

You Can't Always Get What You Want

Global mining deals 2010

March 2011



Contents

- 03 Highlights
- 05 Key Observations 2010
- 22 2010 Top 20 Global Mining Deals
- 24 2011 M&A Outlook
- 32 The Rise of Frontier Markets – Five Risks
- 34 Contact us

Highlights

It's likely that Mick Jagger and Keith Richards had other things on their minds while crafting "You Can't Always Get What You Want", the Rolling Stones' 1969 classic, but we can't think of a more fitting theme for mining M&A in 2010 and, more importantly, for the decades ahead. The bottom line is that, with the world's population estimated to reach 8.3 billion by 2030 amid fears of a fleeting supply of resources, there may not be enough to go around. Someone, somewhere, may be disappointed.

With this in mind, Mining Deals 2010 revisits Mining M&A in 2010. Our report sets out the winners, losers and those waiting in the wings.

2010 Retrospective

1. Number of transactions at all time high. Aggregate dollar values post impressive annual gains, but "mega deals" remain elusive.

The numbers are in—2010 results prove that the first decade of the millennium belongs to the mining sector! We tracked 2,693 global mining M&A deals worth \$113 billion in 2010, bringing the decade total to over 11,000 transactions worth close to \$785 billion. No other global industry sector has experienced comparable growth rates or volumes. In 2010, the largest deal in our analysis was Newcrest's \$8.7 billion acquisition of Lihir Gold. The \$10 billion "mega deal" threshold was not breached.

2. Buyers extend geographic reach to acquire five key resources.

Nearly all mining sub-sectors were busy from a deals perspective through 2010 but five key resources dominated M&A. Mines with a primary resource of gold, copper, coal, fertilizer minerals or iron ore represented 88% of aggregate dollar values in 2010. In many instances, demand for key resource projects was so voracious that miners penetrated regions with higher political risk profiles.

3. Canada and Australia governments look inward. Canadian and Australian corporates look outward.

2010 will undoubtedly go down as the year in which the most talked about mining issue was a matter of philosophy—who should benefit from resources imbedded in national soil—citizens or shareholders? The BHP Billiton/Potash Deal and Australia's MRRT tax were largely behind these conversations.

While national interests in Canada and Australia were raising concerns about resource ownership, corporations in Canada and

Australia were busy buying foreign assets. In somewhat of a "hollowing in", Canadian owned entities completed 236 acquisitions of foreign targets worth \$8 billion while Australian owned entities completed 109 acquisitions of foreign targets worth \$9.7 billion.

4. High profile bidding wars see some buyers left out or having to boost purchase price.

Protectionist sentiment was not the only thing preventing mining deals from getting done. 2010 was a seller's market. A number of acquirers failed in their acquisition attempts, or were prompted by shareholders and/or boards to retreat and return with better terms.

5. China's role in global M&A overstated. Australia, Canada and Developed Europe dominate global buy-side activity.

2010 saw continued buy-side activity by Chinese entities with 161 acquisition announcements worth close to \$12 billion. Chinese led M&A is indisputably notable considering that Chinese buyers were negligible players in mining M&A only five years ago. However, few Chinese buyers have successfully secured controlling stakes in world leading mining companies. Rio Tinto and Xstrata alone completed more acquisitions (in value terms) in the 2000-2010 period than all Chinese buyers cumulatively. Consider that while Chinese buyers were at the table in only 6% of all global acquisitions in 2010, North American buyers had a 52% market share with Australian buyers representing 16% of all bids.

The notion that China is amassing control of global mining commodities supply via M&A is unfounded.

Highlights

2011 M&A Outlook

2010 did indeed mark the end of a historic decade in mining dealmaking. While it remains to be seen if we will ever see another decade like it, we do think 2011 will be another record-setting year for mining M&A. Our top five expectations are:

1. There will be a heightened pace of deal activity, especially in the “five key resources.” Upward pressure on deal values may prompt seniors to deploy more capital for organic growth.

In a rush to secure resources against a macro backdrop of emerging world industrialization, global asset inflation and a depressed US dollar, miners will hasten their march forward into frontier geographies and into new and untested expanses. In addition to activity within the “top five” resource groups, during 2011 we also expect acquirers to seek out: junior rare earth projects, uranium projects and targets in complementary extractive industries, like shale.

We also expect that rising public company market capitalizations will lead to an expansion in deal size through 2011, with numerous mining deals breaching the \$10 billion price point for the first time post-crisis. However, as deal targets become more expensive, the economics associated with organic growth may become more attractive.

2. Chinese entities will endeavour to earn a spot amongst the global mining elite.

As discussed in our 2010 coverage, while China has been an extremely active investor in global mining projects, it has yet to produce a diversified mining market leader to rival the likes of a BHP Billiton or a Rio Tinto. We believe that this will begin to shift in 2011. From an M&A perspective, we expect the Chinese to take a more aggressive approach to outbound M&A and also to develop and consolidate the fragmented Chinese mining sector.

3. Indian entities will seek to secure industrial resource supply via strategic M&A.

We think that Indian buyers will be more active on the M&A front in 2011. Because securing supply will be India's chief concern, many Indian-led deals will resemble typical China-led deals from the 2000-2007 period, often structured as private placements (debt or equity) with offtake or royalty agreements.

We also expect that some Indian steel and power conglomerates will take toehold positions in larger iron ore or coal miners, continuing upon the trend of vertical supply chain integration we observed through 2010. Dealmaking will not be limited to the private sector; state-owned companies are also expected to be acquisitive overseas.

4. Frontier markets will be at the forefront of mining M&A. Understanding and managing political risk will be critical to deal success.

With limited assets in developed regions and soaring demand for resources, miners eager for growth have, and will continue to have few other options than to move into frontier markets – high risk regions with underdeveloped mining sectors. Frontier markets are not to be confused with broader emerging markets. The former are regions that have a relatively recent history of steady mining activity. Numerous emerging markets, like Peru, Chile and Brazil, have longer track records of inbound investments in the mining sector and many miners are well acquainted with the regional risks and rewards.

Our report includes a special insert by the Eurasia Group which further discusses political risk in relation to mining projects.

5. Increased stakeholder intervention to create closing hurdles.

Deal market forecasting is not just about where the deals will be and who will be doing them. Equally important for dealmakers is the question: how will deal processes change in 2011? We expect that the biggest change will stem from increased stakeholder criticism of the current direction of mining M&A, which can make closing a deal challenging and even increase integration challenges. To avoid deal disruptions due to stakeholder concerns, we anticipate that through 2011 mining companies will need to:

- improve collaboration with Non-Governmental Organizations (NGOs) in acquired project regions
- answer to the collective shareholder voice: and
- be aware that government stakeholders are becoming more active in the sector.

Our report provides data, deal examples and a deeper perspective on each of these trends and outlook points.

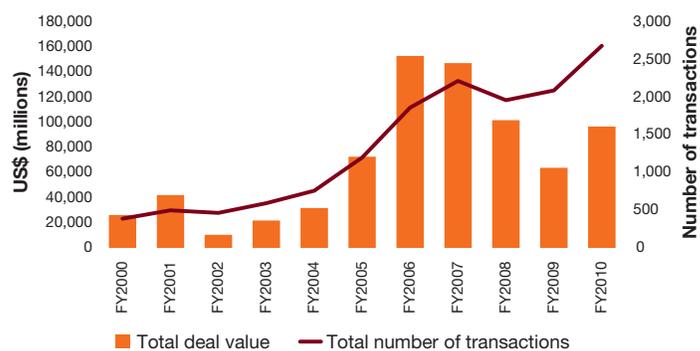
Hot Rocks...

Key Observations 2010

1. Number of transactions at all time high.
Aggregate dollar values post impressive annual gains, but “mega deals” remain elusive.

The numbers are in—2010 results prove that the first decade of the millennium belongs to the mining sector! We tracked 2,693 global mining M&A deals worth \$113 billion in 2010, bringing the decade total to over 11,000 transactions worth close to \$785 billion. Indeed, the cumulative annual growth rate (CAGR) for mining M&A volumes in the decade ended 2010 was 21%. No other global industry sector has experienced comparable growth rates or volumes.

Figure 1: Global Mining M&A Volume and Aggregate Value

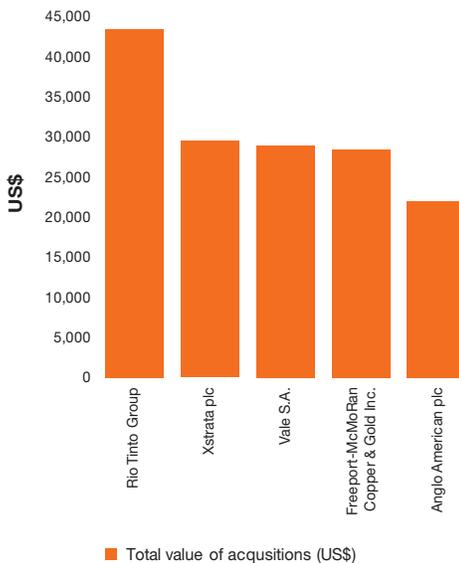


Source: Capital IQ, PwC Analysis



With the exception of the withdrawn \$40 billion takeover of Potash Corporation of Saskatchewan by BHP Billiton, 2010 did not see any mining sector deal announcements breach the \$10 billion mark.

Figure 2: Top five acquirers (2000-2010)



Source: Capital IQ, PwC Analysis

Please note: For the purposes of this analysis the totals above cover equity acquisitions and exclude the purchases of rights, special warrants, convertible debt, joint ventures or transactions deemed to be mergers of equals. Examples of transactions not included are as follows:

- The all stock merger of equals of BHP Limited and Billiton plc to form BHP Billiton which took effect on June 29, 2001. The deal was valued at US\$13.2 billion and would likely have propelled BHP into our list of top five acquirers of the decade.
- Rio Tinto's additional investments in Ivanhoe mines which include the second tranche of its investment from 2006, the exercise of warrants or conversion of the credit facility into common shares, which would have added an additional US\$1.2 billion to Rio's totals.

Please refer to notes to methodology on page 35 for details on inclusions/exclusions for data in the rest of this report.

A closer look at the data:

- With 2,693 announced deals, volumes posted a 28% gain over 2009 and a 21% gain over the previous market peak (2007).
- The total value of announced deals in 2010 was 77% higher than the prior year although aggregate dollar values remained 26% lower than the 2006 peak. Values did not rebound as precipitously as volumes due to an absence of mega deals announcements (transactions over \$10 billion), which skew average deal values upward and contribute disproportionately to dollar values.
- With the exception of the withdrawn \$40 billion takeover offer of Potash Corporation of Saskatchewan by BHP Billiton, 2010 did not see any mining sector deal announcements breach the \$10 billion mark. The largest announced deal was Newcrest Mining's \$8.7 billion acquisition of Lihir Gold. Consider that 2006-2008 saw numerous \$10 billion+ transactions including, among many, Vale/Inco (\$20 billion) and Teck/Fording (\$12 billion).

