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Emerging Players in Global Mining



Dr. David Humphreys

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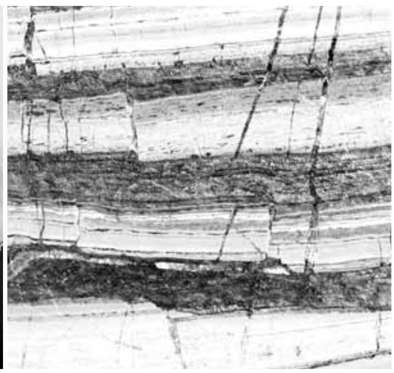


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Cover Photos: Oil rig, hematite-banded ironstone, LNG tanker

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Preface

Companies from the emerging economies are a growing feature of the global mining industry. This document looks at who these companies are and the factors behind their growth. The Russian mining company, Norilsk Nickel, for which the author worked until the end of 2008, is used to illustrate some of the points made. The document then goes on to discuss some of the challenges the emerging players will face as a result of the global economic crisis and finishes with some comments on the development implications of their growing role.

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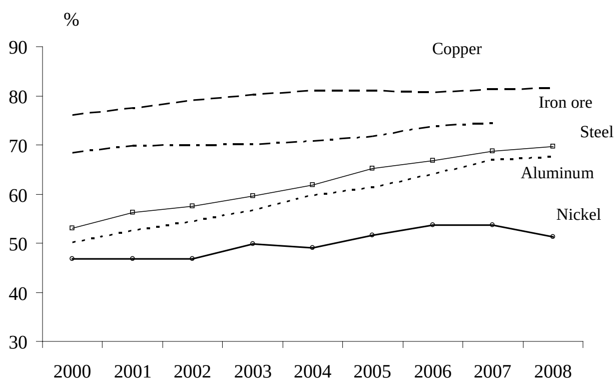
Growing Role of Emerging Economies in Mining

Much was made during the 2003-2008 mineral price boom about the growing role of emerging market and developing country economies (henceforth emerging economies) in the global demand for minerals. However, of no less significance was the growing role played by these economies on the supply side. The contribution of the emerging economies to the global supply of minerals since 2000 is striking. With their growth in production exceeding that of the advanced economies in almost every commodity, the share of these countries in global mineral production mounted steadily (*Figure 1*).

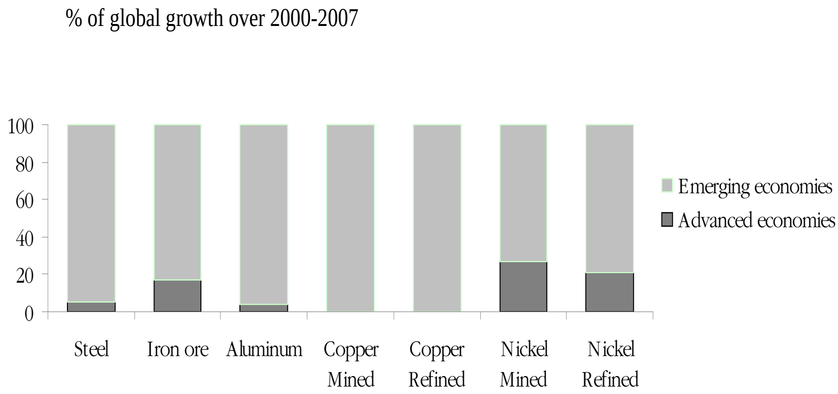
Figure 1. Share of emerging economies in global production



Sources: worldsteel, UNCTAD, WBMS, Brook Hunt

Since 2000 the emerging economies have accounted for most of the growth in global production of iron ore and nickel and effectively all the global production growth of aluminum, copper, and steel (*Figure 2*).

Figure 2. Mine and metal production since 2000



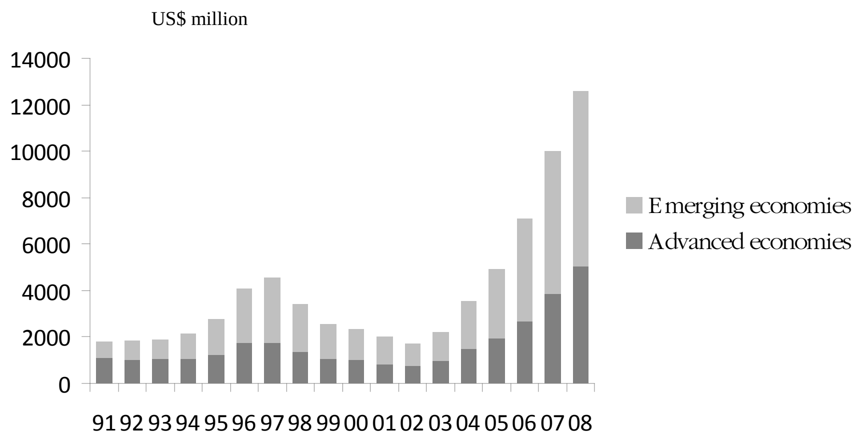
Sources: worldsteel, UNCTAD, WBMS, Brook Hunt

The emerging economies currently count among their number the world's largest producer of iron ore (Brazil), the largest producer of aluminum (China), the largest producer of copper (Chile), the largest producer of silver (Peru), the largest producer of gold (China), the largest producer of platinum (South Africa), and the largest producer of diamonds (Botswana).

