

# The Mining Boom in Latin America

Rents, Development and Democracy **BY FRANCISCO J. MONALDI**

**LATIN AMERICA HAS WITNESSED AN UNPRECEDENTED** natural resource boom in the last decade. The prices of many of the commodities exported by the countries in the region have dramatically risen over most of the last ten years. For example, the price of copper, below \$1 per pound in 2000-2003, rose above \$3 in 2006, and peaked at \$4 in 2011. As a result of the dizzying rise in prices, the region has experienced a windfall like no other in history, thanks primarily to the insatiable resource demand from the rising industrial economies of Asia, in particular the astonishing growth of China.

Latin America's gains from this commodity boom fall only behind the Middle East oil exporting region. In contrast to previous booms, this time more commodities and more countries in the region experienced a windfall, lasting longer than any previous episode. However, not all countries benefited equally. Benefits have varied significantly among countries: hydrocarbon producers like Venezuela (oil) and Bolivia (mostly gas, but also mining) gained the most in proportion to the size of their economies. Non-oil mining exporters like Chile (copper) and Peru (copper and gold) also benefited significantly, and some agricultural producers like Argentina and Paraguay got a significant boost too, mainly from soybean exports. Colombia profited from both an oil and mining boom (mostly coal). Some countries, like Mexico and Brazil, which export resources in abundance, did not benefit that much in net relative terms, because they also import a lot of other commodities and their economies are larger and more diversified. Mexico, Central America and the Caribbean were not net winners from the growth in China. South America in contrast was a clear winner.

The mining and commodity boom allowed Latin America to have the best

economic performance in decades, helping to increase public expenditures, reduce poverty and expand the middle class. Moreover, the sound management of the windfall in most countries implied that the financial crisis of 2008 did not significantly affect the region, a grand feat in a region prone to deep macroeconomic crises. The boom even brought popularity to most presidents in the region, and those who had the opportunity to run were easily reelected.

However, the macroeconomic and social achievements cannot hide the significant challenges and some negative effects of the mining boom. Increasing mining rents and increasing production bred conflicts between societal actors attempting to capture a share of these rents. Likewise, conflicts erupted about the negative effects of mining production over the environment (water, air and landscape) and the living conditions of local communities in mining areas.

And in the background of each country's policy agenda hovered the so-called resource curse. That phenomenon's economic challenges include maintaining competitiveness in non-resource sectors, management of the fiscal volatility, and the effective saving and productive investment of the windfall. Governance challenges also come up: avoiding authoritarianism, rent-seeking and corruption. Finally, sustainable development challenges must be taken into account, those arising from the exploitation of non-renewable resources that produce negative environmental consequences.

## CAPTURING THE MINING RENTS

The mining sector has characteristics that generate complex and sometimes tense relations between states and extractive companies. First, many mineral resources generate sizable rents in the international

markets. These are profits above the levels required to attract investment, i.e. above costs and a "normal" profit. Gold and copper production generates significant rents, although much less than oil. Other minerals, like zinc, silver, nickel, lead, iron, bauxite and tin, are also often a source of rents. According to the World Bank, in 2011, rents from mineral extraction (excluding hydrocarbons) as a percentage of GDP were more significant in Chile (\$41 billion, about 19 percent), Peru (\$17 billion, 11 percent), and Bolivia (\$1.3 billion, 6 percent). In Brazil they amounted to about 3 percent, small relative to the size of the Brazilian economy, but very large in absolute terms (\$67 billion). In Colombia (\$3 billion), Mexico (\$11 billion), Guatemala (\$0.6 billion) and Venezuela (\$3.5 billion), they were close to 1 percent of GDP, and in the rest of the region's countries less than 1 percent. Mining rents in some of these countries provide governments a significant source of fiscal revenues and are also a tempting target for other societal actors that would like to obtain a share.

