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Review

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Transnationals and mining development in Bolivia, Chile and Peru

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With the aim of taking greater advantage of their non-renewable natural resources, the governments of Latin America have made substantial changes in the production structure of the mining sector since the end of the war, expanding the share of the State in this sector's activities and applying active policies as well as carrying out negotiations with the transnational corporations which have traditionally been in control of the sector. In the absence of any national private enterprises with the necessary financial, technological and administrative capacity, the State has been obliged in some countries to undertake entrepreneurial functions and to establish public enterprises to mine, process and market minerals. In spite of this, however, in many cases dependence on the transnational corporations has persisted, especially in the fields of technology and world-level marketing.

This study analyses three types of experiences by the mining countries of Latin America: the promotion and supervision of transnational corporations in the boom period of large-scale mining, with particular emphasis on the case of the agreements between the Peruvian Government and the Southern Peru Copper Corporation and their subsequent renegotiation; the change of ownership of the mining industry in Chile, with the 'Chileanization' and nationalization of that country's copper industry; and finally the experience of the Bolivian public sector in the integration of mining and metal production. While admittedly dealing with only a small number of experiences, the study only seeks to bring out, those factors which went furthest to strengthen the capacity of the three countries in question for negotiation and action and which resulted in greater benefit for their economies. At the same time, the study does not exclude from consideration the negative experiences or errors committed in these processes: on the contrary, it seeks to contribute to the regional exchange of both positive and negative experiences on the preparation and execution of mining policies, especially among countries whose export and fiscal revenues are substantially affected by these economic activities.

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I

Promotion and supervision of the transnational corporations in the boom period of large scale mining: the agreements between the Peruvian Government and the Southern Peru Copper Corporation*

The beginning of the development of large-scale mining in Latin America was characterized by a notable imbalance between the bargaining powers of the governments and the transnational corporations. The former wished to take maximum advantage of the potential of their 'Primary capital' of natural resources in order to increase the well-being of their peoples, but they did not have the necessary domestic saving, technology or independent entrepreneurial groups to undertake projects of this scale. The criterion therefore prevailed whereby foreign investment in large-scale mining was considered as *additional* rather than *substitutive* (a feature which is frequently attributed to it in manufacturing). The transnational corporations laid great stress on the factors which were lacking in the peripheral country; with the purpose of gaining control

*This study is based on the research carried out in the Unit as part of the interregional project on strengthening the bargaining power of host governments in their dealings with transnational corporations in primary export commodities, and it is based in particular on Juan Eduardo Herrera and Carlos Vignolo, *El desarrollo de la industria del cobre y las empresas transnacionales: la experiencia de Chile* (E/CEPAL/R.239); Fernando Sánchez Albavera, *Políticas y negociaciones con las empresas transnacionales en la industria del cobre en el Perú* (E/CEPAL/R.240); Juan Kñakal, *Vinculaciones de las empresas transnacionales con la industria del estaño en Bolivia* (E/CEPAL/R.249), and also Benny Widyono, "Transnational corporations and export-oriented primary commodities", *CEPAL Review*, first half of 1978, and "Report on transnational corporations in primary export commodities", Interregional Meeting, Bangkok, 8-15 October 1979 (CTC/ESCAP/PEG/12). The author wishes to express his thanks for the valuable comments of A. Gurrieri, A. Núñez del Prado, A. Orlandi, R. Sanz Guerrero and other CEPAL colleagues, while stressing that the views expressed in this paper are of course entirely his own responsibility.

over supplies of strategic materials for the industrialized world and trying to maximize their profits and minimize—or rather secure the maximum possible compensation for—the foreseeable risk deriving both from the scanty possibility of exactly forecasting the mineral yield of a project and the presumed uncertainty about the durability of the original political commitments assumed by the host government. The small oligopolic group of transnational mining corporations¹ had at its disposal in the peripheral countries great reserves of minerals and was able both to choose the deposits with the greatest metal content and to establish itself in those countries whose governments offered additional advantages through 'promotional' and exceptional treatment. In these circumstances, at different times and in different places, Patiño, Anaconda, Kennecott and ASARCO (together with Cerro Pasco Corporation, Phelps Dodge and Newmont Mining) set up large-scale tin mining in Bolivia and copper mining in Chile and Peru with the same main impact of opening up to these countries new sources of foreign exchange and fiscal income: conditions which subsequently became determining factors for their development (at the end of the 1970s, the contribution of the mining sector to total export and fiscal income was 71% and 25% in Bolivia, 53% in Chile and 40% and 12% in Peru.² On the other hand, the same positive phenomenon led to dependence on unstable markets, while the distribution of the profits of mining between the parties—particularly at times of favourable prices—showed a disproportional bias in favour of the transnational corporations.

Furthermore, the excessive income which the transnational corporations appropriated for themselves was not capitalized in local mining or metal production, where it originated, but was increasingly concentrated, in keeping with the global strategy of the transnational corpo-

rations, in the industrialized countries; thus, during the period 1967-1975, the share of the latter countries in the direct investment of the United States transnational mining companies increased from 58% to 67%.

Let us now examine some outstanding features of the liberal or promotional treatment accorded to the transnational corporations, whose investments led to the boom period of large-scale mining in the three countries in question, with special attention to the case of the Peruvian agreements on copper.

On the one hand, the mining codes held that the minerals in the soil and the subsoil are the property of the State, but on the other hand a system of very advantageous concessions was instituted for investors which gave them the right to use, enjoy and freely dispose of the product of their activities in the areas given to them under concession for a practically indefinite length of time (50 years or more), with guarantees of tax and exchange stability. The investors paid a very small land rent which enabled them to maintain large areas indefinitely without being exploited, as part of their world reserves for possible exploitations, while the host State, in practice, lacked the capacity to question or annul a concession.

The tax régimes applied during the boom period of large-scale mining gave foreign investors a number of advantages which facilitated the rapid recovery of their investments and high and stable profits. The taxation of profits was excessively low (between 6% and 25% of the taxable amount), while the effective rate of tax was even lower because of various types of deductions and exemptions. A typical deduction was based on the 'depletion' factor of the deposits exploited by the transnational corporations, even though the non-renewable resource was the property of the State. Under these arrangements, the enterprises were allowed to deduct, free of all charges, 15% and in exceptional cases even as much as 50% of their profits, although they were, it is true, obliged to reinvest the amounts corresponding to this deduction. Investors were also permitted to make accelerated depreciation reserves in respect of machinery and equipment at a rate of up to 20% per year and to readjust their capital to take

¹Thus, for example, in 1960 seven leading enterprises dominated three-fifths of the world production of copper (see T. H. Moran, *Multinational Corporations and the Politics of Dependence: Copper in Chile*, Princeton University Press, Princeton, 1974).

²Unless other sources are indicated, the data and calculations presented in this study come from official reports of the countries.

account of variations in the purchasing power of the national currency.

1. *The negotiations on Toquepala and Cuajone in Peru*

The Toquepala contract signed between the Government of Peru and the Southern Peru Copper Corporation in 1954 was a typical case of the application of a mining code which was liberal and advantageous for the transnational corporations. Under this contract, the investment was granted the exceptional treatment of being considered as a 'marginal deposit', thus permitting the investor to pay only 10-20% of the taxes on profit. The Toquepala deposit was considered as marginal without taking into account the situation of some similar deposits in other countries. With its average copper content of 1.7% during the first year of operation and 1.3% even six years afterwards, it had metal contents higher than almost all the open-cut mines operated in the United States.

In 1966 the investigating committee of the Peruvian Parliament also identified other irregularities in the behaviour of this foreign subsidiary, including the use of double book-keeping with substantial differences between the balances submitted to the Superintendent of Taxation of Peru and those submitted to the Securities and Exchange Commission in the United States. Thus, for example, the first set of figures reflected an over-valuation of US\$ 66 million in expenses and US\$ 44.5 million in the estimate of the depletion factor of the reserves. As a result, the contract was renegotiated and its status of 'marginal deposit' was cancelled, but no punishment was inflicted on the enterprise for the irregularities proved by the Parliamentary Commission. This leniency was connected with the Government's interest in arriving at an agreement with the transnational corporation regarding the new Cuajone deposit.

