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"Trend of global Mining industry"

Based on the reports by the International Council of Mining and Metals and Deloitte, we are delivering brief information about the global trend of mining industry.

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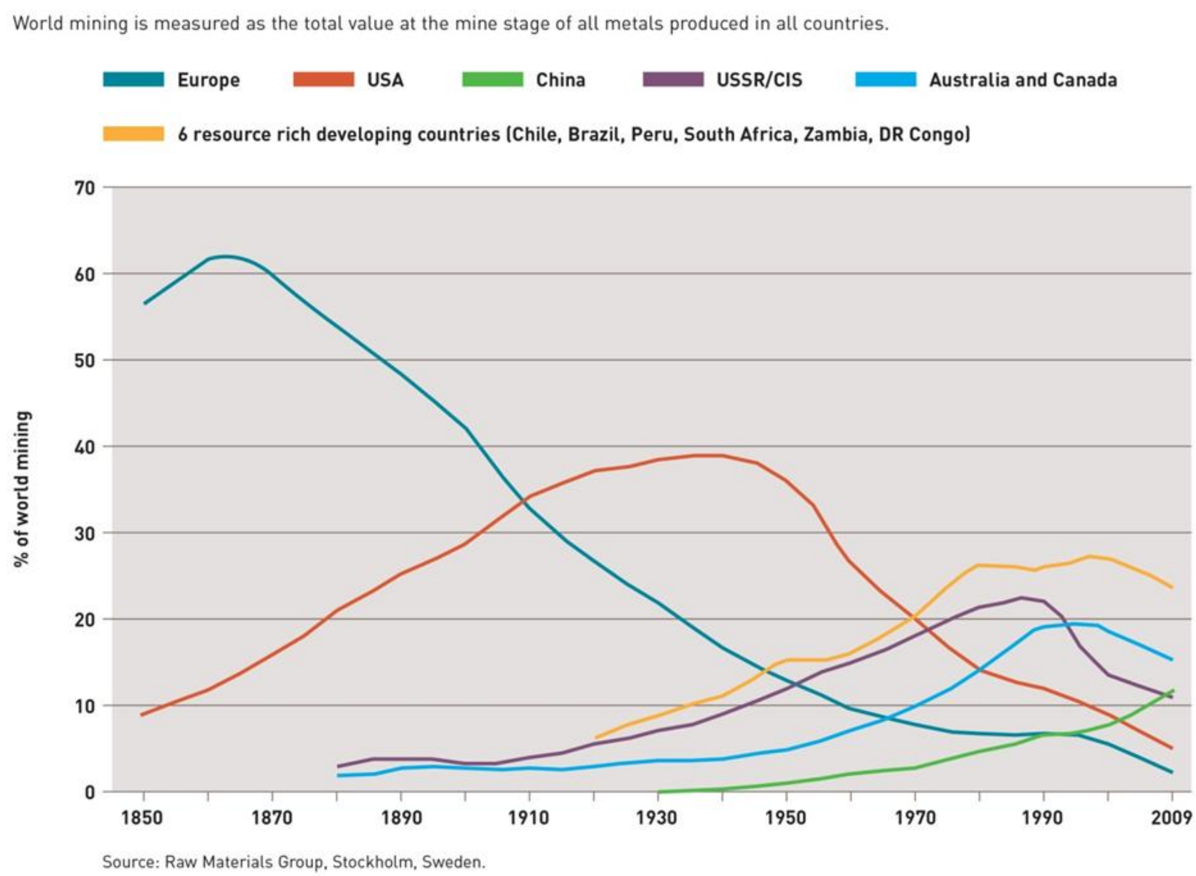
Global trend of mining industry

Mining turned truly global before most other branches of industry. Tracing the centre of gravity of global mining over the past two centuries demonstrates its role as a foundation of society throughout history. Figure 3 shows the percentage of world mining by region from 1850 to the present day and Figure 4 provides an overview of mining activities across the world.

Figure 1 shows that:

