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TRANSATLANTIC MINING CORPORATIONS IN THE AGE OF RESOURCE NATIONALISM

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Transatlantic Mining Corporations in the Age of Resource Nationalism

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Introduction

Discussion of geopolitical issues is, not unnaturally, normally cast in the language of nation states. However, the business of securing mineral supplies for a nation's industries, whether to promote its economic development or ensure its security, has in the West typically been the preserve of the private sector. Moreover, given that minerals are unevenly distributed around the globe, and that many industrial countries lack domestic resources of all the mineral materials they need, very frequently they have to look overseas to make up their supplies.

During the latter part of the 19th century, companies from Europe began to go offshore to find mineral resources. Although the United States offered more domestic opportunities to resource companies than did Europe, its companies too began to look overseas for mineral development opportunities. While in some cases these ventures were intended to provide supplies to smelters and fabricators in their home countries, this was not universally the case. Many miners were simply looking for profit-making opportunities and were happy to sell their products to whomsoever was able and willing to pay for them.

This pattern — of Western mining companies becoming progressively more global in their perspectives and operations — persisted through the 20th century. By contrast, miners in the Soviet sphere and in China largely confined their activities to their own territories or to those of client states.

To view Western miners during this period as "global" would, however, be inaccurate. Not only were they precluded from operating in the communist-dominated parts of the world, but their activities were heavily focused on the English-speaking world, which is to say, the United States, Canada, Australia, South Africa, and the U.K. (this last more as a center of mining finance than as a focus of mining itself). The reasons for this were evident enough. These areas represented large land masses featuring old rock formations rich in minerals. They also had strong law-based systems of the sort required by those engaged in large-scale, long-term land transactions. And they shared many cultural characteristics, making it relatively easy for mining companies that had grown up in one of these regions to transplant their skills into one of the others. Accordingly, many of the large mining companies that today dominate the global mining industry, such as BHP Billiton, Rio Tinto, Anglo American, and Newmont Mining, originated in one of these regions.

This is an important feature distinguishing the mining industry from the oil sector. While Western oil companies dominated the global oil scene for many years, in a manner similar to that of the large miners, the distribution of oil resources is very different from that of hard minerals, having a much greater focus on Asia (the Middle East, Central Asia, and Siberia) and Africa (notably North and West). Accordingly, while Western mining companies were, by and large, able to maintain their position in the global mining industry during the upsurge of resource nationalism that took place in the 1970s, the big Western oil producers (the "Seven Sisters") saw their position massively diminished. Today, the largest ten oil producers in the world are all state controlled.

However, things are changing in the mining sector. The ability of the large Western miners to expand out beyond the English-speaking regions is being constrained by a resurgence of resource nationalism. This is creating rising barriers to entry in many mineral-rich countries and resulting in the preference for local over foreign developers. The companies are also increasingly being challenged on the world stage by companies based out of emerging market countries, some of which have significant state backing. This paper examines these trends and considers their implications

The ability of the large Western miners to expand out beyond the English-speaking regions is being constrained by a resurgence of resource nationalism.

for transatlantic mining companies and for the availability of mineral supplies in Europe and North America. It concludes with some observations on public policy.

1 Current Structure of the Mining Industry

The current structure of the mining industry is the product of a long and complex history. The most successful mining company model historically has been that of the company that has a close focus on the upstream end of the business — which is to say, mining, as opposed to smelting or refining — and that is prepared to travel the world to find and develop the best resources available. Much of the wealth of the world's mining industry is concentrated on a relatively few, very large, long life deposits, and getting hold of these deposits is the key to enduring business success. This focus on the global context of mining helps explain the otherwise seemingly anomalous importance to world mining of the U.K., a small country with few domestic mineral resources. The U.K.'s long history as a global trading hub and a center of mining finance has more than offset its geographic and geologic limitations and resulted in it becoming the base for some of the world's largest mining companies.

For companies holding to this tradition of mining, the important issue is the quality of mineral deposits and the costs at which minerals can be extracted from them. In other words, they view mining as a business in its own right. Typically they are not so concerned about where the mineral product is sold or who buys it, and indeed they may not be interested in processing a mined product any more than is absolutely necessary to sell it. The core skills of the business are deemed to lie in finding or acquiring high quality assets, building large-scale capital-intensive projects to a tight budget, sensitively managing the political and environmental pressures that accompany mining wherever it is undertaken, and running their mines as cost-effectively as possible.

For a significant part of the industry's history, however, an alternative model has existed. This alternative model sees mining essentially as a means to secure raw materials for processing and manufacturing, in particular processing and manufacturing metals. For companies with this view, mining is seen as an adjunct to their core business of smelting and fabrication. Historically, the model was much favored by the steel industry, which was responsible for the development of many iron ore mines. While the model remains important in the North American and Russian iron and steel sectors, the growth of the Asian industry, with its heavy dependence on seaborne iron ore, has seen a dramatic diminution in the importance of this second model.

The backward-integrating model was also favored by many nonferrous metals producers in continental Europe, and the list of European companies that have sought to develop mining operations upstream of their metals businesses is long. It includes such names as Penarroya and Imetal of France, Metallgesellshaft and Preussag of Germany, Union Minière of Belgium, and Outokumpu of Finland. The model, however, did not prove particularly successful and most of these companies have withdrawn from mining and been absorbed into larger metal-processing concerns. What their experiences revealed was that mining and metal production are fundamentally different businesses, with different value drivers, requiring different skills sets.

Following from these remarks, a listing of the largest mining companies in the world today is substantially dominated by companies having their origins in the English-speaking world and having their primary focus on mining, as opposed to processing. Table 1 is based on the value of companies' metal ore production in 2010 (which is to say, it excludes coal, uranium, oil, gas and industrial minerals). The advantage of this measure is that it gives a broad indication of the relative scale of the companies and allows for the inclusion of state companies like Chilean copper producer, Codelco.

Much of the wealth of the world's mining industry is concentrated on a relatively few, very large, long life deposits, and getting hold of these deposits is the key to enduring business success.

Table 1. World's Largest Mining Companies, by value of metal production 2010

Rank	Company	Country	Share of world production, percent
1.	Vale	Brazil	8.1
2.	BHP Billiton	Australia	5.7
3.	Rio Tinto	U.K.	5.5
4.	Anglo American	U.K.	3.0
5.	Freeport McMoRan	United States	2.2
6.	Codelco	Chile	2.0
7.	Barrick Gold	Canada	2.0
8	Xstrata	Switzerland	1.8
9.	Norilsk Nickel	Russia	1.8
10.	Newmont Mining	United States	1.5
11.	ArcelorMittal	U.K.	1.2
12.	Anglogold Ashanti	South Africa	1.1
13.	Vedanta Resources	U.K.	1.1
14.	Grupo Mexico	Mexico	0.9
15.	Fortescue Metals Group	Australia	0.9
16.	Gold Fields	South Africa	0.9
17.	Metalloinvest	Russia	0.9
18.	Cliffs Natural Resources	United States	0.9
19.	Goldcorp	Canada	0.8
20.	ENRC	U.K.	0.8

Source: Raw Materials Group 2012

An alternative approach, which necessarily excludes state companies, is to look at market capitalization. This approach provides coverage of all a company's products and gives a better indication of the underlying economic strength of the company. It will accordingly result in a different ranking of companies in the table. Thus, for example, it would lift BHP Billiton above Vale at the top of the table. Although the top five or six companies will tend to be the same whichever approach is employed, below this, company rankings can vary quite a lot from year to year subject to the relative prices of different commodities and the commodity mix of each producer. Thus, in 2010, the year of the table, the prices of iron ore and gold were relatively strong, differentially benefiting the companies with high production of these commodities.