A similar tendency is evident in global exploration spending, arguably a pointer to future production trends (*Figure 3*). According to surveys conducted by the Metals Economics Group, at the beginning of the last decade the emerging economies accounted for approximately 40 percent of global exploration spending. By the middle of this decade, that proportion had risen to 60 percent. The concentration of growth in production and exploration in the emerging economies should not, perhaps, come as too much of a surprise. These economies, after all, account for approximately three-quarters of the world's total land surface and, according to the United States Geological Survey, a similar proportion of global mineral resources (*Figure 4*). Nevertheless, it remains the case that, for much of history, the development of the resources of these economies has been hampered by inadequate geological knowledge, poor infrastructure, inconsistent and ineffective government policies, and a lack of capital.

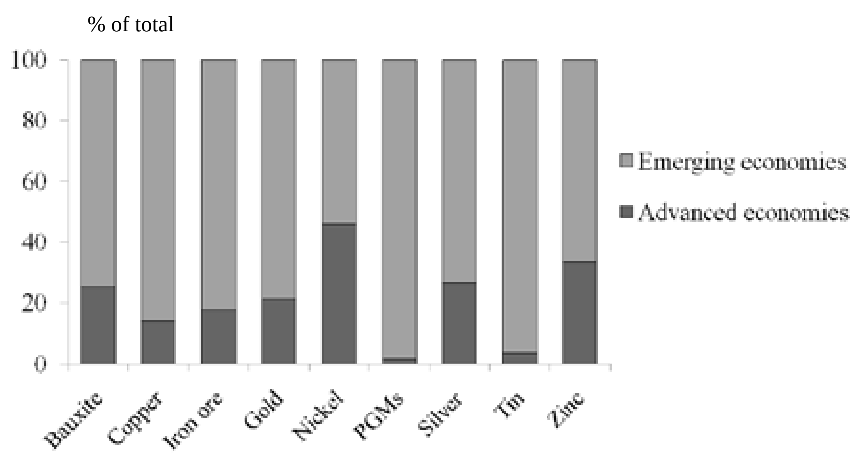
More recently, the situation has begun to change. Liberal reforms in the 1980s and 1990s opened up large tracts of land in mineral-rich parts of the world to foreign investors while the liberalization of capital markets increased access of all investors to risk capital. Equally important, many companies based in emerging economies started transforming themselves from bureaucratic and conservative national institutions into modern profit-driven corporations with expansionary ambitions, not just within their home territories but also on the wider world stage.

Figure 3. Industry exploration expenditure by region



Sources: worldsteel, UNCTAD, WBMS, Brook Hunt

Figure 4. Global distribution of mineral reserves



Source: USGS, January 2007

Emerging Economy Mining Companies

The precise role played by companies from the emerging markets and developing countries on the world stage is somewhat subject to definition. A common approach to assessing the economic significance of companies is to look at their market capitalization. For present purposes, however, it has been decided to use instead the compilation of the Raw Materials Group (RMG), which ranks companies on the basis of the value of their mine output (*Figure 5*). This choice has the advantage of permitting the inclusion of companies which are not publicly quoted, like Codelco, and arguably provides a better and more stable measure of corporate scale.

Figure 5. World's largest mining companies

	Company	*Country*	*% of total*
1.	Vale	Brazil	5.6
2.	BHP Billiton	Australia	5.1
3.	Anglo American	United Kingdom	3.9
4.	Rio Tinto	United Kingdom	3.8
5.	Freeport McMoRan	United States	3.6
2.	Norilsk Nickel	Russia	9.3
7.	Codelco	Chile	2.9
8.	Xstrata	Switzerland	2.9
9.	Barrick Gold	Canada	1.6
10.	Group Mexico	Mexico	1.6
11.	Teck	Canada	1.1
12.	Newmont Mining	United States	1.0
13.	Anglogold Ashanti	South Africa	0.9
14.	Glencore International	Switzerland	0.8
15.	KGHM Polska Miedz	Poland	0.8
16.	Antofagasta	United Kingdom	0.8

	Company	*Country*	*% of total*
17.	Impala Platinum	South Africa	0.7
18.	Vedanta Resources	United Kingdom	0.7
19.	Gold Fields	South Africa	0.7
20.	Kazakhmys	United Kingdom	0.7
21.	PT Antam	Indonesia	0.6
22.	Goldcorp	Canada	0.5
23.	Alrosa	Russia	0.5
24.	Lonmin	United Kingdom	0.5
25.	Metalloinvest	Russia	0.5
26.	Arcelor Mittal	United Kingdom	0.5
27.	Sumitomo MM	Japan	0.4
28.	ENRC	United Kingdom	0.4
29.	Newcrest Mining	Australia	0.4
30.	Cleveland Cliffs	United States	0.4

Source: Deutsche Bank, Brook Hunt

However, the approach has drawbacks, including the fact that aluminum companies are omitted from the analysis, something which is partially justified on the grounds that the value of the mined product (bauxite) is very low relative to the value of the metal (aluminum) produced from it. There is also a problem of how to deal with state-owned companies, such as those in China and Iran. These are excluded from RMG's listing on the reasonable grounds that the ownership situation for many state-owned companies is complicated and non-transparent. However, there are clearly some very large mining companies in China. China Shenhua, for example, has an annual coal production of around 200 million tonnes. The Islamic Republic of Iran would also be a world-ranking producer if all its mining interests were to be aggregated.

