Miner Econ
https://doi.org/10.1007/s13563-017-0124-9

ORIGINAL PAPER

Mining nationalization and privatization in Peru and in Chile

Gustavo Lagos[1]

Received: 17 September 2017 / Accepted: 24 October 2017

Abstract The nationalization process of mining companies was a global issue from the beginning of the twentieth century. It first occurred in Europe for diverse reasons and at the end of the 1940s, it reached developing countries. The cause for nationalization in the latter was dominated by the search to recover a national patrimony and to regain sovereignty in countries where mining weighed too much economically compared to other activities. Transnational corporations generated so much of exports, taxes, and GDP in these countries that governments had very little room for devising national policies. The future of countries was decided in the secret of foreign board rooms of these companies, without consultation to national governments. Nationalization was also driven by the belief that by managing mining resources, the countries would accelerate economic development. Peru and Chile, indisputable leaders in mine production, experienced nationalization at the end of the 1960s and beginning of the 1970s, but the outcome was very different in each country. This paper explores the successes and failures of mining nationalization in Peru and Chile, and how the outcomes influenced mining policy during the following decades.

Keywords Mining · Nationalization · Privatization · Peru · Chile · Copper companies

Introduction

Nationalization of mines took place in many countries during the twentieth century. First, it occurred in the newly born centrally planned economy (CPE), created with the Russian Revolution in 1917, whose influence did not take long reaching the shores of Latin America. In the 1920s, communist parties were created in most Latin American countries and the idea of State ownership of the means of production installed itself in the social debate (Hobsbawm 1987).

During the early twentieth century in Europe, however, causes different from ideological motivations lead many countries to nationalize different industries, according to Bel (2010), and it would seem that economic disruptions created by the Great Depression may have been the most important one.

For instance, the Weimar Republic partially or totally took over several mining companies in the early 1930s and these companies were later privatized by the Nazi regime during the late 1930s (Bel 2010).

The new constitution created at the birth of the Republic of Indonesia in 1945 established that natural wealth belonged to the State. Three State mining companies for tin, coal, and other minerals were created from nationalized Dutch firms (Wiriosudarmo 1988). The fate of each of these companies was diverse in the second half of the twentieth century. For instance, tin was crucial for providing dollars to the economy until the 1970s when oil begun to be produced and dominated the national economy. The 1985 tin crisis, when the market collapsed due to high prices established by the International Tin Council, threw this industry into disarray globally (Strauss 1986, Trouble in third kingdom, Mining Journal Books Ltd., London, UK). Because of its social and economic role since colonial times, tin remained important in the country but its economic clout was lost.

In 1946, the UK passed the Coal Industry Nationalization Act and France created the State Company Charbonnages. These companies were privatized many decades later.

✉ Gustavo Lagos
glagos@ing.puc.cl

1 Department of Mining Engineering, Pontificia Universidad Católica de Chile, Av. Vicuña Mackenna 4860 Macul, Santiago, Chile

Published online: 20 November 2017

Nationalization occurred in Poland and in other Central European States occupied by the USSR in its final push against the German army, at the end of the Second World War. Then came the revolution in China in 1949.

Tin and silver mines in Bolivia, on which this country's economy depended, were nationalized in 1952 (Contreras 1993) by President Paz Estenssoro, after intense pressure of left labor leaders (Nash 1972). The Mining Corporation of Bolivia (Comibol) was created to manage these mines. However, the hopes for the contribution of these mines to the development of the country were "completely shattered" in the following 15 years, due to political instability in the country (Nash 1972).

The Cuban Revolution in 1959 helped spread ideas of state ownership in Latin America.

Chile, Peru, and Zambia were keys to the global political movement to nationalize copper mineral resources in the second half of the twentieth century (Radetzky and Warrel 2017). Mexico had begun its way to national rather than state ownership, passing a law in 1961 which gave incentives to companies that had 51% shares by Mexican citizens (Navin 1978). In Peru, Chile, and Zambia, nationalization has its differences but it all happened from 1965 to 1975.

The main cause for the rush to nationalize mining companies in developing countries in the second half of the twentieth century was the belief that national development would be accelerated with State enterprises controlling the production and commercialization of minerals and metals (Radetzky and Warrel 2017).

But, this was not the only reason. There were at least three complementary causes. First, the notion that mineral wealth was a national patrimony. Second, the size of the mining industry in many developing countries was too important economically and could not be left to be managed by foreign companies. And third, the long-term operation of most mines meant that capital was unmovable and captive, and therefore it was prey to the intervention of states (Radetzky and Warrel 2017).

At the beginning of the 1960s, only 2.5% of global copper mine production was owned by the State in CPEs, whereas 15 years later, this value had increased to more than 40% (Prain 1975). This participation reached a maximum of 58.7% in 1984, including 23.5% share of CPE. However, by 2000, the total share had diminished to 27.7%, and in 2009, it reached 25% (Radetzky and Warrel 2017). After the collapse of the Soviet Union in 1989, copper production in CPE dropped to 6.8% (Radetzky and Warrel 2017).

During the 1950s, many Latin Americans thought that their country depended too much on the exports of raw materials (Moran 1974). It was the time of the utopia of industrialization as the way to raise salaries, stabilize the economy, and advance towards a more equalitarian society. The theory of dependence introduced in 1950 by Raul Prebisch, Director of the Economic Commission for Latin America, Eclac, and independently by Hans Singer, a German economist working for the United Nations, proposed that the terms of trade reflected the ratio of the prices for its exports to the prices of its imports (Eclac 1950; Prebisch 1963; Tilton and Guzmán 2016). Their main hypothesis was that the prices of mineral commodities exported by developed countries had been declining vis-a-vis the price of manufactured goods imported by them. Consequently, prices for exporting minerals were in detriment of national economies because it established a negative exchange trade trend for the countries. Manufacturing would not suffer from this malaise and therefore was promoted and subsidized in the Latin American countries. It was the time of high import tariffs that protected national industries (Contreras and Zuloaga 2014; Peru Top 2013; Muñoz 1972).

Therefore, not only was necessary for underdeveloped countries to take control of mining industries and capture the full extent of its rents, but also this should be accompanied by industrialization. These two actions would have a durable impact on the dependence of the countries.