During these new negotiations (1968), the balance of the respective forces was clearly in favour of the transnational corporations. Peru was at that time going through a serious political and economic crisis characterized by arduous negotiations with the International Monetary Fund and foreign banks on the refinancing of

the external debt. The expropriation of the International Petroleum Company by the new military government which took power that year further weakened the position of the Peruvian negotiators in the face of the political and economic pressures of the United States (application of the 'Hickenlooper amendment' against Peruvian exports). In these circumstances, the successful conclusion of the Cuajone contract seemed to be an important condition for gaining the confidence and backing of the international banking community in general and for the financing of this project in particular. This was clear from the broad guarantees and advantages given to the Southern Peru Cooper Corporation and the other financiers of the project, which were based on the former promotional régime for foreign investment, although in various aspects they subsequently proved to be in contradiction with the letter and the spirit of the new mining code which the same government was to promulgate in 1971.

The Cuajone agreement was also a typical example of the new strategy of the transnational corporations, consisting of distributing the risk of the investment among various financiers interested in one way or another in the project. Whereas previously the transnational corporations provided the major part of the investment from their own capital or else had to go seeking credits on the capital market, now the sources of financing were diversified over a broad network of investment and commercial banks, suppliers of equipment and materials, and future consumers of the minerals, all of them coming from various industrialized countries whose governments also provided greater security for the investment through the direct participation of finance agencies, whether of their own country or of international status (but in which they possess most of the capital and the decisive votes).³ Thus, for the Cuajone investment, which came to over US\$ 600 million, the proprietors of the Southern Peru Copper Corporation subsidiary contributed only 31% of the total and their minority associate, the Billiton

³See, for example, N. Girvan, "Corporate Imperialism", in *Conflict and Expropriation*, New York, Sharpe Inc., 1976, and T. Moran, *op. cit.*

Metallurgical Co., provided a further 4%, this contribution of the mining transnationals being almost matched by the credit of the Chase Manhattan Bank (31%) in consortium with 28 United States, European and Japanese banks. Suppliers of equipment and materials, with their banks, contributed 21%, noteworthy within this amount being the participation of the United States Export-Import Bank (9%). Finally, future buyers of the output of Cuajone provided 9% and the World Bank almost 2%. It can easily be seen that this complex and inter-related network of foreign interests represented a maximum safeguard for the foreign investment in the face of any possible unilateral action by the government of the host country, for if the latter went back on the guarantees given to the financiers of the project it would run the risk of trade and financial embargoes and political pressures (which, as we shall see later, actually occurred in the case of Chile).

The tax arrangements for the foreign subsidiary also corresponded to the investment promotion régime which minimized the enterprise's costs because it was given a number of unilateral advantages compared with the régime in force for national investors. The flat rate of tax for the first six years of recovery of the investments was set at the equivalent of 47.5% of the taxable income, increasing to 54.5% for the following six years. The effective rate of tax, however, was much smaller because of various types of deductions such as the already mentioned 'depletion factor', variations in the exchange rate, losses incurred during the five years before the signing of the contract, profits derived from the revaluation of assets, exemption from duties on financial operations, etc. In addition, the transnational corporation enjoyed preferential customs treatment consisting of exemptions from duty and facilities for the temporary importation, sale or re-export of the equipment and machinery imported during the construction stage. The propensity of the transnational corporation to import was also favoured by a clause which did away with the obligation to make local purchases of inputs if these were 'not in keeping' with the technical requirements of the foreign enterprise and if their prices were 25% or more above the level of the CIF value of offers by foreign suppliers.

It is abundantly evident that a mining contract of the size and complexity of that for Cuajone involved a wide range of sectors of the public administration in the supervision of the various aspects of the investment itself, as well as in trade, customs, taxation, exchange rate and other aspects. At the end of the 1960s, Peru did not possess sufficient infrastructure or qualified personnel to supervise and control the compliance with the various undertakings entered into, nor was there sufficient co-ordination between the various State bodies, so that there was a marked sectoralism which adversely affected the definition of a joint strategy for supervising the project. The new mining policy formulated by the Peruvian Government at the beginning of the 1970s sought to surmount these obstacles standing in the way of the proper supervision of the Cuajone agreement and even renegotiate some of its aspects in order to obtain bigger benefits for the country.

2. *The 'nationalist' policy of the 1970s and the renegotiation with Southern Peru*

At the beginning of the 1970s, the Peruvian Government adopted as the main objective of its mining policy the fuller utilization of the known reserves by seeking to promote the opening up of deposits not yet exploited; to develop the entrepreneurial activity of the State in the exploitation, refining and marketing of minerals; to promote new types of links with foreign capital, and to guarantee the participation of the mining workers in the private enterprises in the sector.

In order to open up the deposits not yet exploited, the principle of 'no work, no protection', was applied, whereby the concession-holders were obliged to submit new investment projects to the Government for approval. This measure led to the cancellation of over 4 000 mining concessions, among which the most important belonged to such transnational corporations as Anaconda, ASARCO (American Smelting and Refining Corporation), Cerro de Pasco and Lampa Mining.

In order to promote the expansion of the mining sector, the Government set up a public enterprise —MINEROPERU— responsible for carrying out preinvestment studies, nego-

tiating with foreign investors, preparing the projects assigned to the State and supervising the marketing of minerals.⁴ Of the large number of deposits which the State had at its disposal as a result of the principle of 'no work, no protection' it only proved possible to put into operation and finance with foreign credits a single mine: Cerro Verde, administered by the public enterprise CENTROMIN. In addition, MINEROPERU embarked in 1971 on the construction of the Ilo copper refinery with a capacity of 150 000 tons per year, calling for investments of over US\$ 60 million which were financed through long-term sales commitments to the Japanese group Mitsu-Urakawa.

This investment led to the renegotiation of the Cuajone contract. Originally, this contract provided that the owners of the mine could dispose freely of its output subject to the sole limitation that domestic supply must take priority. This latter condition was used by the Government in order to renegotiate the contract and ensure the supply of the State refinery at Ilo. The future users of the output of Cuajone, who were entitled, under the terms of the credits provided, to about 100 000 tons a year of blister copper⁵ for refining in the United Kingdom, Japan and the United States, had to sign contracts with the Ilo refinery, and it was also agreed that part of the copper should be supplied as blister to certain financiers of the project. Consequently, Peruvian exports of refined copper increased between 1975 and 1978 from 37 000 to 162 000 tons, i.e., 4.4 times. The higher degree of local processing of the copper increased the value retained by the economy of the country, because on average, by way of illustration, the Peruvian prices of blister copper over the same period were 3.4 times those of concentrates of the mineral, while the prices of refined copper were 3.8 times as high.

Finally, through the establishment of 'mining communities' it was sought to bring about the participation of the workers in up to

50% of the registered capital of private enterprises, with the objective of thus ensuring their participation in the decisions of the enterprise. This measure, which did not always lead to favourable results, met with strong opposition on the part of private investors and was probably one of the reasons why there was no other important foreign investment in Peruvian mining in the 1970s after the investment in Cuajone.

3. Marketing policies and transfer prices

The objectives pursued in the marketing of minerals differ depending on the interest of the actors involved. Whereas the Governments and, eventually, its public enterprises tend to maximize the foreign currency income from exports and the tax revenue for the benefit of the national budget, the transnational corporations, as in other fields of their activities, consider the marketing in the host country as just one link in the complex network of their world operations. The international scale of their operations permits the use of transfer prices between different units in the same enterprise in order to artificially undervalue the export income declared in the host country and transfer the generation of profits to the subsequent phases of the processing and marketing of minerals, which are usually carried out in the industrialized countries, thus avoiding the taxation and exchange controls of the host country.⁶ This trading policy of the transnational corporations is facilitated by the high degree of oligopolic power which they have in both the local and world markets.

The marketing of the concentrates produced by the medium and small-scale miners is generally dominated by the international intermediaries, who fix a particular price, or, more likely, act as agents who receive a commission for their services. The bargaining power of these intermediaries lies in their knowledge of and contacts in world markets and in possessing sufficient capital to finance the purchase of the output and possibly in-

⁴Another public enterprise, MINEROPERU Comercial, was subsequently set up for the marketing of minerals. Its experience is analysed in the next section of this chapter.

⁵Blister copper has a net metal content of 99.2%, while refined copper is almost completely pure copper (99.9%). Concentrates normally contain 25-45% of metal.

