

# CHILE'S ECONOMIC IMPORTANCE IN THE 21ST CENTURY

## LA IMPORTANCIA ECONÓMICA DE CHILE EN EL SIGLO XXI

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**Abstract:** Chile is one of the most geographically isolated countries in Latin America. Despite sharing a similar colonial history and natural resource driven development story with its neighbors, it remains one of the most unique examples in the region. Like many Latin American countries, Chile is cursed by an abundance of natural resources and is heavily reliant on copper as its main export product. Unlike many of its South American counterparts, Chile is very energy commodity poor, meaning they must import much of their energy. Furthermore, Chile's economy is not highly complex and it trades mostly with the United States. In the last decade, however, a new player has entered Latin America and is taking the region by storm, buying whatever it can, leaving the region indebted to it: China. Despite Chile's high level of development, China has had its hand in Chile as well, especially in the mining sector. This paper will explore Chile's copper industry and the lack of depth in the energy sector, as well as the increasing role China is playing to fill the energy supply demand gap in Chile.

**Keywords:** Energy, Renewable Resources, Economy, Development, Copper.

**Resumen:** Chile es uno de los países latinoamericanos más aislados geográficamente.

A pesar de compartir con sus vecinos una historia colonial similar y un desarrollo impulsado por sus recursos naturales, sigue siendo uno de los ejemplos más singulares de la región. Al igual que muchos países de América Latina, Chile padece de una abundancia de recursos naturales y depende en gran medida del cobre como su principal producto de exportación. A diferencia de muchos de sus homólogos sudamericanos, Chile es muy pobre en productos energéticos, lo que significa que debe importar gran parte de su energía. Además, la economía de Chile no es muy compleja y comercia principalmente con los Estados Unidos. En la última década, sin embargo, un nuevo actor ha ingresado a América Latina y está tomando la región por asalto, comprando todo lo que puede, y dejando a la región endeudada con él: China. A pesar del alto nivel de desarrollo chileno, China también ha intervenido en Chile, especialmente en el sector minero. Este documento explorará la industria chilena del cobre y la falta de profundidad en el sector energético, así como el papel cada vez más importante que juega China para llenar la brecha de la demanda energética de Chile.

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**Palabras clave:** Energía, Recursos Renovables, Economía, Desarrollo, Cobre.

Chile is a country of about 18.2 million people with 90% of its population concentrated in the middle one third of the country (World-o-Meters (s.f.)). Santiago is the true capital of Chile, but similar to Bolivia, government power is shared between two cities, Santiago and the port city of Valparaiso. The northern and southern regions of Chile remain sparsely populated and isolated, despite the pull of tourism to the Atacama Desert and Torres del Paine in each region, respectively. Unlike Northern Andean countries, only about 9% of Chile's population is indigenous, most of whom live in the south in small groups (CIA (s.f.)). Despite this small proportion, indigenous groups have fought for land rights and autonomy against big business and extractive industry in Chile. Like most Latin American countries, Chile is over 60% Catholic, although this number is decreasing steadily as the country, and as a region in general, becomes more liberal and transitioning to be more atheist and non-religious (CIA (s.f.)). Chile boasts incredible natural diversity because of its unique shape and length. From the freezing winters and snowcapped peaks in Punta Arenas to the blazing summers on the beach in Arica, Chile has a little bit of everything. In addition, its vast coast allows it to easily trade both north towards the United States' West Coast and around the tip of South America to Brazil and beyond.

Like most Latin American countries, Chile is cursed (or lucky? The jury is still out.) with an abundance of natural, primary and secondary, resources throughout its long snake like body. Despite this being the case, Chile has a fairly robust, albeit not very diverse, economy when compared to its South American neighbors. Chile also possesses a very high GDP, about \$13,700 per capita, compared to other Latin American countries and has experienced high rates of poverty reduction in the last few decades (Trading Economics (s.f.)). Unlike, Argentina, Chile has also experienced economic stability, which some have dubbed the Chilean miracle in recent years (The World Bank (s.f.)). However, for Latin American countries economic stability and success is contingent upon the prices of international markets for primary commodities. For Chile, this means the cost of copper, which has experienced stable and constituent high prices over the last ten years (InvestmentMine: Mining Markets and Investment (s.f.)).