Much later, it was shown that the price of mineral commodities had not been decaying in the long run, measured in periods of 50 to 100 years. In specific periods, for instance between 1970 and 2003, mineral commodity price fell, but between 1945 and 1970, it had been the opposite. Overall, in the long run, it makes sense that the price would remain constant unless there were structural factors which would alter this balance (Hadass and Williamson 2002; Cuddington et al. 2007; Frankel 2010; Van der Ploeg 2011).

The objective of this article, nevertheless, is not to discuss the theory of dependence or the theory of weakening trade factors, but to discuss key differences in Peru and Chile's mining nationalization and privatization processes since the 1960s. The paper focuses its discussion on the nationalization push of the 1960s and 1970s in these countries, its successes and failures, and on the extinction of the state mining sector in Peru, excluding oil, as well as the coexistence of a state sector and a private sector in Chile. As will be analyzed, the roots of success or failure of nationalization processes in Chile and Peru had little relation with its causes. A hypothesis of this paper is that success or failure in the mining nationalization process determined the attitudes of Peruvians and Chileans towards the role of the State in mining, and therefore mining policies in each country would account for this difference at present.

This historic perspective may help illuminate future paths for mining development in each country and, also, cooperation between the two countries. The opportunities to cooperate rather than compete or even confront each other are unlimited.

The "Mining in Peru and Chile" section of this paper discusses general aspects of mining in Peru and in Chile. The "Nationalization and privatization in Peru" section is about the nationalization and privatization in Peru. The

"Nationalization and coexistence with private enterprises in Chile" section is about nationalization and coexistence with private enterprises in Chile, and the "Discussion and concluding remarks" section contains a discussion and concluding remarks.

Mining in Peru and Chile

Peru and Chile have so many things in common, yet they live a universe away from each other. They share a language and a border, their independence from Spain was achieved approximately at the same time during the early nineteenth century. The army that liberated Peru from Spanish rule was prepared in Chile by General San Martin. Their mining industries have been and are the main economic activity.

Yet, their historic paths are as distant as those of any two countries in the world. Surely, Peru was a viceroyalty whereas Chile's Capitanía depended on the viceroyalty. They had very different political development even before independence, and these dissimilarities were accentuated by the two wars waged later during the nineteenth century (Contreras and Zuloaga 2014; Urrutia 2014; Quiroz 2013).

Peru is twice the size of Chile and has twice its population. The economic performance of both countries was about the same (5000 US$ ppp, currency of 2015/capita) up to the 1982 economic crisis (World Bank 2017). Peru had successfully begun recovering from the 1982 crisis, along with Chile, but under the first presidency of Alan García (1985–1990), the country experienced a deep economic crisis caused by poor economic management, corruption, and by the war with terrorism (Cateriano 2017), which lead to a reduction of its GDP/capita by 25%. Peru did not recover the same level of income until 2005, under the presidency of Alejandro Toledo. Chile, instead, continued its recovery from the 1982 economic crisis and achieved up to 2016 approximately 45% greater GDP per capita (ppp) than Peru.

Peru and Chile produced 39% of the world's refined mine copper in 2000 (Cochilco 2017; Minem 2017) and 40% in 2016. Reserves, nevertheless, increased 2.4 times in Chile and 4.3 times in Peru in this same period (USGS 2001, 2017). In 2016, Chile had 210 million tons of copper reserves according to the USGS, which was 2.6 times the copper reserves of Peru. Between both countries, they had a perfect fit between global participation in copper production and copper reserves, as the global trend shows according to Tilton and Guzmán (2016).

The composition of mineral exports is quite different in Peru and Chile. In the former, it is much more diversified, for instance in 2015, close to one half of the exports (by value) came from copper, one third from gold, close to 7% from zinc, and the rest from a multitude of metals (Minem 2017).

In the periods 1960–2000, mining exports were 45% in average with respect to the total export of goods of Peru (Sanchez-Albavera 2005). Copper remained as the most important mining export throughout this period, with an average of 20%. By 2010, mining exports in Peru had climbed to 67% with respect to the total goods exported by the country and in 2016, this value was 65%. From 2000, copper production grew very fast and the participation of copper in exports climbed from 40% in 2005 to 47% in 2016 (Banco Central de Reserva del Peru 2017).

In the periods 1960–2015, the average contribution of copper mining products to the total export of goods of Chile was 52.4%, attaining a maximum of 78.9% in 1969 and a minimum of 31.8% in 2000, in the middle of the Asian crisis. In this period, copper represented an average 86% of the total mining exports of the country (Banco Central de Chile 2017).

Finally, the mining GDP of both Peru and of Chile are similar with respect to the total country GDP. The former decreased from 10.3 to 9% in the periods 2010–2015, while in Chile, the fall was from 15.9 to 8.8%.

The timing of the mining production booms was very different as well. Chile triplicated its copper production between 1990 and 2000, and Peru achieved this feat between 2000 and 2016. In the latter period, Chile increased its production only by 21%. In spite of this, Peru was very far from catching up with the size of Chile's copper production in 2016, which was 2.4 times larger (Incomare 2017).

Notwithstanding these differences, Peru and Chile are the undisputed global leaders in copper mining production and have all the conditions to remain so in the coming decades.

Both countries possess the mineral reserves and resources in order to keep increasing their copper production for many decades (USGS 2017). This depends, however, on at least three other factors. First, how competitive are greenfield and brownfield projects in Peru and Chile in comparison with those of the rest of the world? Second, how will mining taxes evolve in both countries? And third, how will political, social, and environmental factors progress in relation to new mining projects?

The latter question is the most difficult to respond because it involves not only analyzing government policies, laws, regulations, and comparative advantages, but also the perception by the population about the mining industry, and the position of key stakeholders, such as local populations, and of NGOs that are opposed to the further construction of large mining projects.

Nationalization and privatization in Peru

Why did the nationalism of mineral resources grow and then was extinguished in the twentieth century in Peru?

Foreign companies had been present before the twentieth century but it was not until 1902 that this presence began in large scale with the installation of Cerro Pasco Copper (CPC). A syndicate was created this year in the USA which bought 70% of all the mining rights in the Cerro de Pasco district, where copper was produced, bringing in capital and technical knowhow (Kruijt and Vellinga 1979). Once CPC was installed in the country, it solved the main technical problem which had been holding back mining operations, which involved drainage in the many small underground mines exploited by local companies. The latter were transformed in a single exploitation operation of the ore deposit.

