



# *Aussie Mine 2017*

Decisions, decisions...



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# Welcome to the 11<sup>th</sup> edition of Aussie Mine *Decisions, decisions...*

Aussie Mine provides industry and financial analysis on Australia's mid-tier mining sector as represented by the mid-tier 50 (the 50 largest ASX mining companies with a market capitalisation of less than \$5 billion at 30 June 2017, also known as the 'MT50').







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# Introduction

After emerging from the dark days of the recent past, Australia's mid-tier mining sector now has a golden opportunity to prosper in this new, more positive environment. Some miners are reaping the success of having plotted their moves in difficult times, putting them in the box seat to take advantage of the recent upturn. Others are carefully pondering their next steps, still wary from the experience of having the wisdom of capital allocation decisions seriously questioned.

*The 2017 results are undeniable, the MT50 is back on a steady footing:*

- Revenue is up 15%.
- Operating costs are currently flat, while impairments are at their lowest levels since 2011.
- These positive conditions have driven the highest EBITDA margins recorded in over a decade, at 34% and a return to a collective net profit for the MT50, the first in five years.

Building on the brighter investor sentiment in 2016, the mid-tier sector was further buoyed in 2017 as coal and iron ore players joined the strong performance delivered by Australia's MT50 gold miners. An opportunity to prosper has been presented, but the question for the MT50 is which strategic levers should be pulled to capitalise on these conditions?

It is evident the MT50 are mindful of accusations of miners pursuing

volume growth at any cost or of capital destruction through ill-timed investment decisions. As such it appears the MT50's actions in 2017 have been tempered:

- Capital expenditure was up 35% (excluding MMG's capex reduction), however this appears primarily focused on brownfield and expansion projects.
- Available cash was pumped into debt repayment, up a whopping 64% on 2016, and the level of new debt issued almost halved.
- Investors welcomed the 41% jump in dividend payments, but with operating cash flows up 33% and cash on hand increasing almost \$1 billion, shareholders may be left wanting more.

*The conditions are right for the next big Australian independent miner to emerge. What's the blueprint for success?*

Our analysis of the MT50 points to a breakaway, as building blocks for Australia's next big independent miner are already in place. A clear list of candidates has emerged in the upper echelon of our MT50 list that possess key attributes for success.

*But where are the deals?*

Perhaps surprising many, the free cash available to the MT50 has not yet driven a flurry of large transactions. Excluding Yancoal's

current year activities, this would have seen average deal value reduce to \$183 million, the lowest amount since 2013. With many quality gold assets having found their way to the MT50 in recent years and the spike in iron ore and coal prices driving up the price of assets on the block, perhaps it's little wonder deals have been harder to come by.

*Where are the opportunities in using data and technology?*

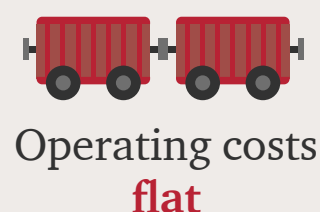
In attempts to flatten those steepening cost curves and deliver greater profits for longer, more and more of the MT50 are considering data and the deployment of tools and methods to drive real operational improvements. Some of this year's turnaround stories serves as a great lesson for those questioning whether data and technology can make such a significant difference.



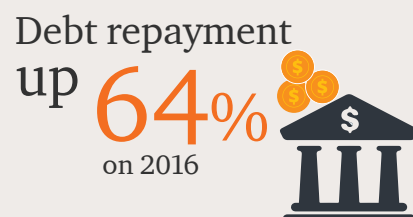
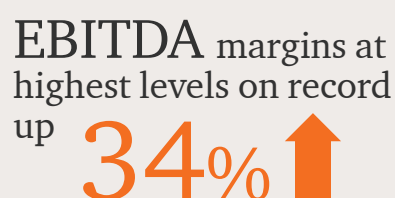
*Decisions, decisions...*

The MT50 have moved well beyond 'light at the end of the tunnel' stage to return to the full glare of the spotlight again. Favourable conditions have returned and strategic options abound. Time to make some decisions...

# Ripe conditions for growth decisions



Impairments at **lowest level** since 2011



# The 2017 MT50 list

The 50 largest mining companies listed on the Australian Securities Exchange (ASX) with a market capitalisation of less than \$5 billion at 30 June 2017.

2017 Rank	2016 Rank	Ticker	Company	Primary commodity	Market capitalisation 30/06/2017	Market capitalisation change 2016 to 2017
1	2	ASX:EVN	Evolution Mining Limited	Gold	4,056	19%
2	6	ASX:MMG	MMG Limited	Diversified	3,821	117%
3	5	ASX:ILU	Iluka Resources Limited	Mineral Sands	3,630	34%
4	4	ASX:NST	Northern Star Resources Limited	Gold	2,852	-4%
5	15	ASX:WHC	Whitehaven Coal Limited	Coal	2,847	167%
6	3	ASX:OGC	OceanaGold Corporation	Gold	2,411	-22%
7	8	ASX:OZL	OZ Minerals Limited	Copper	2,213	30%
8	11	ASX:MIN	Mineral Resources Limited	Iron Ore	2,033	31%
9	7	ASX:RRL	Regis Resources Limited	Gold	1,894	11%
10	9	ASX:IGO	Independence Group NL	Diversified	1,848	10%
11	12	ASX:SBM	St Barbara Limited	Gold	1,447	-1%
12	13	ASX:NHC	New Hope Corporation Limited	Coal	1,272	8%
13	14	ASX:SAR	Saracen Mineral Holdings Limited	Gold	948	-18%
14	19	ASX:SFR	Sandfire Resources NL	Copper	892	8%
15	18	ASX:RSG	Resolute Mining Limited	Gold	877	4%
16	10	ASX:SYR	Syrah Resources Limited	Graphite	731	-54%
17	16	ASX:ORE	Orocobre Limited	Lithium	729	-27%
18	22	ASX:GXY	Galaxy Resources Limited	Lithium	660	1%
19	17	ASX:AQG	Alacer Gold Corp.	Gold	611	-34%
20	24	ASX:GOR	Gold Road Resources Limited	Gold	584	3%
21	23	ASX:WSA	Western Areas Ltd	Nickel	575	-1%
22	na	ASX:WGX	Westgold Resources Limited	Gold	563	na
23	20	ASX:PLS	Pilbara Minerals Limited	Lithium	557	-21%
24	29	ASX:ZIM	Zimplats Holdings Limited	Diversified	538	39%
25	21	ASX:MLX	Metals X Limited	Diversified	408	-39%
26	30	ASX:DCN	Dacian Gold Limited	Gold	399	3%
27	43	ASX:LYC	Lynas Corporation Limited	Rare Earths	386	109%
28	na	ASX:CIA	Champion Iron Limited	Iron ore	380	333%
29	na	ASX:YAL	Yancoal Australia Ltd	Coal	378	347%
30	25	ASX:TGZ	Teranga Gold Corporation	Gold	378	-19%
31	31	ASX:TBR	Tribune Resources Limited	Gold	364	-3%
32	34	ASX:MGX	Mount Gibson Iron Limited	Iron Ore	362	28%
33	40	ASX:TZN	Terramin Australia Limited	Zinc	346	61%
34	26	ASX:PRU	Perseus Mining Limited	Gold	300	-43%
35	27	ASX:MNS	Magnis Resources Limited	Graphite	283	-32%
36	28	ASX:BDR	Beadell Resources Limited	Gold	265	-34%
37	42	ASX:RMS	Ramelius Resources Limited	Gold	237	15%
38	36	ASX:SLR	Silver Lake Resources Limited	Gold	237	-9%
39	45	ASX:ERA	Energy Resources of Australia Ltd	Uranium	236	30%
40	48	ASX:AVB	Avanco Resources Limited	Copper	231	62%