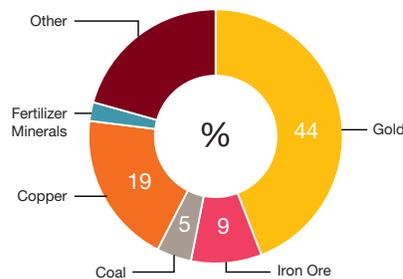
- An absence of \$10 billion+ deals in 2010 was not due to lack of motivated buyers. Quite the contrary. In a mining environment generally characterized by high demand, tight supply and expensive exploration and development costs, most senior executives expressed a desire to secure takeover targets to boost reserves, increase production rates and improve access to capital. Why then did we not see a high volume of mega deal activity in 2010? Global miners have been so active that in 2010 there were simply fewer good targets with market capitalizations of >\$5 billion in play.
- As set out in the accompanying graph, we observed five companies that have each announced more than \$20 billion in acquisitions since 2000. Together, this group contributed close to a quarter of buy-side dollar volumes between 2000-2010. The corollary of this decade-long deal binge is a limited universe of large takeover targets. Indeed, consider that a recent study by the Raw Materials Group revealed that 85% of total global industrial mine production is now controlled by only 150 companies, with the degree of fragmentation varying by commodity.

Global miners have been so active that in 2010 there were simply fewer good targets with market capitalizations of >\$5 billion in play.

2. Buyers extend geographic reach to acquire five key resources.

While nearly all mining sub-sectors were busy from a deal perspective through 2010, five key resources dominated M&A. Mines with a primary resource of gold, copper, coal, fertilizer minerals or iron ore represented 88% of aggregate dollar values in 2010. In our top 20 deals of 2010, all but two targets (Mantra Resources, Anglo American Zinc) fell into one of these five sub-sectors. In many instances demand for key resource projects was so voracious that miners penetrated regions with higher political risk profiles.

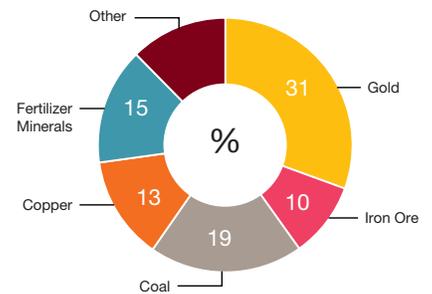
Figure 3: 2010 deals by resource (measured by volume)



Source: Capital IQ, PwC Analysis

Note: Target by resource analysis based on universe of transactions with an identified primary resource in each deal target. PwC has made a best effort to identify all such primary resource targets.

Figure 4: 2010 deals by resource (measured by value)



Source: Capital IQ, PwC Analysis

Note: Target by resource analysis based on universe of transactions with an identified primary resource in each deal target. PwC has made a best effort to identify all such primary resource targets.



Entities with a primary interest in gold were the most sought after targets in 2010.

Figure 5: Gold Spot Index



Source: Bloomberg

A closer look by major resource

Gold

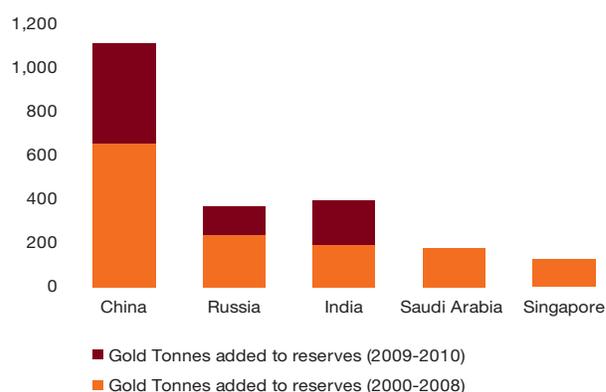
- Entities with a primary interest in gold were the most sought after targets in 2010, representing 44% and 31% of volume and value respectively. Six of our top 20 deals in 2010, worth close to \$22 billion, were in the gold sector, including the largest and third largest deals of the year—Newcrest’s acquisition of Lihir Gold (\$8.7 billion) and Kinross Gold’s acquisition of Redback Mining (\$6.8 billion). The strategic rationale behind both these deals was reserve growth. In both instances, some measure of geographic diversification was also achieved, Lihir (Papua New Guinea and Cote d’Ivoire) and Redback (Mauritania and Ghana).
- While blockbuster gold deals typically garnered the most attention, the majority of gold targets were small-medium size entities with exploration or development stage projects. For this reason, gold targets had an average value of only \$54 million, although values ranged from less than \$1 million to almost \$9 billion. We observed a wide variety of buyers, including two Kazakhstani producers and numerous Chinese intermediaries, actively buying such projects. The majority of gold mine acquirers exhibited little risk aversion, securing assets in such frontier regions as Mongolia, Sudan and the Democratic Republic of Congo, or in new and untested geographies, such as the Canadian high Arctic. The traditional gold geographies of Latin America, North America and Australia also remained popular, although new projects in these regions were few.

“A structural shift in central bank policy towards gold meant that in 2010 central banks became net buyers of gold for the first time in 21 years, removing a significant source of supply to the market.”

World Gold Council,
January 2011

- Gold sector M&A was, by and large, underpinned by expectations for further gold price strengthening amidst a backdrop of low interest rates, a depreciating US\$ and inflation. This macro backdrop resulted in an upsurge in gold demand from central banks and investors.
- Since the latter half of 2009, global central banks collectively transitioned to become net buyers of gold. As set out in the accompanying graph, China, Russia and India were the most active central bank acquirers in 2010. Most agree that central bank actions were motivated by a desire to diversify FX reserves away from US\$ holdings.
- Statistics from the World Gold Council revealed that demand for gold by ETFs and similar investment vehicles was up 414% in mid 2010 over the prior year. This increase was partially fuelled by the emergence in 2010 of ETFs that hold physical gold.

Figure 6: Gold tonnes added to Central Bank reserves



Source: World Gold Council, PwC Analysis



We observed a number of tuck under buys of small coal reserve deposits by a diverse range of buyers seeking to build scale or vertically integrate supply chains.

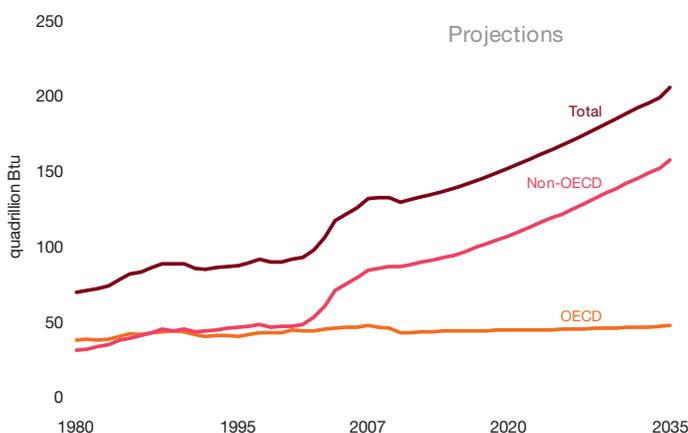
Coal

- While coal targets represented only 5% of acquisitions (by volume), measured by total transaction value, coal targets represented 19% of the market. Indeed, six of our top 20 deals of 2010, worth over \$14 billion, involved a coal target.
- Although we did observe continued acquisitions of Canadian and US based targets (Western Coal, Cumberland Resources), acquirers also extended their geographic reach into Mozambique, Russia, Poland, Colombia and China. Indeed, the largest announced coal deal in 2010 was Rio Tinto's pending acquisition of Riversdale Mining for \$3.8 billion. Although headquartered in Australia, Riversdale's most attractive assets are its hard coking-coal projects in Mozambique which, according to analysts, will not come into production until 2013 but have the potential to supply 5-10% of the global market for the key steel-making material. At the time of print, the outcome of this bid, which is confused by strategic shareholdings held by Indian and Brazilian investors, is uncertain. Another interesting coal deal in 2010 was the \$3 billion acquisition of two of

Indonesia's largest coal producers by a holding company founded by British financier Nathaniel Rothschild to raise cash for acquisitions.

- While large deals were the most talked about coal transactions through 2010, we did observe a number of tuck under buys of small coal reserve deposits by a diverse range of buyers seeking to build scale or vertically integrate supply chains. Examples of the latter rationale included buyers JFE Shoji Trade Corporation, a Japanese steelmaker and PGE Polska Grupa Energetyczna S.A., a Polish energy electrical energy company, both of whom acquired small coal properties in order to secure critical supplies for steelmaking and energy.
- In Australia we saw a complex situation surrounding takeover bids for Macarthur Coal by Peabody and New Hope fizzle out to nothing, reportedly due primarily to concerns with the resources tax, while a low profile yet successful deal by Banpu of Thailand for Centennial Coal was the largest completed deal. We also saw Indian buyers, notably Adani, making significant deals.
- Like all resource M&A in 2010, many coal deals were motivated by a need to build production capacity to meet soaring demand for coal from non-OECD nations. As set out in the accompanying graph, the United Nations Statistics Division expects coal consumption from these nations will expand by 85% through to 2035.

Figure 7: World coal consumption by country grouping, 1980-2035



Source: International Energy Statistics Database, UN Statistics Division

Although representing less than 1% of transaction volumes, fertilizer mineral targets represented a whopping 15% of target dollar values.

Fertilizer mineral mining

- Interesting and new to our annual top five target resource categories is the fertilizer mineral category, which displaced silver in our annual top five. This category covers takeover activity in the phosphate, potash and borate minerals segment of the mining market.
- Although representing less than 1% of transaction volumes, fertilizer mineral targets represented a whopping 15% of target dollar values (and likely the majority of mining headlines in 2010!). Notwithstanding the failed takeover of Potash Corporation by BHP Billiton, Brazil's Vale was one of the biggest stories of the year for the sub-sector. The South American giant acquired \$4.7 billion of various fertilizer assets from Bunge in 2010 on the heels of \$850 million worth of potash mine buys in Argentina and Canada in 2009. And, in what was the third largest chemical and fertilizer deal of 2010, Vale sold minority stakes in its Bayovar phosphate project in Peru for \$660 million to Mosaic (35% and an offtake agreement for \$385 million) and Mitsui & Co Ltd (25% for \$275 million). The alliance of Vale, Mosaic and Mitsui in the latter transaction provided Vale with access to technical expertise, guaranteed product off-take and enhanced product distribution capabilities. The deal was part of the South American giants strategy to diversify its operations. The largest fertilizer deal of the year was the mega-merger of Russia's Uralkali and rival potash producer Silvinit—the \$8.4 billion cash and share deal was the second largest mining deal of the year.

