

## Chapter 2

# Determinants of Foreign Direct Investment in the Mining Industry

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**Abstract** A range of social, political, and economic factors determine where mining companies invest their scarce capital. This chapter identifies nine areas of risk that investors need to consider before investing in the sector. These include high sunk costs, the finite life of a deposit, and the long period to achieve a positive financial return. Add to this, legacy issues and it is clear that mining is a high-risk venture. This chapter argues that increased attention to the nine areas of risk may benefit mining companies in the future.

## Abbreviations

BIT	Bilateral investment treaty
EITI	Extractive Industries Transparency Initiative
EPI	Environmental Performance Index
FDI	Foreign Direct Investment
FIFO	Fly-in-fly-out
GIS	Geographical Information System
GUCAS	Guided Uniform Criteria Assessment System
ICSID	International Centre for the Settlement of Investment Disputes
IRR	Internal Rate of Return
MEG	SNL Metals Economics Group
NGO	Non-governmental Organisation
NVP	Net Present Value
PMSEIC	Prime Minister's Science, Engineering and Innovation Council
UNCTAD	United Nations Conference on Trade and Development

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## Introduction

The mining industry has a certain combination of characteristics that are not found in other industries. Although some determinants of foreign direct investment (FDI), such as the quality of formal institutions or tax policies, are important in influencing the location of manufacturing and services, as well as extractive industry (mining and oil & gas) investment, most are sector specific (Imbun 2006). According to Andrews-Speed (1996) and Saidu (2007), these include:

- High capital intensity
- Low labour intensity
- Long lead times
- High risk
- Non-renewable resources
- Finite life
- Volatile markets
- Failures
- Late payback

Mining companies have numerous jurisdictions from which to choose when determining the targets of their exploration and development budgets. In an ideal world, investment would flow to countries that have the most abundant and highest-grade deposits. However, in practice, many other factors besides geological endowment influence investment decisions. Prior to investment, mining companies require as much assurance as possible as to the security of the investment. This particularly is so given that mining investments involve large sunk costs that are irreversible (Barham and Coomes 2005). Sunk costs refer to investments that, once undertaken, cannot fully be recovered through their transfer or sale due to industry-specific characteristics (Dixit 1980; Spence 1977). For example, the task of extracting, separating, and transporting large volumes of raw materials requires secure facilities with high installation costs. Moreover, required investments in the mining industry are significant in order to achieve a minimum efficient scale (Barham and Coomes 2005). Due to the nature of the industry, mining companies are immobile for periods of time and, as such, their investments typically are associated with high levels of risk (Naito et al. 1998). It therefore is in the commercial interests of any mining investor to undertake due diligence when considering any new major investment, and risk assessment should be part of any due diligence effort.

One of the most convenient ways to measure geological potential and country-specific risk is by survey. The three best-known annual surveys of exploration investment are those conducted by SNL Metals Economics Group (MEG), Behre Dolbear, and the Fraser Institute. The MEG survey, published since 1991, provides general information on the sources and destinations of investment by various commodities, but does not provide much information on the reasons behind the direction of investment flows (SNL MEG 2014). Behre Dolbear's 'Ranking of Countries for Mining Investment', compiled annually since 1999, ranks 25 countries that host

major exploration or extractive development efforts and/or mining operations, based on seven criteria. The rankings are based on qualitative opinions gathered from company professionals and research from various public and confidential sources. While the survey undoubtedly has some value, it provides no detailed explanatory notes on why surveyed countries have been assigned a particular score for each of the criteria. The scores are based on the 'collective experiences' gained by company professionals, who, according to Behre Dolbear (2014), 'have had the unique opportunity to travel widely and experience many different cultures.' While the staff's expertise is extensive, and the survey has merit, the country ranking methodology arguably lacks rigour.

The Fraser Institute survey, which commenced in 1997, is of slightly more use with regard to the determinants of FDI in the mining industry. It ranks, among other things, policy potential, mineral potential, and the investment attractiveness of a growing number of jurisdictions globally. The latest survey, which evaluates 109 jurisdictions, was sent to approximately 3,800 mining-related stakeholders worldwide, receiving responses from 690 organisations (The Fraser Institute 2015). Respondents include both junior and major mining companies, but also regulators, government officials, non-government organisations (NGOs), and many other groups and individuals involved in the mining industry. While liaising with government departments and NGOs involved in the sector, the present author was informed that many of these organisations are asked to fill out the Fraser Institute survey on an annual basis and informants confirmed that they regularly respond to it. It therefore is unclear whether the survey represents responses only from mining companies as the Fraser Institute claims. Regardless, allowing regulatory agencies to respond to a survey that ranks mining jurisdictions adds a degree of bias to the results and makes the findings less objective.