New entrant
  Returning entrant



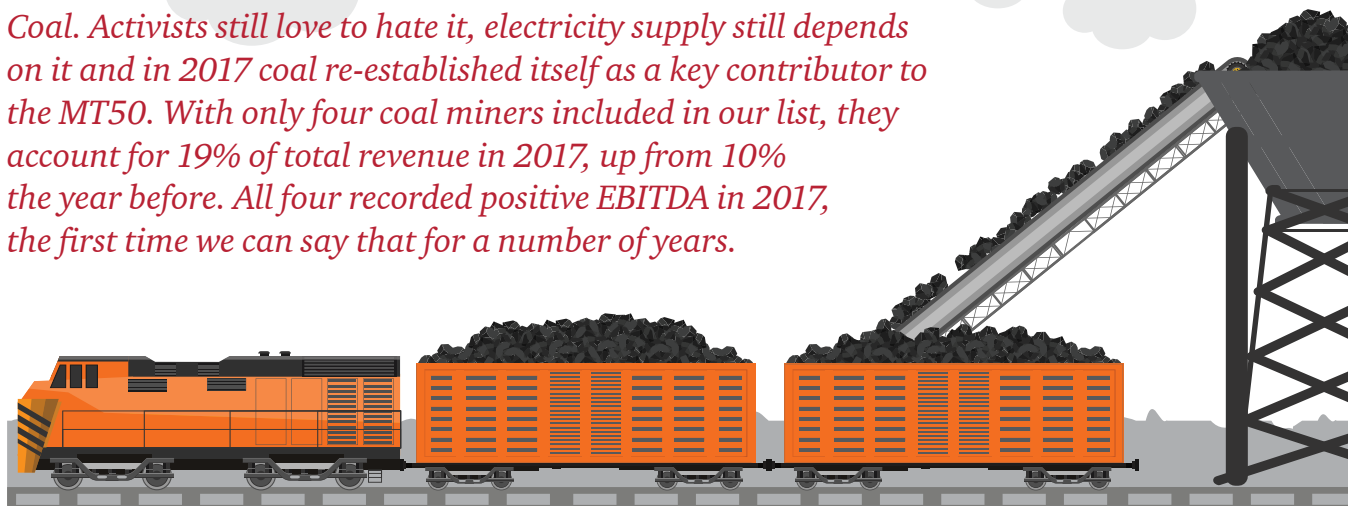


2017 Rank	2016 Rank	Ticker	Company	Primary commodity	Market capitalisation 30/06/2017	Market capitalisation change 2016 to 2017
41	na	ASX:BSE	Base Resources Limited	Mineral Sands	212	106%
42	na	ASX: BCK	Brockman Mining Limited	Iron ore	210	63%
43	na	ASX:KDR	Kidman Resources Limited	Lithium	202	416%
44	39	ASX:AJM	Altura Mining Limited	Lithium	193	-17%
45	na	ASX:PNR	Pantoro Limited	Gold	190	159%
46	na	ASX:DNK	Danakali Limited	Potash	188	112%
47	na	ASX:CDV	Cardinal Resources Limited	Gold	186	178%
48	na	ASX:RND	Rand Mining Limited	Gold	180	36%
49	50	ASX:BKY	Berkeley Energia Limited	Uranium	178	34%
50	na	ASX:RRP	Realm Resources Limited	Coal	176	3640%

New entrant
  Returning entrant

# The movers and shakers of 2017

*Coal. Activists still love to hate it, electricity supply still depends on it and in 2017 coal re-established itself as a key contributor to the MT50. With only four coal miners included in our list, they account for 19% of total revenue in 2017, up from 10% the year before. All four recorded positive EBITDA in 2017, the first time we can say that for a number of years.*



The comeback story of the year was **Yancoal**, surging back into our MT50 following its victory in the contested acquisition of Coal & Allied. Backed by Chinese investors, the acquisition was the first of a number of transactions to be undertaken by Yancoal as it solidified its portfolio of quality Australian energy assets.

**Whitehaven** benefited from recovery in the coal price and record production in its move from number #15 to #5. The market rewarded Whitehaven for delivering on its commitment to reduce debt and the promise ‘to do more’, with a net reduction to borrowings of over \$500 million dollars. Where others in the coal industry have chosen inorganic steps, Whitehaven are seeking to expand current projects such as Vickery, to drive future growth.

**New Hope** stamped itself as the long-lasting coal MT50 participant one year on from its Bengalla acquisition moving to #12 on the list, and **Realm Resources** reaped the rewards of its acquisition of 70% of the Foxleigh Mine. With strong metallurgical coal pricing,

and plans to expand production at Foxleigh, Realm is positioned for further growth.

Enjoying the benefit of strong alumina pricing and low cost operations, last year’s #1 **Alumina** exceeded the \$5 billion market capitalisation graduating from the top of the list.

The completion of the second mining campaign at Mt Weld, the highest grade rare earths mine globally, and the notable improvement in rare earth pricing contributed to the significant jump of 16 places to #27 by **Lynas Corporation**. In a year of record sales and performance, Lynas chose to take action rearranging its debt, focusing on production process improvement and cost control.

Two notable departures were **Paladin** and **Cudoco**, both struggling under the weight of mounting debt. **Troy Resources** also battled operational challenges and boardroom instability, sliding off the MT50 list. And a trio of non-Australian focused miners, **Perseus**, **Magnis** and **Beadell** all

slid further down the MT50 list in unison, eight places lower than last year.

This year’s MT50 market capitalisation of \$45.7 billion only improved a modest 3% on 2016’s number of \$44.5 billion. However, a closer look reveals that when taking into account changes in the MT50 list itself, such as **Alumina**’s departure, this group of 50 experienced market capitalisation growth of 29% compared to their 2016 measures.



# The next big independent Australian miner

The top 10 MT50 companies make up 60% of the total market capitalisation (55% in 2016) and the shareholders of these 10 companies will have welcomed the average 27% growth in market capitalisation.

Eight companies held their position in the top 10 list and we cannot ignore the sense of stability developing at the top end of the list.

As we start to question who will be the next large independent miner in Australia it seems like the top 10 are all working to a very similar blueprint.

## The blueprint for success:



### *Performing strongly over time*

The top 10 have consistently generated surplus operating cash flows and regular positive profits over the last three years, with an added benefit of exposure to the right commodities at the right time. Being nimble on strategy and cost containment is critical to delivering these returns.



### *Actively and regularly doing deals*

Our deals analysis has featured the top 10 being active buyers and sellers in the last three years, actively positioning themselves for growth. A willingness to be bold and execute counter-cyclical deals can separate companies from the pack.



### *Consistently paying dividends*

The stability in performance is evident through shareholder returns, with eight of the 10 paying dividends. Maintaining a focus on sustainable shareholder returns throughout the mining life-cycle cannot be underestimated.



### *Diversification in portfolio of operations*

Seven of the top 10 have two or more operating mines in production. Having a diverse portfolio of interests, including at different stages of development, enables greater sharing of risk, capital and provides more strategic options.

# The year that was for Australia's mid-tier mining industry

The mid-tier Australian mining industry has responded very well since the recent low of 2015. Considering investors and government questioned the position of this sector in Australia's economic future, the turnaround has been both timely and astonishing.

Since July 2015, while the ASX 200 has experienced modest growth, those investors that kept faith with the MT50 have been rewarded handsomely with market growth near 60%.

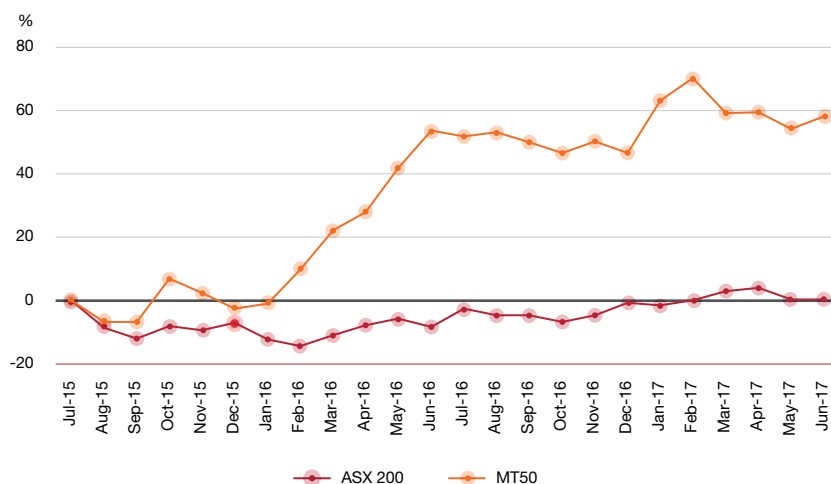
The overwhelming majority of the MT50 list have exposure to gold, iron ore or coal. The rebound in coal and iron ore prices has delivered welcome gains, joining the good news story of Australian gold miners. As a result the MT50 recorded an overall net profit of \$1.6 billion in 2017, a \$2.6 billion swing from the collective \$1 billion loss posted last year. This was the first time in five years the MT50 produced a collective profit. Current conditions suggest 2018 will be a year of continuing strong returns, affording the MT50 greater optionality in strategic decision-making.

Beyond the profit line, operating cash flows were up, impairments down and dividends paid were also up to reinforce that better times had returned. Despite this, we did not see a significant reduction in overall debt for the MT50, with the majority of excess cash being reinvested in existing operations or held within the business in what was a sign that a level of caution still exists in the industry.