- Outside the major deals noted, there were a small number of <\$100 million acquisitions of small potash or phosphate projects, mineral claims or quarries. Phosphate targets were largely concentrated in China and the US while various countries in South America as well as Russia and Canada were the most popular acquisition regions on the potash front due to the high concentration of the respective minerals in each of these geographies. In addition to market leaders such as Vale, a number of venture-stage miners were active acquirors of the properties.
- The emergence of fertilizer as an operational focus for miners is largely due to global concerns about food scarcity. In its most recent forecast, the Food and Agricultural Organization of the United Nations postulated that demand for food in the first half of this century will double. At the same time, crops may increasingly be used for bioenergy and other industrial purposes. Both of these forces are already resulting in tight supplies and putting upward price pressure on agricultural chemicals and fertilizers, a highly profitable state of affairs for miners of these commodities.

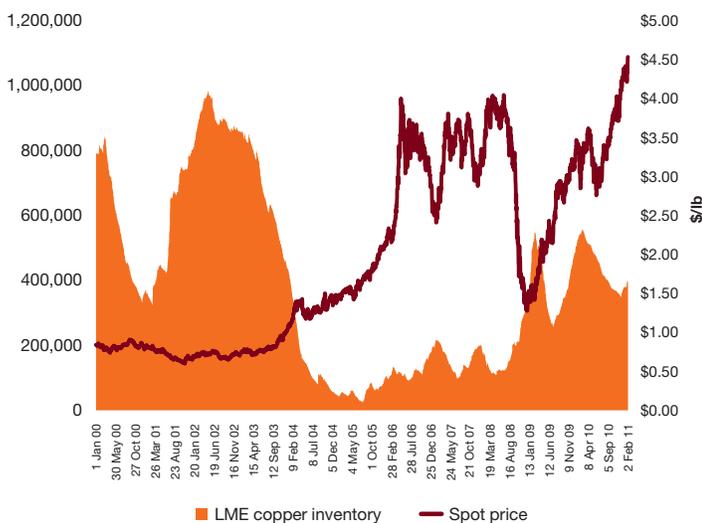
Figure 8: FAO Food Price Index



Source: Food and Agriculture Organization of the United Nations ("FAO")

With few good copper projects in play and supply extremely tight, many buyers sought out projects in new and higher risk regions, namely Zambia, Saudi Arabia, Mongolia and the Philippines.

Figure 10: Copper spot price vs LME inventory



Source: Bloomberg, PwC Analysis

Copper

- M&A deals involving a target with a primary copper resource represented 19% of transaction volumes and 13% of aggregate dollar values in 2010. Our top 20 deals of 2010 profile two copper deals. The first was a traditional “merger of equals” deal between Canada’s Quadra mining and FNX mining. The \$1.5 billion deal provided the combined entity with a portfolio of high quality assets in the politically stable regions of Canada, the US and Chile, as well as the critical mass and financial flexibility to pursue further M&A and exploration. The second largest copper deal of 2010 bore little resemblance to the first. Canadian-Australian listed copper miner Equinox Minerals agreed to acquire a smaller Australian peer Citadel Resource Group. The newly combined entity has a portfolio of unique high-quality assets in Zambia, and in Saudi Arabia, where Citadel had been progressing the Jabal Sayid copper-gold project.
- Similar to gold sector deal dynamics, measured by number of transactions, the majority of copper activity involved the acquisition of exploration or development stage projects. We observed intermediates and juniors, in addition to seniors, actively buying projects in the traditional copper geographies of Canada, Australia, South Africa, Chile and Peru. However, with few good projects in play and supply extremely tight, many buyers sought out projects in new and higher risk regions, namely Zambia, Saudi Arabia, Mongolia and the Philippines.
- Copper M&A was, by and large, motivated by a desire to access reserves that could fulfill strong copper demand from Asia, ahead of expected price strengthening. Indeed, those able to secure projects were well rewarded. The price of copper rallied 30% through 2010, while LME inventories were drawn down by 25%. As well, with few new copper projects coming online in 2010, supply made little headway catching up with demand—at year end, the supply/demand shortfall was 14,385 thousand metric tonnes.

Iron ore

- Targets with a primary interest in iron ore made up 9% of target volumes and 10% of aggregate value. Our top 20 deals of the year list includes three iron ore takeovers, worth \$5.6 billion, the largest of which was Vale's \$2.5 billion buy from BSG Resources of a collection of iron ore deposits in Guinea, including assets previously confiscated by the West African nation. Vale agreed to pay \$500 million up front for a 51% interest in the projects, with the remainder to be paid as the projects meet milestones.
- The major deal driver in the iron ore subsector this year, in addition to securing reserves ahead of strong expected demand from China, was steelmakers' desire to vertically integrate supply chains in order to secure raw materials supply, an issue which our sister publication, "Metals Deals, Forging Ahead" discusses in detail in the broader context of the steel market and its unique dynamics.



The major deal driver in the iron ore subsector this year, in addition to securing reserves ahead of strong expected demand from China, was steelmakers' desire to vertically integrate supply chains in order to secure raw materials supply.

“I can confirm that I have sent a notice to BHP Billiton indicating that, at this time, I am not satisfied that the proposed transaction is likely to be of net benefit to Canada.”

Tony Clement,
Minister of Industry,
Government of Canada

3. Canada and Australia governments look inward. Canadian and Australian corporates look outward.

2010 will undoubtedly go down as the year in which the most talked about mining issue was a matter of philosophy—*who should benefit from resources imbedded in national soil—citizens or shareholders?* The BHP Billiton/Potash Deal and Australia’s MRRT tax were largely behind these conversations:

- BHP Billiton’s hostile bid for Canada’s potash giant was shut down by Investment Canada for not meeting a “net benefit” test for the country. The rejection was only the second since the Investment Canada Act came into force in 1985 and stunned global dealmakers. Perhaps more surprising than the actual rejection of BHP’s bid by Investment Canada, however, was

Canada’s pre-emptive position on a potential Asian bidder (a bidder which, for the record, had yet to even materialize). The Conference Board of Canada released an official review of the proposed transaction to the Government of Saskatchewan and expressly stated

“The acquisition risk associated with a Chinese consortium bid, however, is more serious. As we discuss, a Chinese bid mingles state strategy with commercial strategy. Under this scenario, the Province cannot count on market discipline to manage its supply-side risk. Potash is critical to China’s food needs and therefore there may be a tendency for the state to “subsidize” food through cheap inputs like potash.”

- On the other side of the world, a historically equally mining friendly nation took an equally tough stance on the mining sector. On July 2nd, 2010, the Australian Government announced the Mineral Resource Rent Tax (“MRRT”), a profits-based tax which is intended to apply to iron ore and coal

2010 will undoubtedly go down as the year in which the most talked about mining issue was a matter of philosophy—*who should benefit from resources imbedded in national soil—citizens or shareholders?*

In somewhat of a “hollowing in”, Canadian owned entities completed 236 acquisitions of foreign targets worth \$8 billion while Australian owned entities completed 109 acquisitions of foreign targets worth \$9.7 billion.

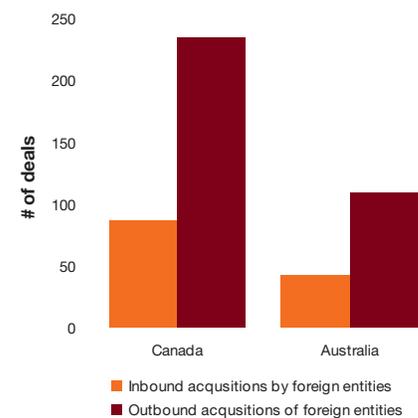
and is projected to come into effect on July 1, 2012. The proposed new tax applies over and above any corporate tax paid, at a rate of 30% (reduced to 22.5% with an ‘expertise’ credit applied). In essence, this rate is applied to the value of the minerals as close to the point of extraction as possible, less all costs incurred up to that point. Its aim is to tax the value of the natural resource rather than any value added by the miner. Chief among the Australian Federal Government’s rationale for the proposed tax was a concern that Australians were not benefiting enough from the revenue being generated by its vast natural resources. (It should be noted that the MRRT was a significantly watered down tax from the initially suggested Resource Super Profit Tax announced earlier in 2010). Some further details regarding the MRRT are available at <http://www.pwc.com.au/assurance/ifrs/assets/DiggingIFRS-28Jan11.pdf>. While the Australian government has made it clear foreign investment is still welcome, for sophisticated foreign

investors choosing a jurisdiction to invest capital, the concept of a specialist tax regime imposing more costs, is clearly a deterrent. Indeed, of 2,693 transactions in 2010, only 43 involved a non-Australian acquiring an Australian entity (by contrast, Canada saw 87 acquisitions by non-Canadian entities).

- It is interesting that while national interests in Canada and Australia raised concerns about foreign resource ownership, corporations in Canada and Australia were busy buying foreign assets (as has been the privilege of these resource rich nations for the better part of this century). In fact, in somewhat of a “hollowing in”, Canadian owned entities completed 236 acquisitions of foreign targets worth \$8 billion while Australian owned entities completed 109 acquisitions of foreign targets worth \$9.7 billion.



Figure 11: Inbound vs. acquisitions in Canada and Australia



Source: Capital IQ, PwC Analysis

“Sovereign risk in Australia is higher than South Africa... Australians are horrified. It potentially damages the industry.”

Mark Cuitifani,

CEO AngloGold Ashanti, May 2010

In 2010, a number of acquirers failed in their acquisition attempts, or were prompted by shareholders and/or boards to retreat and return with better terms.

“The gold industry, as a whole, has an appalling track record of value destruction and Eldorado has no intention of following in these unfortunate footsteps.”

Paul Wright,
CEO, Eldorado Gold

4. High profile bidding wars see some buyers left out or having to boost purchase price.

Protectionist sentiment was not the only thing preventing mining deals from getting done. 2010 was indeed a seller's market. A number of acquirers failed in their acquisition attempts, or were prompted by shareholders and/or boards to retreat and return with better terms.

• Among such instances were:

- In September 2010, Vale put forth a bid to acquire Paranapanema, Brazil's sole copper smelter, for approximately R\$1.13 billion. In response to shareholder criticism, Vale subsequently raised its offer to R\$2.4 billion, but the bid failed again, with less than 50% shareholder approval. Vale did not counter and was unable to secure Paranapanema, a target it has been trying to acquire since early 2008. Paranapanema CEO Luiz Antonio Ferraz stated that the company

“should remain independent,” and that “it has a life of its own.”

