

Mine The growing disconnect

*Review of global
trends in the mining
industry—2012*



Mine
The growing
disconnect





Contents

01	Executive summary	1
02	Industry in perspective	2
03	A view from the top	14
04	Ten-year trends 2002-2011	16
05	Sustainability: the Top 40 walk the walk, but do they talk the talk?	22
06	Financial review	26
07	Reserves and production	38
08	People—from expat to local	42
09	Glossary	46
10	Top 40 companies analysed	47
11	Explanatory notes for aggregated financial information	48
12	Key contributors to Mine	49
13	Contacting PwC	50
14	Other PwC mining publications	51

01 Executive summary



Ten years of data. Ten years of trends. Ten years of some of the greatest ups and downs the mining industry (and the global economy for that matter) has ever seen. Welcome to PwC's annual review of global trends in the mining industry – *Mine*.

These reviews provide comprehensive analysis of the financial performance and position of the global mining industry as represented by the Top 40 mining companies by market capitalisation. These 40 companies represent the vast majority of the industry's activity and serve as an excellent proxy for the industry as a whole.

2011 was a year of a great contrast for the mining industry.

The Top 40 posted record profits of \$133 billion, generated record operating cash flows, and yet market capitalisation fell by 25%.

The European debt crisis and fears of a slowdown in global growth dominated the markets during the second half of the year. The broader markets fell and mining company share prices were hit particularly hard.

Investors doubted the industry's long-term demand fundamentals. We believe these remain solid on the back of strong growth in emerging markets.

The story for the future will be about the ability to bring on supply through developing the right projects. That poses challenges. We continue to observe a structural change of higher average commodity prices which are underwritten by higher production costs and lower grades. However, these high commodity prices do not guarantee increased gross margins.

Still, against a backdrop of shareholder demands for heightened capital discipline, CEOs are convinced that increasing supply is critical to the future of the industry. The Top 40 invested \$98 billion in capital projects in 2011 and plan for a further \$140 billion for 2012. The market, however, doesn't seem to buy the industry's long-term growth story, which has sent share prices lower – 2011 marks the start of the *growing disconnect*.

We have analysed the results of the mining industry since 2002. In no other edition of Mine has the mining industry seen such high levels of profitability.

In 2011, the financial results for the Top 40 hit new heights:

- Revenues increased 26% to over \$700 billion
- Net profit was up 21% to \$133 billion
- Operating cash flows grew 34% to \$174 billion
- Investing cash flows grew 92%
- The Top 40 returned 156% more to shareholders than in 2010
- Total assets remained above \$1 trillion and grew a further 13%

High commodity prices in 2011 supported a record level of net profit but margins remained flat, highlighting a structural change in the industry's cost base.

Production volumes in 2011 were on average 6% higher than in 2010, but for gold and copper in particular, production volumes remained at similar levels to those reported in 2005. Companies simply weren't able to bring on production for these two commodities, highlighting the shift from demand to supply as the major factor in today's industry.

With the price earnings ratios for the Top 40 at one of the lowest levels seen in years, miners are faced with the challenge of winning back investor confidence. Despite record increases in shareholder distributions in 2011, falling stock prices suggest that investors expect greater cash returns.

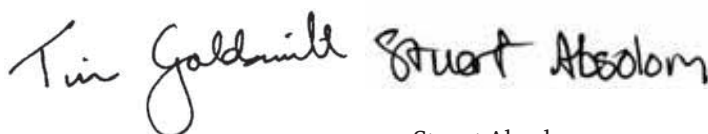
In *A view from the top*, mining industry CEOs note their increasing focus on supply. However, a growing disconnect has appeared. Investors are demanding capital discipline to increase shareholder returns while miners are looking to use cash from record results to develop new projects.

Competing demands for cash are making it more challenging to deliver on the \$410 billion in spending on capital projects announced by the Top 40, including \$140 billion announced for 2012.

As a result, CEOs are spending more of their time engaging shareholders and making sure their capital investment priorities are clear. Other stakeholders are requiring more attention too, with concerns looming around potential and recently implemented government plans for resource nationalism and major fiscal reform.

But, it's not just about financial returns. The Top 40 are already working hard to develop resources sustainably. That's not enough though; the industry also needs to communicate that it is doing so. The Top 40 report on sustainability in a variety of different ways. While a lot of good work is being done for local communities and the environment, these efforts are not yet communicated to the industry's stakeholders in a consistent way.

We trust you will find this year's Mine informative and encourage you to send us your feedback.



Tim Goldsmith
PwC Global Mining Leader

Stuart Absalom
PwC Mine Project Leader

02 Industry in perspective



“What more can you ask for? Record results for six years in a row. Great fundamentals, exceptional performance, meeting guidelines, social responsibility, high quality of people and employment, a great team of management, a leading position in your industry—for God’s sakes, the world should be at your feet.”

Peter Munk
Chairman of Barrick Gold Corp.

The growing disconnect

2011 was a year of a growing disconnect for the mining industry. Mining company stocks significantly underperformed the broader markets and lost value despite record profits, and the disconnect between share values and many commodity prices widened.

While a number of factors have driven this disconnect, a few stand out. The mining industry is a bellwether for the global economy and as a result mining stocks have proven to be highly volatile. When the sovereign debt contagion fears arose, the mining industry was hit particularly hard. The industry's cost base has been undergoing a structural change, effectively setting a floor for commodity prices. Margins have been stagnant and the industry's market valuations diverged from commodity price movements. Finally, bringing supply on line has become more challenging and the industry has struggled to maintain, let alone ramp up production.

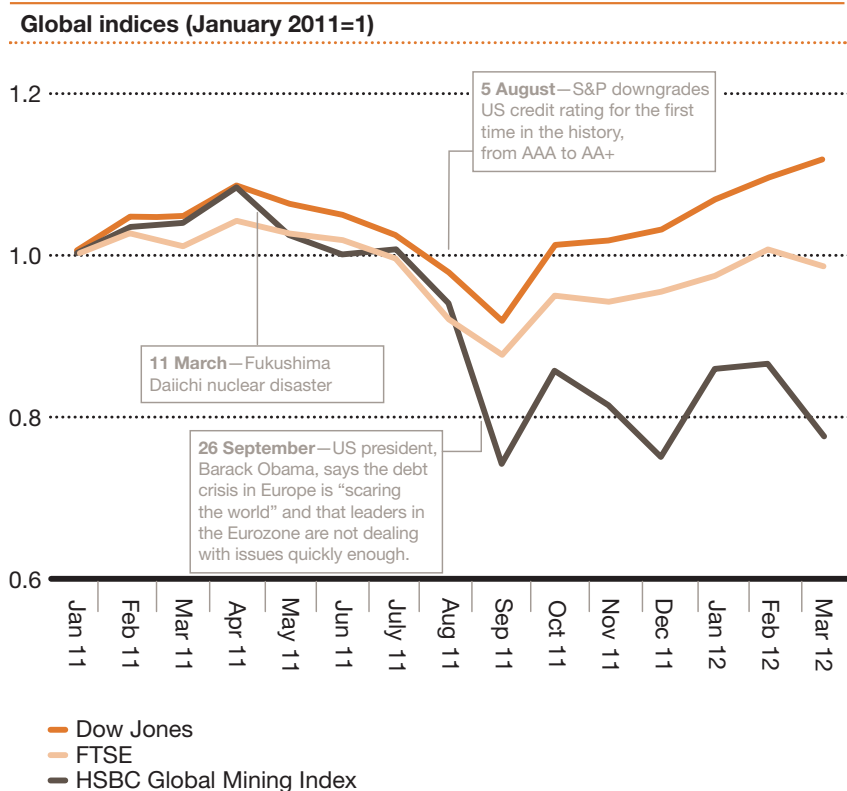
In 2011, only six of the Top 40 saw their market capitalisation increase.

The mining industry has diverged from the broader markets...

The HSBC Global Mining Index, a key proxy for the industry's stock performance, started strong in 2011, but fell 29% by year-end. The Top 40 did marginally better, falling by 25%. The broader markets fared significantly better, either up on

the year or essentially flat. Fears of an economic meltdown stemming from the European sovereign debt crisis and a projected reduction in growth rates for China's economy hit the mining industry particularly hard.

While the industry briefly rallied in January and February 2012, mining stocks fell in March 2012 – a sharp contrast to the strong first quarter posted by the Dow Jones Industrial average and other broader market indices.



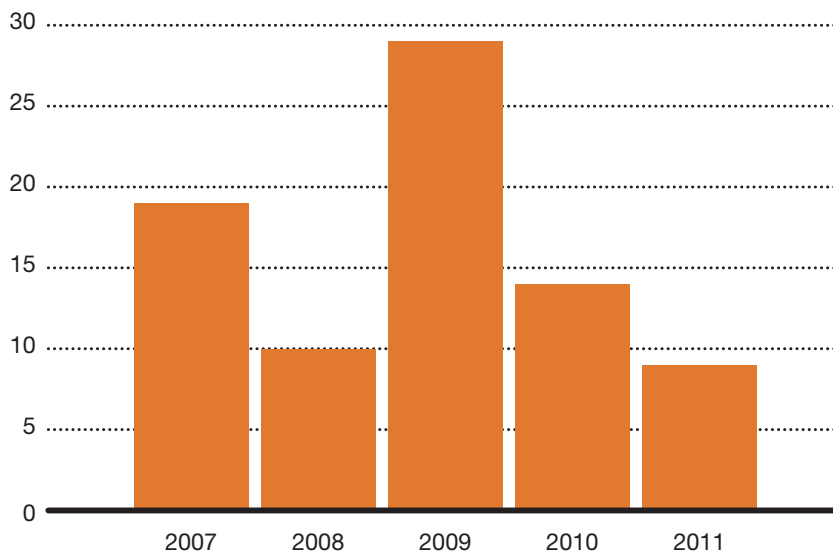
In 2011 shareholders became more vocal that the Top 40 should give more profits back, either by way of dividends or shareholder buybacks. While the industry paid out a record \$32 billion in dividends and bought back \$26 billion in shares, shareholders have said they want more.

...from historical earnings...

In 2011 the Top 40 posted record profits of over \$130 billion, an increase of 21% from 2010. Strong earnings, coupled with a 25% drop in market capitalisation as at 31 December 2011, drove the Top 40's Price-to-earnings ratio ("PE ratio") to below 10. This was even lower than the dismal PE ratio seen at the end of 2008 during the global financial crisis.

While historical earnings and PE ratios are not an indicator of future results, they do provide some insight into the market's view of expected future profitability. And 2011's PE ratios imply that the market does not believe that the Top 40 will sustain its current earnings, let alone be able to grow.

Top 40 Price-to-earnings ratio



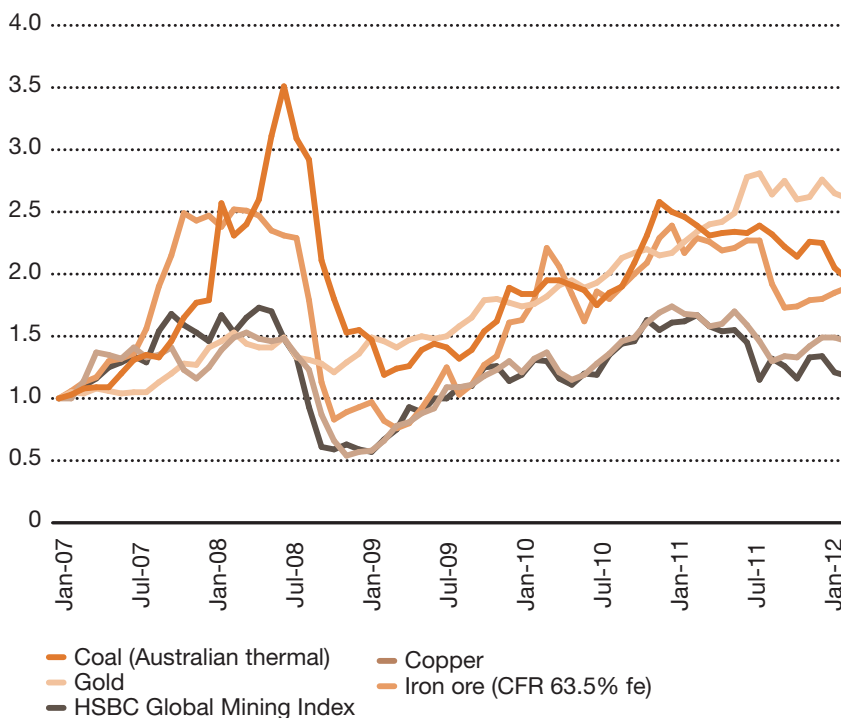
Source: Capital IQ, PwC Analysis

Price-to-earnings is computed by dividing the Top 40's market capitalisation by total earnings

...and from the prices of its own commodities

Over the last five years mining stocks have underperformed the prices of the major mining commodities, a trend which accelerated in 2011. This is particularly true for gold, which has significantly outperformed mining stocks. In December 2012 gold was up 260% on January 2007 prices while the HSBC Global Mining Index was up only 16% over the same period.

Monthly average coal, copper, gold, iron ore commodity prices, HSBC Global Mining Index (2007=1)



Source: Capital IQ, PwC Analysis

Copper stands out as an exception to this disconnect—the HSBC Global Mining Index has generally tracked copper prices. Looking back since 2000, even though the HSBC Global Mining Index includes miners of a multitude of different products, the index and copper prices have generally moved in sync.



Source: Bloomberg, The World Bank

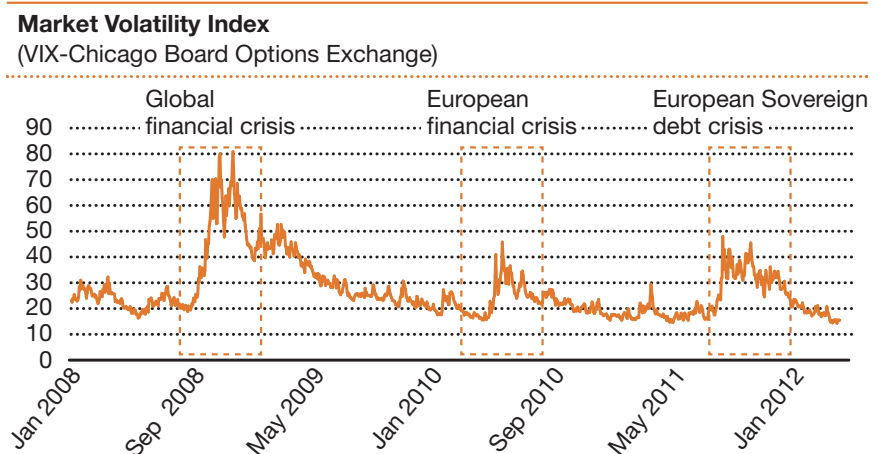
Key trends looking forward

Academics, investment professionals and market participants all know that many factors affect stock prices. For the mining industry a few key factors can be observed—increased volatility, strong long-term demand fundamentals, and tight supply.

Increased volatility is here to stay

The mining industry is at the forefront of global economic growth. Generally, mining company stocks are more volatile than the general market. Current sentiment has exacerbated this making 2011 particularly volatile for mining stocks given the volatility of the broader markets in 2011.

Investors, spooked by the sovereign debt contagion fears and doubts over global economic growth prospects, bailed out of equities and in particular mining equities. Short-term sentiment trumped long-term mineral commodity demand from emerging markets, which we believe remains strong.



Source: Yahoo Finance

Long-term demand fundamentals remain robust...

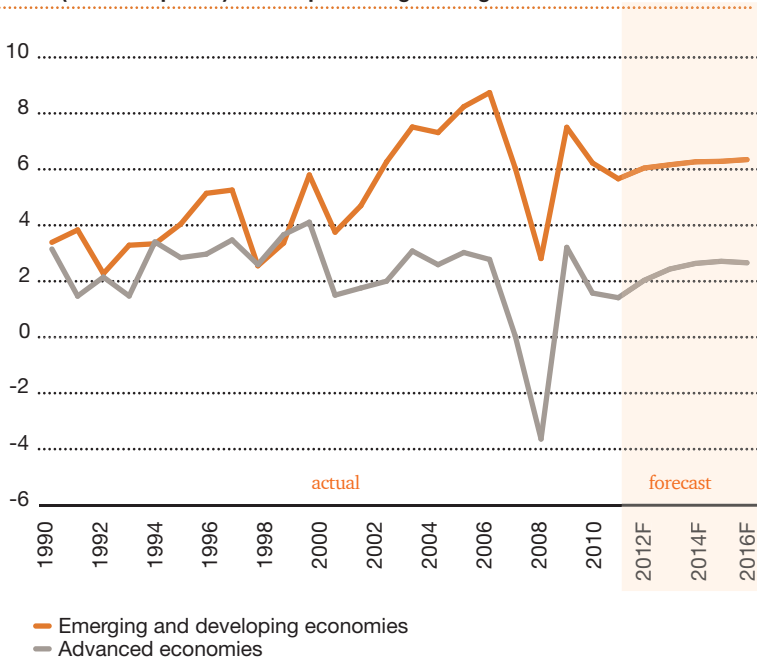
While the future of Europe grabbed headlines in 2011, the global economy of the future will be dominated by China and India, not to mention other emerging markets in South East Asia, Africa and Latin America.