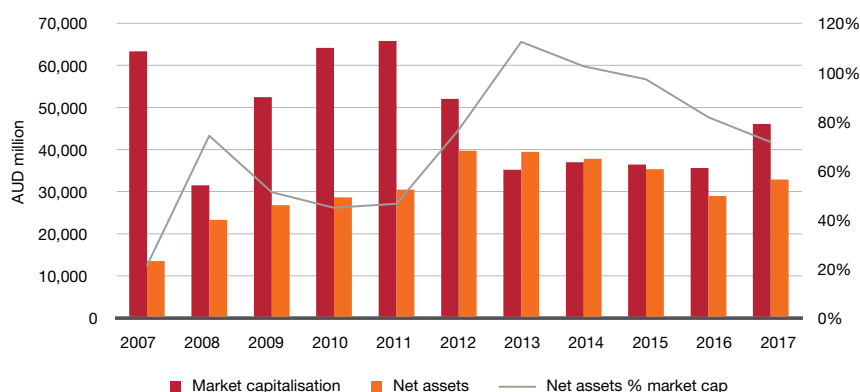
## Headroom on market capitalisation versus net assets keeps improving

Demonstrating the return of confidence, net assets as a percentage of market capitalisation improved from 81% to 71%. When looking by sector, precious metals and coal are the only commodities where net assets exceed market capitalisation.

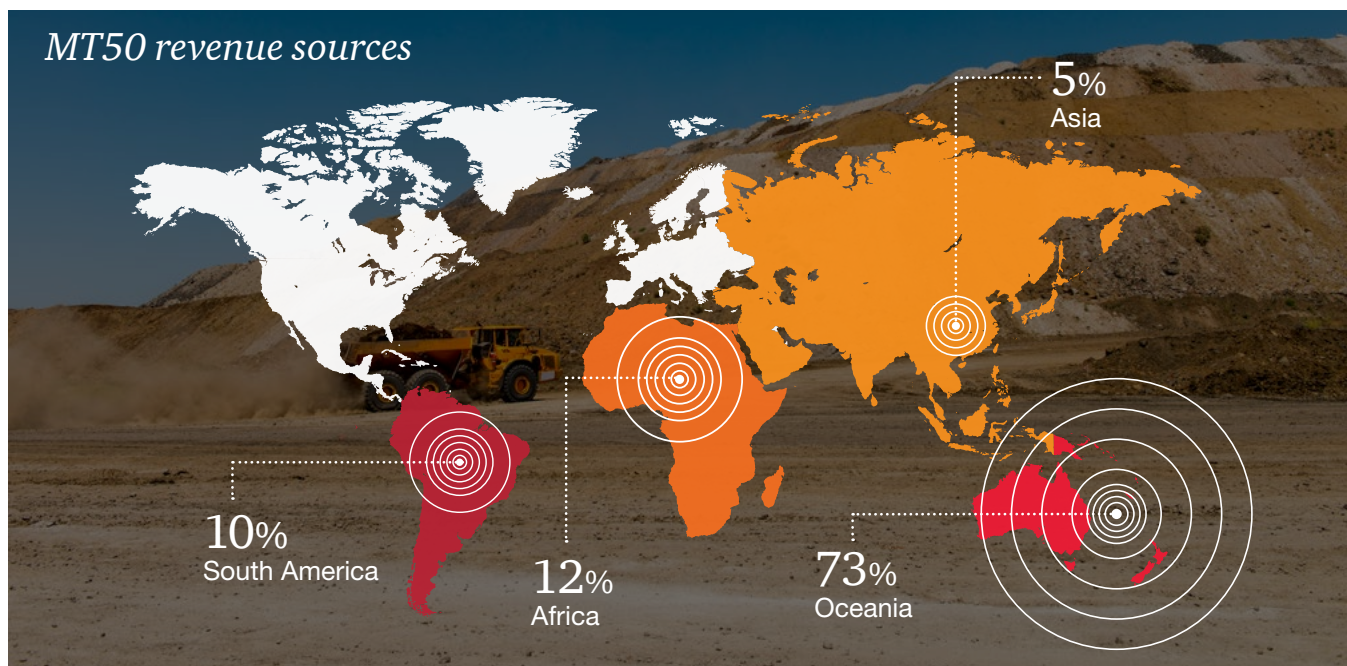
ASX 200 v MT50 monthly % growth



MT50 Index: Market capitalisation vs net assets







### *Gold continues to shine bright*

The MT50 list remains awash with gold, with 20 of the 50 having gold as their primary commodity. With 16 gold companies in production there are many benefiting from the ongoing strength of the Australian dollar gold price in 2017, which grew a solid 4% for the year. Unpredictability from North Korea, the US and their dealings with each other seem likely to keep gold prices up in the near term and gold's prominence within the MT50 will undoubtedly continue.

### *A good news story for Australia*

The MT50 continues to be a cohort of miners with a predominantly local mining focus. Approximately 73% of revenue is sourced from mines in the Oceania region. Africa generates 12% of revenue with seven companies producing across seven countries in Africa.

This is a good news story for Australia as improved conditions will likely drive investment that directly benefits the Australian economy in 2018.

Within the MT50, money is being spread across gold, lithium and graphite development projects. While there was no significant change in composition of producing and non-producing miners (14 non-producing in 2017 compared to 15 in 2016), there was a remarkable difference when looking at their respective market capitalisations. Non-producing companies saw their market capitalisation soar a collective 38% in the last year alone. And shareholders put their money where their mouths were, contributing 79% of funding requirements to advance projects.

Comparing this to the MT50 companies with producing assets, that saw an increase in market capitalisation of 19%, it is evident that investors in the MT50 are still prepared to support project development.

# Using technology to maintain cost discipline

## *Unlocking the power of data and your people*

Mining companies are data rich. Over the last decade, there has been significant investment in data collection, communication and storage technology across mining value chains. This focus on the acquisition of data gives mining companies the ability to measure, monitor and analyse equipment performance across their asset base at the full spectrum of resolutions and timeframes and generate performance insights to understand where improvement is required.

The necessary next step however is for mining companies is to convert insight into action. Investment is required not only in the acquisition and analysis of data but in building the capability of people, supported

by systems and processes that drive an implementation mindset to deliver the value that the insights reveal. The benefit of maintaining cost control can flow from these actions.

Some of the MT50 have started navigating the depths of their data. From applying state-of-the-art analysis and scenario modelling tools to separate noise from true data-driven insights, to setting up site teams with the capability to prioritise, plan and hold to account those responsible for delivering improvement opportunities. These businesses have experienced a significant and rapid uplift in motivation, as well as improvement in equipment performance that is self-sustaining.

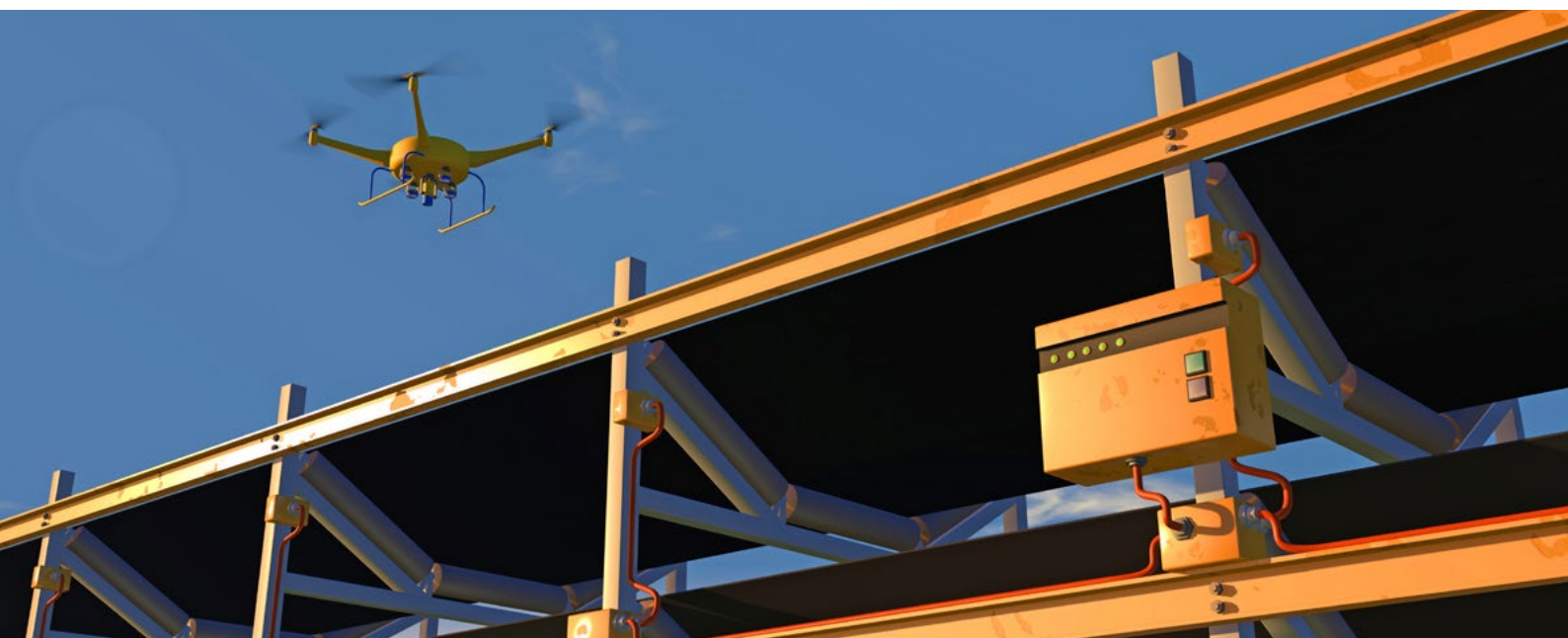
As the MT50 look to capitalise on current market conditions, pressure on operating costs will

inevitably increase. The continuing enhancement and adoption of technology is one way to optimise operations and keep costs in check.

