The Nationalization of Copper in Chile: Antecedents and Consequences

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THE NATIONALIZATION OF COPPER IN CHILE: ANTECEDENTS AND CONSEQUENCES*

On July 11, 1971 the Chilean Congress voted unanimously for the amendment to the Chilean constitution which authorizes the government to nationalize the holdings of the three largest copper companies in Chile - Anaconda, Kennecott and Cerro** - all U.S. owned companies. The day this amendment was passed is celebrated in Chile as a "Day of National Dignity." President Salvador Allende declared the event Chile's "second independence", referring to the achievement of economic independence that has been denied Chile since its political break from Spain in 1818. In light of the unanimity of political support for the nationalization of the American-owned copper companies it is very unlikely that the violent overthrow of Salvador Allende's Marxist government will result in a reversal of that decision. Admiral Ismael Huerta, the junta's foreign minister, said the new regime "never contemplated" returning the copper mines to their original owners although the junta has promised to begin talks with Anaconda and Kennecott about compensation.

The nationalization of copper in Chile has a specific importance in terms of Chile's own historical development as well as a more global importance in terms of the conflict between the natural resource multinational corporations and the forces of economic nationalism in many Third World countries. Chile's decision to nationalize the copper industry was the culmination of a long history of conflict between the American owned copper companies of Anaconda and Kennecott and the Chilean government which started with the denationalization of the Chilean copper industry in the early years of this century. The conflict between Chile and the copper companies resulted from the organization of copper production whereby the basic decisions affecting Chilean national development were made by foreign corporate officials according to the needs of the vertically integrated copper companies and not according to the needs of the Chilean economy.[1]

At each stage in the development of the conflict between Chile and the copper companies there is an interaction between Chile's knowledge of the technical and managerial functions of the American copper companies and the nature of Chile's bargaining stance toward the companies. When Chile's knowledge of the industry was very primitive the Chilean government was content to bargain for a higher percentage of the profits from the industry. As Chile's knowledge of the industry became more

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** The Cerro Corporation did not begin mining operations in Chile until 1967.

sophisticated Chile's bargaining demands changed from those which called for greater Chilean benefits from the industry to that of demanding total Chilean ownership and control of the industry.

In the context of present U.S. - Latin American relations, the U.S. government and the multinational corporations are gravely concerned about any precedents that the Chilean nationalization may provide for other Third World countries seeking control over their natural resources.[2] The attractiveness of the Chilean nationalization lies in its orderly, legal character. The possibility that the Chilean nationalization may be used as a model for other Third World countries which are dependent upon a large export-oriented natural resource industry dominated by foreign companies makes it important to examine the factors which led up to the nationalization of copper and the extent to which the nationalization can be expected to function as a source of internally-generated wealth at the service of economic development in Chile.

Early History of the Chilean Copper Industry

Copper has played an important role in the Chilean economy ever since Chile first exported bars to the Viceroyalty of Peru for processing into cannon in 1749. By 1820 Chile's production of copper had increased to 9 percent of the world total. Copper was first shipped as concentrates but after the 1830's a substantial part was smelted in Chile. Chile's share of world production increased rapidly in the next several decades, to a peak of 44 percent in the 1860's.[3] In spite of the great distance to the European market Chile's Tamaya mine had the reputation as the world's foremost producer of copper and the crude "Chile bars" which were produced from Welsh-type reverberatory furnaces in Chile became the standard grade on the London Metal Exchange. Chilean copper provided approximately 65 percent of the needs of British industry and consumption.[4] A few foreign companies were active in Chile during this later period but 90 percent or more of production was controlled by Chileans. The table below summarizes the steady growth of world copper production, and the rise and fall of Chile within that international industry.

TABLE I

Decade	Average Annual Production	Per Cent Increase	First Producer	Second Producer	Third Producer	Fourth Producer
1801–1810	18,200	—	England 40%	Russia 18%	Japan 17%	Chile 9%
1811–1820	18,850	3.6%	England 44%	Russia 18%	Japan 17%	Chile 9%
1821–1830	27,350	45.1%	England 45%	Japan 16%	Russia 16%	Chile 11%
1831–1840	36,450	33.3%	England 44%	Russia 14%	Chile 14%	Japan 12%
1841–1850	49,381	35.5%	England 31%	Chile 20%	Cuba 13%	Russia 11%
1851–1860	75,908	53.7%	Chile 32%	England 21%	Russia 8%	Cuba 7%
1861–1870	114,934	51.4%	Chile 44%	England 11%	U. S. A. 9%	Spain 8%
1871–1880	142,374	23.9%	Chile 36%	Spain 15%	U. S. A. 15%	Australia 9%
1881–1890	248,859	74.8%	U. S. A. 32%	Spain 22%	Chile 16%	Germany 7%
1891–1900	414,935	66.7%	U. S. A. 52%	Spain 15%	Chile 6%	Japan 6%

(Compiled from U. S. Department of Commerce: Department of Mines, *Eco. Paper No. 1: Summarized Data of Copper Production, 1928.*)

There have been a number of explanations advanced to explain the collapse of the Chilean export sector in the 1880's and its eventual domination by U.S. copper companies in the early part of this century. No attempt at a comprehensive explanation of why Chile experienced denationalization will be given here. Rather, an attempt will be made to demonstrate that the traditional economic interpretations of this period which cite factors such as scarcity of capital and lack of industrial organization do not fit the Chilean case.

Norman Girvan makes an important contribution to our understanding of the denationalization of the Chilean copper industry by placing the denationalization in the context of the changes which were taking place in the size and scale of the copper industry in the U.S. and the fact that similar changes failed to materialize in the Chilean case.[5] The emergence of the electricity industry in the U.S. in the 1880's and the resulting rapid growth in demand for copper stimulated a "transformation of small scale industry based on high grade ores and run by a number of small, independent producers, into a large scale industry based on low grade ores and dominated by a small number of producers integrated from copper mining to refining and marketing."[6] The changes in the scale of the industrial organization and the huge amounts of capital required for the producing units greatly increased the risks in the industry with the result that a few large, vertically integrated firms came to dominate the U.S. copper industry. Two of these firms - Anaconda and Kennecott - expanded on the basis of their strong domestic position and purchased Chile's large, low grade copper deposits.