Leaving these qualifications aside, the RMG analysis shown in Figure 5 places four companies based in emerging economies among the world's top 10 mining companies, and 11 among the top 30. There is, however, a further definitional problem regarding the matter of what exactly is an emerging economy company. Several of the companies listed in the table, notably Antofagasta, Vedanta Resources, Kazakhmys, and ENRC, are listed under the United Kingdom since that is where they have their primary stock market listings. However, given that the managements of these companies are located in the countries of their principal assets, Chile, India, and Kazakhstan, respectively, these might more logically be regarded as emerging economy companies than their categorization under the United Kingdom implies. Taking this broader definition, half of the top 30 mining companies can reasonably be considered emerging economy companies. *Figure 6* lists these companies along with the principal commodities that they produce and their world ranking in the production of these commodities.

Figure 6. Emerging economy players

Company	*Country*	*Principal products (World ranking in 2007)*
Vale	Brazil	Iron ore (1), Nickel (2), Platinum (7) ,Copper (14), Aluminum
Norilsk Nickel	Russia	Nickel (1), Copper (8), Platinum (4), Palladium (1), Cobalt (2)
Codelco	Chile	Copper (1), Molybdenum (2)
Grupo Mexico	Mexico	Copper (6), Molybdenum (3), Silver (9)
Anglogold Ashanti	South Africa	Gold (2), Uranium (10)
KGHM Polska Miedz	Poland	Copper (9), Silver (3)
Antofagasta	United Kingdom/ Chile	Copper (10), Molybdenum (5)
Impala Platinum	South Africa	Platinum (2), Palladium (3)
Vedanta Resources	UK/India	Zinc (5), Copper, Cobalt (5), Iron ore, Aluminum
Gold Fields	South Africa	Gold (4)
Kazakhmys	United Kingdom/ Kazakhstan	Copper (11), Silver (5)
PT Antam	Indonesia	Nickel (4)
Alrosa	Russia	Diamonds (2)
Metalloinvest	Russia	Iron ore (4)
ENRC	United Kingdom/ Kazakhstan	Ferrochrome (1), Ferromanganese, Iron ore, Aluminum

Source: Deutsche Bank, Brook Hunt

Drivers for the Rise of Emerging Players

Several factors have combined to provide a boost to the role and fortunes of emerging economy companies in mining over recent years. Five of the most important are: (i) market liberalization and privatization of state-owned companies; (ii) privileged access of local companies to significant and underdeveloped local resources; (iii) strong financial positions due to the mining boom of 2003-2008; (iv) drive for geographic and commodity diversification, at times with tacit support of respective home governments; and (v) strategic expansion, usually to ensure raw material supplies for their metallurgical operations. Each factor is explained in more detail below.

Market liberalization and privatization. Key to the growth of emerging economy mining companies has been the widespread disengagement of the state from the mining industry which began during the liberalizations and privatizations of the 1980s, but accelerated with the collapse of the Soviet Union in the early 1990s. While under state control, many mining companies in emerging economies were effectively restricted to slow, incremental, and local growth by their lack of access to capital and skills and their lack of knowledge and experience of the industry beyond their borders. The disbanding of state controls opened the door to an inflow of entrepreneurial talent and a more commercial and expansive set of objectives.

Privileged access. A second factor favoring the growth of these companies was that, by virtue of their national characters, they often had privileged access to local resources; resources which, as already noted, were often significant and underdeveloped. This was sometimes a function of the leases they had acquired at a time when they enjoyed a quasi-monopolistic position in the country, but it also reflected the practical reality that the managements of these companies were generally well connected politically and bureaucratically within the countries in which they were domiciled, understood the regulatory regime and how to operate within it, and had good knowledge of local resource development opportunities. Inevitably, as the industry began to move into growth mode, these aspects gave them a powerful competitive advantage relative to incomers to the country who, by definition, lacked these things, as well as a powerful lever in any negotiations where they needed to co-opt the involvement of incoming foreign investors with technologies and managerial skills they lacked.