## *Bring in the 'bots*

The rise of robotic process automation (RPA) has come at a timely juncture for the MT50. Using software robots that are easy to configure, require little IT expertise and are simple to train and deploy, RPA speeds up processing and reduces error rates by automating manual tasks.

Two years ago, there were virtually no examples of RPA platforms in Australia, yet now we see the level of understanding and adoption rising rapidly in ASX 50 companies, including multinational mining companies. Adoption will continue to filter down to the MT50, delivering the benefits of improved





scale to the income statement and potentially resulting in longer equipment life with smarter decisions being made.

Automating elements of administrative and finance functions have often provided a test case, including automating processes within invoicing, payables and payroll functions. Some pursue RPA for significant return on investment gains, while others have pursued it for quality improvement purposes.

Further opportunity exists in automating processes within mining operations themselves, including:

- Driverless technology, expanding from trucks and trains to drilling.
- The use of robotics in supporting design of maintenance schedules. Rules based algorithms can use available data to ensure an optimum maintenance schedule can be integrated into operations, addressing productivity and safety priorities.
- Improving accuracy through greater use of drone technology. Mine mapping, inventory surveying, site inspection and environmental impact monitoring are common uses.



## *Decisions, decisions...*

With the significant impact technology will have on the future of mining, the decision for the MT50 is not whether to adopt, but more a question of how far to go.

To see how unlocking the power of data and your people can work for you and identify gaps, MT50 companies should consider the following focus areas:

- **Data driven focus**

Improvement programs are an investment so it is vital that your investment is solving the problems that will generate bottom line value. MT50 companies should challenge how improvement opportunities and prioritisation decisions are being made. A good question to ask is; are decisions being based on operational and commercial data trends or are they based on anecdote?

- **Implementation focus**

People who are tasked with implementing improvement initiatives need to be capable, supported and held to account. MT50 companies should look at the delivery of their improvement programs and ask; are improvement initiatives being sustainably delivered or are they falling by the wayside due to changing priorities or competition with the workload of business as usual?

- **Benefit focus**

It is vital to have benefit focused conversations with your improvement teams and to be able to clearly articulate when benefits will be realized and when budgets and forecasts will be adjusted to 'bank' benefits. Focusing on benefit realisation and associated leading indicators ensures MT50 companies can minimisation and address benefit leakage.

# Still a long way to go still for Board diversity

With greater focus on gender equality we assessed the diversity of those charged with the big decisions in the MT50.

The proportion of total female Board members for this year's MT50 has decreased with 11% representation in 2017 compared to 15% in 2016.

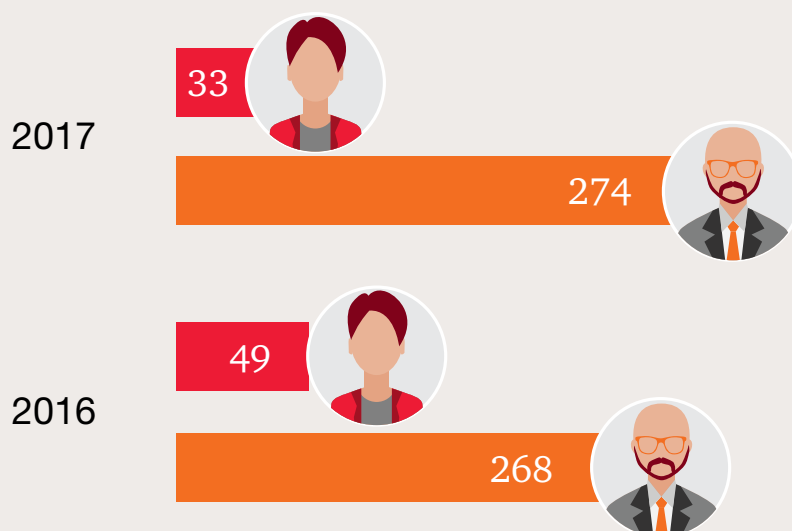
On a more encouraging note, of available Board appointments, 46% of new appointments since

2016 have been female, indicating the message has been heard, although it's still not one for one.

The MT50 lags a long way behind the Australia's Global Top 40 miners, which have 32% female board representation.

Given the limited number of Board appointments in most years, it appears achieving gender equality in the boardroom of the MT50 is a long way off.

## Board composition



## 11 out of 24

Board appointments were female





## *Deals analysis and outlook*

### *MT50 stayers divest, as new entrants pursue acquisitions*

The deals environment of 2017 was a paradox between actions of the MT50 top-end stayers and the actions taken by the up-and-comers. Average deal value lifted from \$248 million in 2016 to \$405 million in 2017, however if excluding Yancoal's activities, would have been reduced

to \$185 million, the lowest average deal value since 2013.

Gold continued its prominence among deal activity in 2017 with six of the 13 completed deals undertaken by gold miners. In contrast to 2016, where gold miners took advantage of reasonably priced divestments from the majors, 2017 saw the expected consolidation of the top-end MT50 gold miners'

balance sheets. Mature assets were divested with the focus directed towards scale and future production prospects. **Northern Star** disposed of its Plutonic mine on a cash and scrip basis in order to maintain exposure to future production and exploration windfalls, while **Gold Road** sold a 50% interest in the Gruyere Project enabling the mine to enter production.

Key contributors to overall transaction value came from those outside of the pure gold miners, with the stand-out transactions of the year including those made by debutants to the MT50 list:

- **Yancoal** stormed back into reckoning after a year of constant media presence and market anticipation with respect to its \$2.69 billion acquisition of Coal & Allied from Rio Tinto. Yancoal's activity didn't stop there, undertaking the sale of a 17% interest in Hunter Valley Operations and announcing its proposed acquisition of Mitsubishi's 29% interest in the Warkworth JV.
- **Westgold Resources** debuted at #22 on the list following its demerger with Metals X. Westgold sought to solidify its position, and illustrate its intent to become an owner-operator, by acquiring Australian Contract Mining Pty Ltd.
- **Iluka Resources** pursued flexibility in its mineral sands portfolio and a divergence from its usual risk appetite with the acquisition of Sierra Rutile Limited in Sierra Leone for a total consideration of \$393 million.
- **Evolution Mining** gained an economic interest in the large-scale gold/copper diversified Ernest Henry mine in Queensland for \$880 million consideration.



## *Decisions, decisions...*

Commodity prices have improved driving willingness from buyers to seek new opportunities and invest. However, as buyers become more eager, vendors have also reacted to the market. 2018 may see targets increase their price expectations and be willing to hold if they cannot derive their desired value.

- **Gold:** MT50 top-end gold miners will continue to seek portfolio stability through the rationalisation of their more mature assets, e.g., Evolution's Edna May divestment process. Domestic growth opportunities may prove to be limited with the MT50 having to look offshore towards quality jurisdictions such as North America for acquisitions.
- **Bulk Commodities:** Bulk commodities are expected to dominate 2018 deals activity, however the question is to what extent will the MT50 be an active participant? Mirroring the transfer of quality assets from international gold majors in recent years, as the coal majors continue to make strategic divestments the MT50 will have plenty of competition on their hands. Increasingly keen PE firms, offshore Asian investors and predictably aggressive majors will compete hard for any quality assets that are presented to the market. The potential expansion of their existing projects is also a near to short-term prospect for some of the MT50, and those on the cusp of making this list.
- **Lithium:** After its positive performance in 2016, lithium's subdued M&A activity in 2017 is not expected to be significantly varied in 2018. As investors continue to seek improvement in their supply chain and understand the true demand in the market from both existing and developing technologies, activity from foreign investors will continue. Chinese-backed investors may look to increase their production through acquisitions or by way of minority stake buy outs.
- **Base metals:** The search for growth by base metals miners will remain ever present with the search both offshore and domestically for quality assets.