During the following decades, CPC expanded its operations in Peru buying all the mines that it exploited later but also many mining concessions where deposits had been identified (Kruijt and Vellinga 1979). Such concessions included Tintaya, Antamina, Cerro Verde, Quellaveco, Toquepala, and many others, including oil concessions in eastern Peru.

The smelter at La Oroya was commissioned by CPC in 1922 and would process copper at first, and then lead, zinc, bismuth, silver, gold, selenium, tellurium, cadmium, indium, and other by-products. Both the operations at La Oroya and at Cerro de Pasco generated large environmental damage to agriculture and to inhabitants of nearby towns, and therefore, ignited protests and numerous law suits against the company. The plants that captured contaminants at La Oroya were commissioned many years later, in 1942. CPC had also expanded its operations buying close to five hundred thousand of cattle land. At the same time, CPC had bought railway lines and power plants not only to power its own operations (Kruijt and Vellinga 1979).

By the end of the Second World War, CPC had become the second largest employer in the country after the State and changed its name to Cerro de Pasco Corporation in 1951, also known as CPC. The owner of CPC was Cerro Corporation with headquarters in New York, the same company that constructed and operated the Andina mine in Chile from 1968.

In 1958, CPC bought the town of Cerro de Pasco because it needed the grounds for the exploitation and expansion of the new open pit. It demolished the town and located all its inhabitants in the village of San Juan de Pampa (Kruijt and Vellinga 1979). In 1968, it commissioned the copper "Cobriza" mine. The company had become a giant and was virtually a monopoly for transport, processing, smelting, refining, and energy supply. The social and political opposition to the company had grown, and Cerro Corporation decided to diversify the company in other countries rather than reinvest all the profits from Peru in this country. Therefore, during the second half of the 1960s, investment was scarce.

According to Kruijt and Vellinga (1979), all medium and small-sized mining companies depended on CPC for processing, transport, energy, and commercialization. In fact, CPC bought those medium-sized companies which seemed a good investment. In 1970, approximately one quarter of its exports were products from medium- and small-sized mines.

In 1972, Cerro Corporation together with Newmont Mining, Phelps Dodge, and the American Refining and Smelting Company created the Southern Peru Copper Corporation (SPCC). The concessions of Toquepala and Cuajone were transferred by CPC to SPCC and this would then construct and operate Toquepala and Cuajone. Billiton, the mining company created by Shell as a result of the predictions of the Club of Rome (Meadows et al. 1972), would buy a part of the Cuajone mining concession rights.

The role of the State in mineral production and exports until the end of the Second World War was to collect taxes. At one time, foreign capital was seen as so important that a decree was voted in 1926 to exempt foreign companies from paying taxes (Kruijt and Vellinga 1979). Chile also went through such period during the same years (Moran 1974).

In 1963, with the new democratic government of President Belaunde, there was a craving to introduce the ownership of the State in the mines exploited in Peru. It was the time when Cuajone, owned by Southern Peru Corporation and by Billiton, was about to enter under construction and this generated a rich debate on the subject which resulted in granting incentives for private investment, mainly accelerated depreciation and assurances that the income tax rate of 25% would remain stable.

In 1968, nevertheless, General Juan Velasco Alvarado overthrew the Government of Belaunde and established himself as the President of the Revolutionary Government Junta until he was overthrown by General Francisco Morales Bermudez in 1975. The government of Velasco Alvarado introduced gravitating reforms to the organization of the State, including the agrarian reform, nationalization of mining and other industries, and the opening of embassies in Cuba and the USSR, distancing itself from its high dependence on the USA.

In 1971, a new mining law was voted by Congress giving the State three roles: first, plan the mining activity; second, audit the operations and commercialization of mines and minerals; and third, the attribution of directly exploiting the mines.

The State company Minero Peru was created in 1971 which could either exclusively exploit mines or associate itself with private capital to do so. In 1975, the company Minero Peru Comercial (Minpeco) was created for the exclusive commercialization of metals and minerals, included those produced by private companies.

The State assumed the monopoly of smelting and refining, acquiring the Cerro de Pasco complex and the Marcona iron mining company. The latter was operated by the newly created Hierro Peru Corporation. The State constructed the copper smelter and refinery at Ilo in Moquegua, and of zinc in Cajamarca. By the end of the 1970s, the State controlled the iron production, 40% of the zinc production, 35% of the lead production, and 25% of silver production. In the case of copper, the State had acquired 8% of Cerro Pasco Corporation but its production had been declining. Later, it acquired a part of Cerro Verde in Arequipa and of Tintaya in El Cuzco. Private capital considerably reduced its control of metal mining in the country (Sanchez-Albavera 2005). Velasco Alvarado made sure to pay the expropriations of mining companies at their market value for fear of retaliatory sanctions from the USA (Contreras and Zuloaga 2014).

Medium and small miners depended on traders to commercialize their products up to the 1970s. But, Minpeco began to substitute independent traders and the latter commenced buying export minerals from the earlier. This was, surely, a major move by the government because it begun to establish further formality in the highly informal Peruvian small mines.

The government also nationalized other industries considered strategic, including cement, steel, cellulose, and the airlines. Since the expropriations had been announced before, investment had virtually ceased and the government found itself with companies that badly needed modernizations (Contreras and Zuloaga 2014).

The only exception to nationalizations in mining was the Cuajone mine which was commissioned in 1976 by SPPC but whose construction had been initiated during the Belaunde years.

The distributive economic measures adopted by Velasco Alvarado's government did not, therefore, provide the expected economic growth and this situation was augmented by the first oil crisis of 1973, whose sequels signified the end of redistribution policies in the country.

At the beginning of the 1970s, the government had also invested importantly in armament, incurring debts whose interest burden rose sharply after the oil crisis, generating a negative balance of payments which resulted in import controls. Velasco Alvarado was replaced by General Bermudez in 1975 and by 1978, popular discontent had grown with a boom of Marxist and revolutionary ideas permeating trade unions and universities (Contreras and Zuloaga 2014; Campodonico 1988).

A new constitution was promulgated in 1979, replacing that of 1933. It gave the State an important role on the economy and in social organizations. According to Contreras and Zuloaga (2014), this constitution tried to impregnate a social solidarity spirit in society, as opposed to promoting development solely based on economic growth. The trouble is that it was vague in the instruments that the country would use in order to promote harmony between the economy and social interests.

