



AFTER THE GOLD RUSH: EMERGING
TRENDS IN THE GLOBAL MINING
INDUSTRY

February 27, 2009

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EMERGING TRENDS

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INTRODUCTION

Timing is Everything

Terrible:

- Teck's \$14 billion purchase of Fording
- RTZ's \$38 billion purchase of Alcan

Bad:

- Zinfex merger with Oxiana to form Oz
- Xstrata purchase of Falconbridge
- Norilsk's purchase of LionOre

Good:

- BHP's aborted purchase of RTZ (although the costs amounted to U.S. \$386 million)
- Minmetals take-over bid for Oz

Terrific:

- Future Take-over of Teck

RE-SHUFFLING THE DECK

China – White Knight or Corporate Marauder

- China represents the largest market for minerals and metals.
Canaccord Adams Research:
 - 28% of global demand for copper
 - 34% demand for aluminum
 - 50% of seaborne iron ore
 - 25% of zinc
- At the top of the cycle China was investing heavily in developing countries

- Rationale was lower prices, less competition, less government resistance, easier operating and environmental rules
- China is now targeting developed countries and companies (Chinalco \$19.5 Billion investment in RTZ; takeover of Oz for \$1.7 billion; majority stake in Perilya)
- Reasons for this shift include cheaper prices for companies and projects, more welcoming governments and shareholders, realization of difficulties in operating in developing countries, increased sophistication in making foreign investments

- Many view this as good news because it demonstrates that China has a positive long term view of metals; underscores the long term demand in China for metals; and in a world full of sellers, deep pocketed buyers are needed to help stabilize the market
- Many fear this development because China's objectives and long term plans are not necessarily consistent with the traditional market model
- Canadian companies and projects are likely to be targeted soon (TECK/INMET/HudBay)

Russia – After the Oligarchs

- In 2008, the Russian stock market lost 70%; the ruble lost more than a third of its value against the Euro and the \$U.S.
- Russia's billionaires fell from 101 to 49 and its 10 richest men collectively lost \$U.S. 131 billion (63% drop of wealth) in 2008 according to Moscow's Finance magazine (equal to GDP of New Zealand or Peru)

- Biggest losers were the oligarchs controlling metals and other natural resources
 - Oleg Deripaska (top spot in 2007) went from \$40 billion to \$5 billion. Primary reason for his loss was the ill timed purchase by his main holding, UC Rusal (the world's biggest aluminum company) of a 25% stake in Norilsk (world's biggest nickel producer)
- Russia's economy is expected to get worse and a trend which has developed is the Russian government participating in the debt restructuring of many of the distressed mining companies previously controlled by the oligarchs (Rusal has asked the Kremlin for U.S.\$6 billion for 15% of Rusal)

- In 2009 Russian companies must repay over \$140 billion in foreign debt. Government bailouts will result in the ownership of many of these companies shifting from the oligarchs back to the Russian government where they resided prior to the 1991 collapse of the U.S.S.R. and the rise of the oligarchs
- To a lesser extent, foreign companies may also come in for quality assets at low prices (Kinross JV with Polyus) as oligarchs reach out for partners

“OUT OF AFRICA”

Political Risk vs. Economic Return

- Run away demand and high prices induced many companies to invest heavily in dangerous and politically unstable areas or areas with little infrastructure
- This occurred because:
 - too expensive in established areas
 - high prices could pay for security, infrastructure and ex-pat staff
 - “herd mentality” meant not “going it alone”
 - risk taking investors (and bankers)

- Reversal of process now taking place because:
 - Current low prices don't cover “political risk” costs
 - risk adverse investors
 - no credit available
 - infrastructure assistance no longer available
 - companies with cash can now pick up quality assets at home from distressed juniors

Developing Countries – Open for Business (Again)

- During the boom cycle of 2005-2007, many countries undertook various initiatives to claim a larger piece of the metals pie:
 - Zambia – Windfall and variable tax laws
 - DRC – Mining Licence “Review”
 - Venezuela – Las Cristinas Environmental Permit
 - Russia – Strategic metal designation
 - Bolivia – Nationalization of assets
 - Chile – New royalties/taxes
 - Peru – New royalties/taxes
 - Ontario – Diamond tax
 - Alberta – Higher Oil Royalties
 - Guinea – Mining Licence “Review”
 - Mongolia – Higher Royalties and State Ownership
 - Ecuador – Mining Mandate

- Starting to see a reversal of the global nationalization trend seen over the past 3 years
- Silver lining in metals meltdown has been the cancellation by many governments of programs designed to take a larger slice of metals pie:
 - Zambia cutting mining taxes imposed in 2008
 - Ecuador passes miner friendly mining laws to encourage investment (IAMGOLD and Kinross) after 6 month mining suspension
 - Huge job losses in other developing countries (5,500 in Peru in December) plus lower tax and royalty revenue putting strain on governments and inducing them to make mining more attractive

Bargaining Power Shifts

- Over supply of concentrates forcing miners to accept lower treatment terms from smelters and refiners
- Huge drop in prices for iron ore as bargaining power swings back to steelmakers after huge price increases imposed in 2007/2008 by Vale, BHP, and others
- Eskom in RSA – power supply no longer the constraint to mining companies as RSA economy falls and electrical power demand plummets
- Equipment suppliers, drill companies, consulting agencies, assay labs, and other service providers to mining companies have gone from dictating terms to searching for business in less than 6 months. Demand is down, over-capacity exists, orders cancelled, and used (or newly bought) equipment is now on the market

TECHNICAL TRENDS

The Credit Crunch

Perhaps the greatest issue currently facing the industry is the lack of credit and equity capital

Large Companies

- Large companies have smaller cash flows and reduced access to external financing
- This has created a short fall in the funds necessary to advance projects or make acquisitions