With these caveats in mind, there are several points relevant to the present analysis that can be drawn from the table. First, production in the mining industry is widely dispersed; the largest ten producers account for around a third of global production. Second, 11 of the 20 companies listed can be considered "transatlantic" companies based on the location of their headquarters and their primary listings. Another two are based out of Australia. The remaining seven companies are based out of emerging markets: Brazil, Chile, Mexico, South Africa, and Russia. However, to present the information in this way rather overstates the transatlantic presence and understates the role of emerging market companies. London has become a popular location for companies with their origins, and most of their business, in emerging markets, to list their shares. ArcelorMittal, Vedanta Resources, and Eurasian Natural Resources Corporation (ENRC) fall into this category, as do some others that fall just outside the table such as Kazakh copper producer, Kazakhmys.

2 Changes in the Structure of the Mining Industry

The structure of the global mining industry has undergone substantial change in recent years.

One feature of this change has been an increased concentration of industry production in the hands of the large diversified mining companies. Vale, BHP Billiton, Rio Tinto, Anglo American, and Xstrata are sometimes referred to in the industry as the "Big Five" in much the same way that oil industry observers once talked about the "Seven Sisters." The growth in their relative importance is reflected in the statistics on industry concentration that show the share of world production accounted for by the ten largest producers rising from 28 percent of global production in 2000 to 33.5 percent in 2010.[1] This process was in part a product of the 2004-2008 commodities boom and the huge cash flows that resulted from the upstream focus of these companies. These cash flows helped fund a wave of Mergers and Acquisitions (M&A) activity, which saw Vale takeover Canadian nickel producer, Inco, BHP Billiton takeover WMC Resources, Xstrata takeover Falconbridge and Rio Tinto takeover Alcan.

Another feature of the change, which is to some extent linked to the one above, concerns the diminishing role of North American companies in the global mining industry. If one goes back to the 1970s, North America boasted many of the biggest names in global mining: Amax, Asarco, Anaconda, Cyprus Mines, Doe Run, Kennecott, Magma, Newmont, and Phelps Dodge in the United States; and Noranda, Cominco, Inco, and Falconbridge in Canada. In 1975, North America accounted for 7 out of the 15 largest miners globally.[2] Aside from Newmont Mining, none of these now exists as a separate entity. Amax, Cyprus Mines, and Phelps Dodge have all been absorbed into Freeport-McMoRan, a U.S. company, although, significantly perhaps, one that owed its growth to operations not in the United Statesbut in Indonesia. Kennecott is now part of Rio Tinto and Asarco part of Grupo Mexico. Amongst the Canadian companies, Cominco became part of another Canadian company, Teck, whilst, as already noted, Inco and Falconbridge were acquired by Vale and Xstrata, respectively.

The reasons for this decline are varied. Possibly the companies were too focused on their home territories and insufficiently flexible in their strategies as the industry became progressively more global. Several of the large U.S. miners were acquired by oil companies in the late 1970s-early 1980s. Anaconda was acquired by Arco, Cyprus by Amoco, Amax by Chevron, and Kennecott by Sohio. While these mining companies may have benefited in the short term from the financial backing of their new owners, it served to shelter them from certain economic realities and inhibited their corporate development. The oil companies subsequently lost interest in the sector and divested their mining assets. Other factors that doubtless played a part in the relative decline of the U.S. mining majors were falling ore grades, unfavorable exchange rates, lack of product diversity, outdated work practices, low investor interest, and tightening environmental restrictions. However, whatever the cause, the consequence was a significant reduction of the United States as a force in global mining and a diminution of New York and San Francisco as centers of mining finance. Where North American companies retain a place at the top table, this is largely in gold (Newmont Mining, Barrick Gold, Goldcorp, and Kinross Gold still rank amongst the largest miners in the world), although gold has limited strategic significance from an industrial or military perspective.

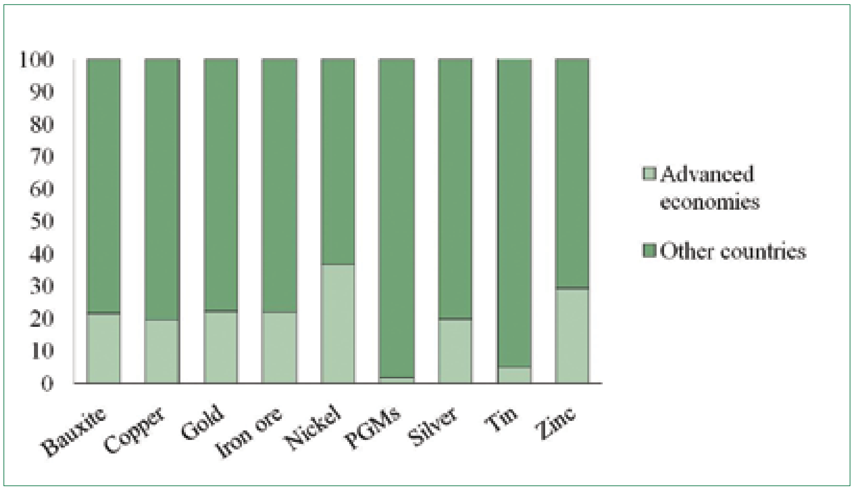
Since the 1970s, there has been a significant reduction of the United States as a force in global mining and a diminution of New York and San Francisco as centers of mining finance.

[1] Raw Materials Group, *Raw Materials Data*, Stockholm, 2012.

[2] Phillip Crowson, *Mining Unearthed*, Aspermont 2008, p37. (Based on data from Raw Materials Group.)

The third major change that is evident in the structure of the industry is the growing prominence of companies based out of emerging market economies.

Figure 1. Global Distribution of Mineral Reserves



Source: USGS, Mineral Commodity Summaries, January 2011

The third major change that is evident in the structure of the industry is the growing prominence of companies based out of emerging market economies.[3] That emerging markets should play host to an increasing proportion of the world's largest mining companies should not perhaps be so surprising since these countries host a large proportion of the world's undeveloped resources and are the fastest growing mineral markets (Figure 1). However, the event that transformed their prospects was the ending of the Cold War in the early 1990s and the subsequent wave of privatizations. This momentum was maintained by the commodities' boom in the 2000s and the increased access to global capital markets that this gave to emerging market companies. The bank, Citi, has estimated that between 2004 and 2010, the EV (enterprise value[4]) of the global mining industry increased from $500 billion to $2,100 billion, with emerging markets increasing their share of the total from 16 percent to 39 percent.[5] Research by Macquarie Bank suggests that, subsequent to the industry consolidation of 2005-2007, the global share of mine and metal production accounted for by the Western majors has declined, largely on account of increased mineral production in China and by producers elsewhere supplying China with iron ore, nickel, bauxite, and zinc.[6]

Emerging market miners are as varied as the countries in which they originate. However, one characteristic that these companies tend to share is highly concentrated ownership structures. Another is that they are often strongly "national" in their nature and operation, with most having tacit or explicit backing from the state. The large Latin American companies, Vale of Brazil, Codelco of Chile, and Grupo Mexico, are all based on assets that were originally in state hands. Grupo Mexico is today a fully private company but Codelco remains in state ownership. Vale (formerly CVRD) is also a private company, although the government retained a "golden share" when it privatized the company in 1997 and the company's largest shareholder, Valespar SA, incorporates significant state interests. Reflecting its importance to Brazil's economy, the government still feels authorized to bring influence

[3] This discussion draws on David Humphreys, "Emerging miners and their growing competitiveness," *Mineral Economics*, June 2011.

[4] Enterprise value is calculated as market capitalization plus debt, minority interests and preferred shares minus total cash and cash equivalents.

[5] Citi, 2011. *The Changing Shape of Global Mining Markets*, Citi Investment Research & Analysis, April 12, 2011.

