IGF

INTERGOVERNMENTAL FORUM on Mining, Minerals, Metals and Sustainable Development

IGF Guidance For Governments:
Leveraging Local Content Decisions for Sustainable Development

CASE STUDY

CHILE: NATIONAL CAPACITY

CODELCO: MAXIMIZING MINING REVENUES FOR CHILE

OVERVIEW

LEVEL OF OPERATION:
National

GOVERNMENT ROLE:
Full responsibility

FOR MORE INFORMATION:
See Codelco website

KEY COMMODITIES:
Copper (world lead), iron ore, nitrates[1]

TOTAL NATURAL RESOURCE RENTS (AS % OF GDP) (2015):
12.2 per cent[2]

NATIONAL EXTRACTIVES COMPANY:
Codelco (copper mining)

UNDP HUMAN DEVELOPMENT INDEX VALUE (2016):
0.847 (Global Rank 38)[3]

As the world's leading copper producer, Chile's mining sector is a major driver of the country's economy, accounting for over 8 per cent of GDP in 2016. Chile has relied on tax revenues from mining companies and the state-owned enterprise (SOE) Codelco (along with good governance and strategic direction) to achieve remarkable social and economic improvements over the last four decades. Codelco has developed appreciable capacities as an operator, and today represents almost 10 per cent of global copper production, making it one of the world's largest copper producers.[4] However, the company's major contributions to the central government's income over the years have been made at the expense

[1] Central Intelligence Agency (CIA). (2017). *The world factbook*. Washington, DC: CIA. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/fields/2111.html

[2] World Bank Group. (2017). *Total natural resource rents (% of GDP)*. Washington, DC. Retrieved from https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS

[3] United Nations Development Program. (2016). *Human Development Reports: Chile*. Geneva, Switzerland. Retrieved from http://hdr.undp.org/en/countries/profiles/CHL

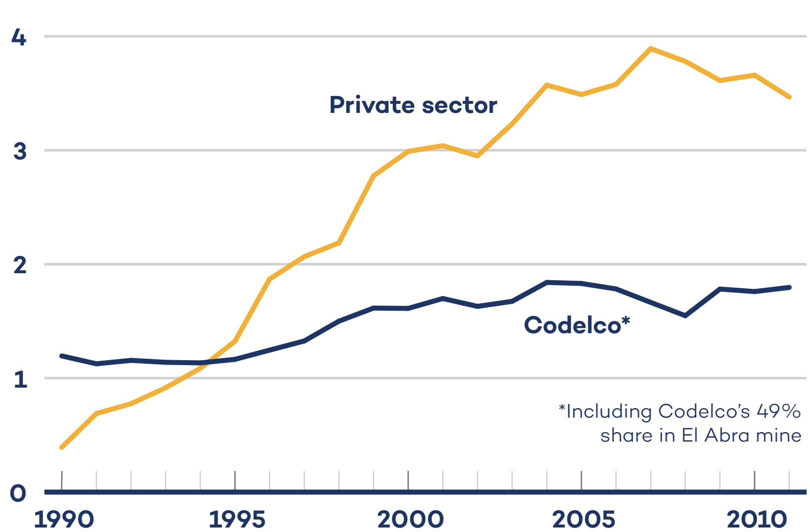
[4] Castaneda, F., Barria, D., & Astorga, G. (2015). *Is the OECD model suitable for strategic public enterprises in terms of national development? Reflections from CODELCO case, Chile* (CIRIEC Working Paper: 2015/18). Retrieved from http://www.ciriec.ulg.ac.be/wp-content/uploads/2016/02/WP15-18.pdf

of investment in its own productive assets, with some negative long-term consequences.

CODELCO AND THE CHILEAN COPPER SECTOR FROM THE 1970S TO TODAY

The Chilean government approved the nationalization of its copper sector, the "*Chilenización del cobre*," in 1971. Mining assets, mainly owned by American private companies, at Chuquicamata, Salvador, Andina, El Teniente and La Exótica became 100 per cent owned by the Chilean state through a process of nationalization. This expropriation was supposed to be based on the properties' book values; however, based on the argument of excessive profits reaped by the mines, the American companies eventually received very little or no compensation. In 1976, the role of developing local mining capacity was divided into two independent organizations: the *Comisión Chilena del Cobre* (Cochilco), a technical and advisory service agency, and the *Corporación Nacional del Cobre de Chile* (Codelco), the state-owned copper producer.