⁶See UNCTAD, *Intra-firm transactions and their impact on trade and development*, Geneva, Seminar Programme Report Series, No. 2, May 1978.

vestment in the activities of the medium and small-scale producers, who are thus controlled by or 'tied' to trading firms. The profit margin of the intermediaries depends principally on the formation of 'export lots', made up of purchases of concentrates of very heterogeneous quality, and on the moment at which their shipments are made, in accordance with the situation on world markets. The mining banks promoted by the State, for their part, try to take the place of the intermediaries in the small-scale mining sector by purchasing low-content minerals or concentrates, providing credit and technical assistance, and exporting the output to world markets.

In order to increase the margins of difference between the prices prevailing on the world markets to which the products are sent and the export prices declared in the host country (or the prices at which the products are purchased from the domestic miner in the case of international intermediaries), various trade policy instruments can be used, such as agreed discounts in respect of the cost of processing the mineral ("maquila" charges) and the advantage of renting refining capacity abroad ("tolls"); discounts or premiums on the basis of the metal content of the concentrates and their level of impurities; discounts on competitive markets or premiums on others where there is less competition; careful selection of the time of shipment in order to obtain the best quotation and decisions to exchange geographical supply positions ('swaps'); policies on the destination of exports in general, and the fixing of international reference prices and standards. Obviously, the integrated nature of the transnational corporations' production and trade operations and their oligopolic position on world markets facilitate the use of these trade policy instruments to maximize their profits and ensure that these are generated where it suits them most.

In Peru, the conditions for marketing minerals have changed since the public enterprise MINEROPERU set up a trading department (in 1973) and subsequently (1974) an autonomous public enterprise, MINEROPERU Comercial (MINPECO), was set up for the marketing of minerals. In the mid-1970s, the State controlled over 90% of the national

mineral exports through this enterprise. Nevertheless, only one-tenth of its activities were carried out through direct buying and selling; the rest corresponded to 'back to back' operations where the conditions of the trade contract were transferred to the producer enterprise and MINPECO charged about 2% commission on the FOB export prices. In the case of the tripartite contracts through which the blister copper from the Cuajone deposit was sold, this commission in reality represented for Southern Peru a kind of tax paid in return for the State guarantee on sales to the financiers of the project, since MINPECO did not possess suitable instruments for supervising these contracts.

Under the contracts in question, the importers of blister copper—the financiers of the investments in Cuajone—enjoyed considerable unilateral advantages in fixing the prices for the imported product, since they could define, as suited them best, the date of quotation for the metal within the two months after the arrival of the shipment, or else they could opt for a 'marketing bonus' which meant a discount of 1% from the value of the copper quotation, fixed with respect to a base year selected by the purchaser. They also had the opportunity to fix as they saw fit the discounts for the cost of refining the blister in their countries of origin. It can be seen from table 1 that during the period 1976-1978, on average, the refining costs discounted by the associates and financiers of Southern Peru were substantially greater than the average on the international market. Thus, the transfer prices between the participants in the foreign investment facilitated the relocation of profits to their own countries of origin, while reducing the fiscal revenue of the metal-producing country.

It can be seen from the same table that the costs in the Ilo State refinery also exceeded the international average (by 31% during the period in question). This meant, on the one hand, greater retained value from the exports of Southern Peru, which was obliged to refine a considerable part of its blister copper locally, but on the other hand it showed the lower competitiveness of the public enterprise, to the detriment to greater vertical integration in local industry. Possible repercussions of a similar

Table 1
REFINING COSTS ("MAQUILA" CHARGES) FOR BLISTER COPPER
BY SALES DESTINATION, 1976 - 1978
(US dollars per ton)

	1976	1977	1978	1976 - 1978 (annual average)	
				US\$	International market = 100
Cuajone blister ^a					
United Kingdom	143	155	202	163	96
Netherlands	...	202	202	202	118
Japan ^b	229	255	305	263	153
Toquepala blister ^c	93	118	107	106	62
Ilo State refinery	206	234	230	223	131
Average for international market	190	180	140	170	100

Source: Calculated on the basis of MINPECO data.

^aSales to associates and financiers of the Southern Peru Copper Corporation.

^bAccording to the original agreement fixed in yens in 1972 and adjusted for the devaluation of the US dollar and the rates of inflation in Japan.

^cMarketed by MINPECO above all in the socialist countries (80% and 92% of the total in 1976 and 1978 respectively).

situation are analysed below for the case of Bolivia.⁷

The effectiveness of State control of the marketing of minerals was adversely affected by a number of drawbacks of an administrative and bureaucratic nature. Like other sectoral marketing directorates, MINPECO was subordinated during the past decade to the Ministry of Trade, where all the activities of planning, promoting, co-ordinating and controlling the internal and external marketing of the country's mineral products were concentrated. This centralization generated serious discrepancies with the producer enterprises, while there was no adequate co-ordination between the respective ministries. The bureaucratic rigidity of MINPECO was reflected in the lack of any stimulus to increase marketing profits, the lack of budget autonomy, and the absence of wage policies, to such an extreme that it was necessary to secure a decree from the then Government in order to make each of the journeys required by marketing abroad. The international marketing infrastructure was limited to

some offices attached to the embassies (London, New York, São Paulo and Peking) which did not have any authority to conclude sales or collect payments abroad. Another serious problem was the financing of the production and investments of the medium-sized and small-scale miners, since in this sector MINPECO lacked the necessary resources to take over the functions previously discharged by the international intermediaries.

At the same time, however, despite all the limitations and problems of execution of the mining policies of the then Government already referred, it should be noted that during the 1970s it proved possible to increase copper production from 243 000 to 397 000 tons, or by 63% (compared with the increase of 33% achieved in the previous decade), and at the same time greater benefits were obtained for the economy of the country. The value retained in the country in respect of exports of copper increased with the nationalization of the Cerro Verde deposit, which is now operated by the public enterprise CENTROMIN; with the higher degree of local processing of the mineral; with the greater share of local remunerations and inputs in the expenditure of the industry; with the

⁷See part III. 2 below.

positive effects of the control over marketing; and with the partial substitution of trade intermediaries and the diversification of the markets of destination, including direct sales to the countries of the region and to State enterprises of the socialist countries.⁸ The trade co-opera-

tion of MINPECO with the public and private enterprises of other countries of the region, as in the case of ENAF in Bolivia,⁹ also provided an opportunity for taking advantage of the benefits of economic integration, particularly within the Andean Pact.

II

Change in mining ownership: 'Chileanization' and nationalization of the copper industry

The boom in the large-scale copper mining industry in Chile in the first half of this century was due to investments of the order of US\$ 1 600 million (at 1979 prices) by two of the main United States copper-producing companies: Anaconda (the Chuquicamata and Potrerillos mines) and Kennecott (the El Teniente mine). Copper production increased from 100 000 tons in 1918 to a pre-chileanization peak of 528 000 tons in 1964, i.e., 5.3 times, and in the latter year Chile was responsible for 11% of world production.¹⁰ As in the case of Peru, the boom in large-scale mining was accompanied by a large 'additional' inflow of foreign exchange (in 1970, for example, copper was responsible for 78% of total income in respect of exports of goods) and fiscal revenue (21% of the total in the period 1965-1969); but at the same time it involved an unequal distribution of benefits in favour of the transnational corporations, which took advantage of the promotional policies of successive governments with respect to foreign enterprises and Chile's unilateral dependence on the United States market. Thus, for example, during the period before the war, the government authorities received only 17-29% of the gross profits of the transnational

corporations, which moreover imported almost half of the inputs required for their activities in Chile, so that the overall value retained in the country remained at extremely low levels of between 30% and 40% of the total export receipts. As in Bolivia and Peru, the unilateral dependence on the United States market meant heavy losses of foreign exchange at times of price freezing by the United States Government (about US\$ 500 million during the Second World War, for example).

