Mergers, acquisitions and capital raising in mining and metals

2014 trends
2015 outlook

Buy, build or return?

EY
Building a better working world

About this study

- The data is primarily sourced from ThomsonONE.
- Unless otherwise stated, all values are in US dollars.

Notes on the data:

Mergers and acquisitions (M&A)

- Only completed deals are included. Deals identified as incomplete, pending, partly incomplete, conditional or intended as of 31 December 2014 were excluded.
- The acquirer country is based on the ultimate owner's geographic headquarters. The target country is determined by where the primary targeted asset or company is located.
- "Country-based" refers to domestic and inbound deals.
- A country's acquisition refers to domestic and outbound deals.
- Commodity analysis is based on the company's primary commodity focus.
- The value of M&A activity by commodity includes deals where the given commodity is the acquirer and/or target's primary commodity. Commodity charts illustrate the value of deals where the given commodity is the target.
- The data does not capture the value of transactions where this information is not publicly available.
- "Megadeals" refer to all deals with a value equal to, or greater than, $1b.

Capital raising

The primary source for this data is ThomsonONE. Certain details have been supplemented with information from company and stock exchange websites and major business press. Only completed transactions are included.

- Only original Initial Public Offerings (IPOs) – the first time that a company issues equity to the public – are included in the IPO analysis. Proceeds are allocated to the primary exchange of listing.
- Equity issues are geographically categorized by the primary exchange where the issuer's stock trades, except where stated. Where a company offers Global Depositary Receipts or American Depositary Receipts, the issue is allocated to the destination market of those shares.
- Loan data and proceeds include refinancing and amendments to existing debt, and are as per ThomsonONE intelligence. Proceeds are allocated to the geography of the borrower.

Mergers, acquisitions and capital raising in mining and metals — 2014 trends, 2015 outlook

This EY study examines transactions and financing in the mining and metals sector in 2014, and discusses the outlook for 2015.

It provides an in-depth analysis of the major global mining and metals transactions, capital markets and resulting capital flows, by considering M&A, IPOs, secondary equity offerings, bonds and loans. It also provides an analytical breakdown by commodity.

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The mining and metals industry exits 2014 battered and bruised, but with an eye on recovery. Volatile commodity prices and an uncertain economic outlook provided the backdrop to a fourth consecutive year of falling deal activity in 2014, while risk aversion and capital discipline among investors and producers alike stymied both the availability and spending of capital. But with the industry set to undergo a period of historic restructuring, a shift in focus toward longer-term growth and value creation is required if companies are to position themselves competitively to take advantage of the global supply rebalancing.

2014 scorecard: M&A

$44.6b of deals completed, down **49%** on 2013

544 deals completed, down **23%** on 2013

Only **11** megadeals (>$1b)

60% of targets in developed regions, with North America taking the lead

Gold, the most-targeted commodity by volume; steel, the largest y-o-y increase in deal value to **$9.8b**

Deal activity has declined for the fourth consecutive year ...

A number of factors contributed to 2014's anaemic deal activity, including:

- The continued disparity between buyer and seller valuations
- The misguided perception that M&A is value-destructive
- An acute focus on return on capital employed, leading to short-term corrective measures
- A pro-cyclical and very short-term approach to investment
- A focus by the major producers on existing optionality – looking internally, rather than externally, for growth opportunities

These factors have combined to create an environment in which neither buyers nor sellers are agitating to do deals, in which it is difficult for management to justify major acquisitions to shareholders, and in which execution challenges and risks are high.

2014 scorecard: capital raising

$230b capital raised,
15% y-o-y fall

$27b equity proceeds,
down **24%**

15% project finance share of **$152b** of syndicated loan proceeds

17 IPOs, a drop of **94%** vs. pre-GFC peak

...and project capital remains largely inaccessible ...

Capital raised by the industry decreased by 15% year-on-year (y-o-y), with a number of factors impeding investment in, and by, the sector:

- Access to debt capital markets remains largely the preserve of high-grade borrowers, predominantly for refinancing. The absence of equity risk capital is severely impacting junior exploration spend.
- Uneven economic recovery and divergent monetary policies set the scene for continued volatility in global markets.
- Perceived misallocation of capital toward organic growth is weighing on sentiment, as increased supply coincides with lower demand growth.
- Many producers remain focused on near-term operational improvements and deleveraging, with limited appetite or capacity to raise new debt for projects or M&A.

... spawning a complex and challenging funding environment for developers.

In the absence of broader equity markets support, advanced juniors and single-project developers have to be increasingly creative and tenacious. By the same token, private investors are more selective and rigorous than ever in their investment appraisals. Companies are seeking funding from multiple providers and structures, including private equity, government funds, high-yield bonds, streams, offtakes and equipment finance. Such structures can be costly and cumbersome, forcing compromise over future earnings potential or credit vulnerability in order to progress a project.

But the industry is set for major restructuring in 2015 ...

Volatility and uncertainty will continue to constrict deal activity until price stability, and in turn, confidence, returns. The timing and pace of recovery will vary from commodity to commodity. However, the strategic imperatives that compelled some companies to undertake deals in 2014 are primed to intensify in 2015, setting the scene for new competitors and diverging business models.

Sell-side:

- **Distressed selling:** Price weakness, particularly iron ore and coal, will test companies' gearing levels, while junior companies will continue to face funding challenges.
- **Portfolio optimization:** Major producers will continue to review and optimize portfolios as market conditions change, leading to divestments, spin-outs and divergent strategies.

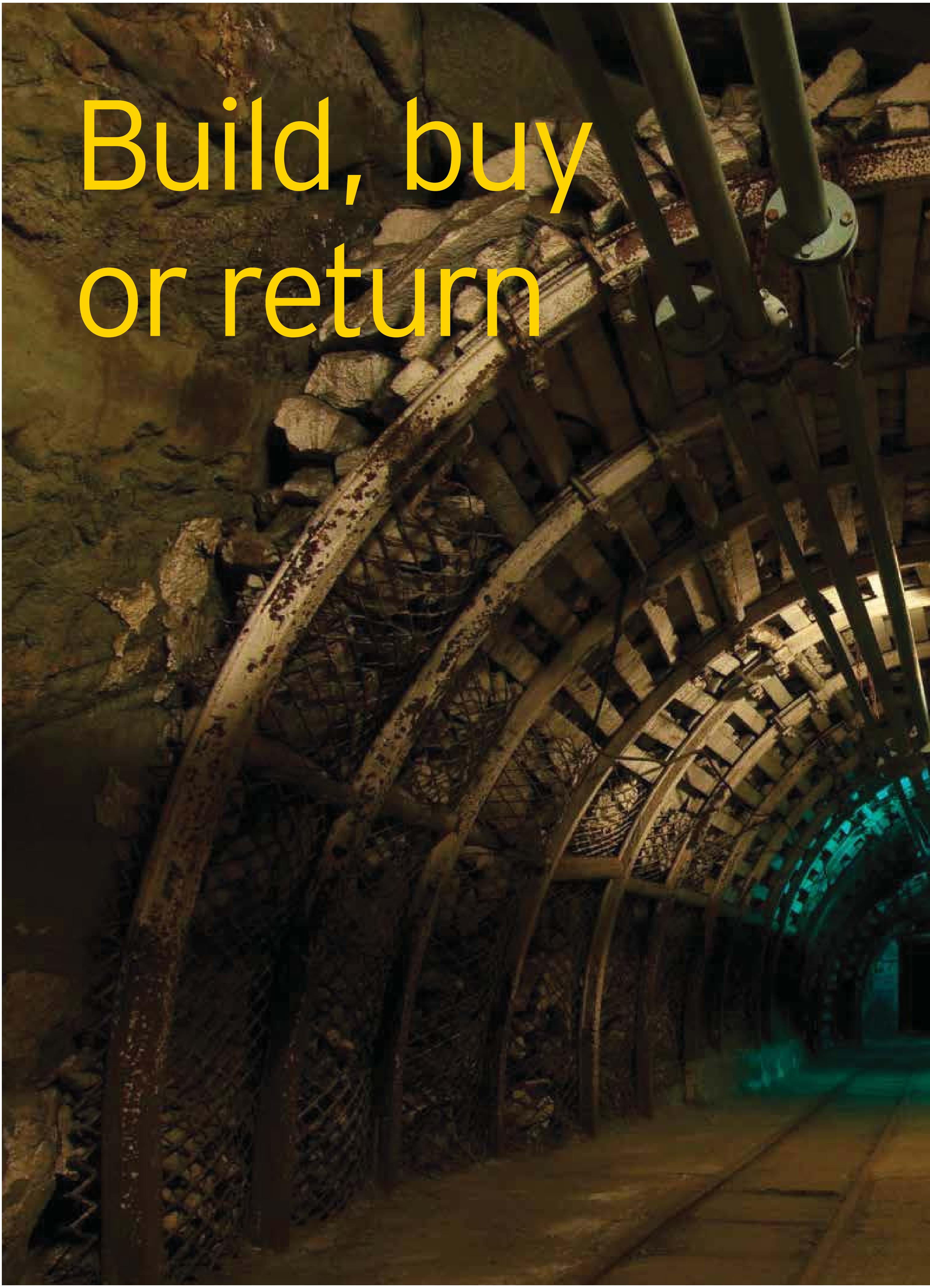
Buy-side:

- **Private capital:** Depressed equity valuations, signals of price stability and the pipeline of divestments will see the deployment of funds and the potential emergence of major new industry players.
- **Supply security:** Industrializing nations will continue to seek opportunities to secure strategic mineral supplies, while trading houses will look to secure physical production to feed their marketing operations.
- **Joint ventures:** Companies will seek opportunities to gain competitive advantage and synergies with minimal capital outlay via strategic partnerships.

... and must position itself for the next wave of growth.

The question remains as to when the major producers will have both the confidence and permission to invest in the next wave of growth. But standing still is not an option, and companies face the challenge of building portfolios that can best cope with volatility and take advantage of the opportunities it presents. The "bright line" indicator of a single capital allocation strategy for the industry has disappeared. But whichever path is pursued — whether build, buy or return capital — successful evaluation and execution of that strategy will be critical in the face of emerging competition from those brave enough to invest now for the long term.

Build, buy or return

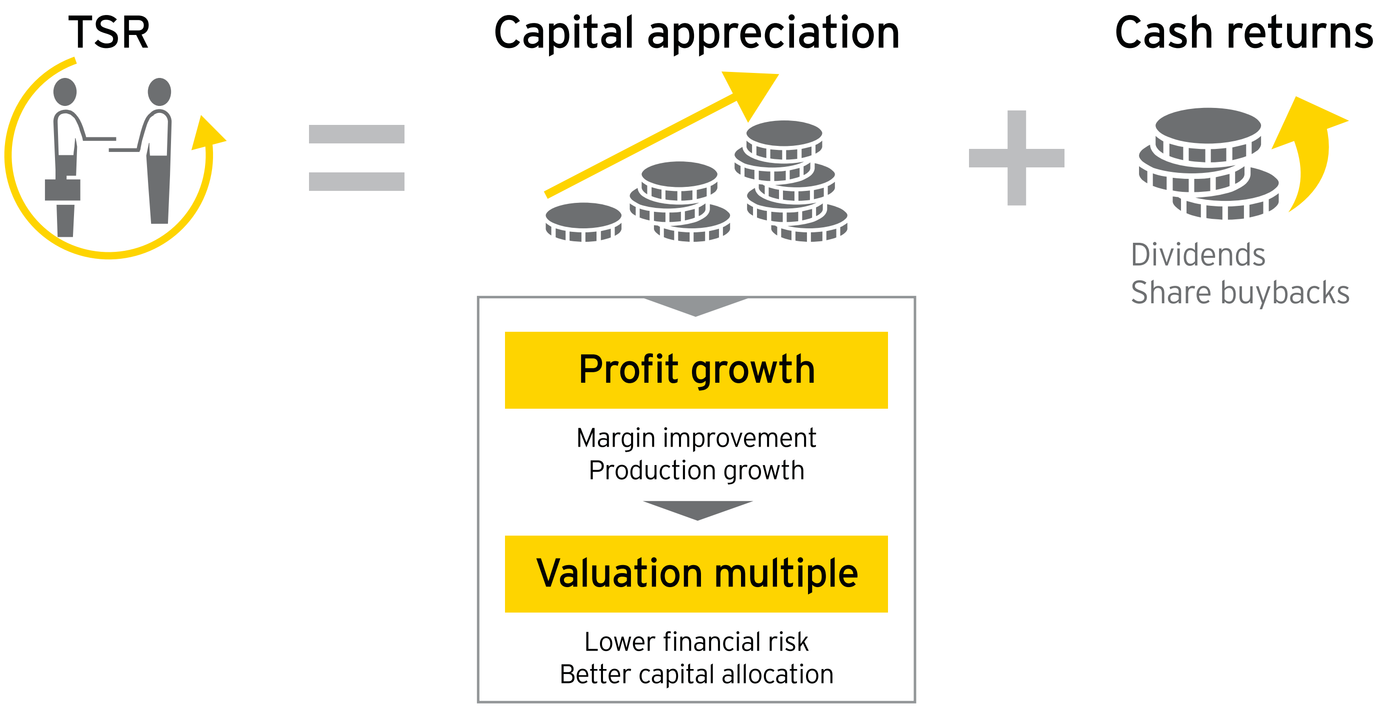


What next for the mining and metals industry?

A year ago, we saw the mining and metals industry at an inflection point, as management stepped back to reassess performance and strategy under a lower growth global economy. From 2014's meagre M&A volumes, limited project funding and scarce investment in growth, it has become evident that much of the industry lingers cautiously at a crossroads as we enter 2015.

If the industry is to transition out of this holding pattern and position itself to take advantage of the result of supply correction measures, we believe a shift in focus is required. Investors have become fixated on return on capital employed (ROCE) as a measure of competitive performance, driving necessary but short-term responses from producers in the form of cost-cutting, productivity improvements, capex cutbacks and asset sales. This focus will change as growth is pursued. As such, in this report, we explore the strategies employed by the sector in 2014, broadly categorized as "buy" (acquisitions), "build" (organic growth) and "return" (return of capital to shareholders), under the lens of a total shareholder return (TSR) growth framework. We consider the challenges, options and likely outcomes that lie ahead for the sector and its decision-makers as we enter a historic period of industry rebalancing and restructuring.

At its simplest, TSR can be analyzed using the following components:



Buy

The acquisition malaise of recent years was expected to lift in 2014, fuelled by private capital entering the sector, bargain hunters in the guise of corporate predators, and much-needed strategic partnerships across the distressed juniors. In reality, the year was something of a disappointment; the deals just didn't happen. Scores on the board at the end of 2014 showed a fourth consecutive year of decline, with total deal volume down by 23% y-o-y at 544, and value down by 49% (after excluding last year's merger between Glencore International and Xstrata) at $44.6b.

A dominant cause for continued inertia in the M&A market is not easy to pinpoint. Instead, a combination of factors lie at the heart of the protracted period of inactivity and help explain why we are not seeing more activity at valuations which many consider are close to the bottom of the cycle:

- **Valuation gap:** Despite a broad view that stocks are undervalued at the moment, it is still a very subjective judgment. For every optimist who believes in long-term fundamentals and supply correction, there is a pessimist who feels there is further softening of commodity prices to come and the bottom of the market is yet to be reached. This creates a significant expectation gap in pricing of deals, with those seeking acquisitions wanting to factor in the risk of potential downside exposure that sellers simply aren't prepared to wear.
- **Capital shortage:** There are a number of investors that believe in the long-term fundamentals of the sector and are on the hunt for the right assets — typically, low cost, producing (or close to production), in regions that fall under robust fiscal and social regimes. These investors span a broad spectrum, from corporates to individuals and from sovereign funds to private equity. For many, the impediment to executing on their beliefs is the availability of capital — or specifically, the lack of it. Those that have managed to raise the capital and do have the desire to deploy it, such as X2 Resources (see page 22), may prove to have a significant competitive advantage.
- **Value-destructive acquisitions:** The recent spate of asset impairments has generated a widely-held view that acquisitions in the mining sector have — on the whole — destroyed shareholder value. EY's research into this particular view suggests otherwise (see page 14), but that has not prevented shareholders and management from effectively adopting a zero-tolerance strategy toward M&A.

  There are, of course, deals that simply haven't worked out and are used to justify this stance, such as Rio Tinto's acquisition of Riversdale Mining in 2011. The company, which owned coal mines in Mozambique, was originally purchased for approximately $3.9b, at a premium of 46% to the reference price,[1] but was subsequently sold for just $50m in October 2014.[2] But there are many deals that have created significant shareholder value.

  First Quantum Minerals is a case in point, generating a 530% TSR over the last decade during which a number of acquisitions were made, including the $5.1b acquisition of Inmet Mining Corporation in 2013.
- **Focus on ROCE:** Commentators on the sector have been hung up on ROCE for the last couple of years, citing poor ROCE as an indicator of badly managed capital. As we noted in our 2013 report, *Mergers, acquisitions and capital raising, 2013 trends, 2014 outlook — Changing gear,* this is perhaps a misguided approach, given the cyclical characteristics of the sector and the need to invest significant capital many years ahead of production and earnings. The result has been a focus on cost reduction programs, internal capital allocation and productivity — all much-needed and important areas of discipline; but as we note later (see page 12), a broader focus on TSR is now necessary to generate the next stage of value delivery for the industry.
- **Existing optionality:** The focus on capital discipline and supply correction across the industry has significantly reduced the number of greenfield and brownfield projects put into development. As a result, many of the larger corporates are sitting on sizeable project pipelines that will comfortably absorb available capital in the short and medium term, without the need to look externally for growth opportunities. This perhaps misses the benefit of acquiring an under-valued, near-production asset in the market at a rock-bottom price. A deal of this nature, if executed well, may generate greater overall value than investing in a portfolio asset. But in this climate, with execution risk so high, it is difficult for management to invest the time necessary to pursue such a strategy, let alone convince shareholders that it is the right approach.

Breaking inertia

With the cards currently so heavily stacked against an acquisition strategy, the question of course is why are deals still being pursued? At the core of this debate is the simple but important fact that it takes two parties to consummate a transaction, but only one of them to prevent it. In the current market, there is relatively little buy-side pressure, i.e., there is no huge rush to invest capital into the sector, or competition for assets that may be undervalued by the market. Similarly, there is little sell-side pressure, i.e., shareholders are not necessarily looking to exit right now as they believe stocks are undervalued and any offer, if solicited, would be at a discount to where shareholders believe the stock will trade in an improved market.

This is creating inertia, as neither side is really agitating for a deal. We see this inertia being broken when one side of the equation has a clear imperative to execute a deal, some examples being:

1. "Recommended $A16 per share cash offer by Rio Tinto for Riversdale," *Rio Tinto*, 23 December 2010.
2. "Rio Tinto sells Mozambique coal assets for US$50 million," *Sydney Morning Herald*, 20 July 2014.

Distress. We have seen a number of deals complete during 2014 on the back of a distressed seller or distressed assets. This could be in the form of:

- A partial exit, such as the announced sale by Winsway Enterprises and Marubeni Corporation of their stakes in the debt-laden Grand Cache Coal to Up Energy Development Group. The former retained a 17.26% stake, while both retained marketing and buyback rights.[3]
- A portfolio divestment, such as EVRAZ's sale of EVRAZ Vitkovice Steel in April 2014 to a group of private investors for $89m, plus $198m of debt liabilities. The sale was part of a strategic deleveraging initiative.[4]
- Outright sale driven by financial distress, such as the reported sale of London Mining's Marampa iron ore mine in Sierra Leone to Frank Timis' private vehicle, Timis Corporation, in a deal part-financed by Cape Lambert Resources.[5] London Mining entered into administration in October 2014 as it struggled under the weight of an offtake dispute, the weak iron ore price and the impact of the Ebola crisis.

Supply security. Historically, the Chinese and other industrializing nations have been active in the sector in order to secure mineral supply. While we saw some deals of that nature in 2014, such as MMG's acquisition of the Las Bambas copper project in Peru, the real activity came from trading companies looking to secure physical production that can be used to support profits through vast and complex marketing operations. Examples of this included the joint acquisition by Glencore and Sumitomo Corporation of Rio Tinto's Clermont coal mine in Australia for $1b, and Noble Group's acquisition of Alcoa's interests in Jamaican bauxite mining and alumina refinery joint venture, Jamalco, for $140m.

