Equities

20 September 2011 | 84 pages

Metals & Mining

Panic Provides

- **Fear creates opportunities** — A surge of negative news flow and gloomy economic outlook have weighed heavily on equities. Sentiment is deep in 'panic' territory and stocks look priced for a mild recession. This offers opportunities for investors who share our positive outlook. Near-term volume growth, supportive long-term commodity price fundamentals, margin enhancement and a declining capex profile should result in strong cash generation for most miners. Comfortable balance sheets mean less risk than in 2008 and could result in attractive dividend yields when combined with strong cash generation. Anglo American is our top pick, with an expected total return of 46%.

- **Peak margin concerns…** — Miners' operating profit grew 310% between 2002 and 2010, benefiting mostly from higher commodity prices. Sales volume growth contributed only 46%. As a result, near-term commodity price forecasts are well above longer-term marginal production costs and allow for elevated margins. Unsustainably high commodity prices pose downside risk to near-term earnings estimates.

- **…seem priced in** —However, they are trading on single-digit forward PE multiples, well below long-term averages. It seems that the market has already priced in earnings declining to average margin levels rather than peak. Free cash flow yields look highly compelling in most cases, in our view.

- **Volumes drive earnings growth** — We forecast robust average volume growth of 48% by 2020 for the six miners covered in this report. We prefer earnings growth driven by sales volumes, rather than relying on rising commodity prices doing the job.

- **Margin enhancement** — We believe long-term margins will benefit from 1) increasing competitiveness of existing large-scale, low-cost mines in a steepening cost curve environment and 2) focusing volume growth on attractive industries.

- **Key risks** —Risks include a major global economic slowdown (China in particular), growing resource nationalism globally, poor capital allocation, skills, equipment and electricity shortages, and persisting infrastructure constraints.

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	Rating		Target Price		Current Year Earnings Estimates		Next Year Earnings Estimates	
Ticker	Old	New	Old	New	Old	New	Old	New
AGLJ.J	1M	1M	R420.00	R420.00	US$5.50	US$5.50	US$6.13	US$6.13
ARIJ.J	1M	1M	R230.00	R230.00	R18.77	R18.77	R23.99	R23.99
ASRJ.J	1M	1M	R280.00	R280.00	ZA¢2,856	ZA¢2,856	ZA¢3,221	ZA¢3,221
BLT.L	1M	1M	£24.05	£24.05	US¢408.2	US¢408.2	US¢429.4	US¢429.4
EXXJ.J	2M	2M	R210.00	R210.00	R23.06	R23.06	R29.56	R29.56
KIOJ.J	3M	3M	R450.00	R450.00	R56.53	R56.53	R64.37	R64.37

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

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Uncertainty and fear create value

Three key concerns

Mining equities have been under pressure due to global economic headwinds and a gloomy outlook. On average, share prices have fallen 14% from 12-month highs (Figure 1) and are now trading 22% below all-time highs (Figure 2). In this report, we discuss our three key concerns, which could continue to weigh on share price performance:

1) Earnings growth over the past decade largely provided by commodity prices,

2) Earnings momentum now slowing or turning negative, and

3) Peak margins leave room for downgrades.

Six investment positives

We also analyse investment positives of diversified miners:

1) Cheap valuations suggest potential near-term earnings downgrades largely priced in,

2) Strong volume growth to drive earnings,

3) Margin enhancement through focused volume growth,

4) Near-term decline in capex provides cash flow kicker,

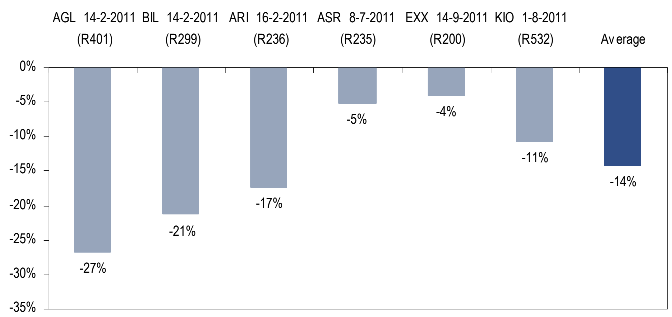
5) Comfortable balance sheets, and

6) Increasing potential for higher dividends.

We see value in selected miners

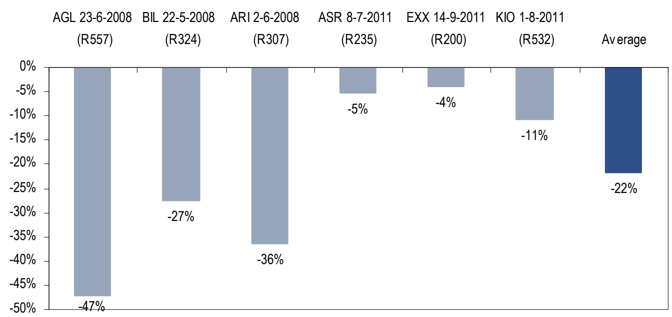
We conclude that economic headwinds continue to pose a risk to near-term margin forecasts, which are still at optimistic levels, and are likely to keep investors nervous about risk taking. However, while we believe there could be downside risk to earnings forecasts, we believe a lot of macro concerns could already be priced in. We see value in selected diversified mining equities (see ranking table in Figure 3).

Figure 1. Share price declines since recent peak (date on chart)



Source: I-Net; Citi Investment Research and Analysis

Figure 2. Share price declines since all-time high (date on chart)



Source: I-Net; Citi Investment Research and Analysis

Miners ranked by total one-year return

We have a preference for mega-cap diversified miners Anglo American and BHP Billiton, given what we see as attractive valuations, global and product diversification, solid cash generation, strong production growth and comfortable balance sheets. We also recommend buying African Rainbow Minerals and Assore.

We remain cautious on Exxaro (Hold) and Kumba Iron Ore (Sell) due to what we see as relatively stretched valuations, iron ore cost pressures and limited growth prospects beyond current projects. These two shares are trading close to all-time highs despite an uncertain economic outlook and highly optimistic margins forecasts, which could be unsustainable.

Figure 3. Miners ranked by total expected one-year return*

Company	Unit	1-Yr target price	Current price*	1-Yr target capital return	1-Yr fwd dividend yield	Total 1-Yr return	12-month forward rolling PE	Rec. & risk
Xstrata	GBP	**16**	10	52.2%	2.9%	**55.1%**	7.5x	**BUY (M)**
Vale	USD	**40**	27	47.6%	3.5%	**51.1%**	6.1x	**BUY (M)**
Rio Tinto	GBP	**53**	36	46.0%	2.2%	**48.2%**	6.5x	**BUY (M)**
Anglo American	ZAR	**420**	292	44.0%	2.4%	**46.4%**	6.5x	**BUY (M)**
Northam	ZAR	**50**	35	44.5%	1.5%	**46.0%**	15.5x	**BUY (M)**
Impala	ZAR	**220**	166	32.3%	4.0%	**36.3%**	11.7x	**BUY (M)**
Assore	ZAR	**280**	219	28.1%	3.2%	**31.3%**	7.4x	**BUY (M)**
ARM	ZAR	**230**	189	21.6%	3.2%	**24.7%**	9.5x	**BUY (M)**
BHP Billiton	GBP	**24**	20	20.3%	2.9%	**23.1%**	7.7x	**BUY (M)**
Acquarius	Pence	**261**	220	18.6%	0.5%	**19.2%**	13.6x	**HOLD (H)**
Exxaro	ZAR	**210**	188	11.8%	5.4%	**17.1%**	6.8x	**HOLD (M)**
Lonmin	GBP	**14**	12	13.6%	0.2%	**13.8%**	11.6x	**HOLD (M)**
Anglo Platinum	ZAR	**610**	550	10.9%	2.2%	**13.0%**	15.6x	**SELL (M)**
Kumba Iron Ore	ZAR	**450**	472	-4.6%	9.7%	**5.2%**	7.6x	**SELL (M)**
AngloGold	ZAR	**360**	356	1.0%	1.5%	**2.5%**	10.3x	**HOLD (M)**
Harmony	ZAR	**85**	99	-14.1%	0.0%	**-14.2%**	28.1x	**SELL (M)**
Gold Fields	ZAR	**105**	128	-18.0%	3.5%	**-14.5%**	9.8x	**SELL (M)**
Average				**20.9%**	**2.9%**	**23.8%**	**10.7x**	

* Priced on 19 September 2011 Source: Powered by dataCentral
dataCentral is CIRA's proprietary database, which includes Citi estimates, data from company reports, and feeds from Reuters, Datastream, Firstcall, IBES and Toyo Keizai

In this environment of near-term uncertainty, we favour miners with the following characteristics:

- Large reserves, supporting long lives and low-cost expandability (BHP Billiton)
- Comfortable balance sheets
- Strong production growth (near-term growth preferred)
- Further margin expansion potential
- Less operational gearing to a global economic slowdown (BHP Billiton)
- Potential for value unlock (restructuring)
- Attractive valuation on realistic mid-cycle assumptions
- Diversification across geographies and products (Anglo, BHP Billiton)
- Sellers of non-core assets at elevated prices
- Potential corporate action targets

By contrast, we prefer to steer clear of miners with the following characteristics:

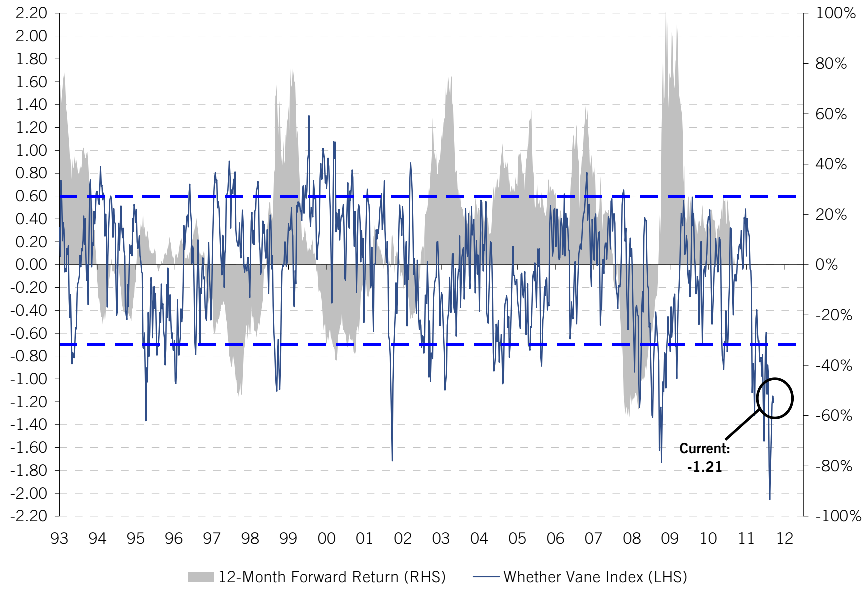
- Record near-term earnings forecasts with significant scope for downside at normalised margins (Kumba Iron Ore and Exxaro)
- Stretched balance sheets (gearing above 30%)
- Valuations based on peak margins rather than long-term mid-cycle margins
- Big capex spenders for limited growth (Exxaro)

- No improvement potential in terms of strategy, costs
- Buyers of assets at elevated prices — we believe it's a seller's market
- Single commodity reliance (Kumba Iron Ore).

Sentiment now in panic territory – supports positive view

Our Global Emerging Markets Strategy team introduced a new sentiment indicator for emerging equity markets (refer to our report "The GEMs "Whether Vane" – A New Sentiment Indicator", dated 15 September). Currently, the indicator is deep in 'panic' territory, supporting our positive long-term view of EM equities.

Figure 4. The GEMs "Whether Vane" Index and MSCI GEMs Forward 12-Month Returns



Source: MSCI, Datastream, Bloomberg, EPFR and Citi Investment Research and Analysis

When in panic territory, the "Whether Vane" signals an 84% chance that the MSCI GEMs index will be higher in 12 months time, with an average gain of 28%. When in 'euphoria', the model signals a 74% chance of lower markets in the next 12 months, with an average decline of 14%.

The model gave a 'buy' signal for EM equities at several of the major 'panic' turning points of recent years, such as March 1995, late-August 1998, September 2002 and May 2004; however, the model was 'early' in the 2007-8 bear market. It gave a sell signal at major 'euphoria' turning points such as December 1993, May 1997, February 1998, February 2000 and October 2007.

Supportive long-term commodity price fundamentals

We see several factors that are likely to continue supporting commodity prices over the medium term. These include:

- continued urbanisation and industrialisation of populous and fast-growing emerging markets,
- supply constraints caused by project and infrastructure delays,
- increasing mining complexity (particularly at new projects),
- rising project costs,
- loose monetary policies globally,
- potential for commodity-intensive fiscal stimulus in advanced economies,
- a weak USD, and
- potential for higher demand for commodities for inflation protection.

In addition, we calculate that miners are now trading on reasonable near-term PE multiples, even at our long-term normalised commodity price forecasts. See our report “Opportunities in Uncertain Times”, published on 10 August.

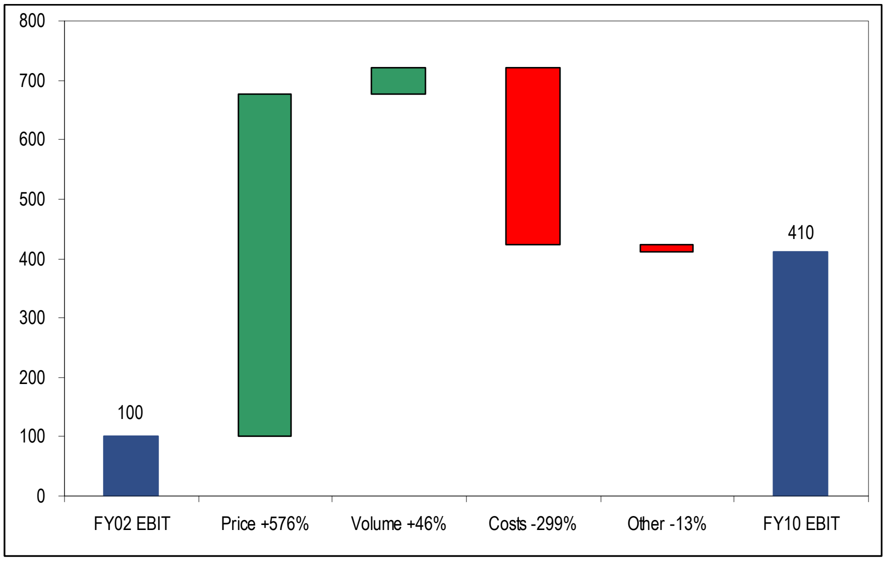
We therefore believe that some miners are attractively priced and offer opportunities for long-term investors.

Our concerns

1. Earnings growth provided by commodity prices

Miners' operating profit grew 310% between 2002 and 2010, mostly benefiting from higher commodity prices. Sales volume growth contributed only 46%. It will likely be more challenging to continue growing shareholder value over the next decade as we forecast average commodity prices falling 27% in real terms (Figure 6).

Figure 5. Miners' EBIT variance analysis FY2002-FY2010 (2002 EBIT = 100, equally weighted)



Source: Company Reports (Anglo American and BHP Billiton)

But unsustainably high margins could mean revert

Iron ore, copper and coking coal prices have outperformed in commodity boom

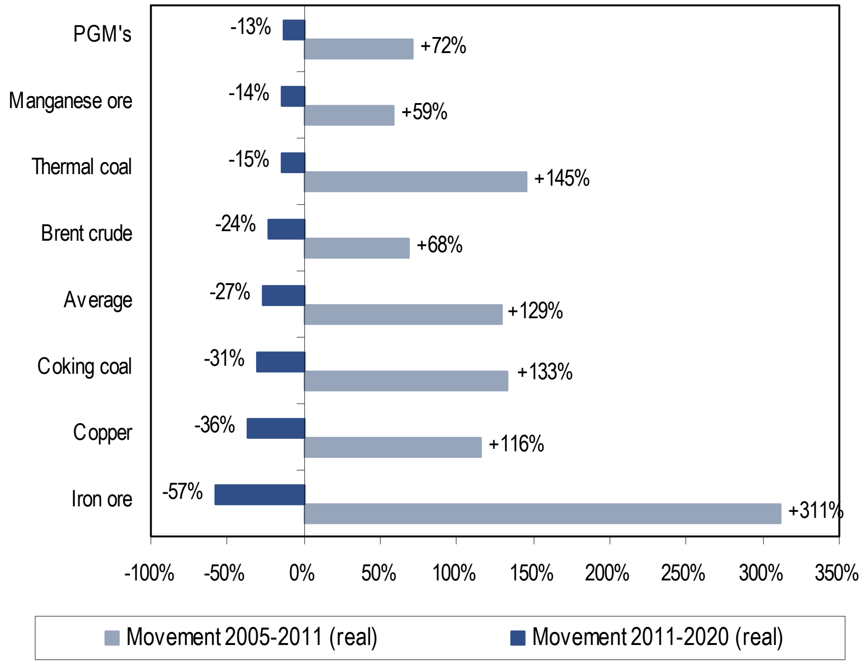
Iron ore, copper and metallurgical coal prices have outperformed other commodities since 2005, rising by 311%, 116% and 133%, respectively (Figure 6).

Commodities that benefited most from the super-cycle are likely to fall more from its peak as equilibrium is restored, unless there has been a structural change in marginal cost of production. Increasing mining complexity and falling grades are examples of a structural change to marginal cost of production, but medium-term infrastructure constraints are not. We see iron ore prices falling 57% over the next decade as they normalise to marginal cost of production, while copper and metallurgical coal prices could fall 36% and 31%, respectively.

PGM's and crude oil underperformed

PGM's and manganese ore underperformed other commodities since 2005 and are therefore likely to have less downside over the next five years.

Figure 6. Commodity price movements (2011 real)



Source: Bloomberg, I-Net, DataCentral, CIRA

Some increases partly justified by structural rises in industry cost

After commodity prices, the cost of mining has been the single biggest factor that impacted miners' profitability. Cost progression in the mining sector is a major issue. While commodity prices are up over 200% in nominal terms since the super cycle began in 2004, costs have also risen sharply. In many cases, costs have risen by +100% over the same period of time. Thus while margins for most commodities have expanded, costs have been a continual dampener on margins.

Figure 7. Average cost and price increases

Average		Average costs 2004	Average costs 2010	Cost Increase ('04-'10)	Price Increase ('04-'10)
Aluminium	USc/lb	56	81	46%	28%
Alumina	US$/t	155	240	54%	38%
Coking Coal	US$/t	42	87	104%	240%
Thermal Coal	US$/t	23	51	122%	140%
Copper	USc/lb	44	103	135%	163%
Nickel	USc/lb	201	502	150%	57%
Zinc	USc/lb	32	47	47%	105%
Iron Ore	US$/t	12	32	176%	337%
Gold	US$/oz	238	513	116%	201%

Source: Citi Investment Research and Analysis

The rate of cost pressure has been running well ahead of inflation, with most commodities experiencing cost increases of +10% pa over the past 6 years. The escalation in cash costs has been driven by a combination of factors, but the major drivers have been:

- Falling grades;
- Increasing labour costs;

- Fuel and consumable costs;
- Deeper, older mines with higher strip ratios; and
- Currency appreciation.

While high prices have meant that higher-cost projects have been approved or started and higher-cost ore has been mined, the upwards pressure on cash costs has been uniform across all quarters of the cash cost curve. This is a clear indication that cost pressures are structural issues rather than just a cyclical rise in costs due to high commodity prices.

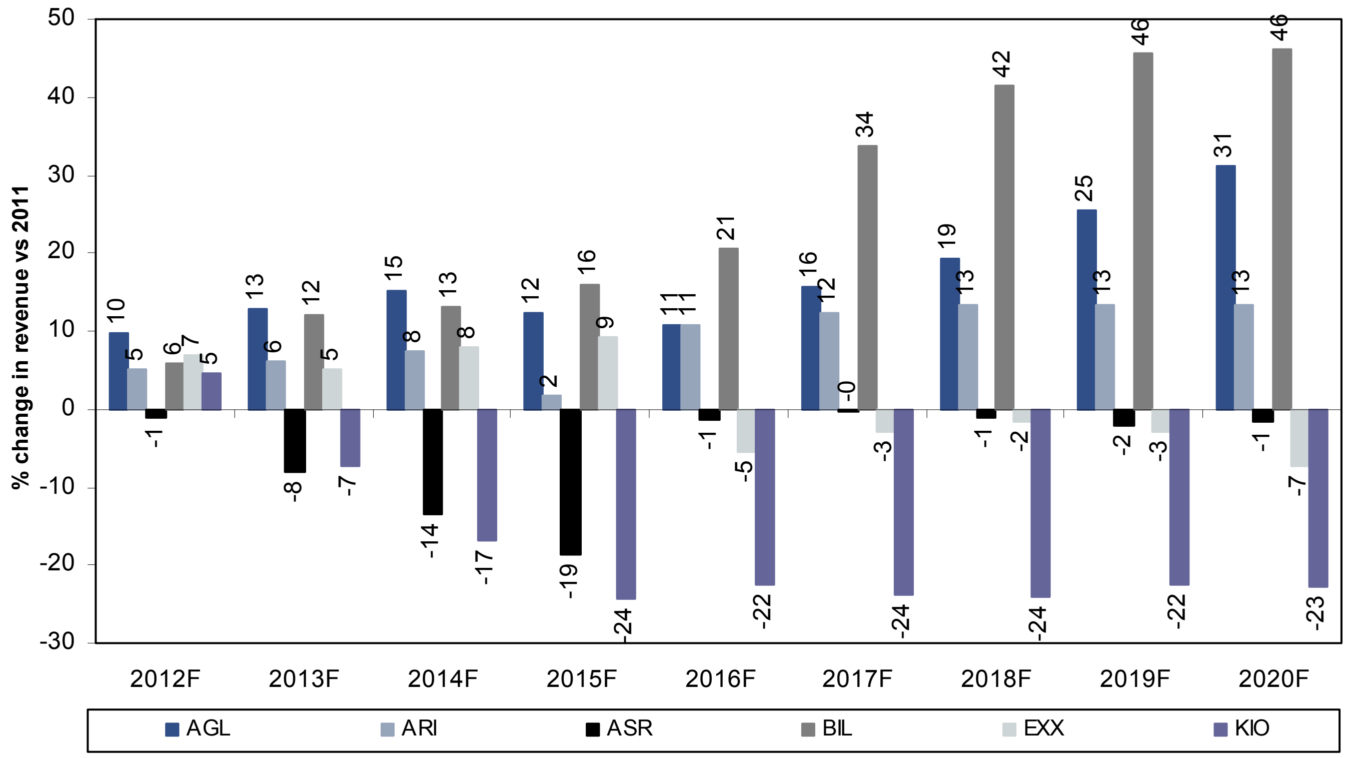
Impact of declining prices on revenue

Miners with large exposures to iron ore, copper and coking coal will likely find it more challenging to grow revenue against the background of falling commodity prices.

BHP Billiton (+46%) and Anglo American (+31%) could show superior revenue growth

Figure 8 shows growth in miners' US dollar revenue forecasts up to 2020. BHP Billiton (+46%) and Anglo American (+31%) could show superior growth over the next five years as production growth outpaces commodity price declines. Kumba (-23%) could be the laggard, as a 57% drop in iron ore prices would likely more than offset 57% production growth.

Figure 8. Cumulative % change in US$ based revenue from CY2011 base



Source: Citi Investment Research and Analysis

A 57% drop in iron ore prices from 2011's average of US173/tonne to a long-term mid-cycle price of US$81/tonne would weigh heavily on iron ore producers

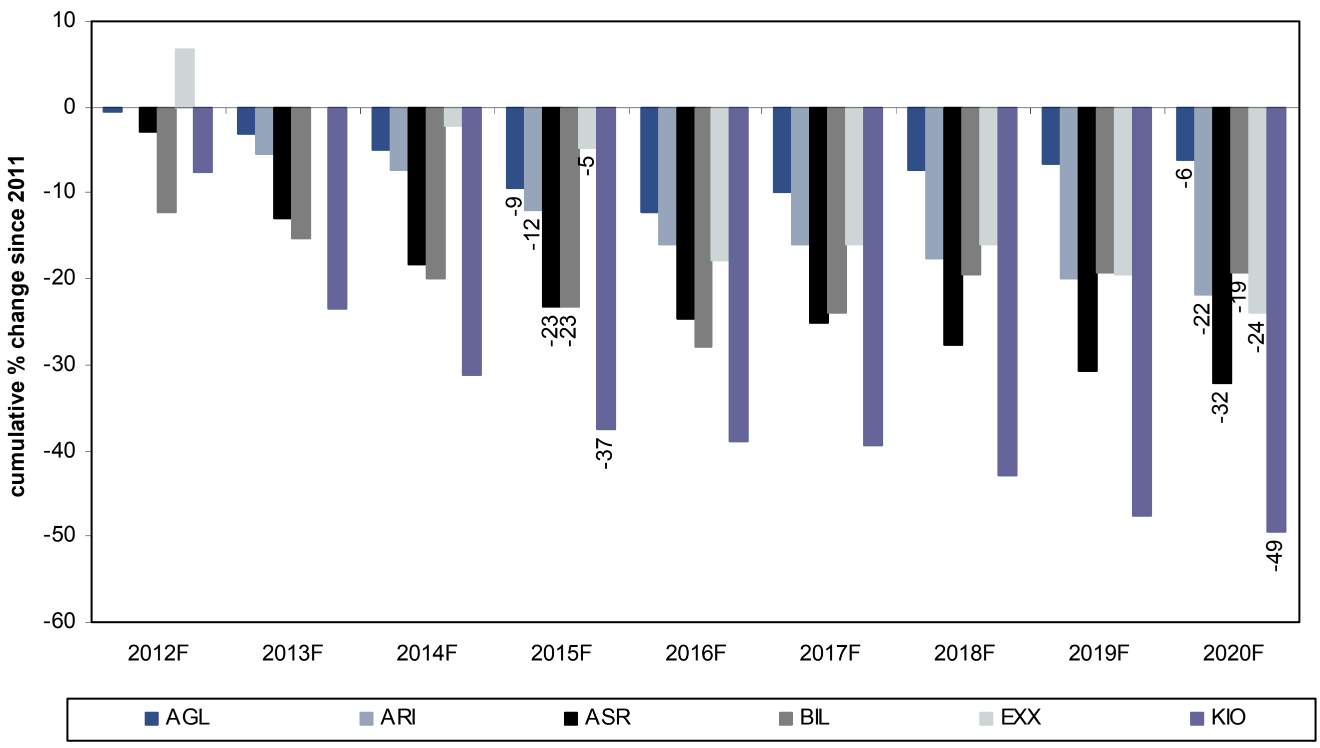
Figure 9 illustrates how our view of falling commodity prices would erode miners' revenues in US dollar terms. A 57% drop in iron ore prices from 2011's average of US173/tonne to a long-term mid-cycle price of US$81/tonne (Figure 44) would weigh heavily on iron ore producers' revenues. As a result, Kumba would be hardest hit, with falling iron ore prices knocking 49% off its revenue by 2020.

Anglo American's commodity basket price could fall less (-6%) than peers'

Anglo American has a more sustainable platform for revenue growth. Its commodity basket price (supported by PGM's, diamonds manganese ore and thermal coal) could fall less (-6%) than peers' as it underperformed during the commodity boom.

ARM (-22%), Assore (-32%), BHP Billiton (-19%) and Exxaro's (-24%) commodity baskets would be impacted by falling iron ore, coking coal and copper prices.

Figure 9. Revenue erosion caused by falling commodity prices (Cumulative % change since 2011)



Source: Citi Investment Research and Analysis

2. Earnings momentum slowing or turning negative

Earnings upgrades have been almost exclusively due to higher commodity prices. However, commodity prices have now risen to historically high levels, which allow elevated margins for all miners and therefore pose downside risk if they revert to long-term average prices. A gloomy economic outlook has recently started taking its toll on earnings forecasts.

Figure 10 - Figure 15 illustrate three key observations:

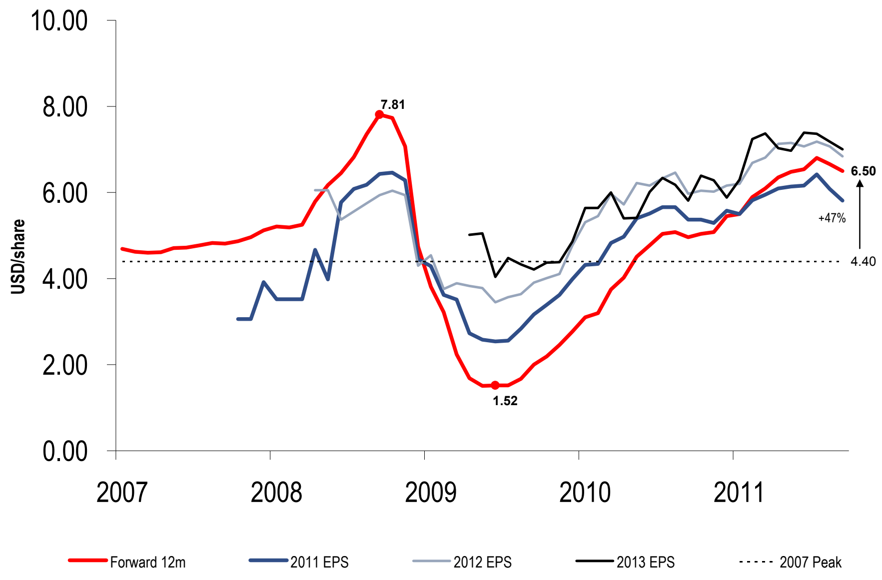
- Some miners' earnings upgrade momentum is turning negative.

Earnings forecasts are at bullish levels

- Earnings forecasts for 2012/13 are close to the most optimistic levels ever expected.
- In all cases, analysts are forecasting peak earnings beyond 2012 — we show record reported earnings as the dotted line.

Anglo American's consensus 12-month forward earnings forecast is currently USD6.50/share, which is 47% above its peak reported earnings in 2007 of US$4.40 per share (Figure 10). The increase in earnings forecasts since 2009's low of US$1.52/share was mainly driven by higher margins (increased commodity price forecasts).

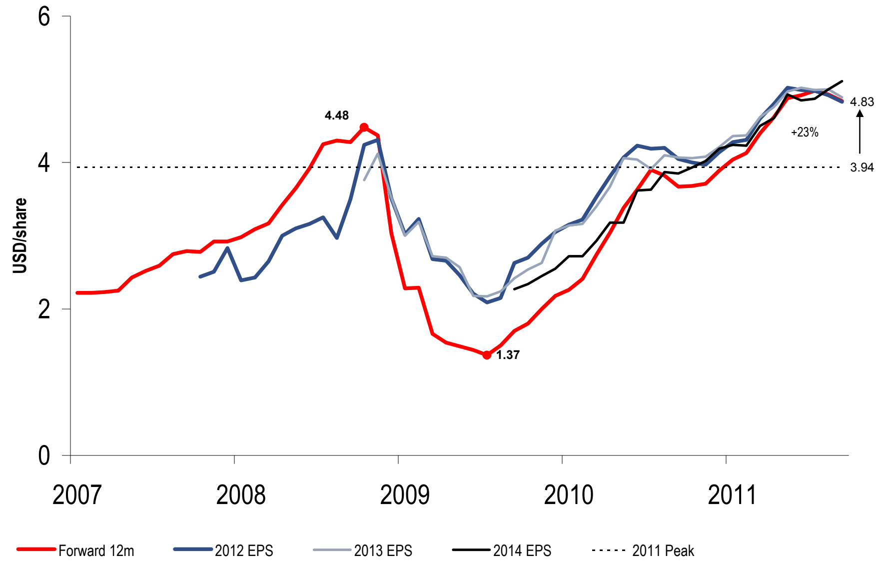
Figure 10. Anglo American's consensus earnings per share over time (USD/share)



Source: DataStream; CIRA

BHP Billiton's 12-month forward earnings forecast of USD4.83/share is 23% above its peak reported earnings in 2011 of US$3.94 per share (Figure 11).