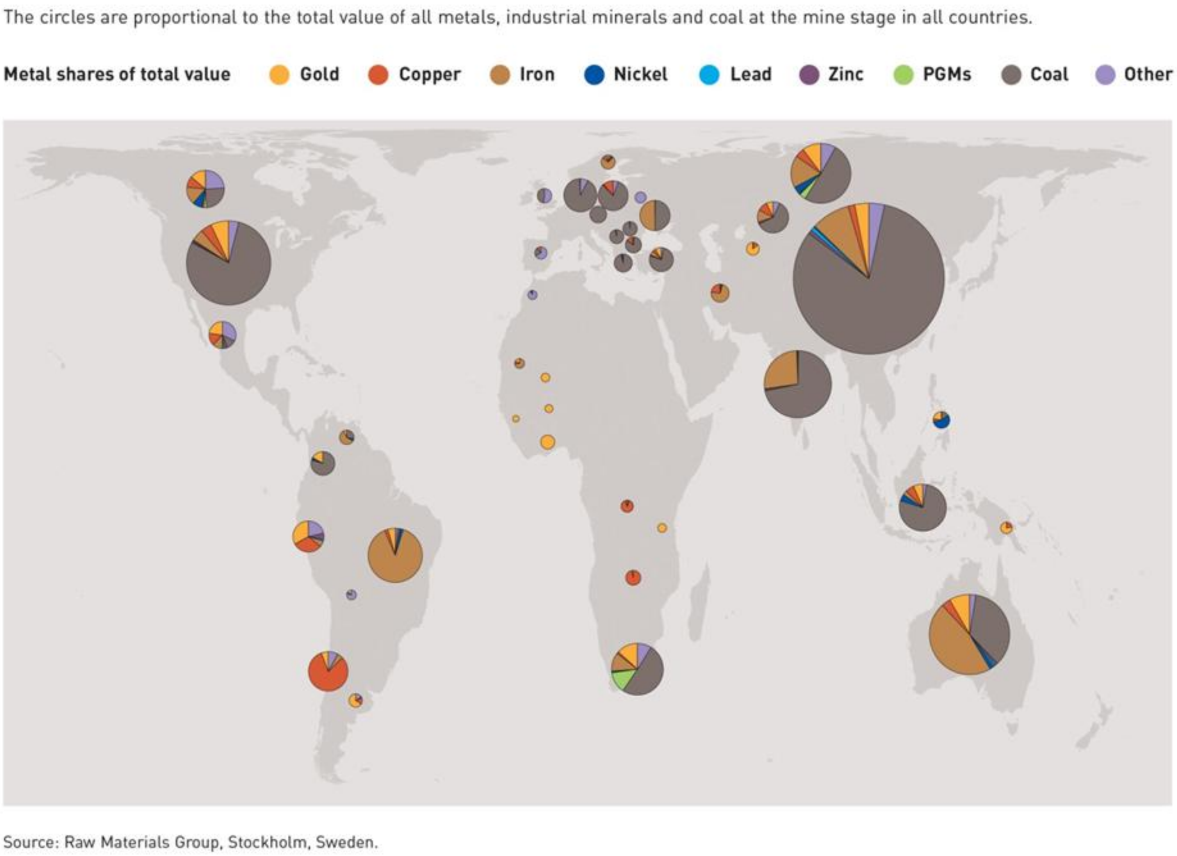
- by the late 19th century, the role of mining in Europe declined as the economic and political power passed to North America. The US in the late 19th and early 20th centuries then saw a dramatic increase – to be followed after World War 2 by the same dramatic decline experienced previously in Europe
- the shift of mining locations from developed to developing countries has been a trend from the mid 20th century.

Figure 1. Location of world mining by region, 1850 to the present



The most important mining countries in terms of mineral production today are shown in Figure 2. Many of them are now emerging economies; likewise the largest mines are now to be found in developing countries.

Figure 2. Global mining activities in 2011



In recent years huge investments have taken place in Latin America, Africa and parts of Asia and these are likely to escalate in the next ten years. Growth in exploration and mining interest in Africa, Latin America, and parts of Asia has been spurred by:

- the depletion of easily accessible mineral deposits in Europe and the US
- technological advances that led to the enhanced feasibility of mining previously inaccessible deposits in remote less developed regions
- the development of huge ocean going vessels in the late 20th century, initially for oil transport, which facilitated trade of bulk mineral commodities such as iron ore, coal and bauxite.

The trend of mine production moving to the emerging economies will continue. There are two major land areas in the world which have been less well explored than other regions: Africa and the Arctic including Siberia, Alaska, northern Canada, Greenland and the Nordic countries. In addition to this, there are opportunities for mineral extraction at the bottom of the deep seas.

ICMM suggests that most production capacity into the future will be dedicated towards the same minerals and metals as today: coal, iron ore, copper, bauxite, phosphate, potash, as well as smaller but still large volumes of nickel, zinc and lead. They also predicted that iron ore demand in 2030 could reach as much as 3,500 million tonnes annually. And copper and nickel as much as 28 million tonnes and 3.8 million tonnes respectively.

Trends of Mining companies

The mining and metals industry spans a complex interdependent web that includes a formal component and an informal component. At the core of the formal mining industry are categories of publicly-traded and state-owned companies (Table 1). Between them they employ about 2.5 million people worldwide. About half of these are employed by the global giants and seniors. The World bank estimates that around 15- 20 million people work in the informal/artisanal or small scale mining.
The global giants of the industry set criteria for the size of deposits that interest them, preferring projects with a lifespan of at least 20 years. As demand continues, it is likely that the mid-sized companies will become more important in taking on rejected but still viable projects. There is a shortage of these mid-size companies which could further hamper growth in the medium term.