Regulation. A number of deals have occurred where a regulatory change or a ruling forces the divestment of assets or operations by a seller that would not otherwise be looking to undertake a transaction. One of the most significant deals of 2014 was Glencore's divestment of Las Bambas, which was eventually sold to China's MMG for $7b, on the back of Chinese competition ruling on the Glencore Xstrata merger. Glencore's sale of Frieda River in Papua New Guinea, to PanAust for $125m, was also a condition of the merger. In a different example, the Government of Gabon mandated the transfer of ownership of Chinese interests in Compagnie Minière de Belinga (COMIBEL, 75%-owned by China Machinery Engineering Corporation) to the Republic of Gabon, following a dispute regarding the validity of the mining convention agreed over the Belinga iron ore mine.[6]

Private capital. There are a number of specialist funds that have raised capital specifically to deploy in the mining and metals sector, some of which have significant pools of capital looking for the right assets. Many observers have been surprised that this capital hasn't been deployed sooner, but hindsight has proved the discerning approach of these funds to be right, as share prices across the sector have continued to fall. But deals are being executed, with Magris Resources leading a consortium of buyers for IAMGold's niobium mine for $530m[7] and QKR Corp's acquisition of AngloGold Ashanti's Navachab mine for $110m.[8]

Private capital

Private capital, in its many forms, has been a subject of hot debate in recent years, with some commentators dismissing its role and others hailing it as the savior of the industry's chronic shortage of capital. The truth lies somewhere between these extremes: there will be successful funds that make significant returns for their investors through savvy deal-making across the sector, and some of these may grow into diversified mining companies of the future. Alongside these "mega-funds" are a handful of smaller funds, run by experienced and astute management teams that will likely make excellent returns and provide the much-needed capital to projects that would otherwise face an uncertain future.

But we shouldn't mistake these funds as the sole source of capital for the sector, which will still come in the most part from project finance, strategic joint venturing and equity markets – the latter making a slow return to the sector once supply actions begin to materialize into more stable underlying metals prices.

The year 2015 will undoubtedly see a greater volume and value of private capital deployed by specialist funds, but 2014 saw a number of highlights, including:

- The $530m sale of IAMGOLD's Niobec niobium mine in Canada to a consortium led by **Magris Resources**, including Hong Kong investment company CEF Holdings and Singapore investment group Temasek.
- **Denham Capital**'s backing of two new mining groups, Pembroke Resources and Auctus Minerals, via initial equity injections of up to $200m and $130m, respectively.
- **QKR Corp**'s $110m acquisition of the Navachab gold mine in Namibia from AngloGold Ashanti.
- Equity investments by **Greenstone Resources** in junior companies, including a 28% stake in Excelsior Mining Corp for $10m, and an initial 18.4% stake in North River Resources for $12m.
- A $10m equity investment by **Appian Natural Resources Fund** in Roxgold Resources. The fund had raised $375m by January 2014 for investments in the mining sector.

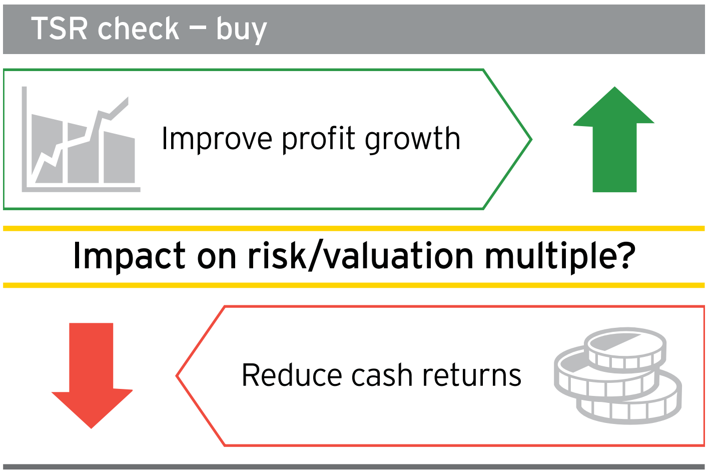
3. "VSA in relation to the acquisition of approximately 82.74% interests in GCC and GCC LP respectively," *Up Energy*, 7 December 2014.
4. "EVRAZ sells EVRAZ Vitkovice Steel," *EVRAZ website*, 14 April 2014.
5. Cape Lambert finalises US$20m funding agreement to TImis Mining Corporation," *Cape Lambert Resources*, 22 October 2014.
6. "Gide on the transfer of CMEC's shares in COMIBEL," *GIDE website*, 23 January 2014.
7. "IAMGOLD to sell Niobec for a total consideration of US$530 million – Will focus on profitably growing its core gold business," *IAMGold*, 3 October 2014.
8. "AngloGold Ashanti enters into agreement to sell Navachab mine," *AngloGold Ashanti*, 10 February 2014.

Strategic deal execution

Where deals aren't being forced by one party, the underlying logic can be understood by analyzing the simple – but important – metric of TSR. Looking at corporate activity through this simple lens enables us to put ourselves in the minds of management and understand the deal rationale that was strong enough to push a deal through execution in a market where it is far easier to walk away.

Assuming that management has made the decision to invest capital externally, and essentially forgo a return of that capital to shareholders or to reduce existing financial leverage, the driver is a re-rating of the stock through one of the following:

- Accretive growth prospects
- Lower risk profile of earnings
- A combination of the above



In this market, such a decision is brave and requires rigorous assessment of all capital options. A robust and diligent capital allocation process is essential to make the right decision and to be able to communicate this decision externally, as shareholders' default position is often to have capital returned in the form of increased dividends or one-off share repurchases. Some examples of companies that made this decision, and the stated reasons, include:

- **Fresnillo's acquisition of Penmont gold mine**: The company's management stated that this acquisition enabled the company to build on its leading position in the Herradura Corridor, which was seen as a low-risk approach to create future earnings growth.[9]
- **Lundin Mining's acquisition of Candelaria**: The management of Lundin stated that its reason for pursuing this acquisition was to diversify both operationally and geographically. Essentially, it was felt that diversification would de-risk earnings and enable a re-rating of Lundin stock and create TSR beyond that which would be generated through a capital return.[10]
- **The Osisko Mining acquisition**: Initially pursued by Goldcorp, the acquisition of Osisko for $3.6b was eventually executed by Agnico Eagle Mines and Yamana Gold. This case is an example of an asset that was considered to be undervalued by the market and presented an opportunity, under new ownership, to create value beyond that which could be created in an organic pipeline or via a return of cash to shareholders.[11]

Making two plus two equal five

Strategic joint ventures have also proved to be a significant and important source of deal flow during 2014. Increasingly, such deals are seen as win-win by management and shareholders – often executed without the need for capital to be injected into the deal and with both parties gaining a competitive advantage that neither party could gain in isolation. The challenge, of course, is to find a deal structure that both parties feel compensates the other equally. The proposed joint venture between Peabody Coal and Glencore over the Hunter Valley mines in order to create synergies on the back of productivity improvements and cost rationalization is such an example.[12] Neither of the parties could independently generate the synergies that the operations could create on a combined basis, and discussions were sufficiently well managed to execute an agreement that both felt created value on a joint basis.

We have seen other examples during the year, where synergies appear to be available but an agreement could not be reached, demonstrating the significant execution risk in today's transaction market.

Divestments

Another feature of 2014 that looks set to continue into 2015 is the portfolio reviews undertaken by the majors and many of the large mid-tier producers. On the back of capital allocation reviews, 2014 saw a significant number of divestments, as well as the announced spin-off by BHP Billiton of a number of assets not on strategy into a separately listed entity called South32, and the aborted AngloGold Ashanti spin-off of certain overseas assets into a separately listed vehicle.[13]

Anglo American has already suggested that it will look at divesting a number of assets within its platinum, copper and coal business units in the year ahead, while Vale has hinted at a base metals spin-off.[14]

9. "Acquisition of 44% Interest in Penmont JV," *Fresnillo*, 12 September 2014.

10. "Acquisition of Freeport's 80% Interest in the Candelaria Mining Complex," *Lundin Mining*, 6 October 2014.
11. "Agnico Eagle and Yamana Gold announce a friendly acquisition agreement with Osisko Mining Corporation," *Agnico Eagle Mines*, 16 April 2014.
12. "Glencore, Peabody to combine coal forces," *Sydney Morning Herald*, 25 November 2014.
13. "AngloGold Ashanti abandons plans to break up," *Financial Times*, 15 September 2014.
14. "Anglo American set to sell Australian coal mines to boost returns," *Financial Times*, 22 January 2015; "UPDATE 2-Brazil's Vale says mulling spinoff of base metals unit stake," *Reuters*, 02 December 2014.

Top 10 divestments in 2014

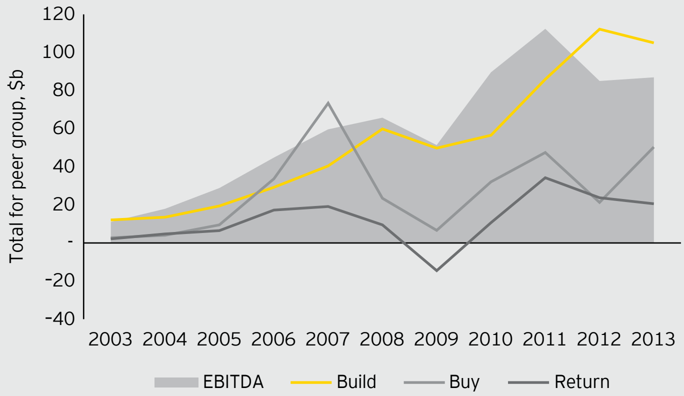
Asset(s)	Seller	Acquirer(s)	Deal value ($m)
Las Bambas	Glencore	MMG	7,000
Candelaria and Ojos	Freeport-McMoRan	Lundin Mining Corp.	1,852
Acciai Speciali Terni	Outokumpu	ThyssenKrupp	1,725
Colombus	Severstal	Steel Dynamics	1,625
ThyssenKrupp Steel USA	ThyssenKrupp	ArcelorMittal; Nippon Steel & Sumitomo Metal Corp.	1,550
Clermont Mine Joint Venture	Rio Tinto	Glencore; Sumitomo Corp.	1,015
Gallatin Steel	ArcelorMittal	Nucor Corp.	770
Dearborn	Severstal	AK Steel	707
Knurow-Szczyglowice Mine	Kompania Weglowa	Jastrzebska Spolka Weglowa	496
Royalty interests	Sherritt International Corp.	Altius Minerals Corp.	452
Minera Penmont	Newmont Mining Corp.	Fresnillo	450

Shareholders have not always reacted well to corporate plans involving a reshuffle of assets. But, nonetheless, this type of deal activity is likely to continue to be a key feature of the large-cap producers over the next year or two, as portfolio assets are analyzed with greater scrutiny and new management look to drive performance through reorganizations and changes to commodity focus, regional focus, and even supply chain dynamics. The success or failure of these actions won't be known for many years to come, but we are witnessing one of the most significant periods of restructuring ever in this industry.

TSR analysis

We undertook a historical analysis of capital allocation trends among a peer group of 30 of the largest mining companies listed over the period 2003–13 to determine which investment strategy delivered the highest TSR. A snapshot of total absolute spending by the peer group revealed a clear consistent and consequential pattern, with "build" taking the reins from the acquisition spending that dominated 2005–07, and the inevitable lag of the cyclicality effect on capex spend relative to other investments:

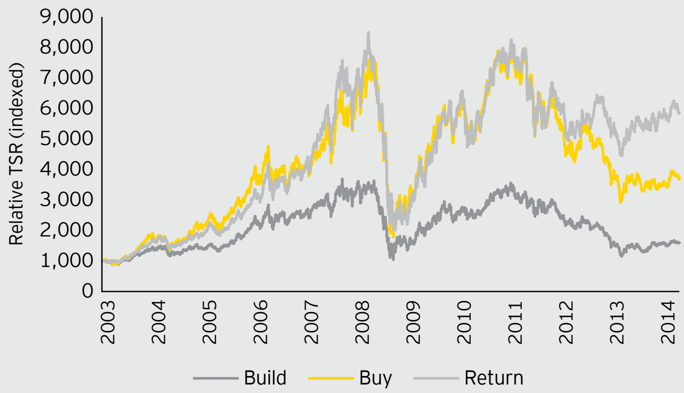
Capital allocation strategies over 2003–13



Source: EY, S&P Capital IQ

We established three groups of companies, according to their relative spend on "buy" (acquisitions), "build" (capex and exploration) and "return" (share buybacks and dividends, less equity issues) as a proportion of market value.

Relative total shareholder returns by strategy over last decade



Source: EY, S&P Capital IQ, Thomson Datastream

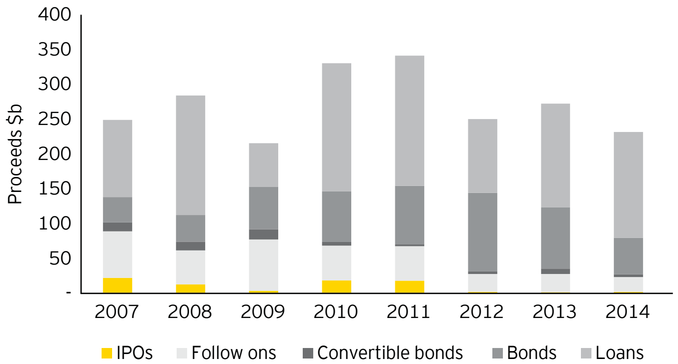
The results indicated a clear underperformance by those companies which invested heavily in a "Build" strategy over the time period measured. "Returners" outperformed, perhaps not surprisingly given that companies making significant payouts tend to be in positions of relative financial strength. Acquirers tracked closely behind, only significantly underperforming over the most recent cycle.

When looking at individual TSR outperformers, no clear investment preference emerged from the data. Some of the companies that were high "re-investors" were also high returners, suggesting that a balanced strategy (and, of course, effective execution of that strategy) yields greater success. In general, companies with the highest ratios in any one strategy rarely delivered a higher TSR. "Buy" has proven to be a strong strategy in terms of TSR over the period we looked at, but execution remains the critical success factor for delivering TSR growth, whichever strategy, or combination of strategies, is pursued.

Build

More than $230b was raised by the global mining and metals industry in 2014 — a year-on-year decrease of 15%, highlighting a continuation of the challenging market conditions faced by the industry and the limited amount of new capital available to fund the its growth.

Capital raised by asset class (2007–14)



As the world adjusts to the possibility of China's decelerated growth becoming the new normal, the sluggish pace of global economic recovery and uncertain outlook are weighing heavily on the mining and metals sector. As a result, the sector's capital crisis, now in its third consecutive year, has proved to be more severe and prolonged than many expected at the start of the year.

Investment impediments

With little prospect of a significant acceleration in global growth to drive a sustained and rapid recovery in prices, the challenges associated with long-term investment decisions and value creation have increased in complexity for both the industry and its investors:

1. Damage perception

Unsurprisingly, sentiment toward the mining and metals industry has been damaged by the volatile price environment and perception of poorly managed capital — but not without some justification. According to EY's TSR analysis (see page 18), companies that allocated a higher proportion of their market value on capex ("build") delivered lower shareholder returns over a 10-year period than those with allocation strategies focused predominantly on acquisitions or capital returns. The reason for this underperformance is well-understood: nearly 70% of major projects in the pipeline are facing cost overruns, thus damaging short-term returns.[15]

Furthermore, the estimated $380b of capex invested by the industry over the period 2011–13 has resulted in additional supply at a time when demand has failed to keep pace.[16] This perfect storm of events, and its associated impact on prices, is what continues to undermine the confidence of short-term investors in the industry, almost regardless of longer-term fundamentals.

This in turn has weighed on the availability of funding for organic growth, particularly at the junior and mid-tier echelons of the sector — evidenced by the 24% decline in equity funding in 2014, from an already low base, and the small proportion of total loan proceeds that were obtained for project development.

2. Damage limitation

Shareholder dissatisfaction with the way capital has historically been allocated has inevitably shaped boardroom strategies. As a result, much of the industry has focused squarely on cost-cutting, supply correction, credit rating quality, and more efficient use of existing capital. In tandem, the impetus to pursue growth through M&A or major organic investment beyond a diminishing pool of core brownfield projects, weakened. By 2017, capital expenditure is forecast to fall to its lowest in a decade.[17]

Furthermore, price weakness rapidly rendered certain sub-sectors, such as gold, coal, iron ore and steel, vulnerable to increasing net debt levels and leverage risk. As a result, there was little appetite to raise new debt for projects or M&A (focusing instead on refinancing existing debt on better terms). Moody's has confirmed a stable credit outlook for many parts of the sector in 2015, meaning neither deterioration nor improvement, with the exception of the global base metals sector that was revised to negative in January 2015.[18] With lack of catalysts for any meaningful recovery, vulnerability to credit risk remains a threat.

3. Economic divergence

While global economic growth is gathering momentum, the recovery has been uneven and faltering in the face of a number of significant headwinds. The US is expected to lead the recovery in 2015; China's growth remains difficult to assess; Eurozone growth remains extremely fragile; and Brazil is struggling under the weight of high inflation, slower developed market growth, and associated weakness in commodities.

Importantly, central bank monetary policies are set on divergent paths in 2015. The US Federal Reserve is widely expected to raise the base interest rate for the first time since 2006, but the Bank of Japan and European Central Bank have set themselves on a path of further monetary easing. The likely consequence of this divergence is continued volatility for currencies, commodities and markets in the year ahead. Successful investors will need to learn to transact and invest amid such volatility.

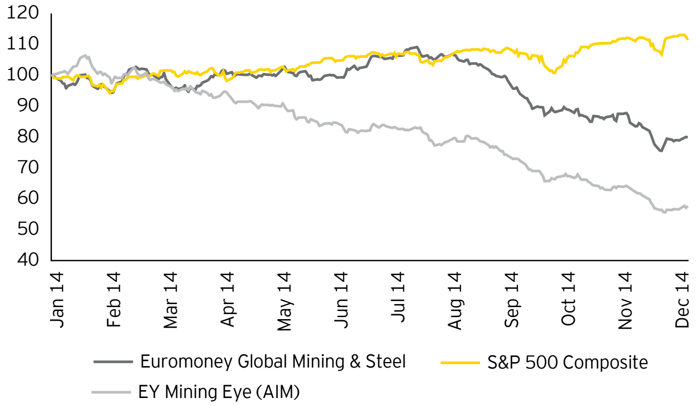
4. Mixed markets

Improving economic growth signals in the US helped to drive US equities to new highs in 2014, and fostered the strongest year for IPOs since 2010.[19] By contrast, the challenges faced by the mining and metals industry resulted in further compression of equity valuations — BHP Billiton saw 23% wiped off its market value over the year. This is a cyclical reversal of fortunes. In 2010, the mining sector attracted capital away from other sectors; in 2014, it was the opposite.

15. EY research. See *Business risks facing mining and metals*, 2014-2015 via www.ey.com/miningandmetals, 2014.
16. "Riding the rising tide of global growth," *Deutsche Bank*, 19 February 2014, via ThomsonONE.

17. Ibid.
18. "Global base metals industry: economic weakness and copper price plunge turn outlook negative," *Moody's Investors Service*, 22 January 2015.
19. "Global IPO trends: 2014 Q4,"EY, 2014.

Relative performance of equities in 2014

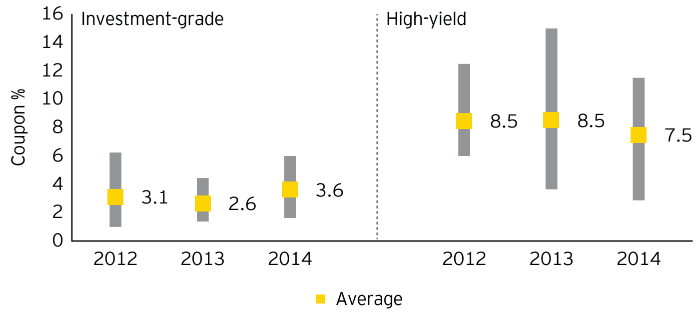


Source: EY, Thomson Datastream

Conditions in the debt markets remained largely in favor of high-grade borrowers in 2014, barring a hostile "risk-off" period in October and the volatility arising from the markets' fixation on the timing of US rate rises. Low benchmark rates, combined with low default rates, sustained investors' thirst for yield, and encouraged risk-taking in the form of investment in lower-rated issues over higher quality debt. In the syndicated lending markets, demand and competition between banks was strong in the absence of significant deal flow and in light of the rising threat from the bond markets. Lenders sought to protect their most valued relationships through "amend and extend" transactions. As a result, high-grade borrowers were able to procure further savings on headline pricing and increasingly flexible terms and covenants.

These trends filtered through to sections of the mining and metals sector, with average spreads on non-leveraged loans at just 152bps – a similar level to last year. Glencore successfully refinanced more than $15b of loans, once again illustrating the privileged position of the investment-grade majors relative to much of the industry. But even in the high-yield sector, the average coupon paid on US dollar or euro sub-10-year high-yield bond issues decreased to 7.5% this year, from 8.5% in 2013. More details can be found in the Capital raising trends section of this report on page 36.

Coupon ranges on <10yr US dollar and euro bonds



However, access to debt remained elusive to certain sectors of the industry, forcing asset sales in place of borrowing for growth. The weak near-term outlook for certain commodities made projects difficult to finance, while banks cited the unavailability of equity as a common barrier to project lending for junior and mid-tier companies.

Complex funding landscape

The scale of the external and internal barriers to major organic investment means that procuring finance has become a more complex, challenging and rigorous process. With the attention of the markets largely focused elsewhere, investments in the sector were made on a highly selective basis. The inevitable loser was the exploration sector, where the absence of public risk equity and a near-unanimous investor preference for producing or near-producing assets contributed to a 29% decline in exploration budgets by juniors this year. Juniors also took a much lower share of total industry exploration spend in 2014, at 32%, compared with most of the last decade where they accounted for the largest share of total exploration budgets.[20] More than half (57%) of follow-on equity issues raised less than $1m, underlining the reality that many explorers continue to hunker down and suspend activities and focus on life-support funding.