Over the past 20 years these economies have grown quickly and are expected to continue to outpace developed nations in the years to come. Looking back at GDP growth in developed and emerging economies since 1990, the divergence in growth rates is obvious and is forecast to continue. In contrast, in developed markets growth prospects are much gloomier. It is the developed markets that are home to the major stock exchanges where a majority of mining companies trade and where many of the industry's investors reside. The progression of emerging market economies will be the key determinant for the future of the industry.

While it is generally expected that China's economic growth in percentage terms will be in single digits rather than the double digits seen in recent years, its economy is now the world's second largest. So, while percentage increases might be smaller in the future, growth will be from a much larger base – in absolute terms, China's growth is expected to remain strong. According to the International Monetary Fund, in 2010 China accounted for approximately 40% of the world's base metals consumption. Even moderate percentage increases in consumption have a huge impact on global demand.

While China is significant, it is part of a bigger picture of rapidly emerging nations with vast populations such as India, Indonesia, Brazil, and Nigeria. China is today's story but other emerging market nations will help to sustain a demand-led boom over the longer term.

GDP (constant prices) annual percentage change

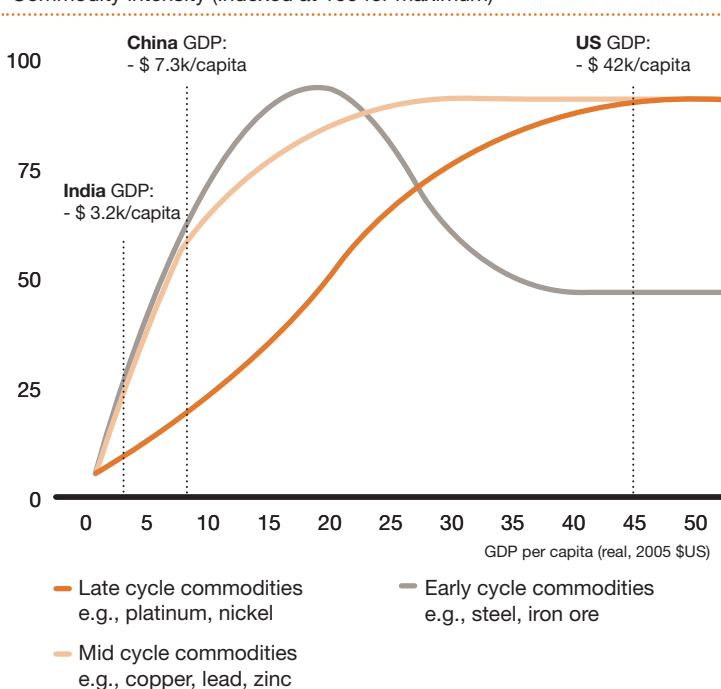


Source: International Monetary Fund

Increased urbanisation will continue around the world, ensuring that demand for the commodities needed to construct cities will remain particularly strong. The urbanisation growth rates are unprecedented and will place severe strains on the supply of commodities.

India, China, the ASEAN-6 and Nigeria will add 1.3 billion urban residents by 2050

Commodity intensity (Indexed at 100 for maximum)



Source: Xstrata, reproduced with permission

In addition to the commodities presented in this commodity intensity graph, agricultural minerals such as potash or energy minerals such as thermal coal are also essential ingredients to increased urbanisation.

In our view the demand story remains robust and long-term growth in emerging markets is more significant to the mining industry than short-term jitters in the developed world.

...but supply will be the industry's real challenge going forward

If the industry's headline story for the last five years was demand, the main story for the next five years will be supply. There are a few key issues facing supply:

- structural changes to cost bases caused by decreasing grades and increasing input costs
- changing fiscal regimes and resource nationalism
- ongoing disruptions to production
- remoteness of certain locations and increasing capital expenditure requirements to bring supply to market.

Structural changes to the cost base

The easiest ore bodies have been tapped. The highest grade ores have already been mined and increased demand has encouraged miners to look at lower grade deposits. As head grades have fallen, costs of production have risen. The lower the grade, the more waste that needs to be mined and processed to produce the same amount of a commodity. As grades continue to decline, the costs of production will inevitably increase in the future.

The industry has also reported rising input costs. The Top 40 have widely reported increased contractor costs due to labour shortages and increased fuel and consumable prices. For non-US miners this has been exacerbated by strong exchange rates against the US dollar, which, for example, means that for an Australian miner it now takes more US dollars to pay the same costs at home than it did five years ago. As cost bases continue to increase, the floor for commodity prices will also continue to rise.

Changing fiscal regimes and resource nationalism

Ownership of resources and mining industry fiscal regimes remain high on the agenda for many governments around the world. Nations are looking to take an increasing share of profits and resources through a range of measures. Ongoing discussions and debates, formal reviews of fiscal regimes, or recently enacted changes have been seen in countries such as Australia, Chile, Ghana, Peru, and South Africa.

Increases in export duties and export restrictions designed to encourage value added downstream industries or protect security of domestic supply are being put into place in countries such as India and Indonesia. For example, India's increase in iron ore export duties in December 2011 resulted in Indian iron ore exports being 60% lower in February 2012 compared to February 2011.

At the more extreme end of resource nationalism, legislated local ownership and in some cases asset nationalisation, is impacting established producers in countries such as Indonesia and Zimbabwe. Bolivia and Venezuela have also been active in this regard, although not presently in the mining industry.

Governments are under pressure from local communities and other key stakeholders, and as a result, the stability that previously existed in many nations is deteriorating. High commodity prices have increased the industry's visibility, triggering stakeholders to seek a bigger piece of the pie.

Given the importance of resource nationalism, mining companies are now required to be good diplomats as well as world-class miners to succeed.

Capital expenditure requirements

The industry has struggled to bring new mines online on-time and on-budget. The remoteness of many new mining locations presents an additional element of difficulty. These isolated locations lack the infrastructure required to support mining activities and miners are increasingly tasked with building not just a mine but also the region's infrastructure. The capital investment and time required to bring these mega projects online is immense, particularly for bulk commodities such as iron ore and coal.

Capital expenditures for the Top 40 in 2011 amounted to \$98 billion, an increase of 48% over 2010. But, although capital expenditures hit record levels, they fell short of the \$120 billion announced to be spent in 2011 that we reported in last year's edition of Mine.

The fact that miners have not been able to meet their announced spending provides some evidence of the challenges faced in bringing supply to market. The Top 40 have announced plans to spend upwards of \$140 billion in 2012, out of a total of \$410 billion in announced projects. Given shareholder calls for capital discipline and the challenges in developing projects on-time, we suspect that growth plans will not be met and miners will continue to under-deliver and, in terms of aggregate headline numbers, under-spend.

Record capital expenditures bolstered the Top 40's net assets, but with market capitalisations falling, the ratio

of net assets to market capitalisation jumped to 54%, the highest level since 2008, during the global financial crisis.

Market capitalisation has fallen in a year of capital expenditures. This suggests that investors do not see these projects will deliver the returns they are looking for.

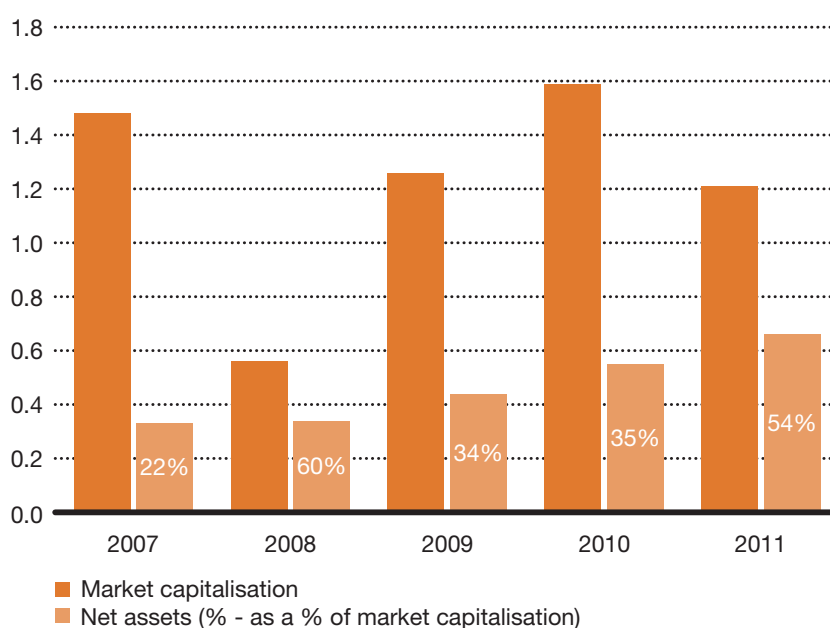
Can't bring it on fast enough

Despite significant increases in commodity prices, supply simply has not caught up. Supply has proven to be inelastic and the "production tap" has not been turned on when prices spike. Finding new reserves and then bringing them to market is a challenge for the entire industry. Analysing gold, copper, iron ore, and thermal coal prices compared to global production since 2005 demonstrates these trends.

The gold sector has a number of mid-tier and junior players who in theory could add "surge capacity" to the market. But with gold briefly hitting \$1,900/oz in 2011, if gold companies could have brought more production on line, they would have.

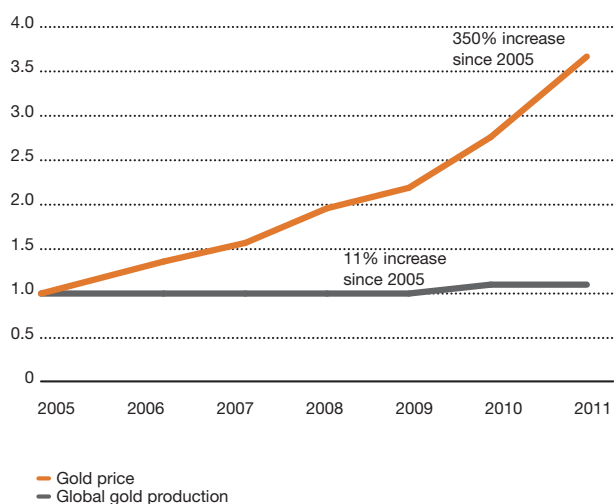
Copper, thermal coal and iron ore all tell similar stories. While iron ore production spiked in 2007, as prices rebounded from 2009 to 2011, production has not kept pace. Rising prices have not translated into significant sources of new supply coming on line.

Top 40 net assets, market capitalisation (\$ trillion)



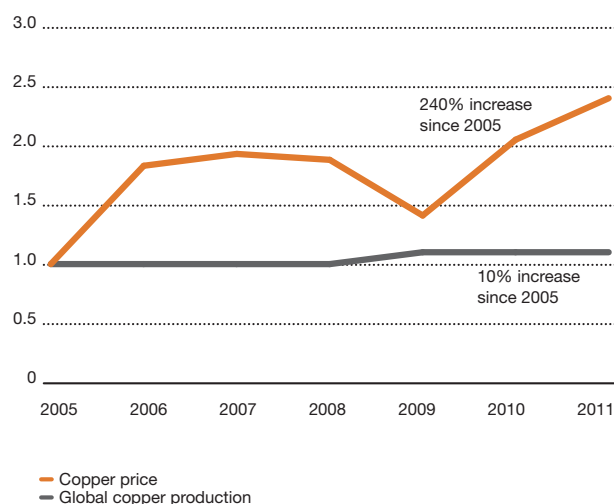
Source: Capital IQ, PwC Analysis

Annual average gold prices, total global gold production (2005=1)



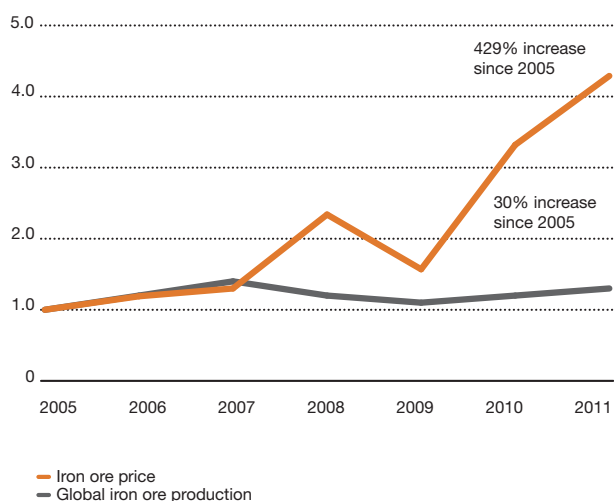
Source:
The World Bank, World Gold Council

Annual average copper prices, total global copper production (2005=1)



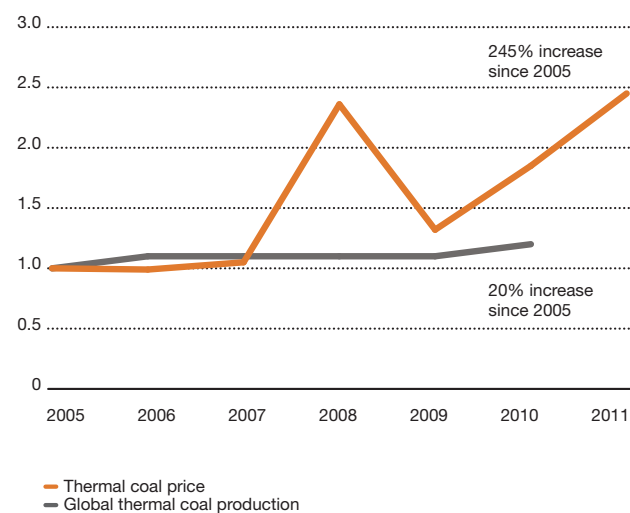
Source:
The World Bank, International Copper Study Group

Annual average iron ore prices, total global iron ore production (2005=1)



Source:
The World Bank, AME Outlook

Annual average thermal coal prices, total global thermal coal production (2005=1)



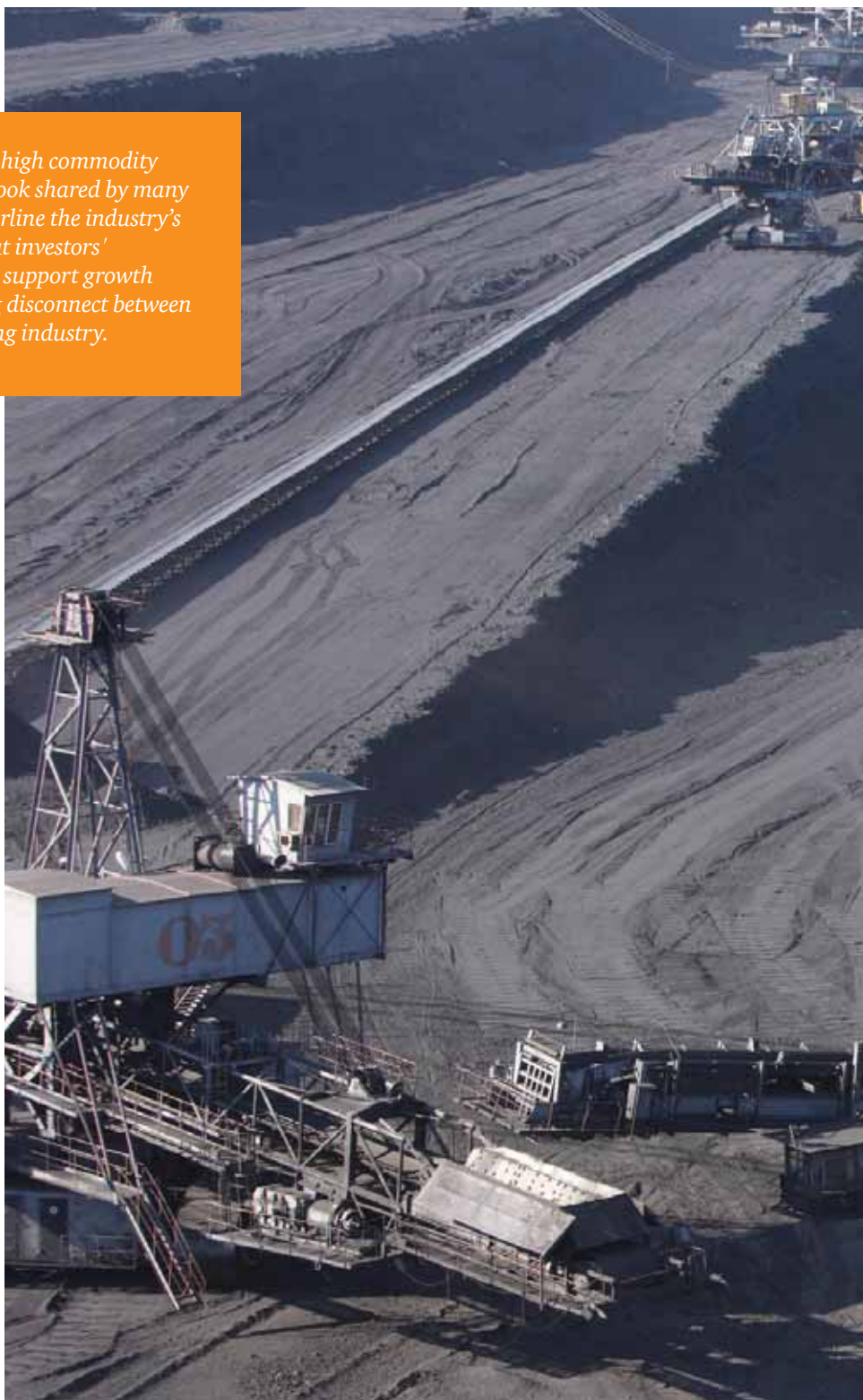
Source:
The World Bank, BP Statistical Review of World Energy June 2011

Record historical results, high commodity prices, and a bullish outlook shared by many miners continues to underline the industry's strong fundamentals. But investors' reluctance to emerge and support growth plans points to a growing disconnect between the market and the mining industry.

