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This year is already shaping up to be an interesting year for M&A, with the gold sector making transformative deals that will significantly re-shape the portfolios of the largest market participants, Barrick, Newmont and Goldcorp, and almost certainly have a ripple effect through the entire gold sector.

While this M&A activity hasn't yet spread beyond the gold sector, it certainly adds weight to the argument that investors are increasingly keen to see re-investment of capital and that growth is back on the agenda after many years of conserving capital. With the memory of poor capital discipline still very much in the minds of boards and investors, good capital allocation is critical for success. Indeed, future returns will only be competitive in the long term if the right decisions over capital are made now. In order to truly transform portfolios, and provide market-leading shareholder returns, the mining and metals sector must look across all strands of capital allocation, and this may need to consider the scale of investment into transformative technologies.

Buy Only if the price is right

Early signs suggest that 2019 will represent a fourth year of consecutive growth in deal value. While M&A activity is not yet back to the levels experienced in 2011, there is growth across all categories of dealmaking (small, medium and large), indicating increased confidence for investment in the sector. The signs are that capital is once again available for the right opportunities.

For the majority, the focus of M&A will be replenishment of portfolios that have shrunk during a period of balance sheet restoration and focus on investor returns through yield. It's unlikely that we will see a swath of consolidation, perhaps with the exception of gold, because premium pricing remains difficult to justify. This will mean deals focused on realizing hard synergies, or unlocking strategic value, will experience greater impetus as management teams feel the pressure of generating growth and avoiding falling behind competitors.

Capital discipline has not been forgotten, with a continued focus on balance sheet flexibility and cash returns to shareholders via dividends and share buyback programs. The top 100 companies, by market capitalization, returned over US\$60b during 2018, which equates to more than the entire amount spent on M&A by those companies.

Build Brownfield rather than grass roots

While the current market appears relatively well balanced, there are looming supply constraints in certain commodities as project pipelines have shrunk significantly on the back of a prolonged period of capital discipline. EY research highlights a relatively low level of equity raised in the form of follow-on issues and IPOs by junior

miners in 2018, which highlights the continued lack of investor appetite for early stage funding. The limited pipeline of bankable projects of scale, comes during a time when there is significant buyer appetite for quality projects, providing more reason for the muted M&A market.

Exploration budgets of copper and gold companies



Source: S&P Market Intelligence Platform

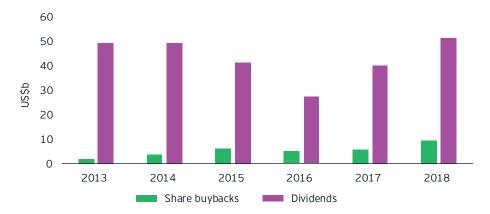
Despite the lack of new equity being raised by the junior miners, the level of exploration expenditure has continued its gradual, albeit modest, year-on-year increase, particularly in the gold sector, with 2019 expected to have the highest level of spend in the last five years. This

is a positive trend for future project development, but it takes time for this investment to translate into projects that are close to production and meaningfully contributing to future supply constraints.

Return The shareholder remains king

Despite relatively stable commodity prices and strong balance sheets, the sector continues to focus on capital discipline, resulting in limited expansionary capital and M&A. On the back of strong operating cashflows,

coupled with exceptional divestment proceeds for many, the sector has initiated significant share buyback programs to boost shareholder returns and repurchase equity considered to be trading below full potential.



Analysis of top 100 mining and metals companies based the market capitalization as at 24 January 2019. Source: *CapIQ, EY analysis*.

These buybacks have enabled many companies in the sector to create higher shareholder returns than would otherwise be the case from underlying equity price appreciation. Looking at the top 100 mining and metal companies by market capitalization, the

diversifieds have generated the highest returns, with BHP and Rio Tinto returning a combined US\$14b (between share buybacks and dividends), bolstered by proceeds from asset divestments.¹

Total shareholder returns (% change, y-o-y) by commodity type



Analysis of top 100 mining and metals companies basis the market capitalization as at 24 January 2019. Source: CapIQ, EY analysis.