## Completed M&A transactions greater than \$15 million (June 2016 to September 2017)

Target	Acquirer	Sector	Target country	Ownership interest (%)	Approximate deal value \$AUDm	Announcement date	MT50 connection	MT50 role
Foxleigh Mine	Middlemount South Pty Ltd	Coal	Australia	70	44	Apr-16	Realm Resources Pty Limited	Acquirer
General Mining Corporation Limited	Galaxy Resources Limited	Lithium	Australia	98	228	May-16	Galaxy Resources Limited	Merger
Sierra Rutile Limited	Iluka Resources Limited	Mineral Sands	Sierra Leone	100	393	Aug-16	Iluka Resources Limited	Acquirer
Plutonic Gold Mine	Billabong Gold Pty Ltd	Gold	Australia	100	66	Aug-16	Northern Star Resources Limited	Seller
Pajingo Gold Mine Pty Ltd	Minjar Gold Pty Ltd	Gold	Australia	100	42	Aug-16	Evolution Mining Limited	Seller
Ernest Henry *	Evolution Mining Limited	Gold/Copper	Australia	n/a	880	Aug-16	Evolution Mining Limited	Acquirer
Avebury Nickel Mine	Dundas Mining Pty Ltd	Nickel	Australia	100	25	Sep-16	MMG Limited	Seller
Gruyere Gold Project	Gold Fields Limited	Gold	Australia	50	250	Nov-16	Gold Road Resources Limited	Seller
Coal & Allied Industries Ltd.	Yancoal Australia Ltd	Coal	Australia	100	2,690	Jan-16	Yancoal Australia Ltd	Acquirer
Australian Contract Mining Pty. Ltd.	Westgold Resources Limited	Gold	Australia	100	30	Aug-16	Westgold Resources Limited	Acquirer
Stockman Cu-Zn Project	CopperChem Limited	Diversified	Australia	100	47	Jun-17	Independence Group NL	Seller
Hunter Valley Operations	Anotero Pty Limited	Coal	Australia	17	540	Jul-17	Yancoal Australia Ltd	Seller
King of the Hills Gold Mine	Red 5 Limited	Gold	Australia	100	29	Mar-17	Saracen Metals Pty Ltd	Seller
<b>Total</b>					<b>5,264</b>			

## Pending M&A transactions greater than \$15 million (June 2016 to September 2017)

Target	Acquirer	Sector	Target country	Ownership interest (%)	Approximate deal value \$AUDm	Announcement date	MT50 connection	MT50 role
Mt Holland Lithium Project	Sociedad Química y Minera de Chile S.A.	Lithium	Australia	50	147	Jul-17	Kidman Resources Limited	Seller
Warkworth Joint Venture – Mitsubishi Development Pty Ltd interest	Yancoal Australia Ltd	Coal	Australia	29	230	Sep-17	Yancoal Australia Ltd	Acquirer
<b>Total</b>					<b>377</b>			





# Financial analysis

## Aggregated income statement

Income statement (\$m)	2017	2016	\$ change	% change
<b>Revenue from ordinary activities</b>				
Operating revenue	21,123	18,387	2,736	15%
Non-operating revenue	15	23	(8)	-35%
<b>Total revenue</b>	<b>21,138</b>	<b>18,410</b>	<b>2,728</b>	<b>15%</b>
Less expenses from ordinary activities	(10,213)	(9,971)	(242)	2%
<b>Gross profit</b>	<b>10,925</b>	<b>8,439</b>	<b>2,486</b>	<b>29%</b>
Selling general and administrative expenses	(2,549)	(2,442)	(107)	4%
Exploration expenses	(232)	(233)	1	0%
Provision for bad debts	(5)	(5)	-	0%
Stock-based compensation	(56)	(60)	4	-7%
Other income/expenses	(466)	(472)	6	-1%
<b>Adjusted EBITDA</b>	<b>7,617</b>	<b>5,227</b>	<b>2,390</b>	<b>46%</b>
Depreciation and amortisation	(4,440)	(4,089)	(351)	9%
<b>Adjusted EBIT</b>	<b>3,177</b>	<b>1,138</b>	<b>2,039</b>	<b>179%</b>
Impairments and writedowns	(655)	(1,870)	1,215	-65%
Other non-recurring items	238	(220)	458	208%
<b>EBITDA</b>	<b>7,200</b>	<b>3,137</b>	<b>4,063</b>	<b>130%</b>
EBIT	2,760	(952)	3,712	390%
Interest income	70	46	24	52%
Interest expense	(815)	(512)	(303)	59%
Other non-operating items	37	(34)	71	209%
<b>Profit from ordinary activities before tax</b>	<b>2,052</b>	<b>(1,452)</b>	<b>3,504</b>	<b>241%</b>
Income tax (expense)/benefit	(600)	(178)	(422)	237%
<b>Net profit/(loss) from continuing operations</b>	<b>1,452</b>	<b>(1,630)</b>	<b>3,082</b>	<b>189%</b>
Earnings of discontinued ops	270	107	163	152%
Minority interest in earnings	(114)	(20)	(94)	470%
<b>Net profit/(loss) to parent</b>	<b>1,608</b>	<b>(1,543)</b>	<b>3,151</b>	<b>204%</b>
<b>Adjusted NPAT</b>	<b>2,263</b>	<b>327</b>	<b>1,936</b>	<b>592%</b>

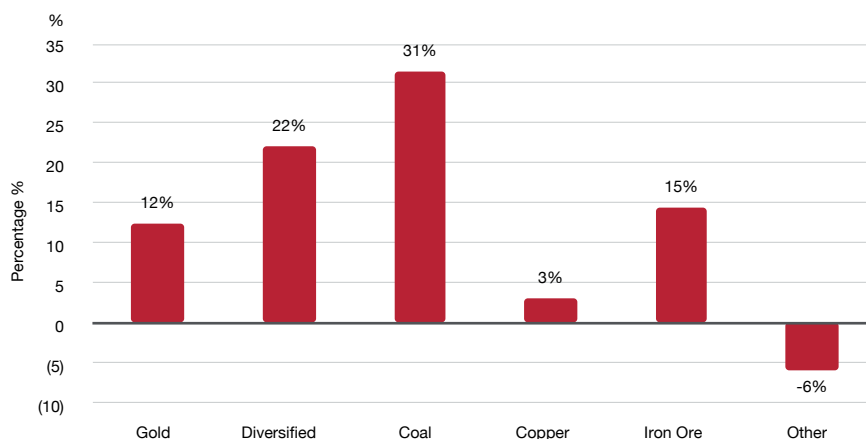
## Revenue

A broad range of commodities lifted operating revenue by 15% against 2016. Australian Dollar gold prices steadied, up 4% through the year compared to 9% in 2016. **Evolution's** revenue stood out among gold miners as the company reaped the rewards of the Ernest Henry acquisition. Project revenues from copper, silver and gold have boosted revenues year-on-year for the company.

Coal results have mostly been driven by record-level Australian thermal coal prices, soaring above A\$100/t since September 2016, being the highest levels seen since 2008 in Australian dollar terms. **Yancoal** and **Whitehaven** in particular performed well after adding new production, a consistent goal for all four coal miners in the MT50, as they lifted saleable production collectively by 10% in an attempt to cash in on the price.

Only two commodities saw revenue decreases this year. Revenue from mineral sands was down due to less production and lower prices year-on-year. Uranium prices have still not recovered since Fukushima and continued their slide in 2017. Unsurprisingly, two of only four companies to recognise a PP&E impairment charge this year were affected by these factors.

## Revenue growth by commodity FY16 to FY17



## Top five companies EBITDA margin

Company	Commodity	2017	2016	Variance %
Whitehaven Coal Limited	Coal	59%	48%	23%
Tribune Resources Limited	Gold	59%	63%	-8%
OZ Minerals Limited	Copper	58%	49%	18%
Rand Mining Limited	Gold	55%	58%	-6%
Base Resources Limited	Diversified	50%	35%	42%

EBITDA jumped by 130% and the MT50's EBITDA margin improved to 34% in 2017, the highest EBITDA margin ever achieved by the MT50. This is clearly down to a healthy increase in revenue and stability in the cost base. Reinforcing the positive outlook is the increase in the number of companies recording positive EBITDA for the period,

with 34 (all producing companies in the MT50 bar two) in 2017 compared to 28 in 2016.