- Also in September 2010, Goldcorp trumped Eldorado Gold's C\$3.4 billion hostile bid offer for Andean Resources Ltd., owner of the Cerro Negro gold project in Argentina, by putting forth

a C\$3.6 billion offer. Eldorado did not attempt to counter Goldcorp's offer, with Eldorado CEO Paul Wright stating quite controversially that he did not want to get into a value-destroying auction:

“The gold industry, as a whole, has an appalling track record of value destruction and Eldorado has no intention of following in these unfortunate footsteps.”

- In February 2010, Newcrest Mining Limited approached Lihir Gold Limited with an A\$9 billion offer to combine the two companies to create the world's fourth largest gold company. This proposal was rejected by shareholders due to their concerns that it undervalued Lihir's portfolio of assets. In May 2010, a final bid was made that was accepted by the board of directors, and ultimately the shareholders of Lihir Gold. Prior to the final offer being made, speculation ran rampant that other bidder's were seriously looking at acquiring Lihir. The final offer was at a 40.8% premium to Lihir Gold's share price immediately prior to the first offer in February, and ultimately valued Lihir Gold at A\$9.5 billion.

Rio Tinto and Xstrata alone completed more acquisitions (in value terms) in the 2000-2010 period than all Chinese buyers cumulatively.

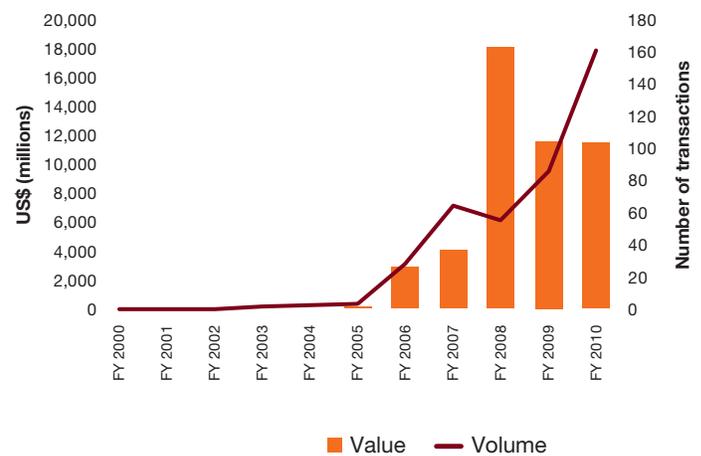
5. China's role in global M&A overstated. Australia, Canada and Developed Europe dominate global buy-side activity.

It should come as no surprise 2010 saw continued buy-side activity involving Chinese entities. During 2010, we observed 161 acquisition announcements involving a Chinese entity worth close to \$12 billion. Year end results bring the decade ended 2010 deal tally to 400 deals worth close to \$48 billion. Front of mind for us, however, is not the volume/value trend. The results speak for themselves and are indisputably notable considering that Chinese buyers were negligible players in mining M&A only five years ago. Rather, we wanted to know what M&A in the decade ended 2010 told us about how China is faring overall with its “go-out” strategy—the nation’s ambitious plan, announced in 2001, to boost its investments overseas.

- Much western rhetoric has been devoted to the suggestion that China, through its state owned enterprises, is amassing de facto control of the world’s mining sector. Global mining M&A data, however, would suggest otherwise. Unlike the energy or financial services sectors, where we have seen Chinese buyers making numerous \$5 billion+ acquisitions into world leading corporations, few Chinese buyers have successfully secured controlling stakes in world leading mining companies. Rio Tinto and Xstrata alone completed more acquisitions (in value terms) in the 2000-2010 period than all Chinese buyers cumulatively.

- The largest equity deal to date involving a Chinese entity has been the joint \$14 billion acquisition by Aluminum Corporation of China (Chinalco) and Alcoa of a 9% stake in Rio Tinto (and subsequent rights purchases to avoid dilution). No other Chinese entity has even breached the \$3 billion price point. Although Chinalco’s failed second bite at Rio Tinto would have easily done this and also created much debate in 2009!

Figure 12: Chinese equity acquisitions in the global mining sector



Source: Capital IQ, PwC Analysis
 Note: Data excludes private placements and purchases of rights, warrants issues, and convertible debt.

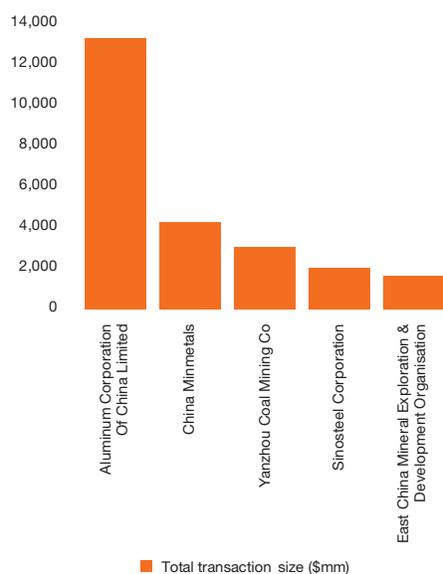
“Our data reveals that Chinese entities currently control only less than 1% of global mine production outside China.”

Magnus Ericsson,
 Raw Materials Group, Stockholm

“The Chinese metals ministry has positioned itself to ultimately create a long position—but not a control position—upstream in many of its metals markets that has eluded the nation to date... We believe that the Chinese recognize that control will likely be elusive—if not impossible...”

Michelle Applebaum,
Steel Analyst

Figure 13: Top five Chinese acquirers (2000-2010)



Source: Capital IQ, PwC Analysis

- As set out in the accompanying map on page 20, we tracked the project locations of Chinese targets in the 2000-2010 period. During this time, 61% of projects acquired were in China, while an additional 16% were in an adjoining Asian geography or in an emerging market region (South America, Africa, Latin America). Only 22% of transactions involved a target with a project on “western” soil.

- As well, consider that in 2010 only 6% of buyers in global mining M&A deals (by volume) were Chinese, the highest proportion to date, but still dwarfed by acquirers from North America (51.8%) and Australia (16.2%). The largest Chinese-led deal of the year was East China Mineral’s announced acquisition of Brazil’s Itaminas Iron Ore Mine for \$1.2 billion (including the assumption of \$400 million in debt). While smaller than the Rio Tinto acquisition, this deal was arguably more notable because East China acquired a 100% equity stake in the entity, giving the state-owned enterprise complete control of the operations and management.

What then, have Chinese dealmakers been doing?

- In the west, Chinese entities have largely been opportunistic partners, seeking to secure supply by being long-term creditors, often passive. The most notable case in point being the \$1.5 billion investment by China Investment Corporation (CIC), in Teck Resources. (In 2009 CIC took a 17.2% in Class B Teck shares, carrying only a 6.7% voting interest, in exchange for a \$1.5 billion cash infusion).

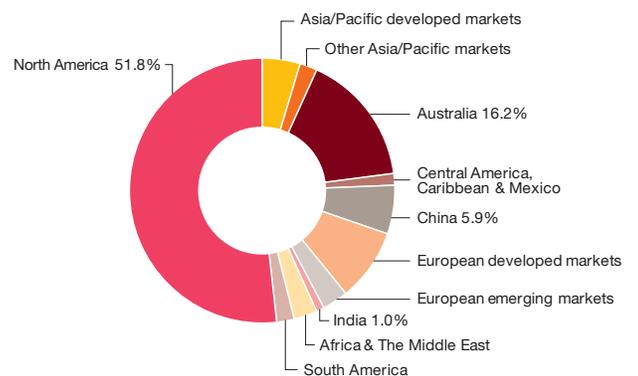
- The most notable strategic partnership of 2010 was Rio Tinto and Chalco’s joint venture to develop and operate the Simandou Iron Ore project. The project, 95% owned by Rio Tinto, is located in the south eastern part of Guinea in West Africa and is currently undergoing the final stages of exploration and feasibility studies. When completed, this world-class mining operation is expected to be one of the largest integrated iron ore mine and infrastructure projects ever developed in Africa. Under the terms of the agreement, Chalco will provide \$1.35 billion on an earn-in basis which will give them an effective 44.65% stake in the project while reducing Rio Tinto’s stake to 50.35%. The Guinean

The reality is that, for most key metals and minerals, with the exception of rare earths, China's **current** supply of resources largely depends on Western owned entities.

Government holds an option to buy up to a 20% stake in the project but the incoming government is looking to define a new mining policy where Guinea would own a 33% interest in the country's mines. Key aspects of the legal status of this project are still to be clarified; accordingly this transaction has been excluded from M&A statistics.

- In the emerging world, especially in frontier markets, China is actively acquiring small to medium size projects, often also providing funding for local infrastructure as part of deal consideration (China has been especially active in rail construction or port-to-harbour developments near acquired projects in Africa). Our data suggests that just over 80% of China led deals are the latter type.
- The reality is that, for most key metals and minerals, with the exception of rare earths, China's **current** supply of resources largely depends on Western owned entities. As we discuss further in our 2011 outlook, however, we expect this dynamic will change, albeit very slowly.

Figure 14: 2010 mining acquisitions, by region of acquirer



Source: Capital IQ, PwC Analysis

“China is a net commodity importer, not a net commodity exporter... other countries have more power over China in denying China the needed commodity imports, than China would have over the other countries.”

Martin Hennecke

Associate Director, Tyche Group, Hong Kong, October 2010

Locations of Chinese equity acquisitions in the Mining Sector 2000-2010

(targets tracked by region of project acquired)

China (including Hong Kong)	62%	243 projects were acquired in China
Developed regions ¹	22%	39 projects were acquired in North America, 14 in Europe and 35 in Australia
Adjoining Asian geography ² or Emerging market regions ³	16%	15 projects were acquired in South America, 15 in Africa and 32 projects were acquired in surrounding Asian regions

¹ Developed regions include North America, Western Europe and Australia

² Adjoining Asian geography includes countries such as Mongolia, Cambodia and Indonesia

³ Emerging market regions include South America, Eastern Europe and Africa

“Chinese entities have been acquisitive in the mining sector, yes, but the overwhelming majority of equity acquisitions have involved small projects within China and its surrounding regions. M&A by Chinese entities is not, as has been suggested, contributing to China amassing defacto control of the worlds resources.”

Tim Goldsmith

PwC Global Mining Leader

“...But while the growth of Chinese investment has been very rapid, China’s stake in world resource assets remains tiny.”

Peter Drysdale

Australian National University (as at East Asia Forum, September 27, 2010)

“Like in oil and gas, Chinese acquisition of mining assets abroad, while growing, remains relatively small. In fact, China’s total outbound investment footprint, when compared to OECD countries, is miniscule.”