Whereas most mining companies will be interested in surveys like those prepared by Behre Dolbear and the Fraser Institute, in-house assessments are the norm for guiding actual investment decisions. These vary from *ad hoc* decision-making in junior companies, to a classic Delphi-type approach or a guided uniform criteria assessment system (GUCAS) in major companies (Otto 2006). Some companies, particularly risk-taking juniors that aim to establish a foothold in the industry, will target jurisdictions with good prospectivity regardless of risk. However, most mining companies will balance prospectivity against risk criteria when making investment decisions. Analysing the main criteria to which mining companies refer when making investment decisions, Morgan (2002) found that a significant proportion reflect perceptions of administrative procedures and regulatory agency functions. He argues that the perception of *security of tenure* is of paramount importance to foreign mining investment. Morisset (1999) examines determinants of FDI in Africa's resource-rich states. He argues that the implementation of a few visible actions is essential in the strategy of attracting FDI, which involves opening the economy through trade liberalisation reform; launching an attractive privatisation program; modernising mining and investment codes; adopting international agreements related to FDI; developing several priority projects that have a multiplier effect on other investment projects; and mounting an image-building effort with the participation of high political figures, including the president or prime minister.

A study by Kasatuka and Minnitt (2006) finds that non-commercial risks deter foreign investment in resource-rich jurisdictions. Such risks include government instability, poor socio-economic conditions, conflict, corruption, political terrorism, civil war, the quality of bureaucracy, racial, national, and religious tensions, and other issues. Tole and Koop (2011) examine firm location decisions by the world's major gold mining companies using a dataset of political, economic, regulatory, infrastructure, and investment risk variables observed since 1975. They find that firms prefer not to venture far away from their home offices, are strongly attracted to countries that have low levels of corruption, and are attracted to fairly developed economies that provide a good business environment characterised by predictability, efficient institutions, transparent laws, and advantageous tax codes. They also found, perhaps counter intuitively, that stringent environmental regulations attract firms.

The most comprehensive study to date on determinants of FDI in the mining industry is that by Otto (1992a). He identified over 60 factors that may influence a company's decision to invest in one jurisdiction over another. He divided the investment criteria into nine categories: geological, political, regulatory, marketing, fiscal, monetary, environmental and social, operational, and profit. In an effort to establish the relative importance of the criteria, Otto (1992b) surveyed 39 internationally active junior and major mining companies. Surveys by Johnson (1990) and Naito et al. (2001) have yielded similar results. The criteria ranking results for the most important determinants of investment are shown in Table 2.1 and are listed under Otto's nine principal categories. Table 2.1 also includes additional criteria identified by O'Neill (1993), Morisset (1999), Morgan (2002), Kasatuka and Minnitt (2006), Penney et al. (2007), and Tole and Koop (2011). The following section elaborates on the key criteria that influence FDI in the mining sector.

Sources: Johnson (1990), Otto (1992b), O'Neill (1993), Morisset (1999), Naito et al. (2001), Morgan (2002), Kasatuka and Minnitt (2006), Tienhaara (2006), Penney et al. (2007), Tole and Koop (2011)

## ***Geology***

Geological prospectivity has a major influence on the level of exploration activity, as it determines the likelihood that a mining company will discover an economic deposit (O'Neill 1993). The prospectivity of a region is determined by its geology and known resource endowment. The availability of a credible and publicly accessible geological database is an essential element to increasing the transparency of mining-related information. A lack of adequate geological information can result in a downgrading of assessments of a country's potential to host exploration and mining development. Transparent information promotes and facilitates exploration by reducing the costs and associated risks (PMSEIC 2001). If the Geographical Information System (GIS) is not linked to geological databases, it may be a daunting task for an investor to find out which area is open to investment. Inadequate geological database information (including quality and scale of maps, ease of access, etc.) is likely to be a significant investment deterrent.