When demand started to boom after the global financial crisis, it looked like even marginal assets in the fourth quartile of the cost curve could be profitable. However, in light of growing supply challenges many producers will not be able to compete. This, in turn, will reduce available supply and increase commodity prices. Where the equilibrium lies for commodity prices is unclear.

The value of existing tier one assets is greater than ever. These long lifespan, low-cost and scalable assets are critical to competing in the market, but tier one assets don't appear overnight and often require large capital outlays to develop.

This presents a conundrum. Tomorrow's market requires top tier assets, but developing top tier assets doesn't come cheap – for example, a massive iron ore project in Australia's Pilbara region could cost more than \$10 billion. At present the market doesn't fully buy the industry's growth story and for many top miners, calls for capital discipline and to give cash back are voracious.



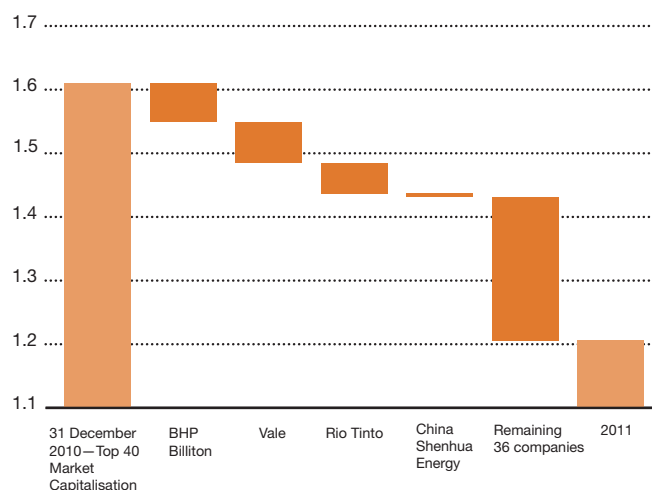
The Top 40

Market capitalisation

In 2011, the industry gave up all of its market capitalisation gains from 2010. At the end of 2011, total market capitalisation for the Top 40 amounted to approximately \$1.2 trillion, a drop of 25% from the \$1.6 trillion at the end of 2010.

It was a particularly poor year for the Top 40 with just six of the Top 40 posting positive market capitalisation movements: China Shenhua, Industrias Penoles, Goldcorp, Randgold, Yamana Gold, and Ivanhoe Mines. Of the six that gained, three were gold companies and the other three were either located in emerging markets or almost exclusively focused on emerging markets.

Change in 31 December market capitalisation (\$ trillion)



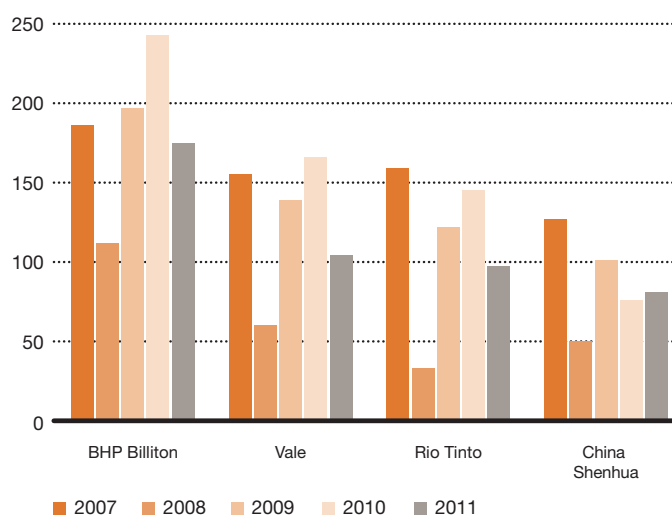
Source: Capital IQ

Key players

The Top 4 companies by market capitalisation, BHP Billiton, Rio Tinto, Vale, and China Shenhua, constitute 38% of the Top 40 by market capitalisation, which is down from 44% in 2009.

China Shenhua managed 7% growth in a year where most companies went backwards, closing the gap with the three larger companies.

Top 4 market capitalisation (\$ billion) – 31 December



Source: Capital IQ



Composition of industry

The diversified companies dominate the Top 40's market capitalisation. Of the Top 10, six are considered to be diversified, namely: BHP Billiton, Rio Tinto, Vale, Anglo American, Glencore and Xstrata. In total, companies that are considered to be diversified make up 42% of the Top 40's market capitalisation.

At 21% of the Top 40's market capitalisation, primary gold companies such as Barrick Gold, Newmont Mining, Randgold and Kinross represent the largest single commodity group, an increase from 16% the previous year.

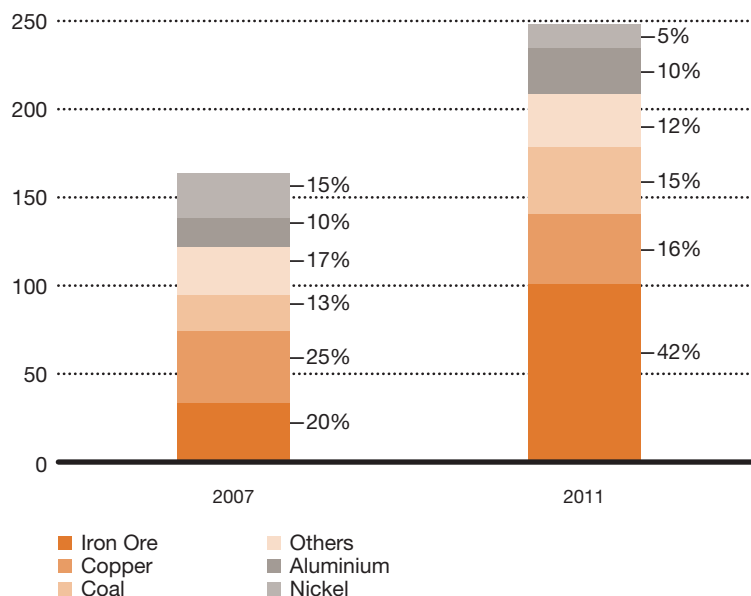
Less diversity, more iron

The change in the structure of the industry is exemplified through changes in the split of revenue and EBIT by commodity for the largest diversified miners, namely BHP Billiton, Rio Tinto, Vale, Anglo American, and Xstrata. Due to Glencore's significant marketing activity, they have been excluded from this particular analysis, although they are a large diversified company.

Since 2007, iron ore has become an increasingly significant part of the Top 5 diversified miners' portfolios. As a percentage of revenue, iron ore has gone from 20% to 42% and EBIT has gone from 24% to 66% of the total.

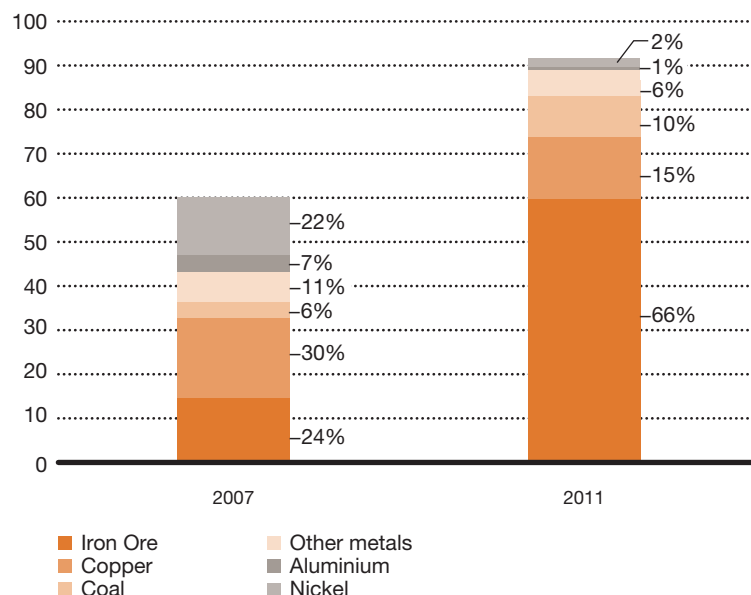
Miners have recognised the demand for iron ore from emerging markets and have made the investments necessary to take advantage of price increases in recent years.

Top 5 Diversifieds—2007 and 2011 Segment Revenue (\$ billion)



Source: PwC Analysis

Top 5 Diversifieds—2007 and 2011 Segment EBIT (\$ billion)



Source: PwC Analysis



Miners have recognised the demand for iron ore from emerging markets and have made the investments necessary to take advantage of price increases in recent years.

03 A view from the top



As in previous years, we have discussed the future of the mining industry with CEOs of a number of the Top 40 companies. This article summarises their views.



Following a year of record earnings for the industry, mining CEOs remain bullish about demand from emerging economies, led by China and India, which are anticipated to continue to drive demand for commodities. On the back of strong demand fundamentals, CEOs are optimistic about the need to keep on developing new mines despite frustration of a growing disconnect between their record profits but declining market capitalisation. In the current environment, CEOs express concerns around rising costs, and talent management, as they strive to keep pace with demand and increase investor confidence.

Uncertainty remains as CEOs decide where to explore and invest, while evaluating resource nationalism concerns. Keeping up with demand requires continued exploration for supply in new or remote places. Questions arise. How will the community react? How will governments welcome mining companies? How will governments evolve over time? What does this mean for investment agreements today and five, ten, or twenty years down the road?

CEOs are faced with persistent pressure from governments and communities who continue to demand an ever-growing share of the mining pie, generating investor uncertainty. Many CEOs have sought to improve stakeholder engagement, enhance transparency in tax payments, and focus on improving sustainable mining development. However, with the social licenses to operate becoming harder to obtain, CEOs recognise that actions are not enough – telling the story is also important. We expect to see more activity in this space going forward.

Although commodity prices remain strong in historic terms, there has been no margin growth due to increased costs. CEOs think that the trend of rising costs is here to stay. To overcome this, CEOs are focused on procurement, with many shifting towards centre-led supply chain organisation models that enable more effective management of materials and services purchases. Further efficiency and cost reduction is being achieved as CEOs increase technical expertise to enhance processes and maximise recoveries.

The talent challenge continues to be a top issue for CEOs. Mining company leaders recognise it doesn't make sense to have large numbers of expats working across the globe, and that professionals want to be in urban locations, particularly if they have families. CEOs are promoting and accelerating development and coaching of local workforces and sponsoring local educational programmes. Ultimately, this approach will enable long-term projects to be run by locally based workforces with local leaders, while at the same time providing consistent quality standards across global operations.

Mining investors are becoming increasingly demanding. While mining companies are taking on larger, more capital intensive projects, investors are insisting on higher returns through dividends and share buy backs. As a result, CEOs are faced with increasingly difficult capital allocation decisions as they try to balance growth with returns.

In response to increasing shareholder demands, CEOs are exercising greater discipline and greater focus when making big investment decisions. Although, falling stock prices suggest investors feel the Top 40 are not doing enough. CEOs are proceeding with caution as resource nationalism, rising costs, and labour challenges remain top of mind.

04 Ten-year trends 2002-2011



The information included below differs from the rest of our analysis as it includes the aggregated results of the companies as reported in Mine in each of the respective years disclosed.

The 2010 column presented below relates to the results of the 40 companies included in our previous Mine publication. While in the Financial Review section we analyse the results of this year's Top 40 for both 2011 and 2010.

<i>\$ billion</i>	<i>2011 (incl. Glencore marketing and non- metals)</i>	<i>2011 (excl. Glencore marketing and non- metals)</i>	<i>2010</i>	<i>2009</i>	<i>2008</i>	<i>2007</i>	<i>2006</i>	<i>2005</i>	<i>2004</i>	<i>2003</i>	<i>2002</i>
Aggregated income statement											
Revenue	716	539	435	325	349	312	249	222	184	110	93
Operating expenses	487	311	246	217	208	176	141	141	129	81	72
Adjusted EBITDA	229	228	189	108	141	136	108	81	55	29	21
Amortisation, depreciation and impairment	42	42	34	31	57	19	12	16	15	10	9
PBIT	187	186	155	77	84	117	96	65	40	19	12
Net interest cost	6	6	7	6	6	5	3	4	3	3	4
PBT	181	180	148	71	78	112	93	61	37	16	8
Income tax expense	48	48	38	22	21	32	27	16	9	4	2
Net profit	133	132	110	49	57	80	66	45	28	12	6
Aggregated cash flow											
Operating activities	174		137	83	104	95	77	58	41	22	
Investing activities	(142)		(79)	(74)	(102)	(126)	(67)	(38)	(23)	(20)	
Financing activities	(28)		(35)	10	14	36	4	(11)	(10)	1	
Free cash flow*	76		70	19	38	44	40	27	19	8	
* Free cash flow is defined as operating cash flow less investment in property, plant and equipment											
Aggregated balance sheet											
Property, plant and equipment	601		511	467	402	371	262	224	196	140	116
Other assets	538		432	334	274	284	192	148	120	83	72
Total assets	1,139		943	801	676	655	454	372	316	223	188
Total liabilities	482		387	354	339	329	217	178	151	114	101
Total equity	657		556	447	337	326	237	194	165	109	87

The Top 40 welcomes Glencore

Following its IPO in 2011, Glencore joined the Top 40, immediately becoming part of the Top 10. Glencore is an integrated producer and marketer of commodities with worldwide activities in the production, refinement, processing, storage, transport and marketing of metals and minerals, energy and agricultural products.

It is a major trader of both mining and non-mining products, to a much greater extent than any other company in the Top 40. Across all segments, marketing activities accounted for \$172 billion of total 2011 revenue, approximately 90%, but only approximately 35% of its 2011 EBIT of \$5.4 billion.

Glencore's metals and minerals business accounted for approximately 28% of its total 2011 revenue and almost 50% of its EBIT—of this, metals and minerals marketing makes up 83% of revenue and 48% of EBIT.

The inclusion of Glencore in 2011 has a significant impact on the results reported.

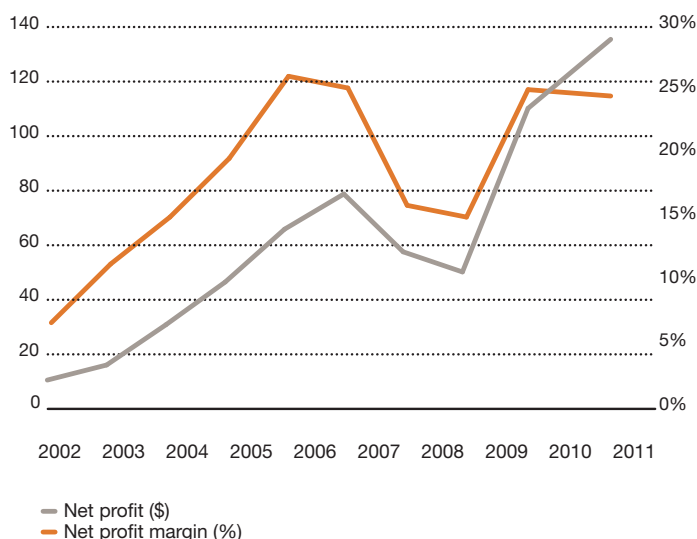
- Glencore's non-metals and minerals, and marketing businesses contributed to the considerable increase in 2011 to the Top 40's results. When included, revenue increased by 65% over 2010 compared to only a 24% increase if these activities are excluded.
- But as these activities are generally lower margin, Adjusted EBITDA margin fell to 32% when included, the lowest seen in Mine since 2004, compared to 42% when excluded.
- A similar trend was 18% seen for 2011 net profit margins—19% when including all of Glencore, compared to 25% when its marketing and non-metals business is excluded.
- The commentary and analysis on the Top 40's ten-year trends, below, is based on excluding Glencore's marketing and non-metals businesses.



Income statement – Revenue rose 24%, but returns were generally flat

- At \$539 billion, revenue rose by 24% over revenues posted in last year's report, marking the highest level ever reported. This is largely reflective of the gains in commodity prices in 2011. This is consistent with the trend seen in recent years – the 2003-2010 average revenue increase is 23%.
- Consistent with revenues, operating expenses and Adjusted EBITDA have hit their highest levels reported since 2002. Operating expenses increased by 26%, resulting in an Adjusted EBITDA margin of 42% – relatively consistent with the last five years with the exception of 2009.
- Net profit increased by 20% over 2010, further building on the prior year's significant gains. Despite the continued growth in net profit, net profit margins of 25% remain flat from 2010 and are slightly lower than the margins returned in 2006 and 2007. 2011's return on equity of 22% matches the 22% achieved in 2010, but is still well below the heady 31% seen in 2006.
- Total income tax expense increased in 2011 by 26% over 2010; however, the 2011 effective tax rate of 26% is generally consistent with the average effective rate from 2002 to 2010.