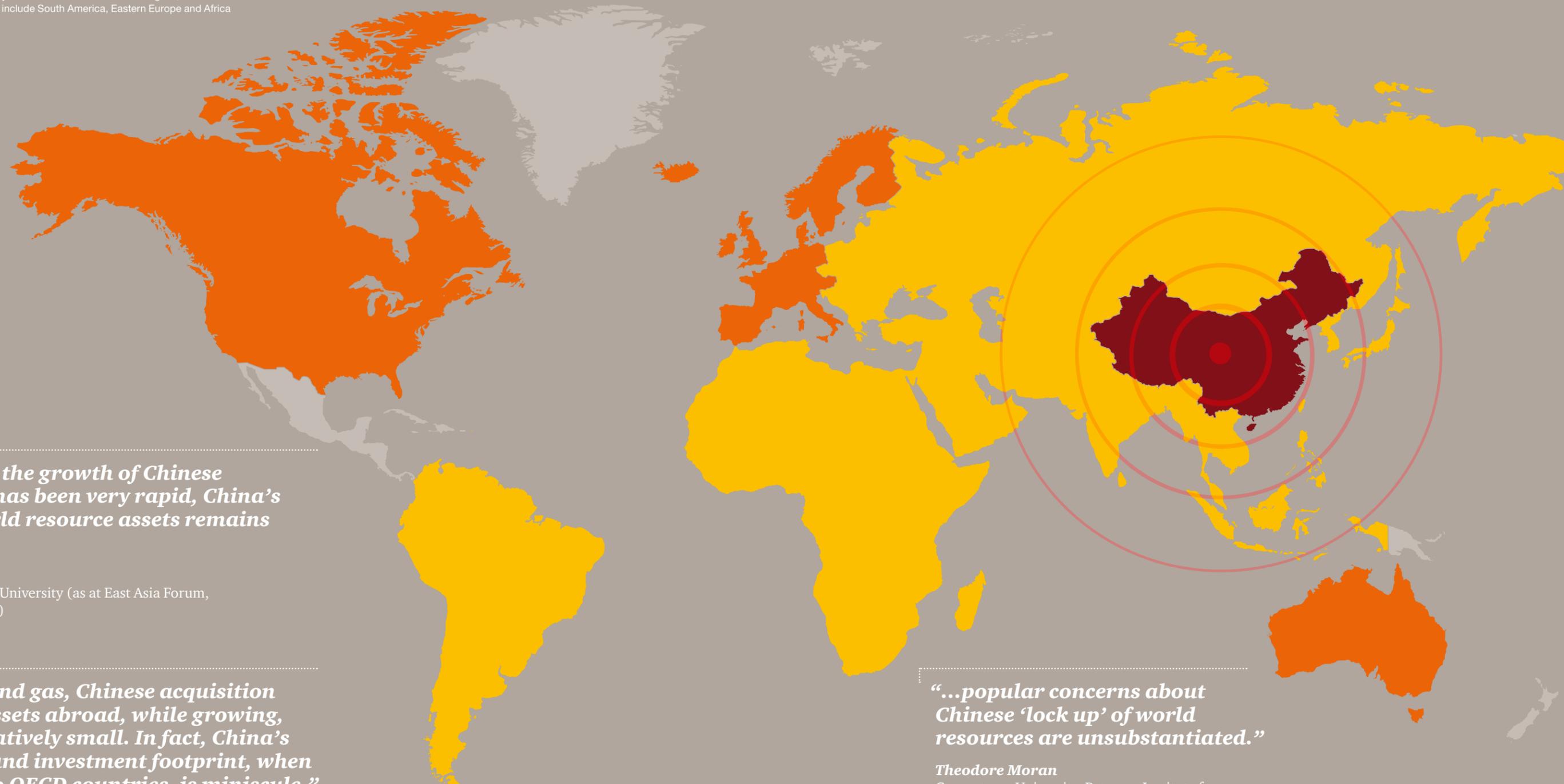
Damien Ma

China Analyst, Eurasia Group, February 2011

“...popular concerns about Chinese ‘lock up’ of world resources are unsubstantiated.”

Theodore Moran

Georgetown University, Peterson Institute for International Economics, Washington, DC, September 2010



2010 Top 20 Global Mining Deals

(by value, \$US mil, historical rate)

Announced Date	Target	Target Description	Target Headquarters	Transaction Value	Target Resource Type	Acquirer	Acquirer Description	Acquirer Headquarters	Transaction Status (as at February 6, 2011)	Consideration
15-Feb-10	Lihir Gold Limited	Lihir Gold operates as a gold producing company with operations in Papua New Guinea, west Africa, and Australia.	Australia	8,765	gold	Newcrest Mining Limited	Newcrest Mining engages in the exploration, development, mining, and sale of gold and gold/copper concentrate in Australia, Indonesia, Fiji, the United States, Canada, and Peru.	Australia	Closed	Cash, stock
20-Dec-10	Silvinit	Silvinit is the largest Russian mining industrial complex producing potash fertilizers and various salts.	Russia	8,400	fertilizer miners	Uralkali	Uralkali is a Russian based producer of potash fertilizer.	Russia	Announced	Cash, stock
2-Aug-10	Red Back Mining Incorporated	Red Back Mining, a mineral resource company, engages in operating, exploring, acquiring, and developing mineral properties in West Africa.	Canada	6,791	gold	Kinross Gold Corporation	Kinross Gold, together with its subsidiaries, engages in the gold mining and related activities.	Canada	Closed	Stock
26-Jan-10	Bunge Participações e Investimentos S.A.	Bunge Participações e Investimentos produces phosphate fertilizers and owns and operates two phosphate rock mines in Minas Gerais and São Paulo states.	Brazil	4,700	fertilizer miners	Vale S.A. (Mineracao Naque S.A. subsidiary)	Mineracao Naque is based in Rio de Janeiro, Brazil.	Brazil	Closed	Cash
23-Dec-10	Riversdale Mining Limited	Riversdale Mining engages in the exploration, mining, and development of various resource projects, mainly coal, in southern Africa.	Australia	3,825	coal	Rio Tinto Limited	Rio Tinto engages in exploring, mining, and processing a range of metals and minerals.	United Kingdom	Announced	Cash
17-Nov-10	Western Coal Corporation	Western Coal engages in the acquisition, exploration, development, and mining of coal mining properties for the international metallurgical and thermal coal markets.	Canada	3,401	coal	Walter Energy Incorporated	Walter Energy produces and exports metallurgical coal for the steel industry primarily in the United States.	United States	Announced	Cash, stock
2-Sep-10	Andean Resources Limited	Andean Resources, a mineral resource company, engages in the acquisition, exploration, and development of precious metals properties in Argentina.	Canada	3,310	gold	Goldcorp Incorporated	Goldcorp engages in the acquisition, exploration, development, and operation of precious metal properties in Canada, the United States, Mexico, and Central and South America.	Canada	Closed	Elections: cash or stock
16-Nov-10	PT Berau Coal Energy Tbk (75% stake), PT Bumi Resources Tbk (25% stake)	Berau is an Indonesian coal energy supplier. Bakrie is the largest coal mining group in Indonesia.	Indonesia	3,000	coal	Vallar Plc	Vallar is a so-called "cash shell" company founded by financier Nathaniel Rothschild, son of the British financier Jacob Rothschild	United Kindom	Announced	Cash, stock
30-Apr-10	BSG Resources (Guinea) Limited. (51% interest)	BSG Resources (Guinea) engages in exploring iron ore and bauxite deposits in the Republic of Guinea.	Brazil	2,500	iron ore	Vale S.A.	Vale, through its subsidiaries, operates as a diversified metals and mining company worldwide.	Brazil	Closed	Cash, milestone payments
4-Mar-10	C.I. Prodeco S.A. (Xstrata Plc asset)	C.I. Prodeco owns and operates Calenturitas and La Jagua open pit thermal coal operations in Colombia.	Switzerland	2,250	coal	Glencore International AG	Glencore International, through its subsidiaries, supplies commodities and raw materials to industrial consumers.	Switzerland	Closed	Cash
24-Mar-10	Itaminas Iron Ore Mine	Itaminas Iron Ore Mine is a Brazil based iron ore mine.	Brazil	1,620	iron ore	East China Mineral Exploration & Development Organisation	East China Mineral Exploration & Development Organisation engages in mineral and energy exploration, geological exploration, and conducting scientific research in major state classified projects.	China	Announced	Cash
5-Jul-10	Centennial Coal Company Limited (80%)	Centennial Coal engages in mining and marketing of coal to Australian and export markets primarily to New South Wales energy industry. It supplies thermal coal to power stations and steel mills in Japan, Korea, India, Europe, and South America.	Australia	1,942	coal	Banpu Minerals Company Limited	Banpu Minerals offers coal mining and trading services.	Thailand	Closed	Cash
19-Oct-10	Minerals and Metals Group (MMG)	MMG has a unique international diversified portfolio of base metals mining projects with exposure to zinc, copper, lead, gold, silver and nickel.	China	1,850	diversified	Minmetals Resources Limited (MMR)	MMR is one of China's largest importers and suppliers of aluminum.	China	Closed	Cash, stock
23-Mar-10	FNX Mining Company, Incorporated	FNX Mining Company engages in the exploration, development, and production of copper, nickel, cobalt, platinum, palladium, and gold at its mining properties located in Sudbury, Canada.	Canada	1,516	copper	Quadra FNX Mining Limited	Quadra FNX Mining engages in the development and production of mineral properties primarily in Canada, the United States, and Chile.	Canada	Closed	Stock
16-Dec-10	Angang Group	Iron ore assets of Anshan Iron and Steel Group	China	1,485	iron ore	Panzhuhua New Steel & Vanadium Co., Ltd. (Pangang Group Subsidiary)	Panzhuhua New Steel & Vanadium engages in the manufacture, distribution, and sale of steel, iron, and vanadium products.	China	Announced	Asset exchange (Panzhuhua steel-making assets in exchange for three - four iron ore mining companies)
10-May-10	Anglo American Zinc	Anglo American Zinc comprises the Skorpion mine in Namibia, the Lisheen mine in Ireland and a 74% interest in Black Mountain Mining in South Africa, which holds 100% of the Black Mountain mine and the Gamsberg project.	Various	1,340	zinc	Vedanta Resources Plc	Vedanta Resources is a London listed diversified metals and mining company largely operating in India. The group produces aluminium, copper, zinc, lead, iron ore and commercial energy.	United Kingdom	Announced	Cash
24-Oct-10	Citadel Resource Group Limited (81%)	Citadel Resource Group engages in the exploration and development of mineral resource properties, primarily on the Arabian Shield, in the Kingdom of Saudi Arabia.	Australia	1,289	copper	Equinox Minerals Limited	Equinox Minerals engages in the exploration and development of mineral properties in Zambia, Peru, and Australia.	Australia	Closed	Cash, stock
28-Jan-10	China Finance Energy and China Finance Gold (51%-100%)	China Finance Energy and China Finance Gold engage in exploitation, operation and management of gold and copper mines in North America, Australia, Outer Mongolia, and China.	British Virgin Islands	1,287	gold, copper	Bestway International Holdings Limited	Bestway International Holdings, an investment holding company, engages in the trade of plastic products, primarily PVC films, in the People's Republic of China.	Hong Kong	Announced	Cash, stock, convertible bonds
28-Feb-10	Vasilkovskoje Gold Project (60%)	Vasilkovskoje Gold Project is a gold mining claim and consists of gold reserves in Kazakhstan.	Switzerland	1,140	gold	Kazzinc	Kazzinc primarily produces zinc with copper, precious metals, and lead credits in Kazakhstan. (Kazzinc is a subsidiary of Glencore International)	Switzerland	Closed	Cash, shares
8-Sep-10	Avoca Resources Limited	Avoca Resources is an intermediate gold producer, primarily operating in Australia.	Australia	1,054	gold	Anatolia Minerals Development Limited	Anatolia Minerals Development, through its subsidiaries, engages in the exploration and development of mineral deposits in Turkey.	Canada	Closed	Stock, options