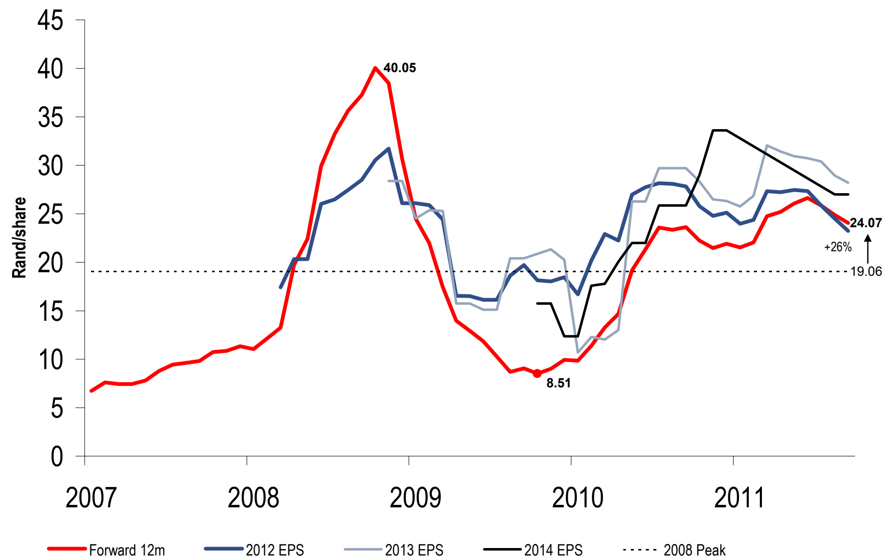
Figure 11. BHP Billiton's consensus earnings per share over time (USD/share)



Source: DataStream; CIRA

African Rainbow Minerals' 12-month forward earnings forecast of R24.07/share is 26% above its peak reported earnings in 2008 of R19.06/share (Figure 12).

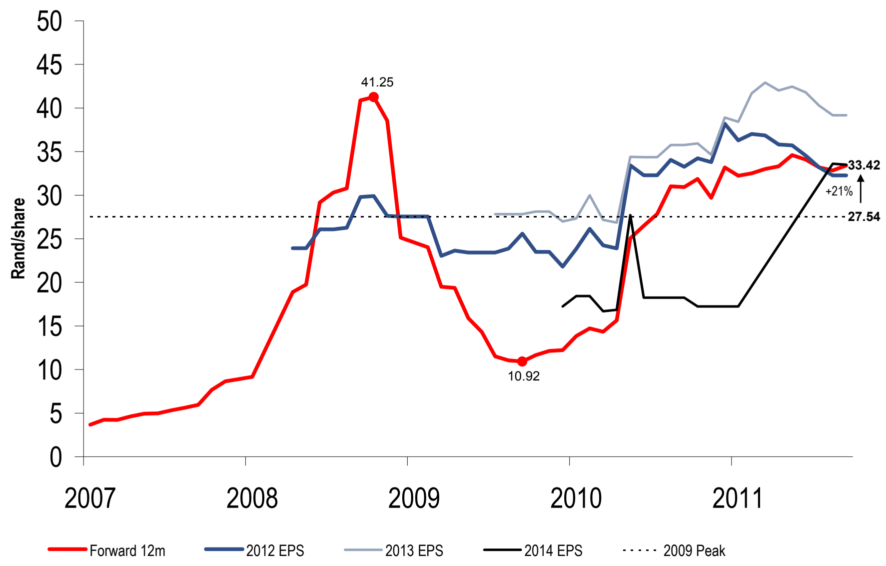
Figure 12. African Rainbow Minerals' consensus earnings per share over time (rand/share)



Source: DataStream; CIRA

Assore's 12-month forward earnings forecast of R33.42/share is 21% above its peak reported earnings in 2009 of R27.54/share (Figure 13).

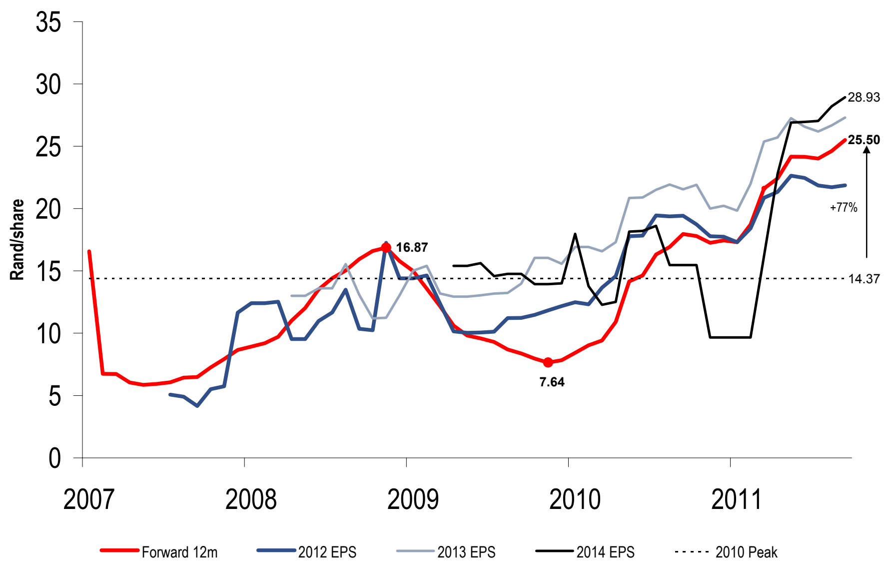
Figure 13. Assore's consensus earnings per share over time (rand/share)



Source: DataStream; CIRA

Exxaro's 12-month forward earnings forecast of R25.50/share is 77% above its peak reported earnings in 2010 of R14.37/share (Figure 14).

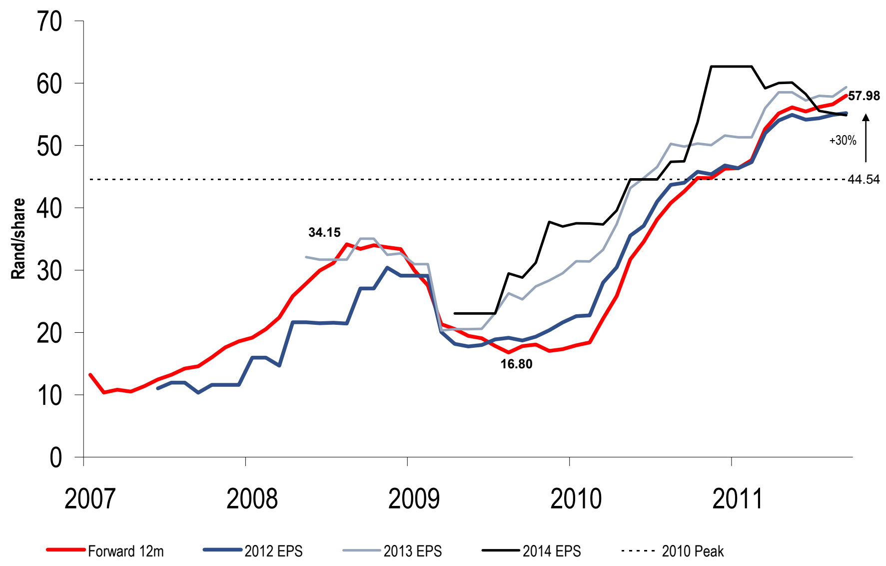
Figure 14. Exxaro consensus earnings per share over time (rand/share)



Source: DataStream; CIRA

Kumba Iron Ore's consensus 12-month forward earnings forecast is currently R57.98/share, which is 30% higher than last year's peak reported earnings of R44.54 per share (Figure 15). The increase in earnings forecasts since 2009's low of R16.80/share was mainly driven by higher iron ore prices, which boosted margin expectations.

Figure 15. Kumba's consensus earnings per share over time (rand/share)



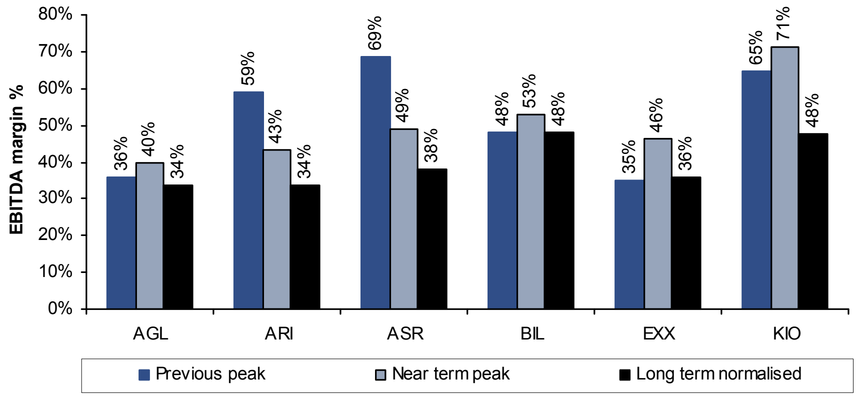
Source: DataStream; CIRA

3. Peak margins leave room for downgrades

Citi's (and consensus) near-term commodity price forecasts are well above longer-term marginal costs of production and allow for elevated margins for the miners over the next five years. Commodity prices are therefore almost exclusively demand-driven, with little production cost underpin in most cases. There could be downside risk to earnings forecasts if commodity prices and margins return to long-term average levels sooner than we anticipate.

Figure 16 shows companies' peak reported margins since 2003, near-term peak margins and estimated long-term average margins. Except for African Rainbow Minerals, we forecast new record margins for all the miners in the next two years, exceeding those achieved during the commodity boom of 2007/2008. In all cases, we see downside to our near-term peak margin forecasts in the longer term.

Figure 16. Miners' near-term peak EBITDA margin vs. historic peak and normalised



Source: Company Reports and CIRA Estimates

Investment positives

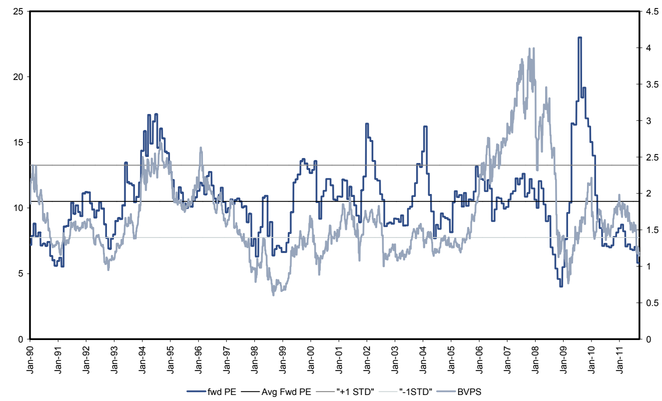
1. Potential downgrades priced in

Mining equities have derated significantly due to macro economic concerns and are now trading at attractive single-digit forward PE multiples using our base-case earnings forecasts.

We believe equities may have led earnings forecasts lower. It could be that we are entering into a slow-growth environment, rather than a continuation of a Supercycle. A reversion to long-term normalised commodity prices would imply reductions in our 2012-13 earnings forecasts of 5-39%.

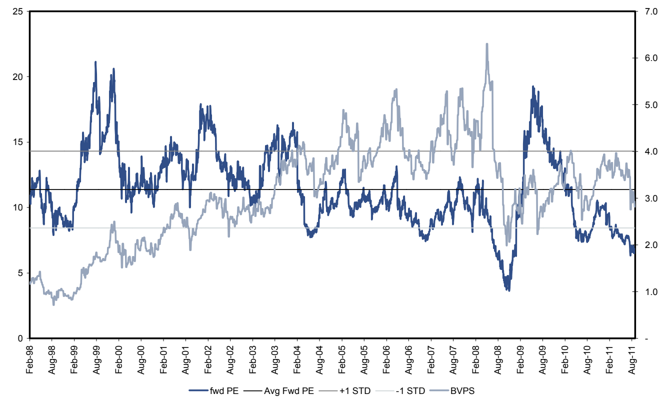
However, even if we adjust our near-term earnings forecasts to reflect what we see as normalised margins, we still calculate attractive PE multiples of below 11x for most of the SA-listed miners we cover (refer to our report Opportunities in Uncertain Times, dated 10 August). This suggests the market is already pricing in significantly lower commodity prices. Kumba Iron Ore is the exception, trading on a relatively demanding 14x estimated normalised earnings.

Figure 17. AGL 12m forward PE and BVPS (RHS)



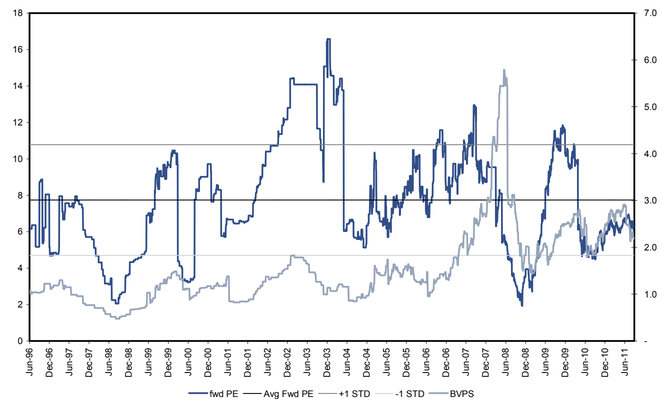
Source: DataStream, Citi Investment Research and Analysis

Figure 18. BHP 12m forward PE and BVPS (RHS)



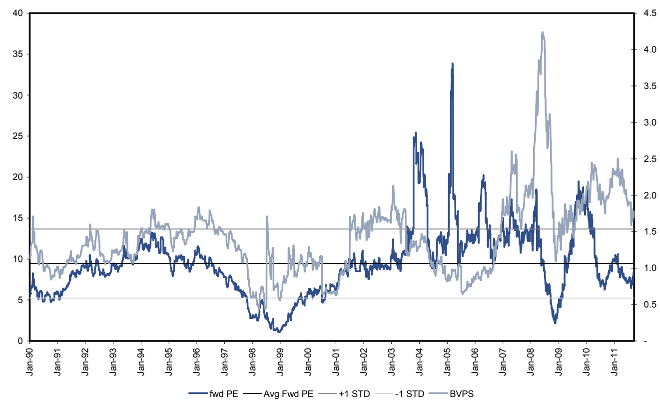
Source: DataStream, Citi Investment Research and Analysis

Figure 19. ASR 12m forward PE and BVPS (RHS)



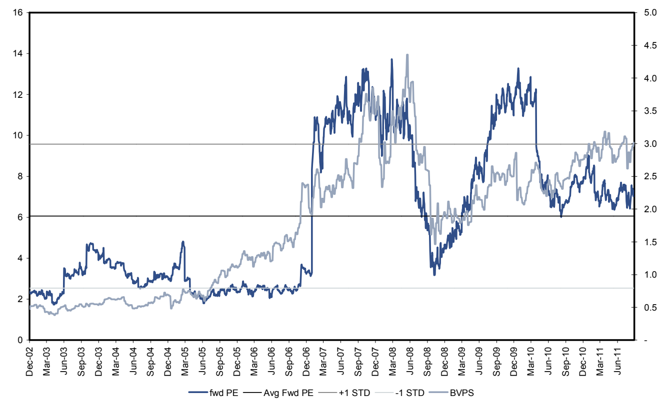
Source: Datastream and Citi Investment Research and Analysis

Figure 20. ARM 12m forward PE and BVPS (RHS)



Source: Datastream and Citi Investment Research and Analysis

Figure 21. EXX 12m forward PE and BVPS (RHS)



Source: Datastream and Citi Investment Research and Analysis

Figure 22. KIO 12m forward PE and BVPS (RHS)

Source: Datastream and Citi Investment Research and Analysis

2. Strong volume growth to drive earnings

We forecast 30% volume growth by 2015 on average

We prefer earnings growth through sales volumes, rather than relying on higher commodity prices. We forecast robust average volume growth of 48% by 2020 for the six miners covered in this report.

BHP throwing the kitchen sink at growth

Figure 23 shows miners' volume growth over the next five years. BHP Billiton could boost production 81% as it embarks on it $80-95bn expansion.

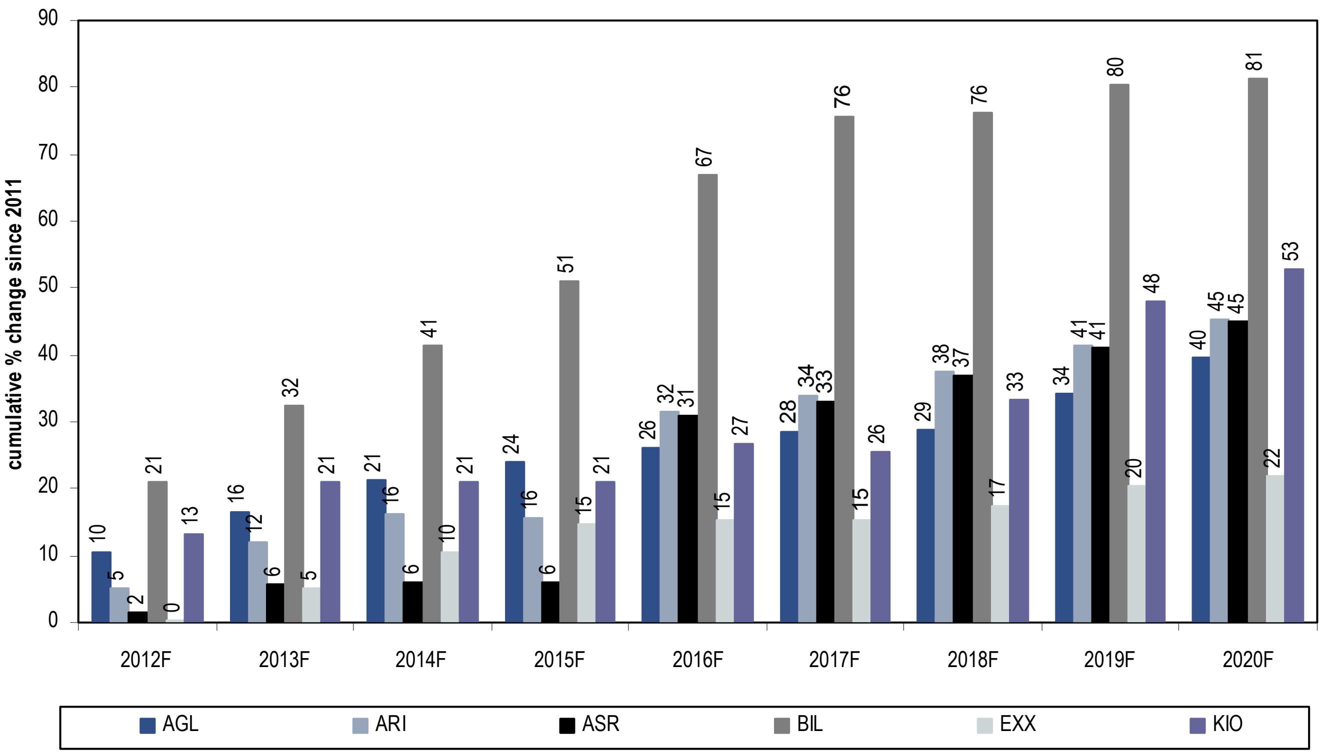
Exxaro could be the growth laggard

Infrastructure constraints, limited domestic coal demand growth and a lack of visibility on new coal-fired power stations are limiting Exxaro's coal volume growth beyond GMEP. Its R2.4bn investment in Fairbreeze is considered replacement capital, which also doesn't grow volumes materially. Exxaro could therefore be the laggard, with growth of 22% through 2020.

There could be downside risk to production volume forecasts, mainly relating to ongoing infrastructure constraints, potential for electricity shortages in South Africa, and delays relating to government red tape.

Refer to company sections at the back of the report for detailed production forecasts by commodity.

Figure 23. Miners' volume growth



* Expressed as cumulative % change from 2011 in copper equivalent terms

Source: Citi Investment Research and Analysis

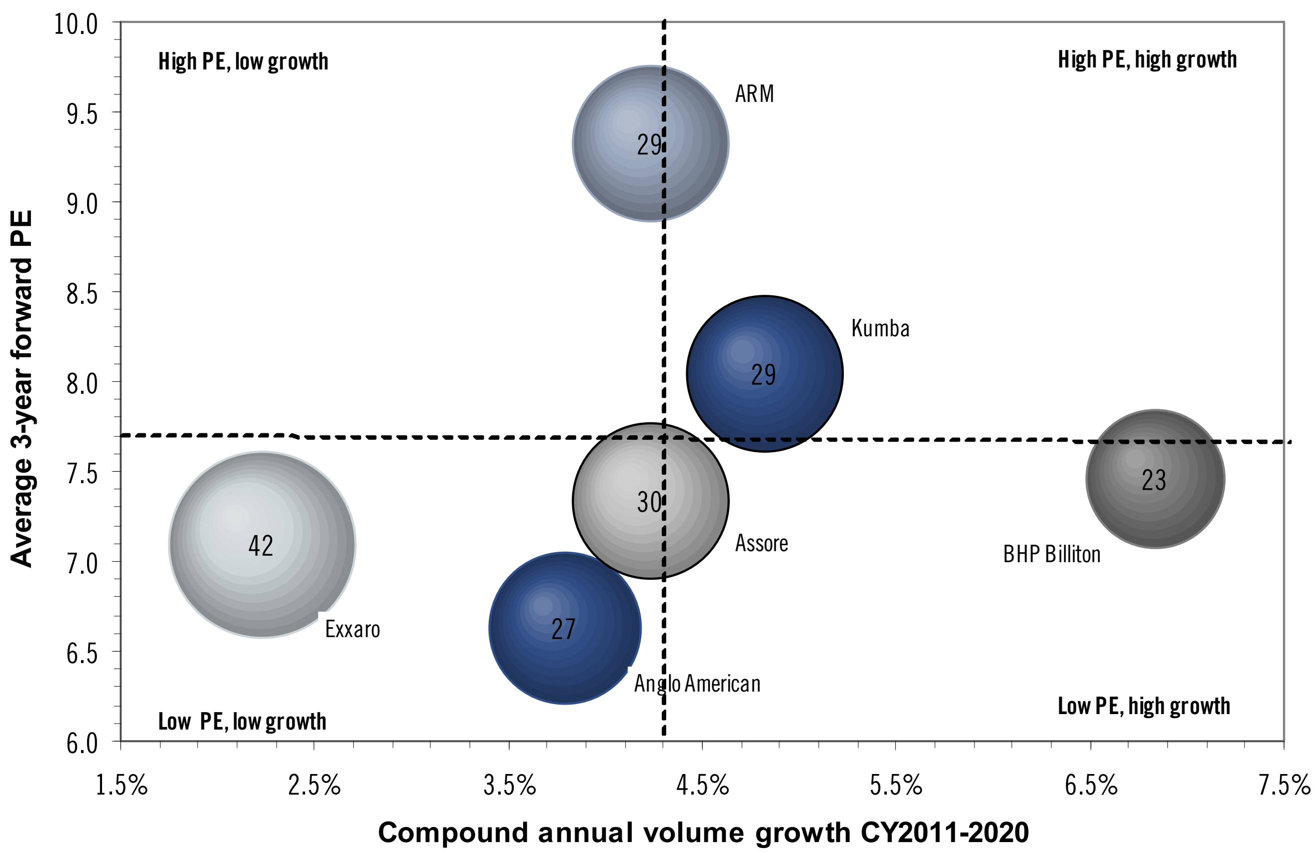
Growth at an attractive price

From an investment perspective, we prefer miners with low PE multiples and high volume growth potential. BHP Billiton looks likely to show the strongest volume and is trading on attractive forward PE multiples below 8x based on our forecasts (Figure 24).

Although Exxaro seems cheap, we believe its low rating is justified by lower-than-average volume growth and downside risk to iron ore margins.

In the case of Kumba, we believe downside risk to margins could more than offset the positive impact of strong volume growth. Kumba could see negative earnings growth, in our view.

Figure 24. Miners' 2011-2020 volume growth and PE muliples*



* Bubble size indicates reserve life

Source: Citi Investment Research and Analysis

3. Margin enhancement

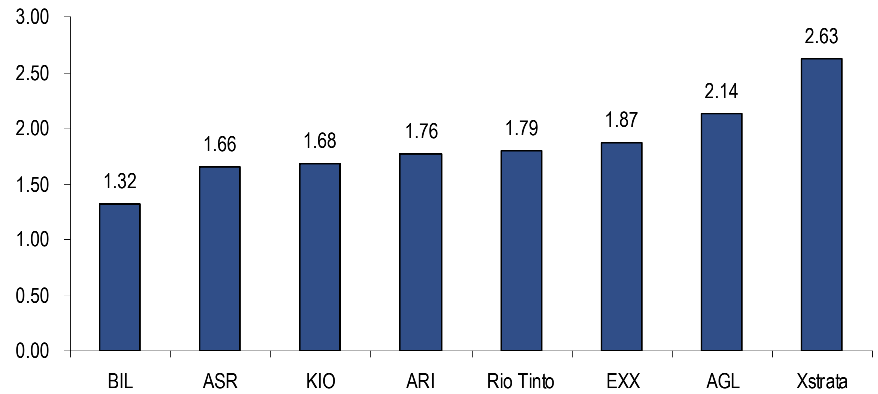
We believe long-term margins will benefit from 1) increasing competitiveness of existing large-scale, low-cost mines in a steepening cost curve environment and 2) focusing volume growth on attractive industries.

3.1 Long-term competitive advantage to existing miners

We believe long-term commodity prices could be significantly higher than average levels seen over the past 30 years. This is driven by the dramatic pace of sustainable operating and capital cost inflation, and shifts in the competitive landscape. China will likely continue to be structurally short of commodities, attracting higher-cost production to satisfy its rapidly growing needs. This could lead to steepening cost curves. Mining companies with existing large-scale, low-cost assets should become increasingly competitive as the marginal cost of production rises.

Figure 25 shows miners' estimated 2016 cash costs per copper equivalent. We believe new production could come with significantly higher costs given that new mines will likely be lower grade, smaller, more complex or further away from infrastructure.

Figure 25. 2016F Cash costs per Cu equivalent unit (US$/lb)



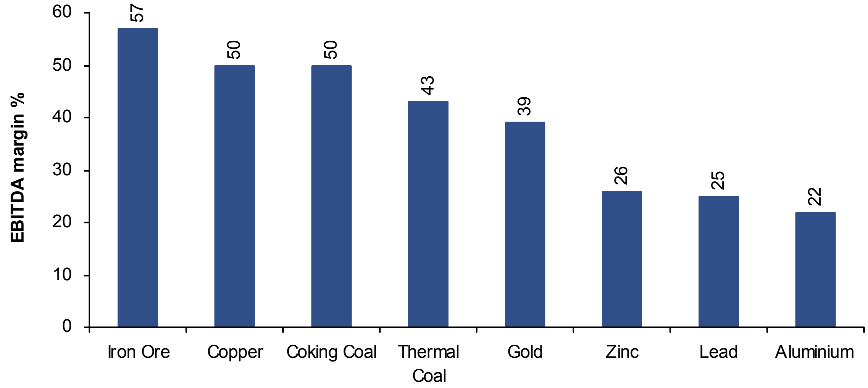
Source: Citi Investment Research and Analysis

3.2 Growing margins by focusing growth on attractive commodities

The long-run industry average cash margin and returns vary widely between commodities. Figure 26 shows estimated long-run industry average EBITDA margins.

Differences in long-run margins reflect structural differences.

Figure 26. Estimated Long-Run Industry Average Cash Margins



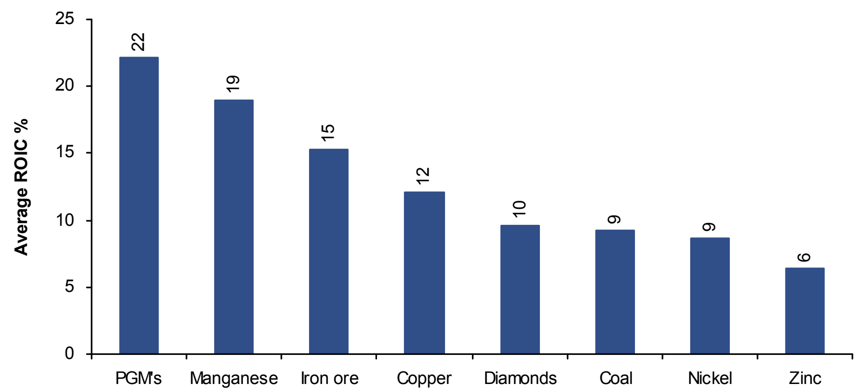
Source: Citi Investment Research and Analysis

High-margin businesses share a number of important characteristics:

- Steep cost curve (iron ore, copper)
- Strong trend demand growth (Chinese infrastructure related like iron ore)
- High barriers to entry (platinum, coking coal, copper, iron ore)
- Low barriers to exit (in contrast to steel, aluminium sectors)
- Substantial capital investment (platinum, iron ore)
- Consolidated industry structure (diamonds, iron ore, coking coal, platinum and manganese)
- Low market risk.

Figure 27 shows industry-average returns on invested capital for a selection of commodities from 1990 to 2008. PGM's (22%), manganese (19%) and iron ore (15%) delivered superior returns over the period, while nickel (9%) and zinc (6%) were laggards.

Figure 27. Industry average ROIC (January 1990 – December 2008)*

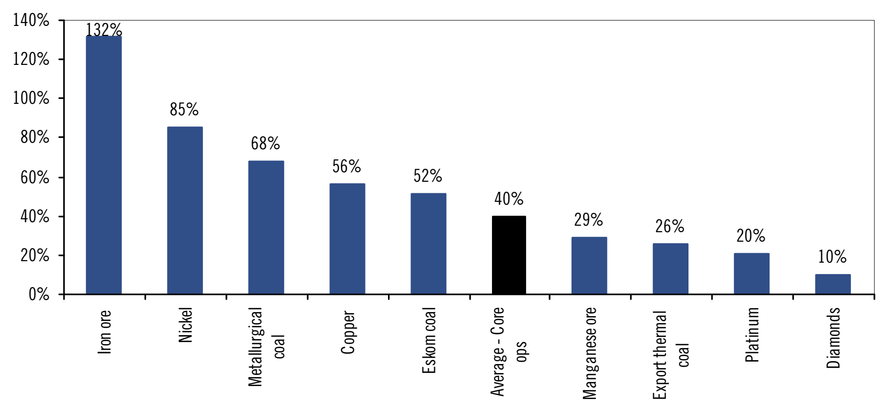


* Commodity index data is calculated on a Total Capital weighted average basis and a mean is then calculated from each commodity index for the period January 1990 – December 2008.
Source: Anglo American, Datastream

Mining companies are focusing investment on high-margin commodities and disposing of low-margin businesses in some cases, which could support group margins over the next five years, somewhat offsetting the impact of falling commodity prices. Examples are:

Anglo American is disposing of low-margin zinc, tarmac and industrial interests and focusing investment on high-margin iron ore (+132% by 2020), metallurgical coal (+68%), and copper (+56%) growth.