Transform (invest)

Innovate to stay ahead

Historically, capital allocation strategies have focused on the three pillars of "buy," "build," and "return." However, with industry convergence and technological innovation transforming our world at a record pace, should organizations be investing capital in technology that may ultimately enable existing reserves to be mined more economically, or indeed uneconomical resource to be produced?

Those who invest in technology, data analytics capabilities and operational transformation will have an edge over

their competitors. According to the respondents of EY Business risks facing mining and metals in 2019-2020 survey, the majority of miners are investing 5% or less of their capital expenditure in digital technologies. How much more could they be optimizing and transforming their operations if they invested up to 20% of their capex budgets in digital and put capital at risk? This increased investment could be disruptive to the way mining and metals organizations operate, giving a distinct competitive advantage to early adopters.

¹ S&P CapIQ



A&M

M&A activity will continue to grow through 2019 on the back of a steady period of growth in deal value over the last three years and a general belief that the sector cannot continue to return cash and sell off assets - deals will continue to shift from being divestment-led to investment-led with a focus on replenishing portfolio growth options. Premium valuations may be on the return for world-class assets after a sustained period of risk-averse valuations. This year has already kicked off with two huge gold deals - the US\$18b merger of Barrick Gold/ Randgold Resources and the announcement of Newmont's US\$10b acquisition of Goldcorp, as well as the joint venture between Barrick Gold and Newmont in respect of their Nevada-based gold assets. It would appear inevitable that these deals will trigger more activity across the gold sector, which looks to underpin a busier period of M&A for the industry.

Commodities

We expect to see significant consolidation in the gold sector, as noted above. While gold is likely to grab the headlines during 2019, we also expect bulks to be relatively busy with some further ownership changes in the coal sector and iron ore pricing to drive corporate activity on the back of the disruption currently experienced with Brazilian supply. Copper will remain a key focus for M&A and arguably the most strategic M&A driver, but with limited options available, copper deals may need significant premiums to get over the line.

Geopolitical influence

The sector has predominantly focused investment in low-risk geographies, such as Canada and Australia, and we expect this to continue. However, as investors look to secure long-term growth options, we will increasingly see deals in countries that are perceived to have higher risk profiles where the deposit represents a world-class asset with scale.

In recent years, corporates have found it difficult to compete with the state-owned enterprises (SOEs), predominantly in China. SOEs typically have a lower cost of capital and can invest in projects through a strategic lens of securing mineral supply for other industries as part of a broader supply chain. This issue is unlikely to reverse any time soon, but with lower GDP growth in China and the US, the competitiveness of these buyers, and their desire to secure supply, it may be subdued as compared to previous years. This provides the industry an opportunity to acquire assets without having to compete against low cost-ofcapital valuations.

License to operate (LTO)

As the number one risk in the mining and metals sector, this will remain front of mind when performing due diligence on potential acquisition targets or investing in new projects. As such, any investment will be predicated on a well-defined strategy on working with local governments and communities in order to ensure the project has the full support and cooperation of those impacted by it.

Capital raising

Balance sheets have been strengthened over recent years, and increased flexibility introduced through refinancing of short-term maturities into longer-dated instruments. Free cash flow projections look strong in the short to medium term, on the back of limited new supply, and that is providing the sector with an opportunity to manage investment capital in such a way that avoids financial risk being re-introduced. For many participants, that translates into a policy of only reinvesting capital generated from existing operations. For others, there is capacity to introduce additional debt or bring in a strategic JV partner.

Type of financing

In 2018, initial public offering (IPOs) markets were subdued on the back of relatively weak and volatile equity prices, which led to an even bigger impact on follow-on capital raising. If equity prices perform well in 2019, we would expect this to drive a significant increase in capital raising, as the backlog in fundraising clears. Moving into 2019, an increasingly important factor in capital raising will be the concept of social license to operate, which investors see as a key risk factor

impacting the ability to raise capital. Risks associated with environmental policies and safety will take a greater role in the diligence undertaken around capital investment decisions.