After the war, the growing awareness of the potential and not fully exploited importance of copper for the well-being of the country led—with the natural ups and downs depending on the orientation of successive governments—to greater State intervention in the industry and greater tax pressure on the transnational corporations. Between the five-year periods 1935-1939 and 1960-1964 the value retained in the country in respect of copper exports more than trebled (from US\$ 152 million to US\$ 488 million per year, on average, in constant 1979 dollars), reflecting mainly a considerable increase in the taxation and local expenditures of the industry. These changes are typical results of the pressure which governments exert on transnational corporations to extract greater benefits from them for the country, not always on the basis of a detailed analysis of the situation or as part of a definite strategy, but rather in response to conjunctural pressures to pay for certain expenditure under the national budget: examples of this are the increase in taxation in 1934 because of the decline of the nitrates industry, the effects of the world crisis and the

⁸Over the period 1975-1978, direct sales of blister copper by MINPECO increased from 66% to 88% of total exports of this product, while those of refined copper increased from 47% to 69%, signifying above all better sales prices.

⁹See part III. 2 below.

¹⁰This was much less, however, than in the period of intense activity during the Second World War and the first two years after the war, when the Chilean share was between 18% and 21%.

need to face social reforms; the promotion of substitutive industrialization through the establishment of the Production Development Corporation (CORFO) in 1939, etc.

Finally, an important aspect of mining policies before the 'Chileanization' and nationalization of the copper industry was the more or less continuous and growing tendency towards a higher level of training of Chilean professionals, who fitted themselves not only in academic circles but also in government work to supervise the marketing and income of large-scale mining, which in turn prepared them for the subsequent tasks of direct participation in running the enterprises. Hence the significance of the establishment in 1955 of the Copper Department, which, as part of the Ministry of Mining, had an extremely favourable influence on the improvement of the knowledge and negotiating skills of Chilean specialists.

1. 'Chileanization'

In the second half of the 1960s, the then Government sought to establish a new model of linkages with the transnational corporations (Kennecott and Anaconda) in the copper industry, by undertaking a policy of establishing mixed enterprises between the State and the transnational corporations, with explicit agreements and mutual obligations. This represented a big departure from the promotional systems of a general nature applied in Chile by previous governments, and represented an even greater difference from the principle of 'no work, no protection' and the cancellation of foreign concessions in Peru.¹¹ Essential elements in this policy were majority ownership by the State, the strengthening of government control over the marketing of copper, and a programme of expansion of production capacity designed to increase output by 75% in the space of six years. It was also aimed to stimulate investment by reducing rates of taxation and guaranteeing stability of treatment of foreign enterprises for a period of twenty years.

In the political context of the time, 'Chileanization' represented an alternative to the

nationalization of the copper industry advocated by the political parties in opposition to the Government, both those of the left, which had been stimulated at the beginning of the 1960s by the Cuban Revolution, and those of the traditional right, which opposed the agrarian reform proposed by the Government in accordance with the postulates of President John Kennedy's Alliance for Progress. The right apparently supported nationalization as a means of protecting its own interests, which were threatened by the social reforms then in vogue. This internal political situation placed the United States Government on the same side as the Chilean Government, and both applied pressure to the transnational corporations to adapt to the new type of links with the State.

2. *The reaction of the transnational corporations and the results of the negotiations*

The reaction of the transnational corporations to the policy of 'Chileanization' of the copper industry was by and large positive, in spite of differences in the tactics adopted by Kennecott and Anaconda, since they saw the expansion of the industry and the new forms of their participation in this activity as the only way of surviving the prevailing political situation and drawing maximum advantage from their investments before eventually having to abandon them in the face of the imminent danger of nationalization.

In order to reduce the risk to their new investments, the transnational corporations, and especially Kennecott, tried—as in the case of the Southern Peru Copper Corporation—to obtain guarantees both from the Government of the host country and from the United States Government. They also demanded that tax incentives be increased to the maximum and that they be assured of long-term stability. As already noted, however, interesting differences were to be seen between the reactions and tactics of Kennecott and Anaconda.

Kennecott, conscious of the fact that its image in Chilean society had been adversely affected by its virtual failure to make any reinvestments in the country since the 1920s, took the initiative and put forward a proposal, even

¹¹See section I (b).

before the inauguration of the new Government, for an expansion plan which included the transfer of 51% of ownership of the El Teniente mine to the Chilean State. Exploiting the advantage given to it by the fact that it was meeting the Government's position with an initiative of its own, it negotiated for and finally obtained a series of unilateral benefits which excessively increased the cost of the 'Chileanization' to the economy of the country. First of all, the sale of 51% of the stock of El Teniente to the Chilean Government was carried out after a revaluation of assets which brought the book value of US\$ 66 million to a commercial or 'real' value of US\$ 160 million. Secondly, the transnational corporation secured a reduced rate of taxation for the new mixed company which amounted to 20% on profits, plus 30% on the dividends corresponding to its minority participation. This promotional level of taxation, together with the subsequent rise in copper prices, enabled it not only to maintain but even to substantially increase its profits compared with those obtained in the period before 'Chileanization'.

The financing of the new investments, as later in the case of the Cuajone project in Peru, required only a minimal net contribution by the transnational corporation, which shared out the risk of the investment among the other participants, especially the Governments of Chile and the United States. Of the US\$ 230 million involved, 48% was financed by the United States EXIMBANK, 12% by the Chilean Government and only the remaining 40% by Kennecott. Moreover, the Chilean Government's payment for the 51% ownership of the former Kennecott property amounted to almost as much as the transnational corporation's own investment, so that finally the company's net contribution was barely US\$ 11 million, while moreover it enjoyed the guarantees of the two interested governments.

Finally, Kennecott maintained control of the new mixed company through a management contract which was one of the conditions for the EXIMBANK credit. The cost of these negotiations to the Chilean economy may be illustrated by quoting the words of a Kennecott representative: "... The good thing about this agreement is that the Chileans are satisfied, while Kennecott gets a bigger slice of a bigger

cake without bringing any appreciable amount of money from the United States".¹²

Anaconda, for its part, also offered an expansion plan, but up to 1969 it remained reluctant to participate in a mixed company with the Chilean State. Of its total new investments of US\$ 200 million, 75% were financed with the transnational corporation's own funds, while the remaining 25% were financed with an EXIMBANK credit endorsed by Anaconda and not, as in the case of Kennecott, by the Chilean Government. Anaconda, too, obtained a reduction in the tax rate on its profits, from 62% to 52%. In 1969, Anaconda gave way to government pressure to transfer 51% of its ownership and at the same time asked to be gradually nationalized and suitably compensated. As a result, it was agreed that 51% of the property (according to the book value) would be transferred immediately, to be paid for over a period of 6 years, while the remaining 49% would be transferred over the period up to 1982 at market prices ('real' value). Thus, in financial terms, the result of the negotiations with Anaconda seemed to involve a smaller cost of 'Chileanization' for the economy of the country than in the case of Kennecott.

The main benefit of the 'Chileanization' was undoubtedly the considerable expansion of production capacity, and although the increase of 75% in copper production was not achieved within the agreed length of time, nevertheless the investment made enabled copper production to be almost doubled by the end of the 1970s in comparison with the beginning of the previous decade, thus halting the decline in Chile's share in world production (see table 2). Secondly, the establishment of mixed companies also marked a considerable advance in the national control and supervision of copper production and marketing. Chileans entered the highest levels of the new companies, and the Copper Department, set up in 1955, began to exercise more efficient control over marketing, establishing as the reference price for all sales of Chilean copper the price prevailing on the London Metals Exchange and participating actively in the whole process of marketing

¹²See *Business Week*, New York, 7 December 1968.

Table 2

EVOLUTION AND DISTRIBUTION OF BENEFITS IN THE CHILEAN
LARGE-SCALE COPPER MINING INDUSTRY
(Average annual values at constant 1979 prices)

Indicator	1945 - 1949	1960 - 1964	1965 - 1969	1971 - 1974	1975 - 1979
1. Production (thousands of tons)	399	501	520	616	843
As a percentage of world total	18.4	11.1	9.7	8.9	10.8
2. Sales prices (US cents per pound)	56.7	74.3	116.6	115.9	73.2
3. Gross profits (millions of US dollars)	262	330	731	582	492
4. Fiscal revenue (millions of US dollars)	164	225	511	553	492
As a percentage of profits	62.7	68.3	70.0	95.0	100.0
As a percentage of total fiscal income	20.1	15.6	21.0	18.9	15.2
5. Local expenditure					
As a percentage of total	58.4	67.3	74.9
6. Value retained in country ^a (millions of US dollars)	273	513	953	1 458	1 393
As a percentage of total exports	56	62	68	90 ^b	90 ^b

Source: Calculated on the basis of official data.