But this is still only part of the process. The important question which remains is the reason why no similar revolution in demand, production and organization occured in the Chilean copper industry. As late as 1876 Chile was producing 62 percent of the world's copper. This same industry was also manufacturing copper utensils for domestic consumption and parts and boilers for distilling apparatus.[7] One writer summarized the situation as follows:

> In the second half of the last century (in Chile) an important effort was made in the field of metallurgy. Numerous industries of this type were installed in the region of Santiago and Valparaiso, the majority of them directed by foreigners (but resident in the country and economically Chilean). The projects of these metallurgical industries were ambitious: They manufactured plows, threshing machines, locomotives, railroad freight cars, large bells, etc.; they also constructed four steam locomotives. The initiative developed in the metallurgical industry showed its efficiency by being able to provide the necessary arms and equipment for the Chilean army and navy during the War of the Pacific (1879-83). Nevertheless, this effort,

> so promisingly begun, was later nullified for the most part by competition from imported production.[8]

On purely economic grounds it seems unlikely that Chilean investors could not have supplied the capital and industrial organization necessary to develop their own vertically integrated corporations to withstand the invasion of the American firms. The relatively modest initial cash investments made in what was to become the *Gran Mineria*, or large scale mining, suggest that scarcity of capital *per se* could not have been a major reason for denationalization. The development expenditures for *Chuquicamata* and *El Teniente*, the Big Two of the *Gran Mineria*, appear to have been about $12 million and $10 million respectively by 1915[9] whereas Santiago Machiavello estimated the value of Chilean capital invested abroad at 389 million pesos. This figure included Chilean capital invested in beef production in Argentina, nitrate production in the north of Chile and tin production in Bolivia.[10]

An alternative explanation for the denationalization of the Chilean copper industry may be sought in the political realm in the particular alignment of class forces in the conflict over the role of the state in the Chilean economy. On one side stood President Balmaceda and a section of the industrial bourgeoisie who favored higher taxation for development expenditures and limitations on foreign ownership and on the other side stood, in the words of the Chilean historian Hernan Ramirez Necochea:

> a coalition of bankers and landowners, mine-owners and industrialists, opposed to the financial and economic policy of Balmaceda which was rooted in nationalism, opposition to laissez-faire and in favor of the definite intervention of the state in the economic organization of the Republic, who proposed - at the same time as defending the rights of the constitution - to consign these ideas of Balmaceda to oblivion.[11]

The conflict culminated in the Civil War of 1891 and the overthrow of President Balmaceda. The period immediately following the overthrow of Balmaceda saw the arrival of William Braden, an American geological engineer who was instrumental in linking the Chilean copper industry into the vertically integrated operations of Anaconda and Kennecott. By the 1920's Anaconda and Kennecott had secured control over all the important copper reserves in Chile.

The Emergence of State Interventionism in the Copper Industry

With the passing of the ownership and control of the Chilean copper industry into the hands of U.S. capital the issue of the value of copper which actually remained in Chile - the "returned value" - took on major importance. In this category is included taxes and local expenditures for labor and materials. With the collapse of the world market for natural nitrates at the end of the First World War copper replaced nitrates as Chile's principal export commodity accounting for approximately 80% of Chile's foreign exchange earning capacity. In addition to supplying the foreign exchange necessary for import financing, copper revenues accounted for between 15-30 percent of government revenues. The long term growth prospects for Chilean national development have been integrally related to the fluctuations of the copper export sector. Chile has thus sought to extract as much returned value as possible from the operation of the copper export sector.

At the same time, Chilean copper has been an important input into the vertically integrated operations of Anaconda and Kennecott in terms of supplying their needs for production, revenues and profit. Chilean copper also assumed an important role in terms of the long range profitability and growth of these corporations.* It was the differing needs between the vertically integrated corporations and the national economy of Chile which provided the essential context for the emergence of open conflict between the government of Chile and the U.S. copper companies.

In the first years of operation the American copper companies were quite isolated from the rest of the Chilean economy. Their main link to the Chilean economy was the purchase of labor. There were no restrictions on the repatriation of profits and the vertically integrated companies had little need to purchase capital equipment from Chilean-based industries. The first income tax, amounting to less than 1 percent of the value of production, was levied in 1922. The attitude of the Chilean government toward Anaconda and Kennecott soon began to change in the face of a series of foreign exchange crises which culminated in the Depression.[12] One of the major consequences of being tied to U.S. copper consumption through the vertically integrated corporations was that when U.S. copper consumption contracted during 1930-32 the effects were transmitted directly through the American companies to Chilean production. The value of sales plunged from $111 million in 1929 to $31 million in 1931, and prices fell from 17.5 cents to 7.0 cents.[13] After 1925 an income tax was established of 6% plus an additional tax of 6% on profits resulting in a total rate of taxation of 12%. Even with the new taxes, Chile was able to capture only a small share of the total value of her copper exports. In the years 1925-34 non-returned value amounted to U.S. $306 million or 62% of the value of exports. It was this problem of the low share of

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* Between 1925 and 1968 Chile provided 52 percent of Anaconda's profits. From 1915 through 1968 the companies earned a total of $2,011 million in net profits and depreciation from Chile, of which $738 million only was used for reinvestment.

returned value which was to preoccupy the Chilean government in its dealings with Anaconda and Kennecott for the next several decades. In 1934 the profits tax was raised from 12 to 18 percent. These early measures of the Chilean government to make the foreign copper companies serve the needs of the Chilean economy culminated in the establishment of the Chilean Development Corporation (CORFO) in 1939 as an agency to insure that the increased export taxes made a contribution to domestic capital formation. The activities of CORFO were financed by a 15 percent tax on the profits of the copper industry, thus raising the profits tax to 33 percent. More and more taxes were added over the next fifteen years culminating in state intervention in pricing and marketing between 1952 and 1955.[14]

Chilean "captive production" and the sales monopoly of 1952-55

With the integration of Chilean copper production into the corporate economies of Anaconda and Kennecott major decisions about production and pricing were effectively removed from the hands of any Chilean body politic. The consequences of this structural arrangement had serious implications for Chilean national development. In the first place, it meant that Chilean copper production was directly linked to U.S. copper consumption and the fluctuations in the U.S. industrial cycle. In the second place, Chilean sales competed with those of U.S. producers and were vulnerable to U.S. government protectionist policies. The effects of being integrated into the U.S. market took its most serious toll, as has been pointed out earlier, curing the Depression of 1930-32. Following the Depression, the U.S. imposed a tariff on copper imports which prevented Chile from participating in the recovery of demand in the U.S. after 1932.[15] This cycle, as we shall see, was repeated in the post World War II period.

The integration of Chilean copper production into that of the American-owned copper companies also implied the subordination of Chilean national development to the needs of the U.S. national economy. Thus when the U.S. entered WWII, the U.S. government set a price for copper at 12 cents per pound, a price slightly above Depression levels. Immediately after the war, with U.S. price controls removed, the copper price rose to 21 cents per pound by April 1947. The loss of returned value to Chile as a result of this price freeze has been estimated as high as $500 million.[16]

When the war ended the price of copper kept rising until the 1949 business recession in the United States at which time copper prices dropped and the American copper companies cut back their production in Chile further than at any of the mines in the U.S.[17] The 1949 recession ended with the beginning of the Korean War and the imposition of price controls on Chilean copper without prior consultation with, or approval by, the Chilean government. With the costly experience of World War II behind them and the prospects of a repeat of that experience with the Korean War, the U.S. move provoked a public outcry in Chile which led to the Washington Conference of May, 1951 and to an increase in the price of Chilean copper of 3 cents per pound, which would accrue entirely to the Chilean government. In addition, Chile was "given" the right to sell up to 20% of its copper on the free market.