“Because of the importance of these rare-earth minerals, I think both the minister and I are aware that our countries and others will have to look for additional sources of supply”

Hilary Clinton
US Secretary of State

Out of control... **2011 M&A Outlook**

2010 did indeed mark the end of a historic decade in mining dealmaking. While it remains to be seen if we will ever see another decade like it, we do think 2011 will be another record-setting year for mining M&A. Our top five expectations are:

1. There will be a heightened pace of deal activity, especially in the “five key resources.” Upward pressure on deal values may prompt seniors to deploy more capital into organic growth.

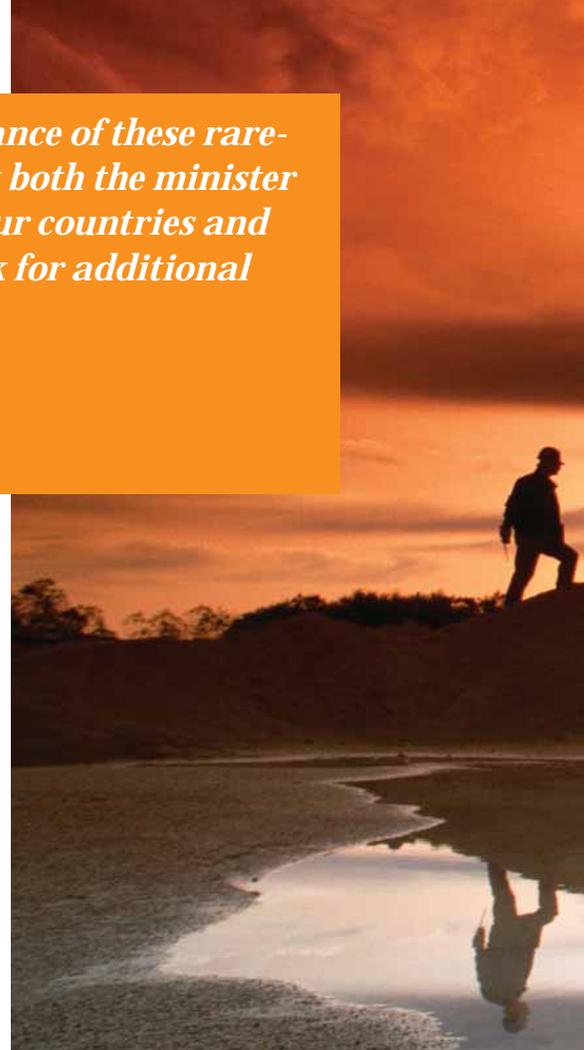
The key deal drivers of activity in 2010 still hold for 2011:

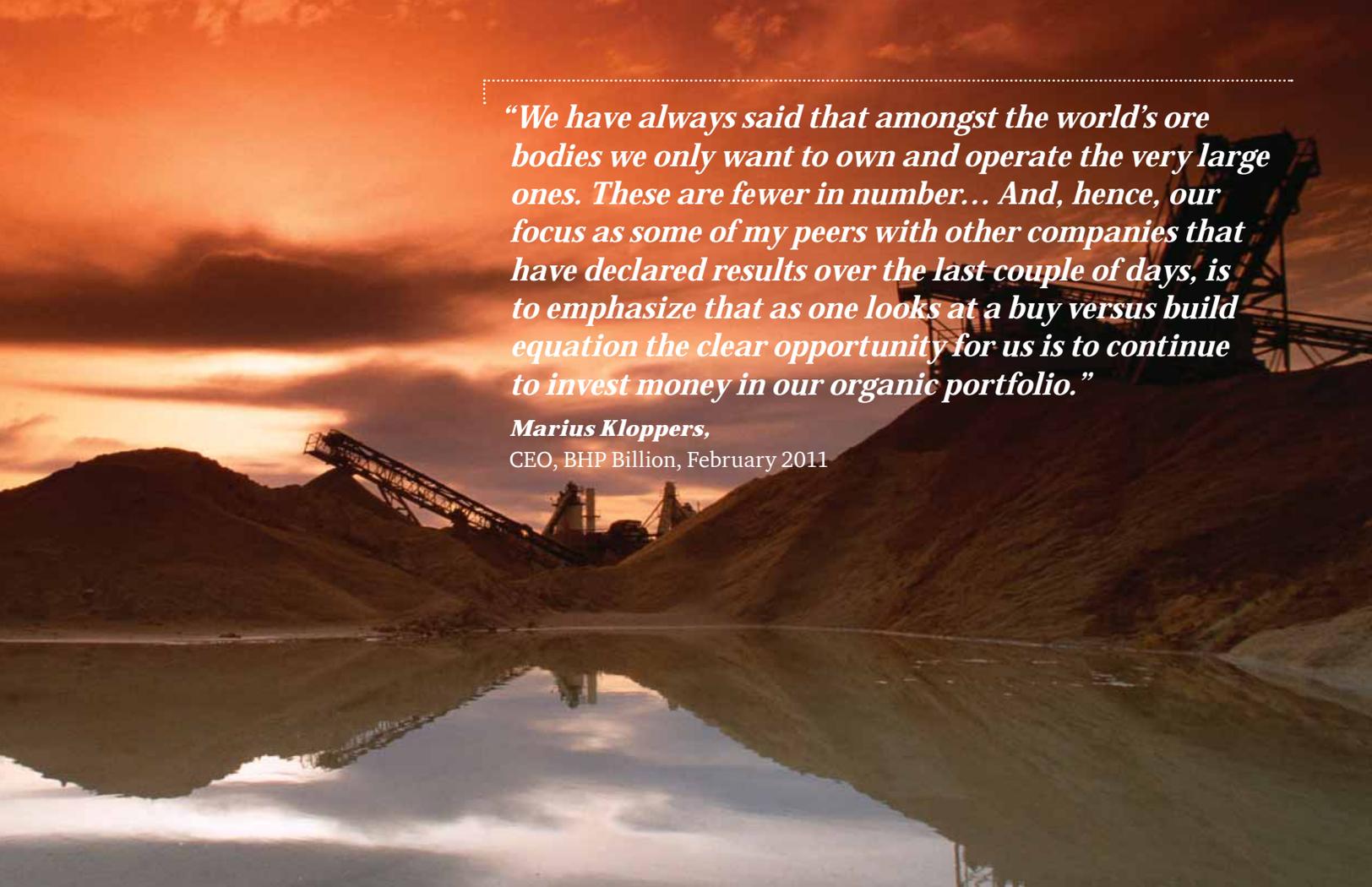
- the economic evolution of emerging markets will underpin demand for scarce commodities, prompting a rush to secure production in order to capitalize on price strengthening; and
- a macro backdrop of low interest rates in developed nations, global asset inflation, political instability and a depressed US dollar will sustain demand for precious metals.

In a rush to secure resources against this macro backdrop, miners will hasten their march forward into frontier geographies and into new and untested expanses (indeed, some corporates are trawling the seabed for minerals!)

At the time of print, 2011 was already shaping up to be a brilliant year for mining M&A, especially in our five key resource segments: gold, coal, iron ore, copper and fertilizers. Consider that, of the record \$27 billion deals already announced in the first month and a half of 2011, 81% involved one of these five commodities. Notable announcements included:

- A \$9 billion merger of equals between Inmet Mining Corp. and Lundin Mining Corp. (copper);
- Alpha Minerals \$7.1 billion acquisition of Massey Energy (coal);
- Cliffs Natural Resources Inc.’s \$4.9 billion acquisition of Consolidated Thompson Iron Mines Ltd. (iron ore);
- Newmont Mining’s \$2.1 billion takeover of Fronteer Gold (gold); and
- HudBay Minerals Inc.’s \$520 million takeover of Norsemont Mining Inc. (copper).





“We have always said that amongst the world’s ore bodies we only want to own and operate the very large ones. These are fewer in number... And, hence, our focus as some of my peers with other companies that have declared results over the last couple of days, is to emphasize that as one looks at a buy versus build equation the clear opportunity for us is to continue to invest money in our organic portfolio.”

Marius Kloppers,
CEO, BHP Billiton, February 2011

In addition to the top five, during 2011 we also expect acquirers to seek out:

- Junior rare earth projects, as Japan and others seek to secure supply amidst concerns of Chinese market concentration and export restrictions;
- Uranium projects, as Asia and other regions set out on ambitious plans for nuclear build outs;
- Complementary extractive industries, including shale, as energy security becomes a more pressing global issue.

We also expect to see deals size expand through 2011, likely breaching the \$10 billion price point. Our expectation is based, rather simply, on the rising market capitalization of miners. Consider that the market capitalization of Massey Energy at December 31, 2008 was \$1.17 billion and at December 31, 2010, prior to its acquisition in January 2011, was \$5.47 billion. Also consider that the 2010 year end market value of

materials companies on the Toronto Stock Exchange, heavily weighted in resources, was \$396 billion, up from \$254 billion at the 2007 market peak and up from \$83 billion at the start of the decade. Going into 2011, public market valuations in the mining sector on most exchanges have never been so high, which means, on a relative asset basis, deal making in 2011 will have a price. Even junior miners are not so “junior” any longer. Canada’s Toronto Venture Exchange, home to junior exploration and development entities, had close to 100 issuers listed with market capitalizations over \$100 million at year end 2010. This dynamic may have some second-order consequences for the M&A market. As deal targets become more expensive, the economics associated with organic growth may become more attractive. BHP Billiton, for example, recently announced plans for \$80 billion of investment over five years, commencing 2011.