The military regime headed successively by two generals since 1968 ended with a call to elections in 1979.

Belaunde Terry was elected president for the second time and would govern Peru from 1980 to 1985. At the same time of the election, Sendero Luminoso, a terrorist organization, executed one of its first actions, burning ballot boxes in a remote location in Ayacucho, located in the Sierra.[1] Its leader, Abimael Guzmán, a philosopher by training, had lived in China during the 1960s and had brought back Maoism, ideology which he successfully adapted to the national situation and introduced in universities all over Peru (Portocarrero 2015). Sendero Luminoso gained militants in the Sierra, and later in Lima, demonstrating the high social discontent with the way in which public affairs had been conducted in the previous decades. In 1982, Sendero Luminoso took over several public buildings including jails in Ayacucho, liberated prisoners, and assassinated policemen and authorities. These barbaric acts were repeated in small towns and in peasant settlements created in the agrarian reform, executing people summarily, after short public trials.

The anti-west discourse added to a messianic and totalitarian message was, possibly, a recipe for their success in recruiting converts. Public opinion support for Sendero Luminoso in the Sierra, and the ease with which this organization gained militants among the young throughout Peru, displaced the traditional left, and moved Lima's intellectuals to try to understand their ideology.

The government called the Armed Forces to combat terrorism. A war had started that would involve all the country for a decade, leaving anything from 20,000 dead, up to 70,000 according to other sources.

The second government of Fernando Belaunde represented a return to democracy and changed the mining laws passed by Velasco Alvarado, granting rights of commercialization to the private and foreign companies. Mineral exports represented 46% of the total goods exports of the country in 1980, and copper had increased its relative weight from 23% in the 1950s to 43%.

It was a time of economic crisis for Peru and for the world. Unemployment had been increasing due to the high level of the population growth in the two previous decades, and the government increased employment in the State sector, printing money to pay for this expense. The country badly needed dollars.

The first government of President Alan Garcia (1985–1990) encountered a deteriorated economic situation added to armed conflict with extremist groups. Sendero Luminoso had infiltrated the marginal neighborhoods of Lima which housed two million people, most of which did not have drinking water or paved streets and whose jobs were mostly informal.

[1] Sierra is translated as mountain range and is made up in Peru by the Andes Mountains which run from north to south and is a divide between coastal Peru and the Amazonian jungle.

The disastrous economic management by the Government of President Garcia ended in a hyperinflation. The Peruvian exchange rate had been 43 Soles/US$ in 1970, and reached 300,000 Soles/US$ in 1990. Most entrepreneurs did not invest during the 1980s in Peru, instead they bought dollars at the official rate and sold them in the black market.

Peru defaulted its international debts, and the Mining Bank which promoted the activities of small and medium miners had to be liquidated. Minpeco had made some bad calls in the financial market and it could not pay its 80 US$ million debt with Centromin and Minero Peru. Mineral exports were slightly reduced during the 1980s as a result of the disastrous macroeconomic policies applied. In spite of this crisis, the State constructed and commissioned the Cerro Verde and Tintaya mines.

Corruption was widespread in the State enterprises, starting at the top level and continuing right through to spheres of the government administration, and played a crucial role in the failure of nationalization (Quiroz 2013).

In the second half of the 1980s, the revolutionary movement Tupac Amaru emerged, which specialized in abductions of important business persons and officials, for which they asked a ransom, which they then proceeded to hand out in poor neighborhoods in Lima and elsewhere. The origin of militants of Tupac Amaru came partly from the disenchanted traditional left. Sendero Luminoso remained, nevertheless, the enemy number one of the government.

In 1990, Alberto Fujimori was elected president to the surprise of everyone because he did not belong to the political elite of Peru, and had no party. His intent was to apply neoliberal economic policies, which were by that time popular throughout the world. He counted with the support of the Armed Forces who demanded more resources for the fight against terrorism. But, Fujimori did not have a majority in parliament nor did he have the venue of the judicial system. He could not apply deep reforms to the State, therefore in 1992, the president dismissed parliament and intervened the judiciary. He did not have much opposition due to the discredit in which these institutions were held by public opinion. The international community accepted these measures subject to Fujimori holding parliamentary elections.

In September 1992, Abimael Guzman was captured in Lima, along with the leading members of Sendero Luminoso. This was a devastating blow for the movement, which never recovered from it. Abimael Guzman was shown in television inside a cage with a common prisoner striped black and white overall, where he was held. He was then tried and sentenced to life imprisonment, along with his commanders. All the judges wore hoods so that they would not be recognized and so that their families could remain safe and not be subject to reprisals.

A new Congress was elected at the end of 1992 with a majority for Fujimori. It was empowered to change the constitution, which it did in 1993. The new constitution gave ample space for the installation of a liberal economic system, and authorized a reelection for 5 years of the president. Fujimori took this opportunity and won the 1995 elections with one of the largest landslides in the history of Perú.

The organization of the State was modernized. The government liberalized prices as well as the exchange rate, and at the same time privatized most of the State companies, except those related with oil, drinking water, and energy. The government renegotiated payment of external debt. This rupture with what occurred in the two previous decades was also possible due to the erosion of the appeal of the traditional left and of the Trade Unions, part of which had ambiguously supported Sendero Luminoso and later Tupac Amaru. And, the rest of the left was associated with Marxism, in the eyes of the population, the same doctrine embraced by terrorists (Contreras and Zuloaga 2014).

During the 1990s, the State mining investment was scarce and mining production increased its costs, losing competitiveness. The transnational mining companies did not suffer this process, and invested and upgraded technologies becoming more competitive. One of the instruments to deal with the consequences of the economic crisis suffered by Peru in previous decades was the promotion of foreign investment (Legislative Decree 708 of 1991), initiative which obtained widespread support throughout the political spectrum.

It was decided that State mining companies would be completely privatized. Between December 1992 and 2001, there were 15 mine acquisitions by international companies, including Quellaveco, Cerro Verde, Cobre La Granja, the Ilo smelter refinery, Tintaya, and Antamina.