But to many groups in Chile, the experience of World War II suggested that the entire system of Chile's integration into the corporate economies of Anaconda and Kennecott was fundamentally detrimental to the process of Chilean national economic development. From the Chilean point of view it was the worst possible kind of integration where Chile was excluded from full participation in the upswings of the industrial cycle while bearing the major brunt of the downswings in the industrial cycle. Furthermore, this critique began to be elaborated by a broad segment of political groupings within Chile.[18] In a speech before the Senate on April 15, 1952, the conservative Senator Gernan Videla, speaking as Chairman of the Senate Mining Committee and President of the National Mining Society, declared: "The time has come for our government to confront the single logical solution for our exports - to get for all our sales a just price."[19] The Chilean government subsequently repudiated the Washington agreements as prejudicial to the interests of Chile, and, with Congressional approval, established a state monopoly over all copper sales. During the period this monopoly was in force the results were encouraging. In the first year of its operation it produced $100 million in government revenues - an amount which greatly surpassed Anaconda and Kennecott's payments of direct taxes.[20]

But the Chilean sales monopoly had a more far-reaching significance than the extraction of increased revenues by Chile. The government of Chile had successfully asserted, in defiance of the U.S. government during wartime, its right to fix the price of Chilean copper produced by the American companies. The Chilean sales monopoly of 1952-55 became the first major challenge to the decision-making authority of the vertically integrated multinational corporations and the U.S. Government.

Confrontation and Accomodation: The "New Deal" Legislation of 1955

The problems which confronted the Chilean sales monopoly were formidable. First of all, due to the tight monopoly on marketing knowledge held by Anaconda and Kennecott, Chile had very little information on the size of demand in the major U.S. and European industrial markets and Chile was forbidden to sell to any of the Soviet bloc nations by the Washington agreement of 1951.[21] A second major problem in the marketing of Chilean copper was the fact that Chile's potential customers in the U.S. and Europe were already integrated, through a series of formal and informal ties, with the major producers of copper. This degree of integration is not only important for the multinational copper companies; it is equally important for the producers and consumers of copper that do not have formal ties of ownership between them. This informal pattern of vertical integration can be established through buyer-seller ties at producers prices, through long term contracts and through joint financing.

Rather than face shortages in the world market, producers and consumers prefer to trade in established patterns and are willing to pay a premium or accept a discount, at various stages in the business cycle, in order to preserve that system of vertical integration.[22]

These carefully built up ties were not about to be suddenly broken by Chile. Both the U.S. government and the American copper companies exerted pressure on European consumers of copper not to make purchases from Chile. Theodore Moran notes that:

> After the establishment of the Chilean monopoly in 1952, it appears that the International Materials Conference adopted a practice of deducting purchases from Chile from the quotas granted to the United Nations allies at the lower 'ceiling' price. Thus, if France, for example, contracted to buy 10,000 tons from Chile at 54¢ per pound, the French allotment of 27.5¢ copper would be reduced by 10,000 tons by the International Materials Conference.[23]

This would be a major factor in accounting for the low volume of Chilean sales during this period. By 1953 and 1954, with the drop in wartime demand and the afore mentioned difficulties, Chilean exports dropped and stocks accumulated.

At the same time Chile found that the level of production in the Gran Mineria was falling. Chile's share in Free World production had been steadily declining since the Second World War and had not recuperated much even during the Korean War. In 1945, the Chilean share of world production had reached a high of 23.0%, in 1951 that share was 16.0% and in 1954 the share of production was only 14.9%. Despite the rapid growth in world demand, there was no increase in investment by either Anaconda or Kennecott between 1948 and 1955. The American companies preferred to expand marginal mines in the U.S. rather than increase their investment in Chile.

This fall in investment and output has been widely attributed to the measures taken by Chile to maximize the returned value to the industry.[24] In addition to the steadily increasing direct tax Chile levied on the American companies there was a substantial indirect tax in the form of an artificial exchange rate. From 1932 onwards the Chilean government required Anaconda and Kennecott to buy the local currency needed for operations at the fixed rate of 19.35 pesos per dollar while the import rate averaged about 60 pesos per dollar in 1952. It was from the artificial exchange rate that the greatest increases in returned value came in the 1945-54 period. In 1952, for example, the effective rate of direct income tax was 32.7% while the rate of indirect taxation through exchange controls was 40.4% - for a total effective rate of 73.1% for the Anaconca and Kennecott mining subsidiaries.[25] While the Chilean share of copper revenues was steadily increasing the absolute returns to Chile were falling. Throughout the period 1950-1955 the companies were putting pressure on Chile for a drastic change in policy which would permit a higher net profitability, as a condition of increased production.

These difficulties, combined with the fact that the U.S. was unwilling to purchase the Chilean stocks for its strategic stockpile brought the conflict between Chile and the American companies to crisis proportions. For approximately a year and a half the Chilean Senate debated various options regarding the copper industry - from outright nationalization to a liberalization of their mining laws to encourage investment and increased production by Anaconda and Kennecott. The Senate recommended that the copper be sold to any customer it could find, "free world" or otherwise,[26] and that the Senate would be willing to consider new legislation to stimulate production. The agreement to consider new legislation for the companies, combined with the threat to sell to the Soviet Union, prompted the U.S. to purchase 100,000 tons of copper for its stockpile at the minimum price set by Chile, in March 1954. The following year saw the passage of Law 11,828 - the "New Deal" for the copper companies.

In many ways the "New Deal" legislation was a reaction against the trend of state intervention in the Chilean economy. With the failure of the Chilean sales monopoly many conservative and business groups were ready to reevaluate their treatment of the American copper companies. The Liberal Senator, Hernan Videla Lira, who had once* denounced the subordination of Chilean production to the needs of the vertically integrated corporations, was now (April 1954) calling for Chile to free itself from the artificiality of state intervention and to rely on free trade and providing a "good investment climate" in which the American copper companies could increase production and contribute to the development of the Chilean economy.[27]

The 1955 "New Deal" legislation was passed with great conservative support and consisted of the following elements: (1) a fixed rate of 50% on net profits of the American copper companies with a variable surtax of 25% of profits which declined proportionately as production increased above some basic quota; (2) the elimination of the artificial exchange rate and a return to a free rate of exchange for the companies; (3) deductions on the net taxable income for new investments in electrolytic copper producing installations and other investments and (4) the creation of a copper department in the Chilean government to control the exports and production of copper.

The "New Deal" legislation embodied a series of concessions to the American copper companies which were made on the assumption that these measures would stimulate production and new capital outlays to build refi-

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* See footnote #19.

neries in Chile. By the end of 1959 it was clear to many groups in Chile that Anaconda and Kennecott were not responding to the "good investment climate" in ways that Chilean conservative and business groups had anticipated. It was from this disappointing and frustrating experience that a new phase of conflict emerged between Chile and the vertically integrated multinational copper corporations.