The good news was not limited to gold producers, with a number of commodities featuring in the enviable list of top five by EBITDA margin.

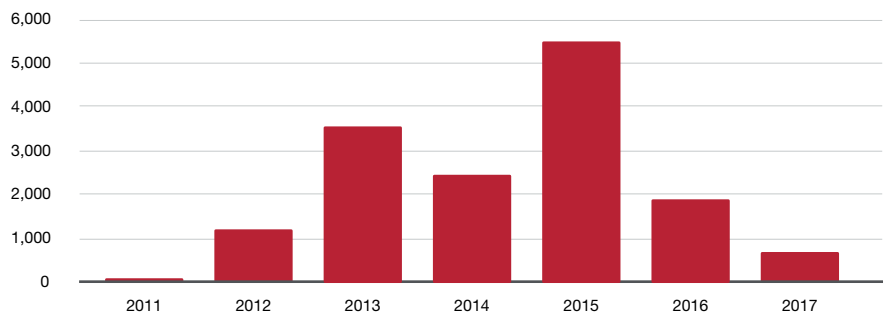
  
EBITDA  
increased by  
**130%**  
in 2017

The recent reduction in impairment charges continued for the MT50, dropping to the lowest levels since 2011, with only four of the MT50 incurring such a charge against property, plant and equipment (PP&E). Following billions of dollars of write-downs in recent years, it is unsurprising impairment charges were taken primarily against PP&E, as it related to specific projects.

The majority of the PP&E impairment of \$655 million was attributable to **ERA** (\$231 million) and **Iluka** (\$201 million). Interestingly given the turnaround and the fact that recent impairments have hit hard assets (e.g. property, plant and equipment), only **Galaxy** recognised an impairment reversal, which arose upon acquisition of the remaining shareholding of the Mt Cattlin asset.

After recent impairments, another year of strong performance in 2018 could see impairment reversal become an unwelcome topic of discussion for the MT50.

## Impairment



## 2017 PPE vs E&E Impairment



## Decisions, decisions...

Going forward, focus will no doubt fall on the cost curve for the MT50. Will the MT50 be able to contain the inertia of increased costs, which don't rise as quickly as the top line? Or will operating costs jump as the MT50 chase production? Operating strategies set amidst the downturn will need to be reassessed as improved market conditions return.

The approach to internal asset valuations for previously impaired assets will also need to be closely considered by the MT50. With billions of dollars of PP&E impaired in recent times, another strong year in 2018 may drive positive longer-term forecasts, significantly improving the fortunes of previously impaired projects.



# Balance sheet analysis

## Aggregated balance sheet

Balance sheet (\$m)	2017	2016	\$ change	% change
<b>Current assets</b>				
Cash and cash equivalents	6,632	5,678	954	17%
Inventories	3,350	3,000	350	12%
Receivables	2,946	2,290	656	29%
Other current assets	1,052	2,141	(1,089)	-51%
<b>Total current assets</b>	<b>13,980</b>	<b>13,109</b>	<b>871</b>	<b>7%</b>
<b>Non-current assets</b>				
Long-term investments	531	338	193	57%
Property, plant and equipment	45,242	42,740	2,502	6%
Accounts receivable	199	221	(22)	-10%
Loans receivable	1,217	444	773	174%
Deferred tax assets	2,518	2,148	370	17%
Other intangibles	1,221	509	712	140%
Goodwill	95	814	(719)	-88%
Other non-current assets	1,911	1,580	331	21%
<b>Total non-current assets</b>	<b>52,934</b>	<b>48,794</b>	<b>4,140</b>	<b>8%</b>
<b>Total assets</b>	<b>66,914</b>	<b>61,903</b>	<b>5,011</b>	<b>8%</b>
<b>Current liabilities</b>				
Accounts payable & accrued liabilities	3,300	2,459	841	34%
Interest-bearing liabilities (short-term borrowings)	1,900	945	955	101%
Income tax payable, current	335	217	118	54%
Unearned revenue, current	103	168	(65)	-39%
Other current liabilities	1,089	1,357	(268)	-20%
<b>Total current liabilities</b>	<b>6,727</b>	<b>5,146</b>	<b>1,581</b>	<b>31%</b>
<b>Non-current liabilities</b>				
Long-term debt	20,683	21,318	(635)	-3%
Capital leases	211	215	(4)	-2%
Unearned revenue, non-current	68	116	(48)	-41%
Deferred tax liability, non current	2,727	2,576	151	6%
Other non-current liabilities	3,858	3,771	87	2%
<b>Total non-current liabilities</b>	<b>27,547</b>	<b>27,996</b>	<b>(449)</b>	<b>-2%</b>
<b>Total liabilities</b>	<b>34,274</b>	<b>33,142</b>	<b>1,132</b>	<b>3%</b>
<b>Net assets</b>	<b>32,640</b>	<b>28,761</b>	<b>3,879</b>	<b>13%</b>
<b>Equity</b>				
Share capital and premium	31,627	29,763	1,864	6%
Retained earnings (accumulated loss)	(1,265)	(2,714)	1,449	-53%
Other equity	2,278	1,712	566	33%
<b>Total equity</b>	<b>32,640</b>	<b>28,761</b>	<b>3,879</b>	<b>13%</b>

## Key movements

Bank balances swelled 17% off the back of strong returns across most commodities, with coal companies in particular being flush with cash, increasing their cash balances by 68% year-on-year. That said, investors' expectations will form quickly as to what should be done with the free cash.

### *Net debt down, but gearing levels now exceed global peers*

The 4% decline in net debt this year was largely driven by strong operating cash flows, however the gearing ratio of the MT50 has more than doubled in the past five years to near 50% (now sitting at 49%, down from 58% in the prior year).

### *Gold attracts the investment dollars*

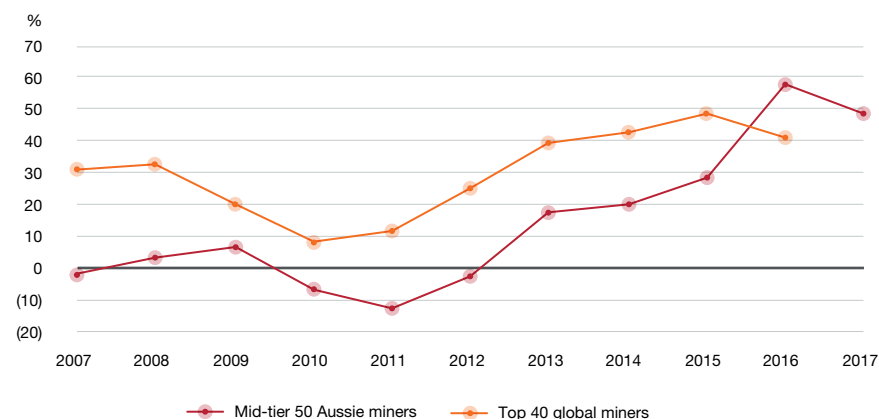
Following the positive sentiment of recent years, gold's capital velocity, a proxy for measuring the growth agenda of organisations in capital intensive industries, shot up significantly in 2017. Nearly doubling the 2016 ratio for gold companies, this is a clear sign that sentiment for gold companies is expected to remain positive for a number of years.

## Debt and equity

### *Lithium and other sectors buck the equity trend*

Total debt was largely unmoved, although **Illuka Resources** and **Pilbara Minerals** bucked the trend and increased their year-on-year issuance of new debt, with total debt issued in the year up \$663 million (402%) and \$132 million (3,208%) respectively. Within the MT50, there was significant repayment of debt (total repaid \$2.88 billion, up 64% from prior year). The miners took advantage of additional free cash generated, choosing to retire long-term debt, with \$2.72 billion of long-term debt being repaid (up 76% from the prior year).

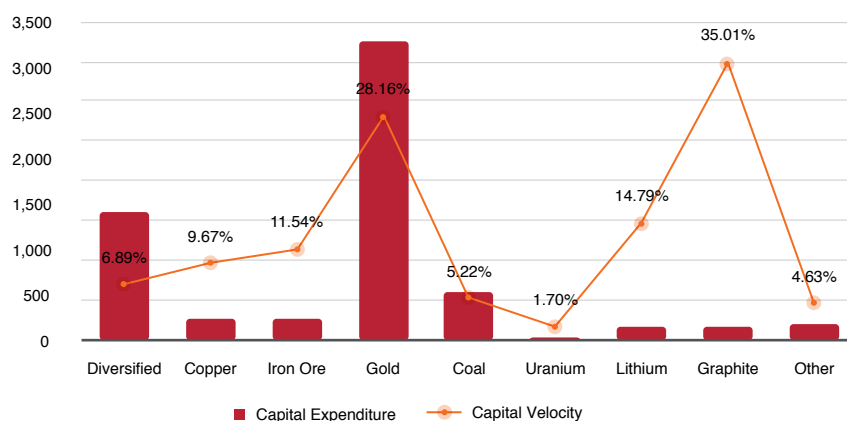
## MT50 index: Gearing ratio



\* Performance of the Top 40 global miners in 2017 will be reviewed in mid-2018.