With the majors largely focusing internally-generated capital on existing core brownfield projects, some of the more innovative project finance stories came from mid-tier and advanced developers. Some examples below highlight the extent of alternative sources of finance in the sector and the complexities involved in financing as we head into 2015.

Pay the price, or risk standing still

One of the consequences of the uncertainties facing the industry is investors' reluctance to spend big, resulting in a need for companies to approach a number of different providers. This strategy has proven to be successful for companies that can meet the demands of numerous and greatly varied investors, but is not without its costs and complexities. Companies are making the difficult decision of accepting terms that may be more costly and cumbersome, or structures that dilute future earnings, in order to progress projects

20. "Corporate exploration strategies 2014. Overview of exploration trends," *SNL Metals & Mining*, November 2014.

through to production now, rather than letting them stagnate and risk loss of competitive positioning or long-term shareholder value.

Stornoway Diamond Corporation, for example, closed the largest ever project finance deal for a publicly-listed diamond company for its Renard diamond mine in Québec. The deal involved a complex C$944m package comprising debt, equity and streaming components from private equity, government and equipment funds, each element conditional on completion of the others.[21] The streaming arrangement equates to 20% of Renard's life of mine production — an arguably dilutive strategy but one that enables the company to push ahead and increase its potential to generate future shareholder returns.[22]

Innovation in funding structures

Roy Hill Holdings closed the year's largest mining project finance deal in March with its $7.2b funding package for the Roy Hill iron ore project in West Australia's Pilbara region. The deal is notable not only for its size, scale (a consortium of 19 commercial banks and 5 export credit agencies) and timing (given where the iron ore price has since moved), but also for its limited sponsor completion guarantee. Full completion guarantees are typically demanded of project sponsors to mitigate construction risks on major projects. However, Roy Hill was able to negotiate a comprehensive risk mitigation package that capped that guarantee. *Project Finance International* described the agreement as a "new and innovative template" for large scale mining projects.[23]

Commodity finance

Commodity traders and specialist funds are taking advantage of the public capital drought to secure offtake agreements. Traditionally agreed only on producing assets, offtakes are increasingly being arranged with development companies either as up-front capital payments alongside loans, or as conditional agreements aimed at smoothing the path to securing the finance needed to get projects into construction.

Red Kite and Orion Mine Finance are two such funds active in this area in 2014. For example, RK Mine Finance completed a $200m loan facility and 74.5% copper concentrate agreement with Nevada Copper to fund underground development at the Pumpkin Hollow mine in Nevada. Development company Aldridge Minerals secured $45m of funding with Orion, comprising an equity placement, bridge loan facility and lead concentrate and gold offtakes.

Alderon Iron Ore committed 100% of initial production from the Kami project through offtake agreements with Glencore and Hebei Iron & Steel Group, with the view that it will enhance its ability to obtain the financing needed to start construction,[24] while Ormonde Mining signed an agreement with Noble Group over 100% of the first five years of production of tungsten concentrate at the Barruecopardo mine in Spain.[25]

Streams and royalties

Streaming companies also continue to provide support to the sector during the dearth of public equity, although the estimated $1b of acquisitions this year[26] by the main providers fell short of last year's total without a deal to match the scale of the $1.9b Vale/Silver Wheaton stream.

Streams have proven to be popular in the absence of more traditional forms of finance and have helped to fund the progression of projects that would have stalled otherwise. However, the implications for future financing and on future revenues need to be thoroughly assessed and understood. The $175m gold stream on Euromax Resources' Ilovitza copper-gold project in Macedonia, acquired by Royal Gold in October, was structured from the outset to incorporate inter-creditor principles and debt headroom. This was designed to enable efficient procurement and execution of project finance debt under the next phase of the project's financing plan.[27]

Streaming companies also participated in some of the sector's largest acquisitions this year, sitting alongside more traditional debt and equity funding to help mid-tier companies execute transformational deals. Lundin Mining's acquisition of the Candelaria copper mining complex was part-financed with a 68% gold and silver stream agreement with Franco-Nevada Corporation in return for an upfront payment of $648m.[28]

21. "Stornoway announces Renard project financing agreement," *Stornoway Diamonds Corporation*, 9 April 2015.
22. "Stornoway lands $944m financing agreement to build Renard diamond mine," *Mining Markets*, 10 April 2015.
23. "Roy Hill skips guarantee," *PFI Yearbook 2015*, www.pfie.com, accessed 7 January 2015.

24. "Alderon iron ore signs multiyear offtake agreement deal with Glencore for Kami property," *SNL Metals & Mining Daily*, 1 August 2014.
25. "Tungsten Offtake Agreement with Noble Group for Barruecopardo," *Ormonde Mining*, 24 March 2014.
26. Based on total value of upfront capital payment.
27. "Euromax Resources announces US$175m gold streaming arrangement with Royal Gold," *Euromax Resources*, 21 October 2014.
28. "Lundin Mining announces agreement to purchase Freeport's 80% interest in the Candelaria Mining Complex," *Lundin Mining*, 6 October 2014.

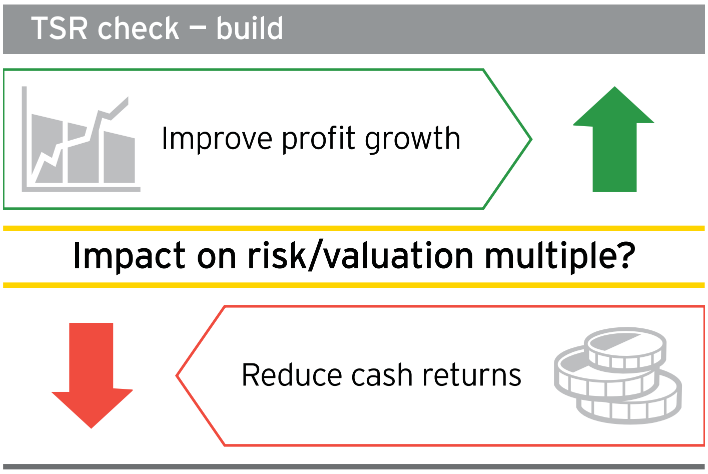
Patience and persistence reap rewards

With such intense competition for capital, the ability to meet the demanding investment criteria of long-term, strategic investors (above all, quality asset and proven management team) and to stand out from the crowd is the game changer for development companies.

This year saw the fruition of Guyana Goldfields' long-standing relationship with the International Finance Corp (IFC) and commitment to responsible mining in the form of a $185m financing package that will see its Aurora Gold Mine in Guyana through to production in 2015. Lenders to the project comprised the IFC, Export Development Canada, ING Capital, Caterpillar Financial Services and Bank of Nova Scotia. The company's share price gained 73% over the year as a result.

Funding the next phase of growth

As with M&A, the decision to make large-scale investments in new organic growth is a bold one in today's market. Looking at the TSR framework again, it could be argued that the value created by the "build" period of 2010–13 has still to be fully realized *if* commodity prices appreciate, and a comparison of capital allocation strategies in another 10 years' time may yield a different TSR result. But, investing in organic growth comes at the expense of near-term capital returns and at the risk of increasing financial leverage. Markets in 2015 are likely to reward the companies that deliver on promises of discipline and capital returns, and as such, this remains the mantra of management across producers.



But how sustainable is this, and what are the potential consequences of too short-term a focus? A well-considered and well-executed build strategy fulfils the "profit growth" arm of the TSR equation. Furthermore, failure to implement such a strategy brings the risk that companies will be unable to fully capitalize on a future price recovery, thereby damaging shareholder returns over the longer term and underlining the case for counter-cyclical investment.

For advanced juniors and single-project developers that lack the optionality and cash flow of the majors, the question is different. "Build" to production is the only means of creating shareholder value – sitting it out and waiting for a recovery is not a sustainable option. As such, the challenge becomes one of doing so in the most cost-efficient, value-accretive and time-smart way. As we have seen, in a difficult financing market, options become limited, and this group face the risk of long-term damage to shareholder returns through poorly-considered financing strategies, or through growth stagnation in the event that capital is not obtained.

Return

At the start of the year, the sector looked ahead to higher free cash flows on the back of improved commodity prices and lower capital expenditure. With balance sheets in good health, the signs pointed to the majors hiking dividends and possibly approving significant share buyback programs.

It was hoped that this would send a message of confidence to the market, driving a re-rating of the majors and providing stimulus to an overall re-rating of the sector. That position and expectation deteriorated over the course of 2014, largely due to continued pressure on bulk commodities, especially on iron ore. As a result, the market is questioning whether higher capital returns will be possible without the majors increasing their financial leverage or raising capital through asset sales. As we note in our TSR analysis, any capital paid back cannot be at the expense of financial leverage or accretive growth that would otherwise tip the re-rating scales in favor of an overall decline in TSR.

Share buybacks delivered

Few share buyback programs were initiated during 2014, but examples of note include:

- Glencore's announcement of a $1b share buyback program at its half year results, following the sale of the Las Bambas copper mine. This was largely viewed positively by the market, triggering a 1.7% increase in its London-listed shares in pre-market trading.
- Cliffs Natural Resources' announcement of a $200m share buyback program, following lobbying by activist investor Casablanca Capital Cliffs and a change to the board of directors in July.

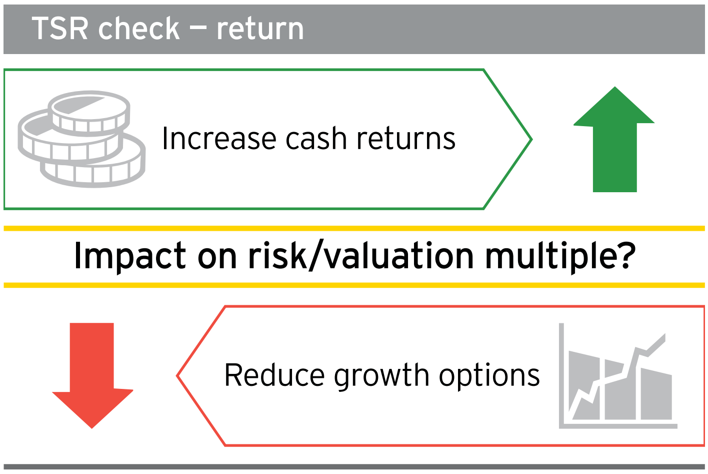
The capital return dilemma

Capital returns through dividends and share buyback programs provide an instant and readily quantifiable uplift to TSR. The potential downsides, however, are the increased financial leverage as capital exits the business and the opportunity cost of not investing in growth opportunities; both of which should drive a re-rating of the underlying share price and therefore TSR. This is not something that can be accurately measured in advance of a decision, and so management must use judgment to decide what action is likely to best drive TSR and hope that the market will recognize it.

ROCE vs. TSR

The longer-term impact on ROCE and TSR cannot be ignored. Across a sample of 33 listed mining and metal producers, average ROCE in 2013 was 9.7%. A theoretical $20b share buyback across this sample would only have increased ROCE by 2 basis points, the equivalent of a $2b increase in earnings across the sample.

The faith of investors has been shaken by recent poor returns, which are often attributed to a lack of capital discipline by management. There is a risk that the reaction of demanding an immediate increase in the levels of capital return, while providing penance to management for previous bad strategies, fosters short-termism, and the higher TSR enjoyed now will be at the detriment of returns for many years to come.



And herein lies the problem: in the current market conditions, gaining approval for investment decisions is not an easy task. Whether it is the development of an existing project or an acquisition, forecast margins are being squeezed because of softer commodity prices and higher costs. As a result, the project IRR is struggling increasingly to meet hurdle rates required for an investment decision.

Against this backdrop, management will continue to find it difficult to demonstrate that they can generate a sufficient level of return through growth strategies. As such, when excess cash is generated, the focus is likely to be on strengthening balance sheets through retirement of debt or returning capital to shareholders.

The decision whether to return capital to shareholders, use excess cash to strengthen the company's balance sheet or pursue growth projects, is solely a large-cap producer quandary. However, the argument that assets which cannot be deployed to generate TSR should be returned can be equally applied to the juniors. In the current market, with deflated prices and scarce capital, some juniors may have a difficult question to ask themselves: should we be handing back licenses, liquidating assets and returning the proceeds to shareholders?

Capital returns in 2015

The prospect of special returns from the major miners is not as compelling as it was 12 months ago following the slide in iron ore, oil and most recently, copper prices. However, commitment to progressive dividend policies by the major producers has remained largely intact, in spite of these headwinds, which may provide valuation support in the months ahead. According to Bloomberg, the dividend yields of both BHP Billiton and Rio Tinto exceeded the S&P/ASX 200 index in February 2015, for the first time since 2001.[29] The sector's main candidates for capital returns are discussed below.

BHP Billiton

The market widely expected a multi-billion-dollar share buyback to be announced by BHP Billiton once it had met its net debt reduction target of $25b. BHP Billiton instead announced the South32 spin-off in August, which will bundle a number of non-core assets into a separate listed entity.

BHP Billiton has said that it will look to return excess cash to shareholders "from a position of strength" when it would be "well placed to implement an enduring program that can be managed in a more consistent and predictable manner."[30] If commodity prices prevail, Liberum Capital estimates that BHP Billiton will face a shortfall of around $5.4b to meet a forecasted $6.6b dividend pay-out for the fiscal year ended 30 June 2015.[31] Any additional return through a share buyback program in 2015 is therefore considered unlikely.

On a positive note, the creation of South32 may result in higher capital returns for those shareholders who have held on to both sets of shares, as BHP has committed to maintaining its progressive dividend policy while an additional dividend may be issued by South32.

Rio Tinto

After maintaining a progressive dividend policy for several years, Rio Tinto announced a proposed $2b share buyback program in February 2015,[32] after cutting spending and indicating that it is comfortable with increasing debt.

Glencore

Glencore has said that it will continue to consider further share buybacks in 2015. It has stressed that its focus is on maintaining a disciplined approach to capital allocation, with CEO Ivan Glasenburg stating that if cash cannot be deployed in the business at a return that makes sense, it will be returned to shareholders.[33]

With shareholders crying out for capital discipline and returns, we are likely to continue seeing growth projects deferred or abandoned to satisfy investors short-term demands, creating the pre-conditions for the next cyclical supply shortfall.

But, at some point, we will see the corner turned and management beginning to focus on growth. Confidence is the key; this can only be achieved once shareholders feel the allocation of capital is being correctly managed and the forgoing of capital back to them is for the right investment platforms. There is a real chance that by that time, investment will miss the next price rally.

29. "BHP, Rio payouts top ASX first time since 2001: chart of the day," *Bloomberg*, 10 February 2015.
30. "How buybacks can underpin miners' dividend policies," *Financial Times*, 23 October 2014.
31. "Miners weigh debt after 'cash machine' stalls," *Mineweb*, 8 December 2014.
32 "Rio Tinto delivers underlying earnings of $9.3 billion and announces a 12 per cent increase in full year dividend and a $2.0 billion share buy-back," *Rio Tinto*, 12 February 2015.
33. "Glencore weighing 2015 Share Buyback versus other options," *Bloomberg*, 10 December 2014.

So, what next?

Private capital buying

The industry's larger producers are predominantly likely to be sellers rather than buyers in the year ahead, as portfolio reviews continue and while weak prices put cash flows and leverage under relative strain. As we have seen in 2014, buying will come from companies that can identify (and convince shareholders of) buying opportunities that present greater potential for TSR growth than the alternatives — new or expansionary capital expenditure, or return of cash.

But one of our more certain expectations for 2015 is that the year will be a turning point for the deployment of private capital. On the whole, funds have patiently and conscientiously refrained from making significant investments in 2014, and this has proven to be the right strategy, given where share prices across the sector have ended the year. However, along with depressed equity valuations, the pipeline of quality assets expected to enter the market as a result of portfolio reviews sets the scene for significant industry restructuring and the emergence of some new (and not-so-new) players to drive competitive growth.

Permission to buy and then build

The availability of capital is a critical component of such industry transformation, both for the funds looking to invest, and for operators to implement and execute competitive growth strategies. There appears to be a few rays of light at the end of the tunnel, with the gold sector in particular seeming to attract investors' interest in January 2015. But this is unlikely to be a sign of capital flooding back to the sector in the short term. Near-term commodity fundamentals are not strong enough at present to entice the average investor, while some investment funds argue that the industry has not gone far enough in implementing lasting structural change.[34]

However, it is reasonable to assume that investment demand for quality growth opportunities in the sector will increase, spurred by the now four-year drought of large-scale M&A, persistently low equity valuations, and the gradual positive effect of supply corrections. It certainly feels as if a very long corner is close to being turned. But the pace at which the sector comes through to the other side and develops an appetite for investing in the next wave of growth remains to be seen.

Diverging strategies

With all this uncertainty, it is apparent that the "bright line" marker of a single capital allocation strategy (buy, build or return), such as characterized the investment behavior of the industry in previous cycles (see page 14), has disappeared.

Different commodities will weaken and recover at different rates and times, so management teams have their work cut out in determining how best to build a portfolio of assets to deal with such volatility and uncertainty. This portfolio effect is as equally important to a company with a single commodity focus when thinking through the exposure of its portfolio to the various stages of development, as it is to the diverging strategies of the major producers in 2015 — for example, diversification vs. rationalization.

It is clear that execution of strategy is fundamentally critical, more so than choosing the right strategy. Whether that strategy is predominantly "build, buy or return" in nature is something that management will need to carefully consider alongside an objective and rigorous review of capital allocation. The fundamental building blocks of TSR are a helpful guide to frame these discussions and often serve to keep the decision-making process honest and transparent.

The next phase

As the world economy meanders sluggishly along its road to recovery, it is clear that "standing still" is not an option for the mining and metals sector. The actions taken by companies over the past 24 months are beginning to yield results, and it is critical that the industry broadens its focus from short-term corrective and shareholder appeasement measures to ensuring longer-term value creation, as we enter the latter stages of a global supply rebalancing and as new competitors look set to stake their positions in the sector.

34. "Gold miners struggle to shine in investors' eyes," *Financial Times*, 11 January 2015.

Interview

Q&A

with X2 Resources

Thras Moraitis
Principal, X2 Resources

X2 Resources has so far raised almost $5b during an incredibly difficult time for the industry. What do you think are the key reasons for this success?

Our achievements are the result of X2 Resources' unique investment proposition: a strong track record in extracting value from acquired operations; a long-term perspective that enables us to capture value at an opportune point in the cycle; a demonstrable track record for adhering to strong, ethical and sustainability standards; and a governance framework that is attractive to large-scale investors.

The team has a track record of creating value in the sector and we were able to demonstrate our ability to build a business by making selective acquisitions and then transforming operational performance. In just 10 years, we took Xstrata from a small, debt-constrained company to one of the world's largest globally diversified mining companies, delivering 10 consecutive years of real terms cost savings and, ultimately, realizing the value at a favorable point in the cycle.

Although a private company, X2 Resources is not a private equity fund; we want to build an integrated mining company by seeking 100% ownership of assets – or at least operating control – and our investors don't have a predetermined investment return horizon. Our sweet spot is acquiring producing (or near-production) assets in bulk commodities and industrial metals.

We see acting ethically and sustainably as being central to our ability to create value. Acting sustainably can be a source of significant competitive advantage.

These elements enabled us initially to attract a group of large cornerstone investors, including Noble Group, TPG Capital, sovereign wealth and pension fund investors. The financial strength that this backing gives us is a further point of differentiation. We are now able to consider transactions that are significantly larger than those available to many of our peers.

What is your vision for X2 Resources?

Our goal is to create a new mid-tier, diversified mining and metals company with the scale, diversity and optionality to deliver significant value. We will empower managers, as we have done in the past, through the judicious provision of capital for expansion and investment, where the long-term benefits are clear to our shareholders.

We want to build a portfolio of assets through both large, transformational acquisitions and "bolt-on" purchases. Thereafter, we will create additional value through operating improvements at individual assets and optimizing the overall portfolio.

Over time, we will assess all options for realizing the value that the X2 Resources team has created.

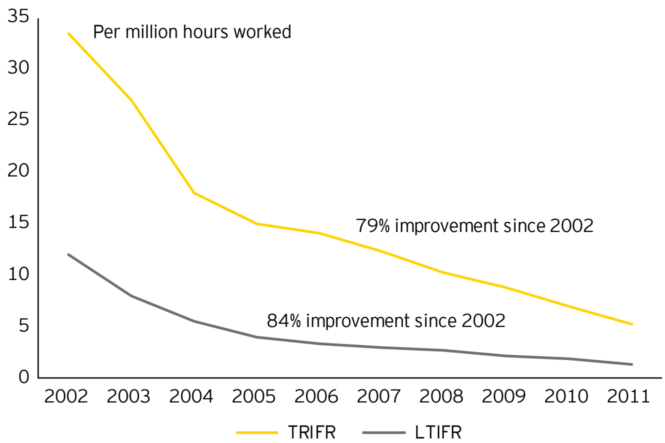
What principles will guide the development of X2 Resources? How important is operating ethically and sustainably to achieving success in the mining industry?