^aCorresponds to total value of annual exports less expenditure abroad, depreciation (up to 1968), and net profits of the foreign enterprises.

^bThe remaining 10% corresponds to estimated import expenditure of the State enterprise.

through the evaluation and approval of the annual sales policies and other specific conditions of sales contracts. The active participation of Chilean officials and professionals in the management of the enterprises and in the trade negotiations with clients considerably increased their level of training and experience for the tasks which they subsequently had to carry out after the nationalization of copper in 1971. It will readily be appreciated that this kind of gradual approach to the national ownership of Chilean copper differs very considerably from the beginnings of the trade supervision by MINPECO in Peru analysed earlier and from the 'abrupt' nationalization of the Bolivian tin industry in 1952.¹³

The Chilean economy benefited as a consequence of these agreements through a considerable increase in the revenue obtained in respect of exports and particularly through the increase in local purchases by the new mixed

company (see table 2). At the same time, however, the dizzy rise in copper prices caused by the war in Southeast Asia (world copper prices practically doubled between the years 1965 and 1966) and the promotional treatment granted to the transnational corporations in taxation matters led, in relative terms, to a greater increase in the benefits for the transnational corporations than for the economy of the country. Thus, the cumulative increase in the 'net' profits¹⁴ of the transnational corporations during the period 1965-1969 was greater than the total value of the investments committed in the expansion plan, and in any case the latter were financed, particularly in the case of Kennecott, only partly by the transnational corporations themselves (see table 2).

In view of the new situation created by the substantial increase in world copper prices, in 1969 the Government renegotiated the arrangements with the transnational corporations

¹³See section III, 1.

¹⁴That is to say, after local taxation.

and imposed on them a supertax which progressively taxed the profits derived from copper prices over 40 cents per pound, i.e., the level corresponding approximately to the period before the price rise in 1965-1966.

3. Nationalization

The nationalization of copper in 1971 represented the culmination of a long process of growing awareness of the importance of this natural resource for the Chilean economy and the cost of the continued dependence of this basic industry on the two great United States transnational corporations and on the oligopolistic market of that country. Another important factor was the experience accumulated by successive governments (and by the professionals and technicians working for them) since the Second World War. Over the course of time, these governments—although with ups and downs reflecting their political and ideological orientation—gradually entered the field of the production and marketing of copper in order to secure greater benefits for the national economy. Finally, the socialist ideology of the government in power when the copper industry was nationalized was backed up in this measure by a wide political consensus, perhaps unique in its broadness, which was shared by practically all the social forces and organizations. In international terms, the Chilean Government's position was based on the exercise of the "sovereign right of every State to dispose of its wealth and its natural resources" laid down in United Nations General Assembly resolution 1803 (XVII) adopted on 14 December 1962. Against this political background it was only natural that the amendment to the Chilean constitution whereby the nationalization of the large-scale copper mining industry was officially effected should be adopted unanimously by the National Congress in July 1971.

The special feature of the Chilean nationalization which called for a constitutional amendment was its attitude to the compensation of the foreign enterprises nationalized, since in practice it introduced the idea of confiscation of the nationalized assets. In the first place, this approach lays down that the ceiling value of the nationalized assets should be determined

on the base of their book value and not their 'real' or commercial value, as had happened when copper was 'Chileanized'. Secondly, it empowered the President of the Republic to deduct from the total compensation an amount equivalent to the 'excess profits' obtained by the transnational corporation. In justification of this, it was argued that the previous agreements have not been able to foresee the profits resulting from the increase in copper prices, which had been far greater than expected. Finally, it was laid down that any litigation which might arise as a consequence of the compensation arrangements should be resolved within the jurisdiction of the country, so that no other State or foreign tribunal could intervene in any aspect deriving from the nationalization of the copper industry.

Specifically, the Controller-General of the Republic, on the basis of the book value, fixed compensation of about US\$ 282 million and US\$ 99 million for Anaconda and Kennecott, respectively. The President of the Republic, however, after adducing that the two transnational corporations had obtained a rate of profit in their Chilean activities almost six times the world average (12% per year as from 1955), laid down that the amount of the compensation originally established for the nationalized enterprises should be reduced by almost US\$ 800 million in respect of excess profits, which meant that no compensation whatever would be paid to the foreign enterprises.

4. Reaction of the transnational corporations

As was to be expected in view of the importance of Chilean copper to the world economy in general and the power of the two transnational corporations in particular, their reaction to the measures taken by the Chilean Government was negative and vehement. Both of them demanded rapid and equitable compensation for the real value (not the book value) of the assets nationalized, and categorically rejected the deductions for 'excess profits', arguing that this measure had a retroactive character which was contrary to the principles of international law and universally accepted ideas of justice. Without denying the validity of United Nations General Assembly resolution 1803 (XVII), they

asserted that the conditions established by the Chilean Government were incompatible with international jurisprudence and they reserved the right to seek the protection of other States—the United States and other industrialized buyers of Chilean copper—and to submit the dispute to the jurisdiction of courts other than those of Chile.

The counter-attack of the transnational corporations took the form of various embargoes on shipments of Chilean copper, which caused temporary uncertainty among buyers and in the country itself, and the companies also secured the freezing of CODELCO's bank deposits in the State of New York. In practice, however, the legal battle between Chile and the United States companies had few direct effects on Chile's exports of copper. What was really being sought was rather some justification for intervention by the United States Government in the dispute, and this took place in October 1971 when the Secretary of State clearly expressed the official support of the United States Government for the transnational corporations affected in the following statement: "the United States Government is deeply disappointed and concerned at this serious break with accepted patterns of international law. Under the established principles of international law, expropriation must be accompanied by reasonable provision for the payment of fair compensation ... the unprecedented retroactive application of the concept of excess profits ... is particularly alarming ... and the United States hopes that the Chilean Government, in keeping with its obligations under international law, will carefully consider this problem".¹⁵ In addition, the United States Government had already given instructions to EXIMBANK to hold up the granting of a loan which Chile had requested in order to acquire aircraft for the national airline "until the government of this country clarifies its economic policy with regard to foreign investments".¹⁶ As the investigations carried out by the United States Senate later reveal, this action was part of a much broader campaign aimed at destabilizing the Chilean economy with the aim of neutralizing the

potential threat posed to the long-term interests of the United States by the precedent of a doctrine advocating 'nationalization without compensation', which in the opinion of the United States authorities constituted a threat to all United States investments in any country of the Americas or anywhere else in the world.

The break between Chile and the mining transnational corporations of the United States was overcome in May 1974 when an agreement was signed with the new Government whereby Anaconda and Kennecott were to be paid compensation totalling US\$ 377 million over periods of between 5 and 16 years.¹⁷

As a result of the nationalization, the new public enterprise responsible for the copper industry, CODELCO, found itself faced with serious internal difficulties. It became obvious, as also happened with the public enterprises of Bolivia and Peru, that the mere act of nationalizing natural resources is not sufficient in itself to bring about an abrupt change in the nature of the problems traditionally associated with the mining industry previously controlled by the transnational corporations, or to alter the attitude of the workers. In the initial period after nationalization, unit production costs rose substantially because of serious problems of absenteeism and labour conflicts which often culminated in the paralyzation of production activities. The mining trade unions, which had acquired an unusually well-developed capacity for negotiation through long years of struggles with the transnational corporations, naturally did not wish to lose the advantages won from the transnational corporations on the grounds that the local labour was significantly cheaper than in the industrialized centres. Thus, for example, there was a negative reaction when the Chilean Government, after the nationalization of the industry, stopped paying the salaries of supervisors in dollars. The supervisors consequently came into a direct confrontation with the new administration and received the support of the political sectors opposed to the process of change in general. The prevailing political struggle also gave rise to such abnormali-

¹⁵See *El Mercurio*, Santiago, Chile, 13 August 1971.

¹⁶*Ibid.*

¹⁷See the analysis of the present policy with respect to foreign investment in Chile given in the article by E. Lahera which appears in the present issue of *CEPAL Review*.

ties as sectarian political attitudes, the filling of technical and administrative posts on a political quota basis, and consequently less efficient performance of certain management functions.

