Policy Brief
ELLA Area: Economic Development
ELLA Theme: Extractive Industry Investment Policies

How can countries attract foreign direct investment in mining, while at the same time ensure environmentally and socially sustainable economic growth? The Latin American experience offers some answers.

MINING IN LATIN AMERICA: ATTRACTING QUANTITY AND QUALITY IN FDI

SUMMARY

Latin American mining investment is led by the private sector. The key policy question that Latin American countries are addressing, then, is how to ensure that foreign direct investment (FDI) promotes socially and environmentally sustainable economic development. Mining investment enhances gross domestic product (GDP) growth, but does not necessarily address challenges like environmental governance, employment generation or local-level community development. However, the Latin American experience shows how some countries are attracting the kinds of foreign investment that can address these challenges, with a focus not only on the quantity of FDI, but also on quality, in terms of meeting the social and environmental standards of the international mining industry. Governments have also implemented fiscal arrangements to increase state capture of extractive rent and to promote local level benefits. This brief describes these challenges in the Latin American context, and provides an overview of the investment policies and incentive packages countries are using to attract responsible FDI and turn foreign investment into concrete and sustainable development.

THE NEED FOR THE RIGHT COMBINATION OF INVESTMENT AND DISTRIBUTION POLICIES

Latin America has been successful in attracting mining FDI (see Figure 1). The region received approximately one third of total global mining investment in 2010, more than double that of either Africa or Asia. This is not due to having a larger stock of mineral resources. Indeed, Africa holds 30% of the world's mineral deposits.[1] So what accounts for the difference in ability to attract FDI? Investment and distribution policies provide some of the answer.

[1] Sharaky, AM. 2011. *Mineral Resources and Exploration in Africa*. Institute of African Research and Studies, Cairo University, Cairo.

Figure 1: Mining Investment by Region (2010)

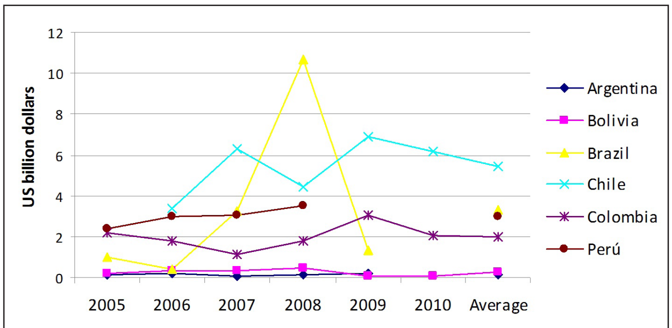
	Investment (US$ billion)	Share of Global Mining Investment (Percent)	Change from 2009 to 2010
Africa	80	14	No change
Asia	73	13	Decrease
Latin America	180	32	Increase

Source: Ericsson, M., Larsson, V. 2011. E&MJ's Annual Survey of Global Mining Investment. WOM The Mining E-Journal 1(2).

In Latin America, mining is dominated by the private sector, in contrast to the oil and gas sectors in which state-owned corporations play a strong role.[2] Even in Venezuela, a country known for its public appropriations, the mining sector is in private hands. Chile is the one exception, as its state-owned mining company, CODELCO, is one of the largest mining firms in the world.

An important group of large corporations have focused their mining investments in Latin America, though they have not invested in all countries equally. The result is that FDI in mining between 2005 and 2010, according to official figures from the Central Banks of the region, has been larger in Chile, Brazil and Peru (see Figure 2). Furthermore, large mineral deposits in Chile (50% of world coper deposits) and Peru (16% of world coper deposits and 10% of world silver deposits) have helped make the region an attractive one for investment.

Figure 1: Mining Investment by Region (2010)



Note: The Bolivia figure is Foreign Gross Investment in mining. Data not available for Chile 2005, Peru 2009-2010, Argentina 2010 and Brazil 2010. Own Elaboration.
Sources: Central Banks of Argentina, Bolivia, Brazil, Chile and Colombia; Ministry of Economics and Finance of Peru.