Investment into new projects is on the rise, with the likes of Anglo American's Quellaveco project leading the way in terms of multi-billion-dollar investments into new supply. A number of acquisitions in 2018 were for early-stage projects (e.g., Winchester South coal mine), which suggests a need for capital raising over the short term in order to bring these projects into production.

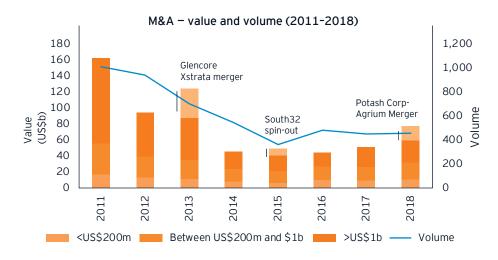
While we have seen many players opting for debt to fund projects, mining and metal companies are also looking to balance risk by opting for JV agreements with strategic players and resource funds.

However, capital allocation can be subjective (e.g., the relative risks of investing in coal vs. battery minerals) as mining and metals companies need to demonstrate the financial viability of a project while ensuring LTO obligations are fully embedded.



M&A

M&A deal value was up by 51% y-o-y to \$77.8b, the highest recorded deal value in the last five years.



Commodities diverged

Excluding the Nutrien deal, coal and steel deals accounted for 33% of total deal value. Coal deal value was up by 64% y-o-y to US\$13.9b and volume was up 25% to 37 deals. Most notable was Rio Tinto's divestment of its Kestral mine for US\$2.25b, marking its exit from the coal sector. While this trend appears likely to continue as Mitsubishi Corporation has announced its plan to sell stakes in two Australian thermal coal mines, the restructuring of the Australian coal market has largely been executed for this particular cycle.

While still significant, steel transactions value and volume declined by 12% y-o-y to US\$11.8b and 37 deals. The two largest deals were the acquisitions of distressed steelmakers – Bhushan Steel in India and Ilva in Italy – which together accounted for almost two-thirds of the deal value. During 2018,

there were five Chinese domestic deals with a value of US\$1.3b, indicating that there is still a focus some way to go in the restructuring of the Chinese steel market.

Copper accounted for US\$7.4b (up 142.5% y-o-y) of deal value on the back of a positive demand outlook for the metal, partly because of the expected ramp-up of infrastructure to support the shift to battery powered vehicles, and also on the back of a cut back in capital expenditure over recent years contributing to supply constraint.

Gold deal value declined by 11% y-o-y to US\$6.5b as major producers focused on improving balance sheets, reducing debt and developing a current pipeline of projects. Reserve replacement continued to be a priority due to a lack of substantial new

discoveries and a lack of tier-one gold assets available in the market. However, we expect that the recent Barrick-Randgold merger and Newmont-Goldcorp merger will act as catalysts for M&A activity as smaller players look to consolidate operations and the newly formed companies divest non-core assets.

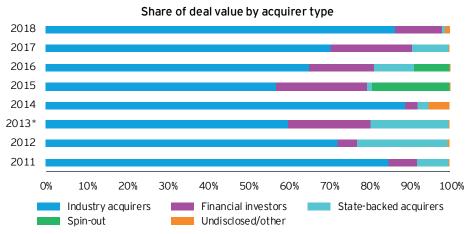
Deal activity in the battery minerals sector has begun to accelerate. Deal value for rare earths and lithium more than doubled to US\$1.2b in 2018, with companies increasingly seeking to capitalize on the future demand for batteries in electric vehicles. However, battery mineral prices have fallen, with lithium prices declining by 33% from January 2018 to December 2018, and cobalt prices dropping by 27% over the same time-period, pressured by increased supply. This volatility in prices will likely deter significant investment into these commodities.