Even so, however, looking back over the long term, the nationalization of the Chilean copper industry meant a substantial increase in the benefits for the economy of the country. During the 1970s copper production increased by 70% —partly because of the investments

made during the period of 'Chileanization'— and the value retained in the country in respect of exports increased from 68% in the period 1965-1969 to 90% after nationalization (the remaining 10% corresponding to imported inputs and services). Consequently, the Chilean economy received a much larger contribution than before nationalization, in spite of the sharp drop in the real price of copper in the second half of the 1970s (see table 2).

III

Mining and metallurgical integration in the Bolivian public sector and the reaction of the transnational corporations

Examination of the boom period of the large-scale tin mining industry in Bolivia during the first half of the century and its nationalization in the early 1950s reveals some important differences from what happened in the Chilean case.

The first special feature of the Bolivian case is that the large-scale mining industry did not owe its origin to the transnational corporations but to a Bolivian entrepreneur, Simón I. Patiño, who begun his spectacular career around 1910 and by his own efforts, after exploiting a tin deposit at Oruro, subsequently 'Bolivianized' most of the mines belonging to Chilean and British capitalists to set up in 1924 the first mining transnational corporation which originated in Latin America. This was subsequently integrated and diversified to cover the mining, smelting, refining, marketing and transport of tin in almost all the world centres of production and consumption of this mineral, thus losing its original Bolivian character.¹⁸

1. Nationalization and the establishment of the public sector

Another important feature of the Bolivian

case is connected with the time at which the large-scale tin mining industry was nationalized, for in fact this was carried out by the Revolutionary Nationalist Movement Government in 1952, i.e., two decades before the nationalization of the Chilean mining industry and long before the joint action taken by the Third World at the international and national levels to secure a New International Economic Order.¹⁹ The decisive domestic political consensus achieved by the majority political force of the time in favour of this nationalization was based, as it was 20 years later in Chile, on the importance of the main natural resource for the well-being of the country and the common political determination to free it from the domination of the 'tin barons' (in addition to Patiño, there were Hochschild and Aramayo) and from the monopoly power of the United States market.²⁰

The historical moment at which the Bolivian nationalization of the tin industry took place

¹⁹In the period 1960-1976, 71 governments of peripheral countries —including 19 from Latin America and the Caribbean— carried out some 1 370 expropriations of foreign enterprises, especially in the area of natural resources.

²⁰The Bolivian economy —like the Chilean and Peruvian economies— was seriously affected by the freezing on the part of the United States of the prices of 'strategic materials' during the World Wars and the Korean War, while furthermore there were the negative repercussions which the strategic reserves of tin held by the United States Government had on the sales prices of the metal.

¹⁸Although there is an extensive literature both in defence and in criticism of the life and activities of Simón I. Patiño, the experience of his enterprise has yet to be appraised from the point of view of the current problems and needs of the Bolivian mining industry.

ce—like that which took place in Indonesia, likewise at the beginning of the 1950s—seems to point to the decisive importance of domestic factors in political actions of this nature, as well as indicating that they do not necessarily require a socialist government for their execution. This latter consideration seems to be confirmed not only by the universality of the phenomenon of nationalization of natural resources in the peripheral countries, but also by the persistence of such actions in subsequent political situations, some of them even opposed to the guiding role of the State in national development. The Bolivian case is clearly outstanding because of the number and variety of the political changes which have taken place in the last 30 years, while the Chilean case stands out by reason of the depth and scope of the changes which have taken place since 1973.

Returning to the special features of the Bolivian nationalization, it should be noted that, unlike the Chilean case, it was not preceded by any significant previous experience in State intervention or in supervision of the activities of the large-scale private mining industry, and unlike the Peruvian case it covered practically the whole of the production and marketing of the large-scale mining sector. This, together with the relative economic and industrial backwardness of the country, must be borne in mind when appraising the serious administrative and economic problems encountered in Bolivia by the public sector tin industry.

As in the Chilean case, Patiño and the other two mining groups which had been nationalized tried and failed to secure a legal embargo in Bolivia's mining exports. At all events, however, the transnational corporations took advantage of the fact that almost all the tin concentrates had to be refined in the smelting plant of William Harvey & Co., in the United Kingdom, which was controlled by the Patiño group (in Chile, in contrast, practically all the copper at the beginning of the 1970s was exported as blister or in refined form) and imposed on the Bolivian Government a compulsory discount of 10% on the gross value of the mineral smelted, so that during the period 1953-1961 they 'charged' some US\$ 20 million in respect of compensation which was never fixed as a whole.

At the domestic level, the new public enterprise, COMIBOL, suffered in the period following nationalization from considerable drops in production (down one-third during the 1950s), in the productivity of labour, and in the profitability of its activities. These problems were partly due to the previous over-exploitation of the deposits; to the lack of geological prospecting and the consequent drop in the metal content of the mineral; to the downward trend prevailing in the world tin market in the 1950s, etc., but they were also, and perhaps mainly, due to the fact that out of some 200 foreign engineers who ran the Bolivian mining industry, 170 left the country and the few Bolivian technicians who remained had to take over the centralized management of the 17 widely different plants which made up the three nationalized enterprises.

The consolidation of the industry and the recovery of the previous levels of production and profitability in the 1960s were facilitated by the so-called Triangular Plan introduced in 1961, whereby the Governments of the United States and the Federal Republic of Germany, in co-operation with the Inter-American Development Bank, joined with the Bolivian Government to assist COMIBOL throughout the decade with credits of some US\$ 31 million in order to improve the efficiency of the organization's management and terminate the compensation payments for the nationalized enterprises. Thus, the greater understanding of the industrialized countries in this period helped Bolivia to make up, at least partially, for the costs arising from the fact of having been a pioneer in the nationalization of the tin industry.

The foregoing does not mean that since the 1960s the external dependence of the Bolivian mining sector has been replaced by equitable links with foreign companies. As already noted, the transnational interests of Patiño led him to consider Bolivia as one of the mineral-exporting links in the worldwide structure of his enterprise, because it was "cheaper to smelt and refine tin in the plant of William Harvey & Co. at Bootle, near Liverpool (which belonged to him) than in any other place, a determining factor being the long and unparalleled experience of William Harvey & Co. in the treatment of the complex Bolivian minerals in

which they had specialized for over 25 years".²¹ Bolivia lacked this 'comparative advantage' of 25 years' experience, and for this reason had to continue depending on foreign smelting plants, thus exposing itself to all the vicissitudes of minerals marketing, with a consequent reduction in the proportion of the value of its exports retained in the country.²² Although COMIBOL managed to break the former monopoly of Patiño's William Harvey smelting plant, whose share in the total sales of the public enterprise went down to 43% by the end of the 1960s, this was merely replaced by the oligopolic power of a few foreign smelting plants consisting, in addition to William Harvey, of another British smelting firm, Capper Pass (belonging to Rio Tinto Zinc Corporation), and the United States firm of Long Horn (Gulf Resources and Chemical Corp.), which acquired 15% and 27% respectively of COMIBOL's total sales of tin ore.

For these reasons, the construction and entry into operation in the 1970s of two tin smelting plants at Vinto (one with a capacity of 20 000 tons for high-metal-content ore and another of 10 000 tons for low-metal-content ore)²³ represented a vital change in the national integration of the tin industry. As was to be expected, this measure led to a strong adverse reaction on the part of the transnational corporations, which were very reluctant to abandon the Bolivian market in favour of the new public enterprise, ENAF, and tried to take advantage of the complex problems accompanying mining and metallurgical integration in an underdeveloped country.

2. *National integration of the mining and metallurgical sector*²⁴

With the establishment of local tin smelting in Bolivia, the national bargaining power

²¹See the Annual Report of Patiño Mines and Enterprises Consolidated, Inc., London, 1938.

²²See Section I. 3 of the present study.

²³In co-operation with two independent firms, Gloeckner of the Federal Republic of Germany and Bergsoe of Denmark.

²⁴The author has pleasure in acknowledging the extensive and fruitful co-operation given to him in his study of the present problems of the industry by COMIBOL, ENAF and the Association of Medium-Scale Mining Enterprises

has been substantially strengthened and the necessary conditions have been created for increasing the proportion of the value of tin exports retained in the country. The public enterprise ENAF, which has sufficient capacity to produce some 30 000 tons of metallic tin per year in the 1980s, can absorb practically all the ore extracted from the tin deposits, including the production of medium-sized and small-scale mining enterprises, which is processed mainly in the smelting plant for low-metal-content ores. In the first place, this means an increase in the locally added value of 10 to 12%, representing the incidence of ore processing charges in the price of the metal, but the potential benefit for the economy of the country is much greater, for various reasons.