Figure 1. Chile's Copper Production (million tonnes)



Source: Cochilco.

However, the policy of full national ownership was reversed when the so-called "Codelco Law" of April 1992 authorized Codelco for the first time to form joint ventures with the private sector to work unexploited deposits. In 1995, Codelco invited domestic and foreign mining firms to participate in joint explorations in northern Chile. Thanks to continual amendments to the mining industry framework and an investor-friendly environment, the 1990s marked the beginning of a boom in Chile's copper mining industry, principally led by foreign direct investment (FDI). Foreign-owned private firms became increasingly important as new investment projects got underway.

According to Cochilco data, Codelco had only a 31.3 per cent share in the country's copper production volume in 2015. Of the 24 largest copper mining operations in Chile, 11 were controlled by Chilean capital (seven by the state-run company and four by private holding company Antofagasta Minerals), 11 mining operations (representing 49 per cent of total production, and including three of the four largest mines) were controlled by foreign capital, and two operations were of mixed Chilean and foreign ownership. Foreign players included Anglo-Australian companies BHP Billiton and Rio Tinto, Japanese companies (PanPacific Copper, Mitsui, etc.), U.S. companies (Freeport McMoran and Orion Mine Finance), British firms (including Anglo-American), Swiss company Glencore, along with Canadian and Polish companies.

THE ROLE OF CODELCO

During its initial five years under Chilean ownership, Codelco increased production by 50 per cent. The company was able to maintain competitiveness in underground and open pit mining—generating the production capabilities, technical and managerial skills necessary to take charge and drive operational performance, transform practices and build new projects. As a result, Codelco operates relatively efficiently, falling into the top quartile in terms of copper mining costs in the world (although this also likely reflects asset quality).

Since its inception, Codelco's contribution to the economy has been significant. The company does not have a direct developmental focus. Although it does get involved in supplier development programs (e.g., its partnership with BHP Billiton's World Class Supplier Program), it does not necessarily engage in more programs than a private miner. Instead its main contribution to socioeconomic development is through transfers to the treasury.

From the beginning, Codelco was expected to contribute significantly to the state treasury to "solve the socioeconomic problems of the country and future generations."[5] Between 1990 and 2010, Codelco was responsible for 11 per cent of total central government revenues.[6] The extent of Codelco's transfers appears especially significant when viewed in context, following the copper sector's reopening to private mining companies. For example, in 1996 Codelco paid USD 860 per ton of copper in taxes to the central government, while the private mines paid only USD 156 per ton.[7] Codelco operates on a different tax framework: it pays 20 per cent corporate income tax (consistent with private firms), but also a 40 per cent surcharge plus an additional 10 per cent specific mining tax (which goes to the military).[8] The split of the remainder of the profits is agreed between the company and the Minister of Finance. The low taxes paid by private mines suggests that they were able to achieve high levels of tax avoidance (by maximizing write-offs allowed in the tax code) and tax evasion (through transfer pricing), but also reflects Chile's drive for an investment-friendly environment, which led to a tax regime that did not collect significant revenue. For example, mining royalties were only introduced in 2005, and then set at only 5 per cent of profits. The government was therefore able to capture more of the resource rent through Codelco.

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Income generated from Codelco has been used to support the development of upstream mining linkages, R&D, skills development, diversification projects, health, pensions, disability support and innovation. This approach allowed the government to directly address its socioeconomic priorities through government spending rather than requiring the SOE to pursue secondary objectives, which can often reduce its ability to achieve its primary goal. It also reduces waste and politically motivated spending, as the budgetary process allows for greater transparency.

Codelco reported in 2016 that it has, since 1971, contributed more than USD 100 billion toward "the advancement of Chile through the building of hospitals, infrastructure, schools, housing, pensions, health care and social protections for the general public."[9]

5 Codelco. (2017). *Codelco 2016 annual report*. Retrieved from https://www.codelco.com/memoria2016/en/

6 Bande, J. (2011). Codelco's new corporate governance: 18 months after. Paper presented at the 2011 Meeting of the Latin American Network on Corporate Governance of State-Owned Enterprises, Bogota, Colombia. Retrieved from http://www.oecd.org/corporate/ca/corporategovernanceofstate-ownedenterprises/49260735.pdf

7 Cypher, J. (2005). The political economy of the Chilean State in the neoliberal era: 1973–2005. *Canadian Journal of Development Studies, Volume XXVI*(4), 763–79.