“I still like potash, find me some more.”

Tom Albanese,
Rio Tinto CEO, 2011

We expect miners to seek out targets in complementary extractive industries including shale as energy security becomes a more pressing issue.



“...Control of the world’s stock of foreign direct investment (FDI), which includes takeovers and companies’ greenfield investments, tends to reflect a country’s economic muscle. Britain owned 45% of the world’s FDI in 1914; America’s share peaked at 50% in 1967. Today China, including Hong Kong and Macau, has a share of just 6%...”

“Being eaten by the Dragon” The Economist, November 11, 2010

“We should hasten the implementation of our ‘going out’ strategy and combine the utilisation of foreign exchange reserves with the ‘going out’ of our enterprises...”

Wen Jiabao,
Premier, China

2. Chinese entities will endeavour to earn a spot amongst the global mining elite.

As discussed in our 2010 coverage, while China has been an extremely active investor in global mining projects, it has yet to produce a diversified mining market leader to rival the likes of a BHP Billiton or a Rio Tinto. Going into 2011, Raw Materials Group estimates that Chinese interests control only 1% of production outside of China. We believe this will begin to shift in 2011. From an M&A perspective, we expect the Chinese to engage in two types of activity that will alter the global mining landscape:

- Chinese entities will take a more aggressive approach to outbound M&A in 2011. Announcements from the Chinese themselves in late 2010/early 2011 support our claim:
 - In January 2011, Andrew Michelmore, global head of Minmetals Resources Limited, the Hong Kong unit of China’s biggest metals trader and former CEO of Australia’s OZ minerals, stated that Minmetals Resources will aggressively seek out deals in the near term.

According to Michelmore, China Minmetals, the group’s parent has

“given us a remit to go out and grow this business in the international market. We would be looking to spend at least the equivalent of the market valuation of Minmetals Resources... It’s got to be significant; it’s got to make a difference...”

- In early 2010, on the heels of its 100% acquisition of debt-laden South American Itaminas iron ore mine for \$1.2 billion, the East China Mineral Exploration and Development Bureau, a mining entity owned by Jiangsu province, one of China’s wealthiest regions stated:

“China has the will, and more acquisitions are waiting in the wings.”

- In January 2011, China Investment Corp. (CIC), China’s \$300 billion sovereign wealth fund, announced plans to open a Toronto office. While CIC has made no official comment other than that its Toronto office is aimed at enhancing long-term cooperation with business partners and exploring new areas and opportunities for investment in Canada, some market analysts interpreted the move as signal that it plans to ramp up its investments in Canada’s resources and energy sectors.



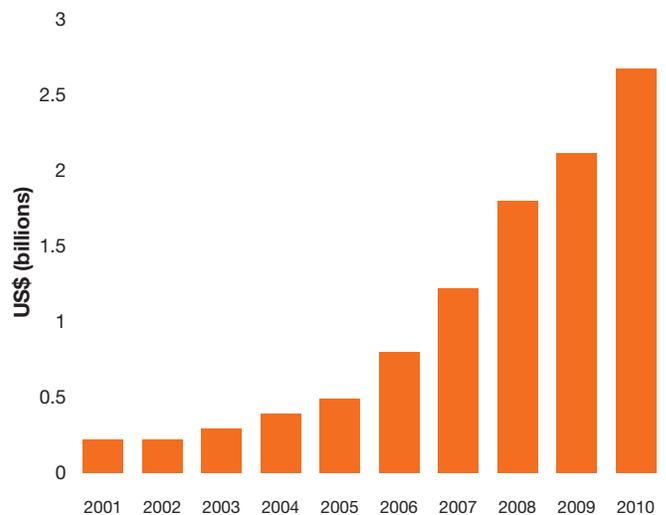
Explorers today are the seniors of tomorrow.

- Chinese entities will develop and consolidate the fragmented Chinese mining sector.

- In addition to a more aggressive approach to outbound dealmaking, we also expect to see Chinese interests more active on the domestic M&A front. In a deal that we viewed as a sign of a turning tide, in December 2010, Chinalco and Rio Tinto announced a joint venture (JV) to explore mainland China for mineral deposits. With an estimated 15% of global mine production actually taking place in China, the JV could well be the beginning of a Chinese controlled mining powerhouse. Unlike predecessor deals with Rio Tinto, in this instance, Chinalco has secured the right to be in the driver's seat, with a controlling a 51% per cent interest in the JV and rights to nominate the chairman of the board. We anticipate an increase in similar China-controlled exploration ventures, as well as a further flurry of consolidation amongst mining interests in the broader Asia region.

The wildcard for this expectation is what the international reaction would be to such a strategy. Even in a largely free-market economy, protectionism, as we clearly saw in 2010, should never be ruled out.

Figure 15: Global mining exploration by Chinese entities



Source: Raw Materials Group, Stockholm

**Chinese entities will develop
and consolidate the fragmented
Chinese mining sector.**

Miners eager for growth have, and will continue to have few other options than to move into frontier markets—high risk regions with **underdeveloped** mining sectors.



3. Indian entities will seek to secure industrial resource supply via strategic M&A.

- While we have seen some activity by Indian owned entities in the mining sector, Indian buyers represented a mere 1% of buy-side volumes in 2010.
- We expect this to begin to change in 2011. Standard Bank, among others, has predicted that India's growth rate will overtake China's by 2012, suggesting that it will be a key source of resource demand growth over the medium to longer term. Chief among India's needs are iron ore, copper, and aluminum, all necessary for the nation's ambitious \$500 billion infrastructure build out plan. India will also have massive demand for coal as, among other drivers, the Indian Government plans to double coal-fired electricity generation capacity by 2017. (Consider that India is already the world's third largest coal consumer and imports approximately 12% of its consumption.)
- Because securing supply will be India's chief concern, we expect that many Indian led deals will resemble typical China-led deals in the period 2000-2007, often structured as private placements (debt or equity) with offtake or royalty agreements. We also expect that some Indian steel and power conglomerates will take toehold positions in larger iron ore or coal miners, continuing upon the trend of vertical supply chain integration we observed through 2010. During 2010, we observed a small number of these types of transactions including:
 - Adani Enterprises Limited, a private Indian power producer, entered into a deal with Australia's Linc Energy to buy its Galilee coal project in a cash and 20 year royalty deal worth, over the long term, approximately \$2.7 billion. The deal should provide Adani with access to about 7.8 billion tonnes of reserves with production potential of 60 MTPA.
 - Indian conglomerate Essar Group, with interests in steel and energy, acquired West Virginia based Trinity Coal for \$600 million. Essar's deal in the United States came on the

heels of other similar deals by Tata Power Co and Reliance Power Ltd, all of which were motivated by a desire to secure overseas coal assets ahead of expected increases in Indian power demand.

- Dealmaking will not be limited to the private sector. We also expect state-owned companies such as Coal India, ICVL, and NMDC to be acquisitive overseas. Acquisitions by state-owned entities have been talked about at length in the past few years, however, a fast-track mechanism now proposed by regulatory authorities to expedite decision making, may mean that the coming year will finally see such transactions.

4. Frontier markets will be at the forefront of mining M&A. Understanding and managing political risk will be critical to deal success.

- With limited assets in developed regions and soaring demand for resources, miners eager for growth have, and will continue to have few other options than to move into frontier markets—high risk regions with underdeveloped mining sectors. (Frontier markets are not to be confused with broader emerging markets. The former are regions that have a relatively recent history of steady mining activity. Numerous emerging markets, like Peru, Chile and Brazil have longer track records of inbound investments in the mining sector and many miners are well acquainted with the regional risks and rewards.)
- Among the myriad deal implications of this kind of geographic diversification, the most critical is political risk. We view the assessment of political risk before, during and after deals as being the most critical component of deal success in frontier regions. To this end, PwC has collaborated with the Eurasia Group to contemplate the deal implications of so-called frontier markets. Our colleagues at the Eurasia Group have outlined five key expected risks for 2011 on the accompanying special insert, as well as meaningful suggestions on how acquisitive miners can mitigate and manage risk.

“It’s all about maximizing value for minority shareholders, so I’ve got several irons in the fire and keep charging ahead.”

Gord McCreary,

former CEO Baffinland Iron Mines

5. Increased stakeholder intervention to create closing hurdles.

- Deal market forecasting is not just about where the deals will be and who will be doing them. Equally important for dealmakers is the question: how will deal processes change in 2011? We expect that the biggest change will stem from increased stakeholder criticism of the current direction of mining M&A, which can make closing a deal challenging and even increase integration challenges. To avoid deal disruptions due to stakeholder concerns, we anticipate that through 2011:

- **Mining companies will need to improve collaboration with Non-Governmental Organizations (NGOs) in acquired project regions:** While rich in resources, many frontier regions tend to have poor infrastructure, healthcare and education systems. A large number of NGOs are mandated with ensuring that acquirers in such regions share with its citizens the spoils of their ancestral lands. NGO interests are not confined to these regions. Even in developed countries there exists a wide spectrum of NGOs that have to buy in before projects can be launched. Take, as an example, the high degree of influence that aboriginal groups exert in approving mining projects in countries such as Australia and Canada. While this is considered a sensitive topic, we do believe that in order to expedite deal processes, acquisitive miners should take care to identify and work with relevant NGOs associated with deal targets as soon as practicably possible. NGOs welcome such collaboration. According to Canadian Hunger Foundation:

“Within the NGO community you will find a full spectrum of responses to the mining industry, from the radical antimining organizations to those who see a potential for partnership and co-operative co-development. The tide is steadily shifting toward the latter as more and more large

corporations establish clear ethical standards and reach out to the communities where they have a direct impact. These more pragmatic NGOs acknowledge that they and well managed mining companies share a common interest in ensuring that the local people share fully in the benefits of a mining operation in their community.”

- **Mining companies will need to answer to the collective shareholder voice:** During 2010, we observed increased instances of shareholders demanding a greater voice in a variety of corporate issues, including mergers and acquisitions. Through 2011, we expect shareholders in the mining sector to become even more vocal, with some exhibiting activist tendencies. Pension funds and sovereign wealth funds in particular will want to have a say on the prudence of pursuing acquisitions against a macro backdrop of record high commodity prices and in regions where rules of law are vague—both of which arguably put shareholder value at risk. During the first month of 2011, for example, shareholders of a number of leading mining companies began publicly demanding that their firms deploy cash via share buy-backs and dividends over M&A, some even reportedly penning letters to boards. Activism is not limited to large investors. Consider the example of ActionAid, a charity that purchased one single company share of Vedanta Resources in order to gain access to the company’s AGM and protest the planned opening of a bauxite mine and alumina refinery in the Niyamgiri mountain region of India. In order to avoid disrupting a deal or its integration, mining companies will need to proactively dialogue with shareholders about corporate strategy and M&A processes (within relevant legal parameters) as well as be prepared for shareholder scrutiny on both fronts. In fact, we recommend that all acquisitive miners be prepared to disclose detailed reporting about the impact of deals on share price, as well as the social or environmental impacts of deals.

