Figure 109. UK iron ore equities EV/EBITDA vs. LOND



Source: Datastream, Citi Investment Research and Analysis

Asset Summary

Marampa, Sierra Leone

The Marampa mine is located 125km by road north-east of Freetown and 40km by dedicated haul road from tidewater at the Thofeyim river terminal.

The Marampa deposit was first discovered in 1926 and open pit production was commenced by the Sierra Leone Development Company ("Delco") and William Baird between 1933 and 1975. By the 1960's iron ore production had reached 2 Mtpa before low iron ore prices forced the mines closure. Continuing weak market economics and the civil war prevented redevelopment of the mine until the mining licence was acquired by London Mining in 2006.

London Mining secured an option to acquire the mining rights at the Marampa mine in December 2005. After securing funding, London Mining was able to exercise the option in January 2006 and in September 2006 the Marampa mining lease was assigned to LMC, a 100% subsidiary of London Mining. The Marampa mine recommenced production in December 2011.

Figure 110. Marampa Resource Summary

Ore Type	Tonnage (mt)	Fe Grade (%)
Tailings	38	22.0%
Highly Weathered	75	35.1%
Moderately Weathered	77	33.2%
Primary	887	31.1%
Total	1078	31.2%

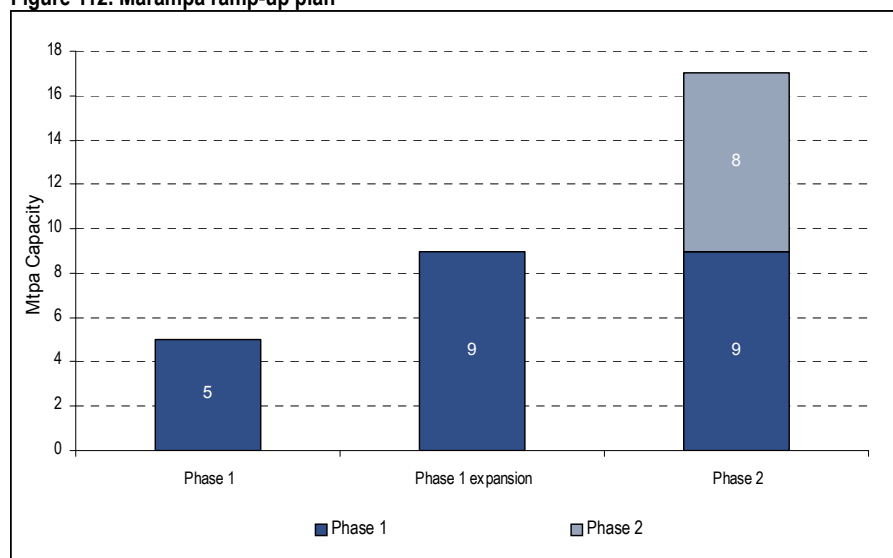
Source: Company Reports, CIRA

Figure 111. Use of ore type at each phase

Phase	Ore Type	Mt	Fe Grade (%)
Phase 1	Tailings	38	22%
	Weathered	153	34%
Phase 2	Unweathered	887	31%

Source: Company Reports, CIRA

Figure 112. Marampa ramp-up plan



Source: Company Presentation, Citi Investment Research and Analysis

London Mining is developing Marampa in two phases. Phase 1 is in production and will be expanded to produce 5Mtpa of sinter concentrates from a blend of tailings from previous operations and soft highly weathered ore. A bankable feasibility study outlining an expansion to 9Mtpa will be completed in Q3 2012.

Phase 1 expansion and Phase 2

The bankable feasibility study ("BFS") focusing on the second stage expansion at Marampa is now considering the expansion of the existing Phase 1 processing facility instead of development of new processing and power plants previously outlined as Phase 2a in the April 2011 prefeasibility study. The BFS, which is expected to be completed in Q3 2012, will consider reconfiguration of the Phase 1 processing plant to incorporate additional crushing, grinding and gravity circuits in series with two stage WHIMS processing. This is expected to allow expansion of production at Marampa to 9Mtpa of 65% sinter concentrate. A second bankable feasibility study will consider a further expansion to over 16Mtpa, which the company envisages would entail the construction of further crushing and processing facilities, a slurry pipeline and coal fired power station.

Figure 113. London Mining in Sierra Leone



Source: Company Presentation

Initial capex indications for phase 1 expansion and phase 2 suggest a capital intensity of \$150/t – below the industry average of c.\$170/t. We add in a contingency of 20% to these indicative figures.

Figure 114. Initial capex projections for Marampa

Phase	Capex (\$m)	Capacity (mt)	Capital intensity	Capital intensity (Citi assumptions)
Phase 1	c.300	5	\$60	\$66
Phase 1 expansion	c.600	4	\$150	\$180
Phase 2	c.1200	8	\$150	\$180

Source: Company Presentation, Citi Investment Research and Analysis

Technical Aspects

The PFS from 2011 laid out the following operational parameters. Note that the new program which envisages a phase one expansion and then phase 2, will be subject to change. However the previous parameters give an insight into the requirements for the different ore types.

Figure 115. 2011 PFS operating parameters for Marampa

Ore type		Phase 1	2a	2b	2c
		Tailings weathered	Weathered	Unweathered	
Total ore	Mt	59	102.6	665.1	
Total waste	Mt	15.3	69.2	930.6	
Strip ratio	W/O	0.26	0.7	1.4	
Mine life	Years	7	7	21	
Fe	%	26.5	33.5	30.6	
Mass recovery	%	36	45.6	41.4	
Concentrate	Mt	21.1	46.8	275.5	
Production	Mtpa	3.6	8	8	8

Source: Company Presentation, Citi Investment Research and Analysis

The weathered ore is expected to have relatively low work index of ~7kWh

Work index

Initial indications on work index suggest the weathered ore will require around 7kWh/t while the primary unweathered ore will require 15kWh/t – a standard work index for hematite ore. However we understand these are based on assumptions of different end products – a coarse sinter concentrate (250 microns) from weathered ore and a pellet feed (100 microns) from the unweathered primary ore. Since LOND is now conducting a BFS into the phase 1 extension and phase 2, these work index figures could be subject to change if, for example, it is found that coarse sinter concentrate is possible from the unweathered ore. In this scenario the work index could be expected to reduce for the unweathered ore.

Infrastructure and Logistics

Truck and Barge to Ocean port

Trucks and barges are leased from third parties, hence the cost of these are expressed through cash costs rather than upfront capital expenditure.

London Mining has constructed a 40km haul road for trucks to take the iron ore from the mine site to the Barge Port at Thofeyim. The road fleet currently consists of 11 trucks, leased on a \$/t basis. The Barge contains an uninterrupted truck unload facility and 200kt stockyard to provide a buffer for barge shipments to the ocean ports. The loading equipment can run at 1,200 tonnes per hour and can load over 20,000 tonnes of concentrate per day. The leased barge fleet consists of 4x 8kt capacity barges and 4 tugs under contract.

Transshipment

The pride of Marampa transshipment vessel will allow the loading of Capesize vessels, reducing shipping costs

The group's first shipments of iron ore were loaded onto Supramax vessels of around 50kt within the port. In March 2012 the group began the commissioning of its Floating Offshore Transshipment Platform (FOTP) – Pride of Marampa, which will allow the group to load larger Panamax and Capesize vessels and significantly reduce the freight cost per tonne of iron ore. We would expect the first Capesize vessel to be loaded in 2H 2012.