**Table 2.1** Key foreign investment criteria in the mining sector

Category	Specific criteria
Geological	Geological potential for target minerals
	Ability to apply geological assessment techniques
	Quality of mining titles system
Political	Consistent and constant mining policy
	National security and political stability
	Internal and external conflicts
	High level of transparency
	Low level of corruption
	Adoption of international agreements related to mining
Investment promotion	Trade liberalisation
	Privatisation program
	Image-building effort to attract investment
	Import-export policies
	Existence of previous priority projects
Regulatory	Stability of exploration/mining terms (security of tenure)
	Modern mining legislation
	Efficient regulatory institutions/administrative procedures
Fiscal	Ability to predetermine tax liability (predictability)
	Stability of fiscal regime
	Method and level of taxes and levies
Financial	Ability to repatriate profits
	Realistic foreign exchange regulations
	Ability to raise external financing
	Permitted external accounts
Environmental and social	Ability to predetermine environment-related obligations
	Stringent environmental regulations
	Ability to gain the support of local stakeholders
Operational	Majority management control held by investor
	Right to transfer ownership
	Quality of infrastructure
Profit	Projected measures of profitability (IRR, NPV, pay-back)

## *Political Stability*

Political stability and the absence of conflict and tension also are important determinants of FDI in the mining sector (O'Neill 1993). Mining companies are unlikely to invest in a country if they perceive that the government may be destabilised or overthrown by unconstitutional or violent means, or if there is a high degree of political or ethnic violence. A stable political environment reduces the risk of regulatory changes and licences being revoked without warning. In unstable and/or conflict-riven jurisdictions, companies will be concerned with the safety of their employees, equipment, and tenements. Where violence is common, companies increase their

expenditure on security measures for land holdings, mining equipment, and staff. It also can precipitate conflicts with host communities. These factors inevitably raise operating costs (Penney et al. 2007).

Regardless of a government's policies and regulations, it is important that information on the regulatory system is transparent. Transparency reduces uncertainty and increases commercial confidence (O'Neill 1993). Increased transparency allows companies to make an informed judgment when considering or conducting exploration. In particular, the ability to access relevant information makes investors more willing to undertake exploration. If foreign companies are prevented from fully understanding the relevant regulations, or are denied access to necessary geological and other information, they are unlikely to invest in exploration activities. The lack of procedural/administrative transparency in the distribution of licences/leases, environmental clearances, exit-policies, incentives, and/or access to geological information is a significant obstacle to attracting foreign mining investment. If a potential host jurisdiction has implemented or shown support for the Extractive Industries Transparency Initiative (EITI) (2014), this may make it more attractive to potential mining investors. The EITI is a global coalition of governments, companies, and civil society organisations that works collaboratively to improve openness and accountability in the management of mining industry revenues (Kemp 2010). Investing in a jurisdiction that is EITI compliant reduces potential reputational risk to the investor. As of February 2016, 51 countries were classified as EITI compliant.

Mining involves risks, and investors seek to reduce these risks by obtaining legal protection for their investments (Naito et al. 1999). Resource-rich countries, which adopt international agreements related to mining, are likely to attract FDI in their mining sectors (Tienhaara 2006). These international agreements include bilateral investment treaties (BITs) between the home and the host jurisdiction, which give mining companies from domiciled jurisdictions access to international arbitration and prohibit expropriation without compensation from host countries (UNCTAD 2014). It also is important to consider whether a potential host jurisdiction is one of the 150 states that have ratified the Convention on the Settlement of Investment Disputes between States and Nationals of other States. The International Centre for Settlement of Investment Disputes (ICSID) provides facilities for conciliation and arbitration of international investment disputes and is the leading international arbitration institution devoted to investor-state dispute settlement (ICSID 2014). If a host country does not have a BIT with the domiciled state and if it has not ratified the ICSID Convention, this may act as a deterrent to FDI in the mining industry.

### ***Investment Promotion***

An important task of a jurisdiction's mining policy is to communicate investment conditions to potential investors and thereby improve competitiveness. In order to attract foreign mining investment, a jurisdiction's mining policy should be consistent, clear, and concise (Otto 2006). The methods available to promote investment

are both indirect, such as reforms of the underlying legal system and institutions, and direct, such as advertising and promotion of pro-investment policies. Naito and Remy (2001) argue that long-term success in attracting private investment in mining exploration is affected not only by a favourable natural endowment, but also by effective implementation and promotion of policies. According to Naito et al. (2001), national governments focus their mining industry policies on how they can attract investments. Increasingly, governments are assuming the role of investment promoter. Otto (2006) argues that the key to successful promotion is to, first, bring the mining potential to the attention of investors and, second, to assure investors that risks are low or manageable. In this context, a resource-rich country or jurisdiction that wishes to attract mining FDI should publicise its mining policy and the mining-related international agreements it has signed. More importantly, the mining policy should be combined with broader sectoral reforms, which include the establishment of a competitive investment climate for private sector participation, such as privatisation and trade liberalisation. The mining industry is trade focused and, as such, general trade restrictions that affect the industry will impede investment in exploration and project development. For example, any trade restrictions on the import of capital equipment required for mining exploration, or taxes on the export of certain commodities, are likely to affect investment decisions (Davis 2010). Finally, if there is evidence of prior successful priority projects in the jurisdiction by large international mining companies, this also may attract potential investors.