Strong financial positions. A third factor helping the growth of these companies was financial. The five-year commodity boom of 2003-2008 gave companies in the sector strong cash flows and healthy balance sheets. Coupled with improvements in corporate governance and financial reporting, this massively increased their access to international capital markets. The majority of this fundraising was in the form of bank borrowing and bond issues. Some companies, however, also tapped equity markets. Among the top 30 companies listed in Figure 5, Vedanta Resources did a listing and fundraising on the London Stock Exchange in 2003 (>US$1 billion), followed in 2005 by Kazakhmys (>US$1 billion) and in 2007 by ENRC (Eurasian Natural Resources Company). The maturing of the banking systems and stock markets of many emerging economies, combined in some cases with high levels of domestic savings and low borrowing costs, have also been increasing the availability of funding for resource projects in emerging economies, most notably for smaller and mid-cap companies. Thus, Hong Kong has emerged as a significant source of equity finance for mining in Asia.

Drive for diversification. A fourth factor driving growth in these companies is diversification. Many of the larger mining and metals companies in emerging economies have been on a fast-track mission to globalize as a means to improve their risk profiles through geographic and commodity diversification, as well as to achieve inward transference of skills and technology. In this mission, they sometimes have the tacit support of their governments for whom the idea of hosting a global champion often appeals. In making acquisitions of assets in lower-risk countries, or in commodities that promise to give greater stability to their earnings, managements may feel justified in paying a premium if they believe that the benefits of the resulting improvements in risk profile will be reflected in a higher valuation for the business overall.

A more diverse and global profile also gives companies a bigger and more cosmopolitan pool of management talent from which to draw, a critical factor both to furthering their global growth and making the process self-sustaining. The most notable example of such diversifications was Vale's acquisition of the Canadian nickel company, Inco, in 2006, although there have been many others, including: Grupo Mexico's acquisition of U.S. copper producer Asarco in 1999; Vedanta Resources' acquisition of Copper Mines of Tasmania in 1999 and of Konkola Copper Mines in Zambia in 2004; Norilsk Nickel acquisitions' of Stillwater Mining and LionOre (see below); Codelco's exploration forays into Brazil and Mexico; and those of Alrosa into Angola. In the aluminum sector, the Russian producer, Rusal, has acquired assets in Australia, Guinea, Guyana, Sardinia, Jamaica, and Ireland. The process continued in 2009, with Vale acquiring from Rio Tinto the Argentinean potash project, PRC (Potasio Rio Colorado), and the Corumbá iron ore mine in Brazil. Vedanta Resources, through its 57 percent subsidiary Sterlite, has been pursuing the acquisition of Asarco and has acquired a 10 percent stake in Canada's HudBay Minerals.

Strategic expansion. A fifth and final factor is strategic. This is largely to do with companies seeking to secure raw materials for their metallurgical operations. It flows naturally from the growing role of the emerging economies as mineral consumers and associated concerns over the security of supply of the raw materials they need to support their industrialization and the growth of their metal-processing and manufacturing sectors. China has been prominent in this context. Since the adoption of its 'going out' policy in 2004, Chinese companies have been actively seeking resource development opportunities overseas with a view to feeding their domestic smelters and refineries. Indian companies have also sought overseas resource investments for similar reasons. The overseas investments made by Rusal, already referred to, have been significantly motivated by its strategic quest to develop supplies of bauxite and alumina for its low-cost Russian smelting operations. The mercantilist thinking behind this sort of strategic investment quite commonly results in buyers placing a higher value on a mineral asset than that which might be suggested by a strict commercial evaluation.

The Rise of China as a Global Mining Player

A particular focus for such strategic investments by China has been iron ore, reflecting the enormous raw material demands of the country's rapidly growing iron and steel production and the relatively poor quality of its domestic iron ore resources. As *Figure 7* shows, a major focus of this overseas investment in iron ore has been Australia, which is perhaps not surprising given its vast iron ore resources and relative proximity to China.

Outside of iron ore, the approach adopted by Chinese companies has tended to focus more on the resources of other emerging economies. This is explained partly by the fact that this is where the undeveloped resources tend to be but also by the fact that emerging economies are often receptive to China's less conditional approach to doing business and to what Chinese investment has to offer them in a broader development context. Another attraction for host countries that have often in the past been frustrated by the slow pace at which foreign investors develop their mineral concessions is the speed at which the Chinese are able to agree to and implement projects. As one commentator on the subject has remarked, "…the Chinese treat Africa differently than does the west, which see instability on the continent as a potential threat. The Chinese, on the other hand, see Africa as a long-term business opportunity (Rault, 2009, p7)." The same source notes that China's Ministry of Commerce has recently published an investment guide to 20 developing countries, including many in Africa, to assist Chinese companies planning to invest abroad.