In what is now a geopolitical game of chess, governments are closely watching mining deals. Acquirers will need to consider what concessions they are prepared to provide to national interests in exchange for extractive rights.

- Mining companies must be aware that government stakeholders are becoming more active in the sector:

Despite the prevalence of free-market systems in most deal making regions in the world, governments can have a final say in what deals get done and on what terms. Going forward, we expect that increased government intervention will be a new consideration for all acquisitive miners. In what is now a geopolitical game of chess, governments are closely watching

mining deals. Acquirers will need to consider what concessions they are prepared to provide to national interests in exchange for extractive rights—anything from infrastructure build-outs to support for social programs may be required. As well, dealmakers should all be watching each other, evaluating the direct and second order implications of M&A deals that may, in fact, be laying a framework for a new world order.



The Rise of Frontier Markets – Five Risks

By Robert Johnston, Divya Reddy, Eurasia Group

eurasia group

The expectation of sustained commodity demand has increased investor interest in mining projects in frontier markets. Frontier markets are generally characterized as being less politically stable places that have a relatively recent history of steady mining activity and therefore provide a more uncertain operating environment for mining companies, particularly when compared to more mature emerging markets with longer track records of inbound investments in the mining sector. As such, these countries have a unique set of political risks associated with their mining sectors that companies involved in the space should be aware of. We have profiled five such risks.

1. Security: Often, the lack of mining sector development in a frontier market is due to poor security conditions that threaten the physical safety of mining staff or disrupt mining operations. The security uncertainties in turn often stem from internal conflicts and/or from social and environmental stresses (discussed further below). For example, in Niger, one of the world's poorest countries, the marginalization of nomadic Tuaregs, whose home areas coincide with many uranium-rich regions of the country, has been the catalyst for a low-level insurgency in which uranium mining infrastructure and staff are sometimes targeted. Local

security threats in Tanzania have also been a major problem for gold mining operations in the northern Mara region. In particular, uprisings by local villagers against mining operations have led to clashes with government-backed security forces, leaving miners open to attack for alleged complicity in heavy-handed security responses. Elsewhere, in Papua New Guinea, security personnel at mines have been accused of violent attacks against local populations, adding fuel to existing local backlash against mining companies.

2. Social/environmental stresses:

While resource nationalism generally originates from central governments, local opposition over social and environmental concerns to mining projects can also pose significant challenges for companies in frontier markets. For instance, the most prominent risk to mining investment in Guatemala stems from local community, religious, and environmental groups, which have attempted to impede projects. Recently, in June 2010, in response to community opposition to operations at the Marlin gold mine over environmental and human rights issues, President Alvaro Colom announced the suspension of Goldcorp's license. Local landowner disputes and environmental challenges are also prevalent in PNG, such as in the case of Lihir Gold's Lihir mine, which has repeatedly faced landowner compensation disputes and repudiation of contracts, occasionally leading to temporary closures. Similarly, the



Porgera gold mine, now operated by Barrick Gold, has faced numerous disruptions caused by landowner disputes and complaints about an alleged lack of compensation for environmental damage.

3. **Corruption and lack of transparency:** Corruption is an “informal” mode of government intervention, but one that mining companies must deal with in all but a handful of markets. One market that has ranked consistently near the top of corruption indices is the minerals-rich Philippines. Local business groups in the Philippines have been pushing into the mining sector since the industry’s decline in the 1990s. The groups have considerable connections with national and local politicians, as well as with the judiciary, bureaucracy, and media. For now, considering that they lack technical and market expertise, these groups will largely accommodate foreign partners, but some of them may eventually use their networks and access to build nationalist sentiments or turn regulatory decisions to their favor.
4. **Resource nationalism:** Resource nationalism involves policy measures designed to shift revenue and/or control of key natural resources assets from international or private hands to domestic, often state-controlled, interests. The Democratic Republic of Congo is a prime case of resource nationalism linked to the recent global copper boom, with the focal point being the government’s review of all 60 post-civil war contracts between parastatal mining company Gecamines and foreign mining firms. While almost all mining contracts have been successfully renegotiated following the mining review instituted in 2007, uncertainty persists in the industry, particularly surrounding resolution to the outstanding contract dispute with First Quantum, which is the largest of the contracts that underwent a review.
5. **Government instability:** Frontier markets also tend to be more vulnerable to general government instability, particularly around elections. For example, ahead of a 7 November 2010 presidential run-off vote, mounting tensions and violent clashes in Guinea cast a large shadow over the future of mining operations in the country. Although the threat of instability and regime change has sharply declined

since the Guinean Supreme Court confirmed the victory of Alpha Condé of the Guinean People’s Rally party in December, reform of Guinea’s mining sector depends in part on Condé’s ability to secure a smooth political transition from military to civilian rule, which is far from assured.

In Kyrgyzstan, although the parliament’s approval of Almazbek Atambayev as prime minister in December 2010, followed by the establishment of a cabinet, were positive steps toward restoring political order in the country, the majority coalition in parliament is likely to be unstable over time, given the divergent political views of its member parties. It also remains unclear how politicians in the government and parliament will treat foreign investors, and some politicians have voiced support for nationalizing critical industries like mining. Moreover, negative sentiment against ousted president Kurmanbek Bakiyev will remain a potential source of trouble for investors who were considered too close to the previous regime.

Managing frontier market political risk from a deals perspective

There is no easy path for managing these kinds of political risks but three key measures can help mitigate potential downsides. First, companies contemplating M&A in frontier markets should fully explore and leverage government and private political risk insurance options. Second, companies should ensure that both local partner selection and community/social relations programs are used to build a “shield” of local stakeholders, including suppliers, joint venture partners, local employees and regional/municipal governments, and NGOs to support the project. Finally, companies should ensure that risk assessments are undertaken at the board and senior management levels before entering a new market and on a regular basis from a monitoring perspective. Maintaining awareness among senior corporate decision-makers of local political dynamics will increase the likelihood of a timely and effective response should problems emerge.

Contacting PwC

PwC (www.pwc.com) provides industry-focused assurance, tax and advisory services to build public trust and enhance value for its clients and their stakeholders. More than 163,000 people in 151 countries work collaboratively using connected thinking to develop fresh perspectives and practical advice.

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

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

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

Visit our website: pwc.com/mining

Global Mining Leadership Team

Global Mining Leader and Australia

Tim Goldsmith
+61 3 8603 2016
tim.goldsmith@au.pwc.com

South Africa

Hein Boegman
+27 11 797 4335
hein.boegman@za.pwc.com

Canada

John Gravelle, Toronto
+1 (416) 869 8727
john.gravelle@ca.pwc.com

China

Ken Su, Beijing
+86 (10) 6533 7290
ken.x.su@cn.pwc.com

India

Kameswara Rao, Hyderabad
+91 40 6624 6688
kameswara.rao@in.pwc.com

Latin America

Ronaldo Valino, Rio de Janeiro
+55 (21) 3232-6139
ronaldo.valino@br.pwc.com

Russia and Central & Eastern Europe

John Campbell, Moscow
+7 (495) 967 6279
john.c.campbell@ru.pwc.com

United Kingdom

Jason Burkitt, London
+44 (20) 7213 2515
jason.e.burkitt@uk.pwc.com

United States

Steve Ralbovsky, Phoenix
+1 (602) 364 8193
steve.ralbovsky@us.pwc.com

Global Mining Knowledge Manager

Ben Gargett
+61 3 8603 2539
benjamin.gargett@au.pwc.com

Authors – Mining Deals 2010

John Nyholt
john.nyholt@ca.pwc.com
416 815 5086

Vanessa Iarocci
vanessa.s.iarocci@ca.pwc.com
416 941 8352

Bradley Romain
bradley.romain@ca.pwc.com
416 687 8037

Authors – The Rise of Frontier Markets

Special Insert

Eurasia Group

Robert Johnston
Divya Reddy

If you would like more information about Metals please refer to our sister publication: *Metal Deals – Forging Ahead*
<http://www.pwc.com/gx/en/metals/publications-and-thought-leadership.jhtml>

A note on methodology

Our methodology for M&A analysis is set out below:

- M&A data includes announced mergers or acquisitions (including less than 100% acquisitions / divestitures). Cancelled, dismissed, expired or withdrawn deals are excluded from data (Often, however, deals can be cancelled post publication).
- The acquisition of rights, special warrants and convertible debt are not included in M&A statistics (unless utilized as equity sweeteners). Strategic partnerships which do not involve the acquisition/divestiture of an equity stake are also excluded from our analysis.
- The geography of a buyer is determined by its headquarters. The geography of a target is determined by the location of its major projects (when such information was available).
- Certain transactions involved buyers from more than one geography. As a result, for buyer by region analysis, we utilized appropriate weighting to arrive at aggregate figures.
- For M&A by resource, we classified targets by their primary disclosed resource where possible. In certain cases, a primary resource was not identified. These deals were excluded from our analysis.
- The main source of our data is Capital IQ. Capital IQ includes real estate and property deals in its data.
- Deal currency is US\$, historical rate, unless otherwise noted.
- Transaction value refers to total consideration to shareholders, calculated as:
 - Total Consideration to Shareholders
 - + plus Total Other Consideration
 - + Total Earn-outs
 - + Total Rights/Warrants/Options
 - + Net Assumed Liabilities
 - + Adjustment Size
 - + Total Cash
 - + Short-term Investments
- Mega deals are defined as transactions valued at > \$10 billion.
- Mining includes Anthracite Coal Mining, Bituminous Coal and Lignite Mining, Chemical and Fertilizer Mineral Mining, Diversified Metal Ores (Copper, Lead, Nickel, Radium, Tin, Titanium, Uranium, Vanadium and Zinc Ores), Gold, Precious Metals and Minerals, and Iron Ores

PwC would like to extend a special thanks to Raw Materials Group and the Eurasia Group for their contribution to Mining Deals 2010.

Sources

Sources include: The Associated Press, AME, Bloomberg, Capital IQ, CIBC World Markets The Economist, Eurasia Group, FAO, The Financial Times, The Globe and Mail, International Monetary Fund, National Post, New York Times, RBC Capital Markets, Raw Materials Group, ScotiaCapital TD Newcrest, US Energy Information Administration, The Wall Street Journal, The Washington Post, World Gold Council, United Nations, The World Bank.

PwC also utilized various company press releases and public filings in regard to deal descriptions. Quotes were obtained from both company filings, as well as other matters of public record (newspapers, television interviews, etc.)