What are the key differences that made this possible? Furthermore, how can countries make sure that the FDI they do attract can be transformed in such a way as to bring socially and environmentally sustainable development?

TRANSFORMING FDI INTO DEVELOPMENT: THE LATIN AMERICAN STORY

Though FDI is important for developing countries that need more resources to achieve their development goals, private sector investment itself does not necessarily - much less automatically - generate development. In this Brief, we explore some of the pre-conditions that can help transform FDI into more sustainable development, focusing on three in particular:

1. Maximising state capture of mining rents
2. Reducing negative environmental impacts
3. Reducing social unrest generated by increased inequality

The first two are related to developing a strong set of institutional capacities across the different levels of government. The third is more complex, but the Latin American response has been to distribute rents across local governments and to let mining companies deal with the challenge of employment.

Fiscal Policies to Capture Mining Rent

One way to maximise rent capture is by increasing the amount of mining investment, simply because it directly increases the number of taxpayers. To accomplish this, many countries have used stability agreements that assure that a given set of rules, mainly about tax schemes, will remain unchanged for a certain number of years. Once a mining project is operating, some countries make tax exemptions for the reinvestment of profits. Also, a country may give special agreements allowing for easier repatriation of profits.

In Latin America, there is no one set of incentives to promote FDI that has been implemented uniformly across the region, as Figure 3 shows. Furthermore, even for the same fiscal policy instrument, there is no standard set of rules regarding how it should be applied nor how it will work. For example, Argentina's fiscal stability only applies to certain mining projects and for a period of 30 years. While Chile sets tax invariability for a limited period of time, it allows mining companies to voluntarily choose a new tax regime in exchange for six additional years of tax invariability. This variation between countries is mainly due to trade-offs between incentives designed to maximise government revenues, attract investment and promote sustainable development.

[2] To learn more, read the ELLA Briefs Oil Industry Investment Policies and Gas Sector Investment Policies.

Figure 3: Fiscal Stability Regimes and Incentives in Latin American Mining (2010)

	Deductions	Exemptions for import duties	A limit on royalties	Accelerated depreciation of assets	Specific depreciation rules	Diesel credit	Fiscal stability
Argentina	X	X	X	X			X
Bolivia	X			X			
Brazil					X		
Chile							X
Colombia							X
Mexico	X					X	
Peru							X

Own Elaboration.
Source: PwC Global Mining Group. 2010. Income Taxes, Mining Taxes and Mining Royalties. PricewaterhouseCoopers, Phoenix.

Another way to increase the rent capture is to increase tax rates. However, a key constraint for low- and medium-income countries like those in Latin America seems to be the institutional capacity of governments to increase tax rates without losing FDI flows.[3] High-income countries like Canada and Australia have mining tax rates of around 50%, but the mining tax burden in Latin American countries is typically much lower, with rates of 30-35%.

Moreover, there is consensual agreement, stemming from reforms that took place in the 1990s, that fiscal stability regimes are needed to increase FDI flows. Creating fiscal stability regimes was a first step for bringing back credibility to a region that lacked public institutions. Brazil was an exception, though, as it was already a more developed country with more credible institutions.

One key way for Latin American countries, which still struggle to consolidate and sustain strong public institutions, to maximise mining rent capture, is to increase the number of rent-paying investors by implementing attractive investment policies. Strong public institutions seem to be necessary conditions for resource-rich countries to attract more responsible extractive investments as well.

Environmental Regulation

While enacting environmental regulation to protect against environmental damage resulting from mining activities is sensible and necessary, there is also a trade-off, as more regulations mean higher production costs for companies, which in turn may negatively impact FDI. This trade-off has not been the case, however, in high-income mining countries like Canada and Australia, as they have been successful in developing relatively strong environmental policies. Nevertheless, strong and sustainable environmental management is another variable that can affect FDI levels, which presents a challenge for Latin American and other low- and medium- income countries that depend on the mining industry.