To be successful, mining companies need to secure and maintain a social license to operate from host governments, communities, employees and other stakeholders. Beyond the ethical considerations, we have always believed that sustainability is a hard business imperative and a source of competitive advantage. Safe operations are more efficient and more profitable.

Operational disruptions by employees or communities can significantly impact operations and value. For example, a recent study found that a major, world-class mining project with capital expenditure of between $3b–$5b would suffer losses of $20m per week of delayed production in net present value (NPV) terms.

Therefore, we place great emphasis on sustainability performance at X2 Resources and expect to build on the reputation we established at Xstrata. Over 10 years, we reduced the total recordable and lost-time injury frequency rates by some 80% in each case, and were named as the Dow Jones Sustainability Index leader for 5 consecutive years.

Xstrata group safety performance



Source: Annual report, Page 11, Xstrata, 2011.
TRIFR – Total recordable injury frequency rate
LTIFR – Lost time injury frequency rate

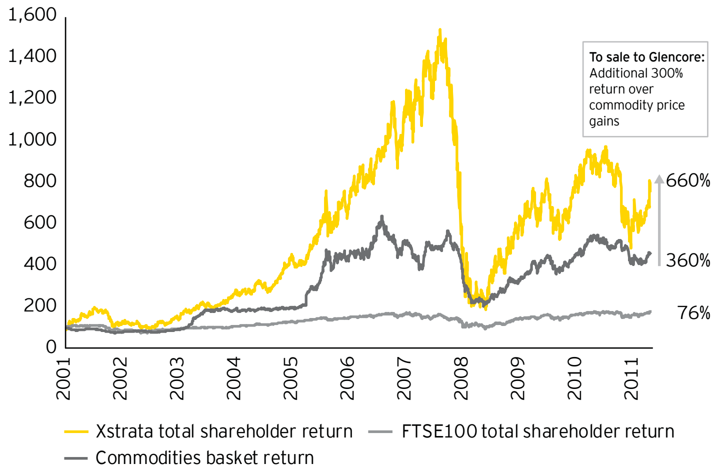
You are unapologetic about being opportunists. Is X2 Resources just looking to acquire businesses on the cheap at this low point in the cycle?

There are a number of opportunities in our sector and it is important for value creation to acquire at the right moment in the cycle. But crucially, our thesis for creating value is not based upon an expectation that commodities prices will rise significantly from here.

Our strategy is to acquire assets or businesses and then work with the existing management to improve returns. This can be achieved in a number of ways, for example: through the judicious provision of additional investment capital to expand operations or debottleneck processing facilities; through consolidation of contiguous operations; through the introduction of appropriate incentive structures; and by devolving accountability for operating decisions to the relevant operating units, while maintaining a lean corporate center.

At Xstrata, a similar approach delivered total returns to shareholders of 660% between October 2001 and the sale of the company to Glencore in May 2013, exceeding the comparative increase in commodity prices by 300% over the same period.

Xstrata total shareholder return versus commodity returns



Source: "Merger with Glencore and Xstrata," *Bloomberg*, 7 February 2012, accessed 4 February 2015.

Note: The commodities basket comprises LME copper, nickel, zinc and Newcastle coal, weighted by the average Xstrata EBITDA from each commodity over the last 10 years.

Can you explain the various ways in which X2 Resources can create value?

Of course, the precise mechanism for creating value is unique to each operation. However, over the years, we have developed an approach that is comprised of a number of interrelated elements. When acquiring large businesses, we use a proprietary 100-day integration process to define opportunities, for example, through restructuring, selective investment, cost reduction and the development of a detailed business plan. We also review small, "bolt-on" acquisitions, seeking inter-asset synergies or the extension of resource bases.

In general terms, of course, mining depletes a resource. So, our approach seeks to enhance the NPV of acquired assets on an ongoing basis by working with incumbent management teams to identify a combination of capital- and cost-related activities.

We apply a highly devolved management structure to promote an entrepreneurial mind-set throughout the organization. This gives operational management high levels of responsibility and accountability, limits the burden of overheads, and rewards rational risk-taking by meaningfully incentivizing management within the operating units. In our experience, this helps to create a decisive, value-seeking culture when combined with appropriate measurement and reward systems, stringent governance arrangements and open communication.

Using this approach, we have successfully transformed a number of businesses, securing their futures, creating value for investors and benefitting governments, employees and local communities. For example, in 2003 Xstrata acquired MIM Holdings and transformed the Mt. Isa operation in Australia into a highly profitable business, whereas its future was unclear at the time. Today, Mt. Isa is one of the biggest mining operations in Australia. We achieved this through a highly capital-efficient investment program that doubled processing capacity, discovered new ore bodies, reduced costs, and increased the life of the operations by decades.

Can you explain your approach to identifying targets and undertaking due diligence?

X2 Resources' investment criteria is for assets that are either in production, or close to entering production, in commodities with deep and liquid markets and those that benefit from market demand growth. Naturally, an assessment of geographic and operational risks also comes into play. One of the main criteria we look at is the potential to unlock future optionality in the target.

There are a number of other potential bidders for mining assets active at the moment. Why should large companies selling assets, or smaller companies looking to be acquired, work with X2 Resources?

Essentially, I think sellers will look at the track record of the team. Following more than 40 acquisitions at Xstrata and prior to that, our ability to complete transactions and pay fair value is recognized. The scale of our financial resources, as well as our status as a private vehicle with committed, blue-chip investors means that X2 Resources is uniquely positioned as a potential partner. We are willing to invest in the future of the assets we acquire; this is our primary means of creating value. Furthermore, transactions are risky and time-consuming for both acquirer and seller, and the risks of failure can damage many stakeholders; the fact that our team is a known entity committed to clear business principles can prove to be beneficial in such a scenario. Also important, in keeping with our historic practice, is our intention to maintain and empower existing management teams as much as possible.

Why did X2 Resources bring Noble Group on board as cornerstone investors?

Replicating the networks, marketing, logistics and risk management skills of a major marketer, such as Noble, is nearly an impossible task for any mining company, let alone a fledgling operation such as X2 Resources. We have a long-standing relationship with, and respect for, Noble. Its asset-light approach means we have complementary strategies, allowing us to focus on the operating imperatives while benefiting from Noble's significant marketing, trading, logistics and other downstream capabilities. It became evident early on that we were aligned in our outlook for the market and the approach to value creation.

X2 Resources is currently small and with limited resources. How will you ensure that you have the right operating teams to deliver on your objectives?

Our intention is to work closely with the management teams of the businesses and operations we acquire. In our experience at Xstrata, where almost all of the senior operational executives and management came from acquired firms, most companies already have excellent management teams in place.

We will create a devolved, entrepreneurial and value-seeking culture, with the right incentivization structure to enable these individuals to succeed, drawing upon additional skills from the X2 Resources team and our networks as necessary. In our experience, managers within such a culture excel beyond their own expectations, delivering value and benefiting from the outcome of their decisions.

What commitments has X2 Resources made to investors in terms of the time by which you will invest your funds?

As you would expect, we have agreed on an investment period with investors as part of the fund-raising process. But all our investors understand and support our strategy, which envisages a number of years of acquiring, integrating and adding value to operations. Nevertheless, we ourselves are keen to put the capital we have raised to work expeditiously.

What is the end game for X2 Resources?

We are just at the start of the journey with X2 Resources, so it would be wrong to be definitive at this stage. Nevertheless, the structure we have created enables us to take a long-term approach to creating value without closing down any options for realizing that value at an appropriate time.

Mergers and acquisitions

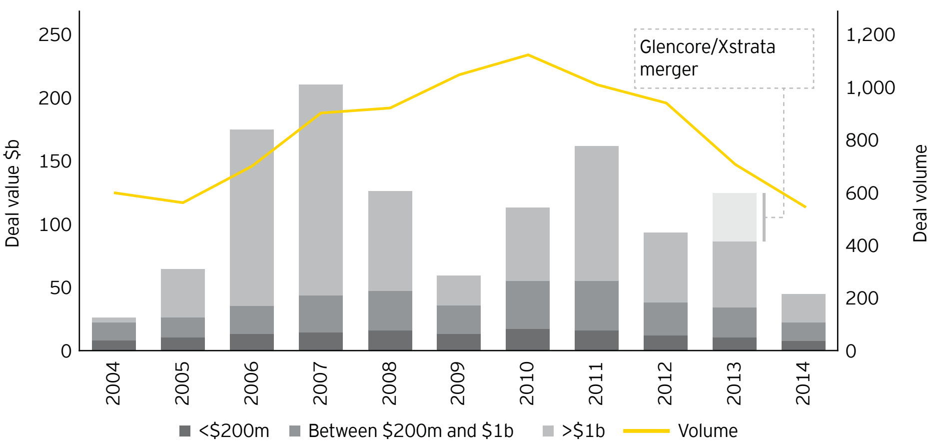
Trends

- **M&A's malaise:** 2014 marked the fourth consecutive year of declining M&A activity across the sector, with overall value down 49% to $44.6b, from $87.3b in 2013 (excluding the merger between Glencore International and Xstrata). Deal volumes also dropped 23% to 544, from 702.
- **Megadeals, minor appetite:** Perhaps the most significant indicator of the malaise was the number of megadeals (>$1b), which dropped almost 40% during the year, from 18 in 2013 to just 11 in 2014.
- **Contributing factors:** There remains a lack of impetus from both the buy and sell side to make deals happen. Weak commodity prices and the uncertain outlook have created nervousness around valuations, compounded by a focus on capital discipline among producers.
- **Pressure for the majors:** Pressure to sell tended to be behind the larger deals undertaken, mostly aimed at returning value to shareholders, either through asset divestments or spin-offs. Glencore's much anticipated $7b Las Bambas divestment, the largest deal of the year, was a compulsory sale due to Chinese anti-competitive ruling. Buyers, particularly in steel, saw some low-risk synergies with existing assets and opportunities to diversify into new markets.
- **Distress for the minors:** The large number of sub-$10m deals indicates distress among juniors and opportunistic buyers entering the market.

Outlook

Deal activity shows little sign of picking up in earnest, with M&A activity continuing to be driven by asset divestments as a result of portfolio reshuffles or distress. We expect to see more joint ventures emerge as a way of sharing the costs and risks associated with accessing new markets, to realize synergies, as well as among Asian acquirers looking to secure supply. There could also be a flurry of opportunistic buying as companies fall under the weight of widespread price volatility.

Volume and value of deals by size (2004–14)

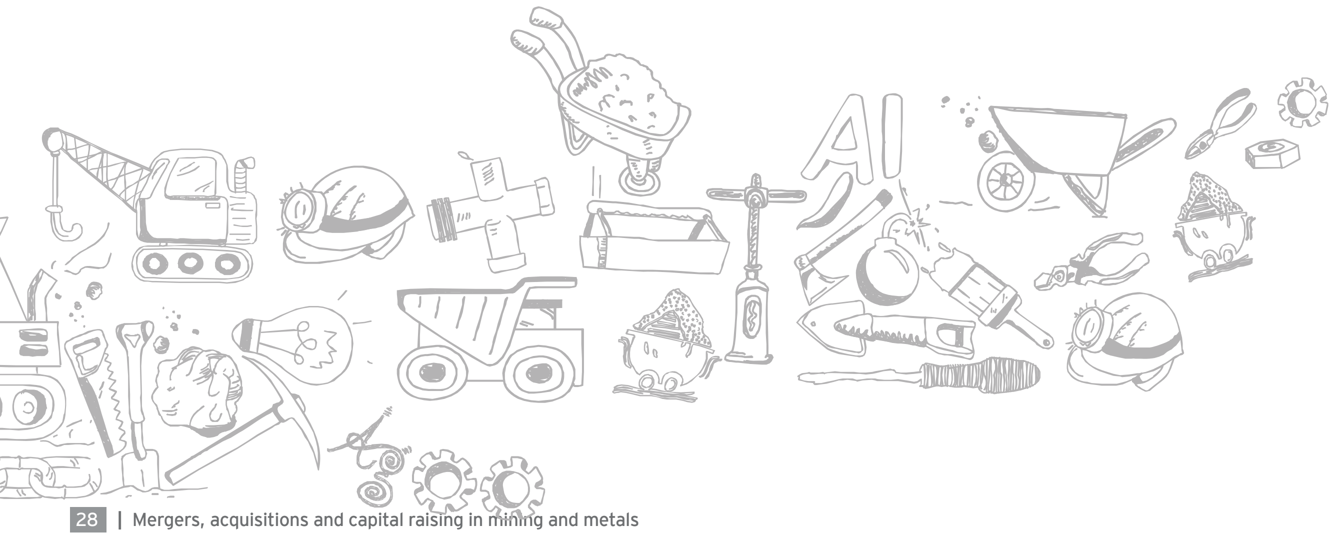


$22b worth of divestments and spin-offs across the industry completed in 2014

49% decrease in the value of mining and metals deals during 2014

Mega deals (2014)

Rank	Value ($m)	Type	Target name	Target country	Target commodity	Acquirer	Acquirer country	Acquirer commodity	Share (%)
1	7,000	Cross border	Xstrata Peru (Las Bambas)	Peru	Copper	MMG	China	Diversified	100.0
2	3,591	Domestic	Osisko Mining Corp.	Canada	Gold	Yamana Gold and Agnico Eagle Mines	Canada	Gold	100.0
3	2,850	Cross border	Firth Rixson	UK	Aerospace	Alcoa	US	Aluminium	100.0
4	1,852	Cross border	Freeport-McMoRan (Candelaria and Ojos)	Chile	Copper	Lundin Mining	Canada	Diversified	80.0
5	1,759	Domestic	TimkenSteel Corp.	US	Steel	Shareholder spin-off	US	Other	100.0
6	1,725	Cross border	Acciai Speciali Terni	Italy	Steel	ThyssenKrupp	Germany	Steel	100.0
7	1,625	Domestic	Severstal Columbus	US	Steel	Steel Dynamics	US	Steel	100.0
8	1,550	Cross border	ThyssenKrupp Steel USA	US	Steel	ArcelorMittal and Nippon Steel & Sumitomo Metal Corp.	Luxembourg/ Japan	Steel	100.0
9	1,349	Cross border	Caracal Energy	Chad	Oil and gas	Glencore	Switzerland	Diversified	100.0
10	1,022	Cross border	Aquila Resources	Australia	Iron ore	Baosteel Resources Australia and Aurizon Operations	China/ Australia	Steel/Rail freight	78.7
11	1,015	Cross border	Clermont Mine Joint Venture	Australia	Coal	Glencore and Sumitomo Corp.	Switzerland/ Japan	Diversified/ Commodity trading	50.1



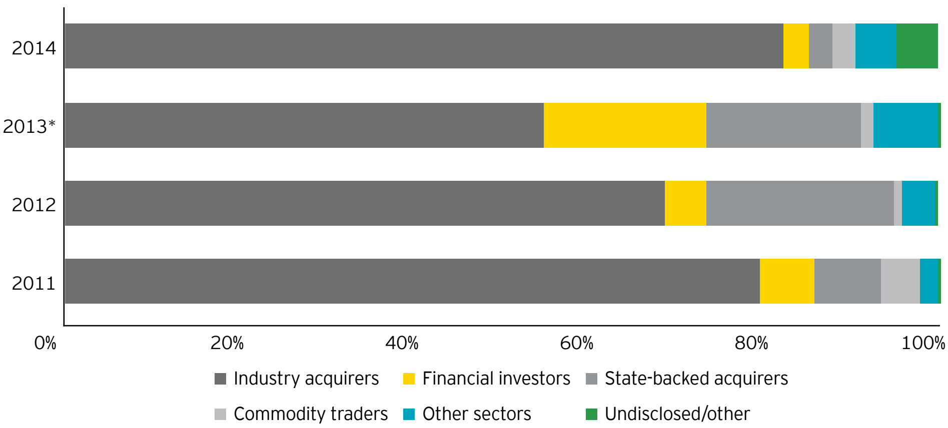
Who is buying?

- **Sector buyers dominate:** Interest in the mining and metals sector came largely from within during 2014, with 82% of deal value and 71% of deal volumes undertaken by industry acquirers. Those already operating in the sector are better placed to understand and manage deal risks and take a longer-term view of market conditions during a downturn.
- **Financial investors back off:** There was a slight drop-off in the volume of activity undertaken by financial investors, down from 23% in 2013, to 17% of overall deal activity in 2014. There is a sense in the market that these acquirers believe there is further softening of values ahead, so a patient stance is being adopted.
- **China and Canada spending it up:** Chinese buyers topped the list of acquirers by value, with $10.6b of deals executed in the year. However, this was dominated by the $7b Las Bambas acquisition by MMG. Canada was the most prolific buyer in terms of volume (191 deals) and a close contender in terms of value ($9.7b). The majority of Canadian deals were junior-level strategic mergers aimed at conserving cash.
- **Government buyers step back:** There has been a significant drop-off in acquisitions by state-owned entities (SOEs), particularly from China, in recent years, likely due to ongoing economic reforms in the country. However, there were several examples this year of governments nationalizing or re-nationalizing assets that have been underperforming or remain undeveloped by previous owners.

Outlook

Long-awaited funding from private capital funds should begin to deploy across the sector as sellers align their value expectations with the market, and assets continue to be sold by the large cap producers in search of optimum portfolios. Until then, most industry acquisitions will be mergers between equals and consolidation opportunities that provide synergies to both parties. For the most part, the large cap producers are unlikely to make significant acquisitions any time soon, preferring to seek out remaining asset disposal and spin-off plans. The exception may prove to be Glencore, as the market waits to see whether it will continue its pursuit of a merger with Rio Tinto in 2015.

Share of deal value by acquirer type



* Excluding merger between Glencore and Xstrata

29%

of deal volume was undertaken by acquirers from outside the industry

43%

of deal value and volume was undertaken by North America-based acquirers

Where are they buying?

- **Staying local:** The ratio of cross border to domestic transactions based on volume remained virtually unchanged y-o-y, with 58% of deals targeting domestic assets. Intra-regional deals increased slightly to 72% of deal volume, from 69% y-o-y as buyers continued to focus on operational synergies within familiar territories.
- **The developed markets attraction:** North America was the most targeted region, with 35.3% of deal volume and 30% of deal value invested in the US and Canada. The Asia-Pacific region followed closely with 34.9% of deal volume, but this represented just 19% of value, reflecting a proportionally high volume of distress-priced junior/explorer acquisitions in Australia and several high-value North American steel divestments during the year.
- **Latam deal value boosted:** The value of deals into Latin America quadrupled this year to $11.9b, from $2.8b in 2013, buoyed significantly by the $7b Las Bambas acquisition by MMG.

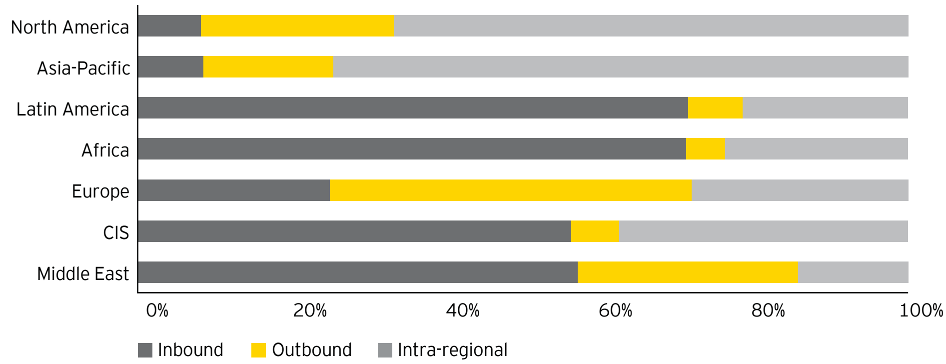
Outlook

Chinese companies will recommence looking abroad on the easing of government approvals process and China's need to secure supply in the face of a difficult domestic mining environment. We expect to see continued interest in advanced projects in developed countries with amenable regulatory conditions and established infrastructure, especially while most industry participants remain disinclined to increase capital expenditure significantly. Any renewed interest in emerging/frontier regions will likely be via joint ventures with infrastructure partners to help spread capital risk.