### ***Regulatory Regime***

Foreign investment likely will expand when regulations and procedures are clear, efficient, and transparent. This only will occur when all levels of government are devoted to delivering good outcomes. Overall government effectiveness is determined by the quality of public provision and the regulatory agencies, the competence of civil servants and their independence, and the credibility of government decisions (Jalilian et al. 2007). Ineffective governance, in particular, excessively complex administrative and/or regulatory procedures required to establish and/or operate a business, discourage inflows of foreign mining investment (Globberman and Shapiro 2002). Regulatory overlap between various government departments (often Energy/Resources/Mining and Environment) may result in unclear lines of authority regarding the regulation of FDI (Vivoda 2008). Regulatory overlap or duplication is a significant investment deterrent.

Conversely, a high level of cooperation between government departments or the existence of a 'one stop shop' to manage the regulatory process can reduce the time required for, and cost of, obtaining approvals, which may encourage mining exploration in a jurisdiction (Penney et al. 2007). In addition, mining laws in most jurisdictions provide a two-step process in which a company gains, first, a licence to explore and, second, should an economic deposit be discovered, a licence to mine. The strength of the linkage between the right to explore and the right to mine is a



measure of a company's security of tenure. If a company perceives that it will have high security of tenure, the more likely it is that it will invest in a particular jurisdiction.

In some federal systems of government, state or provincial governments may be empowered to design and regulate their own FDI policies. They also may have a different regulatory and policy focus from that of the national government. Sub-national governments may create their own qualifying conditions and hold discretionary powers to terminate a mining lease. If the authority to grant exploration and mining licences is conditional upon sub-national government approval, this can add duplication and complexity to the regulatory regime. Division of mining project approval mechanisms between national and sub-national governments therefore can undermine FDI promotion efforts by the national government and ultimately raise project costs (O'Callaghan 2010). If sub-national governments establish their own standards for the acquisition and cancellation of mining licences, it is essential that national governments provide mining licence holders with sufficient safeguards against the intrusion of lower levels of government. However, this often does not occur in practice. Consequently, as a project moves through the various phases of development (exploration, feasibility, construction, development, operation, and closure), investors may be required to comply with standards that overlap, are unclear, and are subject to a degree of administrative discretion at the sub-national level (Vivoda 2011). This can undermine investor confidence in the security of tenure and add to investment uncertainty.

Inadequate financial and human resources can be a problem in developing economies across the Asia-Pacific Region. Regulatory agencies may not have the adequate administrative machinery to deal with their responsibilities (O'Callaghan and Vivoda in this volume). This problem can be exacerbated at the sub-national level following decentralisation efforts that transfer more powers to lower-level governments without simultaneously providing them with additional human and/or financial resources. A further challenge may arise from a shortage of adequately trained compliance and enforcement officers, many of whom find employment in private industry more rewarding (Bridge 1999; Haselip and Hilson 2005). This point is addressed in the following chapter.

## ***Fiscal Regime***

Exploration activity involves high costs, and the profitability of a project can be influenced by a government's fiscal regime. Generally, foreign mining investment will be enhanced by resource taxation regimes that are simple, stable, predictable, transparent, equitable, efficient, and competitive (Saidu 2007). For mining companies, the overall level of tax, including royalties and tax incentives (for example, tax holidays), influences decisions to explore and develop new projects. All other factors being equal, companies prefer to invest in low-tax jurisdictions (Otto et al. 2006).



Moreover, when deciding where to invest, mining companies consider the perceived stability of a fiscal regime over time, and this requirement probably is the most important for companies, due to the long life-cycle of most mining projects (Andrews-Speed 1996). Mining investors look for predictable fiscal regimes, as transparent and clear tax regulations allow companies to predetermine their tax liability (O'Neill 1993).