Labour force

London Mining currently employs around 1,200 Sierra Leone employees, with whom the company has a collective bargaining agreement.

Mining Lease Agreement

A revised mining lease agreement was ratified by the Sierra Leone Parliament on 27th March 2012. The key changes to the agreement are:

- The agreement now lasts for 10 year period (previously 5 years) with next review in 2020 (previously 5 years)
- Year 1 of the agreement has been rebased to 1 Jan 2011 (previously 2010)
- Corporation tax increased from 6% to 25% effective 2014 (previously 6% increasing to 30% from a Jan 2015)
- Statutory accelerated depreciation of 40%, 20%, 20%, 20% over four years
- London Mining increased its statutory royalty obligation for Community projects to 1% (for 5 years). The rate as per the mining act is 0.01%

LOND maintains the Fraser Turner claim for a 2% royalty from Marampa is without merit.

Royalties

The company's royalty structure is as follows:

- 3% state royalty
- 1% royalty to community projects for 5 years, vs the 0.01% community royalty as per the mining act.

Total state royalties therefore total 4% for the next 5 years. The Fraser Turner litigation (see dedicated section) could, at worst, entail a further 2% royalty. We stress test our valuations for royalty risk.

Fraser Turner Litigation

In December 2011 London Mining was served with a claim by Fraser Turner Limited, seeking declarations regarding its alleged entitlement to receive and additional royalty payment under the terms of a Facilitation Agreement dated 28th February 2007. The facilitation agreement defines payments made to Fraser Turner Limited on the satisfaction of certain criteria relating to the mining lease in respect of the Marampa mine:

- Rights to use the port and harbour facilities at Pepel on the coast of Sierra Leone
- Priority to right to use the railway line between the Marampa mine and Pepel
- Listing of the company's ordinary shares on the AIM of the London Stock Exchange or other recognised stock exchange
- Payment of USD\$500k and USD\$500k worth of London Mining shares within 30 days of the receipt by the group of proceeds from the first sales by the group of iron ore from the Marampa mine
- The payment of a royalty to Fraser Turner Limited of 10 US cents per tonne of all iron ore sold from the Marampa mining lease area.
- A further royalty, capped at 2%, payable where the royalty rate London Mining is required to pay falls below the standard government royalty within 24 months following execution of the agreement.

It is the latter, further royalty to which the claim served by Fraser Turner relates. London Mining believes that there was no reduction to a lower level and therefore the additional royalty payment is not payable. London Mining has stated that it intends to vigorously defend the claim. It does not dispute the other royalty of USD0.10 per tonne of iron ore sold from the Marampa lease or contracted payments due to Fraser Turner Limited under the Facilitation Agreement.

We stress test a worst case outcome for London mining, which would see a further royalty of 2% incurred. See Risk section for scenarios and sensitivities.

Off-take Agreements

LOND's off-take agreements have helped it to secure funding for phase one at Marampa

LOND's first off-take agreement was signed with an international commodities trading house on 26 January 2011. The off-take covered 9.5 million wet metric tonnes (WMT) production. The five year agreement, which included a pre-payment facility for up to US\$27m, will provide guaranteed off-take and shipping from Sierra Leone for the first 1.8Mtpa of production, with the option for London Mining to expand the agreement on the same terms. The off-take will be based on Platts 62% CFR China benchmark, with an upward adjustment for the Fe content of the Company's 65% Fe product. The Agreement accommodates London Mining's ramp up expectations and is flexible.

On 28th March 2012 London Mining signed a new off-take agreement with Vitol, while receiving a US\$45m (potential to increase to \$55m) prepayment loan. The agreement is to supply 2m wet metric tonnes for 5 years, referenced to Platts 63.5/63% Fe CFR China index. Like the first off-take agreement, there will be an upward adjustment for London's higher Fe content product.

The Resource

Figure 116. Marampa Resource Statement

Material	Classification	Tonnes (Mt)	Fe(%)	Al ₂ O ₃ (%)	SiO ₂ (%)	CaO (%)	MnO (%)	P(%)	S(%)
Highly weathered	Indicated	54	35.6	6.6	37.3	0.12	0.25	0.04	0.01
Moderately weathered	Indicated	61	33.2	5.3	41.9	0.56	0.15	0.1	0.01
Primary	Indicated	537	32.7	4.5	38.3	3.15	0.18	0.16	0.01
High Manganese	Indicated	180	27.4	5.7	40.4	2.94	2.73	0.08	0.01
Primary Indicated Mineral Resources		832	31.8	5	39	2.72	0.73	0.13	0.01
Tailings	Indicated	38	22.5	9	51.4	0.1	1.05	0.05	0.01
Total Indicated Mineral Resources		870	31.4	5.1	39.5	2.6	0.75	0.13	0.01
Highly weathered	Inferred	21	33.6	7.3	39.4	0.15	0.3	0.06	0.01
Moderately weathered	Inferred	16	33.2	5.5	41.8	0.51	0.14	0.09	0.01
Primary	Inferred	150	30.4	5.3	41.2	2.72	0.25	0.18	0.02
High Manganese	Inferred	21	27.6	5.5	39.1	2.86	3.55	0.09	0.01
Total Inferred Mineral Resources		208	30.7	5.5	40.9	2.3	0.58	0.15	0.02
Total Mineral Resources		1,078	31.2	5.2	39.8	2.54	0.71	0.13	0.01

Source: Company Presentation, Citi Investment Research and Analysis

High quality finished product

The finished sinter concentrate produced at Marampa is relatively high quality, with 65-66% Fe content and combined silica and alumina impurities of less than 3%, thus below the 3.5% that would incur price penalties. The moisture content is currently around 6.5%, below the target of 8% and the 11% upper limit for shipment.

Isua is located 150km Northeast of Nuuk and 100km from a proposed deep seawater port. Isua is expected to produce a premium quality 70% Fe pellet feed concentrate with low impurities. The mine site benefits from its position in the warmer south-west corner of Greenland which should allow for year round shipping.

Isua, Greenland

Figure 117. Isua, Greenland location



Source: Company Presentation

Isua is located 150km Northeast of Nuuk and 100km from a proposed deep seawater port. Isua is expected to produce a premium quality 70% Fe pellet feed concentrate with low impurities. The mine site benefits from its position in the warmer south-west corner of Greenland which should allow for year round shipping.

In February 2011 London Mining released the results of a scoping study compiled for the Isua iron ore project in Greenland. The scoping study considered a 15 year life mine with 15Mtpa open pit, processing plant, pipeline and a deep water port. The Capex details from this study are provided in Figure 118.

Figure 118. Isua PFS and Scoping study Capex estimates

Capital cost estimates (\$m)	10mt PFS	15mt scoping study Feb 2011
Mine	131	143
ROM Crushing	34	41
Process Plant	165	229
Tailings	9	11
Product Delivery	202	253
Port	132	163
Project sensitivities	137	145
Project Infrastructure	358	396
Project Indirect Costs	345	398
Subtotal	1,514	1,780
Contingency (15%)	227	267
Total	1,741	2,047
Capital intensity	174	136

Source: Company Presentation, Citi Investment Research and Analysis

2012 Bankable Feasibility study

A bankable feasibility study (BFS) with AACE Class 3 estimates for a 15Mtpa operation considering a 10 year mine life based on the currently available amount of Indicated resources was completed in March 2012. A 15 year scenario was also evaluated to demonstrate the greater potential of the asset. The results of the BFS and key changes from the earlier scoping study are outlined below.