[6] Macquarie Bank, *Commodities Comment*, February 9, 2012.

to bear on the management of the company, for example, when it orchestrated the removal of Roger Agnelli as chief executive of the company in 2011, ostensibly on the grounds that he was directing too much of the company's investment outside Brazil.[7]

Several emerging market mining companies have their origins in the former Soviet bloc. Norilsk Nickel, Russia's largest miner and the world's largest nickel producer, was privatized in the turbulent 1990s. Although privately owned, the two oligarch-led investor groups that control the majority of shares in the company are, as with all oligarch groups, closely monitored by the Kremlin, and the CEO of the company is a Kremlin-friendly former politician. Another top 20 producer, Metalloinvest, Russia's largest iron ore company, is controlled by oligarch Alisher Usmanov. Also products of the post-Soviet privatizations are Kazakhstan's Kazakhmys and ENRC. Copper producer Kazakhmys obtained a London listing in 2005 but is still majority owned by its chairman Vladimir Kim (28 percent) and the Kazakh government (26 percent). ENRC, which listed in London in 2007, is the world's largest producer of ferrochrome as well as being a major producer of manganese, iron ore, aluminum, and coal. It is owned 25 percent by Kazakhmys, 25 percent by the Kazakh government, and has three other large individual shareholders.

Chinese companies have also been amongst the emerging market miners expanding out onto the world stage. Although there has been sporadic involvement of Chinese companies in mining projects outside China for many years, the movement received a major boost from the official application of China's "Going Out" (*zou chuqu*) policy to mining in 2004. This policy was a product of China's growing concern over the availability of raw materials needed to support its industrialization and a conviction that Chinese companies should be more involved in global resource development. It got off to a rocky start with China Minmetals Corp's (Minmetals) failed attempt to acquire Canadian miner Noranda in 2004. Soaring asset prices over the next few years meant that there were few attractive deals to be done and Chinese companies largely confined themselves to buying into exploration projects and early stage development projects. However, following the 2008 global financial crisis, with a number of miners facing debt issues, Chinese companies were able to step up the pace. Alongside the acquisition by Chinese companies of individual mining companies and projects, Chinalco acquired a 9 percent holding in Rio Tinto in 2008, while China's sovereign wealth fund, China Investment Corporation (CIC), acquired 17.2 percent of Canadian miner Teck Resources in 2009.

The exact scale and form of China's large company involvement in overseas mining is not easy to gauge with precision since the companies concerned are complex and not particularly transparent. Official data from the National Bureau of Statistics suggest that total foreign direct investment in mining approached US$100 billion over the period 2004-2010, although the value of the assets will currently be much higher. The bank, Citi, estimates that there were 217 M&A deals involving Chinese companies during the past decade, having a market value of almost US$50 billion.[8]

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Chinese companies engaged in overseas investment can essentially be divided in two groups. The first comprises resource companies, traders, and nonferrous metals processors. The second comprises steel companies looking to backward

[7] "Vale's Main Shareholders' Group Seeking Replacement for CEO Roger Agnelli," *Bloomberg*, April 1, 2011, available at http://www.bloomberg.com/news/2011-04-01/vale-s-main-shareholders-group-seeking-replacement-for-ceo-roger-agnelli.html

[8] Citi, 2011. *The Changing Shape of Global Mining Markets*, Citi Investment Research & Analysis, April 12, 2011.

Table 2. Selected Chinese Companies Involved in Overseas Mining

Company	Country	Commodity	Mine/Project
Chinalco	Peru	Copper	Toromocho
	Guinea	Iron ore	Simandou
	Vietnam	Bauxite	Dak Nong
China Minmetals Corp (Minmetals)	Australia	Copper	Rosebery
	Laos	Copper	Sepon
	Australia	Copper-zinc	Golden Grove
	Australia	Zinc	Century
	DR Congo	Copper	Kinsevere
Metallurgical Corporation of China (MCC)	Afghanistan	Copper	Aynak*
	Peru	Copper	Galena*
	Australia	Iron ore	Cape Lambert
	Papua New Guinea	Nickel	Ramu
	Pakistan	Copper	Saindak
China Nonferrous Metal Mining Corp (CNMC)	Zambia	Copper-cobalt	Chambishi
	Zambia	Copper-cobalt	Luanshya
	Mongolia	Zinc	Tumurtin-Obi
Jinchuan Group	Australia	Nickel	Allegiance Mining *et al*
	Zambia	Nickel	Albidon
	DR Congo	Copper-cobalt	Ruashi
	Zambia	Copper	Chibuluma
	Kenya	Mineral sands	Kwale

** With Jiangxi Copper Corp (JCC)*

Source: Author's compilation

integrate into mining to secure supplies of raw materials for their China-based operations, as well as to give them leverage in negotiations with the big three iron ore miners: Vale, Rio Tinto, and BHP Billiton. This second category of investors is fragmented but very extensive. Although, for obvious reasons, it is heavily focused on Australia, Chinese companies are currently involved in iron ore ventures in Argentina, Brazil, Peru, Guinea, Gabon, Sierra Leone, Afghanistan, Mongolia, Madagascar, and Vietnam. These moves harken back to an earlier era when similar policies of backward integration were adopted by steel companies from Europe and Japan.

Amongst the companies falling into the first category, the resource companies, the most important are Chinalco, China Minmetals Corp, Metallurgical Corporation of China (MCC), China Nonferrous Metal Mining Corp (CNMC), the Jinchuan Group, and Jiangxi Copper Corp (JCC) (Table 2). These companies have acquired a broad range of assets in many different countries. In contrast to iron ore, where Chinese steel companies have focused heavily on Australia, these investments have a wider geographic spread with a more pronounced emphasis on emerging market countries in Africa, Asia, and Latin America, including Zambia, the Democratic Republic of the Congo (DR Congo), Afghanistan, Pakistan, Kazakhstan, Laos, Papua New Guinea, Peru, and Mexico. It should be noted that, in addition to these large Chinese companies, there are also many small Chinese private companies operating in mining overseas, particularly in Africa. Lack of data, however, makes it impossible to assess the exact scale of their activities. Overall, their production is thought to be small but they are of significance to certain minor metals like cobalt.

3 Rise of Resource Nationalism

In a survey of industry opinion published in August 2011 by one of the world's large accounting firms, resource nationalism was identified as the largest risk facing the mining industry.

Recent years have seen a resurgence of resource nationalism in the mining sector. This is closely related to the commodities' boom of the 2000s and the growing sense amongst the citizens of mineral-rich countries that they have not received an appropriate share of the benefits of higher prices and that they have insufficient control over the decisions shaping mining investment. This feeling has doubtless been aggravated by the increase in cross-border mining investment that higher commodity prices during these years prompted. The pattern of events closely follows that in the last great commodities' boom, that of the 1970s, which saw a similar upsurge in nationalist sentiment in the sector. In a survey of industry opinion published in August 2011 by one of the world's large accounting firms, resource nationalism was identified as the largest risk facing the mining industry.[9]

Resource nationalism takes many forms. At its most basic, it has simply been an expression of dissatisfaction about the distribution of revenues from mining between company shareholders and the host nation. Numerous mining countries have increased their taxes and royalties on mining in recent years, including Chile, Peru, Zambia, Ghana, Russia, Poland, China, and India. This tendency has not been confined to emerging market countries. The Labour Government in Australia approved a new tax on mining (the Minerals Resource Rent Tax) in 2011.

