



Tracking the trends 2016

The top 10 issues mining companies will face in the coming year

The Namibian Mining Industry -
Weathering the storm.



Tracking the trends 2016

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REMAINS FRONT AND CENTRE

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GOING LEAN

OPERATIONAL EXCELLENCE REMAINS FRONT AND CENTRE

Cost control continues to be a priority for miners...

Cost-cutting remains AngloGold priority

Aug 18, 2015 | Allan Secombe

Miner targets reducing costs at all mines to all-in sustainable level of preferably \$900/oz to cope with falling gold price

ANGLOGOLD Ashanti, which reduced debt to a comfortable level by selling a mine, will continue its successful drive to cut costs, which resulted in a swing to cash flow last quarter.

AngloGold generated \$71m of free cash in the June quarter compared with \$34m in the same period a year earlier. It cut the all-in sustaining cost at its international operations to \$844/oz in the quarter compared with \$1,486/oz in 2012.

The company wants to bring costs at all its mines to an all-in sustainable level of below \$1,000/oz, and preferably \$900/oz to cope with a gold price that has fallen for 46 months since its high in September 2011, CEO Srinivasan Venkatakrishnan said on Monday.

Net debt was lowered to a pro-forma \$2.3bn after it sold its Cripple Creek & Victor mine in the US to Newmont for \$820m. The money has been ring-fenced for debt reduction and is likely to go towards the early redemption in July next year of an expensive \$1.25bn bond carrying an 8.5% coupon due in 2020.

The bond accounted for \$100m of \$250m in interest payments, said chief financial officer Christine Ramon.

AngloGold's international portfolio accounted for 84% of its second-quarter earnings before interest, tax, depreciation and amortisation of \$391m, which were 12% higher than a year ago.

This diversification meant AngloGold would be resilient to production disruption if there were a strike over current wage demands, said Ms Ramon.

Sources:

1. Business Day Bdlive, August 18, 2015. "Cost-cutting remains AngloGold priority," by Allan Secombe. Accessed at <http://www.bdlive.co.za/business/mining/2015/08/18/cost-cutting-remains-anglogold-priority> on November 18, 2015.
2. The Globe and Mail, September 17, 2015. "Barrick closing Utah office and copper unit in cost-cutting effort," by Rachelle Younglai. Access at <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/barrick-gold-closing-utah-office-and-copper-unit-in-cost-cutting-effort/article26406779/> on November 18, 2015.

September 17, 2015

Barrick closing Utah office and copper unit in cost-cutting effort

By RACHELLE YOUNGLAI

World's largest gold producer expects closing of its Salt Lake City office along with the unwinding of its copper business will help save \$2-billion (U.S.) by end of 2016

Barrick Gold Corp. is shutting a major American office and dismantling its copper unit, the company's latest steps to cut costs and overhaul operations amid the slump in gold prices.

The closing of its Salt Lake City office along with the unwinding of its copper business will help the world's biggest gold producer save \$2-billion (U.S.) by the end of next year, the company said.

Four years of declining gold prices have forced a broad retreat at Barrick and battered the company's share price. In addition to selling a slew of mines and non-core assets, Barrick recently reduced its dividend again and sold a stake in its top copper mine in Chile as well as part of one of its most profitable gold mines, in the Dominican Republic.

Barrick's Salt Lake office, which employs about 110 staff, will close in November after supporting the miner's core Nevada operations for nearly two decades. It follows the shutdown of Barrick's Perth bureau and job cuts in its Santiago office.



GOING LEAN

OPERATIONAL EXCELLENCE REMAINS FRONT AND CENTRE

- Mining companies' ruthless efforts in reducing costs over the past few years is translating into enterprise-level **productivity improvements**.
- **Challenge:** How to sustain cost take-outs and drive ongoing productivity improvements?

1. Finding new productivity gains through continued investment in innovations
2. Learning from other industries (i.e. manufacturing) in areas such as:
 - Energy efficiency programs
 - Lean practices
 - Data integration
 - Improved capital allocation/working capital efficiency

“With the downturn in commodity markets, most organizations stopped discretionary spending and improved operational efficiencies. [But] companies still need to consider...their options to grow should the market turn [or] their response strategies if prices continue to plummet.”