On the one hand, as the world market for metallic tin does not display the same oligopolic characteristics as the ore market, ENAF can concentrate its marketing on regions, countries and enterprises which offer the most advantageous conditions, and in particular it can sell directly to consumers without resorting to transnational intermediaries. Thus, ENAF managed to diversify its sales in the course of the 1970s, its main clients in 1979 being the United States (45% of the total), the Soviet Union and other socialist countries (27%), the countries of Western Europe (16%), and the emerging but potentially very important market of Latin America (10%). With regard to this geographical diversification, direct sales to consumer enterprises amounted in this same year of 1979 to some two-thirds of the total, international intermediaries being used above all in the marketing centres of the capitalist world (such as the London Metals Exchange and the New York Market).

On the other hand, the costs and benefits—both real and fictitious—related with the marketing of minerals, such as premiums and discounts, the 'manipulation' of shipments, financing, etc.,²⁵ which were previously handled

of Bolivia, and in particular the many ideas and initiatives of the Commercial Manager of ENAF, Alfonso Vrsalović, which have been used in this part of the study (although of course the author maintains his exclusive responsibility for the contents of this article).

²⁵See section I. 3.

by the foreign smelting firms and the international intermediaries, are now handled by the public enterprise ENAF, thus enabling it to increase its profits and at the same time ensuring fairer treatment for the mining sector (both to COMIBOL and to the medium and small-scale mining enterprises).

Finally, mining and metallurgical integration within the public sector of the country constitutes a solid foundation for the eventual industrialization of Bolivia on the basis of its main natural resources.

In contrast, national mining and metallurgical integration is a negative development for the interests of the transnational corporations in two respects: first of all because they lose the previous accustomed supply of ore concentrates to which in many cases, the technology and organization of their smelting plants were specially adapted. Secondly, they now have a new competitor on the world metals market: the public smelting enterprise which now markets all the metal produced in the country. It is therefore only natural that the transnational corporations should try to prevent or at least obstruct the process of mining and metallurgical integration, and in order to achieve this objective they can try to take advantage of the problems and possible conflicts which always accompany the emergence of new structures of production and the social changes related to the process.

In other words, the bargaining power of the country *vis-à-vis* the external agents now depends to a great extent on the harmony and co-operation between the mining and metallurgical sectors. As already noted, the public mining enterprise acquires a number of advantages by the mere fact of changing its previous foreign partner for the national public enterprise in the smelting of the metal. In addition, it ceases to have to represent the country and defend its interests against the foreign enterprises because it gives up this position to the national metallurgical sector, which markets abroad the entire national production of metal (since domestic consumption continues to be marginal). The most important source of problems and friction, at least apparently, however, is usually to be found in the field of distribution of the benefits. As is only natural, the public mining enterprise and those responsi-

ble for running it are inclined to measure the behaviour and performance of their new exclusive national client according to the same lofty pattern set in their previous links with the foreign smelting plant, which had a number of advantages over its peripheral competitor in the areas of technology, management and power in world markets. Thus, in the short term and from the strictly entrepreneurial point of view, the national mining sector may interpret the change to greater national integration of the mining industry as being unfavourable for its interests, adducing in support of this the decline in its benefits in comparison with the previous period. It is indeed true that in its initial phase the national metallurgical sector suffers from a number of problems deriving from the putting into effect of new investments, its organization, management, financing, external marketing, etc. These internal problems adversely affect the co-ordination and joint programming with the public mining sector—which also suffers from the same problems, but has been suffering from them for much longer—, the bargaining power *vis-à-vis* external agents, and ultimately, the contribution of the mining and metallurgical sector to the economy of the country.

The distribution of benefits between the two public enterprises is carried out through the processing charges, which represent the discount from the price of the metal received by the smelting enterprise in return for its work of processing and marketing the metal. In the 1970s, the processing charge used in the transactions between COMIBOL and ENAF was fixed on the base of the charges paid by COMIBOL to foreign smelting plants. Thus, for example, in 1978 the processing charge made by ENAF, which was US\$ 630 per net metric ton of dry ore was practically equivalent to the weighted mean of the charges agreed by COMIBOL with the foreign smelting firms of Capper Pass, Gulf Chemical and Metallgesellschaft, which took 40% of the total sales of COMIBOL in that year. Consequently, Bolivia's dependence on the transnational corporations in the production and marketing of tin was projected even into the relations between public enterprises of the mining and metallurgical industry within the country. The repercussions of

the transnational corporations on the public sector assumed particular importance at the end of the 1970s, when the new smelting plant for low-metal-content ores came into operation and the Government set itself the goal of processing all tin ore within the country.

3. *Reaction of the transnational corporations to the loss of the Bolivian market*

In the face of the imminent danger of losing their supplies of Bolivian tin ore concentrates and also being faced with a new competitor on world metallic tin markets, the three largest foreign smelting plants which processed Bolivian tin in 1979 (Copper Pass, Gulf Chemical and Metallgesellschaft) reacted by resorting to a dumping campaign whereby they reduced their respective processing charges by 27%, 31% and 35% in comparison with the charge of US\$ 630 per ton used for the transactions between ENAF and the COMIBOL.²⁶ Thus, COMIBOL could have temporarily achieved higher income from its mining production if it had continued and even expanded its links with the foreign smelting plants, to the detriment of the more expensive services of the public enterprise ENAF.

The sudden reduction of the processing charges by the foreign smelting plants had no precedent in the previous links of these enterprises with COMIBOL, for the processing charges of Copper Pass and Gulf Chemical almost doubled during the period 1974-1978, increasing by between 12% and 29% per year, especially because of the increase in the cost of the energy used, whose share in the total cost of processing the ore increased 2.5 times, for example, for the Copper Pass smelting plant over the period in question. It is obvious that this situation could hardly have changed at the end of the 1970s, so it may be concluded that the advantageous offers made by the foreign firms were designed to hinder the smelting of the entire production of tin ore by ENAF, taking advantage of the advanced stage of depreciation of the foreign smelting plants, which

had an average of 40 to 50 years' service, and the low-cost recycling of secondary tin.

In addition, Gulf Chemical offered to set up a joint company with COMIBOL and ENAF to carry out activities which combined toll-type contracts,²⁷ marketing and financing and promised to establish a direct relation with consumers in the United States and to take advantage of the benefits deriving from the special situation enjoyed by Gulf Chemical as a United States domestic industry protected against the effects of sales from the United States strategic reserve. Both COMIBOL and ENAF rejected this offer by Gulf Chemical because they were convinced that if this move by the transnational corporations succeeded it would lead to the disappearance of the State-owned smelting plant, which would be unable to compete with the transnational corporations, after which the foreign smelting plants would return to their policy of raising their processing charges.²⁸

The events referred to also have a projection which goes beyond external interference in the domestic affairs of a peripheral country. They also reflect a struggle between two types of positions and procedures based on different approaches to Latin American development. According to the 'neo-liberal' approach, the public enterprise COMIBOL should have been governed by the laws of the market and should have accepted the 'advantageous' proposals of the foreign smelting plants in order to reduce the cost of its operations. The long-term consequences of such a course of action have been indicated above, however, and are confirmed by the experience of many Latin American countries which have seen their own industries displaced by those of the transnational corporations, not only in the mining sector.

In contrast, the 'self-reliant development' approach suggests that the costs and benefits in the short term and at the enterprise level—above all in the case of a public enterprise—should be considered within the broader context of the better utilization of national resources and the reduction of vulnerability and dependence with respect to external factors.²⁹ If

²⁶See ENAF, statement by the General Manager, Major Eduardo Quiroga, in *Presencia*, La Paz, Bolivia, 6 September 1980, p. 9.

²⁷Rental of smelting plants for ore processing.

²⁸Information supplied by ENAF and COMIBOL.

²⁹See, for example, J. Medina Echavarría, "Las pro-

we bear in mind the already mentioned fact that the ore processing charges are equivalent to approximately one-tenth of the income derived from the sales of metallic tin, whereas the respective share of the State through royalties is about one-third, it is obvious that the Government has sufficient room for manoeuvring to allow it to promote and encourage national mining and metallurgical integration.