This paper will focus on the importance and dominance of the copper industry in Chile and how the country has expanded its international markets in the 21st century. Particularly, it will focus on the vulnerability of Chile's export incomes and its lack of energy security because of its reliance on a single commodity export market and continued reliance on energy imports. It will also explore the changing global order that has become all too apparent in a region, which has long been under the influence and watchful eye of the United States.

Chile's economic components and makeup are dominated by the copper industry. Today, copper and copper products make up over 50% of the country's export economy (Observatory for Economic Complexity (s.f.)). This income is then mostly used to buy refined oil, cars, and mechanical and technological goods. Being a country with small manufacturing capabilities, Chile must import most machines and specialty goods from abroad (Observatory for Economic Complexity (s.f.)). In addition to relying heavily on added value imports, the country is extremely energy poor, the poorest in the Southern Cone region, meaning it must import large amounts of energy commodities, both refined and raw, in order to meet demand. Chile's energy sector and dependence on imported energy products will be explored in further depth later in this paper.

In the past, Chile's largest trading partner has been the United States, but in recent years China's purchases have soared and now account for about 28% of the Chile's exports, while the United States' market proportion, as a destination for Chilean exports, has fallen to only 14% (Observatory for Economic Complexity (s.f.)). A similar story is to be seen for Chile's import origins. Similar to exports, Chile's largest import trading partner in the past has been the United States, but China's share has risen to take over a greater share of the market. China now accounts for almost 25% of Chile's imports, while the United States accounts for 18% (Observatory for Economic Complexity (s.f.)). These trends show China's increasing role in the region and the changing global order for influence and power in Latin America and the Caribbean. While Central America, the Caribbean, and Mexico still largely look to the US for trade and support, the Southern Cone has begun to deviate from the US and shift their commodities to a hungrier market across the Pacific. China has begun to take charge in all developing regions, pouring investment into the development of infrastructure and natural commodities. This increased influence has allowed China to quietly edge out the reigning global hegemon in many regions, including South America.

Chile's Latin American trading partners now account for the smallest proportion of the country's trade market, in both imports and exports. With the continued rise of China in the region, the role of Chile's regional trade partners becomes more uncertain. Despite the boom of commodities and Chinese demand in the 1990's and early 2000's and the more recent slight decrease in consumption, it is largely impossible to imagine a significant overall decrease in China's market share in Chile, and Latin America as a whole, in the future. Does China mean a significantly decreased market share for other Latin American countries moving into the future? Has Chile moved away from its regional partners to reap the benefits of trading with Asia? Today, Asia as a region is Chile's largest trade partner. Furthermore, Asia, more specifically China, has become South America's largest trade partner, meaning a larger cultural influence as well as increased power. With increasing demand in Latin America for basic commodities as well as high added value manufactured goods, will China become a greater influence in the region than it already is? The latter part of this paper will address these questions and concerns regarding the fate of Chile and the Latin American region in the wake of China.

First, the copper industry is Chile's lifeblood, its profits largely funding government programs and ensuring higher GDP for the country. The Chilean copper industry is concentrated in the north of the country around the city of Calama in the Atacama Desert, and accounts for about 30% of total global copper production. The largest copper mine in the world, the Escondida mine, is located in the northern region of Chile, along with several other slightly smaller metal mines (The Balance (s.f.)). Like most large mines, the Escondida mine is jointly owned by multiple corporations in order to satisfy the high costs of producing copper. Despite these high costs, most copper is refined by the mines themselves instead of being refined in alternative locations. Unlike other basic commodities, like oil and coal, which are usually transported to refineries separate from the extraction site, copper remains a more consolidated business.