Figure 119. Isua key parameters

Study date	Scoping Study February 2011	BFS March 2012	Citi assumptions
Annual production (Mtpa)	15	15	15
Mine life (years)	15	10 with possible extension to 15	10
Operating cost (US\$/t concentrate)	30	46	54
Capital expenditure (US\$ billions)	2.05	2.35	2.82
Capital Intensity (US\$/tpa)	136	157	188

Source: Company Presentation, Citi Investment Research and Analysis

The mine life of 10 years is based on the current availability of Indicated resources whereas the scoping study included Inferred resources in its 15 year mine plan. It is expected that further Indicated results could be defined if additional infill drilling were undertaken.

The operating costs have increased from an average of USD 30/t to an average of USD46/t principally as a result of anticipated increased power consumption based on more representative test-work indicating greater hardness of Isua ore than previously considered. As a result the work index has increased from around 10kWh/t to ~15kWh/t. Strip ratio has also increased as Inferred resources in the pit are now considered as waste rather than ore in the scoping study.

Capital expenditure for the project is now estimated at \$2.35bn billion. This represents an increase of 15% from the February 2011 scoping study which estimated capital cost for a 15Mtpa operation to be \$2.05bn. The capital estimate is constrained within a much narrower degree of confidence, +/- 15% versus - 30%/+40% based on more detailed analysis. Citi's assumption is +20% to the new \$2.35bn.

Testwork has confirmed the final product from Isua to be a premium quality blast furnace grade pellet feed with 70.2% of Fe and less than 2.0% Silica (SiO₂) and Alumina (Al₂O₃.) Sulphur levels will be either 0.12% or 0.3% depending on the grade of sulphur in the ore processed.

Resources

As part of the BFS programme, 7,656m of drilling was completed during the summer of 2011 which forms the basis for an updated resource statement. There is now an estimated total resource for Isua of 1,107Mt grading 32.3% Fe. This result has increased the resource by 10% in resource tonnage from the March 2011 statement. The reduction in Fe grade to 32.6% is the result of the decision to report internally diluted head grades due to incorporation of waste bearing structures in the block model rather than consideration of a selective mining method.

The new resource represents an 82% increase in Indicated resources from 209Mt to 380Mt which is sufficient to support a 10 year mine life. Potential to extend the mine life could be achieved though further drilling necessary to convert Inferred resources into the Indicated category.

Figure 120. March 2012 Resource Statement

Category	Tonnes (Mt)	Fe (%)	Al ₂ O ₃ (%)	SiO ₂ (%)	S (%)	P (%)
Indicated	380	32.6	2.4	41.8	0.23	0.03
Inferred (1)	727	32.1	2.3	42.3	0.22	0.03
Total	1,107	32.3	2.4	42.2	0.22	0.03

Source: Company Presentation, Citi Investment Research and Analysis, (1) 83% or 607mt of the inferred resources are extrapolated beyond the current drilling coverage

The 2011 drilling campaign also confirmed additional mineral resource potential originally identified by Rio Tinto in 1997. This area of mineralisation potential has been identified as a down dip extrapolation of the Isua banded iron formation ("BIF") bearing the existing resource. Part of this mineralisation potential is comprised of an area of hematite BIF which has been interpreted at the top of the BIF unit. This appears to be underlain by more typical magnetite BIF.

Permitting and Financing

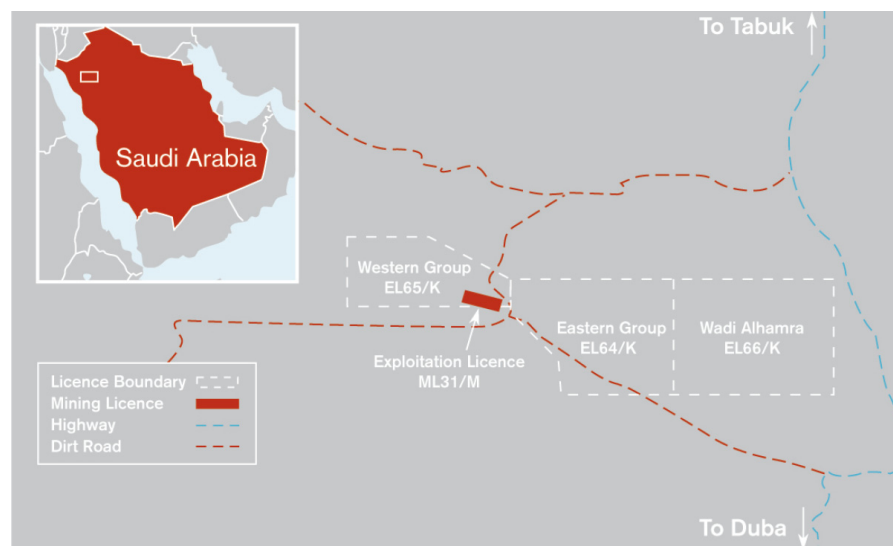
In order to apply for conversion of its existing exploration licence to an exploitation licence, London Mining is also required to complete an Environmental Impact Assessment, a Social Impact Assessment and a Closure Plan which are prepared in parallel with the BFS report. London Mining is preparing to commence the permitting process, which includes the technical review and public hearing by the Greenland Government. Once commenced this is expected to take around 6 months to complete.

At the same time, London Mining will continue to look at all financing options to develop the project. One potential financing route London Mining may pursue, in line with some other West African Iron Ore projects, is to secure a strategic partner from China/Asia.

Once financing has been agreed, EPCM phase will start and construction will begin.

Saudi Arabia

Figure 121. Wadi Sawawin, Saudi Arabia location



Source: Company Presentation

The process to secure funding is ongoing and discussions are taking place with power, port and water authorities in order to reduce capital expenditure

The Wadi Sawawin Project located in the north-west corner of Saudi Arabia, 125km from Tabuk and 60km from the Red Sea port of Dubai. Wadi Sawawin is potentially of strategic and economic importance to Saudi Arabia as it will provide a domestic source of Direct Reduction ("DR") pellets for use in the DRI steel plants which account for 90% of steel production in the Middle East and North African region. London Mining anticipates the location of Wadi Sawawin will provide it with a competitive advantage over competing Brazilian and European supply of pellets

The process to secure the funding of the Wadi Sawawin project continues. There have been initial positive discussions with the power, water and port authorities in Saudi Arabia regarding the provision of these services; an agreement with these would reduce the capital expenditure of the project. National Mining Company ("NMC") and London Mining continue to work jointly on the ongoing application to the Deputy Ministry for Mineral Resources for an exploitation licence for the proposed 5Mtpa 20 year operation and there are ongoing discussions.

In July 2010, London Mining announced the results of an updated bankable BFS for the Wadi Sawawin project and a revised agreement with its partner NMC. Under the terms of the new agreement signed on 20 July 2010, in return for no further material funding requirements and no further dilution in subsequent equity fundings, London Mining will receive a direct interest of 25% in the Wadi Sawawin project through NMC. NMC holds the historical exploitation licence for the Wadi Sawawin project and three adjacent exploration licences. This agreement supersedes the previous agreement whereby London Mining held a 50% interest in a joint venture company, Saudi London Iron Limited, into which the licences were going to be transferred. Upon closing London Mining will receive shares equal to 25% of the issued share capital of NMC.