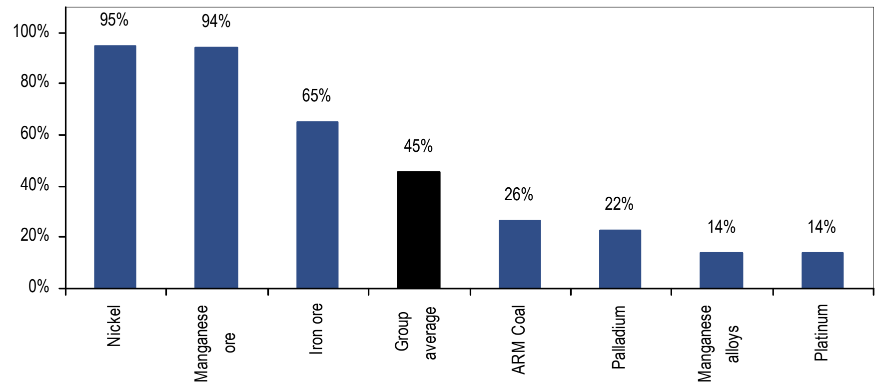
Figure 28. Anglo's production growth per commodity (CY2011E-20E)



Source: Citi Investment Research and Analysis

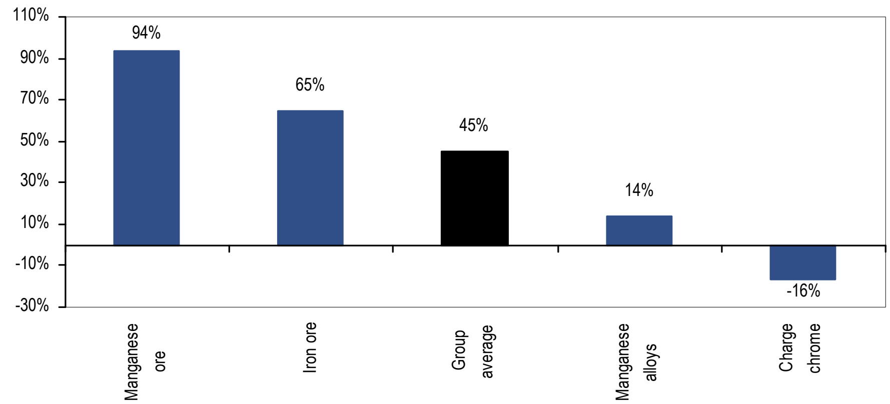
African Rainbow Minerals (Figure 29) and Assore (Figure 30) could see strong volume growth in its high-margin iron ore (+65%) and manganese ore (+94%) divisions as Khumani iron ore ramps up to 16Mtpa and manganese rail constraints are alleviated to allow 5Mtpa exports.

Figure 29. ARM's volume growth by division (CY2011-CY2020E)



Source: Citi Investment Research and Analysis

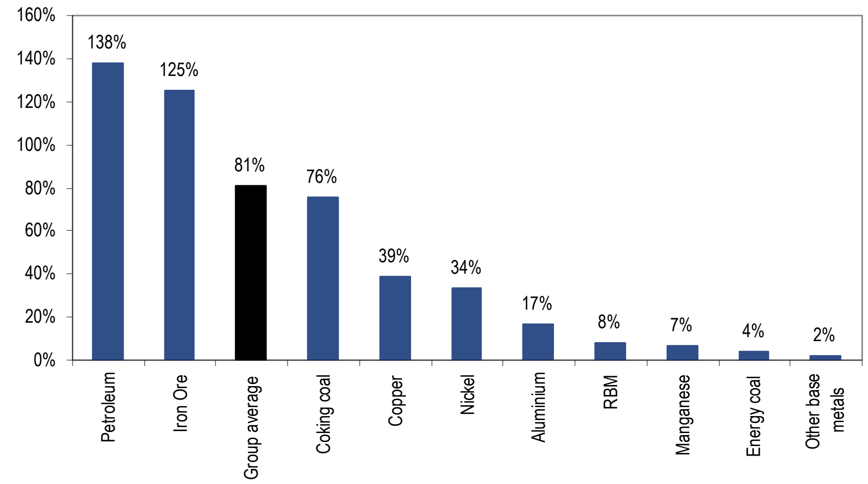
Figure 30. ASR's volume growth by division (CY2011-CY2020E)



Source: Citi Investment Research and Analysis

BHP Billiton is focusing medium-term organic growth on high-margin iron ore (125% by 2020), coking coal (+76%) and petroleum (+138%).

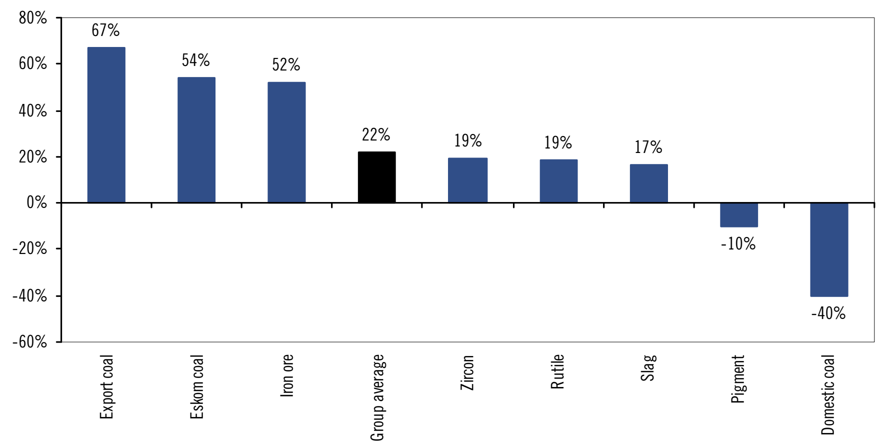
Figure 31. BHP Billiton's volume growth by commodity (CY2011F-CY2020E)



Source: Citi Investment Research and Analysis

Exxaro is focusing volume growth on lucrative export iron ore and coal, as well as commercial Eskom contracts, rather than cost plus-type Eskom contracts of the past.

Figure 32. Exxaro's volume growth by commodity (CY11-20E)

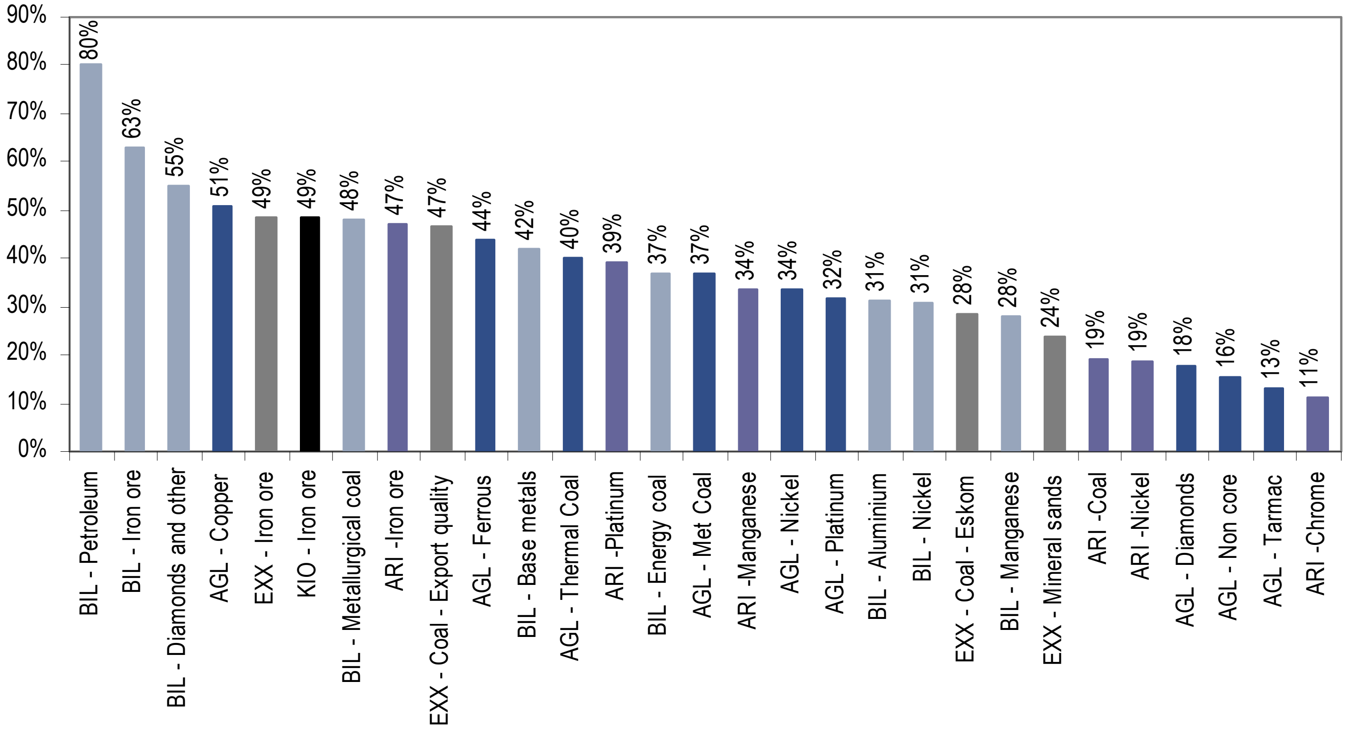


Source: Citi Investment Research and Analysis

Kumba Iron Ore is growing export iron ore volumes, minimising the impact of lower-margin domestic sales.

Below, we show CIRA's long-term mid-cycle margin forecasts per division for the miners.

Figure 33. Mining companies' CY20E EBITDA margin per division

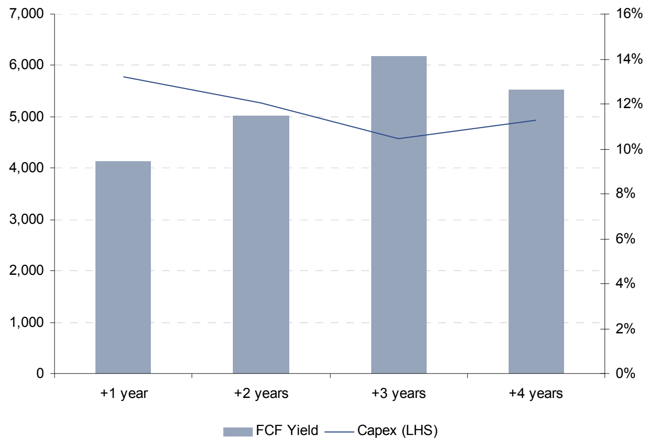


Source: Citi Investment Research and Analysis

4. Near-term decline in capex provides cash flow kicker

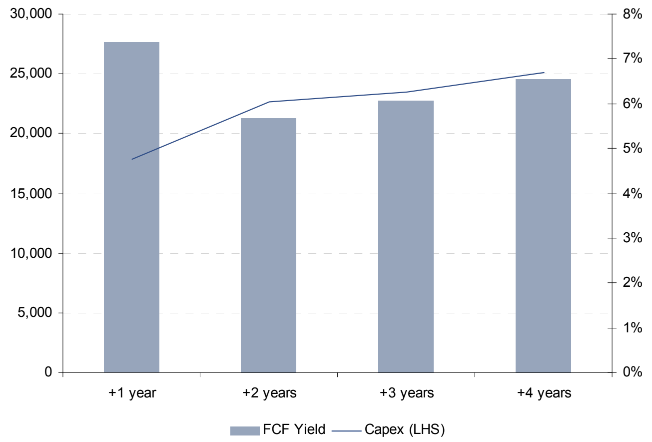
With the exception of BHP Billiton, we see a declining capex profile for SA-listed diversified miners. This could result in attractive free cash flow yields in excess of 10% over the next three years at today's commodity prices and share prices.

Figure 34. AGL Capex ($ Mn) and FCF yield for rolling next 4 years



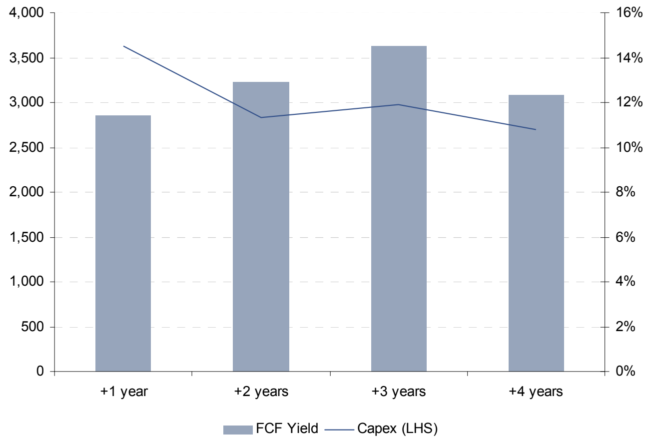
Source: Citi Investment Research and Analysis

Figure 35. BHP Capex ($ Mn) and FCF yield for rolling next 4 years



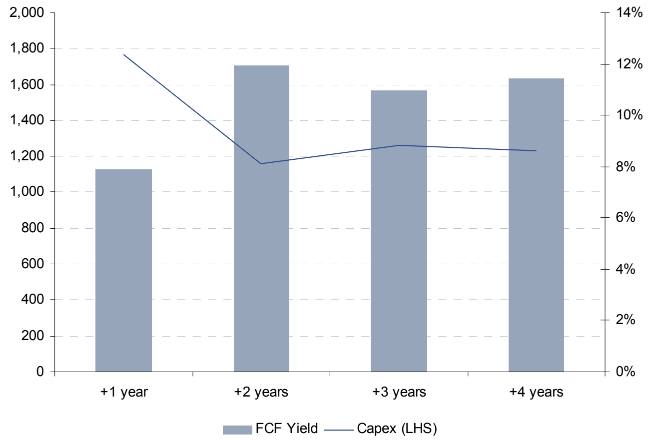
Source: Citi Investment Research and Analysis

Figure 36. ARM Capex (Rand Mn) and FCF yield for rolling next 4 years



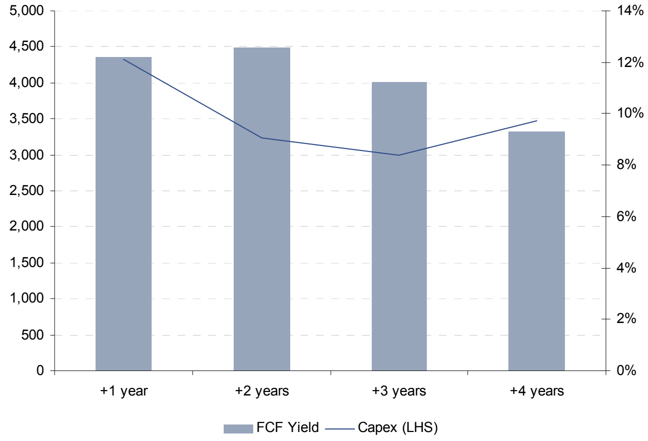
Source: Citi Investment Research and Analysis

Figure 37. ASR Capex (Rand Mn) and FCF yield for rolling next 4 years



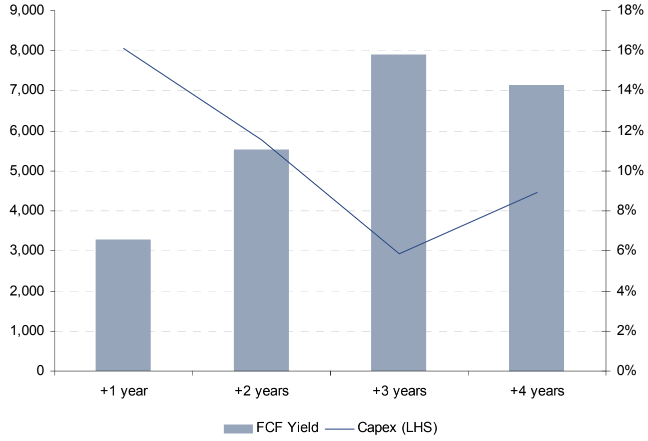
Source: Citi Investment Research and Analysis

Figure 38. KIO Capex (Rand Mn) and FCF yield for rolling next 4 years



Source: Citi Investment Research and Analysis

Figure 39. EXX Capex (Rand Mn) and FCF yield for rolling next 4 years

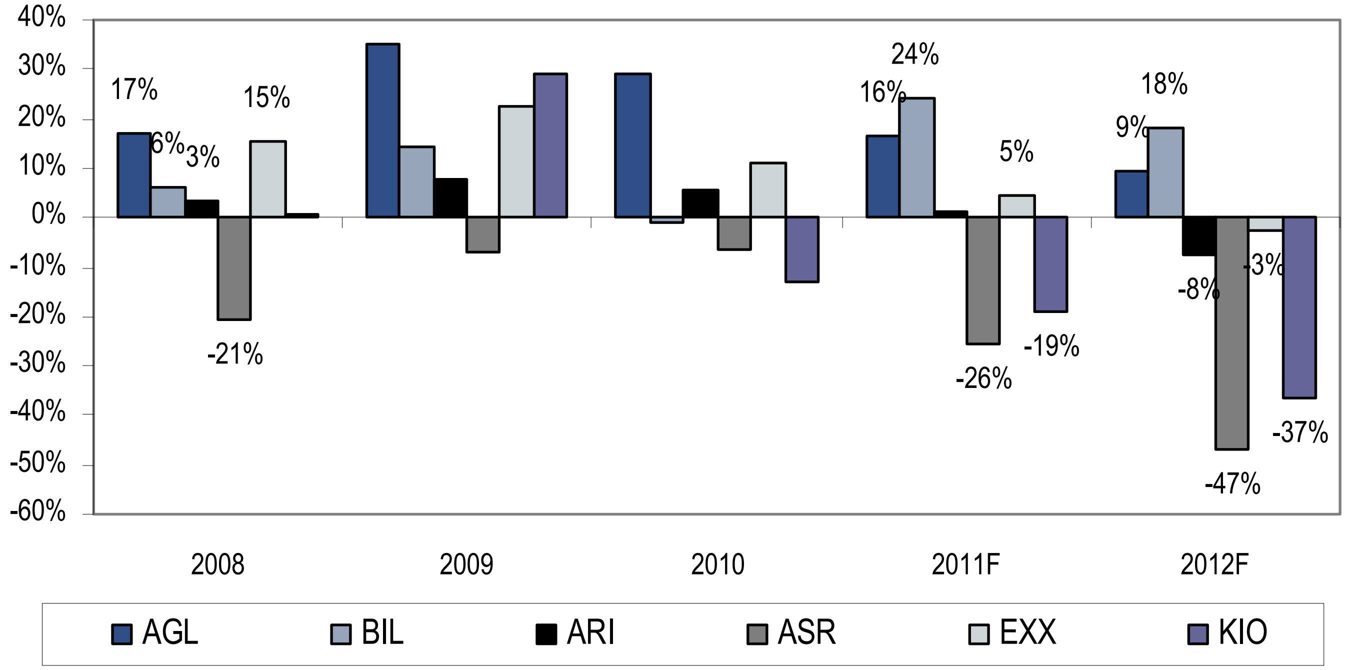


Source: Citi Investment Research and Analysis

5. Comfortable balance sheets

Strong balance sheets allow miners to exploit cheap borrowing costs to fund projects or acquisitions in order to leverage shareholder returns. Assore and Kumba are already in net cash positions. If commodity prices hold, Anglo and BHP's gearing could be down to 9% and 18%, respectively, by the end of next year, while all the mid-cap miners could all be in a net cash position (Figure 40).

Figure 40. Miners' gearing levels per calendar year*



* Gearing defined as net debt/(net debt + equity)

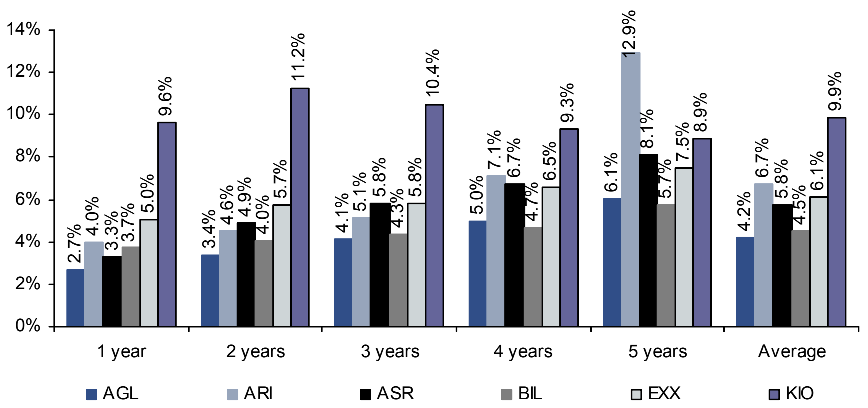
Source: Company Reports and CIRA Estimates

6. Here comes the dividends

The combination of healthy cash generation and strong balance sheets could result in attractive cash returns to investors, in our view.

We forecast attractive average dividend yields of over 4% over the next five years.

Figure 41. Forecast dividend yields*



* Priced at 16 September 2011

Source: Citi Investment Research and Analysis

Financial snapshot per calendar year

Figure 42. Miners' earnings, dividend and financial snapshot per calendar year*

Calendar year	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Anglo American								
EBITDA margin	36%	28%	36%	39%	40%	39%	39%	37%
EBIT margin	31%	20%	30%	33%	34%	33%	31%	28%
ROCE	31%	13%	21%	26%	26%	25%	24%	21%
Earnings per share (ZAR)	**34.66**	**16.99**	**28.28**	**38.76**	**47.00**	**54.00**	**57.00**	**55.00**
Earnings growth	*13%*	*-51%*	*66%*	*37%*	*21%*	*15%*	*6%*	*-4%*
PE multiple at R292	*8.42*	*17.17*	*10.31*	*7.52*	*6.21*	*5.40*	*5.12*	*5.30*
Dividend per share (ZAR)	3.36	0.00	4.72	6.03	7.80	9.80	12.00	14.40
Dividend yield at R292	1.2%	0.0%	1.6%	2.1%	2.7%	3.4%	4.1%	4.9%
BHP Billiton								
EBITDA margin	45%	44%	49%	51%	49%	49%	50%	53%
EBIT margin	37%	36%	42%	44%	42%	41%	42%	43%
ROCE	59%	33%	53%	59%	52%	57%	58%	61%
Earnings per share (ZAR)	**19.26**	**17.48**	**22.91**	**28.83**	**32.47**	**36.99**	**40.54**	**45.44**
Earnings growth	*5%*	*-9%*	*31%*	*26%*	*13%*	*14%*	*10%*	*12%*
PE multiple at R237	*12.29*	*13.55*	*10.34*	*8.21*	*7.29*	*6.40*	*5.84*	*5.21*
Dividend per share (ZAR)	6.27	7.10	6.87	7.69	9.38	11.09	12.66	14.29
Dividend yield at R237	2.6%	3.0%	2.9%	3.2%	4.0%	4.7%	5.3%	6.0%
African Rainbow Minerals								
EBITDA margin	59%	25%	41%	40%	43%	43%	43%	41%
EBIT margin	54%	12%	32%	32%	35%	34%	35%	32%
ROCE	73%	7%	26%	28%	32%	33%	34%	30%
Earnings per share (ZAR)	**25.57**	**2.52**	**13.13**	**17.05**	**22.16**	**24.79**	**27.54**	**25.99**
Earnings growth	*290%*	*-90%*	*422%*	*30%*	*30%*	*12%*	*11%*	*-6%*
PE multiple at R189	*7.40*	*75.17*	*14.41*	*11.10*	*8.54*	*7.63*	*6.87*	*7.28*
Dividend per share (ZAR)	4.00	1.75	2.00	4.50	6.00	7.00	8.00	9.00
Dividend yield at R189	2.1%	0.9%	1.1%	2.4%	3.2%	3.7%	4.2%	4.8%
Assore								
EBITDA margin	69%	30%	48%	49%	49%	45%	45%	45%
EBIT margin	66%	20%	42%	44%	43%	38%	37%	37%
ROCE	141%	14%	41%	44%	43%	37%	35%	34%
Earnings per share (ZAR)	**42.83**	**5.28**	**21.30**	**28.82**	**31.86**	**30.28**	**30.48**	**30.72**
Earnings growth	*431%*	*-88%*	*304%*	*35%*	*11%*	*-5%*	*1%*	*1%*
PE multiple at R219	*5.10*	*41.43*	*10.26*	*7.58*	*6.86*	*7.22*	*7.17*	*7.11*
Dividend per share (ZAR)	2.50	4.00	3.40	4.50	6.50	10.50	12.50	14.50
Dividend yield at R219	1.1%	1.8%	1.6%	2.1%	3.0%	4.8%	5.7%	6.6%
Exxaro								
EBITDA margin	35%	30%	37%	44%	46%	44%	41%	39%
EBIT margin	29%	23%	31%	40%	41%	38%	35%	32%
ROCE	40%	27%	40%	51%	49%	43%	41%	39%
Earnings per share (ZAR)	**10.06**	**7.02**	**14.37**	**23.06**	**29.56**	**30.50**	**31.15**	**31.57**
Earnings growth	*147%*	*-30%*	*105%*	*60%*	*28%*	*3%*	*2%*	*1%*
PE multiple at R188	*18.67*	*26.76*	*13.07*	*8.15*	*6.35*	*6.16*	*6.03*	*5.95*
Dividend per share (ZAR)	3.75	2.00	5.00	7.00	10.80	11.10	11.30	13.20
Dividend yield at R188	2.0%	1.1%	2.7%	3.7%	5.7%	5.9%	6.0%	7.0%
Kumba Iron Ore								
EBITDA margin	65%	57%	67%	71%	69%	64%	60%	56%
EBIT margin	64%	55%	65%	69%	67%	61%	56%	51%
ROCE	146%	102%	152%	155%	138%	112%	95%	80%
Earnings per share (ZAR)	**22.75**	**21.76**	**44.54**	**56.53**	**64.37**	**58.92**	**50.95**	**45.04**
Earnings growth	*131%*	*-4%*	*105%*	*27%*	*14%*	*-8%*	*-14%*	*-12%*
PE multiple at R472	*20.73*	*21.67*	*10.59*	*8.34*	*7.33*	*8.01*	*9.26*	*10.47*
Dividend per share (ZAR)	21.00	14.60	34.50	44.70	53.00	51.00	44.00	42.00
Dividend yield at R472	4.5%	3.1%	7.3%	9.5%	11.2%	10.8%	9.3%	8.9%
Average earnings growth	**117%**	**-37%**	**146%**	**36%**	**21%**	**7%**	**3%**	**-1%**
Average PE multiple	**13.5**	**30.9**	**11.7**	**8.7**	**7.1**	**6.7**	**6.6**	**6.8**
Average dividend yield	**2.5%**	**1.6%**	**3.1%**	**4.2%**	**5.4%**	**5.7%**	**5.8%**	**6.3%**

Source: dataCentral, CIRA * Note that information will be different from BHP Billiton, ARM and Assore's June year-end information.

Downside risks to our forecasts and valuation

Our profit forecasts and valuations are based on input assumptions detailed in this report. Our forecasts are subject to risks that include:

We believe the risks to global economic activity are mainly on the downside

- **Commodity price risk:** We are forecasting elevated near-term commodity prices, which result in above mid-cycle margins. Although our base-case economic forecasts are for continued growth, we believe the risks to global economic activity are mainly on the downside. Two main risks are 1) high debt levels and sovereign credit risk in advanced economies, and 2) overheating, inflation pressure, excessive credit growth and incipient asset booms in emerging markets. A collapse in commodity demand could lead to much lower commodity prices than our base-case forecasts, which would negatively impact on our earnings forecasts and valuations.

- **Currency risk**: Producer currencies like the South African rand and Australian dollar are likely to remain strong while commodity prices are high. The miners are more sensitive to changes in currencies of commodity-producing countries than changes in any single commodity. Stronger-than-forecast currencies for resource-producing countries would negatively impact on earnings and valuations;

- **Resource nationalism**: The continued rise in commodity prices and miners' profitability, coupled with struggling economies of many resource-rich countries, are resulting in increased pressure for resource nationalism. Threats of nationalisation, higher mining taxes and royalties, and pressure on miners to spend more on community development are becoming popular as a political platform. We do not see this theme disappearing and believe the risk is firmly to the upside for royalties, taxation and community development spend of resource companies. Over the past year, Australia, Brazil, China, Peru and Russia (to name a few) have all looked to increase the tax burden of miners. South African politicians are debating the merits of nationalisation, which could come at a cost to shareholders.

- **Poor capital allocation**: Value-destroying projects or acquisitions could negatively impact on our earnings forecasts and valuations.
- **Downside risk to sales volumes**: If commodity demand unexpectedly contracts, our sales volume forecasts could face downside.
- **Infrastructure constraints** could limit or delay volume growth or increase cost inflation more than we anticipate. In particular, South African manganese ore and coal exports may not reach our five year targets due to rail and port constraints.
- **Government actions** in countries where the miners operate, such as controls on imports, exports and prices and increased government regulation.
- **Higher-than-forecast inflation** in the mining sector, especially if rapidly growing demand puts pressure on scarce skills and resources.
- **Skills, electricity and water shortages** may impact production and mining inflation more than we anticipate.
- **Over-estimation of mineral reserves or failure to discover new resources** or expand existing resources.

Upside risks and catalysts for outperformance

- **Stronger for longer commodity prices:** Our base-case forecasts are for commodity prices to decline to marginal cost of production over the next decade. However, if commodity prices remain higher for longer, there could be upside risk to earnings forecasts and valuations. Potentially higher commodity prices than our forecasts over the medium term also pose upside risk.

- **Production shortfalls and project delays:** Persistent supply disappointments are likely to support higher commodity prices. Falling grades, increasing mining complexity, weather-related disruptions and labour issues continue to weigh on miners' production. Overpromising and under-delivering on new projects have become a trend in mining. A confidence crisis could potentially lead to further project delays or even cancellations, which could sow the seeds for the next commodity bull-market.

- **Share buybacks:** Strong free cash flow generation by miners should result in surplus cash. We have not factored share buybacks into our forecasts, but these could lead to share price outperformance.

- **M&A activity:** Excess cash generation could lead to M&A in the mining sector. This could boost target companies' share prices well beyond our target prices.

- **A pick-up in US housing starts and infrastructure rebuild:** An eventual pick-up in US housing starts or fiscal stimulus, which may include infrastructure rebuild, are likely to support commodity demand.

- **Flood of cheap dollars:** Low interest rates in advanced economies could stimulate growth (industrial demand) and investment demand for commodities more than we anticipate. In addition, low interest rates could eventually support asset prices, which could lead to higher share prices than our target prices.