Taxes have also been used to bring greater benefits to mineral-producing countries in other ways. South Africa uses export tariffs on unprocessed mineral products to encourage the domestic processing of minerals thereby to retain the associated value-added locally. The government of Indonesia in March 2012 announced proposals to restrict the export of unprocessed minerals and at the same time impose limits on foreign ownership of domestic mineral production.[10] India imposes tariffs on exports of iron ore and steel scrap to ensure the availability of raw material supplies to local steel producers. Russia imposes export tariffs on many forms of scrap as well as on refined copper and nickel. China has made extensive use of export restrictions (tariffs and quotas) across a range of mineral products. A group of nine of these products was made subject to a case brought at the World Trade Organisation (WTO) in the end of 2009.[11] Restrictions on the export of a further three mineral products (rare earth elements, molybdenum, and tungsten) were the subject of new charges brought against China in the WTO in March 2012.[12]

In other instances, resource nationalism has found expression in institutional conditions applying to miners. Some countries explicitly limit the scale of foreign participation in mineral development or impose strict "use it or lose it" provisions on the licenses they issue. Rio Tinto was in 2008 stripped by the Guinean government of two of its four licenses for mining the Simandou iron ore deposit on the grounds that the project was not progressing fast enough. Incoming governments in both Guinea and DR Congo have used wholesale reviews of previously awarded licenses as a means to extract new concessions from foreign miners. The Philippines is following this example. Russia ostensibly encourages inwards investment in mining but uncertainties over its

[9] Ernst & Young, *Business risks facing mining and metals 2011-2012*, 2011.

[10] Matthew Bigg and Yayat Supriatna, Indonesia's industry minister wants mining export tax soon, *Inside Metals*, Thomson Reuters, April 12, 2012.

[11] Stormy-Annika Mildner, *Securing access to critical raw materials: What role for the WTO in tackling export restrictions?* Transatlantic Academy Paper Series, December 2011.

[12] Alan Beattie, Leslie Hook and Joshua Chaffin, "Fight against China on rare earths," *FT.com*, March 13, 2012

mining laws and their application, coupled with more general provisions applying to all foreign investors, mean that in practice, it remains a difficult place for foreign miners to operate. A number of minerals such as uranium, diamonds, rare earths elements, nickel, cobalt, platinum, and tantalum are essentially off-limits to foreigners for strategic reasons while special restrictions apply to large deposits of other commodities such as copper and gold. China similarly pays lip service to the importance of inward investment in mining but administrative obstacles and ferocious local competition have restricted the interest of overseas investors in the sector.

Then there is the issue of ownership. In contrast to the commodities boom of the 1970s, the more recent commodities' boom has not resulted in widespread increases in state ownership. There have, nevertheless, been a few instances. The Bolivian government of Evo Morales has nationalized some mining assets and President Hugo Chavez of Venezuela has taken the country's gold sector under state control. Newmont Mining had its holding in a gold venture in Uzbekistan expropriated by the Uzbek government in 2006. The government of DR Congo seized assets of First Quantum Minerals in 2010, this notwithstanding the International Finance Corporation's (IFC) involvement in the project. There are also instances where the state has insisted on taking a significant stake in mining projects as a condition of issuing a license. The Guinean government in 2011 acquired the right to a 35 percent in the Rio-led Simandou project already mentioned (its entitlement had previously been set at 20 percent),[13] while the government of Mongolia obtained a similar (34 percent) interest in another Rio-led project, the Oyu Tolgoi copper mine, as a condition of awarding a license to mine.

Elsewhere, the interest in increased state involvement in the sector bubbles away just below the surface. In South Africa, the African National Congress (ANC) leadership has said it has no plans to nationalize the mining industry but the debate on nationalization remains active within the party[14] and there are plans to establish a state mining company alongside existing private mining companies. Even in Chile, regarded as a model for emerging market countries by many economic liberals, there is deep-rooted support for state ownership and control in the mining industry. A survey conducted in early 2012 revealed that 67 percent of the population believes that mining should be in state hands.[15] Views will likely harden as a result of a very public dispute between the state copper company, Codelco, and London-based miner, Anglo American, regarding the rights (or otherwise) of the former to exercise a long-standing option to acquire 49 percent of the latter's mining assets in the country.[16]

Reflecting an important departure from the practices of the 1970s, however, this more recent commodities boom has given more of an emphasis to "indigenization" of minerals control rather than state ownership. This may be a result of the widespread failure of state companies in the sector in the past. Whatever the reason, it appears to be the case that during the present era, greater emphasis is being accorded to ownership by locals and to strategic government holdings rather than to

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[13] "Rio Tinto reaches deal on Simandou," *The Australian*, April 23, 2011, available at http://www.theaustralian.com.au/business/mining-energy/rio-tinto-reaches-deal-on-simandou/story-e6frg9df-1226043722542

[14] Andrew England, "ANC to debate role of state in economy," *FT.com*, February 1, 2012.

[15] Gustavo Lagos y Marta Lagos, "El impacto de las protestas de 2011," *La Segunda,* March 21, 2012 (the article quotes survey data from Minerobarómetro Chileno 2012)

[16] Jude Webber and William MacNamara, "Codelco countersues Anglo America," *FT.com*, January 11, 2012.

outright control by the state. South Africa's program for black economic empowerment (BEE) is a form of indigenization. Zimbabwe's mining reforms are focused on indigenization (in practice acquisition by government cronies) while the government of DR Congo has stated its intention to write a requirement for significant indigenous ownership into its mining laws. In other countries, *de facto* local control is more or less guaranteed by the practical difficulties that foreigners face in investing as a result of formal and informal procedural obstacles. In Russia, although the government has not felt the need to get the state directly involved in the mining sector (in contrast to the situation with oil and gas), the industry is solidly in the hands of local investors over whom the Kremlin can exercise influence. And, once again, such policies are not confined to the emerging world. In late 2010, the Canadian government blocked an attempt by BHP Billiton to acquire the Potash Corporation of Saskatchewan (PCS), apparently on the grounds that potash was a strategic resource and that the acquisition of the company by a foreign entity was not in the nation's best economic interest.[17]

[17] Janice MacKinnon, "The potash takeover bid: the deal that wasn't," *Options Politiques*, December 2010-January 2011, available at: http://www.irpp.org/po/archive/dec10/mackinnon.pdf

4 Implications for Western Miners

These changes represent both opportunities and challenges for large Western miners. They present opportunities in so far as the scale of the companies, along with their diversity, experience, and access to capital, make them well equipped to operate effectively in a global industry. This is, after all, their domain. They have been operating internationally, if not globally, for much of their existence and the globalizing of world markets over recent years has played to their strengths and seen them thrive. They control some of the world's greatest ore bodies. The transparency that flows from their local stock market rules, their high standards of operating and environmental performance, their long history of dealing with the sensitivities of local communities, and their deep pockets make them developers of choice for some of the mineral-rich countries seeking to attract inward mineral investment. The pressures of openness and financial discipline that come from a listing on Western stock markets has also benefited smaller Western companies, which have been in the forefront of the exploration boom that the mining industry has enjoyed over the past decade.

Australia and Australian companies have been particular beneficiaries of globalizing mineral markets. Located on the doorstep of Asia, the world's fastest-growing mineral market, and offering investors mineral abundance (most notably in iron ore and coal), wide open spaces, a robust legal system, and a long pro-mining history, Australia was ideally positioned to grow its mineral business. Investment has poured into the country and mining output has surged to the immense benefit of the economy as a whole. Australia, uniquely amongst developed economy countries, did not suffer an economic recession in 2008-2009.

Another place that has differentially benefited from these trends, somewhat ironically in view of its lack of domestic resources, is the U.K., and London in particular. With its long history in global trade and finance, London has grown rapidly in recent years as a source of mining finance. It hosts the headquarters of several of the world's largest miners, including Rio Tinto and Anglo American. Mining companies account for 12 places in the FTSE100 (the largest 100 quoted companies on the London Stock Exchange) and 14 percent of its total value. Around these companies there has developed a large cluster of mining-related businesses, such as mineral trading, mining finance, mining law, accounting, consulting, and press. The London Stock Exchange's Alternative Investment Market (AIM) has become one of the world's principal sources of finance for junior miners and explorers alongside Sydney (ASX) and Toronto (TSX).

From a geopolitical perspective, however, this is a world that is becoming increasingly challenging for Western miners.