However, rents are very volatile and vary from one mining project to another, depending on the type and quality of the mineral, the costs of extraction (which vary widely), as well as the location and transportation costs. The price of minerals is extremely volatile. For example, the price of copper was more than seven times higher in 2011 compared to 2003. As a result, is not easy to capture the rents in these very different conditions of profitability. Moreover, governments in the region typically employ unsophisticated taxation tools, like royalties, i.e. a share of gross revenues, which are ineffective at capturing rents when prices increase. In fact, most of the region's contractual and taxation systems have been typically regressive, so they capture

a smaller share of the profits as prices go up. The lack of more sophisticated taxation systems has been blamed on the governments' preference for simple instruments, which do not require a high quality bureaucracy and generate a more stable revenue stream. In addition, most of the existing mining contracts were signed when prices were very low and they were not properly designed to adjust government take when prices went up.

Another important characteristic of the large-scale mining sector—as opposed to the small, mostly informal mining—is the significant size of the so-called sunken investments that are needed for extraction and often long-term recovery (measured in decades). These are the large initial investments in exploration and development of a mine that cannot be redeployed elsewhere. As a result, producers are very vulnerable to changes in the taxes and regulatory conditions and the potential over-extraction of rents by the state and other societal actors. Since the producers' costs of operation are relatively less significant than the initial costs, they have incentives to keep operating the mines as long as they recover operational expenses, even if they do not recover the initial investments. For those reasons, the mining and oil sectors have been characterized in the past by cycles of investment and expropriation (or forced contract renegotiation).

The potential risk of expropriation and contract renegotiation makes property rights extremely important in the mining sector. In Latin America, the extractive sector has flourished in countries offering significant guarantees to investors: Brazil, Chile and Peru. Still, even in these countries there have been strong pressures to renegotiate mining contracts. The combination of high prices, regressive contracts and high sunken investments has provided fertile conditions for governments to ask for a larger share of profits.

The cases of Chile and Peru are illustrative of the challenges in capturing rents. According to ECLAC, in 2000, rents represented about 20 percent of the price of copper in Chile, while in Peru



**An abandoned mine shaft in the mountains north of Copiapo, Chile.**

production did not generate any rents at the time. After two decades of declining prices, taxes had been reduced to attract investment. By 2006, copper rents were above 80 percent in Chile and 75 percent in Peru, and in 2011 they were more than 90 percent in both countries, but in 2012–2013 prices and rents declined sharply. In 2006, the state was capturing only about 40–50 percent of the rents in Peru. In Chile, the state captured 90 percent of the rent generated in CODELCO, the state-owned mining company, but only 40–50 percent of the rents in private mining, which had rapidly increased to close to 70 percent of production. Pressures to increase the government take rose in both countries. But since they had given strong institutional guarantees of tax stability, it was hard to do, in contrast to Bolivia or Venezuela, where extractive industries were outright expropriated. The taxation

systems of Chile and Peru were only marginally changed after long negotiations with the mining companies. The balance between credibility and flexibility is not easy to achieve, but taxation systems can still be improved by making them more progressive and efficient.

Rising rents and large new investments also generated redistributive conflicts between subnational and national authorities, producing regions and non-producing regions, informal miners and governments, workers and companies, and between indigenous communities and both governments and mining companies. In some countries, the producing regions or municipalities capture a large part of the rents, making them the largest per-capita recipients of fiscal revenues. For example, in the case of Peru, 5 out of 25 regions concentrate 60 percent of the mining fiscal

receipts. Even though it makes sense to compensate producing areas for the negative effects of mining (pollution, congestion, etc.), in some countries the fiscal resources received by subnational governments far outweigh these costs, generating very large inequalities with respect to other poor non-producing regions. Mining regions often lack the capacities to manage their fiscal revenue booms, so they waste resources and cannot effectively execute projects. However, the fact is that societal actors that can disrupt production, such as local authorities, know that they have a powerful tool to extract concessions from the national government and the extractive companies. In Colombia, a constitutional reform enacted to take royalty revenues away from producing areas has generated significant discontent in these localities and some disruptions in production. The politics of resource rents has made it difficult for countries to implement more efficient and equitable systems for their allocation.

