



## Chile's Nationalization of its Lithium Mines: The way to go?

In a recent Peterson Institute working [paper](#), ZENO-Indices were used to analyze the control of the mining industry of critical minerals. It stressed the “importance of understanding who controls vital parts of the global supply chains of critical minerals and rare earth elements (REEs)” and concluded that “China’s control over the global value chains involving critical minerals and REEs extends beyond what is commonly assumed.”

Last April, Chile announced the nationalization of its lithium mines. There are many ways to nationalize an industry and Chile opted for taking 51 % of shares in all mines on its territory through a public national holding (as in most countries – but not the US - what is underground belongs to the authorities, irrespective of who is the owner of the land at the surface). The announcement has raised worries about the supply of lithium, a critical element for the production of batteries for electric vehicles, perhaps making the transition to non-carbon energy more difficult. There are geopolitical concerns too, that government control over the Chilean lithium production could add to the vulnerability of supply chains. There are also economic concerns: nationalization could introduce production and distribution inefficiencies.

**Geopolitics:** It is clear that the Chilean nationalization will *lower* the vulnerability of global lithium supply chains by lowering China’s control over lithium. Those worried by the smooth functioning of free trade should sigh in relief, even if Chile increases its own control over the World lithium supply. There is a bit more than that though and ZENO Indices can be helpful in understanding the issue:

- As of 2020, Chile had the world’s largest reserves of lithium, followed by Australia, Argentina, and China. It is the second largest producer; Australia is first; China is third. There are two main lithium mining companies in Chile: SQM and Albemarle. The move by Chile follows the recent acquisition of 24% of the shares in SQM by a Chinese group (Tianqi). That acquisition brought Tianqi at 44% of SQM and had threatened the stability of the so-called Pampa Group (an association of shareholders who together hold 50.4%) that had controlled SQM until then. In the Peterson Institute working [paper](#), we had assigned total control (ZENO Index of 1) to the Pampa group while noting that the situation was unstable (see Table 9). If the Pampa Group had broken up, Tianqi would have gained control (ZENO Index around 0.9 depending on what alliances would form).
- In the case of **Albemarle**, the situation is different. It is controlled by large passive funds based in the United States that hold a small percentage of shares (e.g. Vanguard is the largest shareholder with 12% of the shares and that is enough to give it some control with a ZENO Index of 0.5). Still, large share blocks in Albemarle can be considered liquid and they could potentially be purchased by other investors who could thus acquire, relatively easily, a controlling stake. The fact is that US-based investors in Albemarle (as in other mines of critical material) are often passive investors (that “passivity” is discussed in the Peterson Institute working [paper](#)), not

actively involved in the management of the firms where they invest, and ready to sell if the price is right. From that point of view, US strategic interests are not well protected from outside acquisition.

**Let us now turn to economic inefficiency.** On balance, we think that the proposal to take 51% of the shares in Lithium mines through a public national holding is excessive and the next steps will be critical. Take the example of Mexico. Also concerned by its lithium reserves falling into foreign hands, the authorities have made a number of announcements and passed a law in 2022 declaring its lithium's deposits a national property and establishing a state company (LitioMx). However, since then, there has been a “notable lack of clarity in institutional policy on the issue” as stated by A. Azamae ([Mex](#)) and some question the role of LitioMx. Can it be more than an additional administrative layer interfering with management? The question of public control and ownership also strikes a chord home (in Chile) as CODELCO struggles in the copper sector ([Copper](#)). CODELCO is fully owned by the State and its output has steadily fallen since 2014 with a current level that is below that of 25 years ago. There are technical reasons for this (density is lower and copper harder to extract) but one cannot help thinking that inefficiencies associated with public ownership are playing a role.

**A stake of 51% is too much.** The Chilean government could have substantially controlled the company with less (see [ZENO](#)), but since substantial control typically comes with management responsibilities, it might not be desirable. Chile could have protected the interest of its population with even less. What matters is that the authorities keep a stake that reflects that interest within the shareholding structure, not one that makes them responsible for the management of the extraction process.

**A blocking minority of 25% would have taken care of the interest of the population and the geopolitical interests of preventing an obstruction of global markets and free trade would have been equally, if not better, achieved.**

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