Peer comparison

Figure 43. Mining company peer comparison*

	Rating	Price	Historic P/E		Forward P/E		EV/ EBITDA		FCF yield		Div Yld		P/B		ROE		Perf % (USD)	
	& risk	(US$)	2009	2010	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	Weekly	YTD
FTSE ALL SHARE (GBP)			18	20	11.3	10.2	7.1	6.5	6%	7%	4%	5%	2.6	2.4	27%	24%	2%	-8%
FTSE/JSE ALL SHARE (ZAR)			14	14	11.2	9.9	6.3	5.7	7%	8%	4%	4%	2.8	2.4	29%	28%	-1%	-15%
Major diversified miners																		
BHP Billiton	1M	30.9	15	10	7.6	7.4	5.0	4.8	10%	7%	4%	4%	2.9	2.4	41%	36%	1%	-21%
Rio Tinto	1M	55.7	16	8	6.1	6.5	2.9	2.7	11%	10%	2%	2%	1.4	1.2	26%	20%	1%	-18%
Anglo American	1M	38.9	19	10	7.1	6.3	4.0	3.4	11%	14%	2%	3%	1.1	1.0	21%	17%	4%	-23%
Xstrata	1M	16.0	15	9	7.6	7.1	4.7	4.4	1%	7%	2%	3%	1.0	0.9	15%	14%	5%	-30%
Comp Vale Do Rio	1M	27.1	27	8	5.4	6.5	4.0	4.0	9%	5%	1%	1%	1.4	1.2	31%	20%	2%	-21%
Average			***18***	***9***	***6.7***	***6.8***	***4.1***	***3.9***	***9%***	***9%***	***2%***	***3%***	***1.6***	***1.3***	***27%***	***21%***	***3%***	***-23%***
South African mid-cap miners																		
Kumba - Attributable (74%)	3M	62.9	22	11	8.3	7.3	6.0	5.3	10%	12%	9%	11%	8.1	6.2	110%	96%	-2%	-1%
Exxaro - proportionately consolid	2M	25.1	27	13	8.1	6.4	5.1	4.2	5%	8%	4%	6%	2.8	2.1	41%	40%	-2%	24%
ARM	1M	25.3	20	16	11.0	8.8	5.0	4.1	3%	7%	3%	3%	1.8	1.5	17%	19%	4%	-18%
Assore	1M	29.2	11	11	7.9	7.2	5.2	4.7	6%	11%	3%	4%	2.2	1.7	31%	27%	7%	4%
Average			***20***	***13***	***8.8***	***7.4***	***5.3***	***4.6***	***6%***	***9%***	***5%***	***6%***	***3.7***	***2.9***	***50%***	***45%***	***2%***	***2%***
Copper																		
Freeport Mcmoran	2H	41.6	14	9	7.3	8.7	3.7	3.8	13%	12%	4%	2%	2.4	2.0	37%	25%	-1%	-31%
Southern Copper Corp	2H	31.5	29	17	11.6	13.9	7.0	7.9	6%	1%	7%	4%	6.3	5.2	57%	41%	2%	-35%
Antofagasta	3H	19.8	29	20	14.1	11.6	5.0	4.5	10%	14%	6%	5%	3.1	2.9	22%	25%	0%	-18%
Kazakhmys	1H	16.1	14	6	4.7	4.9	4.3	4.4	6%	3%	3%	4%	0.9	0.8	15%	17%	3%	-34%
KGHM	3H	53.2	13	7	5.1	6.3	2.8	3.0	14%	12%	5%	4%	1.7	1.4	39%	25%	0%	-9%
Jiangxi Copper	1M	2.2	19	9	6.4	6.2	4.8	4.3	6%	17%	2%	2%	1.2	1.0	21%	18%	-11%	-27%
FST Quantum Minerals	2M	21.5	3	12	15.7	12.7	6.8	5.5	-2%	-2%	1%	1%	2.7	2.3	21%	22%	-1%	0%
Grupo Mexico	2H	3.0	26	14	9.8	11.7	4.9	5.5	6%	5%	5%	4%	3.2	2.6	36%	25%	-2%	-28%
Average			***18***	***12***	***9.3***	***9.5***	***4.9***	***4.8***	***8%***	***8%***	***4%***	***3%***	***2.7***	***2.3***	***31%***	***25%***	***-1%***	***-25%***
Ferrous																		
Siderurgica Naci	1H	9.5	9	10	6.3	11.8	5.2	5.4	3%	-2%	3%	3%	4.4	3.4	58%	32%	4%	-41%
Mt Gibson Iron	1H	1.5	19	9	4.6	3.4	2.3	1.2	19%	31%	7%	12%	1.2	1.0	29%	33%	-3%	-28%
Atlas Iron	1H	3.8	-	32	10.6	8.1	7.4	4.3	10%	13%	1%	2%	1.6	1.4	18%	18%	1%	30%
ENRC	1H	10.2	13	6	5.9	5.5	3.4	3.3	4%	-3%	3%	3%	1.1	1.0	21%	19%	3%	-36%
Fortescue Metals	1H	6.1	41	16	9.1	7.9	6.1	5.7	-4%	-11%	1%	2%	5.7	3.7	68%	57%	-3%	-6%
Cliffs Natural	1H	77.9	-	12	6.0	5.5	4.4	4.1	6%	16%	1%	1%	1.8	1.4	36%	28%	2%	0%
Average			***26***	***13***	***6.9***	***6.9***	***4.7***	***4.0***	***6%***	***8%***	***3%***	***3%***	***2.6***	***2.0***	***40%***	***32%***	***0%***	***-15%***
Coal																		
Macarthur	3M	16.5	25	32	23.5	19.7	13.8	10.5	2%	6%	3%	2%	2.2	1.7	8%	10%	-1%	27%
Coal Allied Inds	2M	126.9	18	29	17.3	13.6	10.5	8.6	3%	0%	8%	1%	5.1	4.6	34%	36%	-1%	4%
New Hope	1M	5.3	18	25	20.1	12.1	18.2	9.5	2%	-2%	3%	3%	2.0	1.7	19%	15%	-3%	6%
Whitehaven Coal	1M	6.0	39	44	28.1	14.0	14.5	8.0	-2%	7%	2%	3%	2.6	2.2	7%	17%	-1%	-11%
Adaro Energy	1M	0.2	17	27	11.3	7.1	5.5	4.3	7%	14%	1%	3%	2.7	2.1	27%	34%	-4%	-20%
China Coal	1M	1.1	12	12	9.5	8.1	5.0	4.4	-8%	4%	3%	3%	1.1	1.0	12%	13%	1%	-18%
China Shenhua	1L	4.3	17	14	12.8	11.3	7.1	6.2	5%	7%	3%	3%	2.4	2.1	20%	20%	-3%	5%
Arch Coal Inc	1H	19.9	53	20	9.7	6.6	6.3	5.3	6%	14%	2%	2%	1.1	1.0	11%	16%	2%	-43%
Peabody Energy	1H	46.1	24	15	11.4	7.9	6.6	4.7	6%	11%	1%	1%	2.1	1.7	21%	24%	-2%	-28%
Average			***24***	***23***	***15.4***	***11.3***	***9.4***	***6.6***	***3%***	***7%***	***2%***	***2%***	***2.2***	***1.9***	***16%***	***19%***	***-2%***	***-13%***
Nickel & Zinc																		
Sterlite Industries	1M	2.8	12	9	7.2	6.7	3.4	3.0	3%	7%	1%	1%	1.0	0.9	14%	13%	1%	-32%
Norilsk	1H	253.0	18	9	6.8	6.4	4.3	3.7	11%	12%	4%	4%	1.9	1.5	32%	26%	0%	8%
Average			***15***	***10***	***8.2***	***8.0***	***4.5***	***4.0***	***7%***	***9%***	***2%***	***2%***	***1.7***	***1.4***	***23%***	***19%***	***1%***	***-10%***
Iluka Resources	1H	15.8	-74	176	12.0	6.7	6.6	3.7	9%	17%	3%	5%	4.7	3.0	43%	54%	-9%	70%
Average excl. precious			**7**	**37**	**9.6**	**8.1**	**5.7**	**4.5**	**7%**	**9%**	**3%**	**3%**	**2.7**	**2.1**	**33%**	**31%**	**-1%**	**-2%**
PGM																		
Aquarius Platinum	2H	3.5	168	21	15.3	12.5	7.6	6.9	0%	7%	3%	2%	1.7	1.5	6%	13%	2%	-36%
Anglo American Platinum	3M	73.4	184	25	20.0	14.4	9.6	7.2	3%	3%	2%	3%	2.5	2.2	13%	16%	1%	-28%
Impala Platinum	1M	22.2	19	18	13.5	11.0	6.8	5.7	4%	6%	4%	4%	2.1	1.9	16%	17%	-4%	-36%
Northam Platinum	1M	4.6	20	26	24.8	13.0	15.2	8.3	-9%	-8%	1%	2%	1.2	1.0	5%	8%	-1%	-32%
Lonmin	2M	18.6	-73	25	16.2	11.1	5.9	4.2	4%	11%	2%	2%	1.3	1.1	8%	11%	-1%	-38%
Average			***64***	***23***	***17.9***	***12.4***	***9.0***	***6.5***	***0%***	***4%***	***2%***	***3%***	***1.8***	***1.6***	***10%***	***13%***	***0%***	***-34%***
Gold/Precious																		
AngloGold Ashnti	2M	47.6	-336	-10	12.2	9.7	6.3	5.2	8%	10%	1%	2%	3.2	2.5	35%	29%	-2%	-7%
Gold fields	3M	17.1	35	22	10.2	9.6	4.4	4.5	10%	9%	3%	3%	1.8	1.6	17%	17%	-1%	-8%
Harmony Gold Mng	3M	13.2	62	82	35.2	25.5	12.5	8.4	0%	5%	0%	0%	1.2	1.2	3%	5%	-5%	3%
Barrick Gold	1M	53.6	27	16	11.0	10.2	6.9	6.4	-1%	5%	1%	1%	1.7	1.5	19%	16%	-2%	1%
Newmont Mining	1M	65.7	25	14	14.0	13.3	6.2	6.3	5%	3%	2%	2%	2.1	2.1	16%	16%	1%	7%
Newcrest Mining	1M	39.6	26	25	21.9	17.2	12.1	9.3	0%	2%	1%	1%	2.0	1.9	10%	12%	-5%	-4%
Average			***-27***	***25***	***17.4***	***14.3***	***8.1***	***6.7***	***4%***	***6%***	***1%***	***1%***	***2.0***	***1.8***	***17%***	***16%***	***-2%***	***-1%***
Average - all miners			**15**	**28**	**15.0**	**11.6**	**7.6**	**5.9**	**4%**	**6%**	**2%**	**3%**	**2.2**	**1.8**	**20%**	**20%**	**-1%**	**-13%**

Source: dataCentral, CIRA * Priced on 19 September 2011

Commodity price and exchange rate forecasts

The forecasts below represent Citi's house forecasts.

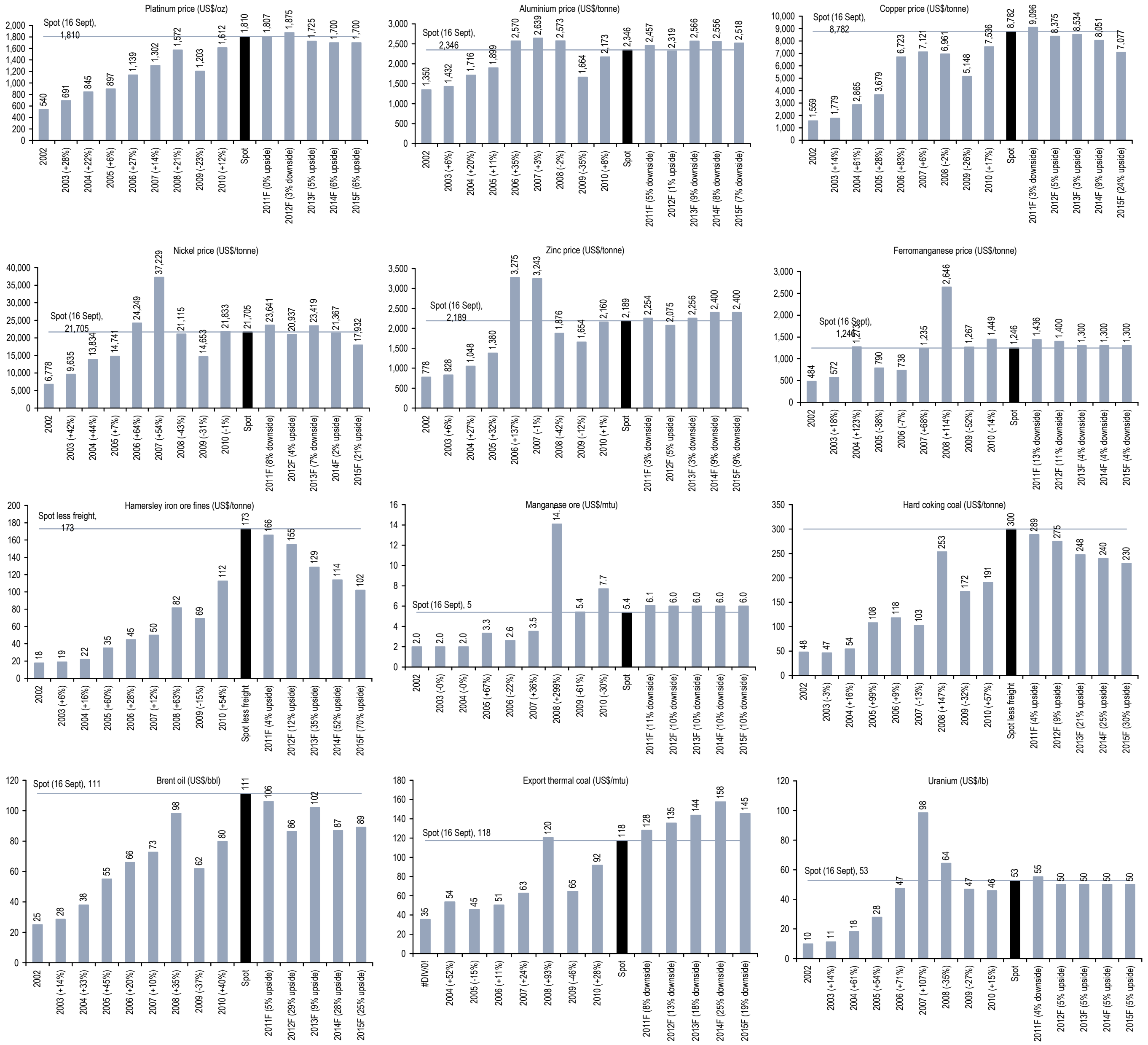
Figure 44. Citi's commodity price and exchange rate forecasts

Average per calendar year	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F	2017F	2018F	2019F	2020F	LT (Real)
Precious commodities														
Gold (US$/oz)	872	973	1,225	1,591	1,650	1,500	1,350	1,250	1,192	1,221	1,252	1,283	1,315	**1,050**
Silver (US$/oz)	15.06	14.80	20.72	34.22	26.00	22.38	19.13	16.00	13.62	13.96	14.31	14.67	15.03	**12.00**
Platinum (US$/oz)	1,572	1,203	1,612	1,807	1,875	1,725	1,700	1,700	1,702	1,745	1,789	1,833	1,879	**1,500**
Palladium (US$/oz)	352	263	526	799	935	900	850	800	624	640	656	672	689	**550**
Rhodium (US$/oz)	6,551	1,594	2,455	2,094	1,900	2,300	3,000	3,500	3,405	3,490	3,577	3,667	3,758	**3,000**
3PGM basket (US$/oz) (63%Pt,30%Pd,7%Rh)	1,555	948	1,345	1,524	1,595	1,518	1,536	1,556	1,498	1,536	1,574	1,613	1,654	**1,320**
Base metals														
Aluminium (US$/tonne)	2,573	1,664	2,173	2,457	2,319	2,566	2,556	2,518	2,502	2,565	2,629	2,694	2,762	**2,205**
Aluminium (US cents/lb)	117	75	99	111	105	116	116	114	113	116	119	122	125	**100**
Copper (US$/tonne)	6,961	5,148	7,536	9,096	8,375	8,534	8,051	7,077	6,583	6,747	6,916	7,089	7,266	**5,800**
Copper (US cents/lb)	316	234	342	413	380	387	365	321	299	306	314	322	330	**263**
Nickel (US$/tonne)	21,115	14,653	21,833	23,641	20,937	23,419	21,367	17,932	16,263	16,670	17,087	17,514	17,952	**14,330**
Nickel (US cents/lb)	958	665	990	1,072	950	1,062	969	813	738	756	775	794	814	**650**
Zinc (US$/tonne)	1,876	1,654	2,160	2,254	2,075	2,256	2,400	2,400	2,002	2,052	2,103	2,156	2,209	**1,764**
Zinc (US cents/lb)	85	75	98	102	94	102	109	109	91	93	95	98	100	**80**
Lead (US$/tonne)	2,093	1,720	2,148	2,483	2,262	2,356	2,129	1,942	1,877	1,923	1,972	2,021	2,071	**1,653**
Lead (US cents/lb)	95	78	97	113	103	107	97	88	85	87	89	92	94	**75**
Uranium (US$/lb)	64	47	46	55	50	50	50	50	57	58	60	61	63	**50**
Steelmaking materials														
Iron ore spot (CIF China) (US$/t)	152	85	152	173	160	135	125	115	110	110	108	105	105	**81**
Iron ore fines (FOB) (USc/dmtu)	129	109	177	261	244	202	179	161	148	150	146	140	140	**111**
Iron ore fines (FOB) (USD/tonne)	82	69	112	166	155	129	114	102	94	95	92	89	89	**71**
Iron ore lump (FOB) (USc/dmtu)	177	134	196	287	268	223	197	177	163	165	160	154	154	**120**
Iron ore lump (FOB) (USD/tonne)	112	85	125	182	170	141	125	112	104	104	102	98	98	**76**
Hard coking coal (US$/tonne)	253	172	191	289	275	248	240	230	215	222	226	231	235	**200**
Semi soft benchmark (US$/tonne)	196	116	139	216	190	165	160	148	143	148	151	154	157	**150**
Manganese ore - CIF (US$/mtu)	14.09	5.43	7.71	6.07	6.00	6.00	6.00	6.00	5.90	6.03	6.15	6.28	6.40	**5.20**
Ferro manganese - CIF (US$/tonne)	2,646	1,267	1,449	1,436	1,400	1,300	1,300	1,300	1,475	1,508	1,538	1,569	1,601	**1,300**
Ferrochrome (US$/lb)	1.81	0.93	1.24	1.25	1.25	1.00	1.00	1.00	1.13	1.16	1.18	1.21	1.23	**1.00**
Energy														
Brent crude oil (US$/bbl)	98	62	80	106	86	102	87	89	96	99	101	103	105	**81**
Richards Bay thermal coal (US$/tonne)	120	65	92	128	135	144	158	145	139	140	142	145	148	**109**
Heavy minerals														
Rutile (US$/tonne)	509	535	538	989	1,400	1,400	1,400	1,400	624	638	651	664	677	**550**
Zircon (US$/tonne)	804	947	942	1,789	2,400	2,400	2,400	2,400	965	986	1,006	1,026	1,047	**850**
Titanium Slag (US$/tonne)	321	326	333	574	859	859	859	859	363	371	379	386	394	**320**
TIO2 Pigment (US$/tonne)	1,956	2,105	2,100	1,918	1,966	2,015	2,065	2,117	2,156	2,204	2,248	2,293	2,340	**2,400**
Illmenite (US$/tonne)	103	87	75	116	150	160	170	170	136	139	142	145	148	**120**
Currency exchange rates														
US$/ZAR	8.25	8.40	7.30	7.08	7.75	8.46	8.98	9.46	10.00	10.22	10.58	10.96	11.35	**10.00**
US$/AUD	0.85	0.79	0.92	1.02	1.03	0.96	0.92	0.89	0.80	0.79	0.77	0.76	0.74	**0.80**
US$/EUR	1.47	1.39	1.33	1.41	1.38	1.37	1.37	1.36	1.10	1.10	1.09	1.09	1.08	**1.10**
US$/CHP	523	559	502	489	536	585	621	655	676	712	750	790	831	**676**
US$/BRL	1.84	2.00	1.76	1.67	1.82	1.99	2.11	2.22	2.30	2.42	2.55	2.68	2.83	**2.30**
US$/COP	1,954	2,156	1,898	1,883	2,054	2,242	2,379	2,507	2,589	2,727	2,871	3,023	3,184	**2,589**
Inflation														
US CPI index	215	215	218	224	228	233	238	243	247	252	258	263	268	

Source: Bloomberg, I-Net, DataCentral, CIRA

Commodity price forecasts vs. spot

Figure 45. Citi's commodity price forecasts relative to spot



Source: Bloomberg, I-Net, DataCentral, CIRA

Key publications for 2011

Figure 46. Key reports on diversified miners for 2011

Date	Publication
13 January 2011	Metals and Mining - The Easy Money Has Been Made*
14 February 2011	Metals and Mining - Commodity price upgrades, but near-term peak margins pose risk
15 February 2011	Anglo American (AGLJ.J) - Cyclically-Adjusted PE and Price to Book Suggest Valuation Full
February 2011	Metals & Mining - Supercycle well advanced - Neutral on SA miners
04 April 2011	Metals & Mining - Optimistic long-term iron ore price outlook increases valuations
06 April 2011	Metals & Mining - Strike while the iron is (still) hot?
15 May 2011	Metals & Mining - Souring Sentiment Offers Opportunities – Buy Anglo, BHP, ARM
20 May 2011	Anglo American (AGLJ.J) - Silicosis Liabilities – a Risk to our Positive Investment Stance
22 June 2011	Metals & Mining - Nationalisation – Killing The Goose That Lays The Golden Eggs
14 July 2011	Metals & Mining - Coal and mineral sands boost, but costs spoil the party
29 July 2011	Metals & Mining - The Unions Strike Again
01 August 2011	Anglo American (AGLJ.J) - Cash Flow Kickers Coming
10 August 2011	Metals & Mining - Opportunities in Uncertain Times
04 September 2011	Metals & Mining - Uncertainty and Fear Create Value

Source: Citi Investment Research and Analysis

Company Focus

African Rainbow Minerals (ARIJ.J)

Attractive exposure to near-term iron ore growth

- Company Update

- **Near-term growth** — Khumani Iron Ore Expansion Project from 10 to 14mtpa is ahead of schedule and well within budget. We forecast a 40% increase in iron ore production over the next two years. Konkola North Copper Project progresses on budget and on schedule to produce first copper in December 2012.
- **Strong balance sheet could support higher dividends** — We forecast ARM's net cash at R961m at 30 June 2012. This could support attractive dividend yields from FY13 onwards and provides upside risk to our forecasts.
- **Earnings growth and attractive valuation** — We forecast 21% growth in ARM's FY2012E diluted headline earnings per share to R18.77, driven mainly by volume growth in nickel, coal and iron ore division and a weaker rand. We see further 28% growth in FY13E to R23.99. This implies what we see as an attractive FY13E P/E multiple of 6.9x (excluding Harmony).
- **Main downside risks** — European debt concerns and Chinese measures to rein in its overheating economy pose downside risk to our commodity price forecasts. South African infrastructure constraints could limit ARM's production growth for manganese ore and coal, and expectations of high inflation (particularly electricity and wages) could impact ARM's global competitiveness.
- **Maintain BUY** — Given the recent sharp decline in ARM's share price (down 17% since 16 February), our target price of R230 now offers a total expected one-year return of 25%. We like ARM's long-life, low-cost assets, near-term growth prospects, solid management track record, and strong balance sheet. We maintain our Buy recommendation.

Buy/Medium Risk	**1M**
Price (19 Sep 11)	R189.23
Target price	R230.00
Expected share price return	21.5%
Expected dividend yield	3.2%
Expected total return	**24.7%**
Market Cap	R40,331M
	US$5,383M

Price Performance
(RIC: ARIJ.J, BB: ARI SJ)

African Rainbow Minerals (ZAR)

Year to 30 Jun	2010A	2011A	2012E	2013E	2014E
Sales (RM)	11,028.0	14,897.0	16,636.3	19,528.9	21,148.7
Net Income (RM)	1,714.0	3,319.0	4,047.5	5,173.4	5,695.7
Diluted EPS (R)	7.98	15.52	18.77	23.99	26.41
Diluted EPS (Old) (R)	7.98	15.52	18.77	23.99	26.41
PE (x)	23.7	12.2	10.1	7.9	7.2
EV/EBITDA (x)	8.8	5.4	4.7	3.7	3.1
DPS (R)	2.00	4.50	6.00	7.00	8.00
Net Div Yield (%)	1.1	2.4	3.2	3.7	4.2

Financial statements and ratio analysis

Figure 1. African Rainbow Minerals' income statement (Associates proportionately consolidated)

FYE June	**2009**	**2010**	**2011**	**2012F**	**2013F**	**2014F**	**2015F**	**2016F**
Income Statement (ZARm)								
Revenue	11,657	12,281	16,170	18,966	22,088	24,049	24,859	26,330
Revenue growth	*-17%*	*5%*	*32%*	*17%*	*16%*	*9%*	*3%*	*6%*
Cash costs	-6,591	-8,039	-9,551	-10,969	-12,447	-13,603	-14,169	-15,950
Underlying EBITDA	**5,065**	**4,242**	**6,619**	**7,997**	**9,641**	**10,446**	**10,690**	**10,379**
EBITDA margin	*43%*	*35%*	*41%*	*42%*	*44%*	*43%*	*43%*	*39%*
Depreciation and amortisation	-1,140	-1,238	-1,409	-1,604	-1,938	-2,161	-2,254	-2,360
Underlying EBIT	**3,925**	**3,004**	**5,210**	**6,393**	**7,703**	**8,285**	**8,436**	**8,019**
Exceptional items	541	97	-11	0	0	0	0	0
Investment income	414	209	216	149	215	251	424	628
Interest paid	-487	-293	-350	-275	-197	-13	0	0
Profit before tax	**4,393**	**3,017**	**5,065**	**6,268**	**7,720**	**8,524**	**8,860**	**8,647**
Taxation	-1,795	-989	-1,619	-1,976	-2,239	-2,472	-2,481	-2,421
Tax rate (proportionately consolidated)	*41%*	*33%*	*32%*	*32%*	*29%*	*29%*	*28%*	*28%*
Profit after tax	**2,598**	**2,028**	**3,446**	**4,291**	**5,482**	**6,052**	**6,379**	**6,226**
Minority interest in profit	198	-162	-194	-244	-308	-356	-407	-423
Net profit for the year	**2,796**	**1,866**	**3,252**	**4,047**	**5,173**	**5,696**	**5,972**	**5,802**
Adjustments	-479	-152	67	0	0	0	0	0
Headline earnings	**2,317**	**1,714**	**3,319**	**4,047**	**5,173**	**5,696**	**5,972**	**5,802**
Number of shares (millions):								
Weighted average	*212*	*212*	*213*	*213*	*213*	*213*	*213*	*213*
Diluted weighted average	*215*	*215*	*214*	*216*	*216*	*216*	*216*	*216*
Closing number	*212*	*212*	*213*	*213*	*213*	*213*	*213*	*213*
EPS (cents)	**1,355**	**854**	**1,555**	**1,899**	**2,427**	**2,672**	**2,802**	**2,722**
HEPS (cents)	**1,094**	**807**	**1,559**	**1,899**	**2,427**	**2,672**	**2,802**	**2,722**
Diluted HEPS (cents)	**1,079**	**798**	**1,552**	**1,877**	**2,399**	**2,641**	**2,770**	**2,691**
Diluted HEPS growth	*-42%*	*-26%*	*94%*	*21%*	*28%*	*10%*	*5%*	*-3%*
PE multiple at R194/share	*18.0*	*24.3*	*12.5*	*10.3*	*8.1*	*7.4*	*7.0*	*7.2*
- excluding Harmony	*15.5*	*20.9*	*10.8*	*8.9*	*6.9*	*6.3*	*6.0*	*6.2*
DPS declared (cents)	**175**	**200**	**450**	**600**	**700**	**800**	**900**	**1,000**
Dividend yield at R194/share	*0.9%*	*1.0%*	*2.3%*	*3.1%*	*3.6%*	*4.1%*	*4.6%*	*5.1%*
Dividend payout ratio	*13%*	*23%*	*29%*	*32%*	*29%*	*30%*	*32%*	*37%*
Breakdown of underlying EBIT (ZARm)								
Platinum	-557	794	802	1,150	1,388	1,566	1,672	1,613
EBIT margin	*-32%*	*25%*	*24%*	*30%*	*33%*	*34%*	*34%*	*32%*
Nkomati	26	287	148	142	634	771	570	239
EBIT margin	*5%*	*23%*	*10%*	*8%*	*26%*	*28%*	*21%*	*10%*
Iron ore	1,535	1,027	3,243	3,954	4,015	3,349	2,845	2,840
EBIT margin	*61%*	*41%*	*63%*	*63%*	*56%*	*50%*	*46%*	*43%*
Manganese	3,085	1,147	1,145	606	831	989	1,503	1,842
EBIT margin	*73%*	*36%*	*35%*	*20%*	*23%*	*25%*	*36%*	*35%*
Chrome	149	-120	-158	-114	-112	-152	-131	-41
EBIT margin	*16%*	*-17%*	*-14%*	*-13%*	*-13%*	*-18%*	*-15%*	*-4%*
XCSA	218	30	-53	494	545	696	771	542
EBIT margin	*14%*	*2%*	*-4%*	*21%*	*21%*	*24%*	*24%*	*17%*
Goedgevonden	37	54	122	359	410	496	543	481
EBIT margin	*31%*	*25%*	*24%*	*45%*	*45%*	*46%*	*46%*	*40%*
Copper and exploration	-642	-119	-151	-178	11	591	683	523
EBIT margin	*N/A*	*N/A*	*N/A*	*N/A*	*4%*	*46%*	*44%*	*35%*
Corporate and other	75	-96	112	-20	-20	-20	-20	-20
Underlying EBIT	**3,925**	**3,004**	**5,210**	**6,393**	**7,703**	**8,285**	**8,436**	**8,019**
Group EBIT margin	*34%*	*24%*	*32%*	*34%*	*35%*	*34%*	*34%*	*30%*

Source: Company Reports, I-Net, CIRA Estimates

We forecast 21% growth in ARM's FY2012E diluted headline earnings per share to R18.77, driven mainly by volume growth in nickel, coal and iron ore division. We see a further 28% growth in FY13E to R23.99. This implies what we see as an attractive FY13E P/E multiple of 6.9x (excluding Harmony).

Figure 2. African Rainbow Minerals' balance sheet (Associates proportionately consolidated)

FYE June	2009	2010	2011	2012F	2013F	2014F	2015F	2016F
Balance Sheet (ZARm)								
Non-current operating assets	13,040	14,760	17,033	19,288	20,115	21,055	21,332	22,313
Working capital	2,085	2,744	3,143	4,042	4,449	4,882	4,934	5,576
Net tax payable	-530	-270	-183	-468	-526	-591	-573	-611
Net operating assets	**14,595**	**17,234**	**19,993**	**22,862**	**24,038**	**25,346**	**25,693**	**27,278**
Investments	5,191	5,287	5,855	5,856	5,857	5,857	5,858	5,859
Cash	3,325	2,791	3,668	4,056	4,326	6,986	10,970	13,496
Total invested capital	**23,111**	**25,312**	**29,516**	**32,774**	**34,221**	**38,189**	**42,521**	**46,634**
Equity	16,149	17,765	21,157	24,246	28,141	32,346	36,614	40,499
Minority interest	602	764	958	958	958	958	958	958
Deferred tax	2,245	2,917	3,496	3,703	3,862	4,043	4,096	4,284
Provisions	559	768	836	772	805	842	853	893
Debt	3,556	3,098	3,069	3,095	454	0	0	0
Total invested capital	**23,111**	**25,312**	**29,516**	**32,774**	**34,221**	**38,189**	**42,521**	**46,634**
Key Balance Sheet ratios								
Non-current asset turnover (times)	0.9	0.8	0.9	1.0	1.1	1.1	1.2	1.2
Net debt (ZARm)	231	307	-599	-961	-3,872	-6,986	-10,970	-13,496
Gearing (%)	1	2	-3	-4	-16	-28	-43	-50
Working capital turnover (days)	65	82	71	78	74	74	72	77
NAV per share (ZAR)	76	84	99	114	132	152	172	190
ROCE (excluding Harmony) (%)	27.9	18.9	28.0	29.8	32.8	33.6	33.1	30.3
ROIC (%)	12.8	16.6	22.3	22.6	24.5	25.0	24.0	22.8
Return on equity (excluding cash) (%)	19.0	11.9	18.7	20.7	22.5	22.1	21.8	19.7
ROCE per division								
Platinum	-9.4%	14.4%	13.8%	19.4%	23.1%	25.4%	26.5%	24.9%
Nkomati	1.8%	13.7%	5.9%	5.1%	22.1%	27.4%	20.6%	9.0%
Iron ore	56.7%	26.4%	53.9%	48.9%	47.0%	40.2%	35.4%	34.8%
Manganese	69.4%	26.1%	26.7%	15.0%	19.2%	20.4%	28.1%	32.6%
Chrome	14.7%	-12.0%	-18.3%	-15.4%	-15.4%	-21.9%	-19.7%	-6.4%
XCSA	16.6%	2.3%	-4.0%	35.7%	36.8%	44.5%	47.4%	31.9%
Goedgevonden	2.7%	3.0%	6.3%	18.6%	21.0%	25.0%	26.8%	23.2%

Source: Company Reports, I-Net, CIRA Estimates

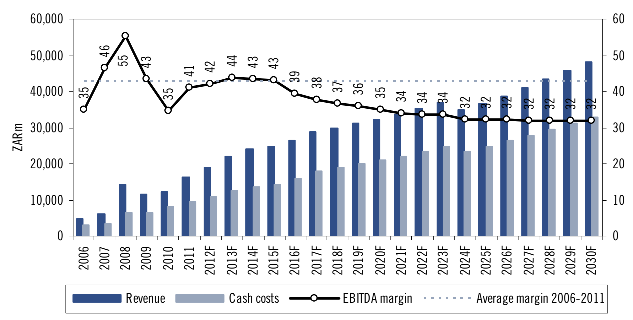
We forecast ARM's net cash position will increase to R961m by 30 June 2012 and to a significant net cash position of R3.9 billion by June 2013. This could support attractive dividend yields from FY13 onwards.