Eduardo Raffaini
Mining Leader
Deloitte Brazil

1

STRATEGIES THAT BUCK THE TREND

Data integration

The ability to turn data into intelligence is key to improving operational excellence

Supply chain optimization

Companies need to adopt a more holistic approach and strengthen their vendor relationships across the supply chain

Back office outsourcing

Restructuring corporate operating model can improve productivity and process efficiency

Improved capital allocation and efficiency

Tying capital allocation to strategic priorities, backed by predictive analytics, can improve decisions on capital spends

Collaboration

Juniors/mid-cap: pooling talent, sharing infrastructure and partnering on projects advantageous during down cycle

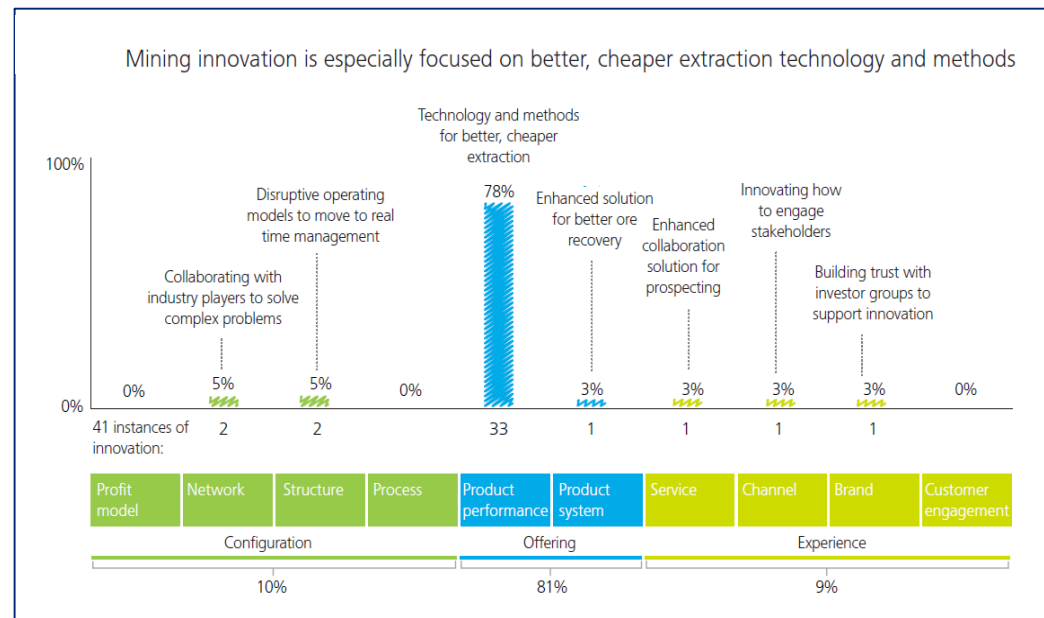
Accountability

Improve accountability by embedding operational excellence into corporate culture to link financial and operational drivers back to shareholder value

2

INNOVATION: THE NEXT GENERATION PREPARING FOR EXPONENTIAL CHANGE

- 81% of innovation in mining falls in the early stages of adoption¹
 - Technological optimization of old techniques vs. new ways to configure and engage externally
- Stay ahead of innovation with systematic approach and applying cross-sectoral best-practices that help shape “mines of the future”
- **Near-term strategies:**
 - Enhanced innovation
 - Collaborative ecosystems
 - Digital workforce engagement
 - Energy optimization
 - Modularization
 - 3D printing



Source: Deloitte Monitor Canada, Doblin, and Prospectors and Developers Association of Canada (PDAC), [Innovation state of play: Mining edition 2015](#)



STRATEGIES THAT BUCK THE TREND

Getting serious about innovation

A holistic approach includes an innovation focus, commitment to develop innovation strategies, ability to tap into ecosystems and ability to align organizations' systems and processes to drive innovation

