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Tracking the trends 2009

The top 10 global mining issues

Contents

Are mining companies ready to ride the latest market cycle?

Of all the industries in the world, the mining sector is no stranger to boom and bust cycles. However, the global financial crisis that defined the latter half of 2008 hit harder than many companies anticipated. As commodity prices came off their record highs, many organizations found themselves saddled with unsustainable production costs and high capital commitments.

Surprised by the speed of the commodity price bust and the liquidity crisis, they were over-reliant on external financing, which dried up overnight. Many mining companies called production halts and began deferring their investment decisions. At the same time, cost management has been pushed to the top of the corporate agenda – not only as a way to offset softening commodity prices, but also in response to ongoing high costs for development, materials and labour.

Yet, despite the impact of the economic crisis, underlying industry fundamentals remain largely unchanged. As stockpiles fall, global demand may still outstrip supply. Material and talent shortages have not abated. In an environment of heightened scrutiny, mining companies must also continue to contend with the rising costs of regulatory compliance and sustainable development. And while many organizations pursue global diversification to resolve some of these challenges, both political and regulatory instability in many developing nations has raised the stakes of expansion.

To help mining companies make more informed decisions during these uncertain times, Deloitte has identified the top 10 issues executives must face in the coming year as they work to position themselves for long-term success. We identified these issues and developed this report in consultation with Deloitte Mining practitioners from around the world and trust you will find it useful in charting your course over the coming months.

"Mining companies believed in a super cycle, but like all cycles, it came to an end. While companies could not foresee the liquidity crisis that caused commodity price declines, those that react most quickly will be positioned to win in the next cycle."

Glenn Ives, Mining Leader, Deloitte North America

1 The commodity price rollercoaster

Is this a short-term phase or the new norm?

What a difference a year makes. At the end of 2007, soaring commodity prices created a gold rush mentality for miners around the world. Both large international companies and junior players pushed production to peak levels to keep pace with burgeoning global demand. The pressure to deliver was so intense that many mining companies approved new projects with little regard to the costs of extraction. With prices at record highs, process inefficiency almost came to be seen as a cost of doing business.

Barely a year later, companies were singing a different tune. As the U.S. financial crisis blanketed international markets, consumer demand dropped, bringing commodity prices with it. Base metals were particularly hard hit, with nickel prices dropping to US$8.07 per pound in September 2008 after a high of US$16.89 in 2007. With mining stocks losing 80% – or more – of their value, company executives question the long-term sustainability of their operating models. This is particularly the case for those mining companies that could find themselves operating at a loss if commodity prices fail to rebound.

Uncertain of next steps, several companies suspended their exploration programs, put expansion projects on hold, announced temporary facility shutdowns and even began to trim their workforce. Junior companies are particularly at risk of severely reduced profitability and even going under. This situation raises one burning question for all industry participants:

Where do we go from here?

The answer lies in your perception of recent market events. Organizations facing difficulty raising capital and financing their costs have shown themselves willing to take a wait-and-see approach. In some cases, they are even retrenching. While this may allow them to reduce costs to a bare minimum to ride out market volatility, it can also leave them without the runway they need to ramp up production quickly if prices rapidly rebound.

On the flip side, organizations looking farther out, point to factors that support the long-term strength of the mining industry. Anticipated growth rates in countries such as China and India are expected to push up global demand to such an extent that they may offset commodity price volatility. For organizations sufficiently capitalized to take advantage of these trends, current market gyrations actually present an opportunity to build in a low cost environment. In addition to getting world-class projects ready in time for the next commodity spike, these companies might even capture generally elusive talent at more affordable costs.

Regardless of where you fall along the spectrum, you must make some difficult decisions in the months ahead. As with any external influencer that has the potential to throw your business off-kilter, today's volatile market environment affects each company differently. If you perceive this as a short-term trend, you need sufficiently robust operational processes to uncover and take advantage of opportunities that arise. If you see this as a new reality, you must still shore up your operations, if only to position yourself for long-term survival or an advantageous sale.

2 The double squeeze

Caught between higher costs and lower prices

The laws of supply and demand have been operating in over-drive for the mining sector in recent years. While commodity prices maintained their lofty levels, companies rushed to bring more projects on line, putting pressure along the supply chain. As a result, miners have seen costs rise across the board – for raw materials, energy, equipment, supplies and labour.