Figure 3. African Rainbow Minerals' free cash flow statement (Associates proportionately consolidated)

FYE June	2009	2010	2011	2012F	2013F	2014F	2015F	2016F
Cash Flow Statement (ZARm)								
Underlying EBITDA	5,065	4,242	6,619	7,997	9,641	10,446	10,690	10,379
Movements in provisions	51	209	68	-64	33	38	11	39
Cash tax on EBIT	-2,179	-573	-1,130	-1,491	-1,997	-2,159	-2,327	-2,020
Movements in working capital	1,959	-659	-399	-899	-407	-432	-52	-642
Operating cash flow	**4,897**	**3,219**	**5,158**	**5,542**	**7,270**	**7,892**	**8,322**	**7,756**
Capex	-3,622	-2,958	-3,682	-3,859	-2,765	-3,101	-2,531	-3,341
Exceptional items (net of tax)	541	98	-8	0	0	0	0	0
Free cash flow	**1,816**	**358**	**1,468**	**1,684**	**4,505**	**4,791**	**5,791**	**4,416**
Non-operating cash flow (net of tax)	350	130	56	107	155	181	305	452
Cash available to providers of capital	**2,166**	**489**	**1,523**	**1,791**	**4,660**	**4,972**	**6,097**	**4,868**
Interest paid (net of tax)	-375	-239	-290	-226	-162	-10	0	0
Net payments to minority shareholders	0	0	0	-244	-308	-356	-407	-423
Equity shareholders' cash	**1,790**	**250**	**1,234**	**1,321**	**4,189**	**4,606**	**5,690**	**4,445**
Dividends and share buy backs	-703	-326	-328	-959	-1,279	-1,492	-1,705	-1,918
Advances (repayments) of debt	-356	-458	-29	26	-2,640	-454	0	0
Increase (decrease) in cash	**731**	**-534**	**877**	**388**	**270**	**2,660**	**3,984**	**2,526**
Key Cash Flow ratios								
EV/EBITDA	8.4	10.0	6.4	5.3	4.4	4.1	4.0	4.1
EV/EBITDA - excluding Harmony	7.2	8.6	5.5	4.6	3.8	3.5	3.4	3.5
Capex/EBITDA	72%	70%	56%	48%	29%	30%	24%	32%
Free cash flow growth rate	-29%	-80%	309%	15%	168%	6%	21%	-24%
Free cash flow yield	4%	1%	3%	3%	10%	11%	14%	11%

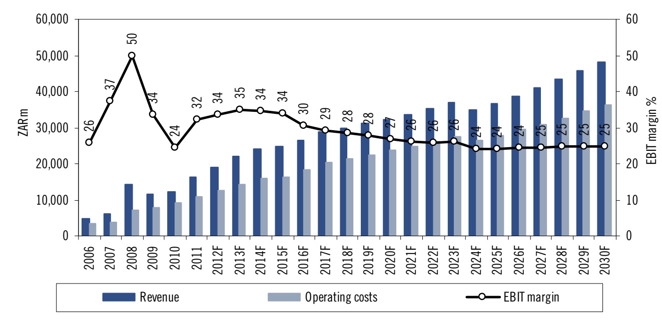
Source: Company Reports, I-Net, CIRA Estimates

Figure 4. ARM's revenue, cash costs and EBITDA margin



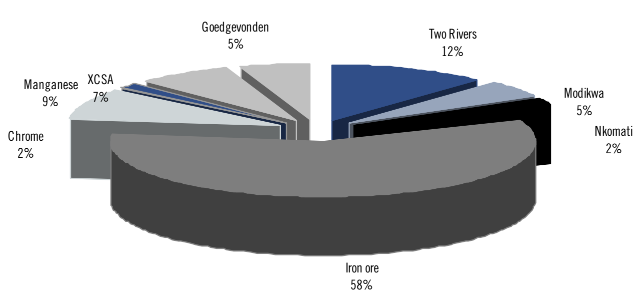
Source: Company Reports and CIRA Estimates

Figure 5. ARM's revenue, operating costs and EBIT margin



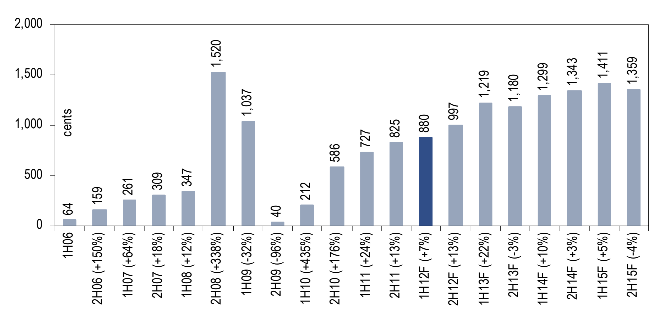
Source: Company reports and Citi Investment Research and Analysis

Figure 6. Contribution to ARM's FY'12 EBIT



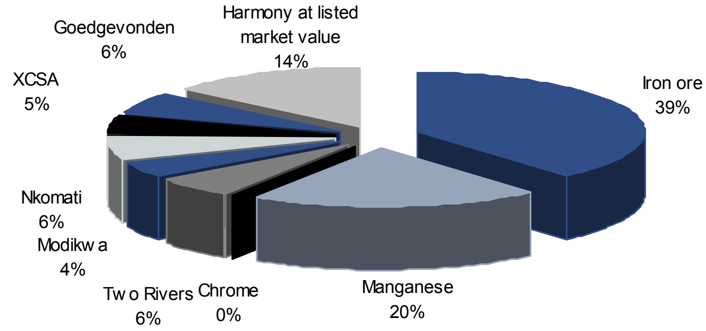
Source: Citi Investment Research and Analysis

Figure 7. ARM's Half yearly HEPS profile



Source: Company Reports, Citi Investment Research and Analysis

Figure 8. Contribution to ARM's NPV



Source: Citi Investment Research and Analysis

Figure 9. Divisional valuation using DCF valuations

	DCF fair value (ZARm)	Minority interest (ZARm)	Fair value (ZARm)	Fair value per share (ZAR)
Iron ore	16,668	0	16,668	77
Manganese	8,763	0	8,763	41
Chrome	19	0	19	0
ARM Ferrous	**25,450**	**0**	**25,450**	**118**
Two Rivers (effective interest = 55%)	4,498	2,024	2,474	11
Modikwa	1,834	0	1,834	9
Nkomati	2,657	0	2,657	12
XCSA (effective interest = 20.2%)	2,143	0	2,143	10
Goedgevonden (effective interest = 26%)	2,569	0	2,569	12
Copper and exploration	1,406	0	1,406	7
Harmony at listed market value			5,927	27
Corporate and other	-100	0	-100	-0
Enterprise value	**40,458**	**2,024**	**44,361**	**206**
Other Investments			0	0
Net debt as at 30 June 2011			599	3
Equity value			**44,960**	**209**
Number of shares (millions)			216	
DCF fair value per share as at 16-9-2011 (Rand)			**209**	

Source: Company Reports, Citi Investment Research and Analysis

Figure 10. Divisional valuation using market values for listed assets

	Fair value (ZARm)	DCF fair value per sh. (ZAR)
Listed market values:		
ARM Ferrous using Assore's listed market value	30,295	140
Harmony at listed market value	5,927	27
DCF fair value:		
Two Rivers	2,474	11
Modikwa	1,834	9
Nkomati	2,657	12
XCSA	2,143	10
Goedgevonden	2,569	12
Copper and exploration	1,406	7
Corporate and other	-100	-0
Enterprise value	**49,206**	**60**
Net debt as at 30 June 2011	599	3
Equity value	**49,805**	**63**
Number of shares (millions)	216	
Fair value per share as at 16-9-2011 (Rand)	**231**	

Source: I-Net, Citi Investment Research and Analysis

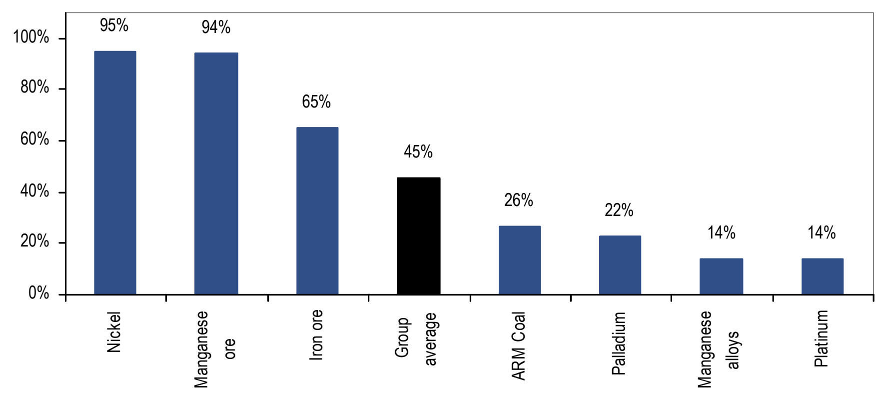
Strong volume growth

We believe ARM will benefit from a second wave of growth as it:

- Completes and ramps up Nkomati Large Scale Project (10Ktpa-20Ktpa).
- Expands Khumani iron ore mine from 10Mt to 16Mt and increases Beeshoek's iron ore capacity by around 4Mtpa to historical levels (rail permitting).
- Expands manganese ore production from 3.2Mtpa to 5Mtpa (rail permitting).
- Ramps up Goedgevonden coal.
- Completes Konkola North Copper by 2013.

We forecast ARM's copper-equivalent volume growth at 45% through calendar year 2020.

Figure 11. ARM's volume growth by division (2011-2020)



Source: Citi Investment Research and Analysis

Figure 12. ARM's sales volumes, reserves and life of mine

FYE June	2009	2010	2011	2012F	2013F	2014F	2015F	2016F	CAGR 11-16	Reserve life (yrs)	Resource life (yrs)
100% of volumes for joint operations											
ARM Platinum											
PGM's in concentrate - Modikwa (000 oz)	349	340	319	355	360	360	360	360	2%	24	95
Growth (%)	*2*	*-3*	*-6*	*11*	*1*	*0*	*0*	*0*			
PGM's in concentrate - Two Rivers (000 oz)	246	297	307	290	290	290	290	291	-1%	17	28
Growth (%)	*19*	*20*	*4*	*-6*	*0*	*0*	*0*	*0*			
Nickel (t)	4,495	9,666	10,100	13,320	14,943	16,489	18,191	18,602	13%	38	67
Growth (%)	*-12*	*115*	*4*	*32*	*12*	*10*	*10*	*2*			
ARM Ferrous (ARM's share - 50%)											
Iron ore (000 t)	7,409	9,799	10,006	11,200	13,800	14,000	14,000	15,400	9%	44	53
Growth (%)	*13*	*32*	*2*	*12*	*23*	*1*	*0*	*10*			
Manganese ore (000 t)	2,152	3,095	2,882	3,000	3,200	3,200	3,200	4,100	7%	50	131
Growth (%)	*-42*	*44*	*-7*	*4*	*7*	*0*	*0*	*28*			
Manganese alloys (000 t)	117	238	218	280	280	280	280	280	5%		
Growth (%)	*-53*	*103*	*-8*	*28*	*0*	*0*	*0*	*0*			
Charge chrome (000 t)	144	189	238	180	180	180	180	180	-5%		
Growth (%)	*-48*	*31*	*26*	*-24*	*0*	*0*	*0*	*0*			
Chrome ore (000 t)	256	272	373	236	232	232	241	253	-7%	171	229
Growth (%)	*-16*	*6*	*37*	*-37*	*-2*	*0*	*4*	*5*			
ARM Coal											
XCSA Export thermal coal - 20.2% (mt)	2.17	2.15	1.86	2.06	2.06	2.06	2.06	2.11	3%	6-26	6-26
Growth (%)	*-23*	*-1*	*-13*	*11*	*0*	*0*	*0*	*2*			
XCSA Domestic thermal coal - 20.2% (mt)	1.55	1.42	0.81	1.41	1.41	1.41	1.41	1.45	12%	6-26	6-26
Growth (%)	*-45*	*-8*	*-43*	*75*	*0*	*0*	*0*	*2*			
Goedgevonden export - 26% (mt)	0.00	0.31	0.69	0.78	0.83	0.83	0.86	0.88		33	115
Growth (%)	*-*	*-*	*123*	*13*	*7*	*0*	*4*	*2*			
Goedgevonden domestic - 26% (mt)	0.00	0.30	0.71	0.78	0.88	0.88	0.92	0.94		33	115
Growth (%)	*-*	*-*	*137*	*10*	*13*	*0*	*4*	*2*			
Total coal	**3.72**	**4.18**	**4.07**	**5.03**	**5.19**	**5.19**	**5.26**	**5.37**	6%		
Growth (%)	*-34*	*12*	*-3*	*24*	*3*	*0*	*1*	*2*			
TEAL (ARM's share - 50%)											
Copper (000 t)	5.3	0.0	0.0	0.0	8.0	35.0	45.0	45.7		28	
Growth (%)	*-37*	*-100*	*-*	*-*	*-*	*338*	*29*	*2*			

Source: Company Reports and CIRA Estimates

African Rainbow Minerals

Company description

ARM is a South African diversified mining company with long-life, low-cost assets in platinum, nickel, iron ore, manganese and coal through partnerships with major players in the global resource sector. Its strong BEE credentials, solid track record and healthy balance sheet give ARM access to attractive mining deals.

Investment strategy

We rate ARM Buy/Medium Risk (1M). ARM is a quality mining company with long-life, low-cost operations and strong growth opportunities, in our view. Partnerships with mining majors lead to knowledge transfer and the ability to participate in mega projects. ARM's large reserves support long asset lives and expandability and it operates low-cost mines with strong growth prospects.

Valuation

We use a discounted cash flow approach to derive our one-year target price of R230, based on:

A WACC of 13.34%; long-term (2015-2028) nominal revenue growth of 5% per annum; long-term EBITDA margins of 38%; long-term capex/EBITDA ratio of 33%; long-term ROE (excluding Harmony) of 20%; and nominal terminal growth rate (after 2028) of 6.5%, implying an exit PE multiple of 12x.

We include ARM's investment in Harmony Gold in our valuation at listed market value.

Risks

We rate ARM as Medium Risk. Our risk rating is derived after considering several factors, including an assessment of the macro economic environment, industry-specific risks, company-specific operational risks as well as financial risk.

Downside risks include: potential execution risk, given significant new projects; South African infrastructure constraints; skills, electricity and water shortages and onerous regulation in South Africa; higher-than-forecast mining inflation; over-estimation of mineral reserves and government actions.

Company Focus

- Company Update

Anglo American (AGLJ.J)

More Defensive than in 2008 – Bounceback Candidate

- **Cash flow kickers coming** — Anglo American's share price has been under pressure due to global economic concerns. It is now attractively priced, in our view. We believe near-term production growth from Barro Alto nickel, Kolomela iron ore and Los Bronces copper could provide decent cash flow kickers over the next two years. We forecast Anglo's FY2012 free cash flow yield at 13%. Our target price of R420 (£35) provides a total one-year return of 47% and we maintain our BUY recommendation.
- **Defensive "middle income" commodity basket** — Anglo American has a more sustainable platform for revenue growth than peers, in our view. Its commodity basket price (supported by PGM's, diamonds and thermal coal) could fall less (-6%) than peers' as it provides exposure to late cycle commodities and it underperformed during the "low-income" commodity boom.
- **Growing margins** — Anglo American has disposed of low-margin zinc and industrial interests and it is focusing investment on high-margin iron ore (+132% volume growth by 2020), metallurgical coal (+68%), and copper (+56%) growth.
- **Strong balance sheet** — Anglo's strengthening balance sheet makes it less geared to a potential economic slowdown. Since the depth of the financial crisis in 2009, Anglo American has strengthened its balance sheet through operating cash flows, asset sales, rights issues in subsidiaries, and replacing near-term debt with longer-term debt. We think Anglo's net debt could fall to around US$4.8bn by the end of 2011E, implying comfortable debt gearing ratio around 10%. This is a major improvement from 2008's net debt level (including De eers) of US$12.8bn (39% gearing ratio).
- **Minor earnings revisions** — We have reduced our earnings forecasts up to 1% to accommodate slightly higher cost estimates.
- **Attractive valuation** — Anglo American trades on price to book of only 1.3x, which is a 32% discount to its long-run average of 1.9x. It has an FY2012E PE multiple of 6.3x and, if one strips out Kumba Iron Ore and Angloplat at market value, its rump is trading on 4.7x.

Buy/Medium Risk	1M
Price (19 Sep 11)	R291.67
Target price	R420.00
Expected share price return	44.0%
Expected dividend yield	2.4%
Expected total return	**46.4%**
Market Cap	R385,944M
	US$51,514M

Price Performance
(RIC: AGLJ.J, BB: AGL SJ)

Anglo American PLC (USD)

Year to 31 Dec	2009A	2010A	2011E	2012E	2013E
Sales ($M)	20,858.0	27,960.0	32,536.8	35,485.3	36,780.2
Profit Before Tax ($M)	4,034.0	10,928.0	13,339.6	13,898.5	14,237.7
Diluted EPS ($)	2.10	3.96	5.50	6.13	6.39
Diluted EPS (Old) ($)	2.10	3.96	5.50	6.16	6.46
PE (x)	18.4	9.7	7.0	6.3	6.0
EV/EBITDA (x)	9.6	5.4	4.0	3.4	2.9
DPS ($)	0.00	0.65	0.85	1.00	1.15
Net Div Yield (%)	0.0	1.7	2.2	2.6	3.0

Financial statements and ratio analysis

Figure 1. Anglo American financial statements and ratio analysis - associates proportionately consolidated

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F
Income Statement (US$m)									
Revenue	32,964	24,637	32,929	39,248	42,753	43,760	44,737	43,715	43,112
Cash costs	-21,117	-17,707	-20,946	-23,763	-25,740	-26,496	-27,436	-27,656	-28,120
Underlying EBITDA	**11,847**	**6,930**	**11,983**	**15,485**	**17,013**	**17,264**	**17,301**	**16,060**	**14,992**
Depreciation and amortisation	-1,762	-1,968	-2,220	-2,339	-2,591	-2,790	-3,354	-3,644	-3,808
Underlying EBIT	**10,085**	**4,962**	**9,763**	**13,146**	**14,422**	**14,475**	**13,947**	**12,415**	**11,184**
Items excluded from underlying earnings	-345	-209	1,715	737	0	0	0	0	0
Net interest	-548	-435	-227	22	92	239	371	824	1,118
Profit before tax	**9,192**	**4,318**	**11,251**	**13,904**	**14,514**	**14,714**	**14,318**	**13,240**	**12,302**
Taxation	-3,057	-1,403	-3,124	-4,030	-4,608	-4,681	-4,560	-4,218	-3,917
Profit after tax	**6,135**	**2,915**	**8,127**	**9,875**	**9,906**	**10,033**	**9,759**	**9,022**	**8,384**
Minority interest in profit	-920	-485	-1,583	-2,062	-2,137	-1,920	-1,708	-1,602	-1,594
Net profit for the year	**5,215**	**2,430**	**6,544**	**7,813**	**7,769**	**8,113**	**8,051**	**7,419**	**6,790**
Adjustments	22	139	-1,568	-868	0	0	0	0	0
Underlying earnings	**5,237**	**2,569**	**4,976**	**6,945**	**7,769**	**8,113**	**8,051**	**7,419**	**6,790**
Number of shares (millions)									
Weighted average	*1,202*	*1,202*	*1,206*	*1,210*	*1,210*	*1,210*	*1,210*	*1,210*	*1,210*
Diluted weighted average	*1,215*	*1,253*	*1,281*	*1,282*	*1,282*	*1,282*	*1,282*	*1,282*	*1,282*
Closing	*1,204*	*1,204*	*1,207*	*1,210*	*1,210*	*1,210*	*1,210*	*1,210*	*1,210*
Underlying EPS (US cents)	**436**	**214**	**413**	**574**	**642**	**670**	**665**	**613**	**561**
Underlying EPS growth (% y-o-y)	*-1*	*-51*	*+93*	*+39*	*+12*	*+4*	*-1*	*-8*	*-8*
Diluted underlying EPS (US cents)	**431**	**210**	**396**	**550**	**613**	**639**	**634**	**584**	**534**
DPS declared (US cents)	**44**	**0**	**65**	**85**	**100**	**115**	**133**	**153**	**176**
Dividend payout ratio	*10%*	*0%*	*16%*	*15%*	*16%*	*17%*	*20%*	*25%*	*31%*
Diluted underlying EPS (pence)	**228**	**130**	**251**	**331**	**365**	**367**	**362**	**334**	**302**
DPS declared (pence)	**22**	**0**	**42**	**52**	**60**	**67**	**77**	**88**	**100**
Dividend yield at 2497 pence/share	*0.9%*	*0.0%*	*1.7%*	*2.1%*	*2.4%*	*2.7%*	*3.1%*	*3.5%*	*4.0%*
Diluted underlying EPS (ZAR)	**34.66**	**16.99**	**28.28**	**38.76**	**47.00**	**54.00**	**57.00**	**55.00**	**53.00**
DPS declared (ZAR)	**3.36**	**0.00**	**4.72**	**6.03**	**7.80**	**9.80**	**12.00**	**14.40**	**17.60**
Composition of underlying EBIT (US$m)									
Platinum	2,169	32	837	1,116	1,227	1,366	1,717	1,941	1,817
EBIT margin	*34%*	*1%*	*13%*	*14%*	*16%*	*17%*	*21%*	*24%*	*23%*
Diamonds	508	64	495	1,041	1,277	1,293	1,199	1,038	953
EBIT margin	*16%*	*4%*	*19%*	*24%*	*26%*	*26%*	*23%*	*20%*	*18%*
Copper	1,892	2,010	2,817	3,043	3,473	4,253	3,910	2,845	2,087
EBIT margin	*48%*	*51%*	*58%*	*55%*	*55%*	*56%*	*52%*	*43%*	*36%*
Nickel	123	2	96	199	412	596	460	241	124
EBIT margin	*30%*	*1%*	*23%*	*32%*	*38%*	*44%*	*37%*	*23%*	*13%*
Iron ore and manganese	2,554	1,489	3,681	4,830	4,794	3,666	2,793	2,762	3,159
EBIT margin	*62%*	*44%*	*56%*	*58%*	*55%*	*47%*	*38%*	*38%*	*39%*
Metallurgical Coal (Australia)	1,110	451	783	1,654	1,611	1,472	1,543	1,356	1,242
EBIT margin	*36%*	*20%*	*23%*	*37%*	*33%*	*30%*	*29%*	*25%*	*24%*
Thermal Coal (South Africa)	1,078	721	710	1,310	1,785	1,909	2,363	2,184	1,689
EBIT margin	*35%*	*29%*	*25%*	*35%*	*41%*	*43%*	*47%*	*43%*	*36%*
Other mining and industrial	1,082	511	661	205	252	410	452	489	509
EBIT margin	*12%*	*9%*	*12%*	*5%*	*5%*	*9%*	*9%*	*10%*	*10%*
Exploration	-212	-172	-136	-121	-160	-160	-160	-160	-162
Group and unallocated	-219	-146	-181	-131	-250	-330	-330	-280	-233
Underlying EBIT	**10,085**	**4,962**	**9,763**	**13,146**	**14,422**	**14,475**	**13,947**	**12,415**	**11,184**
Group EBIT margin	*31%*	*20%*	*30%*	*33%*	*34%*	*33%*	*31%*	*28%*	*26%*
Group EBIT margin - core operations	*37%*	*24%*	*33%*	*37%*	*37%*	*36%*	*34%*	*31%*	*28%*
Key Income Statement ratios									
EBITDA margin (%)	36	28	36	39	40	39	39	37	35

Source: Company reports, I-Net, CIRA Estimates

We forecast 39% growth in Anglo's 2011E diluted EPS to $5.50, driven mainly by higher commodity price expectations, which increases Anglo's EBITDA margin to 39% (2010: 36%). This implies an attractive PE multiple of 6.3x at the current share price.

We have reduced our earnings forecasts up to 1% to accommodate slightly higher cost estimates.

Figure 2. Revisions to Citi's earnings forecasts for Anglo American

FYE December	2011F	2012F	2013F	2014F	2015F
Anglo American diluted EPS (USD)					
CIRA New	5.50	6.13	6.39	6.34	5.84
CIRA Previous	5.50	6.16	6.46	6.39	5.85
% change	-0	-0	-1	-1	-0
Bloomberg consensus - 19 September 2011	5.63	6.54			

Source: Bloomberg, CIRA estimates

Figure 3. Anglo American's balance sheet – proportionately consolidated

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F
Balance Sheet (US$m)									
Non-current operating assets	35,729	40,777	46,697	50,453	53,175	55,601	56,186	58,372	60,978
Working capital	454	1,810	1,624	2,992	3,205	3,281	3,332	3,090	3,005
Net operating assets	**36,183**	**42,587**	**48,321**	**53,444**	**56,380**	**58,883**	**59,518**	**61,462**	**63,983**
Investments	2,411	3,015	3,606	3,992	4,087	4,182	4,261	4,356	4,457
Cash	2,771	3,269	6,401	7,187	6,853	6,917	10,699	14,849	17,379
Total invested capital	**41,365**	**48,871**	**58,328**	**64,623**	**67,320**	**69,982**	**74,478**	**80,667**	**85,819**
Equity	20,221	26,121	34,239	41,183	47,872	54,715	61,302	67,039	71,893
Minority interest	1,535	1,948	3,732	3,823	3,837	3,925	4,047	4,144	4,019
Debt	13,995	14,315	13,439	11,420	6,971	2,309	0	0	0
Net deferred tax liabilty	4,297	4,904	5,252	6,054	6,381	6,672	6,742	7,005	7,317
Provisions	1,317	1,583	1,666	2,143	2,259	2,362	2,386	2,479	2,590
Total invested capital (Capital employed)	**41,365**	**48,871**	**58,328**	**64,623**	**67,320**	**69,982**	**74,478**	**80,667**	**85,819**
Key Balance Sheet ratios									
Non-current asset turnover (times)	0.9	0.6	0.7	0.8	0.8	0.8	0.8	0.7	0.7
Net debt - excluding De Beers	11,224	11,046	7,038	4,233	118	-4,609	-10,699	-14,849	-17,379
Net debt - including De Beers	12,822	12,486	7,831	4,755	453	-4,275	-10,365	-14,515	-17,045
Debt: Equity (%)	69	55	39	28	15	4	0	0	0
Gearing (%)	36	30	17	9	0	-9	-21	-28	-32
Gearing - including De Beers (%)	39	32	19	10	1	-8	-20	-28	-31
Working capital turnover (days)	5	27	18	28	27	27	27	26	25
NAV per share (US$)	17	22	28	34	40	45	51	55	59
NAV per share (ZAR)	139	182	207	241	307	383	455	524	594
Price to book	2.1	1.6	1.4	1.2	1.0	0.8	0.6	0.6	0.5
ROCE (%)	30.6	12.6	21.5	25.8	26.3	25.1	23.6	20.5	17.8
ROIC (%)	20.3	10.5	16.3	19.9	18.7	17.8	16.2	14.5	12.8
Return on equity (%)	24.5	11.1	16.5	18.4	17.4	15.8	13.9	11.6	9.8
ROCE per division (%)									
Platinum	24	0	7	9	10	12	15	17	16
Diamonds	32	5	17	35	45	47	45	39	34
Copper	63	51	51	45	49	62	58	43	31
Nickel	9	0	5	8	16	23	17	9	5
Iron ore and manganese	38	14	33	38	33	23	17	18	20
Coal	57	27	27	47	49	44	49	41	29
Other mining and industrial	17	10	15	5	6	10	11	12	12

Source: Company Reports, I-Net, CIRA Estimates

Since the depth of the financial crisis in 2009, Anglo American has strengthened its balance sheet through operating cash flows, asset sales, rights issues in subsidiaries, and replacing near-term debt with longer-term debt. Following its recent asset sales worth around US$3.3 billion, we think Anglo's net debt could fall to around US$4.8bn by the end of 2011, implying comfortable debt gearing ratio around 10%. This is a major improvement from 2008's net debt level (including De Beers) of US$12.8bn (39% gearing ratio).

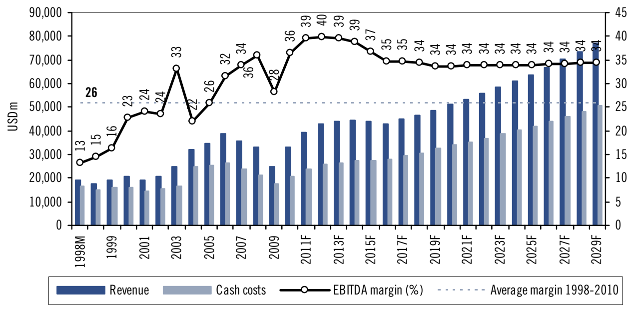
Figure 4. Anglo American's free cash flow statement– proportionately consolidated

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F
Cash Flow Statement (US$m)									
Underlying EBITDA	11,847	6,930	11,983	15,485	17,013	17,264	17,301	16,060	14,992
Movements in provisions	235	266	83	477	116	103	25	93	111
Cash tax on EBIT	-3,630	-1,096	-2,450	-3,518	-4,253	-4,318	-4,378	-3,708	-3,269
Movements in working capital	1,196	-1,375	-98	-1,211	-213	-77	-51	242	85
Operating cashflow	**9,648**	**4,726**	**9,518**	**11,233**	**12,662**	**12,973**	**12,896**	**12,687**	**11,918**
Capex	-14,823	-4,116	-5,262	-6,095	-5,314	-5,215	-3,938	-5,831	-6,414
Exceptional items (net of tax)	-251	-21	1,605	877	0	0	0	0	0
Free cash flow	**-5,426**	**588**	**5,861**	**6,015**	**7,348**	**7,757**	**8,959**	**6,856**	**5,504**
Non-operating cash flow (net of tax)	2,982	-244	-193	103	418	410	430	714	918
Cash available to providers of capital	**-2,444**	**344**	**5,668**	**6,119**	**7,766**	**8,168**	**9,389**	**7,570**	**6,422**
Interest paid (net of tax)	-796	-664	-557	-474	-449	-338	-249	-233	-236
Net payments to minority shareholders	-1,254	-72	201	-1,971	-2,123	-1,832	-1,585	-1,506	-1,719
Equity shareholders' cash	**-4,494**	**-392**	**5,312**	**3,674**	**5,194**	**5,998**	**7,554**	**5,832**	**4,467**
Dividends and share buy backs	-2,106	21	-302	-834	-1,079	-1,271	-1,464	-1,682	-1,936
Other movements in equity	546	549	-1,002	-35	0	0	0	0	0
Advances (repayments) of debt	5,696	320	-876	-2,019	-4,449	-4,663	-2,309	0	0
Increase (decrease) in cash	**-358**	**498**	**3,132**	**786**	**-334**	**64**	**3,782**	**4,150**	**2,531**
Key Cash Flow ratios									
EV/EBITDA	6	10	6	5	4	4	4	4	5
Capex/EBITDA (%)	125	59	44	39	31	30	23	36	43
Replacement cost margins (%)	-9	11	20	24	27	28	30	23	20
Free cash flow growth rate (%)	-234	+111	+896	+3	+22	+6	+15	-23	-20
Free cash flow yield at GBP25/share	-7.6%	0.8%	8.2%	8.5%	10.3%	10.9%	12.6%	9.6%	7.7%
Equity cash/market capitalisation	-8.4%	-0.7%	10.0%	6.9%	9.8%	11.3%	14.2%	11.0%	8.4%
Net debt/EBITDA (times)	1.1	1.8	0.7	0.3	0.0	-0.2	-0.6	-0.9	-1.1

Source: Company Reports, I-Net, CIRA Estimates

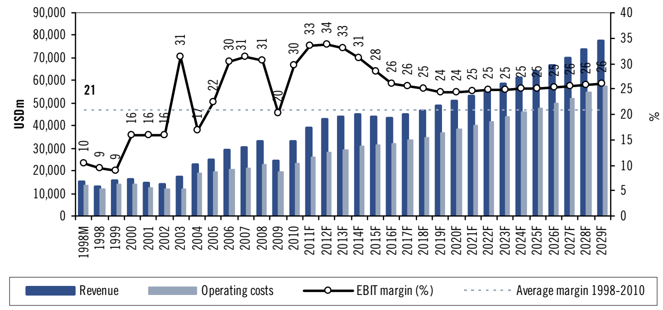
We expect Anglo American to generate $11.2 billion in operating cash for FY'11 ($74 billion over 2011-16E), which underscores very comfortable cover on capital commitments and progressive dividends. Average free cash flow yield is estimated at 10% and we estimate the company will deploy 34% of its EBITDA to capex over next five years.