Another way of preventing environmental damage is by identifying which mining companies are more environmentally responsible and trying to attract them. The more environmentally-focused companies are concerned about compliance with environmental standards like the Equatorial Principles or the IFC Performance Standards (see text box). Companies with less environmentally-friendly policies regard environmental restrictions as merely increasing their operating costs. Of course, these standards also include social and poverty-related dimensions, and thus are also relevant to the debate on the relationship between extractive industry development and poverty alleviation.

Having a strong set of environmental policies does not necessarily mean a loss of competitiveness, as countries are able to attract more environmentally-friendly investments precisely because of their environmental regulations. How can environmentally-friendly investors be identified? One way is through the International Council on Mining and Metals (ICMM) which promotes mining companies' compliance with environmentally and socially responsible practices. It does so by requiring members to subscribe to a specific agreement related to sustainable development principles, public reporting on performance of those principles, and independent monitoring of the agreement. Although the

[3] To learn more, see the ELLA Brief: Extractive Industries Tax and Contractual Frameworks.
[4] For an interesting critique of the ICMM mechanism, see: Fonseca, A. 2010. How Credible are Mining Corporations' Sustainability Reports? A Critical Analysis of External Assurance Under the Requirements of the International Council on Mining and Metals. *Corporate Social Responsibility and Environmental Management* 17: 355–370.
[5] A good example of the quality of ICMM research is the 'Mining Dialogue' set up jointly by ICMM and the International Union for Conservation of Nature (IUCN), which followed the initial work by these organisations within the 'Working Group on Extractive Industries and Biodiversity' (2004).

MINING INDUSTRY STANDARDS: ENVIRONMENT AND SOCIAL SUSTAINABILITY

Two important sets of standards – the Equatorial Principles and the IFC Performance Standards – outline the key practices mining companies should follow in terms of social and environmental safeguards:

Environmental: Controlling air emission, properly securing and disposing of hazardous materials and waste, reducing noise, minimising contaminated lands

Health and Safety: Being aware of physical, chemical, biological and radiological hazards, having appropriate safety equipment, improving structural safety, communication and prevention, controlling water quality and availability

Labour and Working Conditions: Maintaining and improving the worker-management relationship with fair treatment, non-discrimination and equal opportunities, promoting safe and healthy working conditions, complying with national labour and employment laws

Consultation and Grievance Mechanisms: Consulting affected communities in a way that is free, prior, informed, structured and culturally appropriate, facilitating their participation and offering grievance mechanisms

Indigenous Peoples and Cultural Heritage: Minimising adverse impacts on communities of indigenous peoples, protecting indigenous culture, knowledge and practices, having ongoing relationships with affected communities

Land Acquisition and Involuntary Resettlement: Minimising involuntary resettlement, ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected, maintaining and improving livelihoods and living standards of displaced persons

Transparency and Accountability: Having independent monitoring and reporting

Own Elaboration.
Sources: International Finance Corporation 2006; Equator Principles 2006.

behaviour of some ICMM member companies has indeed been contested,[4] most of the ICMM members are generally considered to be corporations that are more socially and environmentally responsible.[5]

Figure 4 shows how there were more ICMM members operating in Chile and Peru than in the other mining countries in Latin America. These two countries received large amounts of FDI in recent years, and they were likely discriminating among FDI flows, accepting investments from companies that are more socially and environmentally sound. More concretely, these kinds of policies do not appear to be discouraging FDI flows.[6] In fact, Peru and Chile have both been classified as very attractive for investment.[7]

Figure 4: ICMM members in Latin American Countries (2011)

	Argentina	Bolivia	Brazil	Colombia	Chile	Mexico	Peru
Total ICMM members	7	0	7	4	13	3	11

Own Elaboration
Sources: International Council on Mining and Metals (ICMM) website; Mining companies' websites.

Fighting Against Inequality

Achieving sustainable local development is not only made possible through responsible investment, but also through government policies. In Latin America, specific public policies aimed to ensure the presence of responsible corporate investment have been put forward, such as the establishment of social trust funds as a form of warranty.