Cross-border share of deals declined amid political concerns

Cross-border share of deal value fell to 22.6% from 36.5% in 2017, which is the lowest it has been in the last five years amid trade and political concerns. As dealmakers deal with an increased level of political intervention and protectionism, M&A activity has predominantly been driven by domestic deals. China no longer dominated M&A activity, accounting for only 15% of the deal value, down from 27% in 2017. That activity has predominantly been

driven by investments in low-risk geographies. There was increased activity in Australia with significant changes in coal mine ownership as investors continue to apply pressure on the ownership of these mines. These assets are frequently being acquired by new entrants into the market and often by private equity funded vehicles. The Nutrien deal meant Canadian M&A activity accounted for 30% of the total deal value by target nation.





^{*} Excluding the Glencore Xstrata merger

Capital raising

In 2018, mining and metals companies continued to focus on maintaining capital discipline and making balance sheets as strong and agile as possible. Reflecting the moderate pick-up in M&A activity, capital raising activity remained guiet during 2018 as the ability to self-finance improved on the back of strong free cash generation. Aggregate capital raised was up only 6% y-o-y to US\$272.3b, even with access to capital significantly improving. That being said, capital raising transaction volumes in 2018 were 15.5% lower at 2,480, compared with 2,935 in 2017. The biggest movers were debt, which increased 13% y-o-y to US\$254b, while equity proceeds fell by 46% to US\$18b.

The majority of debt raising was driven by the refinancing of existing facilities, rather than to fund M&A or new project capital. However, this was more a function of subdued M&A and new-build investment rather than a lack of access to capital. The debt markets have been very competitive for those companies that have raised capital for M&A. In particular, the Australian coal deals highlighted that debt is available for high-quality assets.

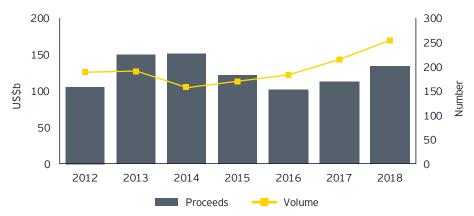
China accounted for 40% of the total capital raised, with bonds being the preferred instrument, accounting for approximately 90% of Chinese capital raised. North America accounted for 21% of the total capital raising activity, with loans accounting for 80%. While capital raised in Australia increased 7% y-o-y to US\$12.5b, Australian coal IPOs did not raise capital as expected, as investors remained cautious about investing in coal projects. Capital raising in Africa declined 7% y-o-y because of increased pricing of country risk.

Loans

While not quite returning to 2013 and 2014 levels, loan proceeds increased for the second year in a row, growing by 18% y-o-y to US\$133b. In addition to value increasing, the volume of transactions also increased by 18% to 253 as companies raised capital for short term purposes such as working capital, refinancing and general corporate purposes. Iron ore and steel companies accounted for one-third of the total capital raised through loans,

followed by diversifieds and gold miners. The rebound in the US steel industry, on higher prices due to the protective influence of tariffs imposed in early 2018, has paved the way for new investment and growth in the country. As a result, existing capacity is being restarted and some companies, e.g., Steel Dynamics and Nucor, have raised debt for the construction of new mills.

Loan volume and proceeds (2012-2018)

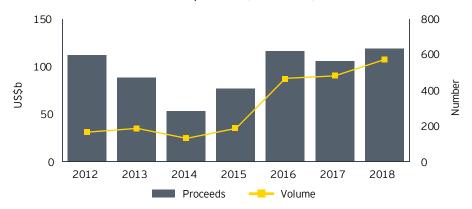


Bonds

Bond proceeds increased 12% y-o-y to US\$118.7b, after declining in 2017. The volume of bond transactions also increased by 18% y-o-y to 572. The preference for issuing bonds was strong in the Chinese coal sector, where players issued over one-third of the global bond value. In total for the

mining and metals sector, China accounted for 83% of bond issuances in 2018, a significant increase from 67% in 2017. The US and UK both saw decreases from 7% to 2% and 2% to 0%, respectively, driven by uncertainty of geopolitical issues such as Brexit and the US steel and aluminium tariffs.