Table 1. Profile of the formal mining industry

Company category	Approximate asset base	Approximate numbers of companies	Comment
Global	Exceeds US$10 billion	50	Global and senior companies which have access to the largest portion of available capital
Seniors	US$3 – US$10 billion	100	
Intermediates	US$1 – US$3 billion	350	Companies often on a growth path to become seniors
Juniors (producers)	US$500 million – US$1 billion	1,500	Companies which often have one mine
Juniors (exploration)	US$5 – US$500 million	2,500	Volatile and share market dependent; they are finders, not producers and their focus is on their exploration activities
Junior – juniors	Below US$5 million	1,500	Focus is on accessing venture capital and enhancing their stock price

For reasons of geological endowment and the relative inefficiencies of its mining enterprises, China is expected to continue to import huge amounts of metals and minerals from overseas. In 2011, the Chinese authorities set targets for its mining industry to strengthen control over mines in foreign countries. The Chinese entry into global mining has previously been surged and becoming an important global mining and exploration power.

Tracking the trend 2015: The top 10 issues mining companies will face this year

Deloitte group has published its latest issue of 'Tracking the trends 2015'.

As the report noted mining companies continue to contend with price volatility, geopolitical turmoil, rising costs, declining grades and a general lack of access to financing. In a world where volatility has become the norm, the key for future success lies in determining not how to ride the sector's typical waves, but how to accelerate resurgence from a down cycle. For the most part, mining companies are rising to this challenge, strengthening their cost reduction and capital allocation practices. While these are good first steps, more remains to be done. To position for long-term growth, companies need the agility to move in unanticipated directions. This requires more sensitive scenario planning, more sophisticated data analysis and more intelligent risk management. These are the 10 issues that the mining companies would be pursuing in 2015.

1.The pursuit of operational excellence

Over the last year, mining companies have undertaken substantive cost reductions and are now moving forward with more streamlined cost structures. Now, they are turning their attention to wringing more productivity from their organizations by heightening their focus on operational excellence. Although miners are working to control expenses, declining grades will put continual pressure on costs. To regain momentum, and lay a strong foundation for the next mining cycle, companies need to accelerate their efficiency programs and invest more significantly in innovation. The report suggest that some ways of achieving operational excellence could include increasing efficiency of data analysis and using the in making decision, embracing innovation for cutting the big costs, such as energy cost, and streamlining management and governance culture as well as the balance sheet.

2. Innovation is the new key to survival

At its most basic, innovation presents an optimal strategy for controlling costs. Companies that have invested in such technologies as remote mining, autonomous equipment and driverless trucks and trains have reduced expenses by orders of magnitude, while simultaneously driving up productivity. Yet, gazing towards the horizon, it is rapidly becoming clear that innovation can do much more than reduce capital intensity. Approached strategically, it also has the power to reduce people and energy intensity, while increasing mining intensity. Traditionally, for instance, miners have focused on extracting higher grades and achieving faster throughput by optimizing the pit, schedule, product mix and logistics. A truly innovative mindset, however, will see them adopt an entirely new design paradigm that leverages new information, mining and energy technologies to maximize value.

3. Reducing project power costs

Infrastructure constraints are not a new theme in the mining sector but, when it comes to energy supply, shortages are becoming more pronounced. With each passing year, energy costs in the mining sector become more prohibitive. These include rising costs for diesel fuel due to falling grades and longer haulage distances, building long-distance transmission lines to connect to local grids, transporting fuel to high-altitude sites and installing appropriate ventilation systems. Renewable energy alternatives can help resolve these issues and wrestle runaway costs back under control.

4. Dwindling project pipelines

Several of the major companies have decided to narrow their focus to only a small handful of commodities, leaving the development of other commodities to more specialized producers. With many juniors struggling to simply keep the lights on, exploration activities are declining. Globally, the juniors' total exploration budget for nonferrous metals (which excludes iron ore, aluminum, coal, and oil and gas) fell 29% between 2013 and October 2014, on top of the 39% decline it experienced in the year previous. The majors, too, saw nonferrous exploration budgets drop by 25% in 2014, from US$15.2 billion in 2013 to US$11.7 billion. Given the amount of time it takes to move from exploration and development to production, this exploration slowdown could create a supply imbalance in the next decade or two. This will only be exacerbated as current reserves are depleted, and could ultimately tip the industry back into another unsustainable production cycle.

5. Financing's great disappearing act

The trend is emblematic of the mounting struggles mining companies face to raise capital. Chinese investors, once the industry's prime financiers, have become extremely selective in their capital investments. And traditional lenders cooled off on the industry years ago, and have yet to return in any great number with anything approaching favorable terms. The only bright spot from a financing perspective seems to shine on base metal projects that have strong deposit characteristics, are located in regions with stable political and socio-economic dynamics, and are run by experienced management teams. In a desperate attempt to stay afloat, junior mining companies may need to consider less traditional—and less palatable—financing alternatives. Some options could be actively seeking for foreign investors, alternative financing options and private equity players.