In the Extractive Industry sector, a trust fund is basically an arrangement between the company and the government, in which a company contributes a sum of money that the government then allocates to the direct benefit of the local population. Peru, for example, has used social trust funds since 2003 to contribute to the development of territories directly affected by mining operations, in particular during

[6] "A positive relationship is found between the quality of the regulatory environment and mining companies' perceptions of a country's investment climate, as measured by the Fraser Institute's policy potential index (PPI)." Taken from: Waye, A. et al. 2009. Sustainable Development and Mining: An Exploratory Examination of the Roles of Government and Industry. In: Richards, J.P. (ed.). *Mining, Society, and a Sustainable World*. Springer, New York.
[7] Cervantes, M., Mc Mahon, F. 2011. *Survey of Mining Companies: 2010/2011*. Fraser Institute Survey, Toronto.

the exploration phase.[8] Through this mechanism, Peru reduces the number of potential investors, attracting only the ones that are willing to contribute to local development through the funds.[9]

The high revenue of the mining sector often contrasts with the poverty in nearby communities, especially in the poor, rural areas of Latin American countries where mining typically takes place. This disparity is seen as generating social unrest. In Latin America, the magnitude of these social demands has lead local people to stage large protests that have halted mining projects. The problem lies in the fact that many local communities feel that they are left with an insufficient share of the mining rent.[10]

The economic and social conditions of local communities can impact FDI flows, as companies are more willing to invest in countries where there are fewer socioeconomic tensions, as this Fraser Institute Survey shows. According to the survey, Chile ranked highest in Latin America by far, with Brazil and Colombia coming next. Countries which receive little FDI, like Bolivia, came in at the bottom of the survey.

From the point of view of the private sector, local employment has often been seen as the solution to local-level development and to reducing social tensions. Although new large-scale mining projects do not generate much direct employment, mining companies try to hire from the unskilled local labour force as much as possible (see text box).

For governments, distributing rents at the local level has been the most common way to distribute extractive industries income. Most of the royalties are spent through local governments. In Peru, the 'Law of Canon' establishes that half of the income taxes paid by extractive industries must remain in the hands of local governments. The results of these fiscal distribution policies leave much to be desired, however. Up to two-thirds of this money is spent on non-priority projects, which generate little new value added or capacity building capabilities. Lack of local government capacity is often judged to be the main constraint in making good use of mining rents.

THE LATIN AMERICAN APPROACH TO THE EMPLOYMENT DILEMMA

Direct employment generated by the Latin American mining sector reaches an incredibly small percentage of the Economically Active Population (EAP). On average during the recent boom, the mining sector employed around 1.4% of Chile's EAP, 1.1% in Peru and 0.1% in Brazil. In other words, for each one million US dollars invested in the Peruvian or Chilean mining sector, only one direct job was generated. Although there are no conclusive studies about mining investments' impact on indirect employment generation, preliminary findings, such as a study of the Antofagasta mining cluster conducted by Patricio Aroca in 2001, suggest it is very small.

Mining companies in Latin America, however, have attempted to increase local employment rates. One example of this is the case of the Non-Qualified Labour Force Programme (Mano de Obra no Calificada - MONC). For its Michiquillay project in the Cajamarca region in Peru, Anglo American reports that each month about 2500 people are employed under this programme. This means that almost every local person has worked for the company.

Local governments have also tried to generate more employment opportunities. For example, the Municipality of San Marcos in Peru, which receives a large portion of its income from Antamina, one of the largest copper mines in the Americas, has implemented the Plan Piloto. Around 20% of mining rents captured by the Municipality are set aside for this Plan. Technically, it is a Plan for infrastructure maintenance, but in actuality it has operated more like a direct transfer of funds to inhabitants of the district. The authorities pay around US$ 14 per work-day to every employee, which is about four times their earnings from working their land. The only requirement to be employed by this program is to be a San Marcos citizen above the age of 18. Though non-conditional cash transfers may provide temporary, mine-dependent relief, they do not address barriers for enhancing community development.