The key economic parameters, based on the analysis undertaken in the BFS, are:

- Total capital expenditure including power and desalination plant of US\$1.9bn (a US\$100m reduction versus the previous BFS)
- Capital expenditure for power and desalination plant of c.US\$0.3bn
- Operating costs of US\$48.3/t pellets (increased from US\$47.4/t)

The current indicated JORC resource of 248Mt grading 39.8% Fe is sufficient for a mine life of 21 years at the run rate of 5Mtpa. In addition, London Mining has inferred resources of 134Mt grading 39.2% Fe (as well as further exploration targets) which may provide the basis for an extension of the mine life at 5Mtpa by over 10 years or an expansion to 10Mtpa.

As announced on the 23 November 2011, London Mining's partner in the Wadi Sawawin Project, National Mining Company ("NMC") has signed an agreement with STX Heavy Industries ("STX") to conclude the pre-construction engineering design and continue the programme of assisting arranging the full financing for the Wadi Sawawin Project in Saudi Arabia.

Figure 122. Resources as at March 2010 (30% Fe cut-off)

Category	Tonnes	Fe	Al ₂ O ₃	SiO ₂	CaO	P	S
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Indicated	248	39.79	2.48	31	3.81	0.31	0.13
Inferred	135	39.15	2.43	31.9	3.85	0.3	0.11
Total	382	39.56	2.46	31.32	0.31	0.31	0.12

Source: Company Presentation, Citi Investment Research and Analysis

Colombia Coke

Figure 123. Colombia coke



Source: Company Presentation

London Mining is constructing coke ovens with a capacity of 200ktpa in the Boyaca region of Colombia, a region with significant local production of high quality coking coal. Commissioning of the coke ovens has commenced with first production achieved in 1Q 12. London Mining now expects to achieve the 200kt run rate by 4Q12 – heavy rainfall has caused delays and capex increases.

The company has agreed in principle a supply agreement with a local coking coal producer at a small discount to local market prices for up to 300ktpa of low volatility coking coal from mines being developed on neighbouring properties to the coke ovens. Following a high-level drilling programme on these properties – 10,000m of resource definition drilling was completed in 2011 - London Mining decided to enter into a supply agreement in preference to the original proposed joint venture structure.

The company is in the process of investigating the potential of further concessions both in proximity to the coke ovens and also in other areas with high coking coal potential. An agreement has been signed for a concession in the vicinity of the coke ovens and which the Company is currently drilling with the expectation of developing a low and mid volatility coking coal mine to supply the coke ovens.

London Mining is also in a number of discussions with port and transport companies regarding short and medium term export arrangements.

Management

Graeme Hossie – Founder and CEO (5% ownership)

Co founded LOND in early 2005. Led the 2007 acquisition, development and disposal of the group's Brazilian operations to ArcelorMittal for a 1200% return on investment leading to full group debt repayment, £220m special shareholder dividend and ongoing capital investment programme to develop the groups other projects including Marampa, Sierra Leone. Prior to London mining Mr Hossie ran a venture development consultancy assisting natural resources companies and other high growth ventures. Has also been a management consultant at Bain and Company and in venture capital and innovation consulting with Piper Trust.

Dr Colin Knight – Non Executive Chairman

Appointed in June 2005, Dr Knight is a mining engineer and economic geologist with consulting experience in mining finance and policy on projects worldwide for London banks and the World Bank and commonwealth secretariat in developing countries in Africa. Spent 18 years in the Canadian mining industry and has spent time at Rio Tinto.

Rachel Rhodes – Chief Financial Officer

Appointed as CFO in September 2008, Ms Rhodes is a Member of the Institute of Chartered Accountants in England and Wales, having qualified with Coopers & Lybrand in London. She has spent over 15 years in the mining sector, including 5 years at Anglo American.

Luciano Ramos – Chief Operating Officer

Mr Ramos is a mining engineer and has worked for over 28 years in the Brazilian mining industry including 15 years at Vale.

Appendix

Citi Iron Ore Assumptions

Figure 124. Iron Ore Supply & Demand Forecasts

IMPORTS (Mt)	2011	2012	2013	2014	2015	2016
China	686.7	681.8	728.6	783.4	815.5	838.0
Japan	128.4	132.9	133.2	136.8	133.2	135.9
Taiwan	20.5	19.2	19.2	19.5	19.9	21.2
EEC	81.4	101.2	101.9	101.9	101.9	101.7
USA	5.3	11.1	11.1	11.5	11.6	11.7
Others	105.7	113.0	113.0	153.4	202.2	298.5
Total	1,028.0	1,059.2	1,107.0	1,206.5	1,284.3	1,406.9
EXPORTS (Mt)	2011	2012	2013	2014	2015	2016
Australia	437.4	475.9	540.3	609.8	676.6	737.3
Brazil	330.8	313.3	329.7	359.9	387.4	438.5
India	90.0	70.0	65.0	60.0	62.5	65.6
Canada	25.0	25.0	25.0	25.0	25.0	25.0
Africa	59.0	70.5	82.7	100.1	106.7	111.0
Other	85.8	76.5	50.5	47.5	49.5	44.5
Total	1,028.1	1,031.2	1,093.2	1,202.3	1,307.6	1,421.8
IMPLIED MARKET BALANCE		-28.0	-13.9	-4.3	23.3	14.9

Source: Citi Investment Research and Analysis

Figure 125. Iron Ore Price Forecast

	2011	2012e	2013e	2014e	2015e	2016e	2017e	2018e	2019e	2020e
Asia (US\$/DMTu)										
Lump (Brockman)	288	241	217	201	192	171	162	158	154	154
Fines (Brockman)	262	219	198	183	175	156	148	144	140	140
Yandi fines	262	219	198	183	175	156	148	144	140	140
Asia (\$/t)										
Lump (Brockman)	109	97	91	86	81	72	63	60	59	60
Fines (Brockman)	99	88	83	78	74	65	58	55	53	54
Spot \$US/t	168	149	138	130	125	115	110	108	105	105

Source: Citi Investment Research and Analysis

African Minerals

NPV Details

We use a WACC of 12% again in line with Ferrexpo as well as New World Resources.

To reduce the impact of terminal values we model out to 2030 which encompasses the expected life of mine of both phases 1 and 2. For phase 3 we assume a terminal growth rate of 2%.