Rejection of the "New Deal" Legislation and the Move toward Chileanization

The results of the first five years of the 1955 "New Deal" legislation were considered a failure in terms of Chilean efforts to increase production, refinery capacity and government revenues. In the first five years of the "New Deal" the only major investment project carried out was the Anaconda investment in the El Salvador mine to replace its depleted mine at Portrerillos. Production from the Portrerillos mine had been falling since the end of WWII and it was necessary, from the point of view of maintaining Anaconda's share of production in Chile, to invest in the nearby El Salvador mine.[28] Investments by Kennecott in Chile were in the nature of replacement and maintenance expenditures only. By the time Chileans began criticizing the "New Deal" in 1959 Chilean production was not significantly different from what it had been at the end of World War II, despite Anaconda's El Salvador mine coming into full production in 1959. Meanwhile, under the generous provisions embodied in the "New Deal" the profits of Anaconda and Kennecott rose to new heights.

TABLE II

Average Profit Rate
(as a percentage of average book value during the period)

Anaconda	1950 to 1955	9.1% per year
	1955 to 1960	13.4% per year
Kennecott	1950 to 1955	25.5% per year
	1955 to 1960	37.9% per year

(Source: CODELCO, "Antecedents Economicos y Estadisticos Relacionados con la Gran Mineria del Cobre" (Santiago: June 18, 1969))

The other side of the coin, of course, was that government copper revenues fell drastically: in 1955 taxation of the American companies brought in $156 million, while in 1961, it brought in only $68 million. The returned value to Chile from total production fell from 78 percent in 1955 to 56 percent in 1959.[29]

Finally, the "New Deal" was unable to check the trend in the fall of the percentage of copper refined locally, let alone encourage investment in new capacity. In 1951, the percentage of refined copper (electrolytic and fire refined) produced by the American companies in Chile was 89%; in 1961 the percentage had declined to 45%. The decline was just as serious in absolute terms: in 1951 the American companies refined 319 thousand metric tons while in 1961 that figure had dropped to 216 thousand metric tons.

A good part of the explanation for the failure of the copper companies to behave according to Chilean expectations lay in the very conception of the "New Deal" legislation. The Chileans were working on the classic liberal economic assumption that a capitalist firm will seek to maximize its returns on each individual operation. Unfortunately, this theory was not complex enough for understanding the behavior of the multinational copper companies. For Anaconda and Kennecott, their primary consideration was to maximize returns for their corporate economies <u>as a whole</u>.[30] In the case of Anaconda and Kennecott this involved pursuing a long term growth strategy which placed a great deal of emphasis on diversification, by product and by geographical region. In the immediate postwar period Kennecott had made substantial investments in oil exploration, South African gold mining, and iron-titanium project and a fairly large ($100 million) purchase of the stock of Kaiser Aluminum. Anaconda was also diversifying into aluminum in the 1950's with its Anaconda Aluminum Co. smelter in Montana. In addition, both companies faced demands for investment outside of Chile. Kennecott, for instance, was just breaking off its longstanding relationship with American Smelting and Refining Company in the 1950's and was building facilities for refining its own ores. This move, by the way, accounts for the reduction of exports of refined copper by Kennecott's subsidiary in Chile.[31]

Thus by the early 1950's, before the "New Deal" legislation went into effect, both companies were already committed to long range growth strategies in which Chile played little or no part. The Chilean operations of Anaconda and Kennecott were simply not part of the companies' planning for long term growth at the time of the "New Deal" legislation and little in the way of greater incentives could have induced a more favorable response by Anaconda and Kennecott.

Meanwhile, criticism of the behavior of the multinational copper companies began to be voiced once again by major groupings of the left, right and center within Chile. Even the conservative President Allesandri (1958-64) publicly expressed his disappointment that the copper companies, especially Kennecott, did not have more incentive to contribute to the process of national development through private enterprise.[32] The demand by the left for total nationalization of the copper companies received a real boost with the publication of Mario Vera's work* which demonstrated

* <u>La Politica Economica Del Cobre En Chile</u> (Santiago: 1961)

the failure of the "New Deal" from the Chilean point of view. At the same time Chile's need for foreign exchange and public revenues led to the special exchange rate for the companies. During this period (1960-64) the American companies made it clear that no new major investments would be undertaken unless they were assured that the tax and foreign exchange provisions of the "New Deal" would remain in force for the next twenty years. It was in this atmosphere of intense antagonism between Chile and the American copper companies that Eduardo Frei won the 1964 elections and began negotiations with the copper companies.

Chileanization and Nationalization

In the period preceding the 1964 presidential election copper had become the focal point of Chilean domestic politics. Senator Salvador Allende, who came within 40,000 votes of being elected president of Chile in 1958, and who was now running as head of a leftist coalition in the 1964 election, sponsored a plan for the nationalization of the Gran Mineria. Meanwhile, the disaffection of Chilean conservative and business groups over the failure of the American copper companies to contribute to Chilean expansion plans during the period of the "New Deal" legislation was now exacerbated by the intrusion of the Alliance for Progress program into Chilean politics in the early 1960's.[33] The Alliance for Progress called for sweeping reforms in Latin America, including a major land reform which posed a significant threat to conservative landholding interests in Chile. The threat posed by the Alliance for Progress only served to heighten the tensions between Chile and the copper companies. As early as 1961 the powerful Conservative Party Senator Francisco Bulnes voiced the growing bitterness about the copper companies in the right-wing newspaper, El Diario Illustrado:

> There is no need for social change in Chile since the country has many social laws on the books for over 50 years. It would be better if the United States quit stirring up our economic and social problems...What the country does need is huge new investments in copper production. The Nuevo Trato ("New Deal") has been a failure - merely the granting of exaggerated concessions to the companies in return for almost nothing. Therefore, if the companies connot be made to launch a huge new program and let the proceeds flow to develop Chile as the Alliance envisions, the government should nationalize them![34]

This mounting opposition from left, right and center groups in Chilean politics provided the context for Kennecott's offer to sell 51% of its share in Braden Copper Co. - Kennecott's Chilean subsidiary. After only seven weeks in office President Frei was able to announce a $500 million expansion program which contained the following features: (1) the doubling of output to more than a million tons by 1970; (2) substantial government participation in copper production and exploration; (3) the tripling of Chilean copper refining capacities by 1970; (4) considerable state control over sales and (5) the opening of all world markets (including the Soviet Union) to Chilean copper.[35]

The basis of the copper expansion program was the purchase of the 51% controlling interest in the Braden Copper Co. and the expansion of its mine, El Teniente, the largest underground mine in the world. As part of the Chileanization agreements, Kennecott retained managerial decision-making authority and Chile reduced the tax rates on the companies as well as providing a 20 year guarantee on these tax rates. The 1964 agreements did not include Chileanization of Anaconda but rather Anaconda agreed to expand its output by 53 percent between 1965 and 1970