Collaborative ecosystems

Innovation doesn't happen in isolation

Digital workforce engagement

Mobile and social technologies bridge the gap between management and employees to encourage collaboration and creativity across the organization

Enhanced asset management

Minimizing maintenance costs and improving asset efficiency require intuitive tools that can amass and turn data into insights

Aligning work processes with energy availability

Forward-thinking companies continue to make strides towards adoption of renewable energy alternatives and changing work processes to align with energy availability

3D printing and modularization

Cost- and time-efficient approaches especially for companies with mine sites in remote locations



CHINA'S PAINFUL TRANSITION LOOKING FOR THE SILVER LINING

- Growing concerns about China as structural weaknesses are beginning to appear in its economy
- **Silver lining:** Potential increase in Chinese overseas investments in natural resources
- Miners need to take steps to understand the global impact of the country's domestic market trends:
 - Asia Infrastructure Investment Bank (AIIB)
 - One Belt, One Road Program
 - The Megacity project
- Miners should develop plans relative to Chinese investment initiatives and leverage Chinese expertise in areas such as design, construction and financing

“If you believe that China is one of the most significant factors in the global mining market – whether it be capital, consumption, stockpiling, project consumption or its announced infrastructure initiatives – then it’s imperative to pay attention to the economic and political issues shaping the country’s future”

Jeremy South
Global Leader Mining M&A Advisory
Deloitte Canada



STRATEGIES THAT BUCK THE TREND

Consider extreme scenarios

Companies seeking to navigate the new normal need to re-contextualize their plans in anticipation of more limited Chinese growth rates

Develop plans relative to China's investment initiatives

Solid strategies in local relationship building, marketing, production and risk management required for companies planning to conduct business with China and countries along the Silk Road

Leverage Chinese expertise

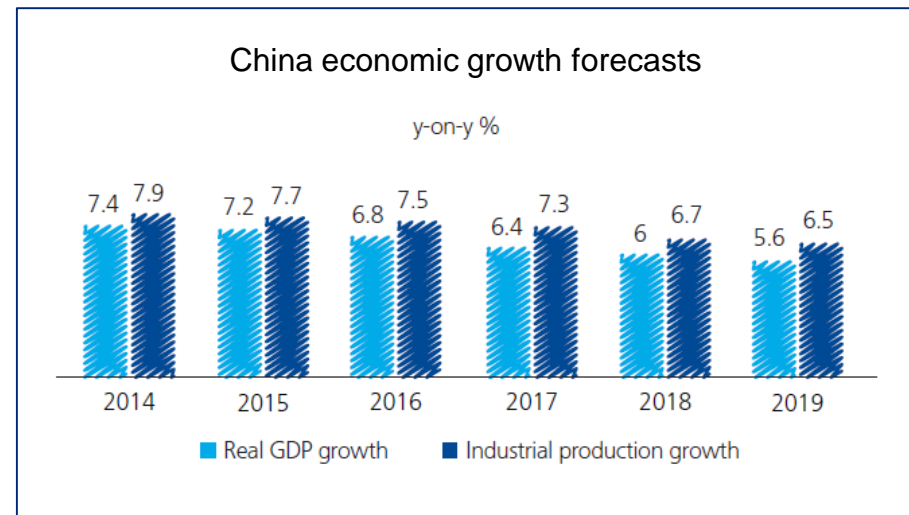
Miners are increasingly looking into how they can leverage Chinese expertise more systematically (in areas such as design, construction, integrating commodity production with downstream Chinese production as well as financing)



4

ADJUSTING TO THE NEW NORMAL WHAT GOES DOWN MUST COME UP

- Structural change in China likely translates into sustained drop in commodity demand
- Commodity production continues (and even increases) during down cycle to reduce unit costs or to generate cash flow to pay off debt
- Exploration dilemma: Decline in exploration and project pipelines – ultimately lead to future supply shortages
- To stay afloat in the current supply-demand paradox, miners need to be able to slow production over the short-term while maintaining the long-term pipeline