Figure 126. Risked Sum Of The Parts

	Unit	Unrisked EV	Risk Adjustment	Risked EV
Phase 1	US\$m	2,291	100%	2,291
Phase 2	US\$m	1,908	100%	1,908
Phase 3	US\$m	3,086	0%	-
EV		7,285	58%	4,199
- Net debt	US\$m			- 377
+ Investments	US\$m			68
Pre SISG Value	US\$m			3,890
+ SISG Cash	US\$m			1,500
Equity Value Pre minorities	US\$m			5,390
Less SISG Stake	US\$m			- 1,348
Equity Value	US\$m			4,043
Shares Out	m			328.9
GBPUSD				1.60
NPV	US\$			12.3
Per Share	GBp			768

Source: Citi Investment Research and Analysis

Phase 1

Figure 127. Phase 1 DCF Valuation

DCF	unit	2012E	2013E	2014E	2015E	2016E	2017E
EBITDA	US\$m	627	1,122	982	883	721	620
-Adj Tax	US\$m	-	-219	-227	-205	-153	-129
-Increase in WC	US\$m	-	-	14	-	-	7
		149	51		66	34	
-Net Capex	US\$m	-	52	-	-	-	-
		232		53	55	56	58
Enterprise FCF	US\$m	246	800	716	557	478	441
Terminal Value	US\$m						
Total FCF	US\$m	246	800	716	557	478	441
PV	US\$m	227	660	527	366	280	231
NPV	US\$m	2,291					

Source: Citi Investment Research and Analysis

Phase 2

Figure 128. Phase 2 DCF Valuation

DCF	unit	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2030E
EBITDA	US\$m	-	-	-	551	1,417	1,461	1,388	1,301	1,349	1,547
-Adj Tax	US\$m	-	-	-	-	-180	-295	-303	-279	-290	-333
-Increase in WC	US\$m	-	-	-	-37	-45	11	118	0	-66	-7
-Net Capex	US\$m	-	-900	-1,800	-900	-108	-111	-113	-116	-119	-153
Enterprise FCF	US\$m	-	-900	-1,800	-385	1,083	1,066	1,089	906	875	1,054
Terminal Value	US\$m										
Total FCF	US\$m	-	-900	-1,800	-385	1,083	1,066	1,089	906	875	1,054
PV	US\$m	-	-742	-1,325	-253	636	559	510	378	326	127
NPV	US\$m	1,908									

Source: Citi Investment Research and Analysis

Phase 3

Figure 129. Phase 3 DCF Valuation

DCF	unit	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2040E
EBITDA	US\$m	-	-	529	981	1,373	1,790	2,094	2,170	2,249	2,306	2,388	2,472	2,558	3,413
-Adj Tax	US\$m	-	-	-	-	-113	-342	-451	-472	-494	-510	-533	-556	-580	-761
-Increase in WC	US\$m	-	-	-35	-19	-32	-37	-29	-9	-10	-9	-10	-10	-11	-11
-Net Capex	US\$m	-2,880	-1,440	-1,440	1,440	216	221	227	233	238	244	250	257	263	337
Enterprise FCF	US\$m	-2,880	-1,440	-945	2,403	1,444	1,632	1,841	1,922	1,984	2,031	2,095	2,162	2,230	2,978
Terminal Value	US\$m														30,380
Total FCF	US\$m	-2,880	-1,440	-945	2,403	1,444	1,632	1,841	1,922	1,984	2,031	2,095	2,162	2,230	33,358
PV	US\$m	-1,197	-525	-302	674	355	352	349	319	289	260	235	213	192	776
NPV	US\$m	3,086													

Source: Citi Investment Research and Analysis

Prices Used

Figure 130. AMI Price Deck Used*

CIF China		c/dmtu	264	235	217	205	197
	63%	\$/t	167	148	136	129	124
Phase 1 Lump	58%	\$/t	132	115	104	97	92
Phase 1 Fine	58%	\$/t	120	104	94	88	84
Phase 1 Unscreened	58%	\$/t	102	88	80	75	71
Phase 2 Concentrate	64%	\$/t	135	118	107	100	95
Phase 3 Concentrate	70%	\$/t	148	129	117	109	104

Source: Company Reports, Citi Investment Research and Analysis, *pre SISG discounted off-take – details in AMI appendix

Group Financials

African Minerals

Income Statement

Note: Until 2H 12 when the company achieves full capacity run rate of 20mtpa they will be capitalising operating costs as assets under construction, offset by any revenue earned. As a result 2012 financials will under report revenue and profit. We include 'gross revenue' and 'Adj EBITDA' to illustrate the underlying movements. This impact is temporary and does not affect 2013 onwards.

Figure 131. AMI Income Statement

INCOME STATEMENT		2009A	2010A	2011A	2012E	2013E	2014E	2015E
Gross Revenue	\$m	-	-	10	1,120	1,894	1,767	2,559
Revenue	\$m	-	-	-	595	1,894	1,767	2,559
Cost of Sales	\$m	-	-	-	-271	-772	-785	-1,125
Gross Profit	\$m	-	-	-	324	1,122	982	1,434
Depreciation	\$m	-0	-0	- 1	-158	-201	-319	-424
Amortisation	\$m	-	-	- 0	- 0.3	- 0.3	- 0.3	- 0.3
GnA	\$m	-21	- 36	-25	-	-	-	-
Other	\$m	3	- 11	-15	-	-	-	-
Net operating expenses	\$m	-18	- 47	-41	-159	-201	-319	-424
Impairments	\$m	-	- 4	-	-	-	-	-
Profit on disposal of subsidiary	\$m	-	-	-	-	-	-	-
Operating Profit/loss	\$m	-18	- 52	-41	166	921	663	1,010
% Margin					28%	49%	38%	39%
EBITDA	\$m	-18	- 52	-41	324	1,122	982	1,434
% Margin					54%	59%	56%	56%
Adj EBITDA	\$m	-18	- 52	- 100	650	1,122	982	1,434
Investment Income	\$m	-	5	-	-	-	-	-
Financial (Expense)/Income	\$m	0	0	1	- 71	- 77	-136	-160
PBT	\$m	-17	- 46	-40	95	844	528	850
Tax	\$m	-	10	27	- 84	- 211	-132	-213
Rate		0%	22%	67%	89%	25%	25%	25%
Result from continuing Ops	\$m	-17	- 36	-13	11	633	396	638
Result from discontinued Ops	\$m	15	0	-	-	-	-	-
Reclassification of AFS inv		18	12	- 7	-	-	-	-
Equity Result	\$m	15	- 24	-20	11	633	396	638
Minority Interest	\$m	-	-	-	3	158	99	159
Attributable to Equity Holders	\$m	15	- 24	- 20	8	475	297	478
Basic EPS	USc	7.7	-10.8	-12.1	13.9	144.3	90.2	145.4
Diluted EPS	USc	7.4	-10.7	-12.1	13.9	144.3	90.2	145.4

Source: Company Reports, Citi Investment Research and Analysis

Balance Sheet

Figure 132. AMI Balance Sheet

BALANCE SHEET		2009A	2010A	2011A	2012E	2013E	2014E	2015E
Intangible FA	\$m	90	198	9.5	10	10	10	10
Tangible FA	\$m	6	269	1,506.4	1,254	2,005	3,540	4,070
Investments	\$m	42	76	68.0	68	68	68	68
Deposits	\$m	4	4	3.9	4	4	4	4
Def Tax Asset	\$m	-	8	36.6	37	37	37	37
Non Current Assets	\$m	142	555	1,624.4	1,372	2,123	3,658	4,188
Inventories	\$m	2	1	51.0	30	42	43	68
Trade and other receivables	\$m	15	0	16.5	98	152	138	247
ST investments	\$m	-	-	-	-	-	-	-
Cash and cash equiv	\$m	77	372	16.5	684	555	367	504
Assets held for sale	\$m	7	-	-	-	-	-	-
Current Assets	\$m	101	374	84.0	811	749	549	819
Total Assets	\$m	243	930	1,708.4	2,183	2,872	4,207	5,008
Attributable to s/holders	\$m	230	872	982.1	990	1,465	1,761	2,240
Minority Interest		-	-	-	3	161	260	419
Total Equity		230	872	982.1	993	1,626	2,021	2,659
Provisions	\$m	1	1	1.9	2	2	2	2
Long Term Liab	\$m	-	-	144.2	644	644	1,644	1,644
Non Current Liabilities	\$m	1	1	146.1	646	646	1,646	1,646
Trade and Other Payables	\$m	7	52	157.0	37	53	54	86
Tax Liability	\$m	5	4	6.5	90	131	69	201
Short Term Liab		-	-	416.6	417	417	417	417
Current Liabilities	\$m	13	56	580.1	544	600	539	703
Total Liabilities	\$m	13	57	726.3	1,190	1,247	2,185	2,349
Total Equity and Liabilities	\$m	243	930	1,708.4	2,183	2,872	4,207	5,008