Copper was nationalized in Chile in July 1971 by leftist president Salvador Allende giving the government full control over the industry and edging out US companies and investors Tesar, C.J. & Tesar, Sh. (1973). As many Latin American countries did during this time, nationalizing certain industries allowed complete political domination over sectors that had previously been open to international investment and ownership. Allende wanted Chile's most prized industry under the control of the people instead of in the hands of foreigners. Still today, the copper industry is Chilean, and its profits belong to the Chilean people. Despite Allende's overthrow and death during the golpe militar, Pinochet continued the copper nationalization policy, although he made allowances for private exploitation, as well. Today, the copper industry remains nationalized, however an article in the Chilean Mining Code allows international investment and exploration. The clause states "the State has absolute, exclusive, inalienable and imprescriptible ownership of all mines" but also allows that anyone may search or prospect for mining resources in Chile<sup>2</sup>. This law allows the Chilean government to continue regulating the industry and control the practices of extraction but does not leave the burden of exploration completely on the Chilean government.

By allowing international exploration and extraction of copper, Chile essentially exports the costs of doing so itself. If an international company or corporation discovers copper, the Chilean government retains ownership over that copper, but the company is allowed to extract it, in coordination with Chilean law. By following this type of model, Chile is assured income but without the heavy expense of exploration and discovery. This policy is popular in Latin American countries especially in regard to the largest natural resource markets. In comparison, the United States' laws state that if a private owner discovers oil, or another commodity, on his property, that commodity and its profits are also owned by him. That private individual may exploit the said resource or not, the government has no ownership or ability to pursue extraction without first buying the property. The US is the exception to the rule. In contrast, if copper is found in Chile on private property, the government has the right to mine and extract that copper without permission of the owner.

<sup>2</sup> Chilean Mining Code.

These laws have made it difficult for the indigenous populations living in the north of Chile. The Atacameños have been pushed around by big mining corporations and have been largely left out of the debate, as many indigenous voices have been silenced in Chile throughout the years. The high need for water to mine copper has all but disappeared the local water supply for northern cities. As in Cochabamba, Bolivia, the fight for water has been futile in northern Chile. The small towns around the mines are forced to buy bottled water, driving up the cost of living, while the mines suck every natural water source dry. Today, the town of San Pedro de Atacama survives on tourism, without which it would suffer economically. The indigenous Atacameños harvest scrap copper to make and sell jewelry, while others run tourist agencies that teach visitors about the indigenous history and unique landscape of the desert. Indigenous groups have maintained control over the protected Atacama Desert area, but the mined areas have caused widespread destruction in the area.

As an industry, copper accounts for over 50% of Chile's export market, or about 50% of Chile's export profit. With such high dependence on one market to fuel the domestic economy, Chile is vulnerable to swings in the global price of copper and copper products. Fortunately, over the past ten years, Chile has experienced high international copper prices allowing the government to capitalize on social spending programs, especially in light of student protests in the early 2000's. However, this price could change in a moment's notice leaving Chile underwater. Unlike some basic commodities, copper has a fairly inelastic demand because it is needed for the inside of electrical wiring, its largest market. As technology evolves it is possible that copper will become less prevalent in the future, however at present this is not the case. This being true, copper exploration and discovery is the biggest threat to Chilean copper. The more active mines there are in the world, the higher supply for an industry with the same demand, creating a decrease in prices. Luckily, many of the world's largest discovered and developed mines are located in northern Chile.

As mentioned earlier, Chile is home to about 30% of global copper production meaning they have a substantial influence on the market. However, despite their market share, Chile cannot completely control the global price of copper. As mentioned earlier, Chile has been experiencing an economic "miracle" within its country, thanks to high copper prices, as neighbors like Argentina have consistently faced economic turmoil, high inflation, and economic stagnation. Chile has retained a strong and stable economy. However, if there were to be a large drop in the global copper price, the impacts on the Chilean economy could be dire. With over 50% of export income stemming from copper and copper products, even a slight decrease in global copper prices could turn the country to economic decline. Dependence on a single commodity for income is not the best way for a modern, developed country to remain economically successful. Like Cuba and its continued reliance on sugar production and export, a one commodity economy struggles to be successful. In comparison to

other South American countries, Chile is less complex. As previously discussed, they rely heavily on copper and copper products and have not developed a strong domestic manufacturing sector. Furthermore, their energy sector is extremely vulnerable to price hikes and international disturbances. Chile's energy insecurity will be discussed further in the next section.