Source: Economist Intelligence Unit forecast database, October 2015

4

STRATEGIES THAT BUCK THE TREND

Get agile

Hone the agility to scale production, labor and other inputs in response to shifting economic trends. Predictive analytics can help organizations identify external events that may shift commodity market fundamentals

Go modular

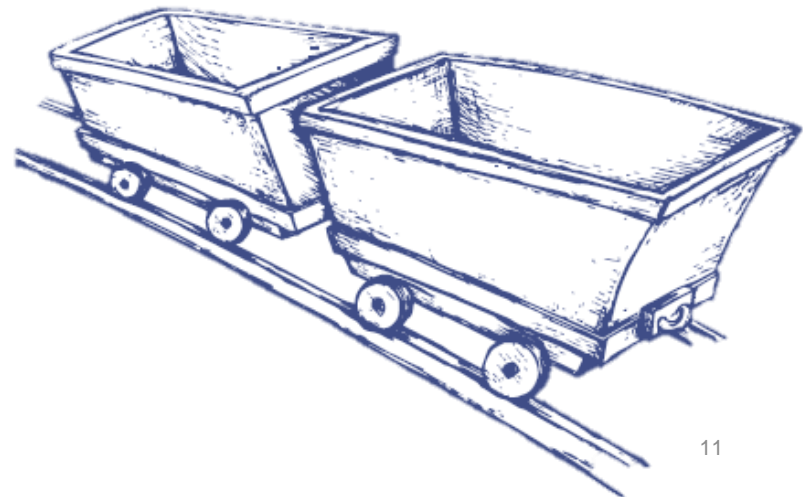
Modular, highly automated designs can reduce the cost of exploration and deliver value in operations efficiency

Blink

Companies will ultimately ease back on production in an attempt to bring balance back to the market

Partner

Partnership with juniors that currently hold large unexplored or unutilized mining reserves may enable majors to explore at lower costs than in the past





THE SHIFTING GLOBAL ENERGY MIX PREPARING FOR INEVITABLE CHANGE

Increasing environmental concerns and use of alternative power sources is causing a shift in the global energy consumption patterns...

3%

Decrease in China's consumption of thermal coal in 2014 (despite a 3.8% increase in electricity output)

25%

Percentage of global energy consumption in natural gas by 2040, surpassing coal

60%

Rise in installed capacity for nuclear power by 2040

12%

Expected percentage of increase in power generation via renewables between 2012 - 2040



5

STRATEGIES THAT BUCK THE TREND

Follow global demand

Over time, pure play coal producers are likely to suffer if they fail to consider diversification strategies

Diversify

Miners need to consider all markets. As new technology demand expand, opportunities will open up for commodities in related industries such as lithium and other metals used in battery storage, solar panels and wind turbines

Re-evaluate energy strategies

Shifts in the energy mix requires companies to develop a long-term energy strategy in an effort to optimize their operations

Think through carbon pricing

Miners need to determine how their processes must change if carbon pricing reporting becomes mandatory rather than a voluntary disclosure

“Although forecasts for global energy demand are not assured, one thing is certain: there will always be a need for electricity, That means mining companies should be asking which commodities will be required across the entire power generation value chain”

Edith Alvarez
Mining Leader
Deloitte Argentina



ENGAGEMENT PARTY

CHANGING THE NATURE OF STAKEHOLDER DIALOGUES

\$20_M USD

in losses per week due to delayed production in projects caused by community opposition⁴

Beyond license to operate:

Working with stakeholders to promote growth and well being in the communities where miners operate

Need to demonstrate **impact**

through measurable metrics aligned with the communities' needs





STRATEGIES THAT BUCK THE TREND

Get serious about social

Miners need to be more active and on the forefront of emerging trends with social media to engage directly and share targeted information with their various stakeholders

Listen carefully

Companies should leverage data analytics and social listening tools in order to respond proactively to reputational risks, community concerns or patterns that may signal social unrest

Demonstrate commitment

Engagement of senior executives demonstrate commitment to stakeholder engagement, creating win-win platforms for both miners and stakeholders