Kennecott asked for, and received, $81.6 million for 51% of Braden Copper Co., an operation whose book value was only $65.7 million in 1963. Keith Griffin, in his analysis of the Chileanization agreements argues that no matter which procedure one uses, "Braden was overvalued. Instead of the $180 million agreed upon, the true value of the enterprise was somewhere between 65•7 million and 119.82 million and the cost to Chile of a controlling interest should have been somewhere between 33.5 and 61.1 million."[36] Moreover, Kennecott's share of the expansion program was financed by the receipts from Chile's payments for 51 percent of the stock of Braden and the tax rates were cut so drastically (from 86% to 44%) that Kennecott's share as a 49% owner was greater than its share as a 100% owner. Since the absolute share of profits rose substantially as a result of the expansion, this meant that Kennecott's earnings from Chile increased for virtually no cash outlay on its part. "The beauty of the deal," according to a New York security analyst for Kennecott, "is that the Chileans are happy, and Kennecott is getting a bigger share of a bigger pie without any big outlay of new money from the states."[37]

Under the Chileanization program and the rise in copper prices during the Vietnam War the profits of Anaconda and Kennecott rose to unprecedented heights. Kennecott, who in 1965 made $8 million dollars, withdrew $48 million dollars from Chile in 1969. Anaconda increased its income from $187 million in the triennium 1965-67 to $239 million in the period 1967-70. Meanwhile, by 1970, production figures were still at their 1964 level and the refining program had only reached 360,000 tons or about 50% of what had been called for.[38]

"Hanson's American Letter," used by investors in the U.S., summed up the results of Chileanization as follows:

> No government of the extreme right, in an agreement previously signed, had ever dealt with North American firms with the kind of generosity shown

> by the Frei government. Its excessively favorable treatment lacked so much balance and justice and was so so prejudicial to Chilean interests that it almost provoked hilarity in Washington."[39]

With the continuing loss of domestic support for the American copper companies and the increasing Chilean competence in the running of the industry the Chileanization agreements ended in nationalization. In 1969 Chile bought a 51% interest in the two largest Anaconda mines - Chuquicimata and El Salvador. The full nationalization of the mines was completed in July of 1971 when Allende proclaimed full national ownership and control over the country's most important industry.

Copper as a Leading Sector in Chilean Economic Development

The primary importance of Chile's ownership and control of the copper industry lies not only in its income generating role but even more importantly, in its role as a leading factor in the domestic industrialization process. Analyses of Chilean copper policy tend to focus on the returned value to Chile and assumes a value of copper which is much lower than its potential value to Chile.[40] The potential value is that value of the final product if all its value was added in the Chilean economy. For more than two-thirds of a century the Chilean copper industry has been subjugated to the needs of the corporate economies of Anaconda and Kennecott. During this time Chilean copper has supplied an important part of the raw material needs of the fabricating subsidiaries of these American companies' U.S. plants. Because of the integration of Chilean production into the operations of Anaconda and Kennecott Chile has foregone a substantial part of the potential value of copper in the fabricating and marketing stages. According to the U.S. Federal Trade Commission, "Reports of companies which fabricate as well as mine copper show that...the greater part of the profits came from the fabrication division of the operation."[41] The price of fabricated copper is almost twice as high as the price of refined copper,[42] while the copper refining charges are estimated to be less than ten percent of the price of unrefined copper.[43] This amount of potential investible surplus is capable of providing Chile with an important source of investment to raise productivity in other sectors of the economy.

In addition to this potential surplus available to Chile, the copper industry occupies a strategic position in the economy in terms of promoting backward and forward linkages in the rest of the economy. As early as 1923, the Chilean Santiago Machiavello anticipated the importance which Albert Hirschman was to ascribe to these linkage effects in the process of economic development. Machiavello agrued that copper could serve as a leading factor for other industries on the supply or demand side such as petroleum, coal, iron and steel, sulphuric acid, agriculture and metallurgy.[44] At the same time that Machiavello was writing the copper industry was not performing this role due primarily to the denationalization of the industry and the integration of Chilean production into an already vertically integrated industrial structure which supplied its capital equipment requirements from U.S.[4] suppliers.

Since the election of President Salvador Allende in 1970, the Chilean government had been pursuing a program of taking control of vital industries either through nationalization, stock purchase or government intervention. The objective was to create a state-controlled integrated metallurgical complex. The initial components of such a complex are diagrammed below:

DIAGRAM I
Chile's Integrated Metallurgical Complex

Backward Linkages	Copper Mines	Foward Linkages
ARMCO - leading producer of grinding balls used in the copper crushing process	Chuquicamata	MADECO - largest maker of copper products
	El Teniente	
E. I. Dupont - explosives and refactory bricks	El Salvador	NISBA - major producer of brass fittings and valves.
	La Exotica	
El Melon and Cerro Blanco - the 2 largest cement producers		
	Rio Blanco	

Source: "Major Interventions and Nationalizations in Chile," in New Chile, North American Congress on Latin America (NACLA) (Berkeley, Calif. 1972) pp. 24-5.

The Chilean Model and the International Context

It is possible to identify three major concerns which conditioned the response of the U.S. government and the American copper companies to the Chilean nationalization of copper. The first major concern was the deteriorating position of the U.S. economy in 1971 and especially the chronic balance of payments deficit. In testimony before the Senate Subcommittee on International Trade, Kennecott Copper Corporation underscored the case for U.S. government support of multinational mining enterprises when it pointed out that:

> In the decade of 1961-70, net capital outflows of the mining and smelting industry ran to about $2 billion. But receipts from abroad, including dividends, interest and branch profits, ran to $4.8 billion. Net contribution of the mining and smelt-

> ing industry to the balance of payments was therefore close to $3 billion...This contribution is the more impressive when we consider where mining investment is made...in the less developed nations of South America, Africa and Australia.[45]

The second major concern of the U.S. government and the American copper companies was the possibility that the Chilean nationalization may encourage other Third World nations seeking greater control over their natural resources to follow the Chilean route. When conflicts between multinational corporations and host countries arose in the past, it was usually possible for the multinational corporation to threaten to move operations from one country to another and force a settlement of the conflict that left the multinational corporation in control. But at the beginning of the 1970's the situation was changed radically. The drive of economic nationalism was by no means limited to the Marxist government of Chile. At a State Department-sponsored seminar on the "Impact of Economic Nationalism on Key Mineral Resource Industries" a State Department spokesman raised the question as to "whether we are witnessing a basic change in the situation in that competition among host countries tends to be greatly attenuated because of the development of a common attitude, a common political philosophy, and because forums have developed in which they can concert their actions - UNCTAD, the Organization of Oil Exporting Countries, the Andean Pact and so on. More and more we seem to be confronted with a united front of host countries, and the possibilities of playing one against the other are greatly diminished. This may call for a different model, and it may call for a different policy."[46]