60% of deal volume and 51% of deal value targeted assets in developed regions such as the US, Canada and Australia

72% of deals targeted assets within the acquirers' region

Share of deal flows by volume



Value of deals by target region ($m)

Target region	2008	2009	2010	2011	2012	2013*	2014	Y-o-Y change*
North America	14,520	15,420	22,200	54,187	13,306	26,923	13,364	-50%
Latin America	16,924	12,139	23,957	22,084	13,872	2,792	11,911	327%
Asia-Pacific	29,611	20,505	38,955	38,297	41,055	25,365	8,520	-66%
Europe	26,432	4,608	6,613	3,564	10,424	3,863	5,820	51%
Africa	1,844	3,285	16,657	20,282	19,940	2,927	3,294	13%
CIS	3,553	3,836	3,718	23,894	5,418	17,939	1,687	-91%
Middle East	-	-	1,605	131	-	7,500	39	-99%
Total	**126,884**	**60,035**	**113,706**	**162,439**	**104,014**	**87,309**	**44,636**	**-49%**

* Excluding the Glencore Xstrata merger

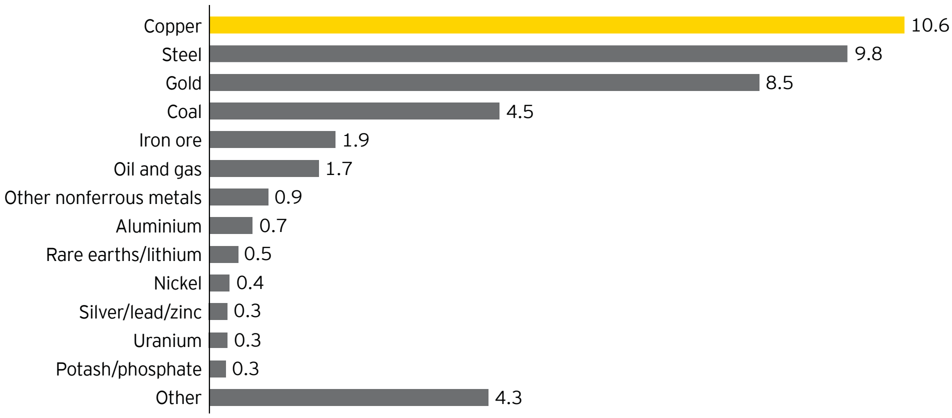
What are they buying?

- **Copper bright in value:** Copper was the most targeted commodity by value, with $10.6b worth of deals undertaken during 2014. This represents an increase of 20% on the previous year level, although $7b of this can be attributed to MMG's acquisition of Las Bambas from Glencore.
- **Steel still strong:** Steel followed closely behind with $9.8b of deal value, a 66% increase on 2013 levels. At least $9b of these deals were the result of companies looking to restructure, dispose of assets, or due to other unique deal drivers such as nationalization or the re-acquisition of assets.
- **Gold's volume reflects distress:** Gold remains the most-targeted commodity by volume at 173 deals. The largest of these was the joint acquisition of Osisko Mining Corp by Yamana Gold and Agnico Eagle Mines for $3.6b. The majority (88%) of gold deals, however, were valued at less than $50m, reflecting distress among gold juniors on the back of squeezed margins.
- **High-volume, low-value deal activity between mineral explorers:** This suggests many players are combining assets to improve their ability to access capital in order to advance projects.

Outlook

We expect to see significant restructuring and distressed assets enter the market over the next 12 months, particularly in the North American iron ore and coal sectors on the challenging supply and demand outlook. This may prompt a spate of opportunistic buying and some consolidation between peers to stay afloat. State-backed enterprises from Asia looking to secure supply of bulk industrial commodities may be active acquirers as their domestic operations are slowly rendered uneconomic under current conditions. Similarly, trading houses are likely to continue securing supply for their vast marketing operations, particularly via joint ventures similar to the acquisition of a 50.1% stake in Clermont by Glencore and Sumitomo Corp.

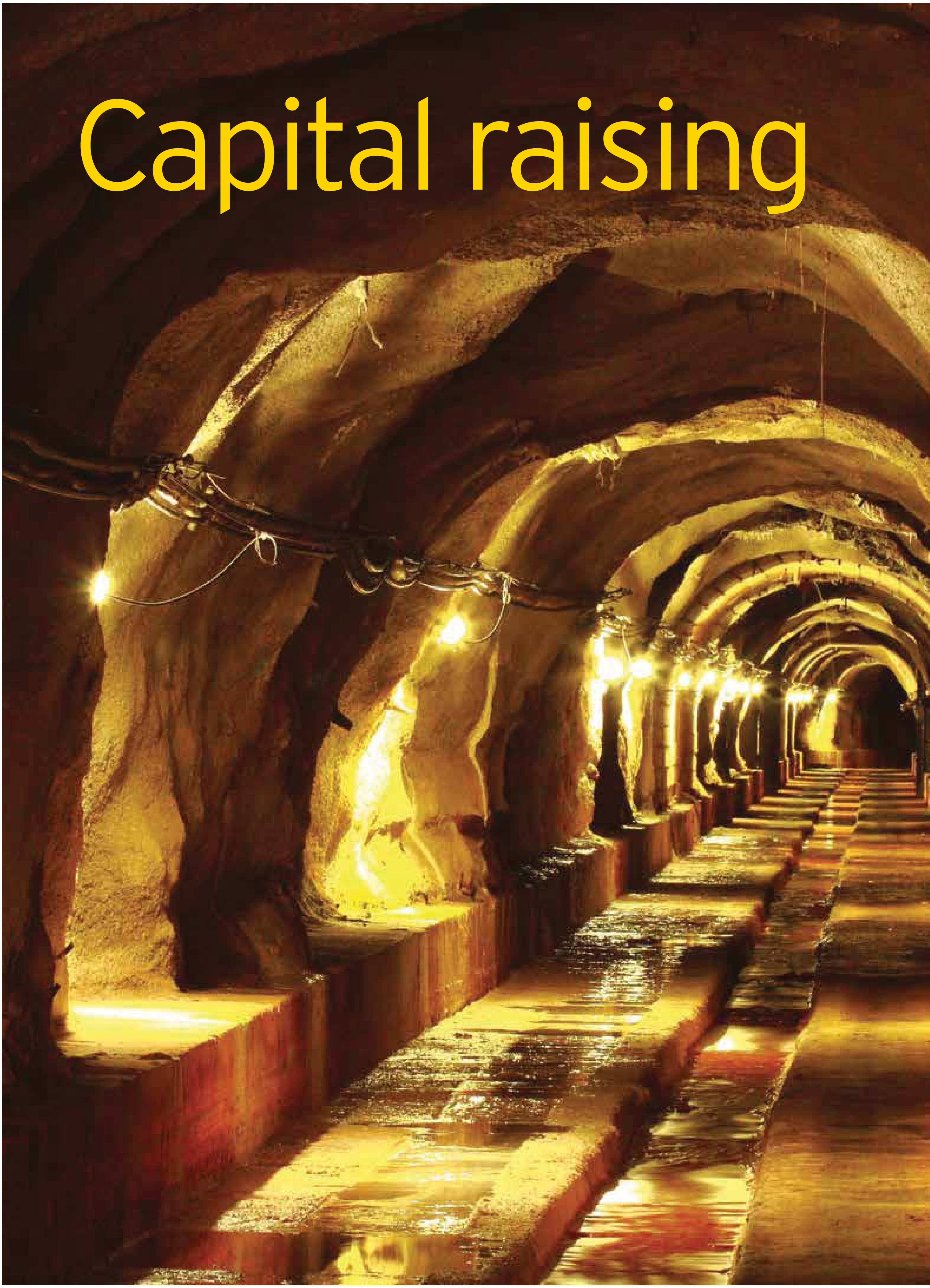
Value of deals by target commodity ($b)



69% of steel deals by value were divestments or spin-offs

24% of 2014 deal value targeted copper

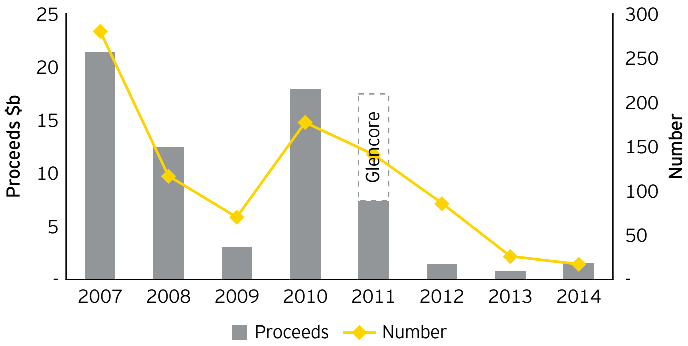
Capital raising



Initial public offerings

The mining and metals sector lagged a broader initial public offerings (IPO) recovery, as commodity price weakness put continued pressure on share prices and dampened risk appetite.

IPO volume and proceeds (2007–14)



- **ASX tops volume:** The Australian Securities Exchange hosted the highest volume of IPOs at seven, raising $76m, the largest being a $45m domestic listing by U&D Coal in February. The TSX Venture exchange hosted just two IPOs, raising a combined total of just over $1m.
- Two sizeable offerings helped total proceeds to reach $1.5b, a y-o-y increase of 89%:
  - **The $662m IPO of Shaanxi Coal Industry on the Shanghai Stock Exchange:** This was the largest mainland listing since 2012 as China reopened its IPO market after a 14-month freeze. Shaanxi Coal is China's third-largest listed coal miner, with a market value of $10.7b at year-end.[35]
  - **Foresight Energy's IPO on the New York Stock Exchange:** The company listed at a challenging time for the US coal industry, but secured $350m in support of its large-scale, integrated, cost-competitive operations in the Illinois Basin. Proceeds were used for debt repayment and cash distributions under its master limited partnership (MLP) structure.[36]

17

The number of IPOs in the sector, vs. 26 in 2013

94%

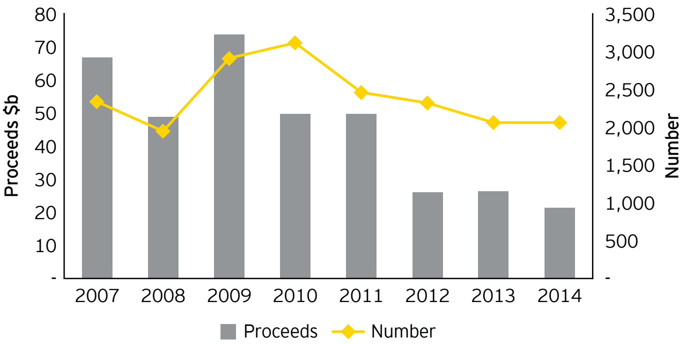
The fall in 2014 IPO volume from a pre-GFC peak of 280

35. "Shaanxi Coal $1.6b China IPO to be biggest in two years," *Bloomberg*, 8 January 2014.
36. Foresight Energy LP announces second quarter 2014 results," *Foresight Energy LP*, 8 May 2014.

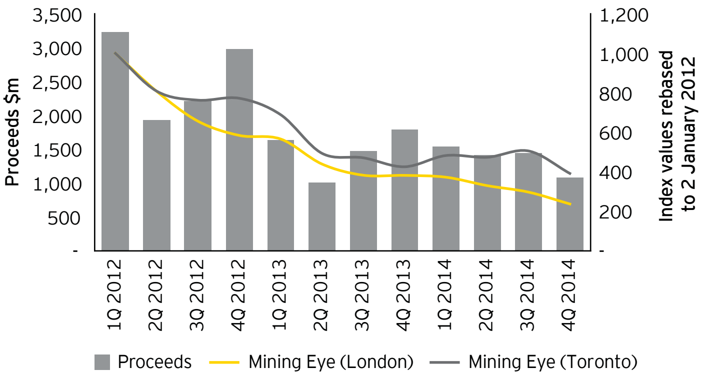
Follow-on equity

Equity issuance for many remained an expensive and dilutive option of near-last resort. Proceeds raised by juniors fell by 7% y-o-y to $5.5b, shared among 1,230 issuers. Overall proceeds of $21.4b were supported by a number of deeply discounted "rescue" rights issues, unhappy features of the 2014 equity financing landscape. Equity for project development and acquisitions was available, but only on a highly selective basis.

Follow-on equity volume and proceeds (2007–14)



Follow-on equity issued by juniors and share performance (2012–14)



- Turquoise Hill undertook the largest equity issue, with its $2.4b rights offer. The offer was priced at a 42% discount to the reference price, with proceeds used to repay debts and for the continued funding of Oyu Tolgoi.[37]
- Ma'aden raised the second-highest proceeds at $1.5b, reportedly one of the largest ever rights issues in the Middle East. Proceeds will be used to expand the company's phosphate, aluminium and gold operations.
- Lundin Mining secured $674m in a bought-deal financing toward its acquisition of the Candelaria copper complex.
- Outokumpu and Kobe Steel were among steel producers raising equity to repay debt, restructure operations and improve profitability.

57%

Share of equity offerings raising less than $1m

42%

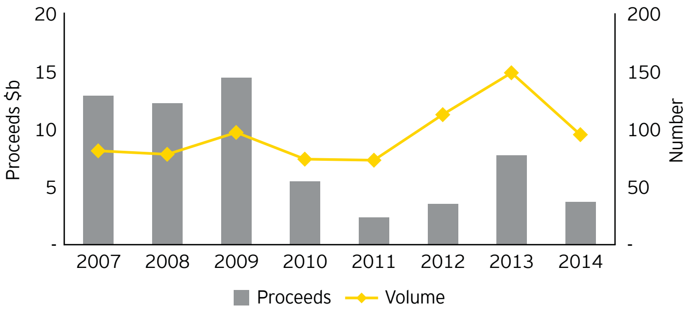
Y-o-Y decline in junior mining share prices – EY's Mining Eye

37. "Turquoise Hill files final prospectus for rights offering," *Turquoise Hill*, 26 November 2013.

Convertible bonds

The popularity of convertible bonds dissipated in 2014, with a y-o-y decline in proceeds of 52% to $3.7b. Recent examples of companies struggling to meet maturing conversion payments may be behind the dramatic fall in proceeds, along with the uncertain share price outlook. Increased perception of risk, accentuated by the large share of unrated and junior issuers, has increased the average coupon on mining convertibles to 10%, from 9% in 2013.

Convertible bond volume and proceeds (2007–14)



- Alcoa's $1.25b convertible issue accounted for nearly a third of total proceeds. The funds will be used as partial consideration for the acquisition of Firth Rixson.
- Imperial Metals, Discovery Metals, Stornoway Diamonds and San Gold were among junior companies issuing convertible bonds for project development.

Equities outlook

Across all industries, the outlook for equity performance is generally positive in 2015 on the strength of US economic and corporate growth and a resultant increase in M&A and dividend income. However, we expect it to be some time before this extends to the mining and metals sector; confidence is yet to return fully and the price outlook for many metals remains uncertain and unpredictable. As a result, shareholders may not see the capital returns that were expected to drive a re-rating of the sector as cash flows remain uncertain. In spite of this, we are likely to see equity markets open up periodically in response to favorable price movements in certain metals, providing companies with the opportunity to take advantage of transitory phases of positive sentiment. The $800m financing window that opened up for gold companies at the start of 2015, on the back of a 10% rise in the gold price, is such an example.[38]

Until price momentum swings decisively to the positive, IPOs are likely to be unpopular. Ongoing portfolio reviews may feed the pipeline, but spin-outs via IPO are likely to be exceptions rather than the rule and will be heavily reliant on timing and market sentiment for success. Consensus estimates see a slight increase in gearing levels in 2015, before retreating in 2016; any additional unexpected price weakness may drive further rights issues in the year ahead.

20%

The coupon paid on a number of junior convertible bond issues

36%

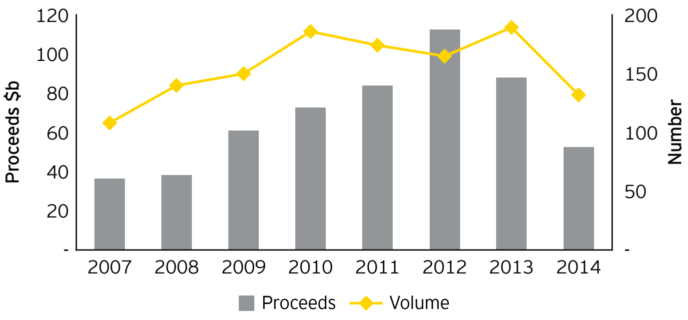
The fall in the number of convertibles issued from 2013 levels

38. "Canadian gold miners raising nearly $800m as financing window opens up," *Financial Post*, 21 January 2015.

Bonds

Bond proceeds fell 40% short of last year's total at $52b, mainly due to the comparative absence of large issues by some of the major diversifieds. High-yield issues took a significantly higher proportion of total proceeds, at 31% vs. 10% in 2013, in part reflecting lower absolute investment grade proceeds but also a slowdown in emerging markets issues as growth concerns weighed on investor appetite for such deals. Mid-tier miners and steel companies took advantage of the favorable pricing environment to diversify funding sources, extend maturity profiles, pay down term loans and buy back existing bonds at improved prices.

Bond volume and proceeds (2007–14)



- Average coupons on investment grade US dollar/euro <10-year bonds increased marginally to 3.6%, from 2.6% in 2013, in part due to the absence of highest grade issuers such as BHP Billiton and Rio Tinto. However, average coupons on similar high-yield debt narrowed to just 7.5%, from 8.5% in 2013.
- Glencore issued its debut Kangaroo bond in September, to tap local demand and diversify its funding sources.

Outlook

The end of quantitative easing in the US brings the prospect of interest rate increases in 2015, and in turn, volatility and uncertainty. As such, investor preference is likely to migrate toward shorter duration bonds as protection from anticipated rate rises. High-yield issues will be particularly vulnerable to sudden shifts in risk appetite, suggesting issuers may access the markets sooner rather than later while conditions remain favorable. By the same token, however, and with such an uncertain outlook for many commodities, we may see the mid-tiers less willing to take on significant high-yield debt in the face of rumored growing interest in the sector from distressed debt hedge funds.

1.6%

The lowest coupon paid on US$/€ debt – Glencore's €700m 2022 notes

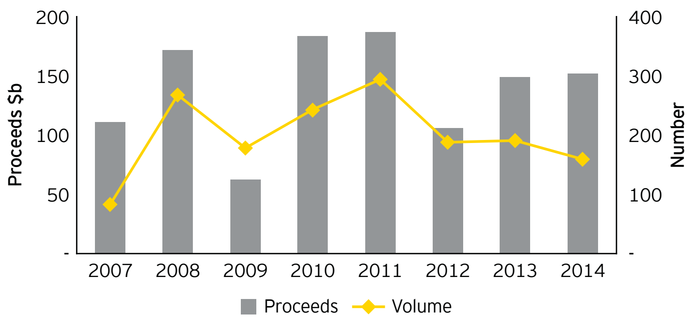
$3b

The largest bond offering this year, by Freeport-McMoRan for debt repayment

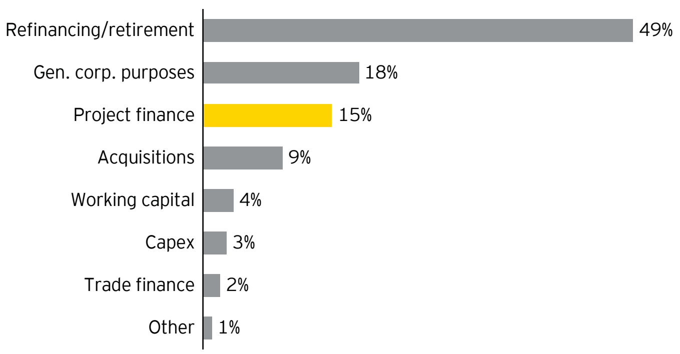
Loans

Syndicated loan proceeds inched toward 2011 highs at $152b, as strong demand and liquidity in the global banking sector supported extensive refinancing activities at improved pricing. However, only a small fraction of new bank debt coming into the sector is going toward project development at the junior and mid-tier level. In absolute terms, project finance increased to $22b, helped by Roy Hill Holdings' $7.2b package, but access remains challenging. Banks are increasingly selective about the projects they support, requiring extensive due diligence, resulting in longer lead times and higher costs associated with arranging such funding and more stringent terms to compensate for riskier loans. Agreements on development projects invariably included hedging requirements.

Loan volume and proceeds (2007–14)



Primary use of loan proceeds (2014)



- Glencore attracted $17.5b of commitments from its populous banking syndicate, in the end signing a $15.3b revolving credit facility with 69 banks to refinance existing revolvers.
- Tata Steel restructured around $7b of debt accrued during its acquisition of Corus at lower borrowing costs.

Outlook

Lending conditions are expected to be broadly supportive in 2015, with demand likely to be strong for high-quality refinancing deals and acquisition financing for investment grade borrowers. However, continued price volatility and continued tightening of regulation, raises a question mark over how much risk banks will be willing to bear in 2015. As such, it is likely that lenders will continue to be selective, that finance for commodities with weaker near-term fundamentals will be difficult to come by, and that lenders will seek to diversify project risk on leveraged loans through syndication and stringent terms.