Source: Company Reports and CIRA Estimates

Cash Flow Statement

Figure 133. AMI Cash Flow Statement

Cash Flow		2009A	2010A	2011A	2012E	2013E	2014E	2015E
PBT from Cont Ops	\$m	-17.4	-46.5	-40.4	94.8	843.7	527.5	850.2
PBT from Disc Ops	\$m	14.7	0.2	-	-	-	-	-
Non Cash Charges		-16.9	21.7	27.0	229	107	261	504
Depreciation	\$m	0.1	0.1	0.7	158.3	201.1	318.8	424.1
Amortisation	\$m	-	-	0.1	-	-	-	-
Share Based Payments	\$m	6.4	11.3	25.7	-	-	-	-
Impairment of intangibles	\$m	19.3	4.5	-	-	-	-	-
Profit/Loss on Disposal	\$m	-39.9	-	0.1	-	-	-	-
Other	\$m	-2.6	13.5	1.5	-	-	-	-
Net Interest Received	\$m	-0.2	-0.3	-1.1	70.7	76.9	135.7	159.9
Dividends Received	\$m	-	-7.3	-	-	-	-	-
Taxes Paid		-	-	-	-	-170.6	-193.9	-80.5
Operating loss pre WC	\$m	-19.6	-24.7	-13.4	324	951	788	1,354
Change in WC	\$m	-1.3	46.3	-2.1	-180	-51	14	-103
CF from Operating Activities	\$m	- 21.0	21.6	- 15.5	144	900	802	1,251
Interest Received	\$m	0.2	0.3	0.2	2.7	6.6	7.7	3.5
Dividends Received	\$m	-	7.3	-	-	-	-	-
Purchase of Tangibles	\$m	-0.9	-265.0	-916.6	-232.3	-952.2	-1,853.5	-954.8
Sale of Tangibles	\$m	1.1	0.1	-	326.3	-	-	-
Acquisition of intangibles	\$m	-29.1	-110.5	-2.2	-	-	-	-
Acquisition of fin assets	\$m	-	0.4	-	-	-	-	-
Investment in subsidiary	\$m	-	-	-	-	-	-	-
Dec/(incr) in ST deposits at banks	\$m	-	-	-	-	-	-	-
CF from Investing Activities	\$m	-28.7	-367.4	-919	97	-946	-1,846	-951
Proceeds from Sh issue	\$m	99.3	650.9	46.3	-	-	-	-
Debt Additions/ (repayments)	\$m	-	-	589.2	500.0	-	1,000	-
Exercise of options/warrants	\$m	0.7	1.8	2.3	-	-	-	-
Interest Paid	\$m	-	-	-59.4	-73.5	-83.5	-143.5	-163.5
CF from Financing Activities	\$m	100.0	652.7	578.5	427	-83	857	-163
Net (decr)/incr in cash and eq	\$m	50.3	306.9	-355.6	667	-129	-187	136
FX impact on cash		2.1	-11.2	-0.3	-	-	-	-
Cash and Eq at beg of period	\$m	24.2	76.6	372.4	16	684	555	367
Cash and eq at end	\$m	76.6	372.4	16.5	684	555	367	504

Source: Company Reports and CIRA Estimates

London Mining

Income Statement

Figure 134. LOND Income Statement (US\$m unless stated)

INCOME STATEMENT	2009A	2010A	2011A	2012E	2013E	2014E	2015E
Revenue	--	--	--	212	541	598	583
Cost of Sales	--	--	--	(124)	(236)	(272)	(278)
SGA (corporate etc)	(32)	(31)	(40)	--	--	--	--
Taxes other than income tax	--	--	--	(5)	(14)	(16)	(15)
Other operating income/(expense)	--	--	--	--	--	--	--
EBITDA	(31.72)	(31.41)	(40.50)	83.89	290.95	310.35	289.18
Depreciation	(1)	(1)	(1.438)	(31)	(48)	(57)	(52)
EBIT	(32.49)	(32.39)	(41.93)	52.49	242.76	253.19	237.08
Non operating items	(3)	(68)	1	--	--	--	--
Interest income	2.5	3.3	3	--	--	--	--
Interest expense	(1.9)	(3.3)	(4)	--	--	--	--
Profit before Tax	(34.40)	(100.84)	(41.63)	52.49	242.76	253.19	237.08
Tax (expense)/income	--	1	(18)	(5)	(18)	(64)	(60)
Profit after Tax	(34.40)	(99.58)	(60.03)	47.14	225.14	189.07	176.99
Minorities	0.0	--	--	--	--	--	--
Extraordinary items	--	--	--	--	--	--	--
Net income	(34.38)	(99.58)	(60.03)	47.14	225.14	189.07	176.99
EPS – Basic \$/sh	(0.33)	(0.92)	(0.54)	0.42	2.01	1.69	1.58
EPS –Diluted \$/sh	(0.33)	(0.92)	(0.54)	0.42	2.01	1.69	1.58

Source: Company Reports and CIRA Estimates

Balance Sheet

Figure 135. LOND Balance Sheet (\$m)

BALANCE SHEET	2009A	2010A	2011A	2012E	2013E	2014E	2015E
Cash and Equivalents	200.4	76.0	67.8	129.2	2,968.0	3,100.1	3,331.6
Accounts receivable (assume 60 days)	3.9	6.4	7.0	20.9	48.2	47.2	47.9
Inventory (assume 40 days)	--	0.6	6.8	8.1	14.1	15.0	15.3
Other Current Assets	--	--	8.7	8.7	8.7	8.7	8.7
Total Current Assets	204.3	83.1	90.4	166.9	3,038.9	3,171.0	3,403.6
Property, Plant and Equipment	0.3	81.1	301.4	392.7	578.7	658.6	611.7
Intangible Assets	20.3	97.2	126.2	126.2	126.2	126.2	126.2
Assets held for sale	--	28.1	--	--	--	--	--
Other Non Current Assets	155.0	1.2	2.2	2.2	2.2	2.2	2.2
Total Non Current Assets	175.6	207.7	429.7	521.0	707.0	786.9	740.0
Total Assets	380.0	290.7	520.1	687.9	3,745.9	3,957.9	4,143.6
Accounts payable (assume 50 days)	18.3	21.5	61.1	10.1	17.6	18.7	19.2
Short term Debt	--	--	92.1	110.1	110.1	110.1	110.1
Tax Liabilities	--	0.5	0.4	3.2	8.6	30.3	38.6
Other Current Liabilities	--	--	7.6	7.6	7.6	7.6	7.6
Total Current Liabilities	18.3	22.0	161.2	130.9	143.8	166.7	175.4
Tax Liabilities	--	--	19.3	19.3	19.3	19.3	19.3
Long term debt	--	--	90.5	90.5	2,910.5	2,910.5	2,910.5
Provisions	--	--	1.4	1.4	1.4	1.4	1.4
Employee benefits	--	--	--	--	--	--	--
Other Non-Currents Liabilities	1.1	24.3	31.9	95.9	95.9	95.9	95.9
Total Non Current Liabilities	1.1	24.3	143.1	207.1	3,027.1	3,027.1	3,027.1
Total Liabilities	19.4	46.4	304.3	338.0	3,170.9	3,193.8	3,202.5
Minority Interests	--	--	--	--	--	--	--
Equity	360.6	244.4	215.8	349.9	575.0	764.1	941.1
Total Equity	360.6	244.4	215.8	349.9	575.0	764.1	941.1