Figure 7. Investments in iron ore mining by Chinese companies

Company	*Type of Investment*	*Year*	*Country*
Ansteel	Acquisition of minority share in, and 50:50 JVs with, Gindalbie Metals	2006	Australia
Baosteel	Investment in 46% of Bao-HI Eastern Ranges JV with Hamersley Iron	2001	Australia
	Investment in 50% of Baovale JV with Vale	2001	Brazil
Chinalco	Acquisition of 9% stake in Rio Tinto	2008	Australia
CITIC	Acquisition of Sino-Iron and Balmoral Iron from Mineralogy Pty	2006	Australia
	Acquisition of minority stake in Aztec Resources's Koolan Island project	2006	Australia
CMEC	Acquisition of Belinga iron ore project	2008	Gabon
Hunan Valin	Acquisition of 17.5% stake in Fortescue Metals	2009	Australia
Kunming Steel	Acquisition of Quy Xa iron ore project	2006	Vietnam
Shougang	Acquisition of 100% of Shougang Hierro Peru	1993	Australia

Company	*Type of Investment*	*Year*	*Country*
Shougang & APAC	Acquisition of 40% stake in Mt Gibson	2008	Australia
Sinom	Acquisition of 73% of Asia Iron and Extension Hill project	2006	Australia
Sinosteel	Investment in 40% of Channar JV with Hamersley Iron	1987	Australia
	Acquisition of Murchison Metals and Midwest Corporation	2008	Australia
Wuhan	Placement in iron ore explorer Centrex for 50% share in projects	2008	Australia

Source: Author

In the Democratic Republic of Congo (DRC) and Zambia on the African copper belt, Chinese investment in the mining sector has been accompanied by significant infrastructure development spending. In September 2007, China's Export-Import Bank agreed to provide US$8.5 billion for infrastructure to support the country's mining industry in return for development rights to copper and cobalt resources for Chinese companies. The following month a similar deal was signed by the Government of DRC with the China Development Bank. Key to these agreements was the formation of a joint venture, Socomin (Société Congolaise Minière), comprising 32 percent Congolese companies and 68 percent Chinese companies. The objective of this venture is to invest in the resources of DRC with the profits used to fund infrastructure development. The stated intention is that over a 15-year period, the venture will mine over ten million tonnes of copper and cobalt and provide US$12 billion of investment. The government of the DRC hailed the agreements as a major step toward ensuring that in the future the resources of the country would be used to benefit its people (Komesaroff, 2008; *The Economist*, 2008).

The approach adopted by Chinese companies to acquire overseas mining assets has often involved the taking of minority stakes in foreign mining operations in return for supply off-take agreements and the acquisition of early-stage development projects rather than the outright acquisition of existing mining companies. This may partly reflect China's long-term thinking about such matters, but is perhaps connected to the fact that China has encountered resistance to such outright purchases in the past, as with the attempt of China Minmetals to acquire Noranda in 2004.

Accordingly, the ownership of overseas assets by Chinese companies tends to be rather fragmented. *Figure 8* provides an illustration of some of the companies involved in nonferrous metal mining and some of the more prominent examples of what they have been acquiring.

Figure 8. Investments in nonferrous metal mining by Chinese companies

Company	*Type of investment*	*Country*	*Commodity*
Jinchuan Group	Acquisition of minority stake in Albidon (2006)	Zambia	Nickel
	Acquisition of majority stake in Tiomin's Kwale project (2006)	Kenya	Titanium
	Minority stakes in Allegiance Mining ('07), Metals X ('07) and Fox Resources ('08)	Australia	Nickel
	Acquisition of Tyler Resources & Bahuerachi project (2008)	Mexico	Copper, zinc
China Nonferrous Metal Mining Co (CNMC)	Acquisition of Chambishi mines (1998)	Zambia	Copper
	Development rights to Tumurtin-Obi (2003)	Mongolia	Zinc
Zijin Mining	Acquisition of Rio Blanco mine (2007)	Peru	Copper
China Minmetals	Development rights to Anayk (2007)	Afghanistan	Copper
	Acquisition of Northern Peru Copper & Galeno project (2008)	Peru	Copper
	Acquisition of OZ Minerals (2009)	Australia	Zinc, copper
Chinalco	Acquisition of Aurukun project (2006)	Australia	Bauxite
	Acquisition of Dak Nong project (2006)	Vietnam	Bauxite
	Acquisition of Peru Copper and Toromocho project (2007)	Peru	Copper

Company	*Type of investment*	*Country*	*Commodity*
	Acquisition of 9% stake in Rio Tinto (2008)	Global	Various
China Metallurgical Construction Group Corp (CMCC)	Acquisition of Saindak mine (1998)	Pakistan	Copper
	Development rights to Duddar project (2004)	Pakistan	Zinc, lead
	Acquisition of Ramu River project (2004)	PNG	Nickel
	Acquisition of 85% of Luanshya Copper Mines	Zambia	Copper
Shenzhen Zhongjin	Acquisition of 50.1% of Perilya	Australia	Zinc

Source: Author

More recently, there have been indications that China has been using the opportunity presented by global recessionary conditions and the financial weakness of over-leveraged companies in the sector to step up the pace and profile of its external investment in mining. The increased emphasis on resource investment may also have been motivated by China's disillusionment with the performance of its overseas investments in the financial sector. In any event, in February 2009, China Minmetals tabled a US$1.7 billion takeover bid for the Australian copper-zinc-lead producer, OZ Minerals. This was approved by the shareholders and the Australian government, subject to the company first divesting the Prominent Hill copper-gold mine on grounds of Australian national security. Also early in 2009, Hunan Valin successfully bid to acquire an 18 percent stake in Western Australian iron ore producer Fortescue Metals Group (FMG). FMG was also reported to be in discussions with China sovereign wealth fund, CIC (China Investment Corporation), about a possible investment in the company. More significant still was the acquisition by the Chinese aluminum company, Chinalco, of a 9 percent stake in global miner Rio Tinto during its long-running battle to avoid takeover by BHP Billiton in 2008. In the early months of 2009, agreement was reached on the extension of Chinalco's shareholding to 15 percent, subject to governmental and shareholder agreement.