John M. Hennessey, deputy assistant secretary of the Treasury for development finance (a man who helped shape U.S. policy toward Chile), stated the new "hard line" policy of the government: "I think we assume there is a link between the availibility of resources at a reasonable cost and foreign direct investment at this time...At this moment the U.S. has a policy of wanting to promote foreign direct investment, which is why the OPIC (Overseas Private Investment Corporation) exists." Further, he stated, "we assume that the U.S. government <u>cannot</u> walk away from any significant expropriation."[47]

The third major concern involved the position of the American copper companies within the international copper industry. Raymond Mikesell, an industry expert, articulated this concern at the State Department-sponsored seminar mentioned above: "...petroleum and mineral firms, regardless of their degree of vertical integration, desire to maintain their position in world markets, and without <u>control over sources of supply</u> their position is greatly impaired."[48] Although the international copper industry has long been characterized by a high degree of concentration and control,[49] there have been important trends undermining the strength of the producers' oligopoly at least since the Second World War.[50] It is important to analyze these trends not only because they help us understand the behavior of the American copper companies but they also specify the conditions under which Chile had to develop its own vertical ties into the large industrial markets of the capitalist and socialist blocs.

Within the United States, the three largest copper producers - Anaconda, Kennecott and Phelps Dodge - were able to maintain their share of domestic mine production above 80% from 1947 to 1954. But by 1960 their share had dropped to 69%, and by 1969 it had declined to 61%.[51] At the same time, there has been a rise in the number of major U.S. producers from three to eight. These eight include the big three - Anaconda, Kennecott and Phelps Dodge - in addition to the "newcomers" - American Smelting and Refining, Duval, Magma, Copper Range and Inspiration.

The growth in the number of major oligopoly producers is even more striking at the international level. After World War II, the big seven, including the Roan-American group, the Anglo-American group, the Union Miniere group, and International Nickel of Canada, as well as Anaconda, Kennecott and Philps Dodge produced about 65% to 70% of "free world" copper from 1946 to 1954. By 1960 their share of world production had declined to 60%. By 1969 that figure went as low as 54%.[52]

TABLE III

Copper Production (000's short tons)	1948	1960	1969
1. Kennecott	514	571	699
2. Anaconda	362	476	597
3. Phelps Dodge	247	234	284
4. Roan-AMC group	134	241	368
5. Anglo-American group	118	392	426
6. Union Miniers	171	331	399
7. International Nickel	118	155	110
Total - "Big Seven"	1664	2400	2883
% of World Production	70%	60%	54%

The figures above seem to indicate a definite trend in the direction of the dilution of concentration and control that was once exercised by a handful of producers in the international copper industry. The breakup of the producers oligopoly had important implications for the maneuverability of Chile within this international industry.

One of the factors that has contributed to this dilution of concentration within the industry has been the willingness on the part of fabricators and consumers of copper to finance the development of new copper sources and to be paid back in output. Thus Chile had been able to channel large flows of capital into developing its small and medium sized mines because of this arrangement with three Japanese fabricators - Dowa Mining, Mitsubishi Mining and Mitsui Mining.

Furthermore, with the growth of many smaller producers since World War II - the "newcomers" - Chile had been able to play off one group against another. Thus one observes that while Kennecott was engaged in a desperate campaign to disrupt sales of Chilean copper (see next section) the Cerro Corporation had signed a contract to act as a purchasing agent for Chilean copper. The Cerro Corporation was a newcomer in the Chilean mining and wanted to expand its sources of supply. The actions of Cerro, one of the giants of the American metal industry, came as a blow to Anaconda and Kennecott. "Some people," sneered one copper executive at the time, "will do anything for money."[53] But inasmuch as Cerro's only other major copper holdings are in Peru, it could not afford to do otherwise. The Cerro case is just one example of the importance of the "newcomers" to the international copper oligopoly. U.S. Continental Copper and Steel Industries Inc. concluded an agreement with the Chilean Development Corporation (CORFO) and Chilean private investors in 1969 for a medium size mine that began operations in 1971. In addition, several Canadian firms including Noranda Mines and Canadian Javelin Ltd. have also expressed interest in expanding their investments in the Chilean copper industry.

The significance of the newcomers to the copper industry lies not only in their importance for expanding the Chilean copper industry but particularly in their influence on the financial institutions of their respective home countries and in the multilateral financial institutions in which they have representation. Thus at a time when Chile was being denied credit at the Inter-American Development Bank (IDB) and the World Bank, Chile had no problems with the International Monetary Fund (IMF). In 1971 and 1972 the Allende government received $148 million from the IMF in partial compensation for the fallen copper price and from its normal allotment of drawing rights. Part of the explanation for this anomaly may be found in the strong European influence in the IMF and the weaker U.S. influence.

Kennecott Declares War

Since the decision of the Chilean government to deduct an excess profits tax on the earnings of the American copper companies since 1955 (excess profits were determined by comparing the rate of profit the nationalized companies earned in Chile to the return on capital invested elsewhere), Kennecott has been engaged in a campaign to disrupt the operations of the Chilean copper industry. It should be noted at this point that neither the principle of excess profits nor its retroactive application are novelties in U.S. law. The U.S. government imposed the same tax on U.S. Steel Corporation after World War I.[54] Nevertheless, Kennecott has maintained that Chile acted in violation of international law and announced that it would be Kennecott's policy to "seize El Teniente copper wherever we find it."[55]

The immediate objectives of the harassment campaign were to destroy

Chile's credibility as a reliable supplier of copper in the international marketplace and to inflict serious financial losses on the Chilean copper industry. It is unlikely that Kennecott ever seriously thought that it could recover its losses in Chile (with only 13 percent of its world-wide investments in Chile, Kennecott earned 21 percent of its total profits from Chile in 1970[56]) by the series of court actions it was undertaking. The first series of suits that Kennecott brought against Chile for alleged nonpayment of a debt in New York federal district court resulted in the embargo of Chilean funds in New York bank accounts amounting to no more than $250,000.[57] Among the Chilean agencies affected by the embargo was the Chilean Copper Development Corporation (CODELCO) which was the largest single seller of copper in the world.