Additionally, the oil company PetroPeru was also partially privatized, but its main operations, the refinery at Conchan and at Talara, remained State owned. It sold the gasoline stations to the Argentinian State-owned company Repsol and other minor businesses to other companies. In 2017, it was the largest company in Peru and had been advancing, under the government of President Humala, towards the construction of a refinery at Talara in the region of Piura, which would cost 5.4 billion US$. President Pedro Pablo Kuczynski backed the continuation of this project.

The mining nationalization initiated in the 1970s had failed and its trail was deeply engraved in the population. For reasons of poor economic policies, widespread corruption in the State companies, and war with terrorism, Peru returned to a private model of mine ownership.

Peru introduced some mining legislation similar to that of Chile, including tax stability, access to market currency exchange for sales of mining products, and authorization to commercialize products and export dividends once taxes had been paid. Therefore, Minpeco turned into a trader for the State companies (Sanchez-Albavera 2005). Seven million hectares of mining concessions reserved for the State were open for foreign investment. Law Decree 647 (Law 25,570; June 23, 1992) was passed which opened Minero Peru, Hierro Peru, and Centromin to private investment, with the intent of creating associations with majority shares of the private investor and with its control of the company's operation and management. The idea was to sanitize the finances of these companies.

Fujimori was reelected president for a second time in 2000, after a ruling by the Constitutional Tribunal; however, this did not last very long because a corruption scandal erupted involving his closest and most powerful adviser, Captain Vladimiro Montencinos. Fujimori left Peru for an international tour to Asia and resigned from Japan, country of which he was a citizen. Valentin Paniagua, President of Congress, took over and organized elections for the following year.

Alejandro Toledo was elected President (2001–2006) and endured a hard debate over private versus public ownership, but the continuation of Fujimori's economic policies triumphed after it obtained the support of APRA, the political party of former president Garcia. Toledo could not privatize service utility companies, nevertheless, after finding strong opposition in Lima and in Arequipa, the second most important city in the country. In 2009, Humala also found strong opposition to the utilization of forest resources in the Amazon region. Protest there ended up with more than 30 people dead.

Alan Garcia was elected President (2006–2011) again, but his second government was very different from the first. He continued to apply neoliberal economic policies and took advantage of the high commodity price cycle or supercycle which had already started in 2003–2004. Many advances took place in the first 10 years of the new century. Poverty was reduced from 50% to less than 30%, illiteracy reached levels lower than 7% (Census 2007), when it had been 18% in 1981 (Census 1981).

Ollanta Humala was elected president (2011–2016) and continued to support the neoliberal economic model based on the export of primary commodities, but this time, empowering the State in order to combat inequality, which was and is still very severe.

President Humala attempted in 2013 to buy Repsol the Argentinian oil company which operated in Peru and which had been nationalized the year before in Argentina, but found strong opposition. His popularity dropped 6% due to this proposal, according to a national survey by Datum International ordered by the publication Peru21 (2013). The opposition to this was 54% throughout the country. Therefore, President Humala could not nationalize a State company that belonged to another country.

From 2011 up to the publication of this paper, Peru's mining suffered the local opposition of two large emblematic mining projects by agricultural workers, land owners, and by inhabitants of the valleys located close to the mines. The first was the Conga project, owned by Minera Yanacocha, a consortium composed by Newmont Mining Corporation, Compañía Minas Buenaventura, and the International Finance Corporation. The government approved the environmental impact study (EIS) in 2009. A public hearing in 2010 objected the project because it would damage the environment. On December 2011, the Regional Council of Cajamarca declared the project infeasible because it was located in the headwater of the basin close to the lagoons El Perol, Azul, and Mamamcocha. The construction of the mine could damage the basin water system (Observatorio de Conflictos de Cajamarca 2015). A demonstration against the project ended with three people dead and 30 injured on July 4, 2012. A survey conducted by the Ipsos company reported that 78% of the inhabitants of Cajamarca were opposed to the project (Peru21 2012). The company Yanacocha had a history of conflicts with the local population, and this added to the outcome of this confrontation.

The second conflict originated in 2013 in the valley of the Tambo River in the Arequipa region, due to the evaluation of the EIS of the Tia Maria mining project, owned by the Southern Peru Copper Corporation. The cause was also water, specifically the fear that the leaching process would release acid to the underground water contaminating the river water used to irrigate the agriculture of close to 60,000 people. A second objection to the project was the emission of dust from one of the open pits located at three kilometers from the valley. Protests against this project also resulted in the deaths, this time of 11 people.

From the perspective of this paper, the relevant fact pertaining these two projects was that no mention was made to the need to nationalize these mines, even though both companies involved had a much publicized record of conflicts.

Nationalization and coexistence with private enterprises in Chile

Nationalization was an issue in Chile from the beginning of the twentieth century, with the commissioning of the El Teniente mine in 1907 and of Chuquicamata in 1914, owned by the Braden Copper Company (BCC) and by the Anaconda Company, respectively. The mine El Teniente was sold by BCC to the Oppenheimer family in 1908 and in 1915, was sold by this family to the Kennecott Corporation. Anaconda had bought the rights to exploit Chuquicamata from the Chile Exploration Company in 1923, also controlled by the Guggenheim family (Moran 1974).

At that time, it was clearly remembered that Chile had produced 49% of the world's copper in 1869 and that the first contract of the London Metal Exchange was the Chilean copper wire bar. Most of the companies that achieved this feat were Chilean, with participation of British businessmen. Beginning the twentieth century, the debate revolved around why it was foreign companies rather Chilean entrepreneurs who developed El Teniente and Chuquicamata mines (Encina 1912; Machiavello 1923). The perception was that national interest was associated with Chilean private companies rather than with State-owned companies. William Braden, the owner of the Braden Copper Company, said in an interview to the Mercurio Newspaper in December 1918 that he was not convinced that copper mines were the type of business that Chileans businessmen were searching for, since they got rid of the shares that they initially had in the El Teniente copper company, as soon as they realized that dividends would not flow back swiftly (Moran 1974).

The perception that it was Chilean businessmen rather than the Chilean State who should own mining companies would change dramatically a few years later, influenced by the ideas that were emerging from the Russian Revolution, which were brought to the country by the nascent Communist Party, founded in 1922, and later by the Socialist Party, created in 1933. Both parties promoted State ownership not only of mines but of all means of production.