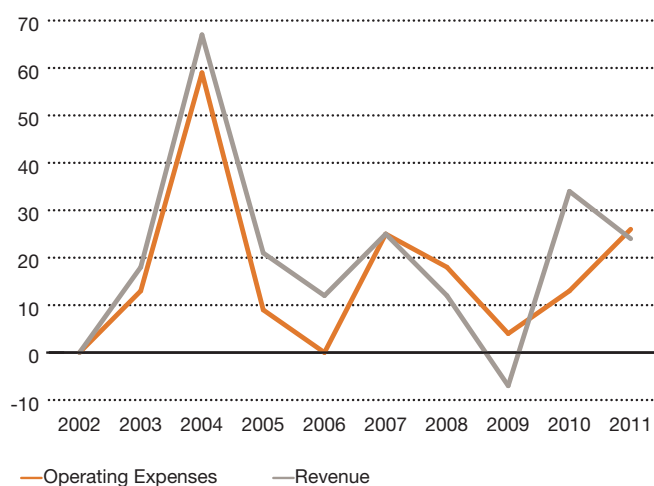
Net profit and net profit margin (\$ billion)
(Excluding 2011 Glencore marketing and non-mining)



Source: PwC Analysis

- A disconnect between the change in net profit and the change in net profit margin appeared in 2011 for the first time since 2007. Net profit was up, but the net profit margin decreased. This is demonstrated in the chart above.

Revenue and Operating expenses
Year-over-year increase/decrease %



Source: PwC Analysis

- In 2011, growth in operating expenses exceeded revenue growth. This is consistent with the trend seen during the global financial crisis from 2007 through 2009, when commodity prices experienced sharp declines. But unlike during the global financial crisis, in 2011, commodity prices and revenues surged, but operating costs increased slightly more. The growth in revenue in 2010 was particularly significant after the decline seen in 2009.

Cash flows—Investing and investors are top priority

- At \$174 billion, 2011 operating cash flows increased to their highest level, a 27% rise over 2010. 2011's result is almost a 700% increase over that reported in 2002.
- In 2011 the Top 40 spent a massive \$142 billion on investing activities, exceeding the previous high of \$126 billion in 2007. Compared to operating cash flows though, investing still lags behind 2007 and 2008 when the Top 40 invested almost as much cash or more than it generated from operations.
- 2011 was a good year for shareholders. Distributions to shareholders reached new heights with \$59 billion being returned through dividends or buybacks. This is close to double the return in 2010 and over 2.5 times the 2003-2010 average.
- Free cash flow in 2011 was a record \$76 billion, exceeding 2010 levels by 8% and over 800% higher than in 2003. A sharp contrast to 2009 which showed the largest decline in free cash flow generated by the Top 40 since we began performing this analysis, a consequence of a decline seen in operating cash flows that year.
- The ratio of total distributions paid to free cash flow generated was 79% in 2011, consistent with the level seen in 2008 and 2009, and an improvement on the 38% seen in 2010. The ratio of free cash flow to operating cash flow in 2011 was 44%, consistent with the average seen from 2003 to 2010.

Balance sheet—Cash hovers at just over \$100 billion

- At \$113 billion, the Top 40 hold a record level of cash. But, with an increase of only 8% over 2010, it is the second smallest year-on-year increase in the history of Mine, only slightly higher than the 2007 increase of 2%. The growth in cash balances has slowed as the Top 40 prioritised returning cash to shareholders and capital expenditures. Still, at 10% of total assets, there is a lot of excess cash waiting to be returned or deployed for capital projects.
- Property, plant and equipment, increasing by 18% in 2011, continued the upward trend experienced every year since 2002, as capital expenditures and acquisitions exceeded depreciation, disposals and impairment. Since 2002, property, plant and equipment has grown over 400%, illustrating significant growth in the industry over the past 10 years.

- Total assets climbed to a record high of \$1.1 trillion, largely driven by a record level of property, plant and equipment on company balance sheets. The Top 40's total assets at the end of 2011 are over 500% greater than those reported in 2002.
- 2011 saw the Top 40's gearing increase, as the 25% growth in total liabilities exceeded the 21% growth in total assets from 2010. This marks only the second year in the history of Mine when growth in liabilities outpaced assets. Equity increased by 18%, largely attributable to retained profits rather than capital raising.

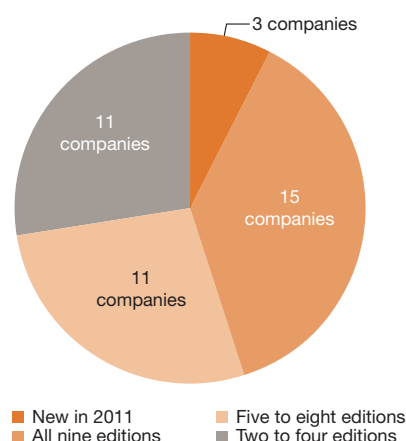
Glencore debuts in the Top 10

Every year the Top 40 sees notable new entrants and departures. 2011 was no exception with Glencore going public and immediately moving into a Top 10 spot. While each year has some movement, looking back, there has been remarkable stability at the top with six of the Top 10 being present in the Top 10 for all seven publications of Mine since 2005. Aside from Glencore in 2011:

- Goldcorp returned to the Top 10 after missing out in 2009 and 2010.
- Two companies, Potash Corp. of Saskatchewan and Freeport-McMoRan Copper & Gold, have left the Top 10, but they have not fallen far and remain within the Top 20.
- The Top 4 companies have remained consistent since 2007. BHP Billiton, the Top 40's largest company, is the only company in the Top 4 to keep its current position since 2005.

Looking deeper into the Top 40, we're starting to see less stability in terms of composition. In 2010, we reported 17 companies that had been included in every edition of Mine and three new entrants. In 2011 only 15 companies have been included in all nine editions of Mine, four companies returned to the Top 40 after missing out in previous editions and three entirely new entrants joined the Top 40.

2011 Top 40—Appearances in Mine



Source: PwC Analysis

2011 saw the departure of two companies which had previously been included in every edition of Mine. Consol Energy slipped out on the back of weakening US coal demand. Cameco dropped as the global outlook for nuclear power and uranium demand changed following the Fukushima nuclear disaster in March 2011.

The market capitalisation cut-off for inclusion in the Top 40 has shown great volatility over previous editions of Mine, with the cut-off point of \$9 billion for 2011 being 18% lower than 2010 but more than triple the low point seen in 2008 during the global financial crisis.

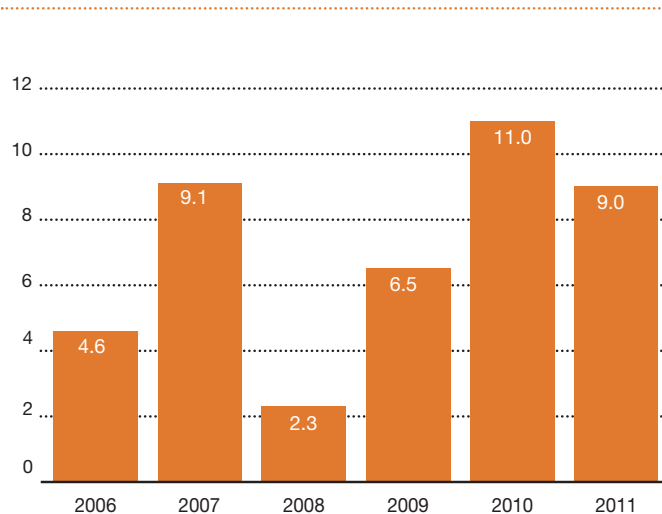
This year 19 of the Top 40 have their primary operations in emerging markets compared to 18 in 2010, although some of these companies are publicly traded on major exchanges outside these regions. At almost half, the Top 40 are on the verge of an interesting tipping point for the industry.

Companies from traditional markets are considered to be those with the bulk of their operations in Australia, Canada, South Africa or the United States. Although many diversified miners do have assets in the emerging world, for this comparison the location where the majority of each company's operations are located was used.

By market capitalisation, emerging market companies constitute 38% of the Top 40 in 2011, up from 35% in the prior year – the highest level seen during the period of 2002 to 2011.

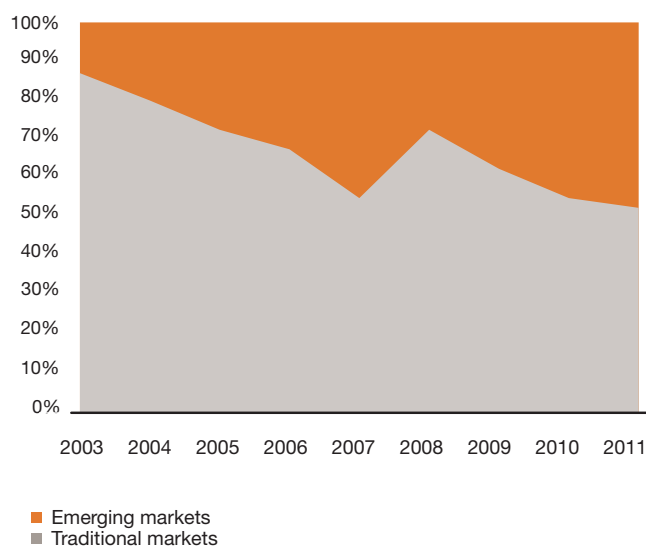
Emerging markets are the growth engine for the mining industry's demand and represent a growing portion of global supply. So, it's not surprising that the mining Top 40 increasingly includes emerging market players.

Mine - Cut-off market capitalisation for inclusion in the Top 40 (\$billion)



Source: Capital IQ, PwC Analysis

Mine - Composition of Top 40



Source: PwC Analysis

05 Sustainability: the Top 40 walk the walk, but do they talk the talk?



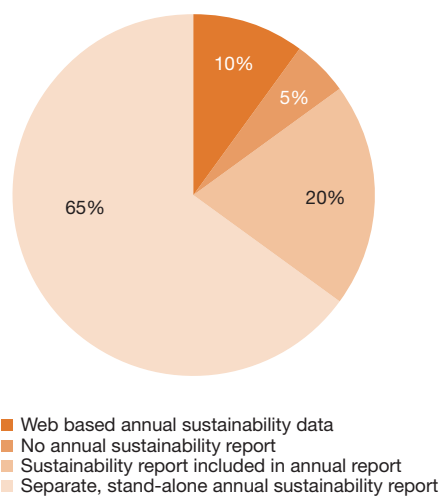
Type 'sustainability' and 'mining' into Google and over 20 million results appear. Surf the Top 40's home pages and 'sustainability' information is invariably just one click away. With social licences to operate becoming increasingly difficult to earn, sustainability has undoubtedly become a priority for the Top 40.

Sustainability is a complex issue encompassing economic, social and environmental matters. Talking to executives from the Top 40, it becomes clear that a range of issues are being tackled head on. Whether it's the millions of dollars being invested in training local work forces, improving biodiversity conservation or a range of other projects, miners are genuinely acting to address sustainability issues.

While what actually gets done to progress sustainability issues is clearly important, using it doesn't always mean more recognition. Using balanced reporting to tell your story also plays a significant role in building trust with stakeholders.

So, are miners effectively reporting their performance in this key area? Below we look at trends in the Top 40's 2011 sustainability reporting.

Forms of sustainability reporting



Source: PwC Analysis

Reporting

While all companies detailed their sustainability policies, 5%—all from China—did not issue an annual sustainability statement. Of the Top 40, 65% issued a separate stand-alone sustainability report and 10% provided sustainability information only on their websites. The remaining companies that issued sustainability information included sustainability sections in their annual report.

There is a strong correlation between stand-alone reports and the size of a company, with 95% of the Top 20 compared to 55% of the next 20 issuing this information, either as a stand-alone report or web-based annual sustainability data. Perhaps this is because larger companies feel they are under more scrutiny or because they have taken the initiative and geared up resources in this area?

Formats

Unsurprisingly stand-alone reports include more information than those reports included in annual reports, with stand-alone reports ranging from 12 to 140 pages. Stand-alone reports take time to prepare and for some miners they are perhaps a second priority to financial information. Only 39% of the Top 40 had published a stand-alone sustainability report for 2011 as at 30 April 2012.

Of the companies issuing a stand-alone sustainability report, 43% received assurance over the information provided—among the Top 20 61% received assurance. As miners become increasingly sustainability focused, we expect this ratio to increase.

Assurance

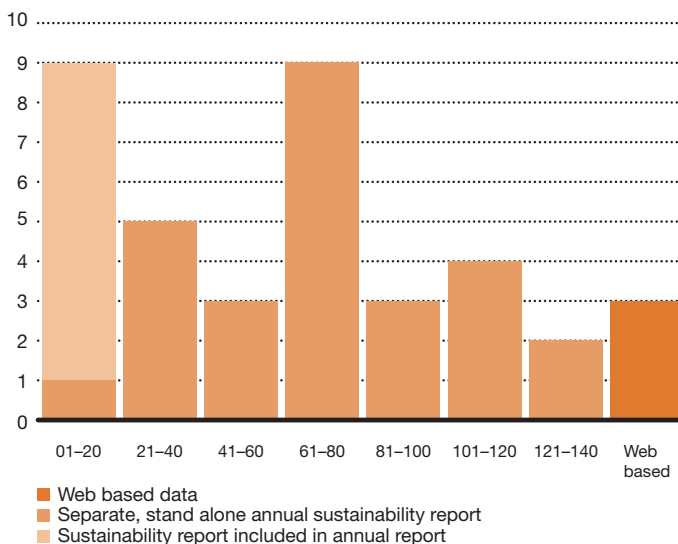
Of the 17 companies that did seek assurance, five obtained it from their financial statements auditors, four from boutique assurance providers, and the remaining eight from other major accounting firms.

Among the Top 40, 38% of companies' sustainability reporting did not follow a recognised framework. 40% followed the Global Reporting Initiative (GRI), 10% followed the International Council on Mining and Metals (ICMM), 10% followed both ICMM and GRI and 2% followed the Shanghai Stock Exchange (SSE) guidelines.

Frameworks

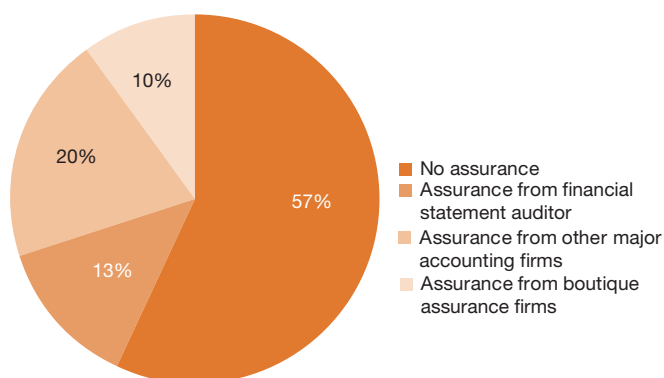
There are common themes between these frameworks, such as safety at work, social contribution, community relations, water/energy use, training, staff mix, and emissions. However, a lack of standardisation and inconsistent use of measurable Key Performance Indicators made company-by-company comparison or trend analysis essentially impossible.

Quality and Quantity—divergent formats



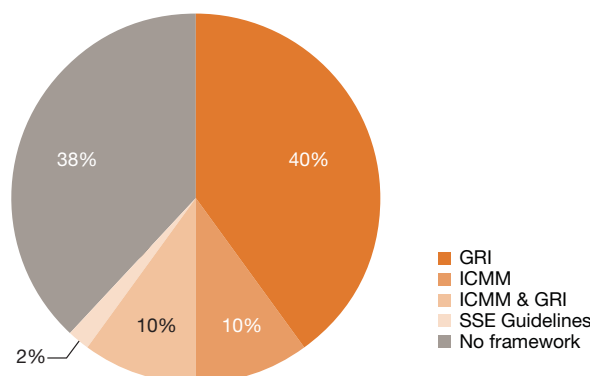
Source: PwC Analysis

Assured sustainability reporting



Source: PwC Analysis

Frameworks followed



Source: PwC Analysis

With the Top 40 facing mounting pressure from increasingly active stakeholders, just being sustainable is no longer enough. Companies must demonstrate it. The need for miners to tell their story and build trust among stakeholders, whether they are governments, environmentalists, communities or others is growing in importance as social licences to operate become increasingly difficult to keep or obtain. Based on our research, the Top 40 agree.

However, while detailed annual reporting on sustainability in some form is the norm, the norm stops there. Within the Top 40 there is considerable diversity in the scope and concept

of sustainability reporting. While a growing number of companies' sustainability reporting is credible and transparent, some reports do not convey a company's sustainability issues or their social, environmental and economic impact and what they are doing to help. In many cases it's also difficult to determine what issues genuinely impact strategy versus detail that might be of interest to a more limited number of users. Additionally, such information is not always reported on a timely basis.