Expand the dialogue

Collaboration: Co-opting the entire universe of stakeholders into the solution seeking process to help meet the needs of typically divergent local groups

Help inform national mine strategies

Mining companies can play a role in providing input to governments seeking direction around policy targeted to attracting mining investment

Walk away

Mining companies walking away from projects that no longer promise to deliver strong business benefit may prevent local



THE CAPITAL CRISIS

STARVED OF FINANCE, MINERS STRUGGLE TO SURVIVE

- Difficult to attract capital due to miners' rising debt burdens and poor financial performance
- Miners forced to seek alternative sources of financing even when the terms aren't in their favour
- Creative approaches in financing:
 - Partnering with Asian EPC firms
 - Commercializing dormant assets
 - Pooling resources
 - Debt reduction strategies
 - Crowdfunding
 - Government funding

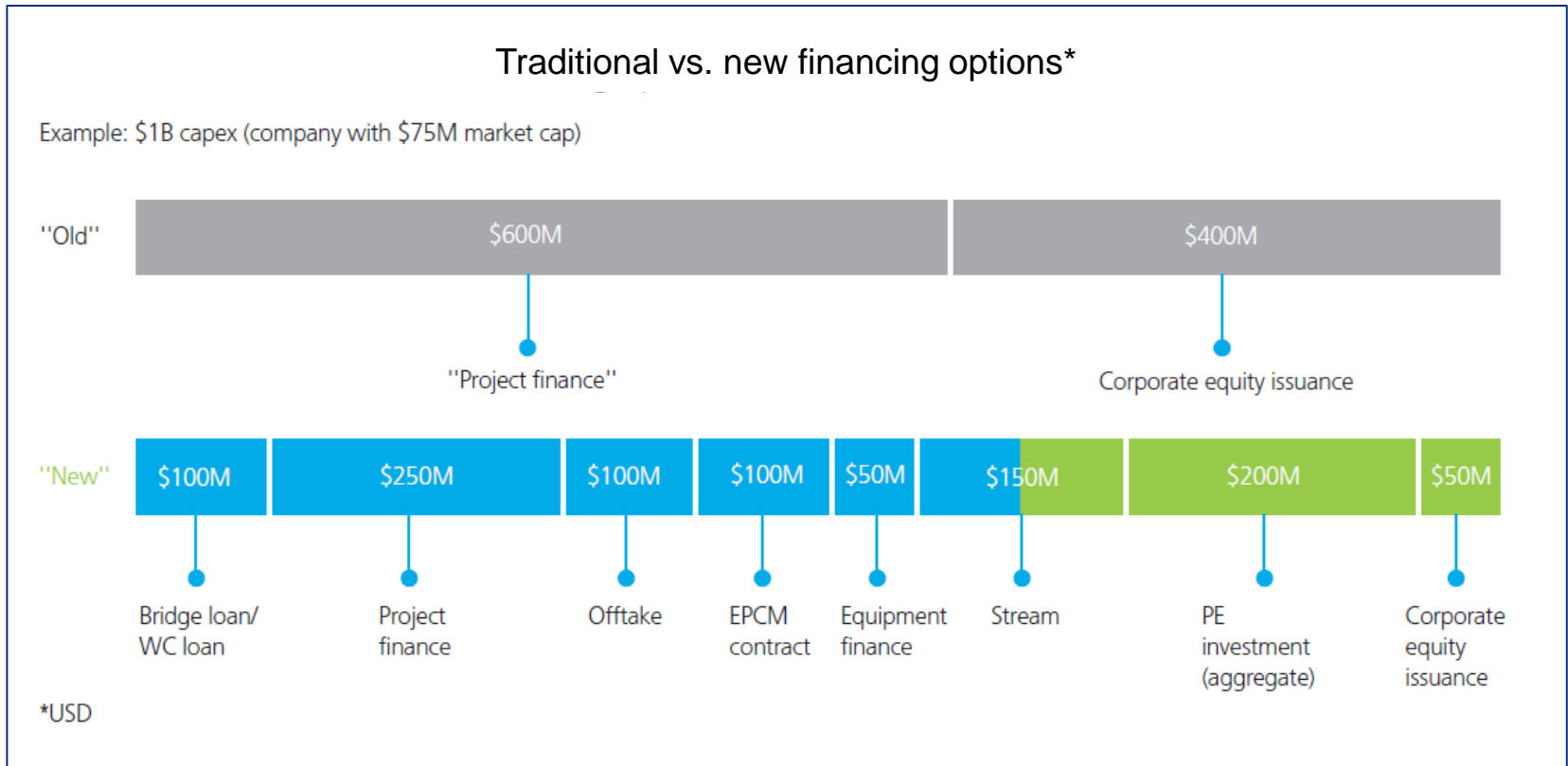
“As funding dries up, miners are being driven out of the industry. More worrisome is that no one seems to know how to solve the financing problem. What happens when large miners run out of cash reserves? How do we revive equity interest in the sector? If the industry is to thrive, we need answers to these questions.”