Source: Company Reports and CIRA Estimates

Cash Flow Statement

Figure 136. LOND Cash Flow Statement (\$m)

CASH FLOW	2009A	2010A	2011A	2012E	2013E	2014E	2015E
Net profit before Minorities	(34.4)	(99.6)	(60.0)	47.1	225.1	189.1	177.0
Net Interest expense	(0.7)	(0.0)	1.1	--	--	--	--
Income Tax Expense	--	--	18.4	5.4	17.6	64.1	60.1
Cash Tax Paid	--	--	--	(2.6)	(12.2)	(42.4)	(51.8)
Cash interest adjustment	0.9	0.1	(4.7)	--	--	--	--
D&A	0.8	1.0	1.4	31.4	48.2	57.2	52.1
Other Operating Cash flow	7.9	70.0	0.3	--	--	--	--
Working Capital Movements	2.7	(1.1)	4.3	(66.2)	(25.8)	1.2	(0.6)
Cash Flow from Operating Activities	(22.8)	(29.6)	(39.3)	15.1	253.0	269.2	236.8
Expansionary Capex	(1.9)	(50.8)	(181.0)	(118.6)	(134.2)	(36.0)	--
Sustaining Capex	(0.0)	(0.0)	(0.0)	(4.1)	(100.0)	(101.1)	(5.2)
Exploration/intangible expenditure	(24.8)	(31.5)	(36.7)	--	--	--	--
Proceeds from sale of PPE	--	--	--	--	--	--	--
Investments/acquisitions	(39.7)	(13.1)	--	--	--	--	--
Interest received	--	--	--	--	--	--	--
Other Investing cash flows	(11.3)	(2.7)	24.8	--	--	--	--
Cash Flow from Investing Activities	(77.7)	(98.1)	(192.9)	(122.7)	(234.2)	(137.1)	(5.2)
Free Cash Flow	(49.4)	(111.8)	(256.9)	(107.6)	18.8	132.1	231.5
Change in Equity	--	--	--	87.0	--	--	--
Change in Short Term Debt	--	--	--	18.0	--	--	--
Change in Long Term Debt	--	--	192.4	--	2,820.0	--	--
Other financing cash flows	(12.0)	(0.2)	30.8	64.0	--	--	--
Acquisition of non-controlling interest	--	--	--	--	--	--	--
Dividends Paid	--	--	--	--	--	--	--
Cash Flow from Financing Activities	(12.0)	(0.2)	223.3	169.0	2,820.0	--	--
Foreign Exchange Impact	0.5	(0.3)	0.7	--	--	--	--
Cash held for sale	--	--	--	--	--	--	--
Change in Cash	(112.0)	(128.2)	(8.2)	61.4	2,838.8	132.1	231.5
Opening Cash and Equivalents	316.3	204.3	76.0	67.8	129.2	2,968.0	3,100.1
Closing Cash and Equivalents	204.3	76.0	67.8	129.2	2,968.0	3,100.1	3,331.6

Source: Company Reports and CIRA Estimates

Companies Mentioned

Figure 137. Companies Mentioned

Company	Ticker	Listing Ccy	Rating	Prices as at 18-Apr-12	Target Price	Upside	Div. Yield	ETR
Gindalbie Metals Ltd	GBG.AX	AUD	1H	0.63	0.80	28.0%	0.0%	28.0%
Ferrexpo PLC	FXPO.L	GBP	1	2.93	4.25	45.1%	1.5%	46.5%
Grange Resources Limited	GRR.AX	AUD	1H	0.60	0.80	34.5%	8.4%	42.9%
Companhia Siderurgica Nacional	CSNA3.SA	BRL	3	17.27	17.00	-1.6%	3.6%	2.1%
Mount Gibson Iron	MGX.AX	AUD	2H	1.13	1.50	33.3%	13.3%	46.7%
BHP Billiton PLC	BLT.L	GBP	1	19.62	23.00	17.3%	3.1%	20.3%
Vale	VALE.N	USD	1	23.19	33.00	42.3%	6.5%	48.8%
Fortescue Metals Group Ltd	FMG.AX	AUD	1	6.02	7.50	24.6%	1.5%	26.1%
Rio Tinto PLC	RIO.L	GBP	1	35.50	49.00	38.0%	2.0%	40.0%
Anglo American PLC	AAL.L	GBP	2	23.31	25.00	7.3%	2.6%	9.8%
African Rainbow Minerals	ARIJ.J	ZAR	1	182.28	220.00	20.7%	3.3%	24.0%
Cliffs Natural Resources Inc.	CLF.N	USD	1	70.10	96.00	36.9%	3.6%	40.5%
Eurasian Natural Resources Corporation PLC (ENRC)	ENRC.L	GBP	1	5.73	7.60	32.6%	2.3%	34.9%
Atlas Iron Ltd	AGO.AX	AUD	1	2.99	3.70	23.7%	1.3%	25.1%
Zanaga Iron Ore Company	ZIOC.L	GBP	1H	0.98	1.50	53.1%	0.0%	53.1%
Exxaro Resources Limited	EXXJ.J	ZAR	2	209.61	220.00	5.0%	6.2%	11.2%
Assore Limited	ASRJ.J	ZAR	1	255.44	280.00	9.6%	2.7%	12.4%
African Minerals Ltd	AMlq.L	GBP	1	5.67	7.50	32.4%	0.0%	32.4%
London Mining	LOND.L	GBP	1	2.66	4.65	75.1%	0.0%	75.1%
Centamin Egypt Limited	CEY.L	GBP	1	0.65	0.87	33.0%	0.0%	33.0%
Randgold Resources Ltd	RRS.L	GBP	2	54.90	60.27	9.8%	0.3%	10.1%
Kumba Iron Ore Ltd	KIOJ.J	ZAR	3	531.00	430.00	-19.0%	8.7%	-10.4%

Source: Company Reports, Citi Investment Research and Analysis

African Minerals Ltd

Company description

African Minerals is a single asset iron ore mining company with operations in the West African nation of Sierra Leone. Its flagship project, Tonkolili is located approximately 200km north east of the capital Freetown.

Investment strategy

We rate African Minerals Buy. We believe we have seen the end of the super cycle in iron ore as increasing supply, slowing Chinese demand and endemic industry cost inflation pressure returns. We argue that investors should look to gain exposure to stocks that offer best-in-class capital allocation, low cost volume growth and upside optionality. In our view, African Minerals ticks all these boxes.

Valuation

Our £7.50 valuation is derived from an equal weighting of 1.0x DCF derived NPV of £7.68 and 4x discounted 2013E EBITDA of £7.22. In our view this blend captures both the long term upside of the stock as well as its near term earnings potential.