Energy insecurity and collapse is one of the largest threats facing Latin America as a region today. Demand is rising exponentially and, unfortunately, supply is not following in tow. Latin America, even for more energy independent countries, has begun to rely more heavily on imported energies to meet the growing demand, and the same is true for Chile. As mentioned briefly at the beginning of this report, Chile is extremely energy poor. The country focuses much of its resources curating to the bread winning copper industry in the north of the country. Thus, the country has not focused on developing energy industry within the country. In comparison to its Southern Cone neighbors, Chile does not have large hydro power capacity, nor does it produce significant amounts of oil or gas for energy.

The largest source of energy within the country comes from combustibles, the burning of wood and other trash, at about 24% of the total supply of energy, which is significant for a country that is over 85% urban<sup>3</sup>. The next largest source of domestic energy production is coal, which consists of about 7% of total energy supply for the country<sup>4</sup>. The domestic supply of coal is coupled with the importation of coal and when combined, make up almost 27% of Chile's total energy supply<sup>5</sup>. It is interesting that over one quarter of Chile's energy supply comes from coal as the region is not naturally blessed with large amounts of the commodity. Latin America, in general, has a plethora of natural gas and oil but does not boast high coal reserves as China and the US do, for example. This natural limit allows the region to be the cleanest, in energy terms, in the world as coal is the dirtiest fossil fuel of the three basic fossil fuels (oil, coal, natural gas). Despite this, Chile remains fairly reliant on coal as a major commodity to create energy and even electricity.

In addition to the largest domestic sources of energy (combustibles and coal), Chile produces small amounts of hydro, natural gas, crude oil, and solar and wind power to create energy and electricity. However, all together these sources account for less than half of the total energy supply for the country. Chile imports over 50% of its total energy consumption from abroad, and is made up of more coal, natural gas, and crude oil. Chile also imports large quantities of oil products, crude oil that has already been refined and transformed into more easily consumed goods. Most, over

3 IDB Energy Database.

4 IDB Energy Database.

5 IDB Energy Database.

80%, of crude oil and oil products are imported into Chile from the United States (Observatory for Economic Complexity (s.f.)). Overall, Chile's energy matrix, both imported and domestic sources, is highly concentrated on fossil fuels. Chile relies on natural gas, crude oil, and coal for almost 70% of its energy supply, showing that it does not have a very diverse energy makeup. The remaining 30% of energy supply is mostly combustible energy sources, which are extremely inefficient and have negative effects on the environment.

Such heavy reliance on three sources of imported energy makes Chile vulnerable to global price swings in fossil fuel commodities, as well as vulnerable to the overall supply of these commodities. Furthermore, Chile already faces high electricity and gas prices, pushing many to live without heat. A hike in prices would exaggerate this problem further, hurting many in the lower classes and forcing them to live without any heat. At present, Chileans die even in big cities as cold fronts move in because of the high electricity and propane prices. As neighboring countries face increased demand for the same energy sources that Chile imports from those countries, it will be more expensive and harder for the country to maintain such high external energy sourcing, leaving its population to struggle with higher costs of living, while still receiving similar wages.

When compared to its neighbors, Chile does not have a diverse energy profile. They are heavily reliant on fossil fuels and have not invested enough in alternative energy sources. The vast deserts in the north where sun and wind are prevalent provide ample space for wind turbine factories and solar fields. Chile must invest in these technologies and begin to develop renewable energy industries, or their energy status quo could be hurt by external factors. For example, if the international price of copper dropped at the same time as the price of oil and oil products skyrocketed, the country would struggle to purchase enough oil to satisfy demand for both basic energy needs and electricity needs. Of course, Chile has a rainy-day fund provided by copper profits, but if prices such as these persisted, the government would face difficulties in providing enough energy to supply the country's ever growing demand. The energy insecurity of Chile is worrying in today's world of increasing demand for basic commodities. As the global south begins to modernize and develop further, the risk of energy shortages becomes larger for everyone. Without developing a domestic energy sector, Chile is highly vulnerable to these challenges in the future.