On October 4, 1972 the Braden Copper Company, a subsidiary of Kennecott, won a preliminary court action in a French court blocking payments to the Chilean government on a cargo of copper from Kennecott's former El Tentiente mine. Kennecott sent letters to the usual buyers of Chilean copper warning them of its ability to embargo 49% of the metal that they may purchase. Chile's Minister Counsellor in Paris, Jorge Edwards, commented on the timing of the Kennecott move:

> This week conversations are being held preparatory to drawing up contracts for the provision of Chilean copper to France and Western Europe in 1973. Kennecott has chosen a critical moment, one when such an embargo is particularly able to arouse arouse anxiety and a sense of insecurity in Chile's regular copper consumers in Europe. It has selected France as the central consumer nation for Chilean copper in Europe.[58]

The series of court actions taken by Kennecott against Chile are indicative of the strategy of the multinationals to shift the greatest benefits of the industry from the production stage over which they are losing control, to other stages over which they exercise more influence such as the marketing and distribution stages of the industry. In terms of inflicting immediate economic damage on Chile the moves of Kennecott were mildly successful. The actions of Kennecott alone resulted in the direct loss of $140,500 for Chile and CODELCO was forced to reassign 5,000 tons of copper valued at $5 million to other buyers and markets. Kennecott initiated similar suits to obtain injunctions against Chilean ore deliveries across Europe but was rebuffed by courts in Britain, Italy, Sweden and twice the Netherlands. Industry opinion was divided on the wisdom of such a strategy. The staff of Metals Week noted at the time that "...the chances of a large American company winning such a case against a small emerging nation - given the present world climate - seem small, at least outside the U.S."[59] Moreover, at the December 1972 meeting of the Organization of Copper-Exporting Countries (CIPEC - composed of Chile, Peru, Zaire and Zambia which together produced 44% of the world's copper), the group issued a declaration stating that they would not deal with

Kennecott and that they would refrain from selling copper to markets traditionally serviced by Chilean copper.[60]

In terms of Kennecott's long range interests, the risks inherent in pursuing this kind of a strategy were justified. At a time when Kennecott was carrying out delicate negotiations for new copper deposits in Puerto Rico, New Guinea and Australia it was imperative that the Chilean model not be seen as a model that could be duplicated elsewhere.[61] Even in their summation before the French court, the Kennecott lawyers acknowledged that their actions were an exercise in "teaching Chile the political realities of life."

The timing of the Kennecott offensive in European courts suggests that the actions may have been part of the larger U.S. strategy to wreak havoc with the Chilean economy and provoke a military intervention that would overthrow the Allende government. As Kennecott sought to disrupt sales of Chilean copper in Europe, truck owners in Santiago went on strike and caused considerable damage in the areas of production and distribution during the 25 day strike. When a Forbes reporter asked a State Department spokesman whether there was any consultation on Kennecott's problems the reply was: "Sure, we're in touch from time to time. They know our position." The reporter continued, "Which is?" "We're interested in solutions to problems. And you don't get solutions by sitting on your hands."[62]

The issue underlying the actions of Kennecott and the U.S. government was only tangentially related to the matter of the value of the uncompensated American copper mines. The larger issues concerned the ability of the large, vertically integrated copper companies to maintain control of copper deposits and reserves on a world scale and the threat that a successful nationalization in Chile would pose for that control. It is only the realization that the Allende government's nationalization of copper provided a viable alternative to the domination of the Chilean economy by Kennecott and Anaconda that can explain the unyielding determination on the part of the U.S. government and American corporations to bring the Chilean revolutionary process to a halt.

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NOTES

[1]The theoretical elaboration of the idea of the corporate economy and the national economy used in this analysis is contained in Norman Girvan's "Multinational Corporations and Dependent Underdevelopment in

Mineral Export Economies," Social and Economic Studies, Vol. 19, No. 4 (December, 1970).

[2]A perspective on the Chilean nationalization as part of a regional pattern throughout Latin America can be found in James Petras, "Chile: No" in Foreign Policy, Summer 1972. The concern of the U.S. government with recent nationalizations in the Third World can be seen in a recent study by the U.S. Department of State entitled "Impact of Economic Nationalism on Key Mineral Resource Industries," March 20, 1972.

[3]Joseph Grunwald and Philip Musgrove, Natural Resources in Latin American Development (Baltimore: John Hopkins, 1970), p. 167.

[4]Anibal Pinto, Chile: Un caso de desarrollo frustrado (Santiago: Editorial Universitaria, 1962), p. 15.

[5]Norman Girvan, Copper in Chile (Jamaica: Univ. of West Indies, 1972), p. 9.

[6]Ibid.

[7]J. Fred Rippy and Jack Pfeiffer, "Notes on the Dawn of Manufacturing in Chile," Hispanic American Historical Review, May 1948, p. 297. The reader interested in the advanced state of the development of Chilean industry before the period of U.S. capital penetration of Chile is also referred to Jack B. Pfeiffer, "Notes on the Heavy Equipment Industry in Chile, 1800-1910," Hispanic American Historical Review, February 1952, pp. 139-44.

[8]Max Nolff, "Industria manufacturera," in Geografía económica de Chile, Vol. 3 (Santiago: CORFO, 1962).

[9]Estimated from data in Luis Hiriart, Braden, Historia De Una Mina (Santiago; 1964) and Harvey O'Connor, The Guggenheims (New York: 1937), p. 348.

[10]Santiago Machiavello, El Problema de la Industria del Cobre en Chile y sus Proyecciones Economicas y Sociales (Santiago, 1923), pp. 110-111.

[11]Hernán Ramírez Necochea, La guerra civil de 1891: Antecedentes economicos (Santiago: 1951). For an overview of the conflicting interpretations of this period in Chilean history, see Harold Blakemore, "The Chilean Revolution of 1891 and its Historiography," Hispanic American Historical Review, vol. 45, August 1965.

[12]Grunwald, op. cit., p, 169.

[13]Clark W. Reynolds, "Development Problems of an Export Economy: The Historical and Developmental Relationships of the Copper Industry to the Economy of Chile" (Berkeley: Univ. of Calif. unpublished Ph.D. thesis,

1962), p. 54.

[14]General treatments of the history of copper policy in Chile can be found in Markos Mamalakis and Clark Reynolds, Essays on the Chilean Economy, (Homewood, Ill: Richard D. Irwin, 1965); Mario Vera Valenzuela, La politica economica del cobre en Chile, (Santiago: Universidad de Chile, 1961); Raymond Mikesell (ed.), Foreign Investment in the Petroleum and Mineral Industries: Case Studies in Investor-Host Country Relations (Baltimore: John Hopkins, 1970), esp, Chapters 15 and 16 by Mikesell and Mamalakis.

[15]The U.S. imposed tariff was the equivalent of a 72 percent ad valorem duty on the basis of the 1932 average price and has been described as a "practical embargo" on copper imports. See Materials Survey: Copper (U.S. Bureau of Mines, 1952), Ch. VI, p. 4.

[16]Reynolds, op. cit., p. 240.

[17]Most Chilean sources claim that production was being cut back 20% in Chile versus 10% in the United States. Senator Larrain Vial, of the Conservaive Party, later claimed that the U.S. companies planned to cut back production by 30% in Chile but were prevailed upon to limit the cutback to 20%. See Historia de la ley 11.828, vol. I (Santiago: 1955), p. 3909.

[18]The most comprehensive treatment of the development of economic nationalism in Chile in the postwar period is to be found in Theodore H. Moran's "The Multinational Corporation and the Politics of Development: The Case of Copper in Chile 1945 - 1970," (Harvard University: unpublished thesis, 1970). See Chp. 3.