Risks

The key risks surrounding AMI that could prevent the stock reaching our valuation are:

Politics – Sierra Leone holds its third general election since the end of the civil war in November 2012. There is potential for social unrest which could adversely impact sentiment towards the stock.

Resource nationalism – AMI has gained concessions vs. the official mining code including lower corporate tax. Should this be reversed, or the government look to gain an equity stake in the mining asset, our valuation would fall.

Price – AMI's valuation is very sensitive to changes in the price of its key commodity, iron ore. We calculate a 10% increase price would increase our NPV by 32%.

Execution risk – As with any project company the ramp up stage is riskiest time. AMI is increasing production in 2012 from an initial 1.2mt in 2011 to the 20mtpa capacity by year end and slippage in this production schedule would reduce our valuation.

London Mining

Company description

London Mining Plc is a UK-based company engaged in developing primarily iron ore mines. It owns 100% of the Marampa hematite iron ore mine in Sierra Leone, 100% of the Isua magnetite iron ore project in Greenland, a 25% stake in on the Wadi Sawawin joint venture in Saudi Arabia and a 100% stake of a coking coal development project in Colombia. The Company listed on the Oslo Stock Exchange on 9th October 2007 and on London AIM on 6 November 2009.

Investment strategy

We rate London Mining Buy (1). We expect London Mining to outperform its West African iron ore peers over the next 12 months based on the following:

The recently commenced ramp up of Marampa to 5mtpa provides volume growth which is on track to be delivered at a very attractive capital intensity of <\$70/t of annual capacity and an industry leading IRR of c.35%.

A bankable feasibility study considering the expansion of Marampa phase 1 to 9mtpa is due to be delivered in Q3 2012 and could provide a strong catalyst and additional upside for shares.

We see further upside potential from 1) a bankable feasibility study into the expansion of Marampa to over 16mtpa with a second phase; 2) Securing of a strategic partner/funding for its Isua, Greenland project.

Valuation

Our rounded target price of £4.65 is derived from an equal weighting of DCF and earnings multiples. Our base case NPV of £4.08, considers only the first phase of Marampa to 5mtpa, with further projects treated as potential upside to our target price. Our WACC of 12% is in line with our valuation method for other emerging market bulk commodity miners. We use a 4x multiple to 2013E EBITDA, discounted back by one year to give £5.22.

Risks

The key risks surrounding LOND that could prevent the stock reaching our valuation are:

Commodity/macroeconomic risks: Iron ore is heavily dependent upon economic growth, particularly in China. A global slowdown, resulting in lower industrial production, would put additional pressure on steel production and lead to lower iron ore prices. This in turn could affect the viability of London Mining's growth plans. On the supply side, a slew of planned additional iron ore capacity in the middle of the cost curve - pushing out the high cost producers - could result in weaker pricing power across the industry, again materially affecting the economics of London Mining's growth plans.

Country risk: Sierra Leone has maintained a democratic political process since the end of its protracted civil war in 2002. However, with political allegiances divided largely along ethnic lines, there is potential for tensions to arise in the upcoming elections in November 2012. A number of recent African crises including Ivory Coast, Mali and Egypt serve to remind us of the fragile nature of political process in the region and, more specifically, how the market reacts to uncertainties in the jurisdiction of a company's operations. An uncertain political situation could lead to London Mining's shares underperforming at the very least, with the prospect of operational problems heightened. A change in the political setup could also threaten the company's mining lease agreement and lead to further resource nationalism in the form of higher taxes and/or a mandatory government stake.

Company specific risks: Investors should consider the risks inherent in the ramp up of operations – delays and/or unforeseen costs during the process could materially affect operational and share price performance. Labour disputes are also a relatively common occurrence across the mining sector, with the threat of strike action and disruption to operations a possibility. In addition, the company leases its key transport infrastructure – trucks and barges – from third parties. This means that the provision of such services is potentially less certain than company-owned infrastructure.

Notes

Appendix A-1

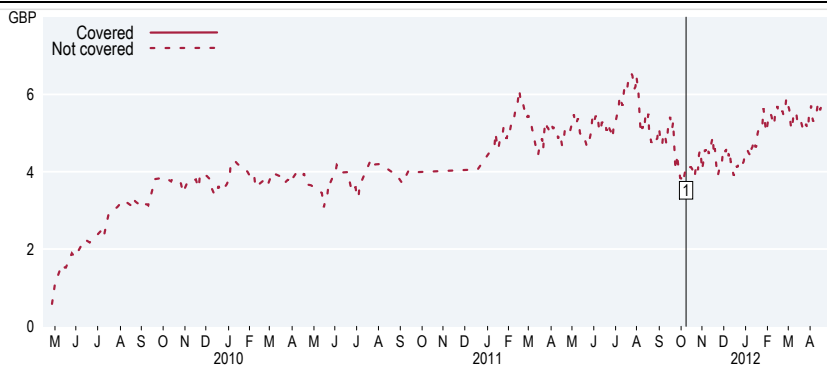
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IMPORTANT DISCLOSURES

African Minerals Ltd (AMlq.L)

Ratings and Target Price History
Fundamental Research



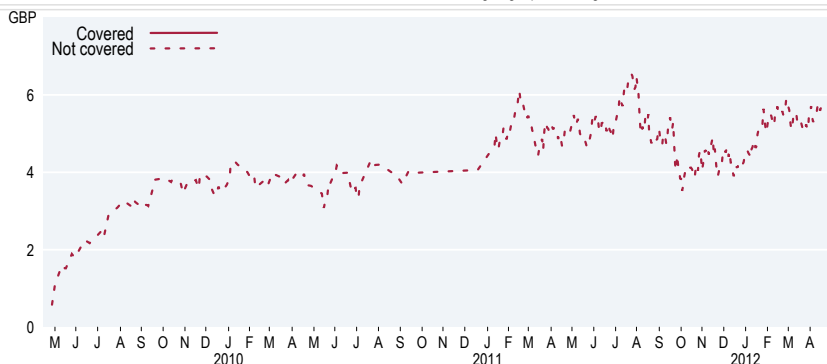
	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

African Minerals Ltd (AMlq.L)

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

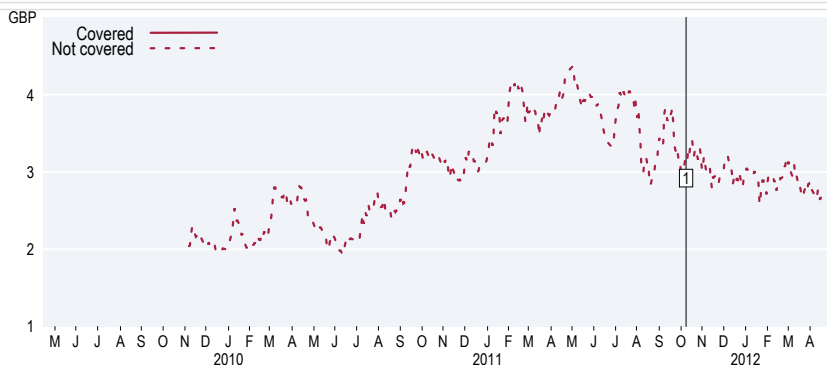


* Indicates change

Rating/target price changes above reflect Eastern Standard Time

London Mining (LOND.L)

Ratings and Target Price History
Fundamental Research



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

London Mining (LOND.L)
Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)



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