Perception remains a valuable commodity—what does your sustainability reporting say about you?

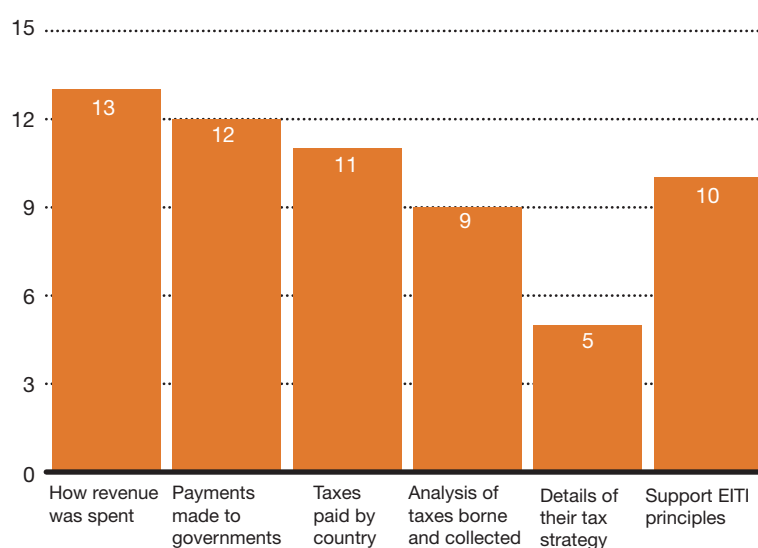
Total tax contribution

With governments across the globe looking to share in the commodity price boom, another important factor in managing corporate reputation is tax contribution. Having a clear understanding of total tax contribution not only supports informed decision making, but also demonstrates the wider social and economic impact of mining operations.

Miners are also starting to react to evolving tax legislation, with some publishing reports based on Publish What You Pay (PWYP) and the Extractive Industries Transparency Initiative (EITI). Out of the Top 40, 13 companies made voluntary tax disclosures in 2011. We were delighted to see many of them adopting PwC's suggested framework, the Tax Transparency Framework, which provides a standardised approach to identify and measure a company's overall tax contribution.

Of the 13 companies who made voluntary tax disclosures, disclosed information included the following:

Voluntary tax disclosures (number of companies)



Source: PwC Analysis

Rio Tinto plc

"In 2010 we took the decision to significantly enhance the quality of our Taxes Paid reporting, taking a holistic view of what tax information is important to our stakeholders, and consistent with our leadership in the area of sustainable development."

Guy Elliott
Chief Financial Officer
Rio Tinto plc

06 Financial review





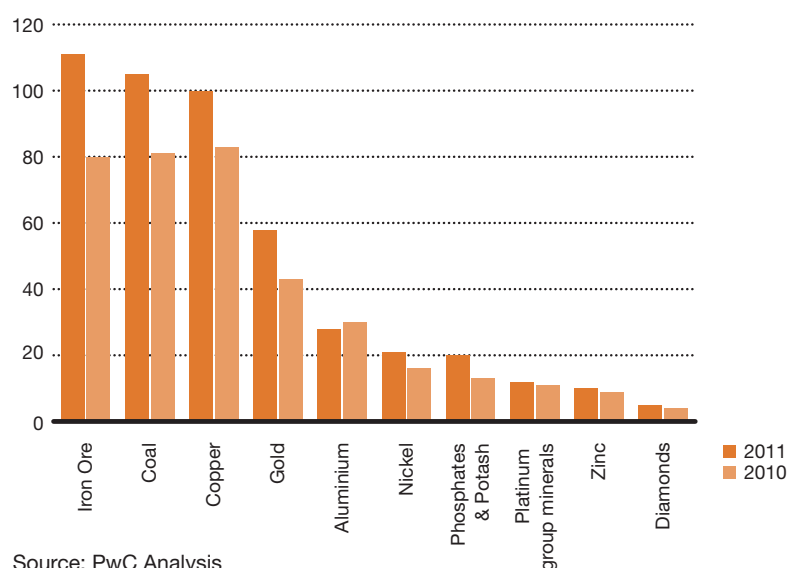
Revenue continued to grow...

In 2011 the Top 40 posted record revenues of over \$700 billion along with record net profit of over \$130 billion, increases over 2010 of 26% and 21%, respectively. Looking across the industry's major commodities, iron ore, coal and copper accounted for 57% of the Top 40's total revenue (excluding Glencore's marketing and non-metals businesses). Compared to 2010, iron ore revenue increased the most, while aluminium was the only major commodity where revenues decreased.

Income statement

\$ billion	2011	2010	
Revenue	716	567	26%
Operating expenses	(479)	(383)	25%
Adjusted EBITDA*	237	184	29%
Impairment charges	(16)	(1)	1500%
Depreciation & amortisation	(26)	(23)	13%
Royalty expense	(8)	(5)	60%
EBIT	187	155	21%
Net interest expense	(6)	(7)	(14%)
Income tax expense	(48)	(38)	26%
Net profit	133	110	21%
Effective tax rate	26%	25%	
Equity	654	572	
Capital employed	1,838	1,558	
*Adjusted EBITDA margin	33%	32%	
Net profit margin	19%	19%	
Return on capital employed	7%	7%	
Return on equity	22%	21%	

Revenue by commodity (\$ billion)



Source: PwC Analysis



..and almost across the board.

EBIT has increased...

Consistent with the Top 40's \$133 billion in net profit, by commodity EBIT has increased for the Top 40 with iron ore again leading the way. While EBIT is up for the most significant commodities, it has slightly decreased for aluminium, platinum group metals, zinc, and diamonds.

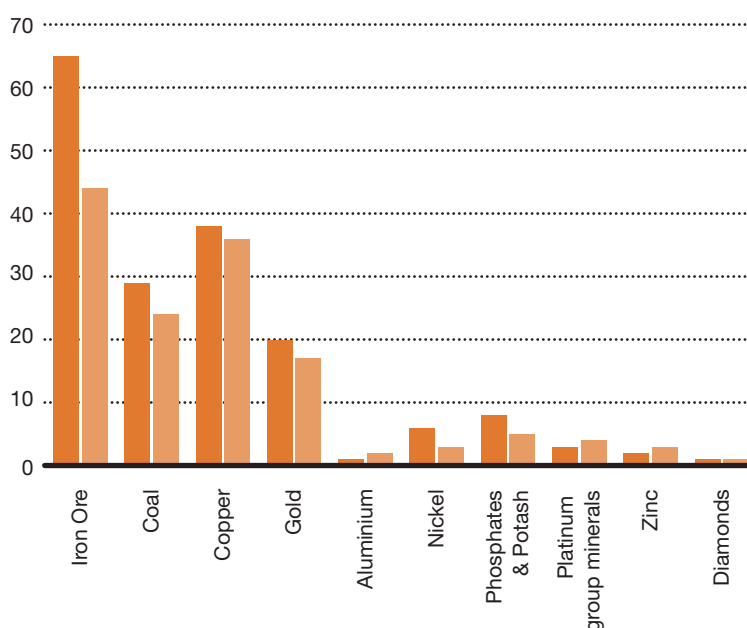
...along with rising costs of doing business ...

Despite strong commodity prices and record revenues, 2011 was an expensive year for the Top 40. Operating expenses reached a record \$479 billion, a 25% increase over 2010.

Input costs rose in 2011 – labour, fuel, electricity, and consumables to name a few. Additionally, cost bases have continued to shift upwards as the Top 40 mine more difficult and remote locations. Adjusted EBITDA margins only marginally increased, from 32% in 2010 to 33% in 2011 as cost increases kept pace with revenue gains.

Labour shortages continue to challenge the Top 40. With mining conditions becoming increasingly difficult, shortages in skilled labour, especially in remote locations, have often resulted in above average salaries in order to attract and retain talent. Looking in detail at the Top 4, the four largest companies by market capitalisation, namely BHP Billiton, Rio Tinto, Vale, and China Shenhua, labour costs were up at least 8% in 2011 – an effect of slight increases in production and incremental increases in wages and benefits.

EBITDA margin by commodity (\$ billion)



Source: PwC Analysis

Mining activities are energy intensive in nature. Fuel and electricity are key costs. Prices for Brent crude oil, on which fuel prices are highly related, were on average 39% higher in 2011 than in 2010. Electricity prices were also up, particularly for electricity from coal fired power plants as a result of strong coal prices in 2011 – a benefit for coal miners, but a cost for miners who use electricity from coal fired plants.

Prices for raw materials and other consumables were affected by rising demand. An increased level of activity in the mining industry led to increased competition for scarce resources, contributing to increased consumable costs. In addition, many of the Top 40 reported increased costs as a result of falling head grades. Lower grades require more waste to be mined for the same amount of minerals, compounding other cost increases.

Impairments

There was \$16 billion of impairment charges in 2011, primarily attributable to three companies: Rio Tinto, Kinross, and Newmont Mining. Rio Tinto took a \$9 billion impairment charge on its aluminium business, while Kinross and Newmont Mining took \$3 billion and \$2 billion of impairment charges, respectively, on various assets.



Income taxes and royalties

Significant debates continue to take place around resource nationalism in the form of additional taxation by way of royalties, non-income based taxes, and income-based taxes. As production levels and commodity prices increased in 2011, royalty expenses for the mining industry increased by 60% from \$5 billion in 2010 to \$8 billion in 2011. Of the Top 40, BHP Billiton reported the highest royalty expenses. At just under \$3 billion BHP Billiton's 2011 royalty expenses were almost 35% of the total, and their \$1.2 billion increase over 2010 was just under half of the overall increase. Income tax expense increased to \$48 billion – a total increase of 26% over 2010 – and a 1% increase in the overall effective tax rate to 26% of profit before tax.

Commodity prices

2011 was another strong year for commodity prices, although with the exception of gold, prices closed the year lower than the annual average.

Iron ore and gold were particularly strong, posting annual average increases of 29% and 28%, respectively.

	Iron ore	Gold	Thermal coal	Copper	Aluminum	Nickel
	\$/dmt	\$/oz	\$/tonne	\$/tonne	\$/tonne	\$/tonne
2010 avg	146	1,225	99	7,535	2,173	21,809
2011 avg	168	1,568	121	8,828	2,401	22,910
2011 close	136	1,642	110	7,565	2,022	18,267

Iron Ore

At an annual average of \$168/dmt, iron ore hit record levels, although, there was significant volatility during the year. Prices peaked in February, were generally stable until October, and then closed the year lower than average.

Gold

It was another strong year for the yellow metal. Prices generally trended upwards all year, increasing by 28% year-on-year and closing up 18% over last year's closing price. A persistently weak US dollar and continuing doubts over the global economy have maintained investor interest in gold, supporting strong and strengthening prices. Subsequent to year-end, gold lost some value in the first quarter of 2012 decreasing to an average for the quarter of \$1,540/oz.

Coal

Thermal coal prices for 2011 were 22% higher than 2010. At \$121/tonne, prices were almost back to 2008's levels when Australian thermal coal prices averaged \$127/tonne. Among other reasons, supply was constrained in 2011 as a result of flooding in Australia. Demand was bolstered as Japan switched off nuclear reactors following the Fukushima nuclear disaster in March 2011 and had to switch to other sources of electrical power, including coal.

Copper

On an annual average basis, copper prices were up over 2010. However, considering that in December 2010 copper was trading at \$9,147/tonne, December 2011's price of \$7,565 represents a 17% year-on-year decrease.

Long-term fundamentals for copper prices remain strong. There is robust demand from emerging markets such as China's electrical power sector. Supply remains tight as producers struggle to meet demand.

Source:

Iron Ore: The World Bank - Iron ore fines, spot price, CFR China, 62% Fe – Thomson Reuters Datastream, World Bank.

Gold: The World Bank – Gold (UK), 99.5% fine, London afternoon fixing, average of daily rates - Platts Metals Week; International Monetary Fund, International Financial Statistics; Shearson Lehman Brothers, Metal Market Weekly Review; Thomson Reuters Datastream; World Bank.

Thermal coal: The World Bank – Coal (Australia), thermal, f.o.b. piers, Newcastle/Port Kembla, 6700 kcal/kg beginning year 2011; for period 2002-10 , 6,300 kcal/kg (11,340 btu/lb), less than 0.8%, sulfur 13% ash – Bloomberg; IHS McCloskey Coal Report; International Coal Report; Coal Week International; Coal Week; World Bank.

Copper: The World Bank – Copper (LME), grade A, minimum 99.9935% purity, cathodes and wire bar shapes, settlement price – Platts Metals Week, Engineering and Mining Journal; Thomson Reuters Datastream; World Bank.

Aluminum: The World Bank – Aluminum (LME) London Metal Exchange, unalloyed primary ingots, high grade, minimum 99.7% purity, settlement price – Platts Metals Week, Thomson Reuters Datastream; World Bank.

Nickel: The World Bank – Nickel (LME), cathodes, minimum 99.8% purity, settlement price beginning 2005; previously cash price.

*Revenue in one currency,
costs in another...*

Most commodities are priced in US dollars, but costs for many miners are denominated in other currencies. While certain costs, such as fuel, are inherently linked to commodities also priced in US dollars, and some major contracts are also priced in US dollars, the mining industry is global; many costs are incurred in local jurisdictions in non-US dollar currencies. Foreign exchange can have a big impact on the bottom line.

*From 2002 to 2011 non-US dollar
currencies generally strengthened...*

For example, over the course of a few months in 2002 the US dollar increased in value by over 60% against the Brazilian Real. Since its peak in 2002, except for a spike in 2009, the Real declined in value against the US Dollar at a relatively steady pace. If you were a Brazilian iron ore miner over the last ten years, the relationship between your US dollar sales and Brazilian Real denominated costs would have significantly changed.

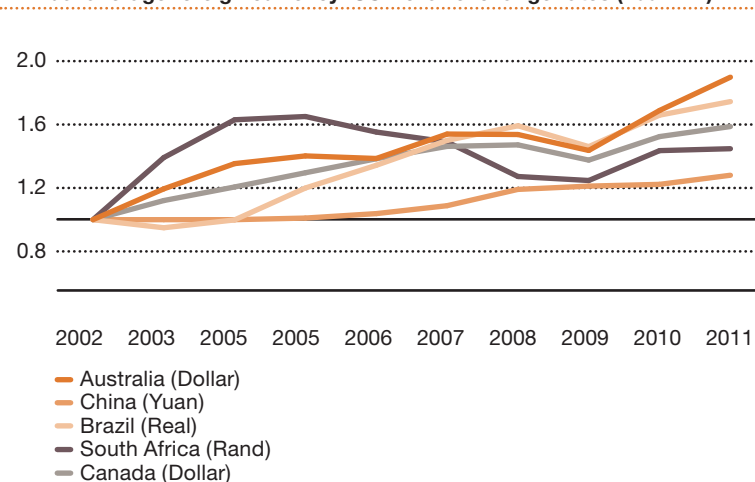
Over the last ten years exchange rates for major mining currencies have strengthened compared to the US dollar. While annual averages have been shown below, these currencies have seen significant month-to-month and even day-to-day fluctuations.

*...but non-US dollar currencies had a
mixed result in 2011*

In 2011, in contrast to the preceding nine years, with the exception of the Chinese Yuan and Australian Dollar, most mining currencies, such as the Brazilian Real, Canadian Dollar, and South African Rand weakened against the US dollar.

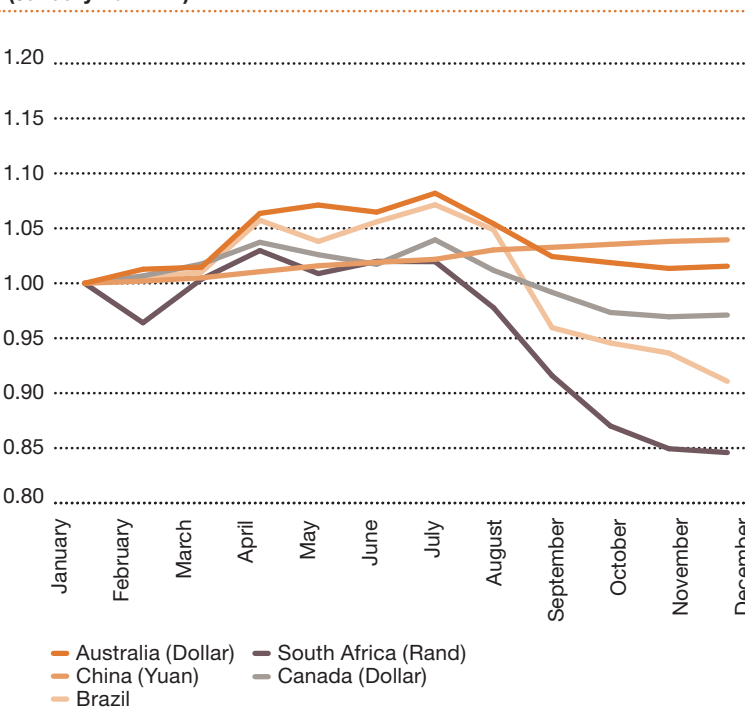
The US dollar fluctuated on average by 3% - 18% against other major mining currencies during 2011. These currency fluctuations have increased cost volatility and have resulted in \$2.8 billion in foreign exchange losses across the Top 40.