Different types and levels of taxes imposed on mining companies also have a direct bearing on the rates of return, and thus influence investment behaviour (Saidu 2007). For example, taxes or royalties based on units of production, irrespective of profitability, may create economic inefficiencies by discouraging the exploitation of lower grade ore and shortening the operational life of some mines. Such a regressive tax instrument can contribute to inefficient resource exploitation and premature mine closures with attendant negative impacts on investments (Andrews-Speed 1996; Otto et al. 2006). Taxes on corporate profits, and to a lesser degree, income, are more efficient, and recognise the inherent risks in mining operations, particularly the wide fluctuations in international commodity prices and the difficulty in anticipating all geological, technical, financial, and political factors over a mine's life-cycle (Mitchell 2009). Finally, federal systems often allow taxes and royalties to be taken at multiple levels of government, potentially resulting in complicated fiscal regimes in which multiple levels of government compete for their share of revenue. This can lead to excessive administrative costs for potential investors.

### ***Financial Conditions***

The ability to repatriate profits and capital to the domiciled jurisdiction also has an impact on the attractiveness of that jurisdiction to foreign investors (O'Neill 1993). If foreign owned companies are able to convert profits earned in local currency to US dollars or another major international currency, this may enable them to remit their profits to the parent company. However, foreign-invested entities, either structured as subsidiaries or joint ventures with domestic mining companies, often face restrictions on profit repatriation (UNCTAD 2007). Constraints may be imposed on the timing and magnitude of transactions to repatriate foreign investors' profits. This subsequently may place a discriminatory burden on foreign investors and discourage investment (Penney et al. 2007).

Exploration is a risky and capital-intensive activity. Large capital investments usually are required to identify recoverable ore deposits. However, the risk that an economically viable deposit will not be found is high enough that companies often encounter difficulties in raising funds through debt financing (Penney et al. 2007). The majority of funds used for mining exploration are raised on the Sydney, London, Toronto, and Johannesburg stock exchanges. In order to improve investment attractiveness, it is important that countries do not limit the ability of mining companies to raise external finance.

## ***Environmental and Social Regulation***

In 2004 Hilson and Haselip found that the desperation of many developing country governments to promote foreign mining investment provided little incentive for mining multinationals to engage in environmental best practice. Consequently, they asserted that few of the mining companies operating in the developing world had embraced sound environmental management practices. This may have been the case in the 1980s and 1990s, with the Ok Tedi, Grasberg, and Marcopper environmental disasters in Papua New Guinea, Indonesia, and the Philippines, respectively, providing excellent examples of past industry practice. However, a more recent empirical study has shown a positive change in environmental management practices among multinational mining companies operating in the developing world. Tole and Koop (2011) found that stringent environmental regulations have no effect in influencing investment location decisions. Indeed, it is often more the case that stringent environmental regulations attract mining investment. Regardless of any short-term cost savings from lower environmental standards, most multinational mining companies now view their presence in environmentally ‘dirty’ parts of the world as potentially damaging to their reputation, even though they implement international best practice environmental standards. Complex and inconsistent environmental regulations likely will deter FDI, with mining companies unable to predetermine environment-related obligations.

Because of the nature of mining activities, the demand for socially and environmentally responsible performance from multinational mining companies has become the norm (Kepore and Imbun 2011; Graetz and Franks 2013). Constructive approaches to stakeholder engagement and collaboration in line with a host community’s long-term development agenda is becoming standard practice for mining companies (Owen and Kemp 2013). There are numerous historical examples where local stakeholders have rejected mining and, consequently, deposits have not been brought into production. Local communities have the power to influence the security of tenure between exploration and mining. The key to a community accepting or rejecting exploration and mining often depends on the extent to which the community and its members will directly or indirectly benefit from a development (for example, through taxation/royalty payments, employment, infrastructure, joint ownership, etc.), balanced against the perceived harm (for example, environmental and social impacts) a development may cause. In many resource-rich developing countries, mines usually are located in remote areas, populated by the rural poor and with inadequate social and manufactured capital resources, including political and regulatory institutions and infrastructure. Under these circumstances, foreign mining investors often are *de facto* social infrastructure providers. To obtain local government approval and a ‘social licence to operate’, companies often are obliged to build hospitals, schools, and other social infrastructure. The importance of gaining the social licence is critical to the ultimate success of a mining project (Imbun 2007; KPMG 2013). Hence, the ease with which host community support can be obtained is one of the key determinants of mining investment (Otto 2006). Jurisdictions that recognise that communities have roles to play in the mining investment process and

that actively address community concerns will be more attractive to potential investors than jurisdictions in which problems are left solely for mining companies to address (Campbell 2012).