The Case of Norilsk Nickel

Several of the generalizations made in the previous section can be illustrated by the developments at the Russian mining company, Norilsk Nickel, over the past decade. This is not to suggest that Norilsk Nickel's experience is in any sense typical, but it is the company with which the author is most familiar and it does serve to illustrate quite well several of the points made above.

Norilsk Nickel takes its name from the town of Norilsk, which is situated in the far north of Russia on the Taimyr Peninsula and sits on the vast nickel deposit that makes Norilsk Nickel the world's largest producer of the metal. Thanks partly to the 12 by-product metals that the ores at Norilsk contain, the company is also the lowest cost producer of nickel in the world. Norilsk Nickel is by some way Russia's largest mining company and, as Figure 5 shows; it is also one of the world's largest mining companies. The company has approximately 80,000 employees. Regarding ownership, there are two core shareholders, Interros and Rusal, some smaller shareholders, including iron ore producer Metalloinvest, with the balance being represented by a stock market free float. The company's stock is traded in Russia on Micex and the Russian Trading System (RTS) and can be bought and sold in the form of American Depositary Receipts (ADRs) in New York, London, and Berlin. In 2008, some 80 percent of the company's revenues were generated by its operations in Russia, with the balance coming from businesses in the United States, Finland, South Africa, Botswana, and Australia. Sales go predominantly to Europe.

The mining and metallurgical operations at Norilsk were established as a gulag in the 1930s. Although the history is fascinating, this is not the place to relay it. What is important is to note that this was a very Soviet organization with roots deep in history and activities closely woven into the economic and social life of the Krasnoyarsk region in which it is located. The company has also played an important part in Russia's export trade. After undergoing a partial privatization in the early 1990s, it was fully privatized in 1997 as a result of the 'loans for shares' scheme implemented by President Boris Yeltsin. The modern history of the company can be dated from 2001, at the depth of the last nickel price recession, when Mikhail Prokhorov, then one of the principal shareholders of Norilsk Nickel, assumed the position of General Director (Chief Executive) of the company.

During the years that followed, developments at Norilsk Nickel came thick and fast as the company underwent an extensive transformation (*Figure 9*). Its shares were listed (as ADRs) in western stock markets, and it appointed independent directors. It started publishing financial data according to IFRS standards. It created a new divisional organization structure. Its acquisition of a credit rating enabled it to start borrowing from western banks and start tapping the bond market. It fought for, and won, permission from the state to make public data on its production and reserves.

Figure 9. Landmarks in Norilsk Nickel's transformation

2001	Launches ADR programme
2003	First data release on production (base metals for 2002)
2003	First IFRS accounts (for 2002). Appointment of independent directors
2003	Acquires majority interest in Stillwater Mining
2004	First disclosure of mineral reserves (base metals for 2002)
2004	Obtains credit rating from S&P (investment grade in 2006)
2005	Start of divisional reorganization
2005	First corporate social report (for 2003-2004)
2006	Full disclosure on production and reserves (including platinum group metals)
2006	Commits to major investment program for core operations in far north
2006	Spin-off of gold business to Polyus Gold
2007	Acquisition of nickel assets of OMG and LionOre
2008	Rusal acquires stake in Norilsk Nickel. State makes loans to core shareholders.

Source: Author

At the same time, it was beginning to shape a strategy for consolidation and growth. It secured control over its power and transport links to reduce its dependence on unreliable state infrastructure. It committed to a major investment program at its aging mining and metallurgical operations in the far north. It acquired a portfolio of first-class gold deposits, which it then spun off to create Russia's largest gold company, Polyus Gold, at the same time releasing significant value for Norilsk Nickel shareholders. It established cooperation agreements for exploration in Russia with Rio Tinto and BHP Billiton. And it embarked on a process of globalization, starting with the acquisition of a majority interest in the Montana-based Stillwater Mining in 2003, which it followed up with the acquisition of the nickel assets of OMG Nickel and the nickel producer LionOre in 2007. In the first half of 2008, the share price of Norilsk Nickel exceeded US$300 a share, five times what it had been four years earlier. At the peak, Norilsk Nickel had a free float of around 45 percent, with approximately half of this traded in western markets.