Even the length of the commodity price boom led to cost pressures. By underestimating project durations, many miners saw their capital costs skyrocket. In Western Australia, for instance, costs for a nickel laterite mine doubled between the time of its initial approval and completion. Similarly, an iron ore project experienced cost overruns of approximately $1 billion on its iron ore project.

In the wake of the global financial crisis, however, mining companies are focusing on cost containment as never before. Although cost pressures may ease in a lower commodity price environment, no one can predict either the timing or extent of that drop. As cooler minds prevail, companies are paying closer attention to operational efficiencies and process optimization. This move to manage input costs is critical not only to cushion the impact of current market volatility, but also as a way to improve margins to achieve long-term viability.

"The question is, when will the current crisis end? In good times, mining companies don't take notice that the costs of inefficient processes are becoming embedded in their operations, as high commodity prices mask potential productivity problems. When the good times end, mining companies find it extremely difficult to eliminate those inefficient processes and related costs."

Tony Zoghby, Partner, Johannesburg, South Africa

3 Capital punishment

Tight credit markets put expansion at risk

Massive growth calls for massive investment and that is precisely what mining companies have sought to fund their expansion. While large operators tend to cover investment costs from cash flow, a favourable lending environment and large-scale expansion impelled many mining companies to seek external financing in recent years.

Yet, capital projects approved when commodity prices were at their highs are now at risk. This is especially the case for junior mining companies that rely heavily on equity capital to finance growth. As investors become more discriminating, both debt and equity financing threatens to dry up, leaving junior miners in the lurch.

While access to capital is not a new challenge for the mining industry, it has been exacerbated in light of ongoing market volatility. Tightening credit markets, reduced market capitalization and poor economic conditions forecast for the short to medium term are making it harder for miners to start new projects, complete existing projects or refinance their debt. By fuelling reduced exploration, this situation may also severely affect the industry's inventory outlook.

Over the long term, these trends will likely converge to once again push commodity prices higher. In the meantime, companies facing a credit crunch should use this time to strengthen their business plans and put processes in place to bolster their overall creditworthiness.

"Access to capital is an endemic challenge, but market volatility has turned it into a huge problem. Mining companies have to revisit projects that made sense at the top of the market because they may not merit the same level of funding today."

Carl Hughes, Partner, London, UK

4 Running on empty

Talent and equipment shortages remain chronic

One might imagine that a softening global economy might ease the talent and equipment shortages that plague the mining industry. Yet, a closer look reveals that these challenges may be here to stay.

Despite the critical role mining plays in the global economy, the mining industry itself is rarely viewed as glamorous. With mines located in remote regions and miners expected to operate under adverse and often dangerous conditions, it has become extremely challenging to attract new talent to the sector. As the current generation of workers reaches retirement age, this threatens to create a critical management gap for mining companies. The situation is further exacerbated when you realize that the shortage extends across the entire labour pool – from service personnel and truck drivers to geologists, metallurgists and mining engineers.

Even more surprising, equipment shortages remain chronic. Although demand for trucks, tires and even port capacity may slow in light of recent market conditions, the underlying factors that caused these challenges are not going away.

Equipment manufacturers and suppliers still lack the capacity to ramp up production to meet evolving mining industry requirements. Some mining companies indicate that wait times for drag lines for coal mines and large haul trucks are as long as three years. Unable to meet even current requirements, one manufacturer closed its books until 2014. For their part, governments are diverting budgets to shore up their capital markets, raising the spectre that much-needed infrastructure renewal may be put on hold.

To address these shortages, mining companies will have to do more than wait out the market. They will need to continue identifying innovative strategies to attract more talent to the industry. They will also need to explore new supply relationships and partnerships to ensure they have access to the equipment they require over both the short and long terms.

"Skill and equipment shortages in the mining industry tend to create a ripple effect. Lead times lengthen, outbound supply slows down and productivity dips. Over time, this means mining companies will have to source potential recruits from further afield."

Bhavesh Morar, Partner, Sydney, Australia

Infrastructure uncertainty

From developing nations to countries such as Australia, infrastructure concerns are challenging global miners. Absent an effective rail and port infrastructure, mining companies lack the capacity to streamline both inbound and outbound distribution.