[19]Boletín Minero, May 1952, p. 1161. Cited in Moran, op. cit.

[20]Vera, op. cit., p. 63. The figure refers to the period June 1952 to June 1953. Most of the 20% was sold on the European "Free" market at about 54 cents a pound.

[21]Panorama Económico, May 9, 1952 and September 26, 1952.

[22]John Tilton, for example, has found that most sales in aluminum, bauxite, copper, lead, manganese, tin and zinc are based on stronger and more dependable ties than mere price considerations. See John E. Tilton, "The Choice of Trading Partners: An Analysis of International Trade in Aluminum, Bauxite, Copper...," Yale Economic Essays, Fall 1966.

[23]Moran, op. cit., p. 89.

[24]For a short history of Chile's taxation of copper profits and the effects on output and investment, see Eric N. Baklanoff, "International Taxation and Mineral Development: the Political Economy of Chile's Le Gran

Mineria de Cobre," Proceedings of the 58th National Tax Conference (Harisburg, Pa.: National Tax Association, 1966), pp. 328-41.

25 Moran, op. cit., p. 92.

26 Dr. Salvador Allende stated that he had talks with Soviet trade representatives in 1955 (Historia de la ley 11.828, op. cit., vol. 2, p. 1317) and that the possibilities of opening commercial relations were favorable. After the Korean War, Allende was one of the principal spokesmen for the Marxist left in calling for the total nationalization of the copper industry. CF. the speech of Allende in the Senate, January 28, 1953, reprinted in El Siglo, January 29, 1953.

27 Accounts of the Senate speeches of Hernán Videla Lira in Boletín Minero, March - April, 1954.

28 The 1955 Annual Reports for Anaconda noted that "As the Andes Porterillos ore body has remaining life of less than five years at present rate of production, a four-year programme has been set up for bringing this new mine, which will be known as El Salvador, in order to supplement and eventually to supplant the production from the Portrerillos mine."

29 Reynolds, op. cit., p. 378.

30 Girvan, "Multinational Corporations...," op. cit., p. 491.

31 For accounts on the corporate history of Anaconda and Kennecott, see Isaac F. Marcosson, Anaconda (New York: 1957); Harvey O'Connor, The Guggenheims (New York: 1937); Thomas O'Hanlon, "The Perilous Prosperity of Anaconda," Fortune, May 1966; Federal Trade Commission, Report on the Copper Industry (Washington: GPO, 1947); and John McDonald, "The World of Kennecott," Fortune, November 1951.

32 Interview in Cobre. Cited in Moran, op. cit., p. 165.

33 See Theodore H. Moran's "The Alliance for Progress and the Foreign Copper Companies and their Local Conservative Allies in Chile: 1955 - 1970," Inter-American Economic Affairs, Vol. 25, No. 4, Spring 1972, pp. 3 - 24.

34 Senator Francisco Bulnes Sanfuentes, El Diario Ilustrado, July 2, 1961. Cited in Moran, op. cit.

35 Saez, Chile y Cobre (Santiago: Departmento de Cobre, Publicided Condor, 1965). Cited in Mikesell, op. cit., p. 375.

36 Keith Griffin, Underdevelopment in Spanish America (London: Allen & Unwin, 1969), p. 154.

37 Business Week, Dec. 7, 1968.

[38] Alberto Vaccaro, "Nacionalizacion del Cobre en Chile," Marcha, Oct. 21, 1971.

[39] Hanson's American Letter. Cited in Vaccaro, op. cit.

[40] The studies by Reynolds, op. cit., and Markos Mamalakis, "Contribution of Copper to Chilean Economic Development, 1920-67," in Mikesell, op. cit. focus on the returned value to Chile and assume that Chile would have no copper industry if the American companies did not supply capital, technology etc. An analysis which evaluates Chilean copper policy from the perspective of potential value can be found in Robert Griss's "The Contribution of Chile's Highly productive, American Owned, Export Oriented Copper Industry to the Internal Development of Chile," (Madison: Univ. of Wisconsin Dept. of Sociology, mimeo, August, 1970).

[41] Federal Trade Commission, Report on the Copper Industry (Washington: GPO, 1947), p. 110.

[42] Metal Statistics 1969: The Purchasing Guide to the Metal Industry, p. 137.

[43] O.C. Herfindahl, Copper Costs and Prices: 1870-1957 (Baltimore: Johns Hopkins Press, 1959), pp. 174-175.

[44] Machiavello, op. cit.

[45] Kennecott Copper Corporation, "The Case for the Multinational Mining Enterprise," Statement by Kennecott Copper Corporation in response to inquiry of the Subcommittee on International Trade of the Senate Finance Committee, December 29, 1972, p. 263.

[46] U.S. Department of State, "Impact of Economic Nationalism on Key Mineral Resource Industries," Proceedings, Conference sponsored by the Bureau of Intelligence and Research, March 20, 1972, pp. 20-21.

[47] Ibid., p. 119. Emphasis added.

[48] Ibid., p. 33. Emphasis added.

[49] Federal Trade Commission, op. cit., p. 3.

[50] Theodore Moran, op. cit., points to five major factors that have accounted for the gradual breakup of the producers' oligopoly: (1) U.S. government intervention during wartime to subsidize small companies; (2) the diversification of companies into copper mining by either forming or buying a mining subsidiary; (3) the preference of companies that have formerly confined their interest almost entirely to smelting or refining to move backwards and develop their own source of supply; (4) the willingness of fabricators and consumers of copper to finance the development of new copper sources and to be paid back in output; and (5) the discovery of large new ore bodies. (See Chapter I of Moran).

[51] These computations have been made from the figures given in the Yearbook of the American Bureau of Metal Statistics for the appropriate years.

[52] Ibid.

[53] Forbes, September 15, 1971.

[54] Harvey O'Connor, Steel-Dictator (New York: John Day, 1939), p. 84.

[55] The New York Times, November 5, 1972.

[56] Chilean government advertisement, New York Times, January 25, 1971.

[57] The New York Times, March 10, 1972.

[58] Chile Economic News, November 1, 1972 (New York: CORFO)

[59] Engineering and Mining Journal, October 1972, p. 43.

[60] Peruvian Times, January 12, 1973.

[61] In the course of negotiations for a mining permit from the government of Puerto Rico the Episcopal Chuch sponsored public hearings on copper mining in Puerto Rico . A major concern voiced at the public hearings was that 33 1/3 of the profits from the mining would go to the Government while 72% was recently paid by the same company to the Government of Chile. (See Economic Priorities Report, Vol. 2 No. 2, June-July 1971). After the government of New Guinea conferred with Peru, Zaire, Zambia and Chile the government requested major changes in Kennecott's original proposal particularly in the company's production, taxation and financing plans. (See Engineering and Mining Journal, July 1973, p. 34.)

[62] Forbes, December 1, 1972, p. 27.