Annual average foreign currency: US Dollar exchange rates (2002 = 1)



Source: Bloomberg

Monthly average foreign currency: USD dollar exchange rates
(January 2011 = 1)



Source: Bloomberg

Cash flow Statement

\$ billion	2011	2010	Change (%)
Cash flow related to operating activities			
Cash generated from operations	202	151	34%
Income taxes paid	(31)	(21)	48%
Other	3	0	100%
Net operating cash flow	174	130	34%
Cash flow related to investing activities			
Purchase of property, plant and equipment	(98)	(66)	48%
Purchase of investment	(38)	(16)	138%
Exploration expenditure	(9)	(6)	50%
Other	3	14	(79%)
Net investing cash flow	(142)	(74)	92%
Cash flow related to financing activities			
Dividends paid	(33)	(20)	65%
Shares buy back	(26)	(3)	767%
Increase in borrowings	59	39	51%
Repayment of borrowings	(41)	(52)	(21%)
Shares issuance	14	6	133%
Other	(1)	-	(100%)
Net financing cash flow	(28)	(30)	(7%)
Net movement of cash and cash equivalents	4	26	(85%)
Cash and cash equivalents at beginning of the year	109	81	
Effect of foreign currency exchange rate changes on cash and cash equivalents	-	2	
Cash and cash equivalents at end of the year	113	109	

Operating cash flow— another record year

Continued buoyant commodity prices combined with modest increases in production led to \$202 billion of cash being generated from operations, a 34% increase over 2010.

Income taxes paid, which typically lag accounting profits, also surged, up 48% to \$31 billion. Increased cash taxes paid reflect the industry's turnaround seen in 2010.

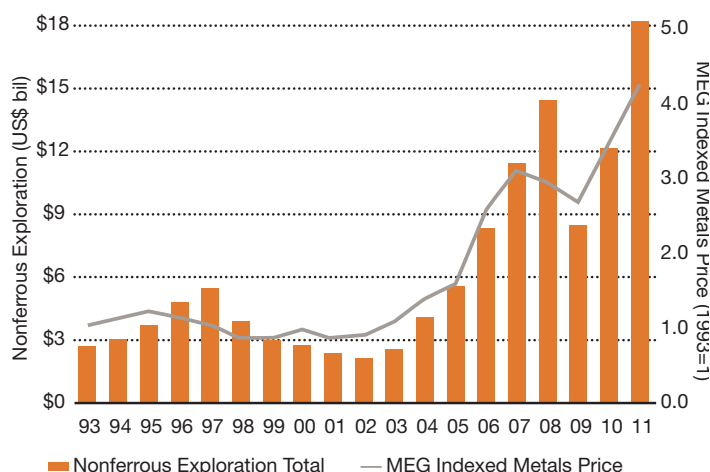
But, despite a record year of operating cash flows (up 34% to \$174 billion) the Top 40 ended the year only \$4 billion richer.

Investing cash flow— investing to meet future demand

Net investing cash flows have nearly doubled, up 92% over 2010 to \$142 billion, which according to the CIA World Fact Book is just below the GDP of Kuwait, the world's 60th largest economy. The Top 40 are investing heavily to meet high levels of future demand. With 34% of the balance coming from the Top 3, the largest miners are set to become even larger.

Purchases of investments, such as Barrick Gold's \$7.7 billion acquisition of Equinox, exceeded exploration expenditures by \$29 billion in 2011 – in 2010 purchases of investments exceeded exploration by only \$10 billion.

According to Metals Economics Group's World Exploration Trends 2012, total global spend on exploration surged to an all-time high of \$18.2 billion, an increase of 50% from 2010. Exploration spend reported by the Top 40 also grew at 50%. But while the Top 40's exploration spend increased significantly in 2011, the Top 40's exploration only accounted for just under half of the total global spend. Miners outside of the Top 40 represent more than 50% of the world's exploration, showing the continued importance of the junior mining sector to worldwide exploration. As a general trend, while the juniors continue to tend to explore greenfield projects, the Top 40 have largely stuck to focusing on brownfield exploration.



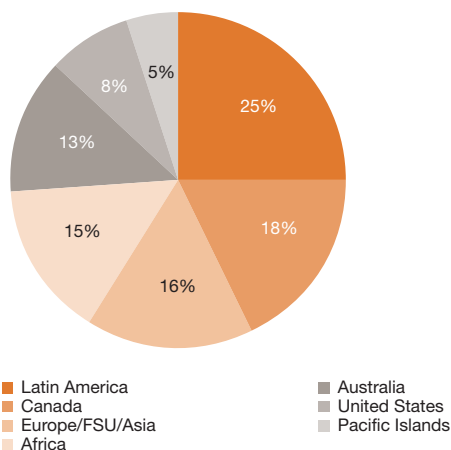
Source: Metals Economics Group: World Exploration Trends 2012

According to Metals Economics Group, the largest increases in exploration expenditures were seen in Latin America and Africa. In Africa, South Africa led the way for exploration expenditure, with Burkina Faso rising from twelfth in 2009 to third in 2011 on the back of increased gold exploration in Western Africa. Gold accounted for more than half of African exploration spend, with diamonds accounting for only 6% in 2011 – a far cry from 2004 when diamonds accounted for a third of all African exploration expenditures.

Financing cash flow—yielding to investors

Overall financing cash outflows remained largely stable, decreasing by only 7% to \$28 billion. Two opposing

2011 Worldwide exploration budget by region



Source: Metals Economics Group:
World Exploration Trends 2012

trends largely balanced – increased payments to shareholders were offset by increased debt.

More than ever, in 2011 miners shared their wealth with shareholders through dividends, up 65% in 2011, and share buy backs, increasing more than sevenfold in 2011. The Top 40 returned a total of \$59 billion back to shareholders in 2011, an increase of 156% over 2010. The Top 3 led the way with 50% of total dividend payments and 75% of total share buybacks.

This was almost entirely offset by \$32 billion in cash inflows from new borrowings and shares issuances; although, most major debt or equity issuances were reported to be to finance acquisitions.

Stepping up the dividend game

With the boom in commodity prices and the relatively poor performance of mining stock prices in 2011, investors have turned away from mining stocks as they seek higher gains elsewhere. One example is direct investing in commodities or in pure-play commodity ETFs. But watch out, mining companies can provide something very appealing to investors – dividends. Throughout 2011 many mining companies stepped up their dividends, with some increasing the frequency of their distributions and others increasing the size of dividend payouts. In the gold sector, some have started linking their dividends to the price of gold.

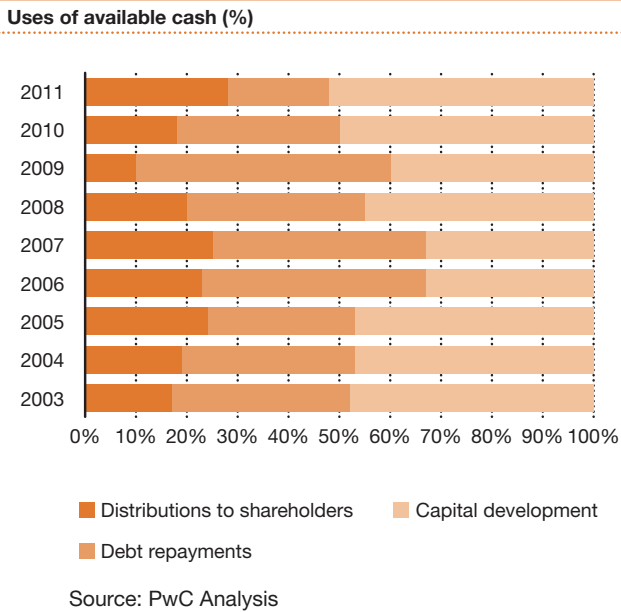
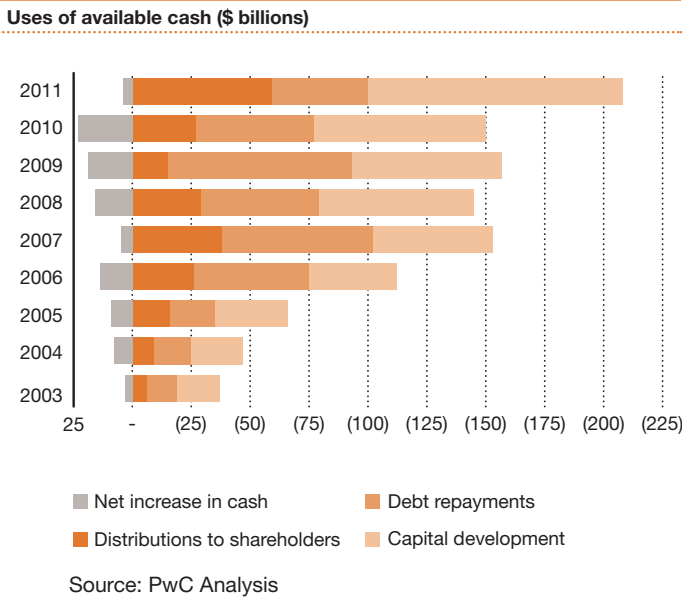
Miners appear to have concluded that the key to attracting investors is to rebalance the allocation of cash. Put simply, cash returns matter. Mining companies have historically allocated excess cash first to organic growth, then to growth by acquisition. Only then have they considered returning cash to investors. With record revenues and cash levels in 2011, miners have a strong pool of resources from which to provide a yield to investors.

And they're getting creative in their dividend strategies. Of the Top 40, Newmont Mining announced they would link their dividend payouts to rising commodity prices. "Gold miners have historically paid little, if any, dividends – so the fact that this sector is returning cash to shareholders is a game changer", said Paul Simon, Chief Investment Officer of Tactical Allocation Group. Newmont Mining's annual payout increases at varying rates depending on the thresholds hit by increases in the average realised gold price. For Newmont Mining, this strategy allows it to match its dividends to its cash flow without having to change its dividend policy.

Ultimately, investors looking for yields may remain wary of the mining sector as there is still some uncertainty about whether miners can sustain the recent distribution levels through the highs and lows of a commodity cycle. The concept of miners paying regular dividends through both good and bad times is still relatively new. But with innovative dividend strategies available to them, such as linking dividends to commodity prices, miners are fighting back to reclaim and retain investors.



Of the three uses of cash analysed, capital development (including property, plant, and equipment as well as exploration spend) remains the preferred use, crossing the 50% mark in 2011. The increase in distributions to shareholders appears to have come at the expense of net debt repayments, rather than at the expense of capital development.



“Each of you in this room wants more money back. You want buybacks, you want dividends, and you want special dividends. You don't want us spending as much money. We recognise that. We respect that. But what that means, and we are hearing it, we know our peers are hearing it, (is) there is going to be less supply coming in.”

Tom Albanese
CEO Rio Tinto

Balance Sheet

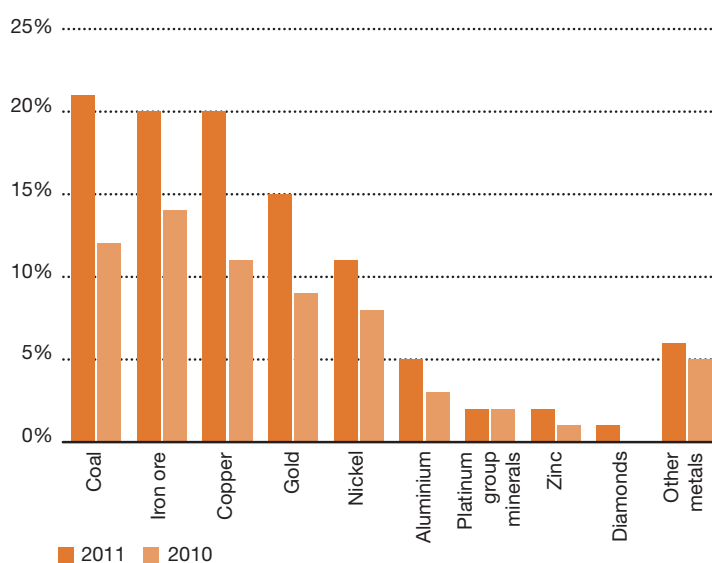
\$ billion	2011	2010	Change (%)
Current assets			
Cash	113	109	4%
Inventories	76	68	12%
Accounts receivable	77	70	10%
Other	30	39	(23%)
Total current assets	296	286	3%
Non-current assets			
Investment in associates and joint ventures	46	38	21%
Property, plant and equipment	601	517	16%
Goodwill and other intangibles	77	68	13%
Other investments and loans granted	36	30	20%
Other	83	73	14%
Total non-current assets	843	726	16%
Total assets	1,139	1,012	13%
Current liabilities			
Accounts payable	110	94	17%
Borrowings	32	33	(3%)
Other	28	37	(24%)
Total current liabilities	170	164	4%
Non-current liabilities			
Borrowings	162	136	19%
Other	150	137	9%
Total non-current liabilities	312	273	14%
Total equity	657	575	14%
Total equity & liabilities	1,139	1,012	13%
Key ratios			
Gearing %	0.12	0.10	
Current ratio	1.74	1.74	
Quick ratio (times)	1.30	1.33	
Net borrowings (\$ billion)	(81)	(60)	
Creditor days (days)	84	90	

Getting stronger

In 2011, the Top 40's net assets increased by \$82 billion to \$657 billion. The single biggest line item increase was in property, plant and equipment – up \$84 billion in 2011 to \$601 billion.

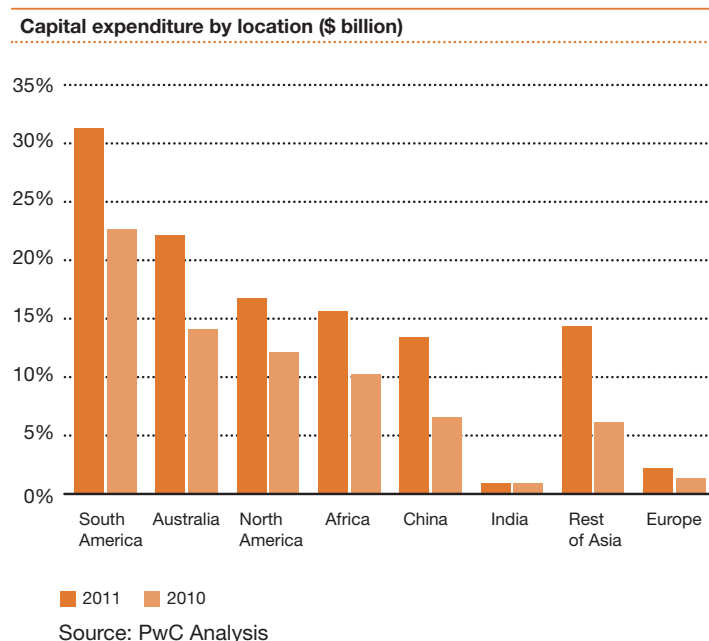
In line with revenue by commodity, the main focus of the Top 40's capital expenditure was iron ore, up 51%, coal, up 78%, and copper up 86% over 2010. These three commodities accounted for 59% of the overall 2011 capital expenditure. Iron ore had a smaller year-on-year increase in capital expenditure than coal or copper. That's surprising when you consider that iron ore had the Top 40's highest profit margin in 2011 and that BHP Billiton, Rio Tinto and Vale are trying to grow their iron ore capacity as quickly as possible.

Capital expenditure by commodity (\$ billion)



Source: PwC Analysis

Similar to 2010, over one quarter of the Top 40's capital expenditure was in South America, driven largely by Vale, who in both years accounted for over 50% of South American capital expenditure. China showed the largest increase in capital expenditure, driven by China Coal.



In addition to capital expenditures, acquisitions also contributed to the overall increase in net assets, including Barrick Gold's \$7.7 billion acquisition of Equinox. Acquisitions were partly offset by various impairments due to depressed commodity prices for certain commodities.

Capital projects— more complex than ever

Delivering capital projects with expected results is one of the biggest challenges facing the mining industry. Today's capital projects are larger, more expensive and more remote than ever before. These are the types of projects that are noticed by society and investors alike. The Top 40 have announced over \$400 billion in future capital projects, with over \$140 billion announced for 2012 alone.

As mining companies pursue capital projects, they must secure strong project

management skills, maintain local community support, and make sure their investors understand the imperative for the project's development.

Having the right technical expertise and enough capital to get going on a major project is only part of the challenge—managing the expectations and the message of how it is being spent is often a much larger task. This is particularly true when funding requirements change and more capital is required. If the market perceives that good money is following bad, even the most promising projects could be challenged by investors.

Rising debt

The Top 40's assets continue to be funded predominantly by equity, either by way of retained earnings or new capital. While borrowings were up by \$25 billion in 2011, the Top 40's gearing is still only 12%, up from 10% in 2010. Approximately 50% of the Top 40's increase in debt can be attributed to three companies who used debt to fund acquisitions, namely Barrick Gold, Peabody Coal and Uralkali.

For 2012, the Top 40 have announced \$140 billion in capital expenditures. If the strong operating cash flows seen in 2011 are maintained in 2012, additional debt to fund expansion may not be required. However, with both shareholders increasingly demanding higher cash returns and the current low cost of borrowing, will companies continue to increase borrowings to fund acquisitions and expansions?