In some parts of the world, over-regulation is the culprit. In others, it comes down to limited resources. Regardless of the impetus, the results are clear. Unless governments work to ease control over their transportation infrastructure and invest in ongoing renewal, the mining industry will have difficulty supporting global demand.

As the global financial crisis threatens to further divert government resources, executives face an uncertain future when contemplating infrastructure investment. The key is to prepare for various possible outcomes, such as:

- **Ongoing growth** in countries such as China, India and Brazil, which may use their sovereign reserves to meet rising demand for new infrastructure projects – ranging from power lines to transportation

- **A slowdown** in infrastructure projects as the North American market meltdown dampens demand across Europe and Asia

- **The need for increased** corporate investments to develop parallel port and railway infrastructure and streamline their global logistics chains

5 Risky business

Permitting, politics and tax policy volatility

Whether times are good or bad, mining industry risk is on the rise. Evidence abounds. When commodity prices were soaring, several governments announced their intention to raise corporate taxes for mining companies. In Zambia, for instance, the government abolished tax concessions and imposed additional royalties on mining companies. In Venezuela and Bolivia, mining executives worry that the expropriation of assets could devolve into a nationalization of assets. This trend already appears to be emerging in Russia, where government officials indicated a desire to retain national control over strategic mining assets.

As commodity prices come down, the risk likely remains. For countries dependent on mining royalties to bolster national revenue, slower production may lead to greater instability as governments grapple for additional revenue sources. Mining companies, already struggling to attract talent to remote regions, may ultimately have to abandon their efforts in the face of acute political hurdles.

Notably, however, these challenges are not confined to developing regions. In Canada, Alberta's government recently introduced increased royalty rates for oil and gas producers. Across the developed world, the protection of native rights and environmental concerns are also making it more difficult to obtain mining permits. And complex bureaucracies, in both developed and developing nations, ultimately complicate corporate attempts to react quickly to emerging opportunities.

To navigate these choppy waters, mining companies must hone their risk management skills and ensure they take a multiplicity of potential scenarios into account as part of their business planning.

"As mining companies are forced to prospect in more remote and politically volatile parts of the world, such as the Democratic Republic of Congo, political risks rise. Companies must know how to respond if they face the prospect of losing their operating licenses or leases, or incurring unexpected taxes and surcharges."

Jürgen Beier, Partner, Toronto, Canada

6 Location, location, location

Quality assets are getting harder to find

In their rush to bring new projects on line, mining companies have forayed into regions they may not have considered even a decade ago. Politically volatile nations and higher risk countries became fair game for an industry actively pursuing synergies and expanded production profiles.

This international appetite may abate somewhat in the coming year, as smaller companies pull back on their growth plans and larger ones cast their nets closer to home. Although it remains difficult to find good quality mining assets globally, organizations with healthy coffers may now be able to pick up development projects owned by beleaguered junior miners. As valuations drop to less lofty levels, acquisitions become more feasible for companies looking to acquire specific assets or specific talent.

This does not mean mining companies can now abandon the search for properties in unexplored regions. But it does point to a potential slowdown in the previously frantic rush by mining companies to extend their international footprint.

"As the world gets bigger, it gets harder to find quality new projects that can be developed at reasonable costs."

Susan Bennett, Partner, Toronto, Canada

7 The urge to merge

Consolidation remains an industry imperative

The past several years have seen record levels of merger and acquisition activity in the mining sector. In 2007, three major deals included the Rio Tinto acquisition of Alcan; Sweden's Svenskt Stal's acquisition of IPSCO, a steel supplier; and Russia's Norilsk Nickel's acquisition of LionOre, a nickel and gold producer. At the start of 2008, the activity continued apace. Chinalco and Alcoa took a 12% stake in Rio Tinto, while Arcelor Mittal bought into MacArthur Coal.

Drivers of this activity were diverse and included an interest in consolidating assets, achieving market power, replacing reserves and accelerating growth. As the world economy continues to be buffeted with financial uncertainty, some market watchers worry that transactional activity may come to a halt. Yet, organizations interested in lowering production costs, mitigating risks or picking up high quality assets at lower valuations may in fact drive an increase in mergers and acquisitions. In the middle market, many companies will need to merge to survive a sustained capital market downturn.