From a geopolitical perspective, however, this is a world that is becoming increasingly challenging for Western miners. Aside from Vale, the world's largest miners remain deeply rooted, both philosophically and geographically, in the English-speaking world. Significantly, the corporate consolidation that took place during 2005-2007 was largely amongst like-minded companies operating in similar parts of the world; it was not about building bridges with companies from emerging markets. It may certainly be the case that there remain unexploited opportunities in the English-speaking regions, while the quality of their legal systems will always give them an important competitive advantage in a land-related business. But mining companies must go where the minerals are and many of the world's largest and most interesting undeveloped mineral resources lie in the three-quarters of the planet occupied by emerging and developing countries (Figure 1).

If Western miners have a lot to offer mineral-rich countries in practical terms, they also bring a lot of historical baggage. In many countries, foreign direct investment (FDI) in mining still evokes memories of the colonial era and of large-scale social and environmental disruption. Many

Africa may be one of the new frontiers for global miners but, for all the regime changes of recent years, there are still only a handful of countries in Africa where mining majors could seriously contemplate a billion dollar investment.

countries with minerals, even where they are open to foreign investment, are suspicious of large miners and nervous about being out-maneuvered in negotiations on licensing terms or of discovering that information critical to the evaluation of the resource has been withheld from them. For their part, the companies also have their historical demons. For example, the nationalizations of the 1970s and the enforced closure of the Bougainville copper mine in Papua New Guinea in 1989 by a secessionist movement.

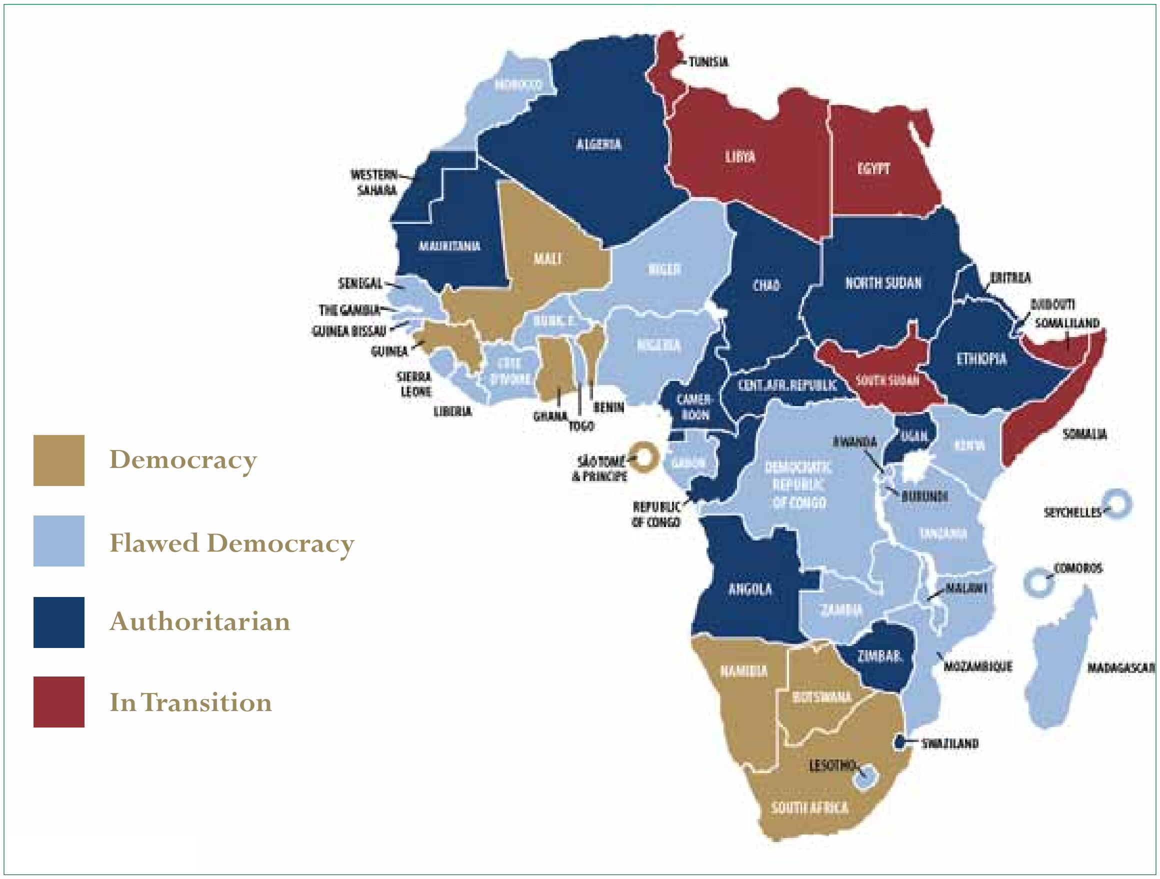
As discussed above, higher mineral prices have led host governments to become increasingly assertive in their attitude toward inward-investing miners. They have become tougher in their approach to licensing and in the application of licensing conditions. In some cases, licenses have been made conditional on the state, or indigenous investors, being awarded a stake in the project. Taxes and royalties everywhere have risen. Research by Deutsche Bank at the end of 2011 revealed that shareholders in BHP Billiton, Rio Tinto, Anglo American, and Xstrata had collectively achieved cumulative gains of 174 percent since the start of 2006, while governments (at all levels) had achieved gains of 447 percent.[18]

Mining companies attach enormous importance to the robustness of their agreements and to their ability to defend their rights before an independent judiciary. After all, mining is ultimately a real estate business. If a company cannot defend its title to a patch of land, it has nothing. Given the huge investment that mining requires, the greatest concern of the mining industry is the "obsolescing bargain," the circumstance in which a company invests in a project on the basis of an agreement with a host government only to be forced into a renegotiation on the terms of the agreement after the investment has been committed. Guinea reopened the negotiations on Rio Tinto's Simandou project on the grounds that the license terms had been agreed with a previous government. The company had to pay a further $700 million to secure its rights under the new government. In 2011, the Mongolian parliament said it wanted to renegotiate (i.e. bring forward) the date at which the state could assume control of the Oyu Tolgoi operations (originally put at 30 years), several years after the terms of the license had been agreed but before the mine had even started to operate. The demand was subsequently dropped but the threat was clear.

There are many countries where the political risks and lack of effective legal systems mean that the companies simply cannot go at all. Africa may be one of the new frontiers for global miners but, for all the regime changes of recent years, there are still only a handful of countries in Africa where mining majors could seriously contemplate a billion dollar investment (Figure 2). And in those where they can contemplate such investment, they are often obliged to base their decisions as much on the sustainability of their relationships with the political leadership of the country as on their formal legal rights, a situation that most would regard very much as second best. In a world where agreements are rooted more in politics than in law, rules governing investments are more vulnerable to unpredictable change and to the reshuffling of policy priorities.

[18] Gary Parkinson, "Investors 'have not received a fair share' of mining profits," *The Times*, December 17, 2011.

Figure 2. Africa's Geopolitical Landscape



Source: Brian Menell, 2011[1]

[1] Brian Menell, "Resource nationalism – the way ahead," presentation to *Mines & Money conference*, London, December 6, 2011.

5 Competition from Emerging Market Miners

Connected with the difficulties that Western mining companies face when operating outside their traditional domains is the growing competition they face from emerging market miners. Although few of the emerging market companies are yet in the biggest league, they do have some significant strengths. As pointed out, some have strongly national characters and, when operating on their home territories, are formidable competitors for foreign miners. They are not only in a better position to know what is available locally, but they will naturally have a better understanding of who the players are and how to get things done. They will also be able to play the national card with the public. In short, they will have the inside track. In the more politicized environments in which miners are operating, these are major advantages.

Although few of the emerging market companies are yet in the biggest league, they do have some significant strengths.