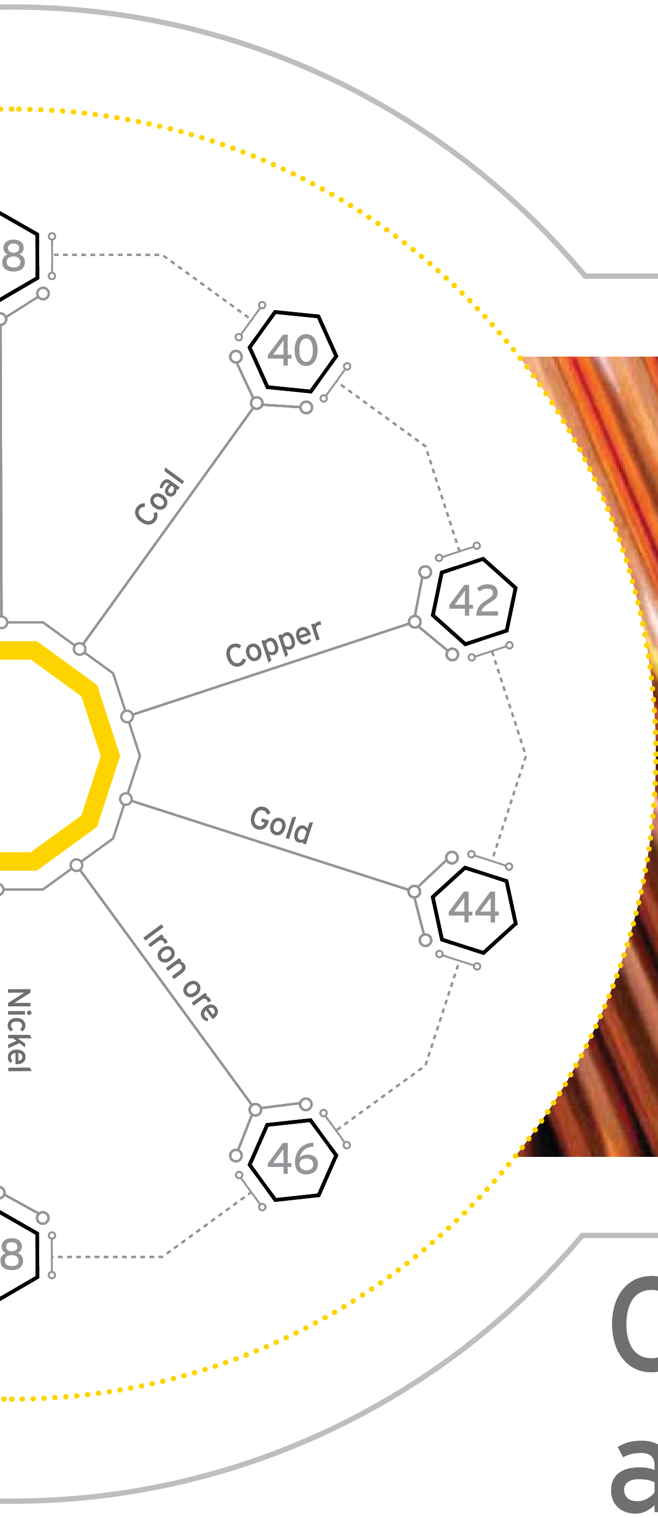
15%

The proportion of syndicated loan proceeds allocated to project finance

$74b

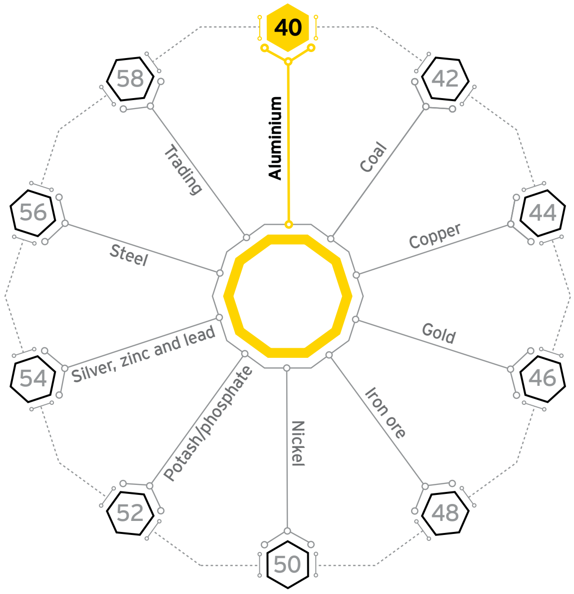
The value of loans refinanced in 2014


56
Trading
54
Steel
52
Silver, zinc and lead
50
Potash/phosphate
Aluminium



Commodity analysis

Aluminium



There was limited deal activity in aluminium in 2014, with producers remaining focused on portfolio optimization and cost reduction, even as the supply-demand fundamentals improved during the year.

Following the global economic slowdown and resulting price weakness, aluminium producers have focused their efforts on portfolio optimization and cost reduction to manage margin compression and low profitability. This resulted in several companies divesting or shutting their high-cost plants, increasing investment in higher-margin, value-added downstream aluminium manufacturing and undertaking low-risk consolidation deals.

In 2014, M&A activity remained muted with only a few deals closing during the year:

1. The largest deal was Alcoa's acquisition of Firth Rixson, an aerospace jet engine components manufacturer, to strengthen Alcoa's aerospace portfolio and increase profitability from its value-added aluminium business. Further in-line with its strategy to reshape its upstream portfolio and lower the cost base of its commodity business, Alcoa also divested its stake in the Jamalco bauxite mining and alumina refining joint venture to Noble Group for $140m.[39]
2. There were two domestic deals in China involving Jiaozuo Wanfang Aluminium Manufacturing – one in which it acquired Wanji Energy Technology for $273m to improve its energy security and one in which Lhasa Economic and Technology Development Zone JiAo Investment Company increased its stake in Jiaozuo Wanfang Aluminium Manufacturing in a deal valued $269m.[40]
3. Aleris International's acquisition of Nichols Aluminum for $100m aimed at expanding Aleris' geographic and downstream production footprint in the US.[41]
4. Almatis acquired Burnside Alumina Refinery for $39m from Ormet Corporation as part of the latter's bankruptcy proceedings. The low-risk domestic deal was opportunistic, enabling the company to consolidate and lower its cost base.[42]

Low prices, thin margins and a supply glut have dominated the aluminium story in the last few years. However, after dropping to a four-year low in February 2014, aluminium prices started recovering by 3Q 2014 due to substantial production cuts by aluminium producers (particularly in China) and a sustained increase in demand for aluminium. Aluminium demand is estimated to have grown by 6.5% in 2014, particularly from the automotive sector.[43] As a result, analysts are now forecasting a market deficit of about 600kt in 2015.[44] This bodes well for aluminium transactions as it may improve valuations of, and demand for, aluminium assets. We may see assets that were earlier earmarked for divestment come back on the market as valuations and the industry outlook improve.

However, several uncertainties still exist in the aluminium market, which will keep any major deal activity subdued until there is greater clarity. The sustainability of price recovery depends on producers' ability to establish and maintain long-term supply discipline and refrain from restarting smelters as price recovery continues. Also, release of LME inventory into the market following the final implementation of the new LME warehousing reform aimed at the release of inventory within 50 days may weigh on prices.

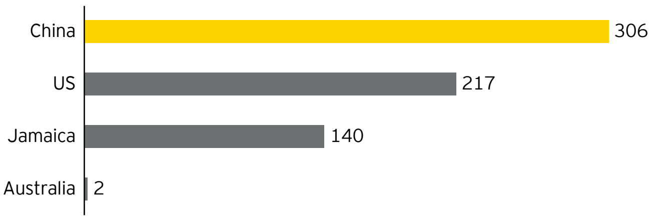
39. "Alcoa Acquires Firth Rixson, Grows Global Aerospace Portfolio," *Alcoa*, 20 November 2014.
40. EY analysis and S&P Capital IQ.
41. "Aleris Completes Acquisition Of Nichols Aluminum," *Aleris*, 1 April 2014.
42. "Almatis completes acquisition of Ormet's Burnside alumina refinery," *Almatis*, 13 December 2013.
43. "Commodities Review," *Societe Generale*, December 2014, via ThomsonONE.
44. "Alcoa sees smaller aluminum market deficit on China smelter restarts," *Reuters News*, 9 October 2014 via Factiva.

Value and volume of aluminum deals

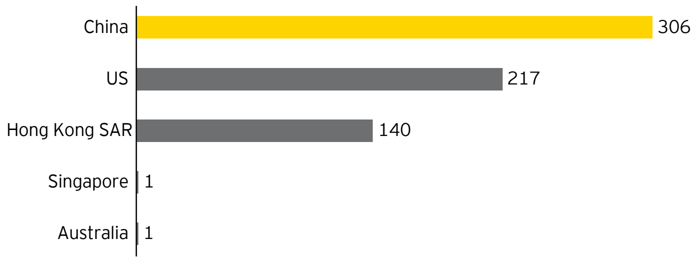
	2013	2014	
Value ($m)	10,712	3,802	▼
Volume	21	11	▼
Cross border (% share of volume)	10	27	▲

Includes deals where aluminium is the target and/or acquirer commodity

Value of deals targeting aluminium by destination ($m)



Value of deals targeting aluminium by acquirer nation/region ($m)

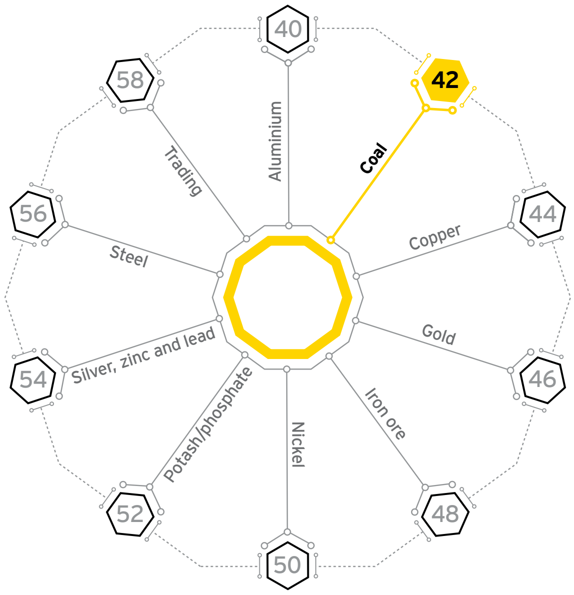


Top five aluminium deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country/region	Stake acquired (%)
2,850	Cross border	Firth Rixson	UK	Alcoa	US	100
273	Domestic	Wanji Energy Technology	China	JiaoZuo WanFang Alumunium Manufacturing	China	100
269	Domestic	JiaoZuo WanFang Alumunium Manufacturing	China	Lhasa Economic Technology Development District Jiaogao Investment Holding	China	17
140	Cross border	Alcoa Minerals of Jamaica	Jamaica	Noble Group	Hong Kong SAR	55
110	Domestic	Nichols Aluminum	US	Aleris International	US	100

Coal

Heavily oversupplied thermal and metallurgical coal markets have kept coal prices subdued and the sector under pressure in 2014. The result has been an inward focus by coal miners. Transactions were therefore mostly divestments, many desperate, allowing opportunistic purchases by others with the financial means and future vision.



The continued low-price environment has left most market players anxious and under financial stress. A number of high cost assets on the market have elicited little or no buyer interest. The price of coal is likely to remain low until at least well into 2015 for thermal, while an earlier recovery is expected for metallurgical coal. For many thermal producers, the question is simply, "can they survive the downturn?" As a result, there were two main deal drivers in 2014, which will persist as companies continue to struggle:

- Refocusing portfolios through divestments to concentrate on the more profitable assets
- De-leveraging via divestment proceeds

The outcome of this is a boon for opportunistic acquirers who can enter the market targeting potentially high-quality assets at low prices. As a result, a new class of acquirer is emerging, especially in the US where the coal market is struggling the most. These are smaller acquirers with different forms of backing, such as private equity or hedge funds. Corsa Coal, for example, which is 55%-owned by private equity firm Quintana Capital Group, purchased PBS Coals from OAO Severstal for $60m and has expressed interested in acquiring more assets.[45] In another recent deal, Ambre Energy agreed to sell its North American coal operations to its financier, private equity firm Resource Capital Funds, for $18m.[46]

Distressed sales continue to emerge, particularly in the US. The $50m sale price paid by International Coal Ventures Private for the Mozambique assets of Rio Tinto, for example, represented not even 1.5% of the price Rio Tinto paid in 2011.[47] A more dramatic example of this is the recently announced $2 sale of an 80% stake in Canada's Grande Cache Coal Corp., to Up Energy Development group, which had been previously sold for C$1b in 2012. The C$1b sale price in early 2012 was at a 72.1% premium based on Grande Cache's share price at the time.[48] Fire sales are particularly acute in the Appalachia, where coal reserves are now being sold for an average of less than 40 cents per ton. The region produces low-sulfur coal, which is no longer considered high quality with new scrubbing technology.[49]

As a result of the challenging market conditions in the US, a number of companies have put assets on the market, including Cliffs Natural Resources, Walter Energy, Mechel and CONSOL Energy. This pressure will remain on the US market as cash-negative production is removed, transitioning the market to a more sustainable coal production level of about 800mtpy from 950mtpy.

Australia represented the top target and acquiring nation by deal volume, and the most targeted destination by deal value. This was supported by the largest coal deal of the year, the $1b sale of a 50.1% stake in the Clermont Mine by Rio Tinto to a joint venture between Glencore and Sumitomo Corp. Rio Tinto was streamlining its portfolio, while Sumitomo and Glencore gained access to a large, low-cost thermal coal asset.[50] This deal, however, did not typify average Australian deals, which were mostly domestic, small and executed by explorers and financial investors taking advantage of lower asset prices.

Deal activity in 2015 is likely to accelerate with the large number of high quality, previously inaccessible assets on the market. Asset valuations have been reset at lower levels, providing investors with capital to deploy. A widening of the price spread for coal quality will likely increase interest from financial traders. Explorers are both consolidating to gain balance sheet strength and taking advantage of low prices to secure quality assets. Chinese and Indian companies, particularly SOEs and steelmakers, are also likely to seek to secure supply abroad.

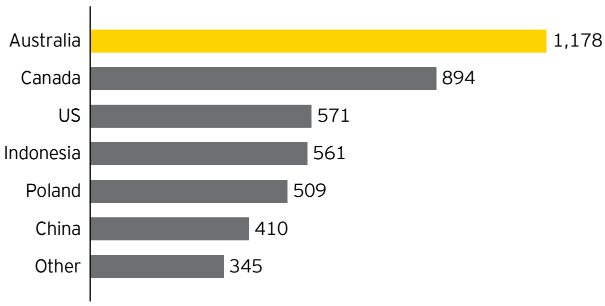
45. "Worst U.S. coal market drives big miners to the exit," *Bloomberg*, 1 October 2014.
46. "Vote set for private equity firm to take over Ambre Energy's US operations," *SNL Coal Report*, 8 December 2014.
47. "Rio Tinto pulls plug on ill-fated Mozambique coal venture," *Reuters News*, 30 July 2014.
48. "Japan's Marubeni may sell stake in Canada coal mine for as little as $1," *Reuters News*, 1 October 2014.
49. "From $2 to $296M, coal acquisitions hit furious pace as new players arrive," *SNL Financial*, 12 November 2014.
50. "Glencore, Sumitomo buy Rio coal mine stake for $1 bln," *Reuters News*, 25 October 2013.

Value and volume of coal deals

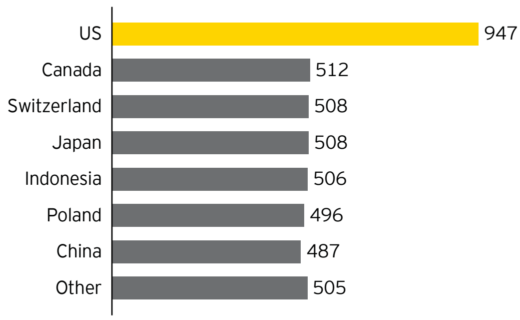
	2013	2014	
Value ($m)	8,991	4,867	▼
Volume	85	60	▼
Cross border (% share of volume)	39	40	▲

Includes deals where coal is the target and/or acquirer commodity

Value of deals targeting coal by destination ($m)



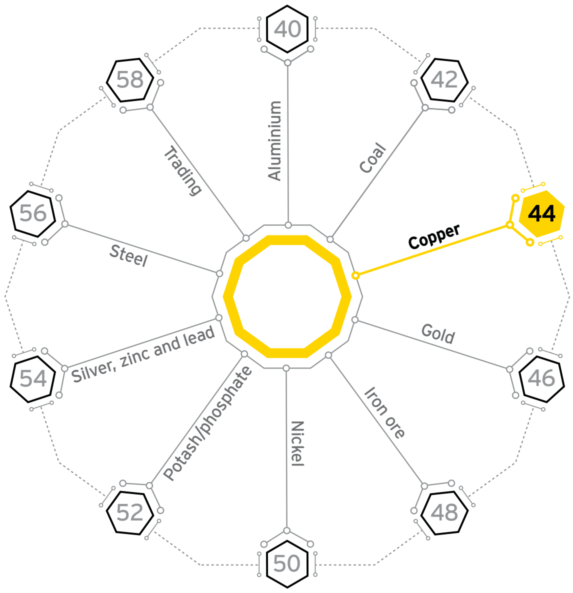
Value of deals targeting coal by acquirer nation ($m)



Top five coal deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country	Stake acquired (%)
1,015	Cross border	Clermont Mine Joint Venture	Australia	Glencore and Sumitomo Corp.	Switzerland/Japan	50
506	Domestic	Bumi Resources	Indonesia	Bakrie & Brothers	Indonesia	29
496	Domestic	KW (Knurow-Szczyglowice Mine)	Poland	Jastrzebska Spolka Weglowa	Poland	100
452	Domestic	Sherritt International (royalty interests)	Canada	Altius Minerals Corp	Canada	100
437	Cross border	Coal Valley Resources (Prairie & Mountain Coal operations)	Canada	Westmoreland Coal	US	100

Copper



The sale of Las Bambas dominated the copper M&A landscape in 2014, but it did not act as a catalyst for a rush of subsequent deals. While buyers largely adopted a "wait and see" approach in 2014, there were other strategic acquisitions by First Quantum Minerals and Lundin Mining.

There was no lack of uncertainty in the copper market during 2014 to give dealmakers a pause for thought, caused not least by the Qingdao port scandal, Chinese growth outlook, anticipated growth in concentrate supply, softening copper price and rising US dollar. While these uncertainties dampened enthusiasm for copper acquisitions relative to 2013 (when excluding the Las Bambas deal), it did not stop those producers with a longer-term focus making strategic acquisitions. In addition to the $7b divestment of Las Bambas by Glencore to MMG, this activity included:

- First Quantum Minerals adding to its Latin America copper development pipeline by securing the Argentinian Taca Taca deposit via its $395m acquisition of Lumina Copper Corp.
- Lundin Mining transforming its operational and geographic diversification with the $1.9b acquisition of Freeport-McMoRan's Candelaria copper mining complex in Chile.

Antofagasta also completed its acquisition of Duluth Metals just after year-end, securing a long-term option to develop the Twin Metals copper and nickel project in Minnesota.

Looking ahead to 2015, potential buyers will need to look past the current trading activity and macroeconomic pressures that are hampering the copper price, including uncertainty regarding Chinese demand, a strengthening US dollar, and declining expectations of economic growth (with the World Bank now anticipating global economic growth of 3%, down from 3.4% previously),[51] to name a few. On the other hand, longer-term demand fundamentals remain intact and supply-side challenges in copper should not be dismissed.

While investors will understandably approach 2015 with caution, the year ahead will not be without its opportunities as major producers continue to streamline portfolios, with Anglo American, for example, expected to hive off copper assets in Chile.[52] Furthermore, smaller companies are likely to pursue consolidation as a means of managing escalating costs, lower realizations and capital constraints. Lastly, a dearth of new supply coming on-stream post 2017 could stimulate market interest in juniors that have near-term production potential. An unexpected supply shock or an overlap of investor time-horizons with the forecast supply deficit is the most likely catalyst to rally M&A activity.

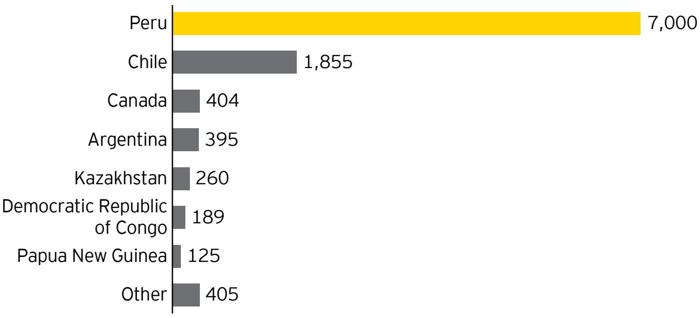
51. "World Bank Lowers Outlook for Global Economic Growth," *The Wall Street Journal*, 14 January 2015.
52. "Report: Anglo American targeting US$1B sale of Chilean copper assets," *SNL*, 8 October 2014.