For companies on both sides of the equation, this mandates certain responses. On the one hand, acquirers must realize they are competing against a handful of equally well-capitalized organizations, each of which seeks the best possible deal at the best possible price. Enlightened directors will seek out the best merger partners and plan for a rebound in commodity prices if and when that comes. Majors will start to be more aggressive in picking up quality assets at keen prices, but even they will want to see a more solid foundation under commodity prices.

"We expect there to be strong M&A activity in 2009 as enlightened companies see the need to consolidate cash balances and synergistic assets and as majors acquire quality assets ahead of a commodity price rebound."

Jeremy South, Partner, Vancouver, Canada

8 Towards sustainable development

Environmental concerns continue unabated

Regulators, non-governmental organizations, shareholders and community activists have long been pushing the mining industry to improve its environmental sustainability. Following the fourth report of the Intergovernmental Panel on Climate Change (IPCC), completed in 2007, developed nations agreed to negotiate an interim reduction in greenhouses gases to 2020, with cuts of between 25 and 40 per cent from 1990 levels on the table.

For its part, the International Council of Mining & Metals (ICMM) endorsed the Global Reporting Initiative guidelines developed to encourage the mining sector to adopt consistent reporting standards around its environmental performance. Governments, including those in South Africa and Australia, have adopted initiatives that require mining companies to reduce their carbon emissions. As reliance on coal makes a resurgence in the U.S., industry stakeholders also wonder if they may face tighter regulations under President Obama.

In the coming years, this movement presents several challenges for mining companies. On the one hand, growing sensitivity toward the environmental impact of mining is lengthening the process required to gain project approval. In some cases, entire regions are permanently off limits. On the other hand, mining companies that operate globally already face challenges unravelling the disparate regulatory frameworks that govern environmental performance. To ensure ongoing compliance, they will need to take steps to determine how to cost-effectively meet baseline standards for their operations around the world.

"Sustainable development has been on the agenda for a long time. Yet, being green and having a proper program in place can be quite costly. As companies contend with cash flow issues, many industry participants are wondering if environmental sustainability may fall lower on their list of priorities."

Debbie Thomas, Partner, London, UK

9 The cost and complexity of compliance

Preparing for a tighter regulatory environment

As a global industry, the mining sector is no stranger to regulatory complexity. Yet, in recent years, heightened scrutiny has led to the introduction of an expanding array of regulations. Legislation, such as the Sarbanes-Oxley Act and its related national initiatives mandate enhanced financial reporting. Globally, the move to International Financial Reporting Standards (IFRS) also requires mining companies to update their accounting policies, which may lead to an ancillary need to review their financial controls, business processes and the underlying technologies on which their enterprises rely.

Beyond financial compliance, mining companies must contend with a seemingly dizzying number of regulations prevalent in the jurisdictions in which they operate. These include fluctuating rules related to global tax rates, mining rights and land title; regulations related to environmental compliance and corporate and social responsibility; and even legacy laws that govern occupational health and safety. A prime example presents in the adoption of carbon pollution reduction schemes. In an attempt to control carbon emissions, the European Union introduced a carbon tax, while Australia is considering a similar move. These schemes can put local operators at a disadvantage, particularly if their global competitors are not subject to equivalent tax rates.

To ensure ongoing compliance, mining companies must do more than gain an understanding of the rules that apply to their operations. They must also seek out industry-specific guidance to avoid breaching the rules.

10 In the dark

Electricity shortages affect operations

In an age where consumers have come to expect electricity at the touch of a button, mining companies have begun to face a different reality. In regions from South Africa to Argentina, local electricity shortages are forcing mining companies to cut back on production or pursue costly power alternatives.

In 2008, Eskom, South Africa's local generator, cut power to the mining industry by 10%, leading companies to wonder if the same might happen in other regions, particularly those that have not invested in new power generation assets for several years. The one thing that became clear was that non-interruptible power contracts did not help – companies don't vote!

While declining energy prices may ease shortages, local generators are bound to cut power to corporate users before leaving residents in the dark. To address these issues, mining industry stakeholders will need to work with local governments to plan for future energy demand. At the same time, companies will have to consider other options for securing reliable electricity – from renewable energy alternatives to building their own power plants.

Mapping next steps

Strategies mining companies can adopt in response to current challenges

While there are no one-size-fits-all solutions to mining industry ills, there are steps companies can take to lay the foundation for future growth despite current market volatility.