National companies will be able to put themselves forward as local partners for foreign companies wishing to embark on inward investment, to make the necessary contacts, and guide them through the bureaucratic labyrinth. While many foreign companies may be happy to accept such arrangements as the price that has to be paid to operate in certain countries, not all local companies will feel the need to engage with foreigners in this way. In the oil industry, Western companies often possess specialist skills and technologies, for example in horizontal drilling and deep-water production, to use as bargaining chips to gain access to projects. In mining, this is rarely the case. Most specialist knowledge and equipment can be bought in, and capital is much more readily available to the industry than once it was. In Russia, where the practical barriers for foreign mining companies are substantial, both Rio Tinto and BHP Billiton struck exploration agreements with Russia's largest mining company, Norilsk Nickel, in 2006 as a means to get into the country on an advantageous footing. Norilsk Nickel, however, became frustrated with the arrangements and, believing itself big enough and competent enough to do these things alone, soon lost enthusiasm for the ventures.

Away from their home bases, mining companies from emerging markets can be formidable competitors for rather different reasons. Being themselves based out of emerging markets, their perception of risk tends to be somewhat different with respect to other emerging markets. A mining major sitting in London looking at a country like South Africa may well see first and foremost the challenges of black economic empowerment, street violence, and power shortages. Looked at from Kazakhstan, the mining executive may see instead a country offering political stability, good banks, and a sound legal system. This may explain why a Kazakh company such as ENRC has been more adventurous with its investment in sub-Saharan Africa than many Western companies. Companies coming out of emerging markets may also be more comfortable with the notion and practice of relational business than are Western mining majors with their more legalistic approach.

Potentially as big a challenge comes from emerging market metal-processing companies that are looking for overseas investment opportunities as a means to secure supplies of raw materials for their domestic metallurgical operations. As noted earlier, this was a model for mine development embraced in particular by continental European and Japanese companies, which did not prove so successful in the past and which had rather fallen out of favor. However, the idea has enjoyed a revival. Examples of such backward-integrating strategies are evident amongst Indian and Russian companies but the biggest proponent of the approach has been China. The China Iron and Steel Association (CISA), for example, has said that it would like to see 40 percent of China's iron ore imports sourced from China-invested overseas mines by 2015.[19]

What makes China a particularly effective competitor is that its companies are state-owned or state-controlled and do not therefore have the same sort of shareholder pressures that publicly quoted Western miners are subject to. With access to low-cost capital and low-cost labor, their hurdle rates for investment are lower than are those of their Western counterparts. Moreover, as state entities, they are often able to enjoy the benefits of government-to-government deals forged between the Chinese government and governments of mineral-rich nations, perhaps involving state development funds for supporting infrastructure, which, again, publicly quoted companies are most unlikely to be able to deliver. It is not, in this respect at least, a very level playing field. Many countries hosting Chinese investment have said that, as an emerging country itself, and as a country without a colonial legacy, China understands their development needs better than do companies coming from the developed world. They appreciate the fact that China operates a policy of non-interference in local issues and does not lecture them on work practices, human rights, and the environment.

The threat of these developments to Western miners should not be exaggerated. As has been emphasized, Western majors have many strengths. They have great professionalism and a long history of operating overseas and of building large capital-intensive projects. The scale of Chinese overseas investment is still relatively modest by comparison with the overseas mining assets of developed countries.[20] However, China's "Going Out" policy is of relatively recent origin and may have a long way yet to run. China has made a strategic commitment to increase its overseas investment in mining and has simply enormous financial fire power to back this up.

It is also the case that China is beginning to discover some of the pitfalls of FDI in mining. Deals may be done in the capitals but this does not buy the loyalty of work forces or the affection of local communities. Chinese management methods, and the tendency to bring in large numbers of ethnic Chinese to work on and support their projects, have been the cause of significant social and political friction in Zambia, Peru, and DR Congo.[21] Plans by MCC to sea-dump mine waste triggered a revolt amongst the local population in Papua New Guinea.[22] Gradually, Chinese companies are being forced to engage with local communities in the regions in which they work in much the same way that Western miners do. They have also begun to show a greater preparedness to work with other companies whose primary business is mining as an alternative to trying to go it alone. As Japan discovered in an earlier era when it was trying to operate similar policies to those that China is adopting now, it is not always necessary to own and run mines in order to get product from them. Sometimes it is better to work with established mining companies and to secure long-run off-take agreements from them in return for taking an equity position in a project or supplying it with debt financing.

What makes China a particularly effective competitor is that its companies are state-owned or state-controlled and do not therefore have the same sort of shareholder pressures that publicly quoted Western miners are subject to.

[19] Bate Felix Tabi Tabe, "China steps up iron ore drive in Africa," *Inside Metals*, Thomson Reuters, August 18, 2011.

[20] Magnus Ericsson, "China FDI in Mining: Threat or Opportunity?" *Commodities Now, LME Week Supplement*, October 2011.

[21] See, for example, S. Mundy, "Chinese accused of labour market abuses," *FT.com*, January 20, 2010.

[22] Michael Komesaroff, "Ramurama," *China Economic Quarterly*, September 2011.

What these changes do point to, however, is a need for Western miners to adopt new modalities of operation in this more politicized environment. More of their business in the future will have to be conducted through partnerships and joint ventures, both with local companies and possibly other overseas partners with complementary strengths, such as the Chinese. For this purpose, they will have to better understand the agendas of the people with whom they are working, and adapt accordingly. They will have to devote more time and effort to understanding the culture and politics of the countries in which they are operating and be prepared to invest long-term in building lasting relationships of trust at all levels. Some of the required skills have, of course, always been part of the tool kit of the multinational company. However, as the world continues to move away from the rules-based systems that gave rise to the Western mining majors and enabled them to flourish, then they are going to have to raise their skills in this area to a whole new level of sophistication.

This is clearly not a straightforward task, particularly where local business practices are far removed from those applying in the companies' home countries. In places where corruption is widespread, companies will have to make difficult decisions about whether, and how, they can maintain the standards that their shareholders expect of them, and the point at which it simply becomes untenable and they have to walk away, however attractive the mineral target in principle. It may be that companies will also need to make greater use than has been the case in the past of outside agencies such as the World Bank to act as "honest broker" between the partners and, through their technical services, provide reassurance to host nations that their interests are being respected. More controversially, it may be that Western mining companies will have to look to win greater support from their parent governments to help level the playing fields for investment in this more politicized environment. Where companies are in competition with state-backed concerns, the perceived statelessness of these companies could prove to be a major weakness.

6 Policy Perspectives: The Transatlantic Dimension

The issue is a challenging one for policymakers in the transatlantic community. In principle, getting the supply conditions of the industry right is the key to ensuring that consumers everywhere have access to secure supplies of mineral raw materials. The best protection against mineral supply disruption is properly working markets and freely flowing international investment. The global mining industry has been responding to the challenge of growing mineral demand. Capital expenditure by the industry in 2011 hit its highest-ever level. In 2012, it is expected to rise even higher, to over $200 billion. The arrival of new investment in the industry from China and others adds to the level of investment and to the diversity of supply. Resource nationalism, however, remains an issue.

Thus far, there has been a two-fold response of the transatlantic community to the growing barriers to mining investment posed by resource nationalism. First, it has undertaken extensive studies to determine which minerals are most "critical" to it, that is to say, which have the greatest economic and strategic importance and are most vulnerable to disruption.[23] These studies have generated a lot of information and thrown the spotlight on a small group of high tech metals, such as rare earth elements and indium, sourced from China. However, they do not appear to have generated any great appetite to build strategic stockpiles of the minerals concerned or to subsidize domestic production of these minerals, a fact that may not be unrelated to the severe budgetary constraints faced by many countries. The second strand of the policy response has been an exhortation to mineral producers to adhere to rules-based systems of trade and investment, so as to ensure the free flow of goods and capital. In one of the few practical manifestations of this policy, the United States and the EU, along with Mexico, took China to the WTO in 2009 for imposing restrictions on the export of nine mineral products. The WTO ruled in favor of the complainants on virtually all counts. The United States and the EU, this time with the support of Japan, in early 2012 launched a second case against China in relation to export restrictions on a further three mineral groups.