In 1927, Anaconda through one of its subsidiaries began exploiting the Potrerillos mine, and in 1959, commenced the exploitation of the El Salvador mine, located a few kilometers away since the reserves of the Potrerillos mine were no longer exploitable economically. In 1968, Andina was commissioned by Cerro Corporation of New York.

By the 1940s, the national debate about the copper mines had changed completely not only because of the socialist ideas that were installed in the country but also because copper represented close to two thirds of the total export of Chile having replaced the natural nitrate fertilizers as the main export of Chile (Tomic 1988). From 1950 to 1971, the total exports by the US companies exploiting copper mines in the country exceeded 50% of the total exports of the country except during three years of low copper prices. The dominance of Anaconda and Kennecott attained up to 20% of the GDP, up to 40% of the Fiscal income, and up to 80% of the exports in some years (Whelan 1993).

One frustration (Fermandois et al. 2009) was that the USA had kept the price of copper fixed during the Second World War in detriment of Chile, when this produced 20% of the world's copper. But it was not the only one.

According to Moran (1974), the Chilean elite considered that US companies had total control of investment and of production. They also controlled commercialization, by-products, personnel, purchases, of which the northern regions and Chile depended. But the most frustrating aspect was that a crucial portion of the Chilean economy was decided in the secrecy of foreign corporate boards, with no public explanation, leaving little room for the elaboration and implementation of national policies.

This degree of dependence on these companies was unacceptable.

The national policies elaborated by Senator Radomiro Tomic during the 1950s contained five aspects which would decide the future of copper in Chile. First, it called for exporting to the world rather than preferentially to the USA and second, the commercialization of copper and its by-products would now have the State partially involved. Third, all copper exported should be refined. Fourth, the construction of some semi manufacturing capacity should be achieved, and finally, the Chilenization would be carried out first, followed by nationalization (Tomic 1988; Mamalakis and Reynolds 1965).

The progress from the 1950s to the full nationalization of US-controlled copper mine production under President Salvador Allende in 1971 was persistent but slow. One key concern of the Chilean elite was to assure having the appropriate engineers and technical expertise so that mines would be as well managed as they had been by US engineers. The workers were mostly Chilean in Chuquicamata and El Teniente, later in Salvador (from 1927) and Andina (from 1968). The creation of the Center for Mining and Metallurgical Research (CIMM) in 1970 would turn to be a huge school for engineers to manage these four mega mines. Moran (1974) indicated that this may have been the reason why the Chilean Government took so long in nationalizing copper.

The nationalization was in the end a struggle to recover sovereignty and dignity, which was perceived to be breached by these powerful companies. Not only all the rent would be captured by Chile after nationalization, but the country would demonstrate that its engineers and technicians could successfully manage the mines.

Nationalization was gradual, with an intermediate stage, "the Chilenization," voted by Congress in 1967 at the initiative of President Eduardo Frei M., whereby the Chilean Government acquired majority shares in the US companies. In 1971, total nationalization was voted in Congress with no compensation for the US companies because it was argued that they had extracted excessive profits (Novoa 1974). In 1974, under the military regime (1973–1990), nevertheless, the government compensated Anaconda, Kennecott, and Cerro Corporation with 429.5 US$ million of the time (close to 2.1 billion in US$ of 2015), because otherwise foreign capital could hardly be lured back into the country (Navin 1978; Gana 1988, Bande and Ffrench-Davis 1989; Rivadeneira 2013). In fact, companies were paid at book value and the way of payment was Government Bond, hardly demanded at that time. For Anaconda and Kennecott, nevertheless, this was better than nothing and it got them out of deep financial trouble (Navin 1978).

Between 1971 and 1976, the four nationalized companies, Chuquicamata and Salvador, owned by Anaconda, Andina owned by Cerro Corporation, and El Teniente owned by Kennecott, kept independent management until 1976, when the military government brought them under the umbrella of Codelco (Decree Law 1350, 1976). The Allende government and later the military government capitalized the expropriated companies, and production grew at a rate of 4.5% annually between 1971 and 1981, 2.3% annually between 1981 and 1991, and 3.5% annually between 1991 and 2011. From the creation of Codelco in 1976 up to 2015, the company transferred to the State 105 billion US (currency of 2015), of which 24.8 billion were transferred to the Armed Forces. In return, the State capitalized the company in 10.1 billion[2] US$ dollars of 2017 during this period. The most important capitalization by the State was in 1976 by the military government (Landerretche 2016).

In parallel with the policies oriented to these large mines, the Caja de Crédito Minero (Cacremi) created in 1927 had its origins in the political concern of all sectors that the medium- and small-sized mining companies, added to artisanal miners, would be bereft of support with these new giant companies. The association of mining companies, the Sociedad Nacional de Minería (Sonami), was the main champion of this initiative. Before the Cacremi, copper, gold, and silver minerals produced by medium and small miners were sold to several traders, who treated and exported them, not before establishing purchase prices which were considered by many as a scam (Chile Minero 2009). After the First World War, only two smelters and a few processing plants were left standing, the rest went bankrupt, and therefore only the high-grade minerals were economically exportable. The initial idea for Cacremi was to be a purchasing power for artisanal, small- and medium-sized mines, but this was amply extended in later years. Processing plants were constructed by Chilean engineers.

Cacremi begun granting credits to miners in times of low prices, credits which were then paid back by miners. After the Great Depression of 1929, the price of copper dropped and processing plants were closed. Cacremi was granted exclusivity to commercialize gold, which allowed it to offer a better price to miners, palliating the high unemployment generated. Cacremi also extended its action to chemical analysis and distribution of basic supplies through a new institution, the Sociedad Distribuidora de la Mineria (Sademi) created in 1939. In 1947, the construction of the Paipote smelter in the Region of Atacama, together with the expansion of existing processing plants and the construction of new plants had begun. Paipote was owned by the newly created Empresa Nacional de Fundiciones and its construction would take years and was finally commissioned in 1952, funded partly by the new State agency Corporación de Fomento de la Producción, Corfo, created after the earthquake of 1939 by President Pedro Aguirre Cerda.