Since the middle of 2008, the situation has become more complicated. A boardroom battle between the principal shareholders resulted in a period of instability at the board level. This coincided with a dramatic reversal in the fortunes of commodity prices, which sharply reduced the company's revenue stream and forced it to take a write-down on some of its newly acquired assets. It also severely impacted the wealth of the company's principal shareholders, requiring them to turn to the state banks, Vnesheconombank (VEB) and VTB Bank, to help finance their stakes in Norilsk Nickel. Since these shareholders were required to pledge their shares in Norilsk Nickel as collateral for the loans, the state has indirectly acquired an important role in shaping the future of the company. At the end of the year, a former presidential chief-of-staff became chairman of Norilsk Nickel. There has been constant speculation that Norilsk Nickel could be used as the central component of a national metals company – a 'national champion' as it is sometimes referred to – including many of Russia's largest metals and mining companies, but as yet no concrete steps in this regard have been taken. (In Kazakhstan, something similar appears to be going on, with talk of the state playing a role in the bringing together of Kazakhmys and ENRC—in both of which the state has a minority holding—to form a national metals and mining company.)

In light of these more recent developments it is unclear where Norilsk Nickel is headed and the sort of company it will be in future. For the moment, it appears to face a period of consolidation and strategic reorientation, with its objectives assuming a more distinctive national character. However, the more general point to be drawn from its experience is that the ending of the commodity boom brought one phase in the development of emerging economy mining companies to a close and opened the door on another, with its own, new set of challenges.

Challenges for the Emerging Players

If the boom years of 2003-2008 were conducive to the growth of mining companies from the emerging markets, the path was not always straightforward. Sometimes ambition ran ahead of capacity and there were hard-won lessons along the way. The market environment into which the world has now moved is going to present some new issues. Not all of these will necessarily be negative. As cost pressures on the industry grow, emerging economy companies with good resources and focused management should in principle be well positioned to strengthen their relative competitive positions. Moreover, since the slowdown in the emerging economies is expected to be less than that in more developed economies, they may find themselves better positioned to hold onto their market shares. However, a slowing global economy will undoubtedly present them with some additional challenges.

The first and most immediate of these are financial. While falling commodity prices have put financial pressures on commodity producers from all regions, the flight from risk that has afflicted financial markets over the past year has impacted particularly heavily on emerging economies, and the stocks of many companies from these regions have been hard hit. Even the most profitable of these companies do not have long track records of performance to point to when asking for understanding and support from banks and equity investors. For smaller companies, particularly for those not yet in production, the sources of funding have pretty much dried up completely. The credit crunch has left many banks wholly disinterested in the sector.

The market downturn has severely tested the governance of some mining companies from the emerging world. Although many emerging companies have made great strides in raising their standards of governance, they have faced some tough challenges in reaching and maintaining these standards. One of the problems is simply a lack of local role models. These companies have often been pioneers of international standards in their countries and have had to bring along with them managements and staff who may not always have had a very clear idea of what is required of them and why. A second reason is that many companies based in emerging economies do not have a strongly supportive regulatory environment. This problem is sometimes compounded by a blurred distinction between political and legal authority.

Unlike the global diversified miners, which tend to have very fragmented shareholdings, in a number of emerging market companies a large part of the stock is concentrated in relatively few hands, with only a minority free float. While the market was strong and the cash was flowing, it was not too difficult to reconcile the interests of both sets of shareholders. There was something for everyone. However, with cash flows diminishing and some of the large shareholders feeling the pressure on their personal finances, the question of exactly whose interests the company is serving is thrown into sharper relief. Thus, for example, the temptation may arise for larger shareholders to pressure managements to prioritize short-term cash generation at the expense of the longer term development interests of the company, an objective that might be preferred by minority institutional investors.

Clearly, the situation becomes even more complex still where the state has become involved, either in helping to bail out struggling companies or in promoting the consolidation of companies as national champions. In such situations the question of whose interests the companies are serving and what objectives the companies are pursuing acquires a political dimension and becomes even more uncertain. Governments typically have social objectives, such as the maintenance of employment, which are not necessarily the primary concern of shareholders more interested in corporate profitability. Such a diffusion of objectives prospectively creates enormous challenges for the boards of these companies, particularly for independent non-executive directors with responsibility for representing the interests of minority shareholders. Worse, the meshing of the interests of the state with those of private enterprise inevitably creates opportunities for corruption and the bestowing of patronage.

A third challenge faced by emerging market companies in the mining sector is in maintaining momentum on globalization. As already emphasized, many of the emerging economy mining companies were established as national companies exploiting rich domestic resources. This may give them a solid business base and a strong competitive advantage in operating on their home territories but it does not necessarily equip them well for operating on the global stage. Many such companies retain quite a strong national focus in their business and cultural perspectives. Among miners from the emerging economies, only Vale is a member of the International Council on Mining and Metals

(ICMM). Once again, the slowdown in the commodity markets currently being experienced will likely aggravate these problems since downturns inevitably force a review of priorities. Protectionist political pressures to invest at home and to provide domestic employment will be intensified, the more so in cases where companies have become dependent on state financing. Globalization is that much more likely to be seen as exporting investment and jobs. The creation of large companies that are seen as national champions may accentuate this tendency. While such national companies may provide for commodity diversification, they do little or nothing for geographic diversification. In fact, quite the reverse is true; they increase investors' exposure to one country and to one currency.