These responses prompt two rather important questions. Are Western governments' concerns about mineral supplies matched by an understanding of what is required to generate and secure those supplies? And, what happens if the world is moving inexorably away from rules-based systems and Western countries are losing their power to insist on observance of such systems?

At the root of the supply problem is the fact that the distribution of the world's remaining mineral resources, and the effects of depletion, have shifted power toward producing countries and stoked the flames of resource nationalism, as discussed above. Mineral-consuming countries have the option to recognize this as a fact of life and adapt to the new reality — or they can try to fight it. It may once have been the case that the world's largest mineral-using countries were also the world's largest mineral-producing countries, and that the interests of producers and consumers were therefore relatively easily aligned. However, the situation today is moving closer to that of oil, with producers and consumers polarizing into two rather separate camps. This changes the mineral supply equation, making mediation between the interests of the two parties both more difficult and inherently more political. It is unlikely that this is a transitory phenomenon. "Fighting" these changes may therefore prove all but impossible.

What happens if the world is moving inexorably away from rules-based systems and Western countries are losing their power to insist on observance of such systems?

[23] National Research Council, *Minerals, Critical Minerals, and the U.S. Economy*, The National Academies Press, Washington DC, 2008. U.S. Department of Energy, *Critical Minerals Strategy*, 2010 and 2011 editions. European Commission, Report of the Ad-hoc Working group on defining critical minerals, *Critical Minerals for the EU*, June 2010.

The well spring of resource nationalism is not necessarily hostile to the transatlantic community, although it can easily become so.

Transatlantic companies have had little choice but to acknowledge this and have been striving to find ways to work in the new world. The well spring of resource nationalism is not necessarily hostile to the transatlantic community, although it can easily become so. It is rooted in a conviction that past mineral developments have given a disproportionate benefit to mining companies and to consumers, and that if foreigners wish to invest in the resources of mineral-rich nations, then they must do so in ways which bring maximum benefit to the local population.

This is clearly a legitimate perspective, underpinned by the sovereign right of any nation to dispose of its natural resources as it sees fit — a right recognized by numerous resolutions of the United Nations — and mining companies have to respect it and respond to it accordingly. To do this, they need to ensure from the outset that projects are structured in such a way as to give locals a lasting self-interest in the success of operations, including, if required, through direct share-holdings. They need to have a clear understanding of the potential economic impacts their operations will have and to work with regional authorities to ensure that the full development benefits are realized. They need to show that they understand the threats posed by the "resource curse" and are prepared to work with local institutions toward mitigating its negative effects. Perhaps they will need also to persuade host governments, and indeed demonstrate to them, that their (the government's) economic objectives of revenue generation and job creation can be better served by working with successful foreign companies than by insisting that local or state companies undertake all mining activity. And in each case, arrangements will need to be tailored to the requirements of the individual country and to the particular expectations and priorities of its peoples. While ruled-based regimes are much the same everywhere, regimes rooted in political negotiation will be different everywhere.

Certainly, these are challenging requirements. However, the larger Western companies are already adapting to the new conditions. Rio Tinto, which has been one of the more progressive companies in this regard, has done ground-breaking work on regional development issues around its mineral sands operations in Madagascar, its iron ore operations in Guinea, and its copper operations in Mongolia. The instigation and management of these initiatives is difficult and costly. But then these are very large companies that can carry quite a lot of risk. Managing relationships with host countries and host communities has to be a core skill of big mining companies. However, by the nature of their institutional character, there are also clear limits as to how far private companies can, and should, go in their engagement with governments.

Transatlantic governments have proven slower to grasp the changes that are taking place. While there may be a high level of awareness amongst these transatlantic nations of the risks that present trends pose for the security of their mineral supplies, there is something of a disconnect between the expression of these concerns and their understanding of what is going on in the mineral supply chain. The initial instinct has been to adopt a siege mentality rather than inquire into the roots of the underlying problem and how it might be addressed. In the highly selective way in which debates on public policy often evolve, *a wholly disproportionate focus has been placed on a handful of exotic, but economically relatively minor, minerals rather than on the systemic challenge to the supply of all minerals posed by the changing dynamics of global mineral markets and the rise of resource nationalism.*

The domestic mineral industries of Europe and the United States have been subject to neglect over many years. As one long time observer of the industry has put it, "…it would not be going too far to say that most countries in the West seem to have gone out of their way to discourage mining through the complex web of the government approvals process that erects countless environmental, social, and land-use barriers." [24] The focus of industrial policy has been almost entirely on downstream, high tech activities and on services. Partly this can be explained by the abundance of most mineral products through the 1980s and 1990s and accompanying commodity price weakness. This allowed a perception to take hold that mineral shortages were a thing of the past. It can also be explained by a widespread conviction that mining is an old and dirty industry and that the future of Western economies lies in the "new economy" of clean and weightless alternatives. Although it was rarely made explicit, the presumption appeared to be that minerals could always be acquired on global markets from overseas. Accordingly, the institutional capital of the mining sector in Europe and North America has been allowed quietly to rot. There have been widespread closures of mines and of mining schools. There are progressively fewer and fewer people in government with a knowledge of, or interest in, mining. The U.S. Bureau of Mines was closed in 1995.[25] The declining global influence of U.S. and continental European mining companies, referred to above, has been viewed with apparent indifference.

While the presumption that the minerals required by consumers in Europe and the United States will always be readily available on world markets has obviously been badly shaken by the shortages of the last few years, public policy toward supply seems not to have adjusted. To the extent that mining impinges on government thinking at all, it is generally as a tangential aspect of some other, broader, agenda, such as that for the environment or corporate governance. Tightening environmental restrictions have made mining in Europe and the United States an increasingly challenging prospect. Attempts to raise the standards of global corporate governance have also represented a particular challenge for an industry which is, by the nature of the business, required to operate in some very difficult places.

Thus, the transatlantic community has enthusiastically embraced initiatives to bring greater transparency to the mining industry through devices such as the World Bank's Extractive Industries Transparency Initiative (EITI) and through the more demanding proposals for project-by-project declarations currently being implemented in the EU and the United States. It has given a particular focus to efforts to stamp out bribery, through legislation such as the U.K.'s Bribery Act and the U.S. Foreign Corrupt Practices Act (FCPA). And it has effected proposals on supply chain management such as those applying to minerals sourced from DR Congo under the Dodd-Frank Act as a means to eliminate supplies of conflict minerals in Western markets and through the due diligence guidelines "Responsible supply chains of minerals from conflict-affected and high risk areas" issued by the OECD in 2011.

Such responses are natural enough from those who live under rules-based systems and would have others do likewise. However, the world has moved on and it may be that game is no longer the West's to fashion. Such initiatives can be too readily perceived as patronizing and interfering by the countries at which they are aimed. Morally, one is in a weak position to insist on other countries

The domestic mineral industries of Europe and the United States have been subject to neglect over many years.

[24] Tim Treadgold, "Rare-earth lesson for copper," *Mining Journal*, March 23, 2012.

[25] David Humphreys, "Whatever happened to security of supply? Minerals policy in the post-Cold War world," *Resources Policy*, No.2, Vol, 21, 1995.