#### IS THERE A RESOURCE CURSE?

The idea of the existence of a resource curse originally referred to the argument

made by Jeffrey Sachs and other economists in the 1990s that resource-dependent economies had lower growth rates than the others. However, later studies showed that this held for the period 1970-2000, but not for longer time frames. In fact, the last decade has illustrated that abundant resources can be a macroeconomic blessing in times of high demand. Still, resource dependence creates many economic and institutional challenges, and the region has not escaped from them during this boom.

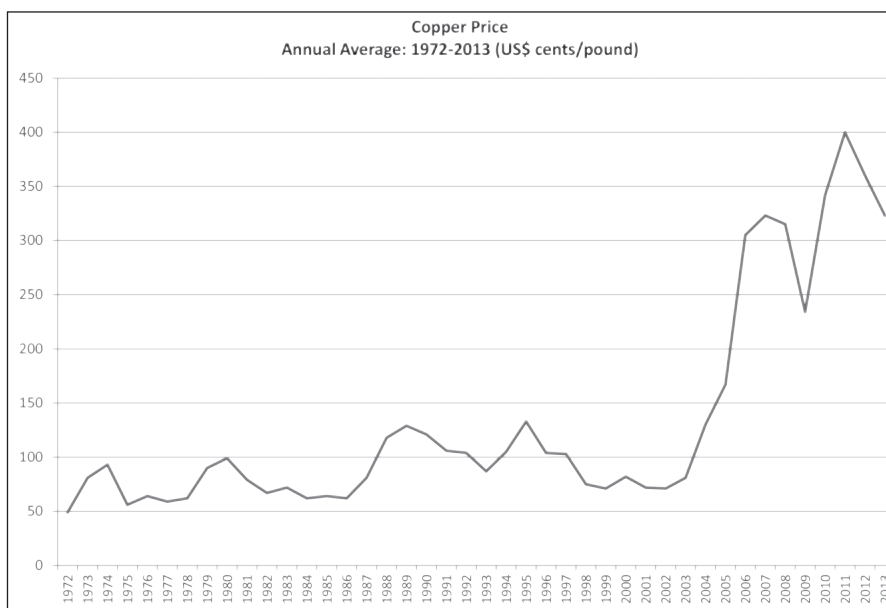
On the macroeconomic front some countries such as Colombia began to suffer symptoms of the *Dutch disease*—a decline in competitiveness resulting from the appreciation of the exchange rate produced by the inflow of mining rents. Although some countries used a significant part of the windfall to invest and save, an important part was spent in current consumption. In fact, in our region, savings were negatively correlated to the size of mineral rents. So the fiscal sustainability of the current spending levels is in question. If the price of commodities were to fall fast, as began to happen in 2012-2013, most countries in the region would have to make large macroeconomic

adjustments. Therefore, managing price volatility remains a big challenge. Chile and Peru, with their conservative fiscal policies and sound fiscal institutions for resource wealth management, are countries better equipped for this scenario. On the other extreme is Venezuela, with its very large fiscal deficits, even when the price of oil is at its peak.

The question remains about the sustainability of improvements. Can the countries in the region keep an economic growth largely based on mining and other commodity exports? History seems to suggest that without a more diversified economy, stronger capabilities and higher quality human capital, the recent growth acceleration would not be sustainable. How vulnerable are the new middle classes to a decline in commodity prices? The use of revenues from an exhaustible resource for current consumption reduced poverty rates across the region, but such gains may be soon partly reversed if rents decline. Long-term environmental sustainability of a resource-driven strategy also raises some questions, among them water management and global warming.

On the political side, many authors have claimed that resource rents promote authoritarianism and violent conflict. However, in the case of Latin America, these correlations have not held in the past. Nevertheless, in weak institutional environments, commodity windfalls can provide significant advantages to incumbents, who can use them to weaken checks and balances and the rule of law. Thus, resource windfalls may also represent a challenge for democratic governance. The governance challenge would be even more daunting if there is a collapse in commodity prices. The decline of the vulnerable middle classes could produce political instability across the region. Thus, we are still a long way from making our resource abundance a sustainable blessing.

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The annual average for copper prices has risen sharply since 1972, although the most recent tendency is to show slight declines.