- Reaction to this crisis is varied:
 - Xstrata - rights issue to raise \$6 billion but at prices which were a huge discount to its market price
 - RTZ - \$19.5 billion deal with China to reduce crushing \$39 billion debt load
 - Deal comprised of \$7.2 billion convertible bonds and \$12.3 billion for stakes in 8 of RTZ mines
 - Results in Chinalco doubling its stake in RTZ to 18% and gaining 2 seats on the Board
 - Oz taken over by Minmetals for \$1.7 billion
 - Cameco \$400 million equity issue (10% discount to market price)

Small and Medium Corporations

- Almost no external credit or financing available
- Options are merge, sell, or hunker down
- Many companies caught between the “dock and the boat” after raising large amounts of financing in 2007/2008 to progress projects but not quite finish them
- For those who can access credit, the terms are prohibitive (FNX cancelled its \$100 million LOC as being too costly – looking at alternatives such as vehicle leasing)

Result

- Landscape littered with many small/medium size companies with good projects which are 50-80% complete
- Have partially completed infrastructure and some (but not enough) cash
- Prime take-over targets
- Little or no grass roots exploration will severely impact the early stages of the metals pipeline – sowing the seeds for future supply shortages and a return to higher commodity prices

Industry Consolidation – Stalled but not Stopped

- Record levels of M&A activity in 2006 and 2007. In 2007 alone, there were over 411 deals with an aggregate value of over U.S \$145 billion. Much of the value of the deals were represented by mega deals such as:
 - Xstrata/Falconbridge
 - CVRD/Inco
 - Freeport/Phelps Dodge
 - Barrick/Placer Dome
 - BHP/WMC
 - Rio Tinto/Alcan

Industry Consolidation (cont'd)

- Starting in 3Q 2008, there has been a dramatic reversal of this trend (BHP/RTZ) and a great deal of buyers' remorse (RTZ/Alcan; Teck/ Fording)
- Two competing tensions in the current environment are:
 - **Financial**: Bargain Prices for Companies and Projects vs. Poor Credit Conditions and Low Share Prices
 - **Strategic**: Buy at Low Point in Cycle vs. Concentrate on Cash Preservation to Get Through Cycle

Industry Consolidation (cont'd)

Factors which will kick-start renewed M&A activity:

- Desire to lower production costs via closing of old high cost operations and acquisition of new low cost operations
- Desire to access cash currently held by companies with cash
- Stabilization of metal prices and demand
- Share for share acquisitions or mergers with no cash involved
- Parent companies taking private their majority-controlled public subsidiaries
- Target companies seeking “White Knights” to fend off opportunistic bids
- Partners buying out weaker partners in joint projects
- Sell-off by majors seeking to reduce debt
- China/India acquiring strategic metal supplies

THE END OF THE BEGINNING

“Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.”

- Winston Churchill following the victory at El Alamein in North Africa, London, 10 November 1942.

The Impact of Input Cost Reductions

- The upward spiral in all the input costs is slowing and in some cases reversing as the supply of manpower and materials outstrip demand
- Over 2009/2010 these prices will continue down. This will help improve the economics of some projects
- Less certain are prices
- World demand continues to slide

The Impact of Input Cost Reductions (cont'd)

- Prices for metals will not stabilize until the supply/demand balance moves into equilibrium
- Projects that were conceived at higher metal prices will not proceed on the basis of reduced costs alone
- Exception is the gold sector which is currently enjoying record high prices and slowly declining costs

The Seeds of the Next Cycle – Production Cut Backs

- Large mining companies are delaying or suspending projects and closing marginal production facilities:
 - BHP (Ravensthorpe)
 - RTZ (Alcan operations, Corumba, etc.)
 - Oz (Century)
 - Xstrata (Sudbury, Falcondo)

- Small and medium sized companies are shutting down various high cost facilities and/or are stopping development of projects often because of lack of financing or in some cases insolvency (Apex Silver)
- Junior explorers are running out of funding for exploration projects and are finding it almost impossible to raise money
- Net result will be a significant reduction of supply in the metals pipeline

THE HIDDEN THREAT – Manpower, Materials and Infrastructure

Manpower and Materials

- The abrupt reversal of fortunes has meant that the acute shortages of skilled workers and equipment have evaporated
- Now facing lay-offs and surplus equipment
- Huge impact on new graduates, universities, colleges, and equipment suppliers who were all investing heavily in a growing industry
- Key issue now is to preserve as much of this capacity as possible to ensure that the inputs and infrastructure constraints of 2006/2007 don't impede the next recovery
- A tremendous amount of talent and expertise resides in people age 55 and over and this will be lost to the next recovery cycle unless steps are taken to retain this talent

Infrastructure

- Electricity (Eskom, RSA)
- Ports (Australia)
- Railways (Africa, Australia)
- Roads (Global)
- Government Services (developing countries)
- Gas pipelines (Chile, Argentina, Bolivia)
- Water (Chile)
- Roads (Global)
- Ships (Global)

Infrastructure (cont'd)

- The past few years have demonstrated the critical lack of infrastructure to support high levels of production
- Reduced activity in response to lower demand, have facilitated an “easing” of infrastructure shortages
- The few initiatives that were started to build up the needed infrastructure are now suspended or cancelled altogether

Future

- Any rebound or increase in demand for metals which stimulates a return to higher production levels will ultimately be constrained by the continuing lack of infrastructure

“It Wasn’t Raining When Noah Built The Ark”

- Almost every major jurisdiction in the world is currently embarking on a “Stimulus Program” to try to get the economy moving again. Large portions of the Billions being spent for these initiatives should be ear-marked for infrastructure, especially those which support natural resource development



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