Cacremi's Board of Directors was formed partly with members of parliament, who frequently demanded to increase the number of jobs and salaries, and grant unjustified credits in order to satisfy their political clientele. This moved President Jorge Alessandri in 1960 to merge Cacremi and the Empresa Nacional de Fundiciones in one organization, the Empresa Nacional de Mineria, Enami, whose board did not have members of parliament. The medium and small mines produced 2.8% of Chile's copper, and this grew to 4.8% in 1965. In spite of this small participation of medium- and small-sized mines, plus the processing plants, and the Paipote smelter, many towns and cities in the north of the country benefited from the jobs provided by this activity. It is likely that some of these towns and cities would not have prospered without it. Cacremi and later Enami had taken control of many mining properties with high potential. The Ventanas smelter and electro-refinery were commissioned in 1964 located north of Valparaiso, in the Central Region of Chile.

The advent of the Military Government in 1973 changed the direction of Enami and commenced a privatization program of most of its assets. From 1976 to 1981, Enami sold nine processing plants and Sademi. At the same time, it sold Disputada de Las Condes to Exxon Minerals which included the Los Bronces and El Soldado mines plus the Chagres smelter. It also sold the El Indio Gold mine, Punta del Cobre, Cerro Negro de Cabildo, Manto Verde, Santo Domingo, Andacollo, Distrito de Guanacos, Santa Catalina de Sierra Gorda, Cachinal de la Sierra, Inca de Oro, and Pelambres. Some of these mines had great geological potential, especially Pelambres, Los Bronces, Andacollo, Manto Verde, Punta del Cobre, and El Indio. According to Chile Minero (2009), all of these mines and mining concessions were sold at very low prices. At the time of the sale, only Los Bronces was a large mine. The rest were developed subsequently by their international owners.

The promoters of nationalization of the large mines never envisaged that a Military Government was ad portas, and less that it would privatize key mining concessions at that time in the hands of Enami.

The promise of nationalization had been fulfilled with respect to the large copper mines of the time. Not only Codelco transferred to the State sizeable sums of money, it also managed to get away with little capitalization by its owner, and Chilean engineers, technicians, and workers showed that they could successfully exploit the mines. But, nationalization was followed by privatization of eight mines and ore deposits some of which later became very important in terms of production.

During the Military Government, there was top pressure from the School of Chicago, the one that trained Chilean economists (denominated the Chicago Boys) under the

[2] Capitalization by approximately 2 billion US$ under the government of President S. Piñera is not included in this number since it corresponded to the shares that Codelco holds in Disputada de Las Condes, now Sur Andes. Unless Codelco sold its part in this company, these funds cannot be used finance new investment.

influence of Milton Friedman, for the privatization of all the productive companies that belonged to the State before the Allende government and those that were nationalized by him, including Codelco (Allende 1988; Hachette and Lüders 1992; Rivadeneira 2013).

Many right wing politicians during the Military Government supported the policies proposed by the Chicago Boys (Huneeus 2000), but they had opponents and the most formidable of them were the Armed Forces, who wanted to keep copper mines under State ownership and also desired to continue receiving the benefits of copper which were recognized already in 1958 (Law 13,196) and later by the decree of the Military Government (Decree Law 239 of 1974 and Laws 18,445 of 1985 and 18,628 of 1987). This decree assigned a tax of 10% to all metal, concentrate, and by-product sales of Codelco, excluding sulfuric acid. This was in fact a royalty put on Codelco which allowed the Armed Forces to renew military equipment and which was still effective in 2017. Law 13,196 was "restricted," literally a secret Law, which was made public only in 2016 by Law 20,977.

In the end, the military won this debate in 1980 when the new constitution was voted, and Codelco remained to be State owned (Rivadeneira 2013). The mining law of 1983 (Law 18,097 of 1982) drew the map for the coexistence of Codelco with foreign investment. Designed to be a breed horse, Chilean copper mining ended up being a camel, a mix that defined Chile's most crucial mining policy for the next 35 years. And, it worked. Not only Chile's copper production grew three times during the 1990s but Codelco increased its production to about 1.8 million tons in 2017, having built three new mines, Radomiro Tomic in 1997, Gabriela Mistral in 2008, and Ministro Hales in 2013. The private sector, on the other hand, commissioned 14 large new copper mines since 1990. Both Codelco and the private sector have benefited from the natural creation of a mining technology cluster, from the competition for management and worker skills, from different styles of administration, investing and operating, and from diverse environmental and social corporate policies.

How would Codelco have done if it had not had these international companies functioning in the same regions which provided a benchmark at all times? How much did Codelco and the country benefit from the existence of the mining cluster, that with Codelco alone would not have reached critical size required for such networks?

Discussion and concluding remarks

The cause for reversing the nationalization process of mining companies in Peru only twenty years after its initiation was a result not only of the disastrous economic management of the Peruvian economy but also of the corruption in which the State mining companies were immersed. Most State mining companies could not pay their debt and did not have the resources to make the necessary investments. Peruvians learned the lesson that State mining companies were not the answer to manage its rich mining resources.

After decades of unfulfilled promises, the country found a return to economic growth from 1990 (Contreras and Zuloaga 2014). Vergara (Gonzales et al. 2015) point out that the legacy of chaos and the crisis of the 1980s lead Peruvians to reject solutions such as nationalization. The "neoliberal" economic regime implemented in practice from 1990 onwards was successful in improving the standard of life in Peru, even though distribution of wealth remained unsatisfactory. Peru had a Gini coefficient of 44.7 in 2013, lower than 14 countries in Latin America, including Chile, showing that distribution of wealth in Peru was not so bad as advertised (World Bank 2017). Perhaps, a better diagnosis would be that fairer distribution of wealth is not enough when the overall wealth is small.

The experience of the 1970s and 1980s was so catastrophic for Peru that even Alan Garcia, a fervent admirer of State companies in 1985, changed his mind in his second government and applied liberal policies. He declared that to insist on State ownership of the means of production was "primitive" (Gestion 2013).

Resistance to State ownership was so high that President Humala could not implement the purchase of refinery La Pampilla owned by Repsol, the Argentinian State-owned oil company which operated in Peru in 2011 (Peru21 2013).

A national survey conducted by Ipsos in 2015 (El Comercio 2015a) found that 59% of Peruvians supported the construction of new mining, gas, and oil projects because this benefited the population of the regions where the projects were located, and 73% indicated that this activity benefited people in Peru. Again, there was no mention of State ownership.

A majority of Peruvians (51%) supported the go ahead of the Tia Maria project (El Comercio 2015b) even after demonstrations that lead to the death of 11 people. The origin for this support was the belief that this project would generate new jobs. The same percentage of people supported the project in the Arequipa region.