The fourth and last point concerns management depth and effectiveness. For emerging economy companies growing off a strong domestic base, the skills and knowledge of their managements are almost by definition confined largely to the domestic stage. This applies not only to business skills like strategic planning and investment analysis but also to technical skills. Managements will not typically have a lot of international experience and may therefore lack the communication skills and the sensitivities to other countries' business and cultural practices that international experience brings with it. These characteristics not only inhibit their effective business performance overseas and create challenges for foreigners brought into the companies to assist with the globalization process, they restrict their ability to participate fully in industry and governmental bodies addressing global industry issues and working to develop global industry standards.

There could well be something of a backlash in these last two areas arising from the economic slowdown, and there is certainly likely to be greater resistance to bringing in highly paid foreigners to these companies in a tougher cash environment. Companies such as London-based Rio Tinto have been internationalist since their creation. It had to be as there is very little mining to be done in the United Kingdom. Rio Tinto was in fact established in the 1870s precisely for the purposes of making a mining investment in Spain. This creates substantial, if not always very visible, advantages when operating on the global stage. Acquiring assets in a foreign country is one thing; operating and developing them in a manner that combines sensitivity to local development interests without sacrificing commercial efficiency is quite another. It is arguably the case that several of the emerging economy mining companies that have sought to globalize have been markedly less successful in their overseas activities than they have been in those located on their home territories. Codelco's forays outside Chile's borders, for example, have not produced any notably positive results.

Concluding Comments and Development Implications

The role of the emerging economy countries, and of companies based in these countries, is going to become increasingly important to the minerals industry in coming years. Companies in these countries typically have good access to resources (for example, Brazil, Russia), the incentive of growing domestic raw materials requirements (for example, India, China) and, increasingly, the finance and management to take on large projects and to operate globally.

However, the challenges they will face over the next few years are significant. These companies have grown their international presence in rather different conditions from those that they now confront and some adaptation will be necessary. Efforts will doubtless be made to hang on to many of the changes that have taken place in corporate governance in order to for these companies to maintain access to international capital markets. In some countries, it may be that the political agenda will require at least some backing-off from the goal of globalization and place a stronger emphasis on domestic markets where their strongest competitive advantages lie. Then again, as noted in the case of China, there will be other cases where commodity price weakness is seen as presenting an opportunity for acquiring financially weaker but strategically interesting companies by those hungry for raw materials. The ability of Chinese companies to access large amounts of state funding to support their overseas investment ambitions, and their preparedness to provide infrastructure to host countries in support of their investments will in turn create a challenge for international miners with a stronger commercial focus and dependence on capital markets for their funding.

Regarding the development implications of the growing role of companies from emerging economy countries, it is difficult to make any clear generalizations. Much of the literature on the development implications of mining is focused on the development impacts of foreign direct investment (FDI) originating in developed economy countries (predictably, since historically this is where most FDI came from). UNCTAD's World Investment Report of 2007 was devoted largely to this issue of 'north-south' investment flows. Partly because of this focus, and the sensitivities surrounding this subject, many global miners have devoted a considerable amount of time and effort in recent years to trying to understand better the potential development opportunities associated with their investments and to working with development agencies within the countries concerned and with international agencies (such as the World Bank) to maximize the development benefits from such investments.

Understandably, much less attention has been devoted to the development implications of FDI in mining originating from emerging economy countries, commonly referred to as 'south-south' investment flows. In principle, companies from emerging economies face the same challenges as those based in developed economy countries. However, as the discussion above about the globalization of Chinese mining investment illustrates, investors from these countries sometimes bring a rather different set of perspectives to their overseas investments, emphasizing, on the one hand, raw material security of supply considerations along with the commercial prospects of a mining project and, on the other hand, the benefits of such investments taking place within the context of a broader government-to-government financial and cooperation agreement. While this approach to investment clearly has support in some resource-rich host countries, and may in time deliver the benefits it promises, the more political nature of these arrangements means that they will need to be managed carefully. It should also be noted that not all Chinese investment in mining is large-scale and government-backed. A great deal of Chinese investment going into Africa's cobalt operations, for example, has been from small private enterprises, many of them employing Chinese workers.

Although less well documented, emerging economy mining companies often have substantial experience in grappling with development issues on their home territories. Many of these companies have grown up with a wide range of social responsibilities and face high expectations in the communities in which they operate about what their role in this sphere should be. For these companies, which include companies like Norilsk Nickel, social responsibilities are a built-in part of their corporate history, effectively part of their corporate DNA. Such companies, far from seeking to take on new social responsibilities have, as part of their transformation into competitive commercial enterprises, often had to disengage themselves gradually from a whole raft of activities more appropriately carried out by elected and tax-funded authorities. These companies nevertheless continue to play an important role in the broader economic development of the regions in which they operate and will doubtless face a tough challenge over the next year or two in balancing the demands of their businesses with the demands of the political process. As to which mining companies will prove more effective over time at leveraging the development of the economies in which they operate, this is not something on which the information yet exists to make any very useful generalizations, although it should represent the basis of some interesting research in the future.

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