Figure 5. Anglo American's revenue, cash costs and EBITDA margin



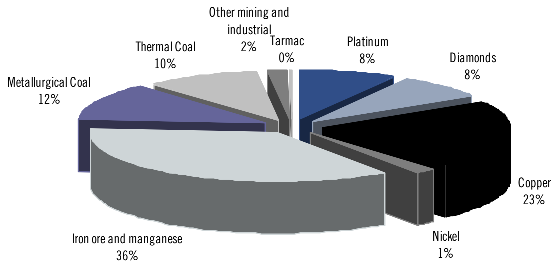
Source: Company Reports and CIRA Estimates

Figure 6. Revenue, operating costs and EBIT margin - core operations



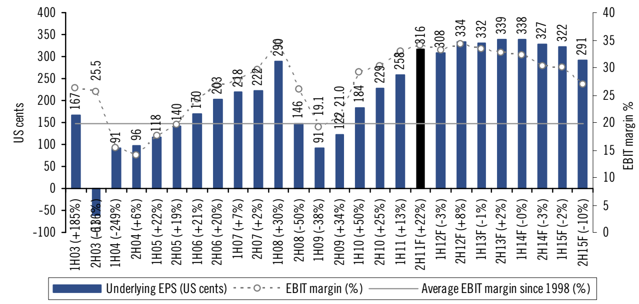
Source: Citi Investment Research and Analysis

Figure 7. Contribution to AGL's FY'12 EBIT



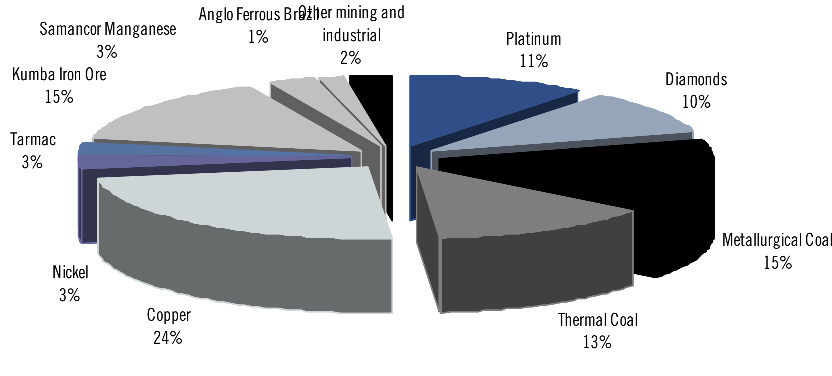
Source: Citi Investment Research and Analysis

Figure 8. Anglo American's Half yearly HEPS profile



Source: Company Reports, Citi Investment Research and Analysis

Figure 9. Contribution to Anglo American's NPV



Source: Citi Investment Research and Analysis

Figure 10. AGL's DCF valuation per division

	Fair value (US$m)	Value per share (ZAR)	% of value
Platinum	7,814	48	11%
Diamonds	7,213	44	10%
Metallurgical Coal	11,259	69	16%
Thermal Coal	9,654	59	14%
Copper	17,557	107	25%
Nickel	2,075	13	3%
Tarmac	1,919	12	3%
Kumba Iron Ore	11,348	69	16%
Samancor Manganese	2,046	12	3%
Anglo Ferrous Brazil	1,096	7	2%
Other mining and industrial	1,766	11	2%
Exploration	-1,252	-8	-2%
Corporate activities and exceptional items	-1,727	-11	-2%
Total enterprise value excluding minority interests	**70,768**	**431**	100%
Net debt as at 31 December 2010	-7,005	-43	
Cash used in share buy-backs	0	0	
Investments as at 31 December 2010	3,606	22	
Equity value as at 16-9-2011	**67,369**	**411**	

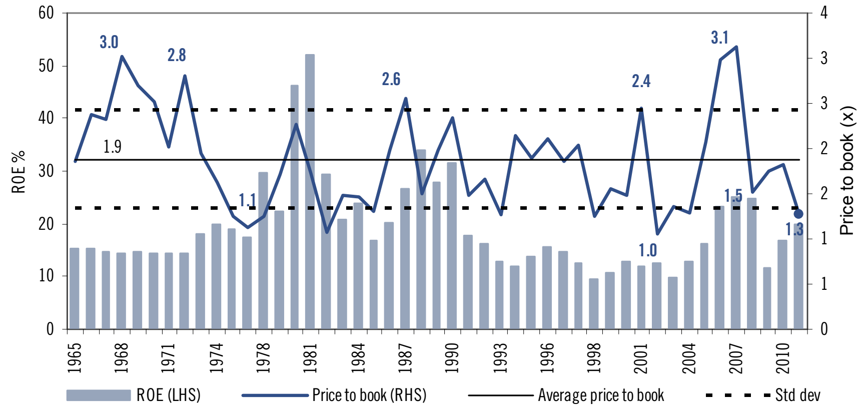
Source: Citi Investment Research and Analysis

Figure 11. Sum-of-the-parts valuation using market values for AGL's listed assets

	Market cap (ZARm)	Exchang e rate	Market cap (US$m)	AGL's holding	MV of AGL's sh. (US$m)
Market value of listed entities					
Anglo Platinum	147,499	7.38	19,993	80.0%	15,994
Kumba Iron Ore	154,920	7.38	20,999	65.3%	13,712
Exxaro	69,485	7.38	9,418	10.0%	942
Market value of Anglo's interest in listed companies					**30,649**
DCF enterprise value of unlisted divisions					
De Beers (45% interest)					7,213
Metallurgical coal					11,259
Thermal coal					9,654
Copper					17,557
Nickel					2,075
Tarmac					1,919
Samancor Manganese					2,046
Anglo Ferrous Brazil					1,096
Other mining and industrial (mainly Scaw Metals)					1,766
Exploration					-1,252
Corporate Activities					-1,836
DCF enterprise value of unlisted entities					**51,497**
Net debt as at 31 December 2010					-7,831
Cash used in share buy-backs during 2011F					0
Investments as at 31 December 2010 (excluding Exxaro)					2,664
Equity value as at 16-9-2011					**76,979**
Number of shares (one-year out)					1,210
Fair value per share (US$)					**64**
Fair value per share (GBP)					**40**
Fair value per share (ZAR)					**469**

Source: I-Net, Company Reports, Citi Investment Research and Analysis

Figure 12. Anglo American's price to book history (RHS) and ROE (LHS)



Source: Company Reports, I-Net, CIRA Estimates

Production growth of 40% by 2020E

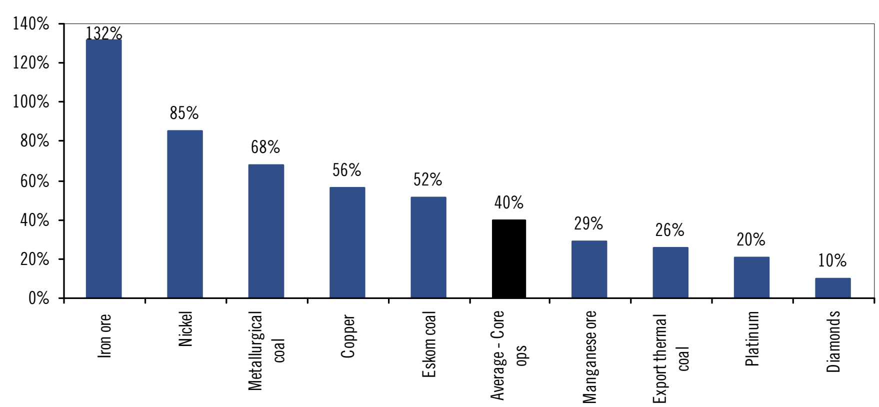
Anglo American estimates its project pipeline at US$70bn and management believes these projects have the potential to double production over the next decade.

Anglo looks to offer attractive production growth in key commodities to 2020, with the expected commissioning and ramp-up of its:

- Kolomela and Minas Rio iron ore projects.
- Los Bronces, Quellaveco and Collahuasi copper expansions.
- Barro Alto nickel project.
- Cerrejon and New Largo thermal coal projects.
- Grosvenor metallurgical coal project.

We calculate its copper-equivalent production growth from core operations at 40% to 2020. We forecast 2011-20 production growth of 132% for iron ore, 85% for nickel, 68% for metallurgical coal, 56% for copper and 52% for energy coal. Our estimate of growth is weighed down by low growth in its platinum (+20%) and diamonds (+10%) divisions.

Figure 13. Anglo's production growth per commodity (CY2011E-20E)



Source: Citi Investment Research and Analysis

Figure 14. Anglo American's share of production*

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F
Platinum (000 ounces)	2,387	2,452	2,570	2,550	2,600	2,700	2,800	2,800	2,835
% change	*-5*	*+3*	*+5*	*-1*	*+2*	*+4*	*+4*	*+0*	*+1*
Palladium (000 ounces)	1,319	1,361	1,449	1,454	1,500	1,556	1,613	1,613	1,634
% change	*-6*	*+3*	*+6*	*+0*	*+3*	*+4*	*+4*	*+0*	*+1*
Rhodium (000 ounces)	299	350	329	353	348	363	376	376	381
% change	*-10*	*+17*	*-6*	*+7*	*-1*	*+4*	*+4*	*-0*	*+1*
Gold ('000 ounces)	79	91	81	108	91	95	98	98	99
% change	*-96*	*+16*	*-11*	*+33*	*-16*	*+4*	*+4*	*+0*	*+1*
Diamonds (million carats)	48	25	33	36	39	39	39	38	39
% change	*-6*	*-49*	*+34*	*+10*	*+8*	*+0*	*+0*	*-3*	*+1*
Energy coal - power utilities (mt)	36	36	36	36	36	36	36	37	36
% change	*+6*	*+0*	*+0*	*-1*	*+2*	*-0*	*+0*	*+0*	*-3*
Energy coal - export quality (mt)	49	47	47	45	47	48	50	51	51
% change	*-6*	*-3*	*-1*	*-3*	*+4*	*+1*	*+4*	*+3*	*+0*
Metallurgical coal (mt)	15	14	16	14	17	18	20	22	22
% change	*+32*	*-5*	*+14*	*-11*	*+18*	*+7*	*+12*	*+9*	*+0*
Total coal (million tonnes)	**100**	**97**	**99**	**95**	**100**	**102**	**106**	**109**	**109**
% change	*+3*	*-2*	*+2*	*-4*	*+5*	*+2*	*+4*	*+3*	*-1*
Copper - Copper segment ('000 tonnes)	642	672	626	622	760	895	936	936	876
Copper - Angloplat ('000 tonnes)	9	11	11	13	12	12	13	13	13
Total copper (incl Angloplat) ('000 tonnes)	**651**	**683**	**636**	**635**	**772**	**907**	**949**	**949**	**889**
% change	*-2*	*+5*	*-7*	*-0*	*+22*	*+18*	*+5*	*+0*	*-6*
Nickel - Nickel segment ('000 tonnes)	20	20	20	28	52	58	58	58	59
Nickel - Angloplat ('000 tonnes)	16	20	19	20	18	19	20	20	20
Nickel (incl Angloplat) ('000 tonnes)	**36**	**39**	**39**	**48**	**70**	**77**	**78**	**78**	**79**
% change	*-21*	*+11*	*-2*	*+23*	*+47*	*+10*	*+1*	*+0*	*+2*
Zinc (000 tonnes)	341	350	350	23	0	0	0	0	0
% change	*-1*	*+3*	*-0*	*-94*	*-100*	-	-	-	-
Lead (000 tonnes)	63	68	71	8	0	0	0	0	0
% change	*+1*	*+9*	*+4*	*-88*	*-100*	-	-	-	-
Iron ore - Kumba (million tonnes)	37	42	43	43	50	53	53	53	56
% change	*+13*	*+14*	*+3*	*-1*	*+15*	*+7*	*+0*	*+0*	*+5*
Iron ore - Amapa and Minas Rio (million tonnes)	1	3	4	5	5	5	9	16	31
% change	-	*+273*	*+52*	*+12*	*+4*	*+6*	*+80*	*+78*	*+91*
Total iron ore (million tonnes)	**37**	**45**	**47**	**48**	**54**	**58**	**62**	**69**	**86**
% change	*+15*	*+19*	*+6*	*+0*	*+14*	*+7*	*+7*	*+11*	*+25*
Manganese ore (000 tonnes)	2,704	1,570	2,953	2,677	3,000	3,000	3,000	3,000	3,057
% change	*+12*	*-42*	*+88*	*-9*	*+12*	*+0*	*+0*	*+0*	*+2*
Manganese alloys (000 tonnes)	306	129	312	295	300	300	300	300	282
% change	*+5*	*-58*	*+142*	*-5*	*+2*	*+0*	*+0*	*+0*	*-6*

** 100% of consolidated subsidiaries and De Beers, but Anglo American's share of Joint Ventures and Associates*

Source: Company Reports and CIRA Estimates

Anglo American

Company description

Anglo American is a diversified mining company, with key operations in base metals, coal, iron ore and PGMs. While its head office is in the UK, its operations are spread across the globe, with exposure to South Africa, Australia and South America. Its biggest differentiator to its peer group is its globally dominant position in platinum and diamond production. The group has a larger proportion of assets in Africa (40%) than its peers, which could be perceived as higher risk given political uncertainty and electricity shortages.

Investment strategy

Our recommendation on Anglo American is Buy/Medium Risk (1M) for the UK and South Africa listings. We estimate strong volume growth of 33% over the next four years. We believe Anglo could offset the negative impact of falling commodity prices on its margins over the next five years to some extent. First, its commodity basket, which includes PGMs, diamonds and thermal coal, is more defensive than peers', in our view. Second, potentially lower commodity prices could be offset by restructuring benefits and growth into high-margin iron ore copper and coal markets. Last, the disposal of low-margin, low-return, non-core assets could structurally increase average margins and returns.

Valuation

We calculate Anglo American's discounted cash flow target price of R420 based on: 1) a weighted average cost of capital (WACC) of 9.52%; 2) long-term (2013E-23E) nominal revenue growth of 5% per annum; 3) long-term EBITDA margins of 38%; 4) long-term capex/EBITDA ratio of 43%; 5) long-term ROE of 12%; and 6) a terminal growth rate (after 2023) of 3.5% (implying an exit P/E multiple of 10x).

Risks

We rate Anglo American as Medium Risk. Its risk rating is derived after considering several factors, including an assessment of the macroeconomic environment, industry-specific risks, company-specific operational risks as well as financial risk.

The biggest risks to our earnings forecasts and valuation relate to commodity prices and currency forecasts.

Industry-specific risks include government actions, such as controls on imports, exports and prices, new forms or rates of taxation and royalties, and increased government regulation. South Africa's large income and wealth disparity increases political risk.

Higher-than-forecast inflation in the mining sector could lead to near-term margin compression, but should support higher commodity prices in the long term.

Skills, electricity and water shortages in South Africa may affect production and mining inflation more than we anticipate. As around 40% of Anglo's assets are in South Africa, it could erode Anglo's global competitiveness.

Over-estimation of mineral reserves could weaken our investment case. We assume long-term reserve replacement at a fixed capital cost to EBITDA. Failure to discover new reserves or expand existing reserves could therefore impact on Anglo's valuation.

Lawsuits and claims resulting from the mine-related disease of silicosis could also have a negative impact on our investment case.

Conversely, if any of these factors proves to have less of an effect than we anticipate, the stock could materially outperform our target.

Company Focus

Assore Limited (ASRJ.J)

Potential for big dividends

- Company Update

Buy/Medium Risk	1M
Price (19 Sep 11)	R218.54
Target price	R280.00
Expected share price return	28.1%
Expected dividend yield	3.2%
Expected total return	**31.3%**
Market Cap	R30,510M
	US$4,072M

Price Performance
(RIC: ASRJ.J, BB: ASR SJ)

- **Low cost assets and vast reserves** — ASR owns stakes in manganese, iron ore and chrome assets. All its main profit contributors are positioned in the first half of industry cost curves and have remaining lives of more than 30 years. Its vast reserves and resources, particularly of manganese ore, offer significant expansion potential.

- **Growth at an attractive price** — We forecast robust volume growth of 4.2% p.a. up to 2020, with an attractive average 3-year forward PE multiple of 7.4x (sector average 7.6x). Strong volume growth and a weakening rand could offset the potential negative impact of falling iron ore and manganese prices on ASR's earnings.

- **Potential for attractive dividend yield** — We forecast a rising dividend yield of up to 5.7% in FY14, thanks to strong cash generation, rapid volume growth, slowing project capex and a strong balance sheet. ASR reported net cash of R1 958m in June 2011. Even assuming declining iron ore and manganese prices, and significant increases in dividend payments, we believe its net cash pile could grow to R11.1bn by 2016 (R93/share), meaning our dividend forecasts could prove conservative.

- **Conversion of chrome smelters provide upside** — Assore announced on 30 June its intention to convert two more loss-making charge chrome furnaces to produce profitable high carbon ferromanganese from the third quarter of 2012. This will add 100ktpa to Assmangs ferromanganese capacity, bringing total nameplate capacity to 375ktpa (Assore – 50%). This conversion is not yet reflected in our forecasts, but we believe it provides upside potential.

- **Liquidity constraints** — Given ASR's low freefloat of around 20%, its liquidity is amongst the lowest in the mining sector. We calculate that only around 10% of ASR's issued shares are traded each year. Our DCF valuation employs an exit PE multiple of 8x (a 30% discount to more liquid peers) to reflect its liquidity discount.

- **Maintain BUY** — ASR's near-term iron ore expansion should underpin earnings growth. We are optimistic that its strong balance sheet and healthy cash generation could result in big dividends over the medium term. Our unchanged one-year target price of R280 offers a total one-year return of 31%. Maintain buy.

Assore Limited (ZAR)

Year to 30 Jun	2010A	2011A	2012E	2013E	2014E
Sales (RM)	7,085.7	10,547.8	11,199.0	12,779.5	12,603.8
Net Income (RM)	1,494.2	3,219.3	3,417.5	3,854.3	3,599.1
Diluted EPS (¢)	1,249	2,690	2,856	3,221	3,008
Diluted EPS (Old) (¢)	1,249	2,690	2,856	3,221	3,008
PE (x)	17.5	8.1	7.7	6.8	7.3
EV/EBITDA (x)	10.5	5.4	5.1	4.3	4.3
DPS (¢)	340	450	650	1,050	1,250
Net Div Yield (%)	1.6	2.1	3.0	4.8	5.7

Financial statements and ratio analysis

Figure 1. ASR's income statement

FYE June	**2009**	**2010**	**2011**	**2012F**	**2013F**	**2014F**	**2015F**	**2016F**
Income Statement (ZARm)								
Revenue	8,819	7,086	10,548	11,199	12,779	12,604	12,392	14,073
Revenue growth	*-4%*	*-20%*	*49%*	*6%*	*14%*	*-1%*	*-2%*	*14%*
Cash costs	-3,224	-4,318	-5,246	-5,760	-6,708	-6,997	-6,766	-7,944
Underlying EBITDA	**5,595**	**2,768**	**5,302**	**5,439**	**6,072**	**5,606**	**5,627**	**6,129**
EBITDA margin	*63%*	*39%*	*50%*	*49%*	*48%*	*44%*	*45%*	*44%*
Depreciation and amortisation	-415	-501	-528	-590	-879	-970	-968	-986
Underlying EBIT	**5,180**	**2,267**	**4,774**	**4,848**	**5,193**	**4,637**	**4,659**	**5,143**
Exceptional items	0	0	0	0	0	0	0	0
Investment income	367	191	120	154	262	422	546	667
Interest paid	-298	-124	-78	-8	0	0	0	0
Profit before tax	**5,249**	**2,334**	**4,816**	**4,995**	**5,455**	**5,059**	**5,205**	**5,810**
Taxation	-1,981	-823	-1,567	-1,538	-1,556	-1,416	-1,458	-1,627
Tax rate (proportionately consolidated)	*38%*	*35%*	*33%*	*31%*	*29%*	*28%*	*28%*	*28%*
Profit after tax	**3,267**	**1,511**	**3,250**	**3,457**	**3,899**	**3,642**	**3,748**	**4,184**
Minority interest in profit	-26	-32	-30	-39	-44	-43	-42	-48
Net profit for the year	**3,241**	**1,480**	**3,220**	**3,417**	**3,854**	**3,599**	**3,706**	**4,136**
Adjustments	24	15	-0	0	0	0	0	0
Headline earnings	**3,266**	**1,494**	**3,219**	**3,417**	**3,854**	**3,599**	**3,706**	**4,136**
Number of shares (millions):								
Weighted average	*119*	*120*	*120*	*120*	*120*	*120*	*120*	*120*
Diluted weighted average	*119*	*120*	*120*	*120*	*120*	*120*	*120*	*120*
Closing number	*119*	*120*	*120*	*120*	*120*	*120*	*120*	*120*
EPS (cents)	**2,734**	**1,236**	**2,691**	**2,856**	**3,221**	**3,008**	**3,097**	**3,456**
HEPS (cents)	**2,754**	**1,249**	**2,690**	**2,856**	**3,221**	**3,008**	**3,097**	**3,456**
Diluted HEPS (cents)	**2,754**	**1,249**	**2,690**	**2,856**	**3,221**	**3,008**	**3,097**	**3,456**
Diluted HEPS growth	*21%*	*-55%*	*115%*	*6%*	*13%*	*-7%*	*3%*	*12%*
PE multiple at R222/share	*8.1*	*17.8*	*8.3*	*7.8*	*6.9*	*7.4*	*7.2*	*6.4*
DPS declared (cents)	**400**	**340**	**450**	**650**	**1,050**	**1,250**	**1,450**	**1,650**
Dividend yield at R222/share	*1.8%*	*1.5%*	*2.0%*	*2.9%*	*4.7%*	*5.6%*	*6.5%*	*7.4%*
Dividend payout ratio	*15%*	*28%*	*17%*	*23%*	*33%*	*42%*	*47%*	*48%*
Breakdown of underlying EBIT (ZARm)								
Iron ore	1,535	1,002	3,243	3,954	4,015	3,349	2,845	2,840
EBIT margin	*61%*	*41%*	*63%*	*63%*	*56%*	*50%*	*46%*	*43%*
Manganese	3,085	1,118	1,145	606	831	989	1,503	1,842
EBIT margin	*73%*	*36%*	*35%*	*20%*	*23%*	*25%*	*36%*	*35%*
Chrome	149	-120	-158	-114	-112	-152	-131	-41
EBIT margin	*16%*	*-17%*	*-14%*	*-13%*	*-13%*	*-18%*	*-15%*	*-4%*
Other mining and shipping activities	189	84	277	117	133	130	126	143
EBIT margin	*16%*	*11%*	*27%*	*12%*	*12%*	*12%*	*11%*	*12%*
Commissions on sales and technical fees	223	184	267	285	326	322	316	360
Underlying EBIT	**5,180**	**2,267**	**4,774**	**4,848**	**5,193**	**4,637**	**4,659**	**5,143**
Group EBIT margin	*59%*	*32%*	*45%*	*43%*	*41%*	*37%*	*38%*	*37%*

Source: Company Reports, I-Net, CIRA Estimates

We forecast 6% growth in ASR's 2012 diluted HEPS to R28.56, with similar growth in revenues and EBITDA margins at 49%, maintaining 2011 levels (50%). We see a further 13% growth rate in FY13 to R32.21, this implies an attractive PE multiple of 6.8x at the current share price.

Figure 2. ASR's balance sheet

FYE June	2009	2010	2011	2012F	2013F	2014F	2015F	2016F
Balance Sheet (ZARm)								
Non-current operating assets	5,579	7,117	8,998	10,345	10,586	10,930	11,042	11,855
Working capital	1,749	2,247	2,097	2,732	2,610	2,664	2,612	3,339
Net tax payable	-429	-254	0	-396	-362	-357	-368	-458
Net operating assets	**6,898**	**9,111**	**11,096**	**12,681**	**12,835**	**13,237**	**13,286**	**14,735**
Investments	110	58	0	0	0	0	0	0
Cash	3,001	1,850	2,335	3,366	6,114	8,023	10,099	11,129
Total invested capital	**10,009**	**11,018**	**13,430**	**16,047**	**18,949**	**21,260**	**23,385**	**25,864**
Equity	6,603	7,867	10,766	13,525	16,362	18,585	20,675	22,956
Minority interest	72	102	114	122	131	140	148	158
Deferred tax	1,342	1,714	2,174	1,986	2,033	2,099	2,120	2,276
Provisions	317	301	0	414	423	437	442	474
Debt	1,675	1,034	377	0	0	0	0	0
Total invested capital	**10,009**	**11,018**	**13,430**	**16,047**	**18,949**	**21,260**	**23,385**	**25,864**
Key Balance Sheet ratios								
Non-current asset turnover (times)	1.6	1.0	1.2	1.1	1.2	1.2	1.1	1.2
Net debt (cash) (ZARm)	-1,326	-816	-1,958	-3,366	-6,114	-8,023	-10,099	-11,129
Net debt (cash) per share (ZAR)	-11	-7	-16	-28	-51	-67	-84	-93
Gearing (%)	-25	-12	-22	-33	-60	-76	-95	-94
Working capital turnover (days)	72	116	73	89	75	77	77	87
NAV per share (ZAR)	56	66	90	113	137	155	173	192
ROCE (%)	80.3	28.3	47.3	40.8	40.7	35.6	35.1	36.7
ROIC (%)	49.8	20.5	30.9	33.4	29.2	26.2	25.6	28.4
Return on equity (excluding cash) (%)	99.8	26.8	42.9	35.1	35.2	30.5	29.9	31.0

Source: Company Reports, Citi Investment Research and Analysis

Figure 3. ASR's free cash flow statement

FYE June	2009	2010	2011	2012F	2013F	2014F	2015F	2016F
Cash Flow Statement (ZARm)								
Underlying EBITDA	5,595	2,768	5,302	5,439	6,072	5,606	5,627	6,129
Movements in provisions	81	-16	-301	414	10	14	4	33
Cash tax on EBIT	-2,048	-607	-1,349	-1,288	-1,471	-1,237	-1,272	-1,193
Movements in working capital	494	-498	150	-634	121	-54	52	-727
Operating cash flow	**4,123**	**1,647**	**3,802**	**3,930**	**4,732**	**4,329**	**4,411**	**4,241**
Capex	-1,269	-2,039	-2,409	-1,937	-1,120	-1,313	-1,080	-1,799
Exceptional items (net of tax)	-9	-1	0	0	0	0	0	0
Free cash flow	**2,845**	**-393**	**1,393**	**1,993**	**3,612**	**3,015**	**3,332**	**2,442**
Non-operating cash flow (net of tax)	250	189	144	111	189	304	393	480
Cash available to providers of capital	**3,095**	**-204**	**1,537**	**2,103**	**3,801**	**3,319**	**3,725**	**2,923**
Interest paid (net of tax)	-212	-89	-56	-5	0	0	0	0
Net payments to minority shareholders	-66	-2	-18	-31	-36	-35	-34	-38
Equity shareholders' cash	**2,817**	**-295**	**1,464**	**2,067**	**3,765**	**3,285**	**3,692**	**2,885**
Dividends and share buy backs	-749	-215	-322	-658	-1,017	-1,376	-1,616	-1,855
Advances (repayments) of debt	-1,019	-641	-657	-377	0	0	0	0
Increase (decrease) in cash	**1,049**	**-1,151**	**485**	**1,032**	**2,748**	**1,909**	**2,076**	**1,030**
Key Cash Flow ratios								
EV/EBITDA	5.3	10.7	5.6	5.4	4.9	5.3	5.3	4.8
Capex/EBITDA	23%	74%	45%	36%	18%	23%	19%	29%
Free cash flow growth rate	56%	-114%	454%	43%	81%	-17%	10%	-27%
Free cash flow yield	9%	-1%	5%	7%	12%	11%	12%	10%

Source: Company Reports, Citi Investment Research and Analysis

Sales volume forecasts

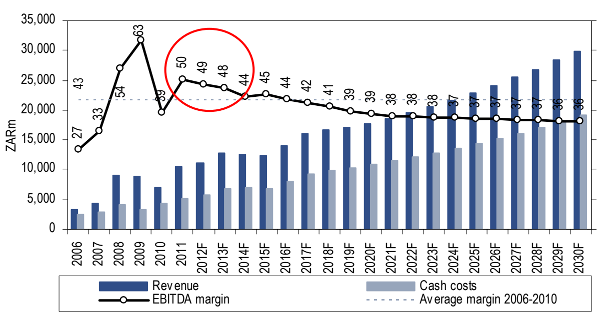
An attractive feature of Assore is that its near-term 6Mtpa Khumani iron ore expansion (to 16Mtpa) should provide a strong cash flow kicker from FY2013 as volumes ramp up into a lucrative market. Medium-term volume growth should come from a 1.5Mtpa increase in manganese ore mining capacity. Nchwaning' manganese ore plant was constructed to handle up to around 5Mtpa, which significantly reduces capex requirements for the expansion.

Figure 4. ASR's sales volumes, reserves and life of mine

FYE June	2009	2010	2011	2012F	2013F	2014F	2015F	2016F	CAGR 11-16	Reserve life (yrs)	Resource life (yrs)
100% of volumes for joint operations											
ARM Ferrous											
Iron ore (000 t)	7,409	9,799	10,006	11,200	13,800	14,000	14,000	15,400	9%	42	53
Growth (%)	*13*	*32*	*2*	*12*	*23*	*1*	*0*	*10*			
Manganese ore (000 t)	2,152	3,095	2,882	3,000	3,200	3,200	3,200	4,100	7%	46	123
Growth (%)	*-42*	*44*	*-7*	*4*	*7*	*0*	*0*	*28*			
Manganese alloys (000 t)	117	238	218	280	280	280	280	280	5%		
Growth (%)	*-53*	*103*	*-8*	*28*	*0*	*0*	*0*	*0*			
Charge chrome (000 t)	144	189	238	180	180	180	180	180	-5%		
Growth (%)	*-48*	*31*	*26*	*-24*	*0*	*0*	*0*	*0*			
Chrome ore (000 t)	256	272	373	236	232	232	241	253	-7%	170	229
Growth (%)	*-16*	*6*	*37*	*-37*	*-2*	*0*	*4*	*5*			

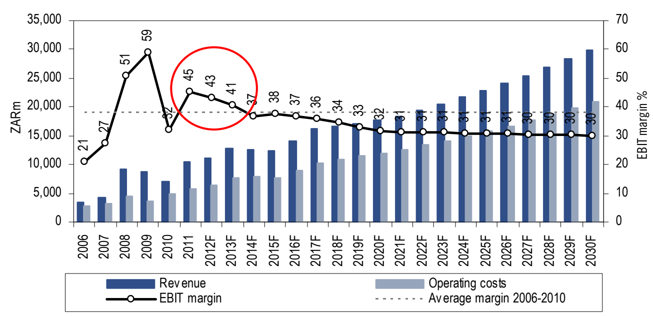
Source: Company Reports, Citi Investment Research and Analysis

Figure 5. Revenue, cash costs (LHS) and EBITDA margin (RHS)



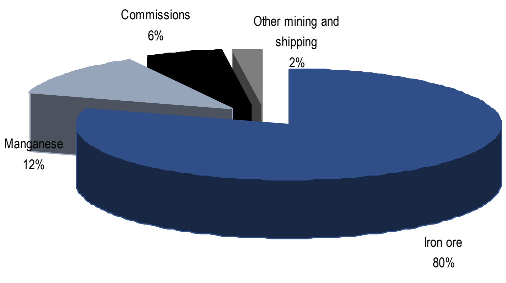
Source: Company Reports, Citi Investment Research and Analysis

Figure 6. Revenue, operating costs and EBIT margin



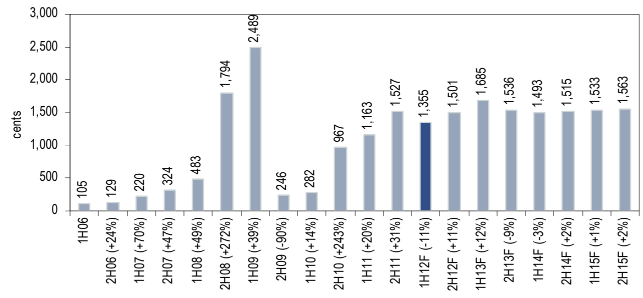
Source: Company Reports, Citi Investment Research and Analysis

Figure 7. Contribution to ARM's FY2012F underlying EBIT



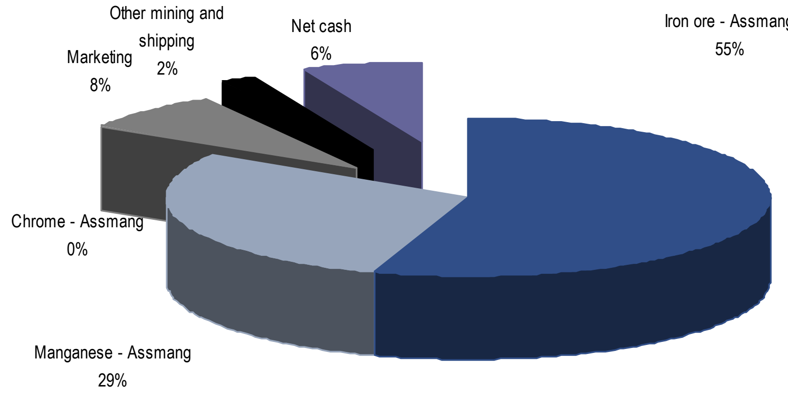
Source: Citi Investment Research and Analysis

Figure 8. Assore's Half yearly HEPS profile



Source: Company reports and Citi Investment Research and Analysis

Figure 9. ASR's divisional valuation



Source: Citi Investment Research and Analysis

Figure 10. Divisional valuation using DCF valuations

	DCF fair value (ZARm)	Minority interest (ZARm)	Fair value (ZARm)	Fair value per share (ZAR)
Assmang	25,408	0	25,408	212
Marketing	2,773	416	2,357	20
Other mining and shipping	578	0	578	5
Other	0	0	0	0
Enterprise value	**28,759**	**416**	**28,343**	**237**
Other Investments			0	0
Net cash (debt) as at 30 June 2011			1,958	16
Equity value			**30,300**	**253**
Number of shares (millions)			120	
DCF fair value per share as at 16-9-2011 (Rand)			**253**	

Source: Citi Investment Research and Analysis

Assore Limited

Company description

Assore mines iron ore, manganese ore, chrome and pyrophylite and produces manganese- and chrome alloys in South Africa. It also earns commission on marketing its JV partners' (ARM's) products. Assore's principal investment is Assmang which is a 50/50 joint venture with ARM and contributes around 88% to NPV.