Value and volume of copper deals

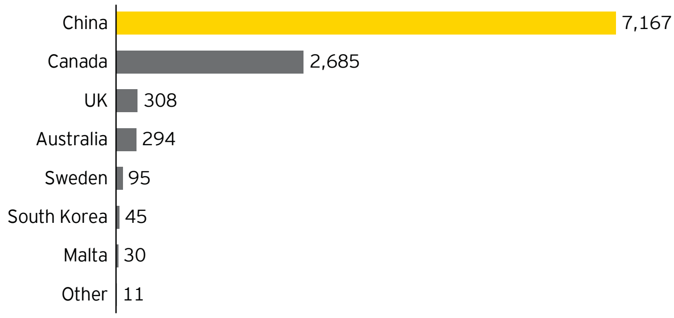
	2013	2014	
Value ($m)	18,051	10,723	▼
Volume	82	47	▼
Cross border (% share of volume)	52	64	▲

Includes deals where copper is the target and/or acquirer commodity

Value of deals targeting copper by destination ($m)



Value of deals targeting copper by acquirer nation ($m)



Top five copper deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country	Stake acquired (%)
7,000	Cross border	Xstrata Peru (Las Bambas)	Peru	MMG	China	100
1,852	Cross border	Freeport-McMoRan (Candelaria and Ojos)	Chile	Lundin Mining	Canada	80
395	Cross border	Lumina Copper Corp	Argentina	First Quantum Minerals	Canada	95
328	Domestic	Augusta Resource Corp	Canada	HudBay Minerals	Canada	84
260	Cross border	CCC Mining Construction (Koksay asset)	Kazakhstan	Kaz Minerals (formerly Kazakhmys)	UK	100

Gold

It was a subdued year for gold deals as major miners grappled with the sharp falls in the underlying gold price during 2014 and looked within to improve cash flows from existing operations.

The gold industry saw fewer deals during 2014. Both deal volume and value witnessed a drop of 31% y-o-y, with the decline even sharper if we exclude the only gold megadeal — Osisko Mining's acquisition by Yamana Gold and Agnico Eagle Mines for $3.6b. The fall in the gold price over 2014, due to improved prospects for the US economy, a stronger US dollar and expectations of low inflation, was the key reason for the slowdown in deal activity. In addition, a drop in physical demand from the Chinese gold market and subdued Indian gold imports exerted downward pressure.

Consequently, gold companies are focused on productivity and negotiating cost reductions as a means of improving profitability and protecting margins. Amid industry-wide portfolio optimization programs, senior gold producers such Barrick Gold, Newmont Mining, AngloGold Ashanti and Goldcorp released capital through divestment of some of their non-core high-cost assets. This trend is expected to continue as smaller miners seek to bolster production through consolidation of operations, while at the same time minimize project risk and improve access to capital.

Financial and private investors have shown limited interest in the gold sector in 2014. While they have been involved in 16% of acquisitions by volume, their share of total deal value is only 3.5% (down from 32% in 2013). The contraction of capital from traditional financing sources and the retreat of major producers from significant M&A activity have created opportunities for longer-term investors to benefit from low valuations in advance of an expected upturn in the sector. This is a trend we expect to continue, at least in the near term, as junior players look for alternative sources of finance. However, we may see equity markets open periodically in response to favorable movements in the gold price, such as occurred in January 2015. Canadian gold miners managed to raise nearly $800m for project development and debt repayments following a 10% m-o-m rise in the gold price that helped to improve sentiment toward the sector.[53]

We expect Chinese mining companies and SOEs to pursue domestic and overseas acquisitions as their own demand for gold continues to rise. For example, China's largest gold mining company, China National Gold Group, sought to partner with Barrick Gold and Newmont Mining, as part of a global growth strategy.[54] In the short-term, macroeconomic challenges faced by Europe and geopolitical crises across many parts of the world may provide support for gold prices. In the medium-term, however, the capital tightening may lead to a shrinking project pipeline which may well improve the supply-demand balance. This is expected to encourage investor interest in companies with production and near-production assets, followed by players with assets at advanced exploration stage.

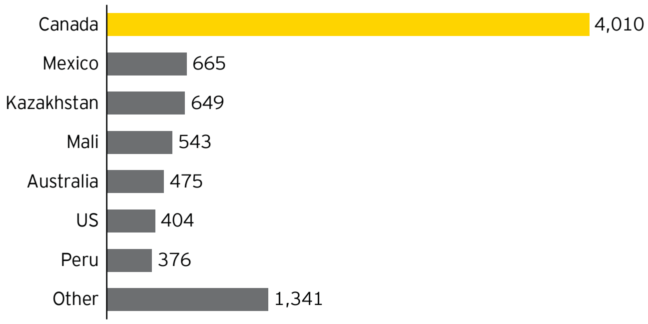
53. "Canadian gold miners raising nearly $800 million as financing window opens," *Financial Post*, 21 January 2015.
54. "China National Gold Is Talking to Barrick About Potential Partnerships-2-," *Dow Jones*, 18 June 2014, via Factiva; "Finally rumours of a Chinese-Canadian gold partnership appear to be confirmed," *Bullion Directory*, 18 June 2014.

Value and volume of gold deals

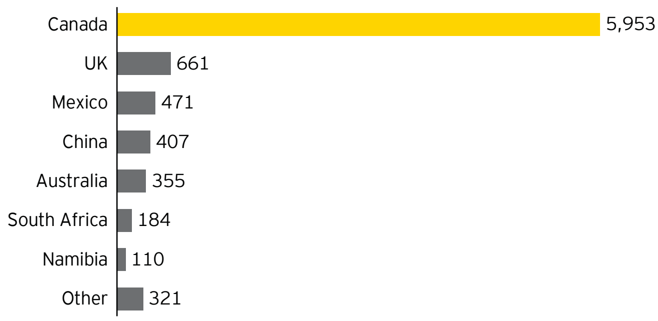
	2013	2014	
Value ($m)	12,363	8,546	▼
Volume	292	201	▼
Cross border (% share of volume)	47	43	▼

Includes deals where gold is the target and/or acquirer commodity

Value of deals targeting gold by destination ($m)



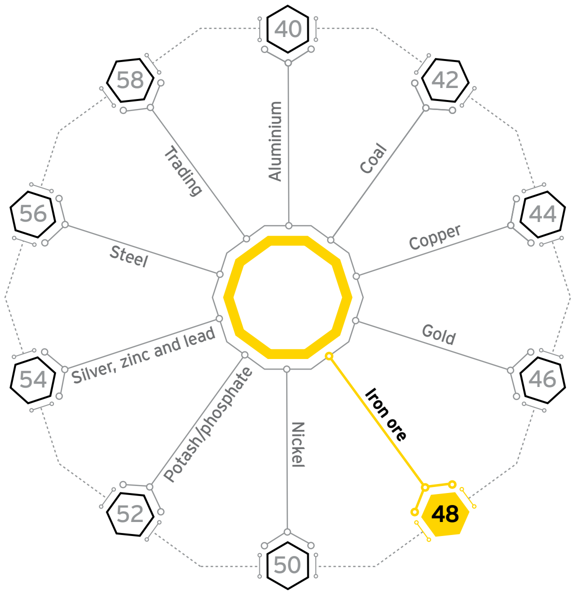
Value of deals targeting gold by acquirer nation ($m)



Top five gold deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country	Stake acquired (%)
3,591	Domestic	Osisko Mining Corp	Canada	Yamana Gold and Agnico Eagle Mines	Canada	100
619	Cross border	Altynalmas Gold (Kyzyl gold project)	Kazakhstan	Polymetal International	UK	100
543	Cross border	Papillon Resources	Mali	B2Gold Corp	Canada	100
450	Domestic	Minera Penmont	Mexico	Fresnillo	Mexico	44
295	Cross border	Sulliden Gold Corp	Peru	Rio Alto Mining	Canada	91

Iron ore



Plummeting prices, an oversupplied market and a fluctuating outlook for Chinese demand growth characterized the iron ore sector in 2014. With some price forecasts as low as $58/t in the near future, the market is characterized by large low-cost producers increasing supply to take out high-cost (usually Chinese) production. Given state support, these high-cost Chinese mines have avoided closure, but smaller mid-cost producers caught in the middle are struggling to stay afloat.

Traditional deal makers were understandably reticent about undertaking high-value deals in such a volatile environment, focusing instead on optimizing supply chains and improving efficiencies. Most deals among small-to-mid caps in 2014 were divestments, distressed sales or consolidating/synergistic mergers to help weather the storm. This is reflected by the low average deal value of just $33m, excluding the $1.02b joint acquisition of Aquila Resources by Baosteel Resources Australia and Aurizon Operations, compared with $225m in 2013.

Some large and pure-play producers found it prudent to divest iron ore assets during 2014 as a means to focus on core operations and return short-term value to shareholders. Cliffs Natural Resources, for example, is divesting its foreign assets to re-center itself on its core US-based operation.[55] Gindalbie Metals divested its Shine hematite deposit to Mount Gibson Iron to mitigate funding risks, to deliver an immediate return to shareholders and to focus resources on its Karara magnetite project instead.[56]

We have started to see consolidation and synergistic mergers between mid-tiers as they seek to remain sustainable longer term. BC Iron, for example, acquired Iron Ore Holdings to generate stronger technical and commercial synergies, and provide greater funding and development opportunities for the target's longer-life assets.[57] Mamba Minerals merged with Champion Iron Mines to provide management expertise and a stronger balance sheet that would enable the Fire Lake project in Québec to come online.[58] We are likely to see more of this in the next 12 months as struggling miners look for opportunities to share risk, improve longevity and increase their ability to source funding through uncertain times.

Deal activity in 2015 will likely come from Chinese and Indian companies, particularly SOEs and steelmakers seeking to secure supply abroad. Since these buyers will not be market-driven in the same way that the majors are, they have potential to buy and hold assets on the market at this time without the need to commercialize with immediate return. The Baosteel-Aurizon joint acquisition of Aquila Resources is a good example, as is Ansteel's continued interests in Gindalbie Metals' struggling Karara mine.

Cross border deals are also likely to be joint ventures with infrastructure companies or existing operators in the region as some of the projects remain logistically challenging.

Countercyclical financial investors and trading houses are other potential acquirers, taking advantage of low-priced assets coming on to the market. These opportunistic buyers will wait until the market is at its lowest and secure minority stakes or offtake provisions. For example, Frank Timis, via his private company Timis Corporation, has agreed to purchase the Marampa iron ore mine from the administrators of London Mining in a deal that includes agreements with African Minerals for the provision of rail and port infrastructure support.[59] Ascot Resources also secured $5m in funding from commodity trader Gunvor Group, which started trading iron ore from Singapore this year.[60] Mercuria has also expressed interests in expanding into iron ore as minority investors or partners with private equity.[61]

Looking ahead, the conflict between the major producers and Chinese high-cost producers will resolve and the weakened mid-tiers will welcome investors to recapitalize their business.

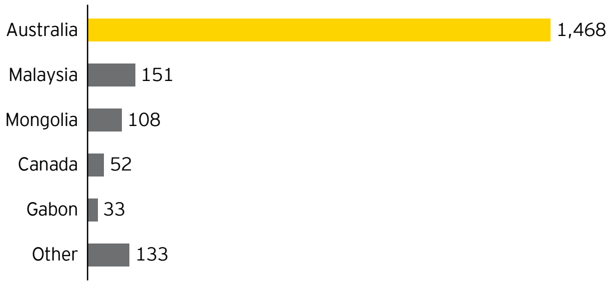
55. "Cliffs plans to write down $6 billion in assets," *Wall Street Journal*, 17 October 2014.
56. "Mount Gibson buys 'advanced' Shine deposit from Gindalbie," *Mining Weekly*, 9 December 2013.
57. "BC Iron to acquire Iron Ore Holdings," *Mining Australia*, 11 August 2014.
58. "Mamba Minerals completes merger with Champion Iron Mines, to be renamed Champion Iron," *Proactive Investors*, 1 April 2014.
59. "African Minerals to benefit from Marampa mine deal," *Financial Times*, 3 November 2014.
60. "Ascot signs up Gunvor for capital raise," *Mining Weekly*, 5 September 2014.
61. "Traders Gunvor, Mercuria look to expand in iron ore," *Reuters*, 4 November 2014.

Value and volume of iron ore deals

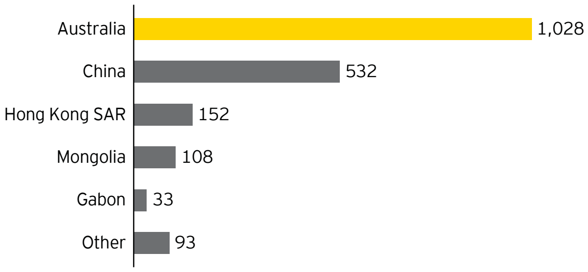
	2013	2014	
Value ($m)	7,420	1,951	▼
Volume	33	31	▼
Cross border (% share of volume)	42	42	

Includes deals where iron ore is the target and/or acquirer commodity

Value of deals targeting iron ore by destination ($m)



Value of deals targeting iron ore by acquirer nation/region ($m)

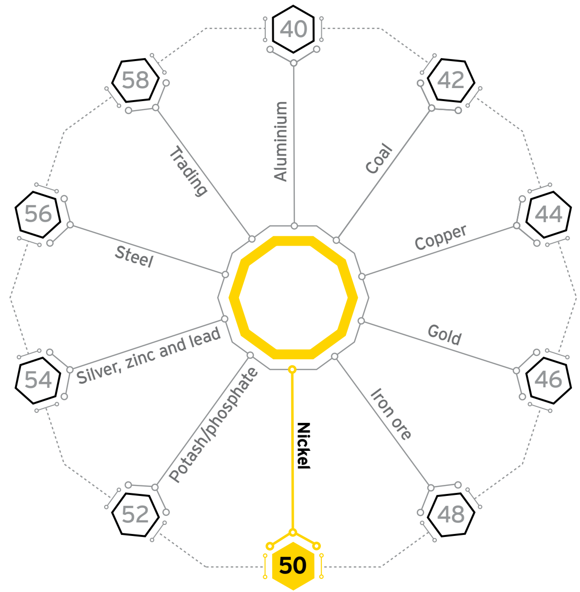


Top five iron ore deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country/region	Stake acquired (%)
1,022	Cross border	Aquila Resources	Australia	Baosteel Resources Australia and Aurizon Operations	China	79
232	Domestic	Iron Ore Holdings	Australia	BC Iron	Australia	100
181	Domestic	Aquila Resources	Australia	Mineral Resources	Australia	12
151	Cross border	Billion Win Capital	Malaysia	Prosperity International Holdings	Hong Kong SAR	100
108	Domestic	Topone Star Investments	Mongolia	China Energy	Mongolia	100

Nickel

Slow demand growth and price volatility due to a lackluster stainless steel market kept M&A activity subdued during 2014. Significant price jumps during the first half of the year due to the Indonesian export ban increased expectations for M&A activity. However, prices remained subdued on rising inventory levels and a changing outlook on supply shortage.



Nickel deals remained low in volume in 2014, despite an initial 13% rise in nickel prices over the first half of the year. Prices settled below $18,000/t, rendering many nickel producers unprofitable as customers drew down inventories. Moreover, a subdued stainless steel market made it tough for buyers to justify new long-term investments in the sector. Most transactions were low value, with small mining and investment companies undertaking deals to consolidate their asset bases in the expectation that prices may inch higher over next few years. The largest deal of 2014 was Sirius Resources' acquisition of the Nova-Bollinger deposits for $170m.

Lower demand is impacting the entire value chain, from nickel ore to stainless steel. Production has slowed in Europe and its markets are flooded with Chinese stainless steel exports. A higher use of scrap nickel and heavy destocking by stainless steel producers are exacerbating the situation.

The subdued outlook, combined with rising costs, could keep M&A tight over the next few quarters. However, the potential sale of BHP Billiton's and Vale's nickel assets could restructure the industry. The recent run in nickel prices needs to be sustained for a substantial period at more than $18,000/t before deal activity will pick up. Until now, nickel producers have formulated various strategies to address falling returns and cost acceleration due to project delays, ranging from production cuts and divestment of assets to permanent closure of operations. However, a rise in nickel prices during 2015 may prompt a few miners to revisit their production and expansion strategies. Current nickel prices have made nickel assets attractive for opportunistic buying. Chinese investors wanting to secure raw materials for their stainless steel plants and metal traders may emerge as potential buyers.

In the long term, deal activity may only pick up after industry participants have more clarity on how the Indonesian export ban and its effect on nickel pig iron (NPI) production in China play out. Also, the Philippine Government is contemplating a ban on the export of unprocessed nickel ore. The shortage of Indonesian nickel ore could lead to Chinese NPI output falling to 400kt in 2015 as compared with 470kt in 2014;[62] whereas the Philippine ban could remove nearly 400kt a year from the market, substantially impacting global supply and demand of nickel.[63] The Indonesian ban has the potential to provide support to nickel prices, provided there is some certainty that it will remain in place for a foreseeable future. Investors sitting on sidelines may again become interested in M&A activities, if they get more clarity about timelines of ban, new smelter construction plans and global demand-supply situation.

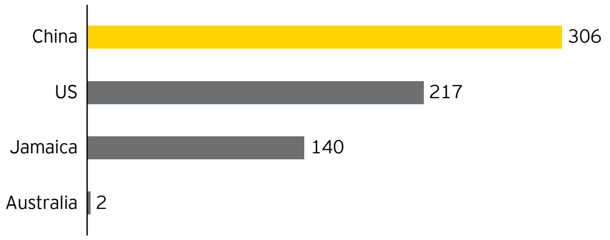
62. "Nickel Asia - leading nickel ore play with low costs," *Macquarie Research*, November 2014.
63. "Resource and energy quarterly," *Bureau of Resources and Energy Economics*, September 2014.

Value and volume of nickel deals

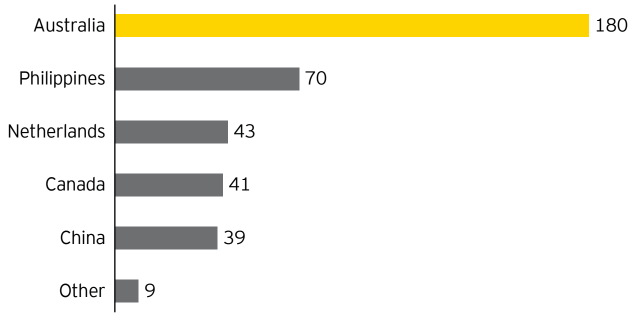
	2013	2014	
Value ($m)	1,541	384	▼
Volume	13	14	▲
Cross border (% share of volume)	15	36	▲

Includes deals where nicket is the target and/or acquirer commodity

Value of deals targeting nickel by destination ($m)

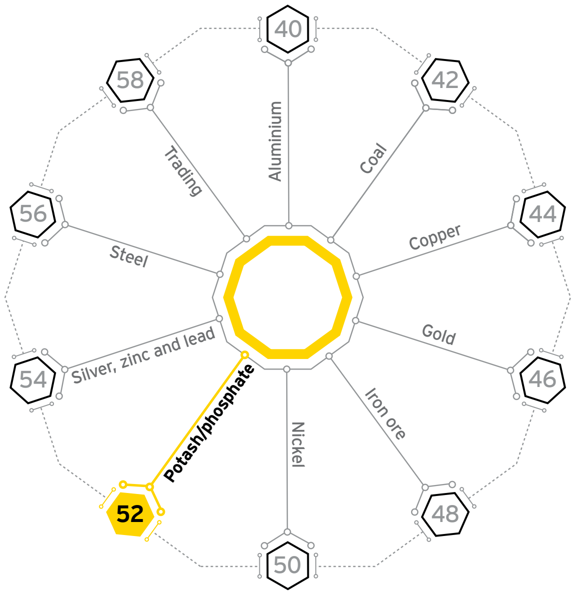


Value of deals targeting nickel by acquirer nation ($m)



Top five nickel deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country	Stake acquired (%)
170	Domestic	EL 28/1724 and MLA 28/376 (Nova-Bollinger deposits)	Australia	Sirius Resources	Australia	30
69	Domestic	ENK	Philippines	DMCI Holdings	Philippines	40
43	Cross border	Mayaniquel	Guatemala	Cunico Resources	Netherlands	100
39	Domestic	Honghe Henghao Mining Co	China	Hailiang Group Co	China	13
36	Cross border	Haijin International Holdings	British Virgin Islands	KCC Capital Corp.	Canada	100



Potash/phosphate

The global potash market strived to recover from the turmoil triggered by the 2013 dissolution of the Belarusian Potash Company. As potash producers grappled with weak commodity prices amid mounting competition and excess supply, unsurprisingly M&A activity was not the major focus in 2014.

Potash deal value and volume witnessed a 95% and 33% y-o-y decline, respectively. However, potash continued to attract interest from financial investors. The largest deal involved a 19.9% stake acquisition by Sberbank Investments in Acron Group subsidiary Verkhnekamsk Potash Company. Acron will employ the proceeds to develop its Talitsky Potash Projects.[64]

Among the largest deals was Israel Chemicals' partnership with junior miner Allana Potash, a first-of-its-kind strategic alliance between a producer and junior miner in the potash sector. The partnership will help Allana Potash transform to a major producer as it develops its Danakhil project in Ethiopia, through technical cooperation and financial support from Israel Chemicals (ICL).[65] Further collaboration with junior miners is expected to help companies expand into growth-generating emerging markets, gain access to low-risk assets, achieve scalable growth and diversify portfolios.