6. Survival of the juniors

Over the past 18 months, this environment has pushed many junior companies into survival mode. To remain afloat, some juniors have decided to cut deep into their organizations, waive current expenditures and launch new dividends, all while trying to maintain the integrity of their investor reporting systems. The report suggests that potential turnover might occur in next 12-18 months, therefore, juniors should be prepared for this possibility and take a longer view of the market.

7. Seeking new skillsets and a new generation of a talent

Despite shifting market conditions, demand remains for a range of specialized skills which are still in short supply. This is occurring in the board room where directors are now expected to accept greater responsibility, in the offices of senior leadership who are tasked with developing more inclusive teams, and even at the operational level where new types of skills shortages are emerging. The educational sector may also be contributing to the industry's skills gap. Numerous developing nations, for instance, require miners to hire a certain percentage of indigenous workers, many of whom are sourced from local universities. While most of these employees have the talent to fill available jobs, they lack the level of training provided by the world's leading educational institutions. Many mining companies already contribute to community education as part of their local stakeholder commitments. It may be time, however, to make more targeted training investments in an effort to attract a more diverse group of people to the sector, bolster the skillsets in highest demand and foster greater parity among educational institutions in both developed and developing nations.

8. Riding the waves of geopolitical uncertainty

Mining companies face rising regulatory, geopolitical, economic and technological uncertainty. To succeed in this volatile environment, they will need to step up their forecasting, scenario planning and risk management capabilities if they hope to navigate the volatility augured in years to come. While the energy industry seems to have made these strides, mining lags. With volatility the new norm, however, embracing uncertainty and finding ways to manage it will be key to success. Deloitte suggests that some ways could be lobbying for policy clarity, working together with international and local mining associations, developing risk management policy and planning for myriad scenarios.

9. Companies struggle to balance competing interests

Although mining companies have made significant strides in their dealings with local communities and many handle it quite well, many companies still lag at effective stakeholder engagement. This is partly due to the fact that the number of stakeholders keeps growing. Winning a licence to operate today often means negotiating with dozens of different local communities, various levels of government, numerous government departments, non-governmental organizations (NGOs), workers' unions, local labor forces, environmental groups, industry associations and much more vocal shareholders. It doesn't help that there are frequently fundamental conflicts between various stakeholder interests. Despite these complexities, mining companies must find ways to enhance stakeholder engagement and better manage constituencies that could include building win/win platforms communicating in new ways, enhancing long term cooperation and getting strategic about giving.

10. Finding new ways to communicate and collaborate with government

While some governments are working to accommodate the industry, others are backing miners into a corner. Unfortunately, these governments may be in danger of killing the goose that laid the golden egg if their policies force companies to defer their investments or exit a country entirely, noted Tim Biggs, Mining leader of Deloitte UK. On the other hand, companies continue to struggle with tasks of defining strategic ways to deal with governments, managing regulatory risk and making strategic investment decisions. To resolve the stalemate, all parties may need to devise new ways to communicate and collaborate, across all levels of government.

Summary

Besides price downturn of main mineral, mining companies in Mongolia had no exception in facing the above mentioned challenges. The most emphasized issues would be uncertainty and volatility of legal framework. Due to the legal constraints taken places in last few years, foreign and local investors backed from investing in the mining industry. In 2009, Mineral Agency of Mongolia issued 1248 new exploration license, however because of the banning on issuance of exploration licenses, new exploration licenses had not been issued for last 4 years. The expense of exploration of the license holding companies decreased to 140 billion tugriks in 2013 from 300 billion tugriks in 2012. Therefore it can be presumed that currently operating mining projects would be the pillar of the mining industry in near future.

Regulation of Foreign Investment in Business Entities Operating in Sectors of Strategic Importance caused concerns and uncertainty for the foreign investors. Banning in operating mining activities in the river basin and protected areas has frozen operations of plenty number of mines. In addition to these challenges to the new mining projects, existing mining corporations are facing challenges from their stakeholder's side, for example opposition of local community and recent tax dispute with SGS.

In such hostile environment for the mining sector, finding financing either from abroad or local source will be much more difficult. Globally declining prices of major exporting minerals, such as coal, copper, gold or iron ore, are not helping the prospect for mining industry for Mongolia.

Although authorities of Mongolia, striving to build investment friendly legal framework, it is not the words that attract the investors, but Government and authorities' actions and commitment do. Also we would like to note that not only Government's action but also the integration of the authorities and having one voice would be very helpful to be understood by the foreign investors.

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