\* The information above includes the aggregated results of the MT50, as reported in each respective edition of Aussie Mine.

## MT50 capital velocity compared to capital expenditure



In 2017, debt raised was primarily deal focused, with a number of companies raising money specifically for acquisitions.

### *Equity funding reflective of improved confidence*

Reflecting the improved confidence from shareholders, the mix of funding stepped heavily towards equity. Overall debt accounted for 54% of funds raised in 2017, down from 80% in the prior year. The improved ability for the MT50 to independently generate sufficient cash flows has also helped greatly.



## Decisions, decisions...

The MT50 needs to strike a delicate balance with its free cash flow between shoring up the balance sheet and investing for the future. The gearing levels of the MT50 have now exceeded the Global Top 40 miners for the first time in Aussie Mine's history.

With a number of the Global Top 40 miners being state-owned organisations, the MT50 are likely to be far harder hit when the inevitable rate rise commences. With interest rates having only one way to move, actively addressing long-term debt profiles now in the low interest environment could prove pivotal.

## A very public decision – key management personnel reward



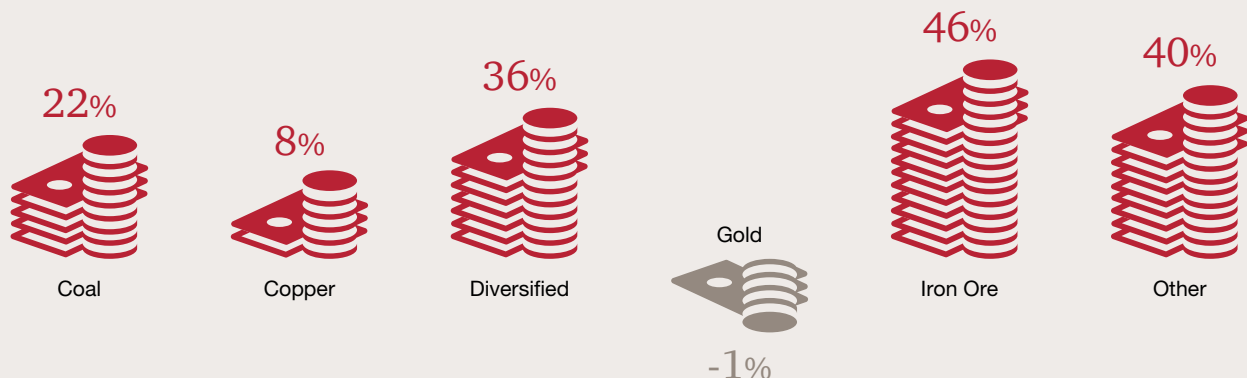
For the first time in Aussie Mine, we have assessed remuneration of directors and executives of the MT50.

Key management personnel (KMPs) of the MT50 have been rewarded for the strong year, with total remuneration increasing by 12% on 2016. Splitting those rewards, short-term incentives increased by 23% followed by a 15% increase in long-term incentives.

Across most commodities, short-term incentives (STIs) in particular rose sharply, with iron ore executives on the receiving end of increased bonuses. Gold executives on the other hand were more frugal, keeping STIs in check. If current market conditions continue, we expect STIs for non-gold miners to flatten, as incentive plans will be based around more aggressive targets.

In fairness, it's likely that recently there have been a few lean years for executives in the MT50, and STI's have been triggered by the surge in performance.

### *Increase in KMP short term incentives*





# Cash flow statement

## Aggregated cash flow statement

Cash flow statement (\$m)	2017	2016	\$ change	% change
<b>Cash flows generated from operations</b>				
Net income	1,614	(1,544)	3,158	205%
Change in accounts receivable	(248)	(18)	(230)	1278%
Change in inventories	(323)	(72)	(251)	349%
Change in accounts payable	174	134	40	30%
Change in unearned revenue	(1)	1	(2)	-200%
Change in deferred taxes	(109)	(213)	104	-49%
Change in other net operating assets	(96)	(182)	86	-47%
Income taxes (paid)/refunded	1	78	(77)	-99%
Other	4,669	6,076	(1,407)	-23%
<b>Cash generated from operations</b>	<b>5,681</b>	<b>4,260</b>	<b>1,421</b>	<b>33%</b>
<b>Cash flows related to investing activities</b>				
Capital expenditure	(5,253)	(5,795)	542	-9%
Proceeds from sale of property, plant and equipment	304	103	201	195%
Cash acquisitions	(1,260)	(1,819)	559	-31%
Divestitures	31	2	29	1450%
Purchases of investments and intangibles	(169)	909	(1,078)	-119%
Other investing activities	(304)	96	(400)	-417%
<b>Net investing cash flows</b>	<b>(6,651)</b>	<b>(6,504)</b>	<b>(147)</b>	<b>2%</b>
<b>Cash flows related to financing activities</b>				
Debt issued	2,925	4,884	(1,959)	-40%
Debt repaid	(2,887)	(1,760)	(1,127)	64%
Proceeds from share issues	2,466	1,227	1,239	101%
Stock repurchases	(51)	(18)	(33)	183%
Ordinary dividends paid	(535)	(380)	(155)	41%
Special dividends paid	(18)	(29)	11	-38%
Other financing activities	(148)	(35)	(113)	323%
<b>Net financing cash flows</b>	<b>1,752</b>	<b>3,889</b>	<b>(2,137)</b>	<b>-55%</b>
<b>Net increase/(decrease) in cash</b>	<b>782</b>	<b>1,645</b>	<b>(863)</b>	<b>-52%</b>

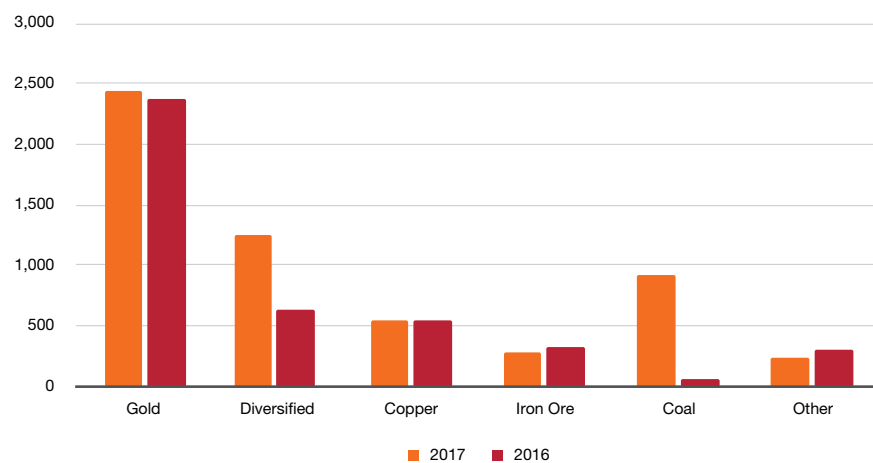
## A boost to operating cash flows

Strong growth in operating cash flows of 33% came through top-line revenue growth and flat costs. Gold remained steady with the majority of growth coming from diversified and coal miners (up 100% and 1,200% respectively).

Double-up on coal companies, as referenced in previous paragraph, is gratuitous. **Whitehaven Coal** benefited from higher prices, while **New Hope Corporation** saw production increases after acquiring 40% of the Bengalla coal mine in the Hunter Valley. New entrant **Yancoal** benefited from price and volume increases.

Gold producers continue to represent almost half (43%) the aggregated operating cash flows of the MT50, however only **OceanaGold** squeezed into the top five increases in operating cash off the back of higher gold sales and prices.