Investment strategy

We rate ASR Buy/Medium Risk (1M). It is a quality mining company with longlife, low-cost operations and strong growth opportunities, in our view. Khumani Iron Ore's near-term 6Mtpa expansion (to 16Mtpa) should provide a strong cash flow kicker from FY2013 as volumes ramp up into a lucrative market. We forecast a significant increase in ASR's dividends from FY12 onwards thanks to strong cash generation, rapid volume growth, slowing capex beyond Khumani iron ore expansion and ASR's strong balance sheet.

Valuation

Our R280 target price is based on a DCF calculation. Our main assumptions are WACC of 13.34%, long-term (2016-2030) nominal revenue growth of 5% per annum, long-term EBITDA margins of 42%, long-term capex/EBITDA ratio of 29%, long-term ROE of 17% and nominal terminal growth rate (after 2030) of 6% (SA inflation of 5% + 1% volume growth), implying an exit PE multiple of 8.2x.

Risks

We rate ASR as Medium Risk. Our risk rating is derived after considering several factors, including an assessment of the macro economic environment, industry specific risks, company-specific operational risks as well as financial risk.

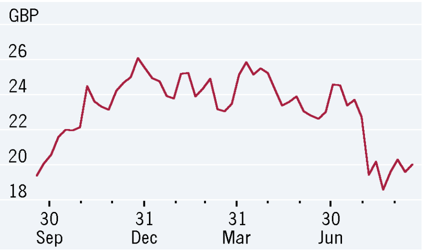
Downside risks include: A significant global economic slowdown (China in particular), which could lead to lower than forecast commodity prices; potential execution risk given significant new projects; South African infrastructure constraints limiting volume growth; skills, electricity and water shortages; onerous regulation in South Africa; higher-than-forecast mining inflation; overestimation of mineral reserves and government actions.

Company Focus

■ Company Update

Buy/Medium Risk	1M
Price (19 Sep 11)	£19.57
Target price	£24.05
Expected share price return	22.9%
Expected dividend yield	3.1%
Expected total return	**26.0%**
Market Cap	£120,576M
	US$190,372M

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



BHP Billiton PLC (BLT.L)

Big Capex Spender, but superior growth

- **Superior volume growth potential** — BHP Billiton could boost production by a sector-leading 81% (sector average 48%) as it embarks on it $80-95bn expansion.

- **Focus on brownfield and high margin growth** — BHP Billiton is focusing organic growth on high-margin iron ore (125% by 2020), coking coal (+76%) and petroleum (+138%). Most projects will be brownfield expansions to existing basins utilising existing project teams, which makes for lower-risk growth, in our view.

- **High grading capex** — Prioritisation of projects may be required now that the Petrohawk deal has been completed, not simply a matter of adding US$3-5b pa shale gas capex spend to the existing US$80b by FY15 programme. We forecast capex of US$95b (project, SIB and exploration) over the next 4 years, with US$18.5b in FY12. Key project approval expected soon is the first stage of the Olympic Dam open pit.

- **Capex could come back to bite** — BHP is one of the key laggards from our study of The True P/E of the mining sector. The company is almost twice the size of Rio Tinto in terms of market cap, but they both have the same D&A charge coming through the P&L.Depreciation lags capex and with projected annual capital spend of $20bn, BHP D&A rates will have to rise significantly going forward, putting pressure on earnings.

- **Maintain BUY** — We view BHP Billiton as one of the most defensive miners given its high sustainable margins, solid cash generation and reasonably comfortable balance sheet. Its $80-95bn capex programme over the next five years could add 50% volume growth over five years and could create significant further expansion optionality. Our one-year target price of £24 (converts to R280) offers a total expected return of 26%. We maintain our BUY recommendation.

BHP Billiton PLC (USD)

Year to 30 Jun	2010A	2011A	2012E	2013E	2014E
Sales ($M)	52,798.0	71,739.0	79,049.5	84,979.6	87,346.5
Profit Before Tax ($M)	19,572.0	31,255.0	33,005.5	34,070.5	35,310.3
Diluted EPS (¢)	223.7	406.1	408.2	429.4	445.0
Diluted EPS (Old) (¢)	223.7	406.1	408.2	429.4	445.0
PE (x)	13.8	7.6	7.6	7.2	6.9
EV/EBITDA (x)	7.7	5.1	4.9	4.7	4.5
DPS (¢)	87.0	101.0	116.0	126.0	136.0
Net Div Yield (%)	2.8	3.3	3.8	4.1	4.4

Financial statements and ratio analysis

Figure 1. BHP financial statements and ratio analysis - associates proportionately consolidated

FYE June	**2009**	**2010**	**2011**	**2012F**	**2013F**	**2014F**
Income Statement (US$m)						
Revenue	50,211	52,798	71,739	79,050	84,980	87,346
Cash costs	-29,335	-28,320	-34,646	-39,753	-43,569	-44,223
Underlying EBITDA	**20,876**	**24,478**	**37,093**	**39,297**	**41,411**	**43,123**
Depreciation and amortisation	-3,871	-4,759	-5,113	-5,433	-6,410	-6,913
Underlying EBIT	**17,005**	**19,719**	**31,980**	**33,864**	**35,001**	**36,210**
Items excluded from underlying earnings	-6,039	-4,954	-4,980	-5,585	-6,566	-7,074
Net interest	-543	-459	-561	-858	-930	-900
Profit before tax	**10,408**	**19,572**	**31,255**	**33,006**	**34,070**	**35,310**
Taxation	-4,070	-6,563	-7,309	-10,098	-10,417	-10,789
Profit after tax	**6,338**	**13,009**	**23,946**	**22,908**	**23,654**	**24,521**
Minority interest in profit	-461	-287	-298	-1,113	-730	-764
Net profit for the year	**5,877**	**12,722**	**23,648**	**21,794**	**22,924**	**23,757**
Adjustments	4,845	-253	-1,964	0	0	0
Underlying earnings	**10,722**	**12,469**	**21,684**	**21,794**	**22,924**	**23,757**
Number of shares (millions)						
Weighted average	*5,581*	*5,574*	*5,339*	*5,339*	*5,339*	*5,339*
Diluted weighted average	*5,581*	*5,574*	*5,339*	*5,339*	*5,339*	*5,339*
Closing	*5,581*	*5,574*	*5,339*	*5,339*	*5,339*	*5,339*
Underlying EPS (US cents)	**192**	**224**	**406**	**408**	**429**	**445**
Underlying EPS growth (% y-o-y)	*-30*	*+16*	*+82*	*+1*	*+5*	*+4*
Diluted underlying EPS (US cents)	**105**	**228**	**443**	**408**	**429**	**445**
PE multiple at 31.6 US$/share	*30x*	*14x*	*7x*	*8x*	*7x*	*7x*
DPS declared (US cents)	**82**	**87**	**101**	**116**	**126**	**136**
Dividend payout ratio	*43%*	*39%*	*25%*	*28%*	*29%*	*31%*
Dividend yield at 31.6 US$/share	*2.6%*	*2.8%*	*3.2%*	*3.7%*	*4.0%*	*4.3%*
Composition of underlying EBIT (US$m)						
Aluminium	192	351	266	621	628	918
EBIT margin	*5%*	*9%*	*6%*	*14%*	*12%*	*17%*
Base Metals	1,045	4,484	6,415	5,953	6,688	6,348
EBIT margin	*16%*	*48%*	*50%*	*46%*	*47%*	*45%*
Carbon Steel	12,292	8,766	16,695	21,108	18,443	17,059
EBIT margin	*60%*	*46%*	*55%*	*56%*	*49%*	*47%*
Nickel	-853	674	588	258	379	242
EBIT margin	*-36%*	*19%*	*15%*	*7%*	*10%*	*6%*
Energy Coal	1,639	804	1,128	1,722	1,802	2,313
EBIT margin	*44%*	*24%*	*24%*	*30%*	*31%*	*36%*
Petroleum	4,002	4,573	6,332	5,192	8,024	10,297
EBIT margin	*56%*	*52%*	*59%*	*49%*	*55%*	*60%*
Group and unallocated	-464	1	8	-124	-76	-58
Underlying EBIT	**17,854**	**19,653**	**31,433**	**34,730**	**35,888**	**37,120**
Group EBIT margin	*36%*	*37%*	*44%*	*44%*	*42%*	*42%*
Group EBIT margin - core operations	*32%*	*34%*	*41%*	*43%*	*40%*	*38%*
Key Income Statement ratios						
EBITDA margin (%)	42%	46%	52%	50%	49%	49%
Interest cover (times)	38	53	66	46	45	48

Source: Company Reports and CIRA Estimates

We forecast BHP's FY'12 EPS to be flat at $4.08 compared to previous year as pricing pressure negates the volume growth over the period. The EBITDA margins are expected to fall slightly from 52% to 50% in FY'12 and dividend yield of 3.7%.

Figure 2. BHP's balance sheet

FYE December	2009	2010	2011	2012F	2013F	2014F
Balance Sheet (US$m)						
Non-current operating assets and others	49,947	56,557	78,757	101,550	118,795	134,888
Working capital	10,636	12,092	5,547	-5,704	-6,416	-5,935
Net operating assets	**60,583**	**68,649**	**84,304**	**95,846**	**112,379**	**128,953**
Financial assets	6,591	7,455	8,239	9,258	10,302	11,372
Cash and shortterm investment	11,596	12,748	10,348	264	264	264
Total invested capital	**78,770**	**88,852**	**102,891**	**105,368**	**122,945**	**140,589**
Equity	39,954	48,525	56,762	58,363	76,408	95,079
Minority interest	757	804	993	993	993	993
Debt	16,419	15,764	15,907	15,346	14,220	12,804
Net deferred tax liabilty	3,038	4,320	2,683	2,683	2,683	2,683
Provisions	7,846	8,588	10,332	10,332	10,332	10,332
Other current liabilities	10,756	10,851	16,214	17,651	18,309	18,698
Total invested capital (Capital employed)	**78,770**	**88,852**	**102,891**	**105,368**	**122,945**	**140,589**
Key Balance Sheet ratios						
Non-current asset turnover (times)	1.0	0.9	0.9	0.8	0.7	0.6
Net debt	4,823	3,016	5,559	15,082	13,956	12,540
Debt: Equity (%)	41	32	28	26	19	13
Gearing (%)	11	6	9	21	15	12
Working capital turnover (days)	77	84	28	-26	-28	-25
NAV per share (US$)	7	9	11	11	14	18
NAV per share (AS$)	10	10	11	12	17	21
Price to book	4.5	4.5	4.1	3.8	2.7	2.1
ROCE (%)	22.0	23.5	33.4	32.5	30.7	27.5
ROIC (%)	16.8	23.1	33.8	28.1	25.4	22.7
Return on equity (%)	15.0	28.8	44.9	37.9	34.0	27.7
ROCE per division (%)						
Aluminium	2	3	2	4	4	6
Base Metals	4	17	23	20	21	18
Carbon steel	58	32	48	48	34	26
Nickel	-24	34	35	15	23	15
Energy Coal	39	15	17	23	20	23
Petroleum	23	25	33	27	41	53

Source: Company Reports and CIRA Estimates

Figure 3. BHP's free cash flow statement

FYE December	2009	2010	2011	2012F	2013F	2014F
Cash Flow Statement (US$m)						
Underlying EBITDA	20,876	24,478	37,093	39,297	41,411	43,123
Movements in provisions	-3,413	-6,431	-4,738	-9,798	-10,117	-10,489
Cash tax on EBIT	-3,174	1,667	-1,377	1,234	1,562	1,618
Movements in working capital	4,711	-1,612	554	0	0	0
Operating cashflow	**19,000**	**18,102**	**31,532**	**30,733**	**32,857**	**34,252**
Capex	-9,577	-9,728	-10,489	-16,631	-22,496	-23,072
Exceptional items (net of tax)	-1,243	-1,333	-1,240	-1,819	-1,844	-1,870
Free cash flow	**8,180**	**7,041**	**19,803**	**12,283**	**8,516**	**9,310**
Non-operating cash flow (net of tax)	-231	46	-16,205	-31,631	-22,496	-23,072
Cash available to providers of capital	**7,949**	**7,087**	**3,598**	**-19,349**	**-13,980**	**-13,763**
Interest paid	-543	-459	-561	-858	-930	-900
Equity shareholders' cash	**7,406**	**6,628**	**3,037**	**-20,207**	**-14,911**	**-14,662**
Dividends and share buy backs	-5,109	-5,157	-15,441	-5,947	-6,460	-6,994
Net change from liquid resources	-314	-86	-455	-358	-430	-400
Advances (repayments) of debt	3,929	-485	-577	-561	-1,125	-1,416
Increase (decrease) in cash	**5,912**	**900**	**-13,436**	**-27,074**	**-22,927**	**-23,472**
Key Cash Flow ratios						
EV/EBITDA	3	3	2	2	2	2
Capex/EBITDA (%)	46	40	28	42	54	54
Replacement cost margins (%)	23	28	37	29	22	23
Free cash flow growth rate (%)	-16	-14	+181	-38	-31	+9
Free cash flow yield at GBP30/share	11.3%	9.7%	27.4%	17.0%	11.8%	12.9%
Equity shareholders' cash/market capitalisation	11.1%	9.9%	4.5%	-30.2%	-22.3%	-21.9%
Net debt/EBITDA (times)	0.2	0.1	0.1	0.4	0.3	0.3

Source: Company Reports and CIRA Estimates

BHP Billiton PLC

Company description

BHP Billiton is the world's largest mining company, formed by the merger of BHP Ltd and Billiton plc in 2001. The group comprises six major business units, Petroleum, Aluminium, Base Metals, Carbon Steel Materials, Energy Coal and Stainless Steel Materials. The company retains a dual listed corporate structure between the UK and Australian markets.

Investment strategy

We rate BHP Billiton Buy/Medium Risk (1M). Key positive drivers include the following. 1) Production growth - we forecast strong organic production growth across the group's petroleum, coal and iron ore assets as projects are delivered, subject to market conditions. 2) Strong balance sheet - BHP has a strong balance sheet that could be used to acquire assets at the bottom of the cycle, or return it to shareholders through the reactivisation of the buyback programme.

Valuation

Our target price is £24.05 (which converts to a rounded R280 at a one-year forward forecast ZAR/GBP FX rate of 12). Our BHP valuation (NPV) of £27.70 per share is partly based on DCF analysis, using a 7.8% real, after-tax, unlevered discount rate and a beta of 1.1. Our long-term equilibrium commodity prices and other key assumptions are available in our Metals & Mining Strategy reports. We calculate a one-year target price using a combination of: 1) a target price based on a 0% premium to NPV; 2) a multiple-based target price of £20.41 per share using FY11E (8x P/E); and 3) a 50% weighting for each method.

Risks

We rate BHP as Medium Risk, referencing a number of quantitative and fundamental screens. BHP is a Medium Risk company utilising an Australian quantitative risk model based on, among other criteria, earnings and dividend stability measured in A$ and ranked against an Australian universe. But, BHP is managed in US$ (e.g., progressive US$ dividends) and there is a natural US$ hedge in its earnings stream which would work to make this more stable in an international context. If a US$ perspective were taken on these issues a lower risk rating could be warranted.

Key risks to our projected earnings, cash flows and valuation relate to weaker than expected commodity prices/economic growth and currency fluctuations.

Country risk is a significant consideration with about 40% by NPV of operations in Africa, South America and Asia. Operating risk is lower than in smaller metals and mining companies with fewer operations.

The ongoing global economic slowdown could deteriorate further, providing further downside risk to commodity prices.

If the impact of these risk factors is more or less negative than we currently anticipate, then the share price could fail to reach or exceed our target price.

Company Focus

Exxaro Resources Limited (EXXJ.J)

Downside Risks Looming

- Company Update

Hold/Medium Risk	2M
Price (19 Sep 11)	R187.85
Target price	R210.00
Expected share price return	11.8%
Expected dividend yield	5.3%
Expected total return	**17.1%**
Market Cap	R235M
	US$31M

Price Performance
(RIC: EXXJ.J, BB: EXX SJ)

- **Peak margin concerns** — Earnings forecast upgrades over the past two years were largely driven by higher iron ore, coal and mineral sands price forecasts. Medium-term EBITDA margin expectations above 40% are significantly above last year's peak of 38%, or what we see as a mid-cycle margin of 34%. There is a real risk that current economic headwinds could shrink margins sooner than we anticipate, posing downside risk to earnings forecasts.
- **Optimistic earnings forecasts** — Exxaro's 12-month forward earnings forecast of R25.50/share is 77% above its peak reported earnings in 2010 of R14.37/share. The rise in earnings forecasts have been almost exclusively driven by higher commodity price forecasts, which could prove unsustainable in a global economic slowdown.
- **Growth laggard** — Infrastructure constraints, limited domestic coal demand growth and a lack of visibility on new coal-fired power stations are limiting Exxaro's coal volume growth beyond GMEP. We forecast Exxaro's volume growth to 2020 at only 22%, well below sector average 48%.
- **Capital allocation risk** —As a result of limited organic growth options, we see a risk of suboptimal capital allocation to mineral sands, alternative energy or iron ore projects.
- **Close to all time highs** — Exxaro is trading only 4% below its all time high of R200, despite fears of a global economic slowdown and a collapse in other mining equities.
- **HOLD maintained** — Our one-year target price of R210 offers an expected return of 17% and there could be downside risk to elevated near-term earnings forecasts and our valuation. Exxaro has been an outperformer in the SA-listed mining space, but could see more downside in an economic slowdown in our view. We maintain our Hold recommendation.

Exxaro Resources Limited (ZAR)

Year to 31 Dec	2009A	2010A	2011E	2012E	2013E
Sales (RM)	15,009.0	17,155.0	21,510.1	25,606.2	28,618.5
Net Income (RM)	2,516.0	5,186.0	8,347.0	10,700.5	11,040.2
Diluted EPS (R)	7.03	14.37	23.06	29.56	30.50
Diluted EPS (Old) (R)	7.03	14.37	23.06	29.56	30.50
PE (x)	26.7	13.1	8.1	6.4	6.2
EV/EBITDA (x)	1.3	0.3	-0.2	-0.4	-0.7
DPS (R)	2.00	5.00	7.00	10.80	11.10
Net Div Yield (%)	1.1	2.7	3.7	5.7	5.9

Financial statements and ratio analysis

We forecast 60% growth in Exxaro's FY2011 diluted HEPS to R23.06, driven mainly by higher commodity price expectations, which increases its EBITDA margin to 44% (2010: 37%). This implies a reasonable PE multiple of 8.1x at the current share price.

Figure 1. Exxaro income statement and ratio analysis - Sishen Iron Ore Company proportionately consolidated

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Income Statement (ZARm)								
Revenue	18,160	19,830	24,957	31,472	36,848	39,456	43,058	45,879
Cash costs	-11,783	-13,904	-15,677	-17,475	-19,825	-22,156	-25,235	-28,188
Underlying EBITDA	**6,378**	**5,926**	**9,280**	**13,997**	**17,024**	**17,301**	**17,822**	**17,692**
Depreciation and amortisation	-1,030	-1,330	-1,512	-1,562	-1,859	-2,202	-2,792	-2,928
Underlying EBIT	**5,348**	**4,596**	**7,768**	**12,436**	**15,165**	**15,099**	**15,031**	**14,764**
Special items	-330	-1,576	-44	-498	-73	-77	-82	-87
Interest received	153	145	135	227	267	391	622	1,097
Interest paid	-444	-586	-596	-487	-534	-358	-154	-117
Profit before tax	**4,727**	**2,579**	**7,263**	**11,679**	**14,825**	**15,054**	**15,416**	**15,656**
Taxation	-1,346	-1,556	-2,028	-3,755	-4,125	-4,014	-4,139	-4,226
Profit after tax	**3,381**	**1,023**	**5,235**	**7,924**	**10,701**	**11,040**	**11,277**	**11,430**
Minority interest in profit	24	0	-27	-9	0	0	0	0
Net profit for the year	**3,405**	**1,023**	**5,208**	**7,915**	**10,701**	**11,040**	**11,277**	**11,430**
Adjustments	225	1,493	-22	432	0	0	0	0
Headline earnings	**3,630**	**2,516**	**5,186**	**8,347**	**10,701**	**11,040**	**11,277**	**11,430**
Number of shares (millions)								
Weighted average	*343*	*345*	*347*	*348*	*348*	*348*	*348*	*348*
Diluted weighted average	*361*	*358*	*361*	*362*	*362*	*362*	*362*	*362*
Closing	*344*	*346*	*347*	*348*	*348*	*348*	*348*	*348*
EPS (ZAR)	**9.93**	**2.97**	**15.01**	**22.74**	**30.75**	**31.72**	**32.41**	**32.84**
HEPS (ZAR)	**10.58**	**7.29**	**14.94**	**23.99**	**30.75**	**31.72**	**32.41**	**32.84**
Diluted HEPS (ZAR)	**10.06**	**7.02**	**14.37**	**23.06**	**29.56**	**30.50**	**31.15**	**31.57**
Growth (%)	*+147*	*-30*	*+105*	*+60*	*+28*	*+3*	*+2*	*+1*
PE multiple at R194/share	*19.3*	*27.6*	*13.5*	*8.4*	*6.6*	*6.4*	*6.2*	*6.1*
DPS declared (ZAR)	**3.75**	**2.00**	**5.00**	**7.00**	**10.80**	**11.10**	**11.30**	**13.20**
Dividend yield at R194/share	*1.9%*	*1.0%*	*2.6%*	*3.6%*	*5.6%*	*5.7%*	*5.8%*	*6.8%*
Dividend payout ratio	*38%*	*67%*	*33%*	*31%*	*35%*	*35%*	*35%*	*40%*
Underlying EBIT per division (ZARm)								
Coal	2,654	1,905	2,690	3,568	4,000	5,484	6,422	6,695
EBIT margin Coal	*29%*	*20%*	*26%*	*29%*	*28%*	*32%*	*33%*	*31%*
Mineral Sands	104	-124	179	2,447	4,147	3,375	3,107	3,254
EBIT margin Mineral Sands	*4%*	*-4%*	*4%*	*33%*	*41%*	*33%*	*27%*	*25%*
Base metals	-172	-8	-113	-290	-322	-197	-125	-104
EBIT margin Base metals	*-9%*	*-1%*	*-6%*	*-18%*	*-40%*	*-21%*	*-12%*	*-10%*
Iron ore	2,718	2,568	5,028	6,802	7,528	6,620	5,809	5,103
EBIT margin Iron Ore	*64%*	*55%*	*65%*	*69%*	*67%*	*61%*	*56%*	*51%*
Other	*44*	*255*	*-16*	*-90*	*-187*	*-183*	*-183*	*-184*
Underlying EBIT	**5,348**	**4,596**	**7,768**	**12,436**	**15,165**	**15,099**	**15,031**	**14,764**
Group EBIT margin	*30%*	*23%*	*31%*	*40%*	*41%*	*38%*	*35%*	*32%*
Key Income Statement ratios								
Revenue growth	46%	9%	26%	26%	17%	7%	9%	7%
EBITDA margin	35%	30%	37%	44%	46%	44%	41%	39%
Depreciation rate	9%	10%	10%	8%	7%	7%	9%	9%
Interest cover (times)	12	5	13	25	29	43	101	134
Tax rate	28%	60%	28%	32%	28%	27%	27%	27%

Source: Company Reports, I-Net, CIRA Estimates

We forecast proportionately consolidated strong R2bn net cash position for Exxaro in 2012, with average return on capital employed being 45% over FY2011-15E.

Figure 2. Exxaro's balance sheet and ratio analysis - Sishen Iron Ore Company proportionately consolidated

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Balance Sheet (ZARm)								
Non-current operating assets	13,299	14,000	17,339	22,864	29,304	31,842	31,245	33,710
Working capital	3,039	3,744	3,815	5,416	5,747	6,099	6,257	6,745
Net tax payable	-438	0	-42	-976	-1,032	-974	-1,029	-1,025
Net operating assets	**15,900**	**17,744**	**21,112**	**27,305**	**34,019**	**36,967**	**36,473**	**39,430**
Investments	1,546	1,142	1,375	1,408	1,408	1,408	1,408	1,408
Cash	1,769	1,023	2,140	2,357	4,607	6,699	13,146	17,607
Total invested capital	**19,215**	**19,909**	**24,627**	**31,070**	**40,035**	**45,074**	**51,027**	**58,445**
Equity	14,937	15,154	20,290	27,606	36,223	43,587	50,772	58,190
Minority interest	128	1	-23	-30	-30	-30	-30	-30
Debt	4,150	4,754	4,360	3,494	3,842	1,517	285	285
Total invested capital	**19,215**	**19,909**	**24,627**	**31,070**	**40,035**	**45,074**	**51,027**	**58,445**
Key Balance Sheet ratios								
Non-current asset turnover (times)	1.4	1.4	1.4	1.4	1.3	1.2	1.4	1.4
Net debt (Excluding SIOC)	2,381	3,731	2,220	1,137	-766	-5,182	-12,862	-17,322
Gearing - excluding SIOC debt (%)	14	20	10	4	-2	-13	-34	-42
Net debt (Including SIOC)	2,391	4,336	1,886	536	-2,075	-6,770	-14,745	-19,130
Gearing - including SIOC debt (%)	14	22	9	2	-6	-18	-41	-49
Net debt/Enterprise value (%)	3	6	3	1	-3	-9	-20	-27
Working capital turnover (days)	61	69	56	63	57	56	53	54
ROCE (%)	40	27	40	51	49	43	41	39
RONA (After tax) (%)	33	17	32	44	40	32	30	30
NAV per share (Rand)	41	42	56	76	100	120	140	161
Price to book at R194/share	4.7	4.6	3.4	2.5	1.9	1.6	1.4	1.2
Return on equity (%)	26	7	29	33	34	28	24	21

Source: Company Reports, I-Net, CIRA Estimates

Figure 3. Exxaro's free cash flow statement - Sishen Iron Ore Company proportionately consolidated

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Cash Flow Statement (ZARm)								
Underlying EBITDA	6,378	5,926	9,280	13,997	17,024	17,301	17,822	17,692
Movements in provisions	411	113	346	501	768	303	-71	294
Cash tax on EBIT	-1,297	-1,925	-1,854	-2,174	-3,764	-3,913	-3,988	-3,811
Movements in working capital	-1,026	-705	-71	-1,601	-331	-352	-159	-488
Operating cash flow	**4,465**	**3,408**	**7,701**	**10,723**	**13,696**	**13,339**	**13,604**	**13,687**
Maintenance capex	-1,318	-1,236	-1,480	-2,536	-3,848	-2,790	-2,000	-2,669
Growth capex	-850	-1,652	-2,234	-4,912	-4,450	-1,950	-194	-2,724
Acquisitions/Disposals	-2,178	-1,082	0	0	0	0	0	0
Other investing cash flow	-598	504	-1,115	-66	0	0	0	0
Free cash flow	**-478**	**-58**	**2,872**	**3,209**	**5,398**	**8,598**	**11,410**	**8,294**
Non-operating cash flow (net of tax)	-845	263	-299	-104	-73	-77	-82	-87
Cash available to providers of capital	**-1,323**	**206**	**2,573**	**3,105**	**5,326**	**8,521**	**11,328**	**8,207**
Interest paid (net of tax)	-210	-318	-332	-187	-192	23	337	705
Net payments to minority shareholders	133	-127	-51	-16	0	0	0	0
Equity shareholders' cash	**-1,400**	**-239**	**2,190**	**2,902**	**5,134**	**8,545**	**11,665**	**8,912**
Dividends and share buy backs	-498	-1,111	-679	-1,819	-3,231	-4,129	-3,985	-4,452
Advances (repayments) of debt	2,817	604	-394	-866	348	-2,325	-1,232	0
Increase (decrease) in cash	**919**	**-746**	**1,117**	**217**	**2,251**	**2,091**	**6,448**	**4,461**
Key cash flow ratios								
EV/EBITDA at R194/share	11.3	12.2	7.8	5.1	4.2	4.2	4.0	4.1
Capex/EBITDA	34%	49%	40%	53%	49%	27%	12%	30%
Free cash flow growth rate (%)	-132	+88	+5087	+12	+68	+59	+33	-27
Free cash flow yield at R194/share	-2%	0%	3%	4%	7%	12%	17%	13%
Net debt/EBITDA (times)	0.4	0.7	0.2	0.0	(0.1)	(0.4)	(0.8)	(1.1)
Operating cash flow/Net debt	187%	79%	408%	2000%	-660%	-197%	-92%	-72%

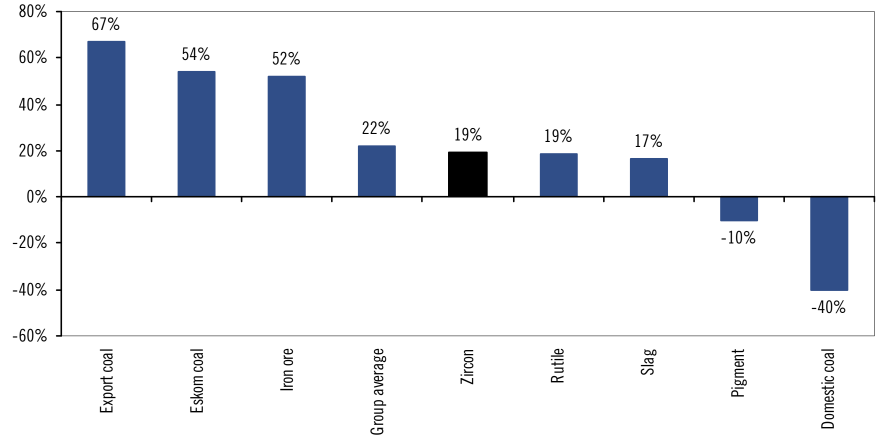
Source: Company Reports, I-Net, CIRA Estimates

We expect Exxaro to generate R10.7 billion in operating cash for FY'11 (R65 billion over 2011-15E), which should result in R37bn in free cash flow. Average free cash flow yield is estimated at 11% and we estimate company will deploy 33% of its EBITDA to capex over next five years.