### ***Operational Environment***

Foreign mining investment likely will grow when jurisdictions allow investors operational flexibility so that they can form corporate structures to suit the operating environment. The ability of mining investors to invest in exploration activities is impeded when they cannot alter the operational structure of their business to suit their changing needs (for example, joint ventures to share risk). Equity requirements or requirements on foreign investors to take a local joint venture partner can act as an impediment to potential investment, and can limit the level of interest from foreign companies in establishing operations (O'Neill 1993).

The existing infrastructure of a particular economy, such as access to water and electricity, and the quality of roads, influences the level of foreign investment. Resources often are found in remote or regional locations, which makes it difficult to attract employees. These areas generally have limited access to hospitals, schools, roads, airstrips, and other infrastructure. Inadequate infrastructure typically will increase the cost of developing a deposit and, therefore, will reduce the expected profitability of the development, particularly if the full costs of transport, water, power, and housing are borne by the company. Similarly, a lack of basic infrastructure can impede access to exploration areas and increase the cost of exploration activities (Penney et al. 2007). Fly-in-fly-out (FIFO) operations require unique infrastructure investment and may affect operational expenditure based on the circumstances of the development, host community, regulatory expectations, and environmental impacts.

### ***Potential Profitability***

Otto (2006) argues that not only are determinants of FDI industry specific, but that they are also company specific. The criteria that any one company will apply when deciding whether to invest in a particular resource-rich jurisdiction will be unique to that company and time (Bhappu and Guzman 1995). Decisions are based on projected internal measures of profitability (for example, the IRR, NPV, and pay-back), which are commercially sensitive. These measures represent an estimated percentage of an effective net cash flow of all amounts payable by the company to the government (Feibel 2003). Investment decisions also are couched within broader industry trends. For example, in 2013, responding to lower metals prices, uncertain demand, and poor market conditions, mining companies across various commodity sectors cut their exploration activity sharply, with budgets 29% lower than in 2012 (SNL MEG 2014).

## Conclusion

The existence and extractability of minerals is the most important determinant of where mining companies invest in exploration and extraction. While the presence of deposits is a necessary requirement to attract investment, it is not a sufficient condition. Despite the high geological potential, a combination of various challenges often puts resource-rich jurisdictions in an unfavourable position in the global market for investment. As a consequence, many countries that are endowed with resources traditionally have been unable to attract and retain FDI.

Governments of resource-rich jurisdictions increasingly are aware that mining companies are selective in their choices and that, in order to attract investors, they need to implement reforms to establish more effective regulatory structures. Jurisdictions can improve the likelihood of mining investment by taking steps to satisfy investor decision criteria through informed policies and regulations. However, while over the past three decades more than one hundred countries have amended their mining and related rules and regulations, policy and regulatory changes have not led automatically to a reduction in risks for investors. Improved regulation *per se* does not automatically attract more foreign investment.

The low level of FDI in the mining industry may result from inconsistent and unclear policy towards investment, inadequate and ineffective fiscal, regulatory, and environmental regimes, a lack of geological information, an unfavourable political environment, unresolved social issues and the inability to secure a social licence to operate, inadequate infrastructure, and various other challenges. Levels of FDI also may be influenced by a strong and competitive domestic mining industry, which may be shielded from the competition of foreign majors. Moreover, domestic policy-makers may view participation by international companies in their mining sectors with suspicion, due to beliefs about exploitation of the national heritage or patrimony. Consequently, it may be a national duty to have direct control of the industry (Johnson in this volume).

If resource-rich jurisdictions aim to increase the inflow of foreign capital into the mining industry, the performance of regulatory regimes governing foreign mining investment is essential. Attracting foreign mining investment requires favourable and consistent government policies and effective regulatory and fiscal systems. This needs to be supplemented with active investment promotion programs and holistic stakeholder engagement processes that assure potential investors, local communities, and other stakeholders that mining activities can be sustainable and mutually beneficial.

Many systemic and geological risks remain that are beyond the control of government. However, governments can improve the likelihood of mining sector investment by taking steps to satisfy investor decision-making criteria by establishing regulatory structures that are clear and by guaranteeing 'security of tenure' (Otto 2006). The challenge for countries in the Asia-Pacific Region is to regulate multinational mining companies' activities in line with national socio-economic development priorities, while making it attractive for these companies to invest.

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