Tim Biggs
Mining Leader
Deloitte UK



THE CAPITAL CRISIS

STARVED OF FINANCE, MINERS STRUGGLE TO SURVIVE



Source: Deloitte Canada

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STRATEGIES THAT BUCK THE TREND

Find unlikely partners

Asian EPC firms taking equity stakes or bring along banking partners to provide debt funding; pension plans to fund infrastructure projects

Commercializing dormant assets

Sharing or subleasing office space, converting land to alternative uses or renting out capital equipment

Collaborate

Pooling resources or creating consolidated exploration funds that pool companies' best resources in a bid to attract equity capital by offering investors a well-governed, diversified exploration investment vehicle

Reduce debt levels

Issuing notes, of companies' portfolios and undergoing deep cost reduction to free up capital divesting parts to pay off debt and meet interest payments

Consider crowdfunding

Miners capable of telling a compelling story or coming up with an innovative offering could attract funds through increasingly-popular platforms

Seek government funding

Some governments/export agencies make funds available to miners that meet a specific criteria



A TAXING TIME FOR MINERS

A GLOBAL TAX RESET CHALLENGES YESTERDAY'S TAX MANAGEMENT

- Introduction of 15 base erosion and profit sharing (BEPS) action items to change tax implications associated with a range of business activities
- Miners have until December 31, 2016 to prepare for regulatory changes
- To keep pace with the evolving tax environment, companies should take steps to:
 - Understand the financial implications of new tax rules
 - Access their operational and corporate structures
 - Re-evaluate their tax management
 - Engage with government stakeholders

“With global tax issues back in the press, mining companies are once again under scrutiny for their tax affairs. This will impel miners to base future investments on three main factors – a country’s geology, its political stability and its tax policy.”

James Ferguson
Global Mining Tax Leader
Deloitte UK



STRATEGIES THAT BUCK THE TREND

Understand the impact

Early assessments have proven a key enabler for companies to approach the changes in tax rules in a coordinated and structured manner

Assess your structure and value chain

Acting now will position first movers to better navigate the changing tax environment which brings more intense scrutiny by various tax authorities

Take a fresh look at your tax management

Miners should revisit their entire tax structure to ensure it continues to reflect their strategic priorities and organizational risk tolerances

Engage

Companies that consistently engage their government stakeholders (specifically finance and tax authorities) in a constructive manner can realize tangible advantages, particularly where tax rules related to stability or productions threaten to change