The Chinese and Russian governments very evidently champion their companies when they go investing overseas, with supporting visits from political leaders.

applying standards in the supply of products which one is transparently not interested to supply oneself. Bribery in mineral-rich countries will not be alleviated by laws enacted in Western capitals. Most countries being targeted by such legislation already have their own laws against bribery. Requirements for public disclosure can even put companies in contravention of local laws on national security.[26] The EU and U.S. case against China's use of export restrictions on nine minerals brought at the WTO in 2009 may legally have been a success but this misses the point. As China was at pains to emphasize during the hearings, it viewed this not as a legal issue but as a sovereign one. The underlying paradigm, in short, was political.[27] So far as China was concerned, resources on its territory were for it to dispose of as it saw fit. In arguing this, it follows the rather compelling example of OPEC, which operates precisely on this principle in oil.

One effect of the use of extraterritorial initiatives by Western governments is to impose ever greater bureaucratic burdens on Western companies trying to operate in already difficult circumstances overseas.[28] These companies already have the highest standards in the industry and it is questionable whether much is achieved at an industry level by making these companies the focus of public attention and demanding ever-higher standards from them. Many of the biggest environmental and social problems associated with mining arise in small-scale and artisanal mining and at state-operated mines. A question Western governments might usefully ask themselves is whether the interests of mineral-rich countries are well served by squeezing their companies out of some of these countries and leaving the field to companies from other regions.

As Western governments have been enthusiastic in seeking to regulate for overseas mineral investors, they have not shown much interest when the rights of their companies have been flouted by overseas governments. At such times, and in contrast to their stance on corporate governance, they have generally found it convenient to treat the companies as stateless, and these matters for the private sector to resolve. This, however, is an uneven contest. Western mining companies cannot engage in government-to-government deals nor protect themselves from capricious government action. Moreover, in a world where the state capitalist model is increasingly becoming the preferred economic model for many emerging economies,[29] they are inherently disadvantaged where government-to-government deals are viewed as the favored approach to mineral development. The Chinese and Russian governments very evidently champion their companies when they go investing overseas, with supporting visits from political leaders. A second question that Western governments might reasonably address, therefore, is whether in this more politicized investment environment, the interests of their mineral consumers might not be served by them (the governments) taking a more assertive role with respect to championing Western companies in their overseas activities.

An example of the sort of challenges companies face in this area is provided by the case of Rio Tinto in Guinea, as discussed above. Subsequent to being stripped of half its mining concessions in Guinea in 2008, Rio Tinto invited the Chinese state company,

[26] Andrew Jack and Sylvia Pfeifer, "Resource groups seek to dilute anti-graft rules," *FT.com*, February 19, 2012.

[27] Stormy-Annika Mildner, *Securing access to critical raw materials: What role for the WTO in tackling export restrictions?* Transatlantic Academy Paper Series, December 2011.

[28] "Exctracting oil, burying data," *The Economist*, February 25, 2012.

[29] "The visible hand; special report on state capitalism," *The Economist*, January 21, 2012.

Chinalco, into its Simandou iron ore project to help build infrastructure for the mine and provide finance. The logic for the move was described by one industry observer thus: "Chinalco's biggest advantage in the African environment is the fact that it is heavily backed by the Chinese state. In contrast, Rio Tinto's poor relations with the Guinean government are accentuated by the fact that, as with many of its global peers, it is a company without a country." More generally, he commented: "The difficulties of managing sovereign risk have deterred Western mining companies from investing more heavily in Africa, but this is not an issue for Chinese companies who know they can count on Beijing's good relations with most African governments to support them when the going gets tough. Non-interference may be the official policy, but Chinese champions have leverage through their government's funding of essential national infrastructure and the fact that Beijing can talk directly to host governments." [30]

[30] Michael Komesaroff, "An African Romance," *China Economic Quarterly*, December 2010.

A final point here concerns Western governments' attitudes toward China in the matter of mineral procurement. The prevailing perspective on China within the transatlantic community is as a competitor for resources and as a reluctant supplier of certain critical raw materials. In point of fact, China is itself a very large mineral importer as well as a growing overseas investor in minerals and shares many of the concerns regarding mineral supply and the free flow of mining investment, as does the transatlantic community. And it faces the same challenges of resource nationalism in its investment, as is illustrated by its forays into Africa and Latin America. Just as Western mining companies are beginning to find the means to make common cause with Chinese partners in mining projects, so maybe there is scope for the transatlantic community to make common cause with China on the issue of mineral supply and the promotion of global mineral investment.

7 Conclusion

But what if resource nationalism is here to stay? What if the export of minerals is increasingly deemed a sovereign matter?

Transatlantic mining companies still play a critically important part in the global mining industry and in the supply of minerals to Western consumers. However, the shift in the global economy toward emerging markets and the rise of resource nationalism has resulted in a decline in their influence. It continues to put them under pressure. In many parts of the world where they are obliged to operate, they are faced with an investment environment that is politically rather than legally based and where they accordingly find it harder to maneuver. In addition, they face growing competition from a new range of companies based out of the emerging markets. These companies often have strong national characters and serve national economic objectives, including that of securing supplies for their own domestic markets. They are formidable competitors on their own territories and are also now beginning to expand out into third countries, often with the active support of their parent governments. Prominent in this latter category are Chinese companies seeking raw materials for their domestic metallurgical and manufacturing operations.

The implications of this for Western mineral supply are unclear. Western miners, who have traditionally had their focus on supplying global markets rather than their domestic markets, warn that the rising tide of resource nationalism risks inhibiting industry investment and curtailing global mineral supply.[31] The plausibility of their threat simply to go elsewhere when such conditions apply is diminished by the fact that resource nationalism is becoming endemic. Investment from amongst emerging market companies, and Chinese companies in particular, may be increasing and in principle this should add to global supply but, again, one cannot be sure since some of this product can be regarded as captive Chinese supply.

[31] David Roberston, "Stop tax rises or we'll look elsewhere, governors warn," *The Times*, January 30, 2012.

The situation poses a dilemma for the transatlantic community. Instinctively, it would prefer to leave the matter of mineral supply to the market to sort out. And indeed, where it is allowed to operate, generally the market will provide. However, there are increasing areas where the operation of the market faces constraints. Just possibly, the rules-based approach to trade and investment will experience a revival. Certainly, the case for it needs to be vigorously argued. But what if resource nationalism is here to stay? What if the export of minerals is increasingly deemed a sovereign matter? What if indigenization grows as a policy choice for mineral-rich countries? What if state capitalism becomes the dominant model of economic organization for emerging economies and government-to-government deals commonplace? What, in short, if the mining industry is destined to become more politicized?

Certainly this is a prospect that the transatlantic community needs to consider seriously. It has already mounted a partial response by becoming engaged in assessments of mineral supply security and in initiatives to mitigate the effects of supply shortages such as through the promotion of resource efficiency and recycling. However, countries within the community have been reluctant to follow the logic through to the supply side of the equation and to consider how they might help promote mining investment, whether domestically or overseas. They have shown no interest in taking a proactive role in support of Western companies, fronting government-to-government deals under which the companies can operate, encouraging them in joint-ventures with local companies, linking regional development projects to mining projects in the manner of the Chinese, or lending their political support where the legal rights of their companies are compromised. Nor have there been any attempts constructively to engage with mineral-rich countries having a predisposition to resource nationalism in a debate on how the interests of producing and consuming countries can both be satisfied in this changed world.

Clearly, to play such a role, transatlantic community governments will need to inform themselves about the motivations and concerns of those advocating resource nationalism and about the mechanisms of mineral supply. They will also need to equip themselves far better than at present to engage on these issues in a practical fashion. This will involve reversing certain policies they have pursued over the past 30 years. It will also require them to acknowledge that they have responsibilities to their companies that go beyond ensuring that they meet the highest ethical and environmental standards in their business activities. This will not be easy and may not be something they wish to do. The tendency at the moment seems to be largely to ignore it. However, the tide of state capitalism and the tendencies that have been described here appear set for the long term. This has implications for the supply of minerals to the transatlantic community. The alternative to acknowledging the issues and engaging in them constructively may simply be to walk blindly into a situation such as that which confronted, and decimated, the Western oil industry 40 years ago.

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