Managing costs

At the top of the list are initiatives related to performance improvement. Here are some action items you may want to consider:

- Take time now to review your cost structure, identify bottlenecks and determine how to conserve cash and improve margins. This is not an activity that can take place around the edges. Companies determined to realize sustainable competitive advantage must adopt an integrated approach to optimize costs across the value chain – from maintenance and production planning to inventory and workforce management

- Undertake longer-term business improvement programs that take your unique business factors into account when identifying areas for performance enhancement

- Work with specialists who can share tools and accelerators designed specifically for mining industry operations that have been developed in other industries

- If you are facing a short-term crunch, take immediate steps to optimize your cash flow with strategies that can extend from managing creditor payments to pursuing asset sales

- Ensure your tax structures are designed to minimize your tax liabilities, maximize your credits and preserve cash over the short and long terms

Mitigating shortages

To address talent or equipment shortages, you can:

- Benchmark your human resources programs against international standards to ensure you are putting the right systems in place to attract and retain skilled talent

- Pursue alternative recruitment activities, such as overseas recruitment, apprenticeships and/or co-sourcing of talent

- Determine the feasibility of offering employees more flexible shift rosters or "fly in/fly out" arrangements for specific skills

- Over the longer term, work with universities and other educational institutions to ensure industry needs are understood and programs are in place to offer appropriate training

- Examine current usage patterns and explore partnerships with manufacturers and/or suppliers to extend the life of your equipment and ensure forecast needs are met

Reducing risk

While risk comes in many flavours, to mitigate its effect you can:

- Put a risk management program in place to improve your ability to prevent, detect, correct and escalate critical risk issues
- Standardize your risk management principles and language to ensure enterprise-wide adoption
- Design and implement a risk management framework that integrates potential risks from across your entire organization
- Redesign your processes and forecasting models to gain a greater understanding of your risk profile

Streamlining consolidation and improving compliance

From mergers and acquisitions to regulatory compliance, mining companies face growing complexities. To enhance your long-term sustainability, you can:

- Take a structured approach to M&A activities to ensure you develop an appropriate M&A strategy, effectively screen targets, conduct in-depth due diligence, execute seamlessly and enjoy a smooth post-deal integration
- Streamline technology integration by relying on IT tools developed specifically for mining industry mergers
- Develop carbon and sustainability strategies to meet the expectations of regulators and other stakeholders
- Indentify weaknesses in your regulatory processes and adopt solutions to close the gaps

Light at the end of the tunnel

Despite the challenges facing the world's mining companies, industry executives still profess a general sense of optimism. Although the sector is set for a shakeup, companies that successfully navigate today's market downturn will emerge stronger, leaner and better prepared to capitalize on upcoming opportunities.

Large organizations are using this time to seek out world-class deposits and position for longer-term profit. For the rest of the industry, the key word is now "innovation." Rather than simply chasing volumes, companies will need to take a more strategic approach to project evaluation and risk management. Already, models for future creativity have emerged. Mining companies considered top performers display best practices which include:

- **Agile corporate structures and integrated production teams.** By cultivating high quality management capable of articulating – and sticking to – long-term strategies, companies can ride market cycles with minimal loss
- **A rigorous and relentless approach to capital cost management.** By focusing on cash preservation, these companies tend to have the flexibility to scale down or up, as conditions warrant
- **Mature risk management**, including the adoption of internal controls and procedures around cost and project governance
- **An international focus.** While global mining remains risky, long-term growth will depend on a company's ability to successfully navigate foreign markets and cultures
- **Supply chain efficiency.** Due to endemic shortages, mining companies best placed to succeed are those that take their supply chains into hand. By engaging in global procurement initiatives, some companies have been able to mitigate local shortages while cutting costs out of their process
- **Strategic partnering.** The business of mining becomes more complex each year, making it difficult for companies to internally source the full range of skills they require. Progressive companies are already exploring joint ventures, not only from a financing perspective, but also to share talent

As mining companies begin to embrace more strategic operational approaches, their efforts will benefit not only their shareholders but, ultimately, the industry at large.

"The mining sector is entering a time of amazing opportunity. As companies take steps to improve their strategic focus and shore up long-term operational gaps, they can ideally position themselves to benefit from the next boom cycle."

David Quinlin, Partner, Zurich, Switzerland

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