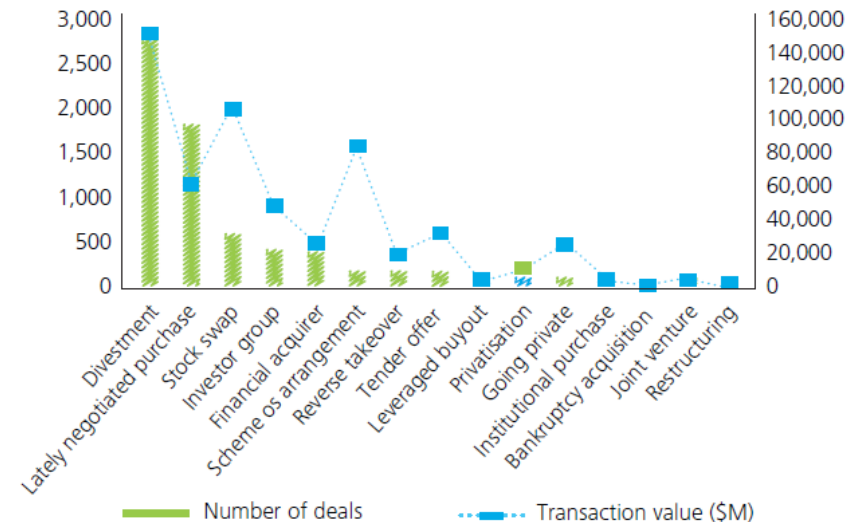


THE M&A PARADOX

TO BUY OR NOT TO BUY; THAT IS THE QUESTION

- Most active deal flow in recent years stem from divestments and rescue-type deals rather than M&A
- Delivering on short-term shareholder returns may be harming the industry's long-term growth prospects
- Distressed assets in the market, along with majors divesting their assets, now may be an ideal time for miners to make acquisitions
- M&A may be an ideal solution for mining companies prepared to grow by acquisitions

Sell-side global mining deals since January 2012, by acquisition technique



Source: Thomson Reuters, Thomson One database, October 2015

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STRATEGIES THAT BUCK THE TREND

Buy counter-cyclical

Think long-term: companies prepared to engage in counter-cyclical M&A today may reap long-term rewards

Divest wisely

By engaging in an enhanced review process of the role individual mines can play in their companies' portfolio, miners can avoid divesting assets that could potentially deliver long-term value or a competitive differentiator

“The scarcity of funds and a fear of investing are driving many potential buyers to stay their hands. With asset values being tested, however, there are currently compelling reasons to buy. Whilst M&A will not be right for every company, counter-cyclical opportunities exist and companies that choose not to explore them may not be coming to the right conclusion.”

Debbie Thomas
African Services Leader
Deloitte UK

10

SAFE, SECURE AND HEALTHY

AN EXPANDED VIEW OF CORPORATE AND PERSONAL WELFARE

- Miners continue to refine safety programs and increase the use of technology to implement safety programs focused on zero fatalities
- Increased emphasis on culture of safety, definition expanded to encompass mental health
- Miners need to be prepared to tackle new risks beyond physical and mental health to include the mounting threat of cyber attacks
- To enhance safety records and security postures, companies need to:
 - Strengthen safety analytics
 - Adopt more robust mental health policies
 - Improve security protocols
 - Employ risk monitors
 - Conduct risk assessments
 - Improve crisis management



10

STRATEGIES THAT BUCK THE TREND

Enhancing safety analytics

Correlating safety data enables companies to identify safety incident patterns and employees at risk as well as adopt processes and procedures to minimize the incidence of serious injury

Strengthening mental health policies

Analytics can strengthen efforts to address mental health incidents as well as help companies uncover the risk factors that contribute to mental health problems