Working your capital

Overall net working capital remained unchanged compared to 2010 at approximately \$44 billion. However, within this trade creditors, inventory and accounts receivable have increased.

Trade creditors have increased 17% to \$110 billion, with creditor days falling from 90 to 84 days in 2011.

Inventory has increased by 12% to \$76 billion. The increase has been directly impacted by more expensive consumables and also increased unit costs for stock piles, work-in-progress and finished goods.

Accounts receivable are up 10% to \$77 billion. While revenue was up 26% in 2011, the difference between the increase in accounts receivable and revenue does not reflect a tightening in receivable terms, but falling commodity prices at the end of 2011.



New standards for stripping

Effective 1 January 2013, IFRS reporters will be required to apply IFRIC 20 – the first international mining specific accounting standard that covers stripping costs during the production phase of a mine.

With no current guidance, there is currently diversity in how stripping costs are accounted for. Some companies are opting to capitalise costs using a Life of Mine average ratio while others expense them as incurred or allocate them to costs of inventory produced in the period.

The new standard prescribes capitalising production stripping costs when they provide improved access to ore, with the costs incurred in removing components of waste being matched up with the sections of the ore body to which they provide access. Herein lies the challenge – the vast majority of ore bodies are irregularly shaped and their boundaries move as assumptions over the ore body evolve. Applying the standard will require judgement and lead not only to changes in accounting treatment, but also changes in underlying processes in collecting the supporting data.

While the new standard promises greater consistency between IFRS reporters, actually applying the standard is proving to be complex. Out of the Top 40's 28 IFRS reporters, no company has early adopted the standard, and at year-end 2011 the majority of companies were still assessing the impact of the new guidance. However, two companies out of the Top 40 believe that their existing stripping policy already complies with IFRIC 20.

While it seems likely that the new standard will lead to a change from current accounting practises for many, quantifying the impact is complex. For those currently applying a Life of Mine average approach stripping costs will likely be depreciated over shorter periods, potentially increasing volatility in recognised expenses. For those currently expensing stripping costs or allocating to inventory the opposite may be true, with less income statement volatility as more costs are capitalised.

With no two mines alike, assessing the full impact and practical implications of the revisions to the standard are challenging and will likely take time. Watch this space.



07 Reserves and production

Copper and gold – held by 24 out of the Top 40

Of the ten major commodities analysed in terms of reserves, 24 of the Top 40 report copper and gold reserves. That makes both copper and gold the most widely held of the commodities we analysed.

Over \$18 trillion in reserves in the ground and still increasing

On an overall basis, reserves increased in 2011 with thermal coal and iron ore posting the largest increases in reserves. Prevailing prices for many commodities were relatively strong during 2011, which was a major contributing factor in converting resources into reserves.

While reserves decreased for five out of ten commodities analysed, the percentage decreases were relatively minor. Potash showed the steepest decrease with a 3% decline.

In total, using year-end 2011 spot prices, the value of the Top 40's stated reserves is impressive – approximately \$18 trillion.



	Gold (million ounces)	Platinum (million ounces)	Iron ore (million tonnes)	Copper (million tonnes)	Thermal coal (million tonnes)	Metallur- gical coal (million tonnes)	Zinc (million tonnes)	Nickel (million tonnes)	Bauxite (million tonnes)	Potash (million tonnes)
No. of companies	24	5	9	24	12	10	9	8	3	3
2010 reserves	711	200	27,041	311	61,342	7,495	45	20	2,245	1,087
(Depletion)	(40)	(8)	(755)	(11)	(1,285)	(124)	(3)	(1)	(55)	(27)
Other net addition/ (reduction)	94	16	2,976	23	6,689	(45)	3	0	1	-
2011 reserves	765	208	29,262	323	66,746	7,326	45	19	2,191	1,060
Change (%)	8%	4%	8%	4%	9%	(2%)	(1%)	(2%)	(2%)	(3%)
Remaining life (years) 2011	19	28	39	29	52	59	14	23	40	39

Source: PwC Analysis

Gold

Gold reserves among the Top 40 increased through acquisitions, higher prices used in reserve models, and continued exploration and development activity. The year's largest reserve-adding acquisition was Newcrest Mining's acquisition of Lihir Mining, which added 31 million ounces.

In PwC's 2012 Gold Price Survey, mining industry executives stated they are currently applying gold prices ranging from \$850/oz to \$1,650/oz to their 2011 reserves estimates, with 32% applying a price of \$1,200/oz. A price of \$1,200/oz represents an increase of 20% from last year's majority response of \$1,000/oz. In addition to increased exploration and development activity, these higher assumed prices result in reserve models using lower cut-off grades, bringing more resources into reserves.

Platinum

Reported platinum reserves were up by 4%, with Anglo American's net reserve additions representing more than 70% of the Top 40's increases. Anglo American was also the biggest producer of platinum, producing nearly 45% of the Top 40's total production.

Iron Ore

Four companies, Vale, Fortescue, Xstrata, and Rio Tinto, represented 90% of 2011's net iron ore reserve additions. Big capital expenditure continues to be the name of the game in iron ore, with multi-billion dollar capital projects in places like

Australia's Pilbara region and Pará, Brazil. Reserves have expanded by 8%, bringing total remaining life to 39 years.

Copper

2011 did not have a single big reserve-adding project like 2010's addition of the massive Oyu Tolgoi project in Mongolia. Still, reserves were up 4% for the year, buoyed by strong prices for the red metal. Net reserve additions were double the Top 40's 2011 production.

Coal

Thermal coal was 2011's top reserve-adding commodity – adding 9% to total reserves during the year. Over 90% of net reserve additions came from China Coal, China Shenhua, Yanzhou Coal and Coal India.

In contrast to thermal coal, metallurgical coal reserves decreased by 2% in 2011, with most of the decreases reported by China Coal.

Zinc and nickel

Similar to 2010, zinc and nickel reserves remained consistent with prior year levels as exploration programmes have not discovered significant new ore bodies in the last few years. At only 14 years, zinc remains the commodity with the shortest reserve life. We note that a number of major zinc producers are not currently included in the Top 40, such as Vedanta Resources and Minmetals Resources.

Production

Commodity (measure)	Top 40 total production (million)	Change from prior year (%)
Gold (oz)	40	9
Platinum (oz)	8	2
Iron ore (tonnes)	755	6
Copper (tonnes)	11	16
Thermal coal (tonnes)	1,285	2
Metallurgical coal (tonnes)	124	(5)
Zinc (tonnes)	3	(10)
Nickel (tonnes)	1	13
Bauxite (tonnes)	55	4
Potash (tonnes)	27	17

Source: PwC Analysis

With the exception of metallurgical coal and zinc, production was up across the board. While the increase in potash production is lower than last year's 30% increase, potash still showed the greatest production increase among the Top 40. Copper production rebounded in 2011, increasing by 16% over 2010 – in 2010 copper production was impacted by a number of labour strikes in Chile and Peru, so 2011 benefited from decreased industrial action.

Iron ore production continued to grow in 2011 with demand on the rise and iron ore mines operating closer to full capacity. Increased production by Vale, BHP Billiton, NMDC and Rio Tinto represented 95% of the total increase over 2010.

Gold production increased in 2011; however, given 2011's record prices, gold producers almost certainly would have preferred to increase production by more than they did.

China Coal and China Shenhua were the primary contributors to increased thermal coal production, although much of their increases were offset by Rio Tinto's divestment of its entire interest in Cloud Peak Energy.

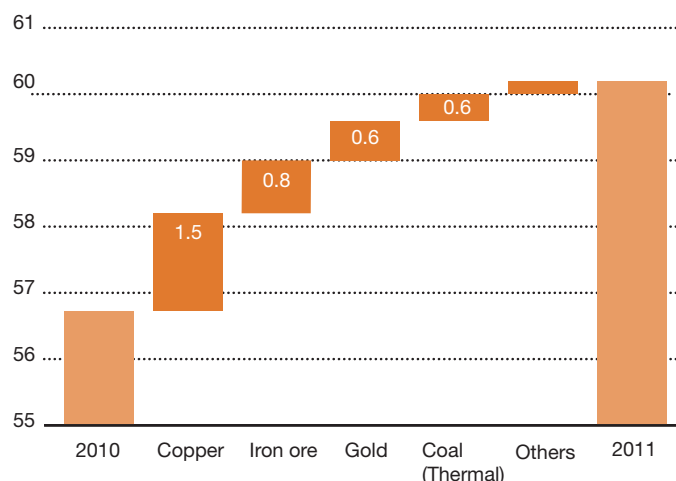
Wet weather in Queensland, Australia significantly impacted BHP Billiton's metallurgical coal operations in 2011 and was the primary driver of the 6% decrease in the Top 40's metallurgical coal productions.

Using one tonne of copper as an equivalent unit basis, production across all commodities was up 6% over 2010, led by copper and iron ore.

Using 2011 reserves and production data, we have calculated the remaining mine life of the Top 40. When converted into copper equivalent units at the end of 2011, the Top 40 had a remaining mine life of 39 years across all commodities. That was essentially unchanged since 2010 as reserve additions largely kept pace with production growth.

Total production

Using Copper equivalent tonnes—2011 average prices



Source: PwC Analysis

Coal—here to stay...

Coal is the world's most abundant and widely distributed fossil fuel. It's been used by civilization in some form since the Bronze Age. While some of the most significant changes to the ways it is used, how it is traded and what it means to the civilization have yet to come, one thing is for sure, coal is here to stay.

Recent years have seen the technology associated with processing, burning and otherwise using coal rapidly advance, particularly for thermal coal. Today there are numerous ways to use coal better either through increasing the overall value per tonne or decreasing the environmental impact of its use. Improved or new uses for coal promise to fundamentally change its future demand profile.

As a heavy, low value per tonne, and relatively well distributed commodity, the market for coal is much more local than other mining products. Global trading patterns will change, though, as there are a number of trends that promise to increase the level of international trading.

- **Declining consumption in the US and other developed markets and competing fuels:** In November 2011, less than 40% of US electricity was generated using coal, the first time coal's share has been below 40% since March 1978. Although the US Energy Information Administration forecasts coal to remain at around 40% through 2035, the US and other developed markets are clearly not growth markets for consumption, particularly as shale gas becomes a more important source of fuel in the US and around the world.
- **Declining reserves in China:** According to the 2011 BP Statistical Review of World Energy, as of 31 December 2010, China only had approximately 35 years of reserves left based on current production levels. That's a far cry from the 500 years of remaining reserves in Russia and 250 years in the US.
- **Limited increases in Indian production:** India has large reserves, but much of it is located in environmentally sensitive or under-developed, but highly populated areas, making ramping up production difficult. In

2010, India's annual production was around an eighth of China's and has not been increasing at the same rapid rate. India's economy will grow substantially and as it expands, the country will require huge increases in coal imports, both for power generation and for industrial uses.

- **Coal quality:** Coal is not a uniform commodity and quality varies significantly, creating opportunities for international trade.
- **Tighter controls on carbon emissions:** As carbon emissions are increasingly controlled in Europe and in countries such as Australia, older coal power plants are getting squeezed out of electricity production. Many utilities are switching to natural gas and renewables.
- **Coal and transport prices:** Coal prices have trended upwards in recent years, making transportation costs a smaller component of the total price per tonne. At the same time, global shipping prices, measured by the Baltic Dry Index, are near record lows, making international shipping more viable.
- **Infrastructure:** Infrastructure is being added around the world to lower export costs and increase capacity. Examples range from increased port handling capacity in the US and Africa, to more border crossings between Mongolia and China, to more rail capacity in Australia, and even the expansion of the Panama Canal. While transport costs may currently restrict the viability of certain exports, as more capacity is added or if prices increase, coal trading flows will increase.

These trends will drive coal to be more globally traded as there is a growing imbalance between countries that have a surplus of coal and those with a deficit.

For all of the talk about renewable energy, natural gas and conservation, for now, coal is here to stay, but it will be traded more much widely. However, it remains to be seen to what extent new coal technologies will be fully commercialised and how much coal use will be replaced with cleaner technologies. Energy transitions take half a century or more and many more chapters in coal's story have yet to be written.

Diamonds are forever—or are they?

BHP Billiton and Rio Tinto have announced that they are reviewing their diamond businesses. Due to a lack of major discoveries and the inherent nature of the diamond sector it has proven difficult for these two players to reach a scale of production comparable to their other businesses. Ultimately, diamonds didn't seem to generate the profits expected.

In sharp contrast, in a deal expected to complete in the second half of 2012, Anglo American has announced it will acquire the Oppenheimer Family's 40% stake

in De Beers. The deal could see Anglo American holding up to an 85% interest in De Beers, depending on whether the Botswana government exercises its option to increase its interest from 15% to 25%.

If BHP Billiton and Rio Tinto succeed in selling their diamond businesses in 2012, Anglo American would be the only company left in the Top 40 with significant diamond assets—an interesting contrast in strategies.

08 *People—from expat to local*





As tomorrow's world class mines are developed in more remote locations, mining industry executives have a challenging task. They need to be sure they have right people in the right place, for the long-term. Now more than ever, miners must balance the cost of either incentivising expats to go to far flung corners of the globe or training a local, developing workforce.

In PwC's 15th Annual Global CEO Survey, CEOs from around the world told us that talent management is an increasing priority and getting the right people strategy is critical. The mining industry faces a unique and more difficult talent management challenge - you can't move a mine. Across the industry, mining CEOs are facing three key aspects to these challenges:

- Labour costs;
- Limited supply of expatriate talent; and
- A heightened focus on local employment and government relations.

Labour costs

There is no question that compensation plays a pivotal role in recruiting, hiring, and retaining competent talent. Today's entry level graduates expect generous packages and experienced contractors and project managers command thousands of dollars per day. When it comes to stationing expatriates on projects in remote geographical locations, the costs can be staggering. To compete with other booming industries like oil & gas, miners have no choice but to keep pace with pay.

Limited supply of expatriate talent

Record mining industry growth has led to a surge in the demand for geologists and engineers. The industry is facing a challenge. The talent and experience the industry requires either doesn't live near its new projects or is nearing retirement. Older employees likely no longer have the appetite for long-term postings in remote locations, while younger employees often seek the social connectivity offered in large cities. Even if miners can find willing candidates, expatriates may not want to stay, or cannot legally stay, year round in a foreign jurisdiction, resulting in forced turnover that can derail today's mega projects.

Technologies such as video conferencing and driverless equipment can help alleviate the location aspects of these shortages, but there is still a long way to go before they are a comprehensive solution.

*Local employment
and government relations*

All eyes are on the mining industry to demonstrate the reality of sustainable mining practices that benefit local communities. At the same time, an increasing number of governments are exerting pressure on foreign investors to sign investment treaties detailing their commitment to hiring local talent. By implementing systems in which expatriates are on site for the first 12-24 months of a mine's life in order to educate, train, and transition locals into permanent positions, mining companies can meet the demands of local governments and at the same time ensure that local staff are well trained and prepared for employment. Additionally, in many emerging countries local talent is considerably less expensive than in developed countries, helping the financial bottom line as well as the corporate social bottom line.

Employment concerns in the mining industry are multifaceted. But leading miners are making their worldwide human capital resources as high of a priority as their mineral resources in the ground.



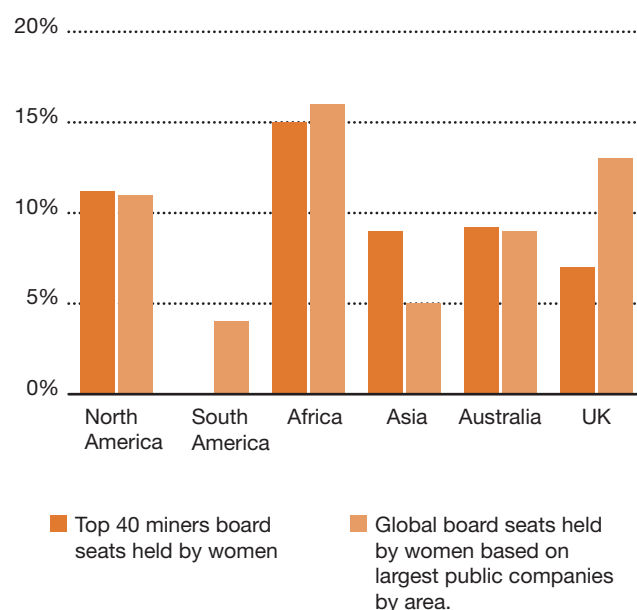
Women on board?

Female representation in boardrooms globally remains low. Currently, among the Forbes Global 2000, only 10.5% of directors are women and close to 40% of companies have no women on their boards. However, despite the perception that mining is a male dominated industry, female representation for the Top 40 miners is consistent with global averages—9.8% of the Top 40's directors are female, an average of 1.1 women per boardroom, and 62.5% of Top 40 miners have at least one woman on their board.