Bond volume and proceeds (2012-2018)

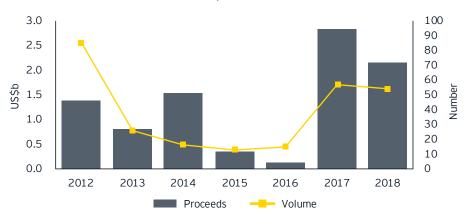


IPOs

With many players delaying the execution of large and risky capital investments, equity issuance fell in priority, declining by 24% y-o-y. The IPO market witnessed increasing economic and political uncertainty, softening IPO confidence globally. That said, global proceeds stood at US\$2.14b, which was still significantly higher than in

previous years, with small cap IPOs continuing to dominate activity. In 2018, aluminium and coal producers accounted for 35% and 28% of the total IPO proceeds, respectively, with the US\$759m IPO of Qatar Aluminium Manufacturing and the US\$550m IPO of Coronado Global Resources in Australia being the headline deals.

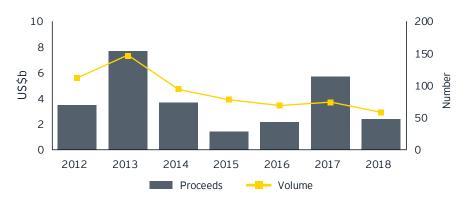
IPO volume and proceeds (2012-2018)



Convertibles

Convertibles witnessed the largest drop in activity during 2018, with proceeds declining by 58% y-o-y to US\$2.4b. Germany and Canada accounted for 41% of the total proceeds, followed by China, which accounted for 16% of the total capital raised. Approximately 50% of convertibles were issued by precious metals and coal companies, primarily for refinancing or repayment purposes. In 2018, a top deal was the US\$330m raised by Endeavour Corp. to reduce debt.

Convertible bond volume and proceeds (2012-2018)

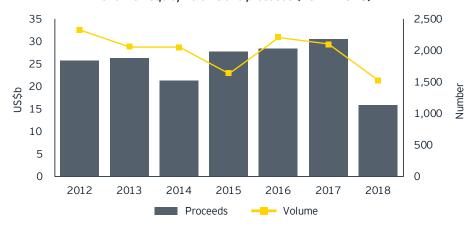


Follow-ons

Secondary listings declined 48% y-o-y to US\$15.8b, after rising in 2017 to US\$30.7b. Uncertainty related to escalating geopolitical tensions adversely impacted not only the value of capital raised by the sector, but also the number of placement offerings completed. Australia, Canada and China attracted 75% of the total capital raised via follow-ons, with gold accounting for 32% of the value. This is driven by gold companies being the least volatile, in terms of equity prices,

compared to commodities such coal and iron ore. Moreover, follow on offerings by coal and iron ore companies fell by 74%* v-o-y and 85% y-o-y* in 2018 respectively, due to subdued equity performance by bulks producers. With the continuing interest in electric vehicles, follow-on capital raised by lithium and cobalt companies totaled ~US\$1.2b with around US\$420m raised by Jiangxi Ganfeng Lithium and US\$387m by Cobalt 27 Capital Corp.

Follow-on equity volume and proceeds (2012-2018)



^{*}Considering follow-on offerings above US\$10m by coal, iron ore companies in 2017 and 2018.

How the EY's Global Mining & Metals Network can help your business

The mining and metals (M&M) sector is returning to growth, but companies face a transformed competitive and operating landscape. The need to improve shareholder returns will drive bold strategies to accelerate productivity, improve margins and better allocate capital to achieve long-term growth. Digital innovation will be a key tool, but the industry must overcome a poor track record of technology implementations. If M&M companies are to survive and thrive in a new energy world, they must embrace digital to optimize productivity from market to mine.

We take a whole-of-value-chain approach to help you to seize the potential of digital to fast-track productivity, balance portfolios and set a clear road map for the new energy future.

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