Sales volume forecasts

We forecast Exxaro's copper equivalent volume growth at 19% over the next four years, which is lower than its peers' average of 48%.

Figure 4. Exxaro's volume growth by commodity (CY11-20F)



Source: Citi Investment Research and Analysis

Medium-term coal exports may be affected by the availability of rail and port allocation at RBCT. Management guided to coal exports of around 4Mt in 2011, which is flat on 2010.

Grootegeluk mine's capacity will be doubled at a capital cost of R9.5 billion to supply Eskom's Medupi power station with an additional 14.6Mtpa of power station coal for 40 years. Production from the new section of Grootegeluk is planned for April 2012, with ramp-up to full production by 2015. Selling prices for coal have been negotiated on commercial terms with Eskom, which will likely result in higher margins and returns for the group than legacy Eskom contracts.

Management sees limited demand growth for Exxaro's domestic export-quality steam and metallurgical coal volumes in the period to FY15.

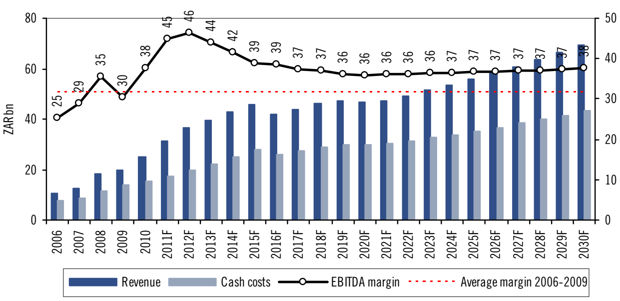
Sishen Iron Ore Company intends to grow iron ore production with the commissioning and ramp-up of Kolomela (9Mtpa by 2012).

Figure 5. Exxaro's sales volumes

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Exxaro's share of volumes (000 tonnes)								
Eskom coal	36,255	36,299	36,428	34,081	37,800	42,450	47,000	51,459
% change	*6%*	*0%*	*0%*	*-6%*	*11%*	*12%*	*11%*	*9%*
Other domestic coal	5,481	4,617	5,191	5,624	5,440	4,980	4,980	4,491
% change	*5%*	*-16%*	*12%*	*8%*	*-3%*	*-8%*	*0%*	*-10%*
Export steam coal/Metallurgical	3,276	4,716	4,106	4,084	4,400	5,000	5,000	5,500
% change	*80%*	*44%*	*-13%*	*-1%*	*8%*	*14%*	*0%*	*10%*
Total coal	**45,012**	**45,632**	**45,725**	**43,789**	**47,640**	**52,430**	**56,980**	**61,449**
% change	*9%*	*1%*	*0%*	*-4%*	*9%*	*10%*	*9%*	*8%*
Zircon	169	146	243	185	180	169	189	219
% change	*201%*	*-13%*	*66%*	*-24%*	*-3%*	*-6%*	*12%*	*16%*
Rutile	49	51	79	66	63	51	67	72
% change	*43%*	*5%*	*55%*	*-17%*	*-4%*	*-19%*	*31%*	*7%*
Pig iron	150	144	197	169	178	186	187	190
% change	*51%*	*-4%*	*37%*	*-14%*	*5%*	*4%*	*1%*	*2%*
Cloride Slag	214	144	264	266	260	260	320	320
% change	*31%*	*-33%*	*83%*	*1%*	*-2%*	*0%*	*23%*	*0%*
Sulphate Slag	29	44	39	56	56	56	54	51
% change	-	*54%*	*-11%*	*44%*	*0%*	*0%*	*-4%*	*-4%*
Pigment	43	54	55	78	70	70	70	70
% change	*-20%*	*26%*	*2%*	*42%*	*-10%*	*0%*	*0%*	*0%*
Zinc - Rosh Pinah	54	53	52	41	30	30	30	30
% change	*-3%*	*-2%*	*-2%*	*-21%*	*-26%*	*0%*	*0%*	*0%*
Zinc - third party purchases	72	69	67	77	0	0	0	0
% change	*8%*	*-4%*	*-3%*	*15%*	*-100%*	-	-	-
Iron ore	6,425	8,228	8,637	8,891	10,100	10,800	10,800	10,800
% change	*-2%*	*28%*	*5%*	*3%*	*14%*	*7%*	*0%*	*0%*

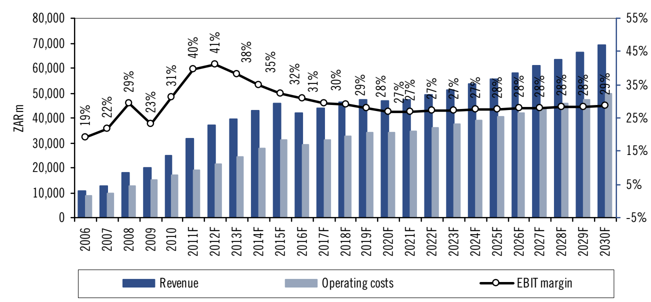
Source: Company Reports and CIRA Estimates

Figure 6. Revenue, cash costs and EBITDA margin



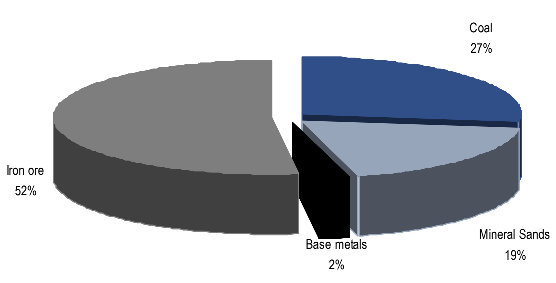
Source: Company Reports, Citi Investment Research and Analysis

Figure 7. Revenue, cash costs and EBITDA margin



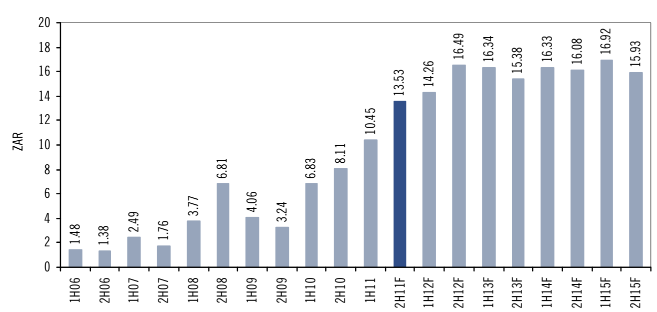
Source: Company Reports, Citi Investment Research and Analysis

Figure 8. Contribution to Exxaro's FY2012F underlying EBIT



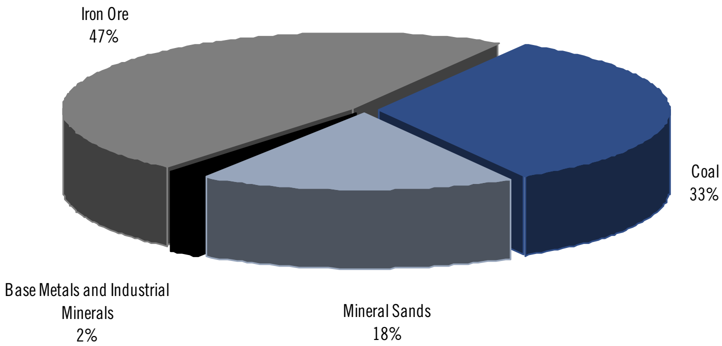
Source: Company Reports, Citi Investment Research and Analysis

Figure 9. Exxaro's Half yearly HEPS profile



Source: Company Reports, Citi Investment Research and Analysis

Figure 10. Exxaro's divisional valuation



Source: Citi Investment Research and Analysis

Figure 11. Exxaro's DCF valuation per division

	DCF fair value (ZARm)	DCF fair value per share (ZAR)
Coal	24,603	68
Mineral Sands	12,947	36
Base Metals and Industrial Minerals	-1,431	-3
Iron Ore	34,861	94
Other	-1,271	-4
Enterprise value	**69,709**	**192**
Investments	1,375	4
Net debt (incl. SIOC) as at 31 December 2010	-1,886	-5
Minority interest	358	1
Equity value	**69,555**	**191**

Source: Citi Investment Research and Analysis

Exxaro Resources Limited

Company description

Exxaro is a diversified mining company producing coal, mineral sands, zinc and iron ore (20% holding in Sishen Iron Ore Company, subsidiary of Kumba Iron Ore). Its operations are predominantly in southern Africa.

Investment strategy

We rate Exxaro Hold/Medium Risk (2M). Exxaro has a healthy near-term growth pipeline in its core iron ore and coal divisions. Growth will likely mostly be into high-margin export business or lucrative commercial contracts, rather than into the low-margin "cost-plus" contracts of the past. This should result in higher long-term margins than historic averages.

Its empowerment credentials allow it preferential access to mining deals and new port capacity and make it a supplier of choice for Eskom.

Given its strong share price performance over the past year, we believe much of the good news is priced in.

Valuation

We calculate Exxaro's discounted cash flow (DCF) target price at R210 based on: 1) a WACC of 13.2%; 2) long-term (2013E-23E) nominal revenue growth of 5% per annum; 3) long-term EBITDA margins of 36%; 4) long-term capex/EBITDA ratio of 37%, long-term ROE of 18%; and 5) terminal growth rate (after 2023) of 6.9% in rand terms (implying an exit P/E multiple of 11x).

Risks

We rate Exxaro as Medium Risk. The risk rating is derived after considering a number of factors, including an assessment of the macroeconomic environment, industry-specific risks, company-specific operational risks as well as financial risk.

The biggest risk for miners in general is that economic growth in highly-populated emerging market countries slows materially and developed market economies take longer to recover than we anticipate. This would imply downside risk to our commodity price and sales volume forecasts. Near-term margin forecasts are still only slightly below mid-cycle levels for most commodities and in the case of iron ore margins are still at highly-elevated levels. A stronger-than-forecast rand or Australian dollar would negatively affect Exxaro's earnings and valuation.

Industry-specific risks include government actions, such as controls on imports, exports and prices, new forms or rates of taxation and royalties, and increased government regulation. South African miners will start paying mining royalties in 2010, in line with market expectations. We do not believe there is a material risk that SA mining assets will be nationalised, despite pressure from some groups.

Higher-than-forecast inflation in the mining sector could lead to near-term margin compression, but should support higher commodity prices in the long term.

Skills, electricity and water shortages in South Africa may impact production and mining inflation more than we anticipate and could erode Exxaro's global competitiveness.

Over-estimation of mineral reserves, particularly in the Waterberg area could weaken our investment case. Failure to discover new reserves or expand existing reserves could also impact on Exxaro's valuation.

If the impact on the company from any of these factors proves to be more negative than we anticipate, the stock will likely have difficulty achieving our financial and price targets. Likewise, if any of these factors proves to have less of an effect than we anticipate, the stock could materially outperform our target.

Company Focus

- Company Update

Sell/Medium Risk	3M
Price (19 Sep 11)	R471.62
Target price	R450.00
Expected share price return	-4.6%
Expected dividend yield	9.8%
Expected total return	**5.2%**
Market Cap	R151,886M
	US$20,273M

Price Performance
(RIC: KIOJ.J, BB: KIO SJ)

Kumba Iron Ore Ltd (KIOJ.J)

Margins May Have Peaked and Growth Challenged - Sell

- **End of (quality) growth?** — We believe Kolomela could be Kumba's last high-margin growth project in South Africa. Given that Sishen's life is limited to 20 years, further expansions are unlikely. Kumba's next generation of projects is likely to involve expensive beneficiation or lower-quality product, in our view. It will be challenging for Kumba to deliver significant growth beyond Kolomela by 2016, given that we have not seen any project approvals. Kolomela Beneficiation (6Mtpa) is only due by 2018.
- **Sceptical of African strategy** — We are very sceptical of a potential African growth strategy given: 1) Kumba's previous experience with Faleme, 2) significant infrastructure challenges, 3) peak cycle asset prices, 4) questionable quality of available deposits (magnetite/concentrate product).
- **Margin erosion** — Margins could peak in 2011, unless iron ore prices keep rising. Costs are escalating rapidly, mainly due to increasing mining complexity. Sishen's stripping ratio could rise from 2.1x to 3.5x by 2015. Kumba has to increase waste mining by 30Mtpa over the next three years. Management guided that product costs per tonne could increase by 10%p.a., excluding inflation, as a result. Our inflation forecasts of 14% and lower in rand terms after 2011 could therefore still be too light.
- **Sell maintained** — Despite optimistic cost and volume assumptions, our DCF-derived target price of R450 offers an expected one-year return only 5%.

Kumba Iron Ore Ltd (ZAR)

Year to 31 Dec	2009A	2010A	2011E	2012E	2013E
Sales (RM)	23,408.0	38,704.0	48,999.5	56,207.5	54,187.8
Net Income (RM)	6,972.0	14,328.0	18,236.8	20,800.0	19,037.0
Diluted EPS (R)	21.76	44.54	56.53	64.37	58.92
Diluted EPS (Old) (R)	21.76	44.54	56.53	64.37	58.92
PE (x)	21.7	10.6	8.3	7.3	8.0
EV/EBITDA (x)	11.6	6.0	4.4	4.0	4.4
DPS (R)	14.60	34.50	44.70	53.00	51.00
Net Div Yield (%)	3.1	7.3	9.5	11.2	10.8

Financial statements and ratio analysis

We forecast 27% growth in Kumba's FY'11 diluted HEPS to R56.53 and further 14% growth to R64.37 in FY'12.

Figure 1. Kumba Iron Ore financial statements and ratio analysis

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Income Statement (ZARm)								
Revenue	21,360	23,408	38,704	49,000	56,207	54,188	51,759	49,613
Cash operating costs	-7,384	-10,033	-12,801	-13,996	-17,273	-19,634	-20,914	-22,028
Underlying EBITDA	**13,976**	**13,375**	**25,903**	**35,003**	**38,934**	**34,553**	**30,845**	**27,585**
Depreciation	-332	-530	-765	-996	-1,292	-1,458	-1,802	-2,071
Impairments	-50	0	0	0	0	0	0	0
Underlying EBIT	**13,594**	**12,845**	**25,138**	**34,007**	**37,642**	**33,096**	**29,042**	**25,514**
Exceptional items	-81	35	-7	-10	0	0	0	0
Net interest	-251	-127	-29	125	184	515	624	708
Profit before tax	**13,262**	**12,753**	**25,102**	**34,122**	**37,826**	**33,610**	**29,666**	**26,222**
Taxation	-4,179	-3,949	-6,813	-10,369	-10,457	-8,403	-7,417	-6,555
Profit after tax	**9,083**	**8,804**	**18,289**	**23,753**	**27,368**	**25,208**	**22,250**	**19,666**
Minority interest	-1,875	-1,812	-3,966	-5,525	-6,568	-6,171	-5,785	-5,113
Net profit for the year	**7,208**	**6,992**	**14,323**	**18,228**	**20,800**	**19,037**	**16,465**	**14,553**
Adjustments	68	-20	5	9	0	0	0	0
Headline earnings	**7,276**	**6,972**	**14,328**	**18,237**	**20,800**	**19,037**	**16,465**	**14,553**
Number of shares (millions)								
Weighted average	*316*	*319*	*321*	*322*	*322*	*322*	*322*	*322*
Diluted weighted average	*320*	*320*	*322*	*323*	*323*	*323*	*323*	*323*
Closing	*319*	*320*	*322*	*322*	*322*	*322*	*322*	*322*
EPS (ZAR)	**22.81**	**21.94**	**44.66**	**56.69**	**64.59**	**59.11**	**51.12**	**45.19**
Headline EPS (ZAR)	**23.02**	**21.87**	**44.67**	**56.72**	**64.59**	**59.11**	**51.12**	**45.19**
Diluted HEPS (ZAR)	**22.75**	**21.76**	**44.54**	**56.53**	**64.37**	**58.92**	**50.95**	**45.04**
Growth (%)	*+131*	*-4*	*+105*	*+27*	*+14*	*-8*	*-14*	*-12*
PE multiple at R481/share	*21.1*	*22.1*	*10.8*	*8.5*	*7.5*	*8.2*	*9.4*	*10.7*
DPS declared (ZAR)	**21.00**	**14.60**	**34.50**	**44.70**	**53.00**	**51.00**	**44.00**	**43.00**
Dividend yield at R481/share (%)	*4.4*	*3.0*	*7.2*	*9.3*	*11.0*	*10.6*	*9.1*	*8.9*
Dividend payout ratio (%)	*92*	*67*	*77*	*79*	*82*	*86*	*86*	*95*
Key Income Statement ratios								
Revenue growth (% y-o-y)	86	10	65	27	15	-4	-4	-4
Underlying EBITDA margin (%)	65	57	67	71	69	64	60	56
Underlying EBIT margin (%)	64	55	65	69	67	61	56	51
Interest cover (times)	54	101	867	-	-	-	-	-
Tax rate (%)	32	31	27	30	28	25	25	25

Source: Company Reports, I-Net, CIRA Estimates

Figure 2. Kumba Iron Ore's balance sheet

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Balance Sheet (ZARm)								
Non-current operating assets	7,925	11,595	15,901	20,635	23,153	24,695	25,892	28,080
Working capital	2,486	2,593	2,924	4,585	6,039	5,362	5,140	5,013
Net tax payable	547	109	-61	0	0	0	0	0
Net operating assets	**10,958**	**14,297**	**18,764**	**25,219**	**29,192**	**30,057**	**31,032**	**33,094**
Investments	269	307	425	473	473	473	473	473
Cash	3,810	891	4,855	4,931	9,297	9,214	10,691	10,314
Total invested capital	**15,037**	**15,495**	**24,044**	**30,623**	**38,961**	**39,744**	**42,197**	**43,881**
Equity	9,532	9,931	16,821	23,172	29,374	30,706	32,291	33,464
Minority interest	1,647	1,650	4,038	5,524	6,838	7,763	8,631	9,143
Debt	3,858	3,914	3,185	1,927	2,749	1,275	1,275	1,275
Total invested capital	**15,037**	**15,495**	**24,044**	**30,623**	**38,961**	**39,744**	**42,197**	**43,881**
Key Balance Sheet ratios								
Non-current asset turnover (times)	2.7	2.0	2.4	2.4	2.4	2.2	2.0	1.8
Net debt (ZARm)	48	3,023	-1,670	-3,004	-6,547	-7,940	-9,417	-9,040
Gearing (Net debt:(Net debt + equity)) (%)	0.5	23.3	(11.0)	(14.9)	(28.7)	(34.9)	(41.2)	(37.0)
Working capital turnover (days)	42	40	28	34	39	36	36	37
NAV per share (rand)	30	31	52	72	91	95	100	104
Price to book at R481/share	16	16	9	7	5	5	5	5
ROCE (%)	146.4	101.7	152.1	154.6	138.4	111.7	95.1	79.6
Return on net operating assets (%)	109.1	80.2	116.5	124.2	105.8	85.0	72.2	61.2
Return on equity (%)	102.3	71.8	107.1	91.2	79.2	63.4	52.3	44.3
Return on equity at replacement cost of US$120/t	24.9	19.7	37.5	46.0	46.5	39.8	34.4	30.4

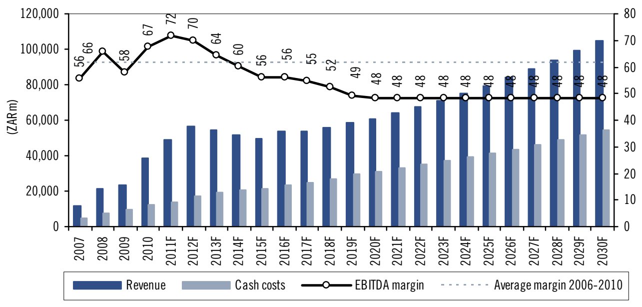
Source: Company Reports, I-Net, CIRA Estimates

Figure 3. Kumba Iron Ore's free cash flow statement

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F
Cash Flow Statement (ZARm)								
Underlying EBITDA	13,976	13,375	25,903	35,003	38,934	34,553	30,845	27,585
Movements in provisions	355	-222	211	290	119	73	56	103
Cash tax on EBIT	-3,819	-2,501	-6,098	-6,994	-8,985	-8,001	-7,042	-5,992
Movements in working capital	-703	-107	-331	-1,661	-1,454	677	222	127
Operating cash flow	**9,809**	**10,545**	**19,685**	**26,639**	**28,614**	**27,302**	**24,081**	**21,822**
Growth capex	-1,570	-2,983	-3,447	-3,333	-810	0	0	-1,500
Maintenance capex	-840	-1,217	-1,624	-2,397	-3,000	-3,000	-3,000	-2,758
Acquisitions and disposals	0	0	0	0	0	0	0	0
Free cash flow	**7,399**	**6,345**	**14,614**	**20,909**	**24,804**	**24,302**	**21,081**	**17,564**
Non-operating cash flow (net of tax)	-62	203	-18	139	211	470	532	592
Cash available to providers of capital	**7,338**	**6,548**	**14,596**	**21,048**	**25,015**	**24,771**	**21,613**	**18,156**
Interest paid (net of tax)	-288	-297	-128	-108	-79	-99	-83	-83
Net payments to minority shareholders	-889	-1,809	-1,578	-4,039	-5,255	-5,245	-4,917	-4,602
Equity shareholders' cash	**6,161**	**4,442**	**12,890**	**16,902**	**19,681**	**19,427**	**16,613**	**13,471**
Dividends and share buy backs	-3,631	-7,417	-8,197	-15,568	-16,137	-18,035	-15,136	-13,848
Advances (repayments) of debt	328	56	-729	-1,258	822	-1,475	0	0
Increase (decrease) in cash	**2,858**	**-2,919**	**3,964**	**76**	**4,366**	**-83**	**1,477**	**-377**
Key Cash Flow ratios								
EV/EBITDA at R481/share (minorities at market value)	14.8	15.4	8.0	5.9	5.3	6.0	6.7	7.5
Free cash flow flow per share	23	20	46	65	77	75	65	55
Capex/EBITDA (%)	11.2	22.3	13.3	9.5	2.1	0.0	0.0	5.4
Cash tax on EBIT/EBIT (%)	28.1	19.5	24.3	20.6	23.9	24.2	24.2	23.5
Free cash flow growth rate (%)	+216	-14	+130	+43	+19	-2	-13	-17
Equity shareholders' cash/market capitalisation (%)	4.0	2.9	8.3	10.9	12.7	12.5	10.7	8.7

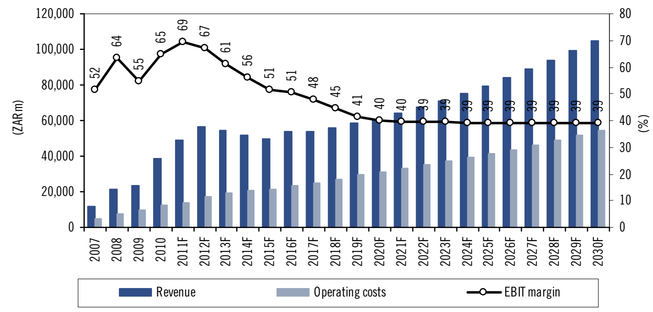
Source: Company Reports, I-Net, CIRA Estimates

Figure 4. Revenue, cash costs and EBITDA margin



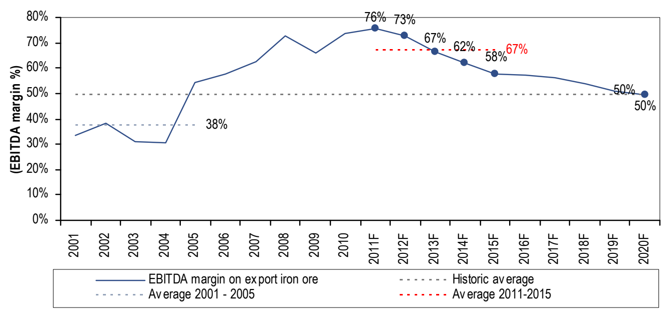
Source: Company Reports and CIRA Estimates

Figure 5. Revenue, operating costs and EBIT margin



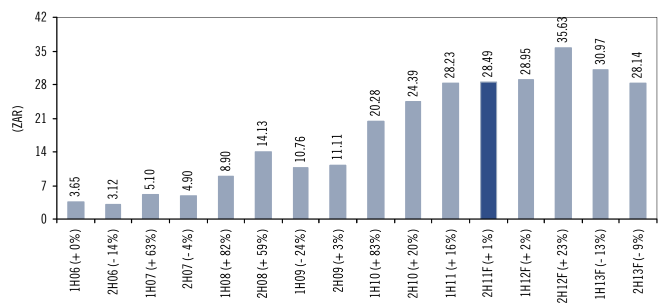
Source: Company Reports and CIRA Estimates

Figure 6. Kumba's EBITDA margin on export iron ore



Source: Company Reports and CIRA Estimates

Figure 7. Kumba's Half yearly HEPS profile



Source: Company Reports and CIRA Estimates

Analysis of cash costs per tonne

We forecast a 20% rise in Kumba's 2011 FOB unit cash costs to $40/tonne, including royalties of $8/tonne. Note that cash cost almost doubled since 2009, partly due to the introduction of royalties in 2010.

Figure 8. Analysis of FOB cash costs per tonne

FYE December	**2008**	**2009**	**2010**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**	**2016F**	**2017F**
Mining and beneficiation costs	13	12	16	19	20	20	21	22	22	22
Selling, rail and port costs	10	10	12	13	14	14	14	14	14	14
Mining royalties	0	0	5	7	7	6	5	5	4	4
Total FOB cash costs per tonne (USD)	**23**	**22**	**33**	**40**	**41**	**40**	**40**	**40**	**40**	**40**
% change	13%	-3%	49%	20%	3%	-2%	0%	0%	0%	0%
EBITDA margin on export iron ore	73%	66%	74%	76%	73%	67%	62%	60%	58%	57%

Source: Company Reports and CIRA Estimates

Figure 9. Stripping ratio and Cost analysis (rand/tonne)

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F	2017F
Total tonnes mined (Mt)	121	148	207	265	336	370	351	342	346	362
% change year on year	-5%	22%	40%	28%	27%	10%	-5%	-3%	1%	4%
Mining and beneficiation costs per tonne mined (rand)	30	28	24	23	24	25	29	32	32	33
% change year on year	30%	-6%	-14%	-3%	2%	6%	16%	7%	3%	1%
Stripping ratio - Sishen	**1.44**	**1.77**	**2.00**	**2.29**	**2.69**	**2.97**	**3.27**	**3.43**	**3.61**	**3.79**
Cash costs/tonne (rand)										
Mining and beneficiation costs	110	102	116	137	156	173	191	200	208	214
% change year on year	*24%*	*-7%*	*14%*	*18%*	*14%*	*11%*	*10%*	*4%*	*4%*	*3%*
Selling, rail and port costs	80	83	84	93	105	118	126	129	131	134
Mining royalties	0	0	40	51	55	48	45	43	42	42
Total FOB cash costs per tonne	**190**	**185**	**240**	**281**	**317**	**340**	**362**	**371**	**381**	**390**
% change year on year	34%	-3%	30%	17%	13%	7%	7%	3%	3%	2%

Source: Company Reports and CIRA Estimates

Production and sales volume forecasts

We forecast 3% sales volume growth for FY11 as we forecast inventory sales of around 1.4Mt. Volumes would increase from 44.4Mt in FY'11 to 55.6Mt by FY'17, a CAGR growth of 3.8%.

Figure 10. Total Sishen Iron Ore Company sales (000 tonnes)

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F	2017F	CAGR '11-'17	Reserves (mt)	Life
Sishen main pit	29,292	28,958	28,053	27,130	29,000	29,000	29,000	29,000	29,656	30,552		684.7	24
Sishen jig plant	4,747	10,430	13,284	12,816	13,000	13,000	13,000	13,000	13,294	13,696			
Thabazimbi	2,660	2,555	2,047	1,507	2,000	2,000	2,000	2,000	2,000	0		12.3	6
Kolomela	0	0	0	1,600	5,500	9,000	9,000	9,000	9,340	9,813		213.6	24
SEP II	0	0	0	0	0	0	0	0	0	0			
Sishen Pellets	0	0	0	0	0	0	0	0	1,500	1,534			
Sishen C-Grade	0	0	0	0	0	0	0	0	0	0			
Kolomela Beneficiation Project	0	0	0	0	0	0	0	0	0	0			
Stock movement	-4,574	-800	-200	1,400	1,000	1,000	1,000	1,000	700	0			
Total	**32,125**	**41,143**	**43,184**	**44,453**	**50,500**	**54,000**	**54,000**	**54,000**	**56,490**	**55,595**	**3.80%**	**1,300**	**24**
Growth (% year-on-year)	*-2*	*+28*	*+5*	*+3*	*+14*	*+7*	*+0*	*+0*	*+5*	*-2*			

Source: Company Reports and CIRA Estimates

Figure 11. Sishen Iron Ore Company sales split by domestic and export (000 tonnes)

FYE December	2008	2009	2010	2011F	2012F	2013F	2014F	2015F	2016F	2017F
Export iron ore	24,900	34,219	36,086	37,667	43,508	47,008	47,008	47,008	49,498	50,603
Growth	*4%*	*37%*	*5%*	*4%*	*16%*	*8%*	*0%*	*0%*	*5%*	*2%*
Domestic iron ore	8,100	5,856	7,021	7,158	6,992	6,992	6,992	6,992	6,992	4,992
Total	**33,000**	**40,075**	**43,107**	**44,825**	**50,500**	**54,000**	**54,000**	**54,000**	**56,490**	**55,595**
Growth	*0%*	*21%*	*8%*	*4%*	*13%*	*7%*	*0%*	*0%*	*5%*	*-2%*

Source: Company Reports and CIRA Estimates

Kumba Iron Ore Ltd

Company description

Kumba Iron Ore is a focused producer of high grade iron ore and the fourth largest supplier of seaborne iron ore. It operates the Sishen and Thabazimbi iron ore mines in South Africa with current production of 45Mtpa. Its most attractive aspects are its near-term volume growth through Kolomela (+9Mtpa), strong cash generation and dividend yield.

Investment strategy

We rate Kumba Iron Ore Sell/Medium Risk (3M). Although we believe it offers an attractive dividend yield of 8%+ over the next three years, it seems priced in. Current margins are highly elevated due to near-record high iron ore prices. Longer term, we are concerned about significant downside risk to earnings as iron ore prices fall to marginal cost of production.

Valuation

Our Kumba target price of R450 is calculated using a discounted cash flow valuation, which takes into account optimistic long-term export EBITDA margins of 52%, as well as Kumba's considerable volume growth. Our DCF assumes a 13.1% nominal weighted average cost of capital; long-term (2013-23) nominal revenue growth of 5% per annum; long-term capex/EBITDA ratio of 30%; long-term ROE of 29%; and a terminal growth rate (after 2024) of 7.6% in rand terms.

Risks

We rate Kumba Medium Risk based on our assessment of industry and company-specific risk factors. Key risks to projected earnings, cash flows and valuation relate to weaker-than-expected commodity prices/economic growth and US$. Country risk is a consideration with all producing assets in South Africa. Operating risk in Kumba is principally from higher inflation concerns in South Africa. Kumba is also involved in a legal dispute with ArcelorMittal SA and ICT, which may negatively impact our earnings forecasts and valuation.

Four major upside risks to our target price are: 1) China's demand for iron ore outpaces new low cost supply and long-term margins stay at elevated levels; 2) A collapse in the rand, which would boost Kumba's earnings forecasts and valuation; 3) Corporate action - Anglo American already holds around 65% of Kumba and we believe it will have to offer a premium to market prices if it wants to buy out minorities; and 4) Kumba's attractive dividend yield.

Appendix A-1

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