People in the Tambo valley, close to Tia Maria, pointed to the central and regional governments for not fulfilling their roles as mediators and instead supporting the project. Governments since Fujimori have been in favor of developing mining even confronted by conflicts such as those at Conga and Tia Maria. The Peruvian government decentralized most of the State functions during the Toledo Government, but not Energy and Mining, due to the importance of exports to the country's tax coffers. The Humala government considered forming an independent organization for EIS evaluations, presently carried out by the Ministry of Energy and Mines, since the latter would playing the role of judge and jury. This change would take place during the government of President Kuczynski.

The opposition to State-owned companies reached a new high when the Humala Government got approval by Congress for PetroPeru to exploit some territories in the Amazon with other companies so that its oil pipeline would remain in use. The opposition was focused on the efficiency of State companies in exploiting natural resources rather than on environmental factors.

Another factor that may be relevant in accepting the multinational mining companies (MNEs) in Peru is that the production of copper was only 27.7% of total exports in 2016 and was diversified in several companies. Freeport lead the list with 18% of Peru's copper production, followed by Glencore (16%) and SPCC (13%). The four main Chinese companies that had copper mining operations in Peru produced 21% of the metal. Additionally, there is the Buenaventrura Mining Company, a Peruvian company which produced just less than 10% of copper in 2016, but additionally produced gold, silver, tin, and lead. This is certainly a very different story from the great weight and almost unique control of mining production by CPC in the first part of the twentieth century.

In sum, Peruvians not only believe in mining as an engine for development, but at the same time do not want State-owned mining companies, at least for now.

This is in absolute contrast with Chile where State ownership continues to be a key political demand by a majority of the country. The success of Codelco throughout its 41-year history is so extraordinary that it has lead people to ask more of it (Meller 1996, 2013).

No matter how many times Codelco was, and still is, criticized for being managed by trade unions, for letting politics permeate its decisions, for having poor labor productivity, for shady deals, and for many other curses, the fact remains that it is not only the largest Chilean company, but also the most prestigious (Minerobarometro 2017), and that there is not a single year when it ceased to hand dividends to the State, even during low price cycles and with a meager capitalization by its owner.

The survey Minerobaromero, an initiative of Mori Chile S.A. and the Pontificia Universidad Catolica de Chile (Pontifical Catholic University of Chile), was conducted nationally every year since 2006, with face to face interviews throughout the 40 major cities, with a sample error of 3%, indicated for the last 12 years that Codelco was by far the best mining company, with more commitment with the community, which paid more taxes, most transparent and trusted, safest, with larger technology potential and more future, and with better conditions for its workers. It indicated, also, that the worst attribute of Codelco was the protection of the environment.

With respect to mining generally, an average 71% of Chileans were very satisfied or satisfied with its contribution to the development of Chile in the last 12 years. The survey also showed that satisfaction with the role of mining was at its top when the copper price was booming, and it decayed when it was lowest, suggesting that the effects of price cycles is felt throughout the country, especially in unemployment and growth of salaries. A study by the Pontificia Universidad Catolica de Chile (Jara et al. 2016) estimated that the direct and indirect work generated by mining in 2012 in Chile was equal to 11% of the work force.

An average close to 80% of Chileans throughout this period were against privatization.

Nationalization of the large private mining companies was advocated by close to 60% of Chileans in the surveys, but this ranked lower than the wish to nationalize banks, electrical utilities, pension funds, and health insurance companies. This suggests that Chileans believe in the State more than in private industry to administer crucial industries and to solve people's problems.

Peak public demand to nationalize mining coincided with the peak copper price year in the last 40 years. It was the student demonstrations of 2011, the largest in the country since return to democracy in 1990 that proclaimed that "education is not for sale," and demanded free for all secondary and university education, "right here and right now" (BBC 2011). The way to fund this venture was to use the sovereign funds created due to copper taxes, plus the proceeds of the nationalization of copper companies. Trade Unions also supported these demonstrations, and the Codelco Trade Union was on strike on July 2, 2011, on the 40th anniversary of the creation of Codelco, against the privatization of the company, a ghost which circulated periodically in the country ever since its foundation.

One of the latest manifestations of the resurgence of statism in the country was in 2014 with the elaboration of a report on lithium by a Presidential Commission, where one of the two main conclusions was that the development of the Chilean lithium industry should be made by State-owned companies, reversing the model which was implemented since 1984 with two private companies that extract lithium in the Atacama Salt Lake. Chile rapidly gained the pole position in world production but it lost it to Australia in 2012 (Lagos 2017).

It is likely that the endorsement for nationalizing mines would considerably decrease if its costs were realized. Many may still believe that nationalization in 2017 would be without compensation, the same as in 1971. Surely, such an arrangement would not work in a highly globalized economy where sanctions would be applied swiftly, either directly or indirectly. Also, the supporters of nationalization possibly do not appreciate that capital, the most important ingredient in mining development, is not, and possibly will not be, available by the State for the mining activity. The poor historic capitalization of Codelco proves this assertion.

And perhaps most relevant, the control of copper production by MNEs was distributed through many companies in 2016, very different from the situation in the first part of the twentieth century when, as mentioned before, two US companies dominated the Chilean economy. In 2016, BHP produced 16% of Chile's copper, Anglo American contributed 8%, and Glencore 6%. The Chilean private mining company Antofagasta Minerals produced 10%, and Codelco produced 33%. Copper was 44.6% of total goods exports of the country.

The Chilean mining development model was not designed but it resulted by accident, thanks to the decisive support of the Armed Forces at the very last minute before voting the Constitution of 1980. The coexistence between a strong and healthy State company and private companies has worked very well and it is amply recognized by private mining companies, but the debate of who must own mining companies has continued almost without interruption, and it will possibly continue in the future.

There is still resentment about the privatization process conducted by Enami in the 1970s and 1980s that partly contributed to build the private copper mining, which produced two thirds of copper in Chile in 2016 but contributed less than Codelco to taxes during the last two decades.

The success of nationalized companies led to crave for more State, whereas their failure led to oppose State ownership. Relevant sectors of the Chilean left still seek to revert the privatization carried out by the Military Government and in spite of the difficulty to carry out these wishes, as was discussed, this imposes an additional risk factor for foreign investment.

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