Despite being naturally well-endowed and strategically positioned, Chile faces vulnerability from its one commodity copper market and insecurity from its energy matrix. As mentioned above, Chile's economy has been dubbed the "miracle" by many scholars in recent years, however, one change in international prices could push Chile over the edge into economic decline. The nationalized copper industry can withstand some shocks as it is backed by the government, but the extensive focus on this market

instead of the diversification of the country's products as a whole could hurt Chile in the future.

Many scholars argue on both sides of the resource curse debate, yet history has shown that a one market economy is the sure way to lead to economic and political instability. Chile's energy matrix is just one sector that has suffered from this specialization. Chile is not energy efficient, nor do they boast a diverse and well-rounded energy profile. Without diversification and the development of an energy, preferably renewable, sector at home, Chile could face hard times as demand for energy resources increases both domestically and globally. Chile's increased dependence on China for both commodity imports as well as exports, could be an answer to its energy vulnerabilities, but China is already moving towards non-transferable renewable energies like solar and wind. China's demand for copper and other raw materials has also begun to decrease in recent years as the country's development slows. With decreased demand for the major lifeblood commodity of the Chilean economy, the miracle economy might not be as successful and face similar challenges as its neighbors have in the future. What the future will bring for Chile is uncertain, but it is time that the country capitalizes on the current strong price of copper and invest in other industries domestically, especially in the energy sector.

## REFERENCES

Observatory for Economic Complexity (s.f.). Chile. Accessed July 18, 2018. <https://atlas.media.mit.edu/en/profile/country/chl/>

Trading Economics (s.f.). Chile GDP per Capita. Accessed July 18, 2018. <https://tradingeconomics.com/chile/gdp-per-capita>

The World Bank (s.f.). Chile Overview. Accessed July 18, 2018. <http://www.worldbank.org/en/country/chile/overview>

CIA (s.f.) The World Fact Book-Chile. Accessed July 18, 2018. <https://www.cia.gov/library/publications/the-world-factbook/geos/ci.html>

InvestmentMine: Mining Markets and Investment (s.f.). Copper Prices and Copper Price Charts. Accessed July 17, 2018. <http://www.infomine.com/investment/metal-prices/copper/>

Lewis, Barbara and Mitra Taj (s.f.). Chile copper industry urged to adopt sweeping changes. Accessed April 4, 2017. <https://www.reuters.com/article/us-chile-copper-bhp-idUSKBN17610E>



Mansharamani, V. (2016) Column: Its copper industry dulled, Chile's future still looks bright as a penny. PBS. <https://www.pbs.org/newshour/economy/column-chiles-copper-future-is-bright>

Martinez, R. (2008). Chile mine workers want nationalization debate. Reuters. <https://www.reuters.com/article/chile-mining/chile-mine-workers-want-nationalization-debate-idUSN1144866820080711>

Tesar, C.J. & Tesar, Sh. (1973). Recent Chilean Copper Policy. Geographical Association, 58(1), pp. 9-12. Accessed July 18, 2018. [https://www.jstor.org/stable/40567857?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/40567857?seq=1#page_scan_tab_contents)

Sucre, C. & Espinasa, R. Southern Cone Energy Matrices. Inter-American Development Bank, Energy Database. Accessed July 17, 2018.

World-o-Meters (s.f.). Accessed July 18, 2018. <http://www.worldometers.info/world-population/chile-population/>

The Balance (s.f.). World's Largest 20 Copper Mines. Accessed July 18, 2018. <https://www.thebalance.com/the-world-s-20-largest-copper-mines-2014-2339745>