Within the Top 40 miners, companies from South Africa, India, Russia, and the United States have an average of 25% female board members

representing countries with the highest proportion of women on boards. Companies from Brazil, Peru, Mexico, and China have the lowest female representation with an average of less than 2%. UK based miners are below the UK national average. That looks set to change, though, with recent recommendations under the Lord Davies report recommending that 25% of FTSE 100 board positions are to be filled by women by 2015.

With countries across the globe recognising the benefits of women on boards and diversity policies becoming the norm, we expect the number of female directors across all industries, including mining, to increase.



Source: PwC Analysis , GMI Ratings—2012 Women on Boards Survey

09 Glossary

Adjusted EBITDA	EBITDA adjusted to exclude impairment charges. A measure that is close to the underlying cash earnings of a company before servicing its capital base
Adjusted EBITDA margin	Adjusted EBITDA / Revenue
Capital employed	Property plant and equipment plus current assets less current liabilities
Creditor days	Accounts payable / Operating Expenses * 365
Current ratio	Current assets / Current liabilities
dmt	Dry metric tonne
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation.
EBITDA margin	EBITDA / Revenue
EITI	Extractive Industries Transparency Initiative
ETF	Exchange traded fund
Free cash flow	Operating cash flows less investment in property, plant and equipment
GDP	Gross domestic product
Gearing ratio	Net borrowings / Equity
GRI	Global Reporting Initiative
ICMM	International Council on Mining and Metals
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
Market capitalisation	The market value of the equity of a company, calculated as the share price multiplied by the number of shares outstanding
Net assets	Total assets less total liabilities
Net borrowings	Borrowings less cash
Net profit margin	Net profit / Revenue
oz	Troy ounce
Price-to-earnings ratio ("PE ratio")	Market value per share/earnings per share
Quick ratio	(Current assets less Inventory) / Current liabilities
Return on capital employed ("ROCE")	Net profit / Property plant and equipment plus current assets less current liabilities
Return on equity ("ROE")	Net profit / Equity
SSE	Shanghai Stock Exchange
Top 3	BHP Billiton, Rio Tinto and Vale
Top 4	BHP Billiton, Rio Tinto, Vale, and China Shenhua
Top 10	BHP Billiton, Rio Tinto, Vale, China Shenhua, Anglo American, Barrick Gold, Xstrata, Glencore, Goldcorp, and Coal India
Top 20	20 of the world's largest mining companies by market capitalisation
Top 40	40 of the world's largest mining companies by market capitalisation
Top 5 diversified	BHP Billiton, Rio Tinto, Vale, Anglo American, and Xstrata

10 Top 40 companies analysed

Name	Country (**)	Year end
Anglo American plc	UK	31-Dec
AngloGold Ashanti Limited	South Africa	31-Dec
Antofagasta plc	UK	31-Dec
Barrick Gold Corporation	Canada	31-Dec
BHP Billiton Limited / BHP Billiton plc	Australia/UK	30-Jun
China Coal Energy Company Limited	China/Hong Kong	31-Dec
China Shenhua Energy Company Limited	China/Hong Kong	31-Dec
Coal India Limited	India	31-Mar
Compania de Minas Buenaventura SA	Peru	31-Dec
Vale SA	Brazil	31-Dec
Eurasian Natural Resources Corporation PLC	UK	31-Dec
First Quantum Minerals Limited (*)	Canada	31-Dec
Fortescue Metals Group Limited	Australia	30-Jun
Freeport-McMoRan Copper & Gold Inc.	United States	31-Dec
Glencore International plc (*)	UK	31-Dec
Gold Fields Limited (*)	South Africa	31-Dec
Goldcorp Inc.	Canada	31-Dec
Grupo Mexico S.A. de CV	Mexico	31-Dec
Impala Platinum Holdings Limited	South Africa	30-Jun
Industrias Penoles S.A.B De CV	Mexico	31-Dec
Ivanhoe Mines Limited	Canada	31-Dec
Jiangxi Copper Company Limited	China/Hong Kong	31-Dec
Kinross Gold Corporation	Canada	31-Dec
MMC Norilsk Nickel	Russia	31-Dec
National Mineral Development Corporation Limited	India	31-Mar
Newcrest Mining Limited	Australia	30-Jun
Newmont Mining Corporation	United States	31-Dec
Peabody Energy Corporation	United States	31-Dec
Polyus Gold International Limited (*)	UK/ Russia	31-Dec
Potash Corporation of Saskatchewan Inc.	Canada	31-Dec
Randgold Resources Limited (*)	UK	31-Dec
Rio Tinto plc / Rio Tinto Limited	UK/Australia	31-Dec
Silver Wheaton Corporation	Canada	31-Dec
Teck Resources Limited	Canada	31-Dec
The Mosaic Company	United States	31-May
Uralkali JSC (*)	Russia	31-Dec
Xstrata plc	UK	31-Dec
Yamana Gold Inc. (*)	Canada	31-Dec
Yanzhou Coal Mining Company Limited	China/Hong Kong	31-Dec
Zijin Mining Group Company Limited (*)	China/Hong Kong	31-Dec

(*) Refers to companies which were not included in 2010 analysis

(**) Refers to the country of primary listing where the shares are publicly traded.

11 Explanatory notes for aggregated financial information

We have analysed 40 of the largest listed mining companies by market capitalisation. Our analysis includes major companies in all parts of the world whose primary business is assessed to be mining.

The results aggregated in this report have been sourced from the latest publicly available information, primarily annual reports and financial reports available to shareholders. Where 2011 information was unavailable at the time of data collation, these companies have been excluded. Companies have different year-ends and report under different accounting regimes, including International Financial Reporting Standards (IFRS), US Generally Accepted Accounting Practice (US GAAP), and others.

Information has been aggregated for the financial years of individual companies and no adjustments have been made to take into account different reporting requirements and year-ends. As such, the financial

information shown for 2011 covers reporting periods from 1 April 2010 to 31 December 2011, with each company's results included for the 12-month financial reporting period that falls into this timeframe.

All figures in this publication are reported in US dollars, except when specifically stated. The results of companies that report in currencies other than the US dollar have been translated at the closing US dollar exchange rate for the respective year.

Some diversified companies undertake part of their activities outside the mining industry, such as the petroleum business of BHP Billiton and parts of the Rio Tinto aluminium business. No attempt has been made to exclude such non-mining activities from the aggregated financial information, except where noted.

Entities that are controlled by others in the Top 40 and consolidated into their results have been excluded, even when minority stakes are listed.

12 Key contributors to Mine



- 1 Sizwe Masondo, South Africa
- 2 Felipe Gomes, Brazil
- 3 Andrew Bernardus, Indonesia
- 4 Peter Acloque, United Kingdom
- 5 Hallie Caywood, United States of America
- 6 Ananth Rajaratnam, Australia
- 7 David Harris, Canada
- 8 John Matheson, China
- 9 Baurzhan Burkhanbekov, Kazakhstan

not pictured

Alex Mayberry, Australia

Christina Greve, United States of America

Jill Wang, China

Pukhraj Sethiya, India

13 Contacting PwC

Visit our website:
www.pwc.com/mining

PwC firms help organisations and individuals create the value they're looking for. We're a network of firms in 158 countries with close to 169,000 people who are committed to delivering quality in assurance, tax and advisory services.

PwC is a leading adviser to the global mining industry, working with a wide variety of explorers, producers and related service providers to ensure we meet the challenges of the global mining industry into the future.

Our strength in serving the global mining industry comes from our skills, our experience, and our seamless global network of dedicated professionals who focus their time on understanding the industry and working on solutions to mining industry issues.

For more information on this publication or how PwC can assist you in managing value and reporting, please speak to your current PwC contact or telephone/e-mail the individuals below who will put you in contact with the right person.

Global Mining Leadership Team

Global Mining Leader and Australia

Tim Goldsmith
Telephone: +61 3 8603 2016
E-mail : tim.goldsmith@au.pwc.com

Africa

Hein Boegman
Telephone: +27 11 797 4335
E-mail : hein.boegman@za.pwc.com

Canada

John Gravelle, Toronto
Telephone +1 416 869 8727
E-mail: john.gravelle@ca.pwc.com

China

Ken Su, Beijing
Telephone: +86 10 6533 7290
E-mail: ken.x.su@cn.pwc.com

India

Kameswara Rao, Hyderabad
Telephone: +91 40 6624 6688
E-mail: kameswara.rao@in.pwc.com

Indonesia

Sacha Winzenried, Jakarta
Telephone: +62 21 5289 0968
E-mail: sacha.winzenried@id.pwc.com

Latin America

Ronaldo Valino, Rio de Janeiro
Telephone: +55 21 3232 6139
E-mail: ronaldo.valino@br.pwc.com

Russia and Central & Eastern Europe

John Campbell, Kiev
Telephone: +380 44 490 6777
E-mail: john.c.campbell@ua.pwc.com

United Kingdom

Jason Burkitt, London
Telephone: +44 20 7213 2515
E-mail: jason.e.burkitt@uk.pwc.com

United States

Steve Ralbovsky, Phoenix
Telephone: +1 602 364 8193
E-mail: steve.ralbovsky@us.pwc.com

Knowledge Manager

Ananth Rajaratnam
Telephone: +61 3 8603 0006
E-mail : ananth.rajaratnam@au.pwc.com

14 Other PwC mining publications

Regional Mine publications

Besides the Global Mine publication PwC prepares a number of Regional Mine Publications which focus on analysis of trends in the mining industry in particular regions.



March 2012

Canadian mining taxation 2011: Digging deeper

This guide summarises the main features of Canada's income and mining tax systems currently in effect throughout the country. Quantitative examples give further insight into the application of the systems.

Contacts:

John Gravelle, Toronto
Telephone +1 416 869 8727
E-mail: john.gravelle@ca.pwc.com

Liam Fitzgerald, Toronto
Telephone +1 416 869 2601
E-mail: liam.m.fitzgerald@ca.pwc.com



December 2011

2011 Brazil Mine - Mining – a virtuous cycle that needs to be taken advantage of

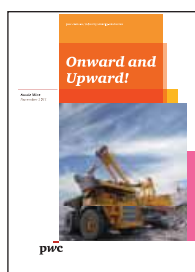
Provides an overview of key current opportunities and challenges in the Brazilian mining sector as well as other major mining markets around the world. The publication combines case studies from major mining companies, interviews with top executives, and insightful analysis.

Contacts:

Ronaldo Valino, Rio de Janeiro
Telephone +55 21 3232 6139
E-mail: ronaldo.valino@br.pwc.com

Fernando Alves, São Paulo
Telephone +5511 3674 3566
E-mail: fernando.alves@br.pwc.com

Henrique Luz, São Paulo
Telephone +5511 3674 3897
E-mail: henrique.luz@br.pwc.com



November 2011

Aussie Mine – Onward and Upward!

PwC's annual review of trends in the mid-tier Australian mining industry. This report focuses on the annual results of the largest 50 mining companies listed on the Australian Stock Exchange with a market capitalisation of less than \$5 billion at 30 June 2011.

Contact:

Tim Goldsmith, Melbourne
Telephone: +61 3 8603 2016
E-mail: tim.goldsmith@au.pwc.com

Other PwC Mining publications (continued)



November 2011

South Africa Mine – Review of trends in the South African mining industry

This, the third publication of the review of trends in the South African mining industry, again focuses on the state of the mining sector in South Africa. It aggregates the financial results of mining companies with a primary listing on the Johannesburg Stock Exchange (JSE) and large mining companies with a secondary listing on the JSE whose main operations are in Africa at 30 June 2011.

Contact:

Hein Boegman, Johannesburg
Telephone: +27 11 797 4335
E-mail : hein.boegman@za.pwc.com



November 2011

Junior Mine – Trends in the TSX-V

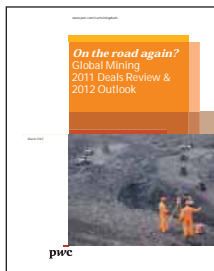
PwC's review of trends in the mining industry through analysis of the top 100 mining companies on the TSX Venture Exchange, based on market capitalisation at 30 June 2011.

Contact:

John Gravelle, Toronto
Telephone +1 416 869 8727
E-mail: john.gravelle@ca.pwc.com

Our commitment to the industry goes beyond our services. As industry leaders, we are globally recognised for our broad knowledge of the mining industry and the laws that govern it.

Set out on this page are examples of recent mining thought leadership publications.



March 2012

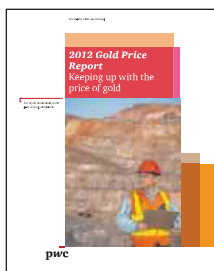
On the road again? Global Mining 2011 Deals Review & 2012 Outlook

PwC anticipates a record year of mining M&A ahead, primarily driven by cash-rich seniors and intermediates hungry for projects. 2012, however, is unlikely to be 'more of the same'. With demand for new projects, rising production costs and declining developed world reserves, miners will seek out targets to build scale and achieve cost efficiencies. Activity will be underpinned by the continued need for base and precious metals by the world's rapidly industrialising nations.

Contacts:

Tim Goldsmith, Melbourne
Telephone: +61 3 8603 2016
E-mail : tim.goldsmith@au.pwc.com

John Gravelle, Toronto
Telephone +1 416 869 8727
E-mail: john.gravelle@ca.pwc.com



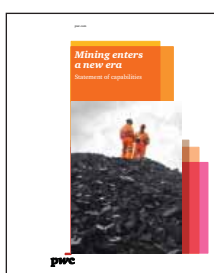
December 2011

2012 Gold Price Report: Keeping up with the price of gold

Annually, PwC surveys gold mining companies from around the world, including executives from senior and junior mines. Read our 2012 survey to learn why gold companies' shares are not keeping pace with gold prices.

Contact:

John Gravelle, Toronto
Telephone +1 416 869 8727
E-mail: john.gravelle@ca.pwc.com



September 2011

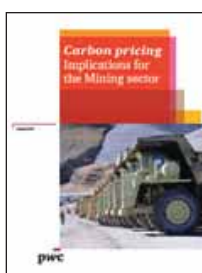
Statement of Global Mining Capabilities 2011

This publication discusses the key challenges mining companies face today and how PwC is helping them identify and implement solutions. Our industry-leading specialists help our mining clients effectively identify and achieve synergies across a range of business issues.

Contacts:

Belinda Wilson, Melbourne
Telephone +61 3 8603 3965
E-mail: belinda.wilson@au.pwc.com

Ananth Rajaratnam, Melbourne
Telephone: +61 3 8603 0006
E-mail : ananth.rajaratnam@au.pwc.com



August 2011

Carbon pricing – Implications for the Mining sector

In our latest publication focused on the potential impacts of the introduction of a carbon price in Australia, we explore the mining industry and the new challenges the sector faces with an additional cost burden on the horizon following the release of the Federal Government's Clean Energy Future Plan and Exposure Draft of the Clean Energy Bill 2011.

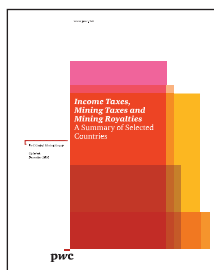
Contacts:

Jock O'Callaghan, Melbourne
Telephone: +61 3 8603 6137
E-mail: jock.ocallaghan@au.pwc.com

Liza Maimone, Melbourne
Telephone: +61 3 8603 4150
E-mail : liza.maimone@au.pwc.com

John Tomac, Sydney
Telephone: +61 2 8266 1330
E-mail: john.tomac@au.pwc.com

Other PwC Mining publications (continued)



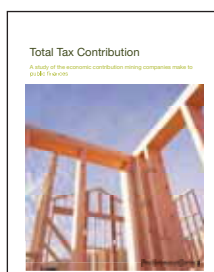
December 2010

Global mining tax comparison: Income taxes, mining taxes and mining royalties

This publication is an analysis of the taxes in mining countries around the world, focusing on income taxes, mining related taxes and royalties applicable in that country.

Contact:

Steve Ralbovsky, Phoenix
Telephone: +1 602 364 8193
E-mail: steve.ralbovsky@us.pwc.com



May 2010

Total Tax Contribution – A study of the economic contribution mining companies make to public finances

The taxes and other contributions that mining companies pay to government is an important element in the creation of prosperity and stability in the countries in which they operate. However, the full extent of this contribution is not always recognised. Using the PwC Total Tax Contribution framework, this second study for the mining sector aims to bring greater transparency to the wider economic contribution that mining companies make to public finances. The study is larger than the original study and includes 22 mining companies operating in 20 different jurisdictions.

Contacts:

Steve Ralbovsky, Phoenix
Tel: +1 602 364 8193
E-mail: steve.ralbovsky@us.pwc.com

Susan Symons, London
Tel: +44 20 7804 6744
E-mail: susan.symons@uk.pwc.com



Financial reporting in the mining industry

This provides a comprehensive analysis of financial reporting in the global mining industry. It sets out the major accounting practices adopted by the mining industry under IFRS in respect of issues of particular relevance to the mining sector. We are currently updating this publication to address all recent changes and developments in IFRS and industry practice.

Contacts:

Jason Burkitt, London
Telephone: +44 20 7213 2515
E-mail: jason.e.burkitt@uk.pwc.com

Debbie Smith, Melbourne
Telephone: +61 3 8603 2249
E-mail : debbie.smith@au.pwc.com