8 African Development Bank. (2015). *Chile's fiscal policy and mining revenue*. Retrieved from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/anrc/CHILE_CASESTUDY_ENG__HR_PAGES.pdf

9 Codelco (2017), Id. note 5.

FALLING ON HARD TIMES

Tapping Codelco's coffers for government revenue has not been without its challenges. When government priorities change, entities funded by revenue from Codelco have a vested interest in continuing to receive funding. The most obvious case is Codelco's contribution to the military: former dictator Augusto Pinochet mandated the transfer of 10 per cent of Codelco's export sales to the military (this represented USD 866 million in 2016). Repeated attempts to overturn this law have failed, scuttled by supporters of the politically powerful military.[10] In the run-up to the recent election in December 2017, both leading candidates have again pledged to overturn this law.

While the "military tax" is a special (and sensitive) case, it highlights the fact that politicians have short-term incentives to spend much of Codelco's revenue rather than reinvest it. This is exactly what happened: Codelco received only about USD 4 billion of the USD 100 billion in profits that it transferred to the state between 1971 and 2014.[11] This left Codelco without sufficient cash flow to reinvest, leading to a decline in facilities and infrastructure, some of which did not keep up with evolving mining standards, and in many cases became obsolete. This occurred at a time when Codelco also faced lower grades of copper.[12] As a result, the company's production stagnated in the 2000s. Failure to reinvest meant that the company fell behind the technology curve. Furthermore, profits were impacted by expensive inputs and overstaffing that pushed up costs—another threat that is always present in state-owned enterprises.[13] A fiscal rule was introduced in 2001, and structural budget policy in 2006, both aiming to overcome the "time-inconsistency" problem by binding policy-makers ex ante to a certain course of action. Those brought more budget stability, but still required "excess revenues" to be shifted from Codelco to the government and the sovereign wealth fund. By 2009, it was clear that Codelco would need to be restructured and recapitalized.

In 2010, Congress approved a new Codelco corporate governance structure, partly as a condition to Chile joining the OECD. Important changes included standards related to the disposal of assets, in addition to the composition of the board: giving it more independence from the government ("state-owned" rather than "government-owned," thus de-coupling it from the political cycle), professionalization (no government officials and introduction of specific qualification requirements), and broad representation (including workers). These changes aimed to foster a longer-term view in the company's development plans, improve reporting and transparency, and ensure adequate capitalization.

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Codelco investment needs over the 2015–2019 period have been estimated at approximately USD 20 billion, at a time when low copper prices are already placing a strain on Codelco and Chilean government revenues. Aggressive cost reduction efforts were introduced in 2014, followed by a "2020 Strategic Productivity and Cost Agenda" in 2016. In that year, Codelco faced its worst crisis when the international price of copper collapsed.

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[10] Sherwood, D., & Cambero, F. (2017). *Whoever wins election, Chile state copper giant may get boost*. Reuters. Retrieved from https://www.cnbc.com/2017/11/22/reuters-america-whoever-wins-election-chile-state-copper-giant-may-get-boost.html

[11] Wilson, L. (2014). Codelco ousts chief executive after strategy clash. *Financial Times*. Retrieved from https://www.ft.com/content/e2c73016-ed6e-11e3-abf3-00144feabdc0

[12] Codelco. (2015). *Annual Report 2015*.

[13] The Economist. (2010). *Reviving Codelco*. Retrieved from http://www.economist.com/node/17311933

For the first time, it was not able to transfer surplus to the state for two straight quarters. The company is hoping to overcome this unfavourable situation through operational excellence and productivity and turn the crisis into an opportunity to confront future challenges. In any outcome, Codelco's push to retain a higher share of its revenue to reinvest (what it calls a "normalization" in its financial relationship with the state) necessarily means less revenue to the state.

KEY LESSONS

- SOEs can generate valuable tax revenues for the state, which can spend them according to its socioeconomic priorities. SOEs do not have the incentive for tax optimization that a private firm has, and thus the state is allowed to capture more of the resource revenues.
- This model should allow the SOE to focus on its core mandate (in Codelco's case, copper mining) instead of launching into ventures to grow industrial capacity or socioeconomic development. Attaining a sustainable level of production and productivity is important for the SOE to be viable and to generate revenue for the state.
- It is also critical that the SOE be able to invest in technologies and infrastructure to remain productive. This may lead to divergent incentives between the SOE and government but is ultimately a tradeoff between short- and long-term benefits. Short-term underinvestment will have negative long-term competitiveness—and eventually revenue—consequences.

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