Improving security protocols

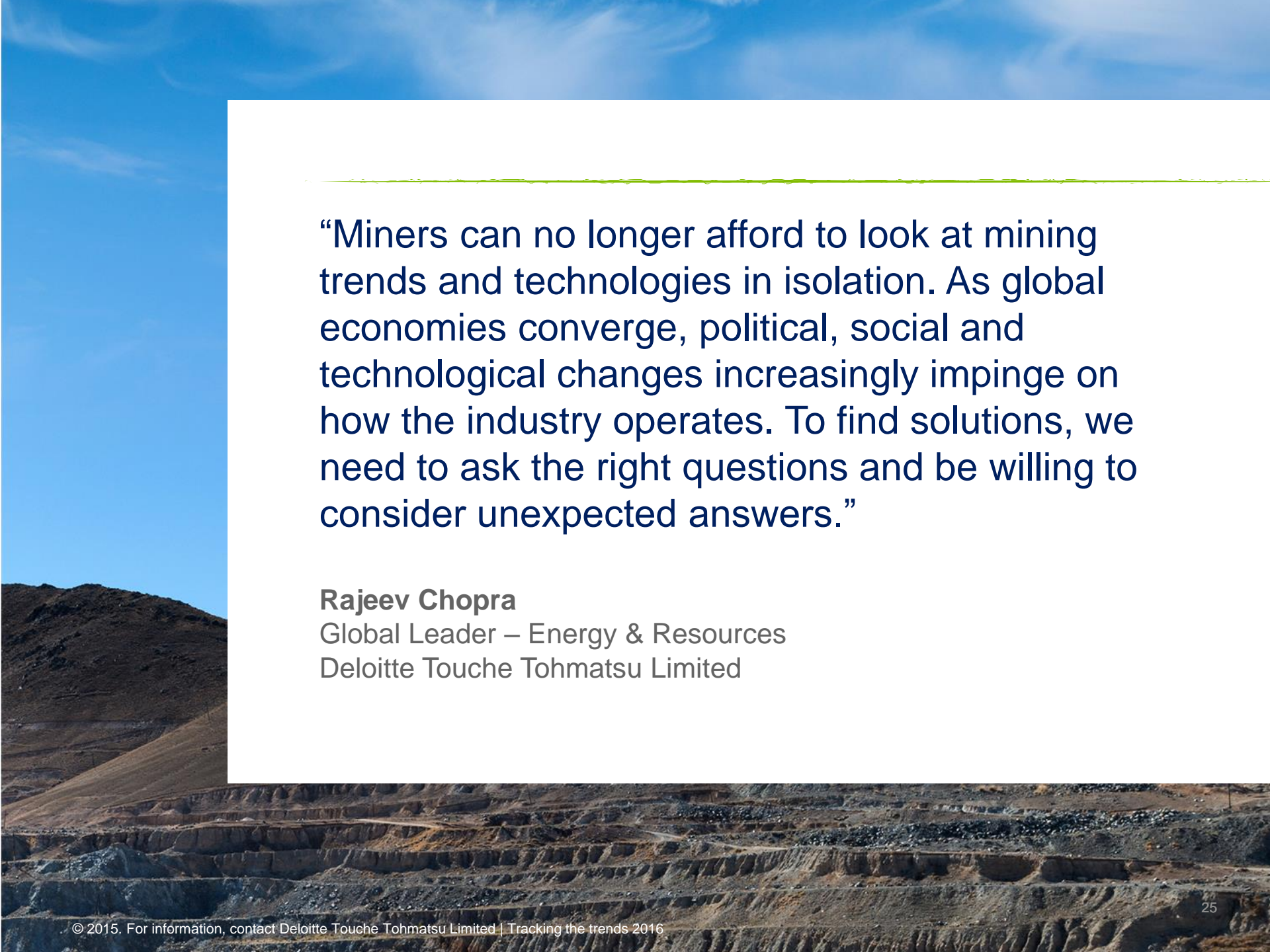
Advanced monitoring systems can help protect workers in hostile environments by tracking access to facilities, pinpoint how insiders move through their environments and detect anomalous patterns

Conduct risk assessments

To mitigate associated security risks, it is imperative to track which external parties have access to a company's data and what controls are in place to prevent unauthorized dissemination of confidential data

Improving crisis management

Companies must adopt robust crisis management protocols for cyber breaches and physical attacks

A large open-pit mine with terraced levels under a blue sky. The mine is a deep, multi-tiered excavation with visible rock strata and some vegetation on the upper slopes. The sky is a clear, bright blue with a few wispy clouds.

“Miners can no longer afford to look at mining trends and technologies in isolation. As global economies converge, political, social and technological changes increasingly impinge on how the industry operates. To find solutions, we need to ask the right questions and be willing to consider unexpected answers.”

Rajeev Chopra

Global Leader – Energy & Resources

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