Overall, as both of these undertakings only provide short-term solutions, they do not address the root problem of low employment rates in areas near mining activities.

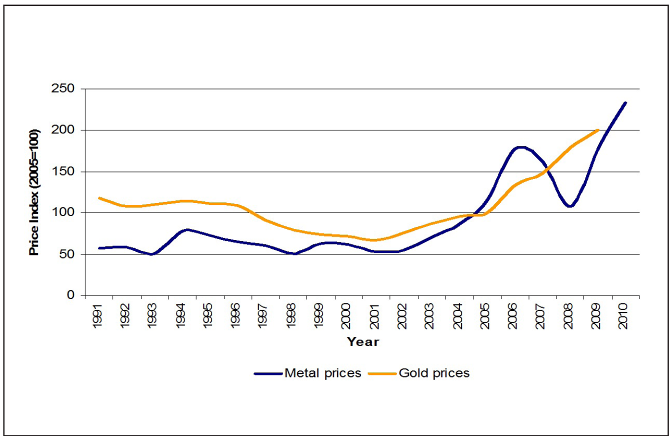
[8] Pelon, R., Wall, E. 2011. *Sharing Mining Benefits in Developing Countries. The Experience with Foundations, Trusts and Funds*. Extractive Industries for Development Series 21. World Bank, Washington, DC.
[9] See this publication to access additional case studies about Peru's use of social funds: World Bank. 2010. Mining Foundations, Trusts and Funds: A Sourcebook. World Bank, Washington, DC.
[10] To learn more about the Latin American experience in managing conflict, consult the knowledge materials developed as part of the ELLA Theme: Extractive Industries and Conflict Management.

CONTEXTUAL FACTORS

ENABLING THE LATIN AMERICAN EXPERIENCE IN MINING INVESTMENT

In the last decade, mineral prices have risen notably, as shown in Figure 5, with the only downturn occurring in 2008 as a result of the global economic crisis. This trend is primarily due to an increase in demand led by China. These price trends created incentives for more mining investments around the world.

Figure 5: Mineral Price Trends in the Last 20 Years



Notes: The metal price index includes Copper, Aluminium, Iron Ore, Tin, Nickel, Zinc, Lead, and Uranium Price Indices.
Own Elaboration.
Sources: International Monetary Fund (IMF); US Geological Survey.

Latin America took advantage of these prices and developed a large-scale mining investment portfolio. This has been possible primarily because the region is well-endowed with mineral wealth, despite the scarcity of detailed geological data which allowed countries to know exactly how these endowments are distributed. According to Metals Economic Group (MEG), Latin America's share of the world's mineral exploration budget has been increasing over time, with countries like Brazil, Chile and Peru in the global top-ten.

Corporations' increased interest in Latin America is not only due to the region's geological richness of the region, but also to the economic and policy reforms of recent decades. These reforms reduced barriers to capital entry. Additionally, attracting new investment was relatively easier due to the trend of rising mineral prices, as companies recognised the possibility of greater profits. This trend was also good for host countries because it allowed governments to ask for greater returns and better environmental and social management from the companies working within their borders. These contextual factors should be taken into account when considering the flexibility needed to attract foreign investment, as shown in the last decade's reforms.

LESSONS LEARNED

1 Latin American countries have been successful in attracting not only large amounts of FDI, but much of the FDI some countries have attracted has been of a high quality as well, as evidenced by the large number of environmentally and socially responsible companies investing in the region.

2 Additionally, designing mechanisms to promote poverty relief and to capture a larger share of mining rents can facilitate a positive, indirect impact of mining investment on local community development, as some Latin American countries have done.

3 Maximisation of fiscal revenues still remains a challenge. Economic incentives for attracting private investment, such as tax schemes, differ from one country to another. It is important to tailor the choices of such incentives to each country's context.

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