Despite the drop in M&A activity in 2014, interest in potash project development has not waned. EuroChem and Uralkali have continued their greenfield and mining capacity expansions in Russia.[66] Major diversifieds Rio Tinto and BHP Billiton are developing potash capabilities through their Albany and Jansen projects in Canada, respectively.[67] Vale, which extricated itself from the Potasio Rio Colorado project in 2013, has shifted its focus back to potash through its Kronau project in Canada.[68] This poses an increased threat of oversupply and may pressurize margins of high-cost producers such as K+S. This may result in low-risk domestic deals aimed at consolidation and improving cost efficiencies.

Demand for potash remains strong and is poised to rise by 9.4% to 58mt in 2014, mainly driven by increased activity in China and Brazil. Since these emerging nations, along with India, are the primary consumers of fertilizer ingredients, they may seek to capitalize on domestic demand through the acquisition of strategic potash and phosphate assets.

The overall dynamics of the industry are undergoing a major transformation as the focus shifts from maintaining higher prices to boosting cost-efficient output in a bid to combat increasing competition. Significant price erosion forced major producers to adopt cost-reduction measures and curtail production capacity, which has left little appetite for high-risk, growth-orientated deals. We expect to see deals targeted at achieving economies of scale and trading synergies over 2015 and 2016.

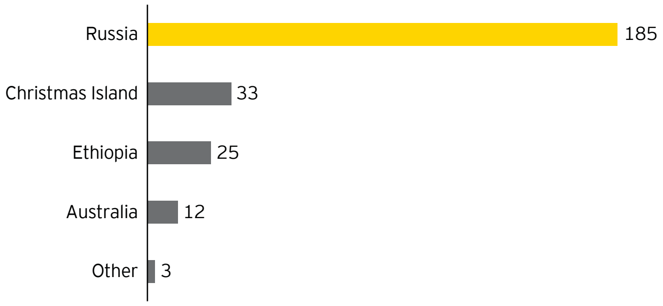
64. "Acron Group Has a New Investor for Talitsky Potash Projects," *Acron Group news release*, 28 February 2014.
65. "Allana Potash Announces Strategic Alliance with ICL," *Allana Potash news release*, 12 February 2014.
66. "Commodities: Potash and Phosphates," *Mining Journal*, 14 November 2014.
67. "Rio Tinto looks to catch up in potash," *Financial Times*, 03 July 2014.
68. "Commodities: Potash and Phosphates," *Mining Journal*, 14 November 2014.

Value and volume of potash/phosphate deals

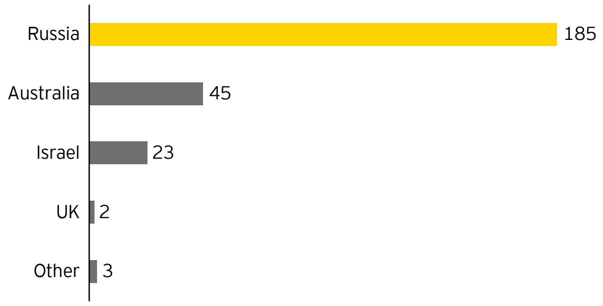
	2013	2014	
Value ($m)	6,096	312	▼
Volume	18	12	▼
Cross border (% share of volume)	44	50	▲

Includes deals where potash/phosphate is the target and/or acquirer commodity

Value of deals targeting potash/phosphate by destination ($m)



Value of deals potash/phosphate by acquirer nation ($m)



Top five potash/phosphate deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country	Stake acquired (%)
185	Domestic	Verkhnekamsk Potash Company	Russia	Sberbank Investitsii	Russia	20
38	Domestic	Astrakhanskaya	Russia	Mineral'no-khimicheskaya kompaniya YevroKhim	Russia	20
33	Cross border	Phosphate Resources	Christmas Island	CI Resources	Australia	37
17	Cross border	Atlantic Gold	Australia	Spur Ventures	Canada	100
13	Cross border	Allana Potash Corp	Ethiopia	ICL Holding The Netherlands Cooperatief UA	Israel	16

Silver, zinc and lead

Deal activity targeting silver was low in 2014 due to a sharp decline in prices on excess supply. While current economic uncertainty is dampening investment appetite, strong zinc and lead market fundamentals are expected to act as catalysts for M&A activity in the year ahead.

In 2014, the value of silver, zinc and lead deals fell by 90% y-o-y to $288m in the absence of a large deal to match 2013's $1.65b Kazzinc–Samruk–Kazyna deal. An uncertain economic environment dampened investor appetite, despite strengthening zinc and lead market fundamentals. Silver, which has been considered a safe haven investment and mirrors gold's movements, started trading as an industrial metal in 2014. Low investment demand has led to lower prices, making the metal less attractive and resulting in a dearth of any high-value deals during the year. The silver market also remained oversupplied, with mine and scrap supply increasing by 15% in 2014.

The largest deal of 2014 was the 100% acquisition of ShalkiyaZinc by Tau-Ken Samruk, Kazakhstan's national mining company, for $170m. The state-owned acquirer plans to restart operations at the Shalkiya zinc and lead deposit, which was mothballed in 2008, in anticipation of rising zinc and lead prices. Acquisitions of early-stage silver projects with significant potential continued – for example, Mandalay Resources acquired Silver Standard Resources' 100% interest in the Challacollo silver-gold project in Chile. There were also some small deals by companies from outside of the sector looking to diversify their businesses.

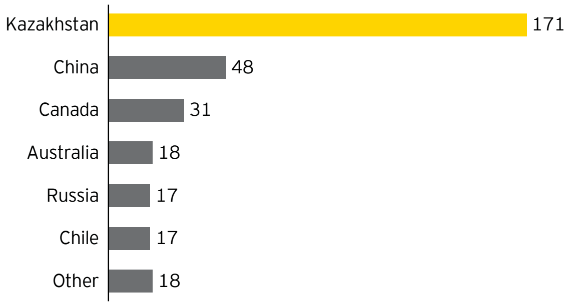
The closure of several major zinc-lead mines at the end of their lives has led analysts to forecast a mine supply shortage in the medium term. This, along with robust zinc demand growth, has led to strong price prospects for these commodities and transaction activity is expected to pick up in 2015 as a result. Silver deals are expected to continue as buyers look for opportunities to invest in junior miners seeking strategic partners to minimize project risk and improve access to capital.

Value and volume of silver, lead and zinc deals

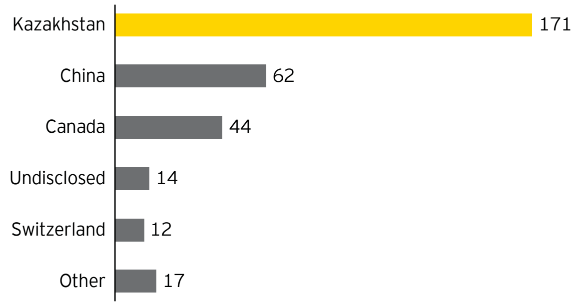
	2013	2014	
Value ($m)	4,007	1,381	▼
Volume	36	26	▼
Cross border (% share of volume)	50	35	▼

Includes deals where silver, lead or zinc is the target and/or acquirer commodity

Value of deals targeting silver, lead or zinc by destination ($m)



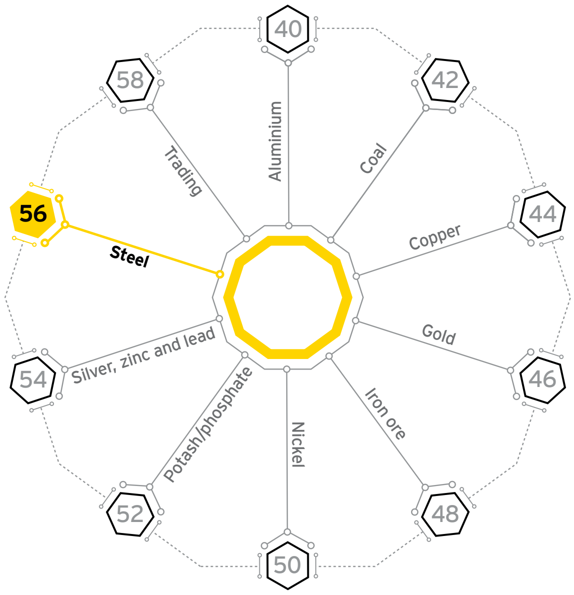
Value of deals targeting silver, lead or zinc by acquirer nation ($m)



Top five silver, lead and zinc deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country	Stake acquired (%)
450	Domestic	Minera Penmont	Mexico	Fresnillo	Mexico	44
307	Domestic	Zhayremskiy GOK	Kazakhstan	TOO Kaztsink	Kazakhstan	100
275	Cross border	Goldcorp (Marigold Mine)	US	Silver Standard Resources	Canada	100
171	Domestic	ShalkiyaTsink	Kazakhstan	AO NGK Tau-Ken Samruk	Kazakhstan	100
41	Domestic	Guangxi Tanghan Zinc & Indium Co	China	Guangxi Wuzhou Communications Co	China	67

Steel



The steel M&A market remains weak as it restructures, and estimates for demand growth were lowered during the course of 2014. However, we are starting to see pockets of growth, particularly in the US and in specialty products for high-growth markets, such as automotive steel. While the focus of many remains on debt reduction and streamlining of operations, a few steelmakers are taking the opportunity to expand their existing footprint into higher-growth markets. With lower coal and iron ore prices, there was less focus on vertical integration.

The value of deals in 2014 is up 3.4% as compared to 2013, largely due to some big deals in the US. US steelmaking operations were the target in 59% of all 2014 steel deals, making up $6.4b of the $10.9b steel deals completed. In the largest of these deals, the Timken Co, under pressure from activist investors, spun off its more cyclical steel business into an independent company, allowing the steel division to be valued in line with steel peers.

There were several divestments in 2014 as steelmakers put renewed focus on their core assets and strengthened their balance sheets through paying down debt. ThyssenKrupp divested its US steel operations to ArcelorMittal and Nippon Steel & Sumitomo Metals Corporation for $1.55b; Severstal sold its Dearborn operations to AK Steel for $707m and Severstal Columbus to Steel Dynamics for $1.6b; and ArcelorMittal and Gerdau Ameristeel sold Gallatin Steel to Nucor for $770m.

The acquirers in these deals were targeting growth in a stronger demand market:

- ArcelorMittal and Nippon Steel & Sumitomo Metal Corp have further enhanced their position in the growing US automotive sector.
- AK Steel and Steel Dynamics will expand their domestic US footprint and achieve better pricing power.
- Nucor's acquisition offers its customers a wider range of products. The deal also makes Nucor the largest steelmaker by capacity in the US and gives Nucor increased market share in what was until recently the fast growing pipe and tubular market.[69] The decline in oil prices is likely to see a reduction in capital expenditure in the oil sector, with a corresponding decline in demand for steel tubular goods for use in oil exploration.

In Europe, SSAB obtained provisional approval for its acquisition of Finnish steelmaker Rautaruukki Corp for $1.6b as the prolonged downturn in demand is forcing consolidation to create efficiencies and lower costs.

69. "Nucor to buy Gallatin Steel for $770 Million," *The Wall Street Journal*, 15 September 2014.

There were two fairly significant deals toward the end of 2014 by South Korea's largest steelmakers. POSCO and other shareholders sold all of their shares in POSCO Speciality Steel to SeAH Besteel for $986m as part of POSCO's strategy to strengthen its balance sheet.[70] Hyundai Steel, along with Hyundai Hysco and Hyundai Wia Corp, acquired Dongbu Special Steel for $265.8m. Hyundai Steel aims to increase its competitive edge in the South Korean steel market by integrating vertically into making parts for the automotive industry and adding on to its own special steel operations.[71]

As raw material prices tumbled, there were very few steel companies doing deals in iron ore and coal assets. The largest example was the acquisition of Australian iron ore miner Aquila Resources by Chinese steelmaker, Baosteel Resources Australia and Australian rail operator, Aurizon Holdings for $1b.

In China, steelmakers are still struggling with low profitability and debt. We expected to see more consolidation of the Chinese market during 2014, and in 2015, lower input costs are likely to increase profitability and reduce the urgency to restructure.

As steelmakers seek to increase their competitiveness in a difficult global market, we are likely to see more divestments over the next year – for example:

- Tata Steel's plan to sell its European long products division.[72]
- The sale by Japan's Nippon Steel and Kobe Steel of their respective equity stakes in each other to raise funds for expansion overseas and to improve competitiveness.[73]

Steelmakers are seeking ways to move closer to their customers. For example, US Steel recently restructured its operations to focus on customer groups and Hebei Iron & Steel agreed to acquire a majority stake in trading company, Duferco, enabling it to better understand demand.[74]

We have also seen several strategic joint ventures for access to new markets. For example, ArcelorMittal has commenced production through a joint venture in China to follow its customers into the fast-growing Chinese automotive sector.

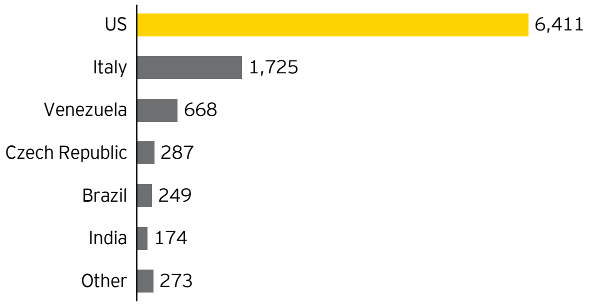
70. "Seah to buy POSCO Speciality Steel for $986m," *Reuters*, 4 December 2014.
71. "Hyundai-steel led consortium buys Dongbu Special Steel," *Yonhap English News*, 28 November 2014.
72. "Tata Steel's plan to reach global scale losing fizz," *Business Standard*, 22 October 2014.
73. "Japan's Nippon Steel, Kobe Steel to cut stakes in each other," *Reuters News*, 3 December 2014.
74. "Hebei Iron & Steel to acquire majority interest in Duferco," *American Metal Market*, 26 November 2014.

Value and volume of steel deals

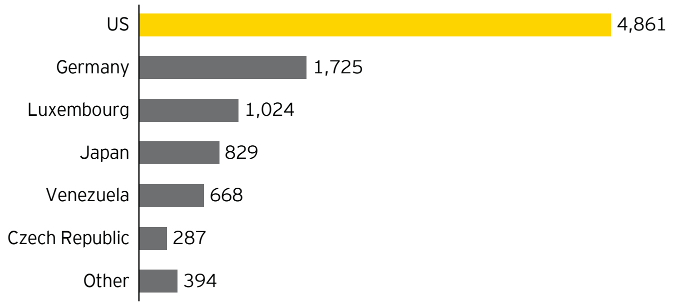
	2013	2014	
Value ($m)	10,546	10,904	▲
Volume	39	28	▼
Cross border (% share of volume)	18	36	▲

Includes deals where steel is the target and/or acquirer commodity

Value of deals targeting steel by destination ($m)



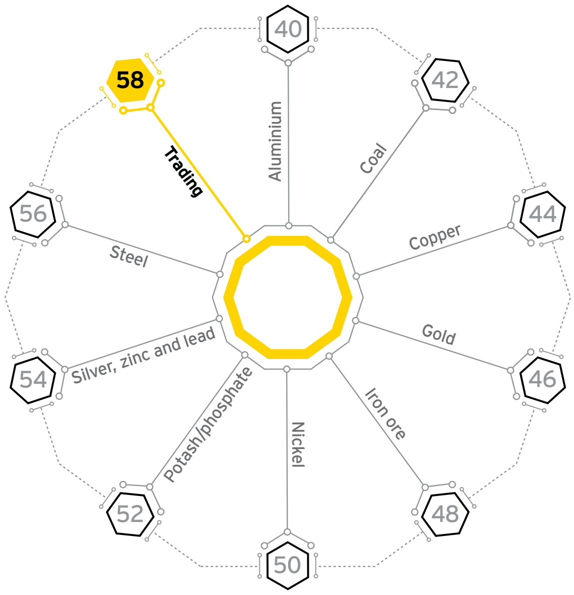
Value of deals targeting steel by acquirer nation ($m)



Top five steel deals

Value ($m)	Type	Target name	Target country	Acquirer name	Acquirer country	Stake acquired (%)
1,759	Domestic	TimkenSteel Corp	US	Shareholder spin off	US	100
1,725	Cross border	Acciai Speciali Terni	Italy	ThyssenKrupp AG	Germany	100
1,625	Domestic	Severstal Columbus	US	Steel Dynamics	US	100
1,550	Cross border	ThyssenKrupp Steel USA	US	ArcelorMittal and Nippon Steel & Sumitomo Metal Corp	Luxembourg/Japan	100
770	Domestic	Gallatin Steel Co	US	Nucor Corp	US	100

Trading



With Glencore making a firm statement of intent with its acquisition of Xstrata in 2013, many expected greater convergence of producers and traders than has actually transpired. With just $1.8b[75] of deals completed by commodity traders during 2014, versus $1.4b in 2013 (excluding the Glencore Xstrata deal) and only one mega deal (value >$1b), namely the joint acquisition of Rio Tinto's Clermont mine by Glencore and Sumitomo Corporation, the execution of such a strategy is work in progress.

The argument for greater physical ownership is a strong one: improve access to the underlying commodities that are traded, rather than rely on offtake agreements or market purchases. The benefits include improved margins, increased market intelligence, and a greater foothold in the supply/demand dynamics of the particular commodity traded.

But, of course, this strategy exposes participants to the execution risks that come with any acquisition strategy, and with capital just as critical to the trading sector as elsewhere, perhaps it is no surprise that activity has been subdued during 2014. Interestingly, one of the most prominent commodity traders, Noble Group, has opted to make a significant $500m investment in X2 Resources[76] (as discussed in the Q&A with X2 Resources on page 22), which may in part be a way of accessing off-take without the same execution risks that come with a direct investment at a corporate level. As part of the investment, Noble will become X2 Resources' preferred marketer and supply chain provider.[77]

Glencore was involved in 2014's headline deal, with the acquisition of Rio Tinto's 50.1% interest in the Clermont coal operations in Queensland, Australia. Sumitomo partnered Glencore, with both parties taking a 25.05% stake alongside existing investors Mitsubishi, J-Power and Japanese Coal Development. This was the largest mining deal executed by a trading company during 2014, which, at a little more than $500m by each party (for a total deal value of just over $1b), demonstrates the limited appetite across the sector for M&A activity.

The deals that were executed highlighted few patterns, with a broad range of commodities targeted and a diverse regional focus. Perhaps the one trend that stood out in the small pool of deals executed was a handful of domestic deals in China, demonstrating the need for greater consolidation that bring economies of scale and greater market influence.

Looking forward, there appears to be a clear strategic benefit in acquisitions if value can be found and execution risk minimized, and we have no doubt that many commodity traders will pursue growth through the acquisition of producing mines. With the softening of iron ore and coal prices in recent months, it is likely we will see these as the primary commodities targeted during 2015.

Many commentators have questioned the lack of M&A activity in 2014, observing that the bottom of the market has surely been reached. But, similar to the patient manner in which private capital earmarked for the sector has yet to be deployed, perhaps it is telling that the traders, widely believed to be the most informed participants in the sector, have not invested significant capital in acquisitions during 2014.

It would appear we have yet to reach the bottom of the market, but when we do, you can be sure the commodity traders will be ready to make their move.

75. For the purposes of the report, we classify Glencore as a diversified mining company. However, this deal value includes Glencore's share of the Clermont acquisition, undertaken to complement its marketing activities. Glencore's acquisition of non-mining asset Caracal Energy is not included in this total.
76. "Former Xstrata chief Mick Davis wins $1bn backing for mining venture," Financial Times, 30 September 2013.
77. "Noble Group, TPG and X2 Partners announce investment in mining venture," Noble Group press relesase, 30 September 2013.

Value and volume of mining acquisitions by traders

	2013*	2014	
Value ($m)	1,366	1,773	▲
Volume	11	10	▼
Cross border (% share of volume)	73	90	▲

*Excludes Glencore Xstrata merger

Top five mining acquisitions by traders

Deal value ($m)	Target name	Target nation	Target commodity	Trading company	Stake acquired (%)
1,015	Clermont Mine Joint Venture	Australia	Coal	Glencore; Sumitomo Corp	50
402	South China Mining Investments	China	Nonferrous metals mining	China Dynamics Holdings (previously Sinocop Resources)	100
151	Billion Win Capital	Malaysia	Iron ore	Prosperity International Holdings	100
140	Alcoa Minerals of Jamaica	Jamaica	Aluminium	Noble Group	55
30	EMED Mining	Spain	Copper	Trafigura	16

EY's Global Mining & Metals Center

With a volatile outlook for mining and metals, the global sector is focused on cost optimization and productivity improvement, while poised for value-based growth opportunities as they arise. The sector also faces the increased challenges of maintaining its social license to operate, addressing skills shortages, executing capital projects and meeting government revenue expectations.

EY's Global Mining & Metals Sector brings together a worldwide team of professionals to help you succeed — a team with deep technical experience in providing assurance, tax, transaction and advisory services to the mining and metals sector. The Sector brings people and ideas together to help mining and metals companies face the issues of today and anticipate those of tomorrow. Ultimately, it enables us to help you meet your goals and compete more effectively.

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