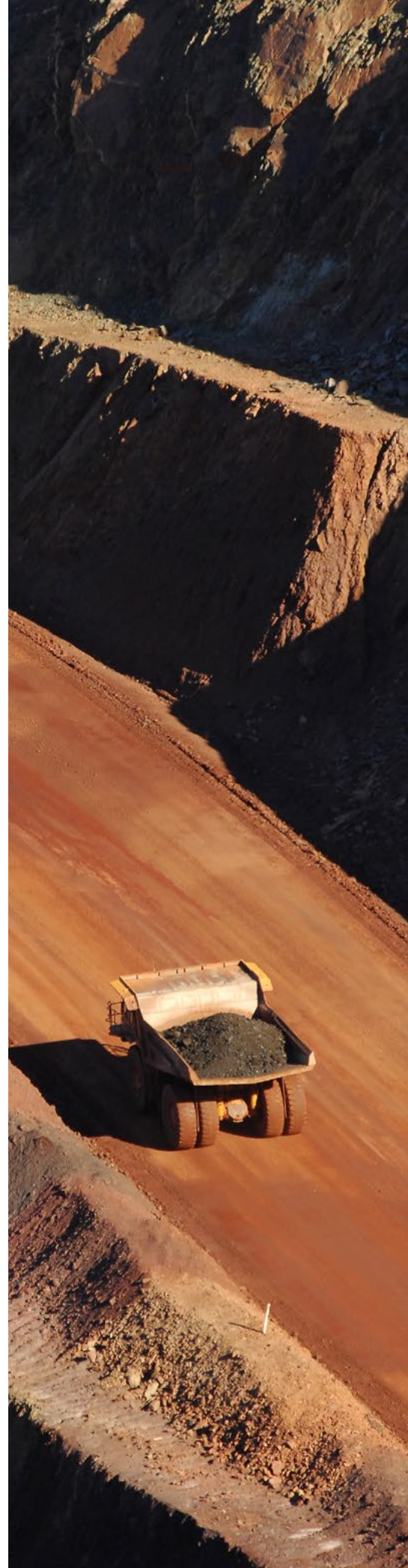
## Operating cash flows



Source: PwC Analysis

## Top five increases in operating cash flows

Cash flow	Commodity	2017	2016	Change (\$m)
MMG Limited	Diversified	999	388	611
Whitehaven Coal Limited	Coal	608	172	436
New Hope Corporation Limited	Coal	285	7	278
Yancoal Australia Ltd	Coal	-17	-108	91
OceanaGold Corporation	Gold	321	235	86







## Capital expenditure – looking forward or looking back?

An increase in capital expenditure in 2017 shows that companies are benefiting from stronger operating cash flows enabling them to invest in capital activities.

Our results exclude **MMG** who invested heavily (\$2.7 billion) in 2016 on their Las Bambas copper mine and Dugald River zinc deposit. While their spending decreased to \$1.1 billion in the current year, they still spent 63% more than their nearest MT50 peer **OceanaGold**, who invested \$619 million, mostly in development and commissioning of their Haile mine in the US.

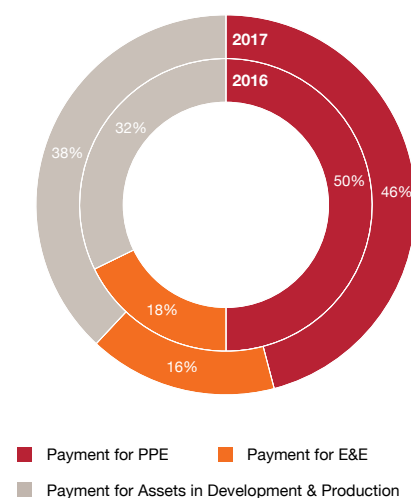
Capitalised exploration expenditure remains a small

portion of total expenditure, only accounting for 16% of total capital expenditure, which appears to set the scene for a future supply challenge. Particularly when combined with junior explorers outside of the MT50 also having been starved of capital in recent years.

Greater focus was given to the development of existing assets and operations, with spend up 60% year-on-year to \$1.6 billion led by **OceanaGold's** Haile operation as outlined earlier.

Investment in PP&E was also 24% higher year-on-year at \$1.9 billion and raises questions on whether companies are now playing catch-up on maintenance and sustainment activities delayed in prior periods.

## Type of Capital Expenditure





## Sharing the returns and opening pockets

Dividends were up 41% year-on-year in a clear sign companies are wanting to share the positive sentiment with their investors. This is a good result by the MT50. Along with other uses of free cash in 2017, this indicates capital allocation decisions have improved. Investors have been rewarded for their patience through tough times, and not every last dollar has been applied to asset expenditure or debt reduction.

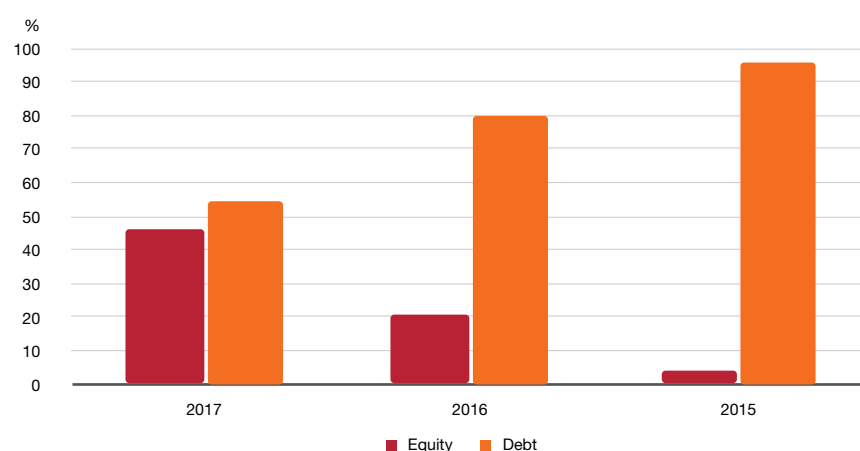
Investors responded to the increase in dividends by opening their pockets, with proceeds from share issues up 101% year-on-year. This allowed companies to strengthen their balance sheet and pay down debt.

Those companies who went to market were rewarded with the majority of share issues oversubscribed. Despite continuing low interest rates, equity was back in favour and accounted for almost half of all capital raised (46%). **MMG** continued to position itself for the future by raising \$707 million to strengthen its balance sheet and fund future growth.

## Dividend payout ratio

Commodity	2017	2016	Variance%
Gold	16%	15%	8%
Diversified	42%	-7%	722%
Copper	47%	20%	137%
Iron Ore	36%	21%	75%
Coal	12%	-22%	157%
Uranium	0%	0%	n/a
Lithium	0%	0%	n/a
Graphite	0%	0%	n/a
Other	165%	227%	-27%
<b>Total</b>	<b>13%</b>	<b>17%</b>	<b>-26%</b>

## Capital Sources



## Decisions, decisions...

With stronger cash from operations and ongoing scrutiny from investors the MT50 must choose between investing in the future, returning funds to shareholders or playing catch up on delayed capital expenditure.

With improved results returning, the MT50 will no doubt be considering what a suitable sustainable dividend policy looks like. Investor expectations have shifted since results were last like this as the MT50 and earnings-linked policies are likely to feature.

The MT50 will then need to decide and communicate its selection of an appropriate performance measure that meets investor expectations.

# Key audit matters – what caught the eye of the MT50’s auditors?

This year it’s not just our MT50 with difficult decisions to make, as for the first time MT50 financial reports were accompanied by long-form audit reports.

Even with impairments at their lowest ebb since 2011, the significant focus required in this area and the high degree of judgement involved resulted in 24 of the MT50 having the carrying value of non-current assets as a key audit matter. Closely following this, 19 of the MT50’s key audit matters identified rehabilitation obligations as an area of significant attention.

There is currently a clear contrast when it comes to the level of disclosure for impairment and rehabilitation provisions. Typically an extensive analysis within the notes to the financial statements will accompany a significant impairment charge, while the extent of disclosure around rehabilitation provisions is generally minimal, despite the significance of this potential cost to the business.

Highlighting this, only six of the MT50 disclose the discount rate applied to future rehabilitation cash flows, making it harder for investors to understand the company’s view on risk associated with rehabilitation efforts.

The industry should consider greater transparency in this area, especially given the range of geographies where assets might exist and the level of judgement involved in understanding these significant future costs. With varying economic assumptions applied to underlying rehabilitation cost estimates, current estimates from the MT50 remain unclear.



## *Aussie Mine explanatory notes*

We have analysed the largest 50 mining companies listed on the ASX with a market capitalisation of less than \$5 billion at 30 June 2017. The results aggregated in this report have been sourced from publicly available information, primarily annual reports and financial reports available to shareholders. Companies have different year-ends and report under different accounting policies. 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 2017 covers periods between 1 January 2016 and 30 June 2017, 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 Australian dollars, except where specifically stated. The results of companies that report in currencies other than the Australian dollar have been translated at the average Australian dollar exchange rate for the financial year, with balance sheet items translated at the closing Australian dollar exchange rate. Some diversified companies undertake part of their activities outside of the mining industry. Unless specifically stated, no adjustments have been made to exclude such non-mining activities from the aggregated financial information.

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