Naturally, the above does not mean that there is no need to seek to overcome the serious problems currently affecting the public sector in the Bolivian mining and metallurgical industry, including the lack of mineral prospection and exploration and the slow or inadequate assimilation of new technologies of mine operation and metallurgical processes, which threaten the future production and productivity of the sector; the high costs of operation and management which aggravate the deficit situation (deficit of US\$ 211 million foreseen in the budget of COMIBOL for 1980 and decline of almost 50% in the profits of ENAF between 1978 and 1979); domestic and external indebtedness; delay in bringing into full operation the new investments (volatilization plant of COMIBOL and low-metal-content tin ore plant of ENAF) and in the delivery of concentrates for smelting; unsuitable fiscal policies and incentives, etc. In order to overcome these drawbacks, the Bolivian Government and public enterprises and organizations of the sector are engaged in the preparation of short-term plans and measures and a national plan for the development of the mining and metallurgical industry from the year 1981 onwards.³⁰

It is obvious that in order to overcome the present problems and fully implement the development plans for the mining and metallurgical sector it is necessary to strengthen co-ordination and planning both within the organizations responsible for their implementation and between them. In fact, this process has already begun with the establishment of inter-

institution councils and commissions and the reorganization of the governing boards of the enterprises and institutions in the sector.³¹

As regards the strengthening of the vertical integration of the mining and metallurgical sector and its bargaining capacity *vis-à-vis* external agents —problems which were already analysed in this chapter— a possible solution (extensively discussed among experts in the sector) would be to complete the existing technical and economic integration between COMIBOL and ENAF in the institutional framework by merging the two public enterprises into a single unit for the production, processing and marketing of ores and metals. Naturally, an idea of this scope which affects the most vital sector of the Bolivian economy calls for a thoroughgoing analysis of its potential benefits and costs, but such an analysis is beyond the scope and objectives of the present article. At all events, however, and keeping the discussion within the proposed limits, it may be asserted that a measure of this type could help to strengthen the bargaining power of the country by, *inter alia*, providing suitable concentration and making better use of the experience accumulated and the most highly qualified staff, securing the unification and greater flexibility of planning and operational decisions, and in the final reckoning bringing about the establishment of an organization whose economic and financial power would be greater than that of the largest transnational corporations in the world in this sector.³² Furthermore, the institutional integration of the two large public enterprises in the mining and metallurgical sector would also permit the regionalization and decentralization of responsibilities in the largest mining and metallurgical centres of the country, thus giving greater flexibility and efficiency in their operations.

Analysis of the national integration of the mining and metallurgical sector of Bolivia

³¹*Ibid.*

³²The combined sales of COMIBOL and ENAF in 1979 came to US\$ 650 million, whereas those of the United States transnational corporation Gulf Chemical amounted to US\$ 496 million in the same year. The latter enterprise figured among the 500 largest firms in the *Fortune* list and processed almost one-fifth of the Bolivian tin in its smelting plant.

puestas de un Nuevo Orden Económico Internacional en perspectiva", CEPAL, Santiago, Chile, November 1976.

³⁰See various issues of the newspaper *Presencia*, La Paz, Bolivia, for the months of September and October 1980.

enables us to conclude that even after nationalizing the large-scale tin mining industry and establishing the necessary capacity for the processing of all the ore produced in a single public enterprise there is still some interference—at least during this transitional period—from the transnational corporations, which seek to maintain their own position in the industry. As they no longer have any share in the ownership

of the mining resources or in the metallurgical activities of the country, however, their relative bargaining power *vis-à-vis* the Bolivian mining industry will go down in proportion as the public sector manages to improve the vertical integration and organization of the industry, to increase its efficiency, and to reduce the costs of its operations.

IV

Some final considerations

Examination of the three Latin American experiences connected with mining transnational corporations suggests that in spite of the special features of each of the cases it might be possible to identify some common tendencies of a more general character in connexion with the strengthening of the bargaining power of countries with an important mining industry in the 1970s.

The previous oligopoly of a small group of powerful transnational corporations over the mineral resources of the peripheral countries, with the respective forms of generation and appropriation of mining income, is giving way to a different and much more complex situation in which the governments of the producer countries are no longer limiting themselves, as they did in the first boom period of transnational mining, to the *ex post facto* redistribution of the income of the transnationals through State supervision and taxation machinery, but are now instead negotiating with these corporations the terms and forms of the *future* increase in income through direct participation of the public sector in the activities of the industry (renegotiation of the Cuajone agreement in Peru in favour of the State refinery, 'Chileanization' of the copper industry, control of marketing).

The entry of the State into entrepreneurial activities in the mining and metallurgical industry makes it easier to link these activities with broader political objectives: to reduce external dependence and promote self-reliant development which will itself redound, at least potentially, in favour of an increase in mining

profits. Thus, for example, the higher degree of processing of minerals in State smelting plants and refineries means not only an increase in the locally added value in the export income, but also helps to diversify the external economic links in favour of markets which offer greater relative advantages (independent metallurgical engineering firms, direct sales of metal to consumer enterprises, to Latin American markets and to the Socialist countries). In the context of the redeployment of manufacturing activities from the industrialized countries to peripheral mineral producers, metallurgy seems to be most the appropriate and viable solution, which could eventually become an additional 'comparative advantage' for the subsequent industrialization of the mining countries.³³

The reaction of the transnational corporations *vis-à-vis* 'nationalist' policies of the mining countries usually continue to depend on their perception of the risks and the cost/benefit involved in certain projects and policies. Naturally, their attitude is negative in the case of the nationalization and total loss of their previous investment and of the national market (as occurred in Bolivia and Chile). On the other hand, however, it seems to assume a more flexible and 'pragmatic' character *vis-à-vis* new

³³Of course the technological problems of production and the problems of access to highly competitive markets for metal products and machinery are more complex than in the previous stage of the 'simple substitution' of imports on the basis of imported technology and inputs, but this is a matter beyond the scope of the present article.

forms of linkage with the public sector (as in the case of the 'Chileanization' of the copper industry or the Peruvian renegotiation with the Southern Peru Copper Corporation), and in these cases the transnational corporations try to minimize their own risks and investment of capital in the shared project, while at the same time maximizing their benefits by securing the guarantees and financial participation of other business and government interests in the project, both from the countries which consume the mineral and from the mining countries themselves. In this case, the latter are in a new and difficult bargaining position, since they must determine in advance their negotiable margins of benefit in the face of the variety and interlinked nature of the external agents which are their partners in the project (we may recall, for example, the extra profits secured by the financiers of the Cuajone project in Peru through 'transfer processing charges' in respect of the refining of blister copper received in payment for the credit provided).³⁴ Consequently, the exchange of information and experience among mining countries of the periphery on contracts of this type, and the possible adoption of a common position by them with a view to the application of more favourable reference contracts, could considerably strengthen their bargaining power.

Finally, the relatively recent experience of public enterprises in the extraction, processing and marketing of ores and metals seems to confirm the obvious truth that it is not enough

merely to 'share out the cake' in such a way as to bring greater benefits for the economy of the country: it is also necessary to increase the size of the 'cake' through better use of the country's mineral reserves, new investments to expand production capacity, and in particular the improvement of the productivity efficiency and profitability of the public enterprises.³⁵ The experience of Bolivia and Peru indicates that the proper fulfilment of these requirements by the public sector is of singular importance for the vertical integration of mining with the production and marketing of metals and usually conditions the countries' bargaining power *vis-à-vis* the foreign enterprises, which will continue to be interested in Latin America's mineral resources, especially through participation in new large-scale investment projects which require their technological and financial contribution. In view of the complexity of the new structures of the mining and metallurgical industry due to the operation of large public and transnational enterprises, it would seem to be extremely desirable to evaluate these and regulate their functioning in the framework of the planning processes of the mining countries.³⁶

³⁵This article has not dealt with the common efforts made by the peripheral countries to increase and stabilize world commodity prices through the "Integrated Programme" of UNCTAD, associations of producer countries and international agreements, all of which go to make up an external factor of the greatest importance for the general raising of mining income. In particular, no mention has been made of the International Tin Agreement.

³⁶See the article by Arturo Núñez del Prado in the present issue of *CEPAL Review*.

³⁴See section I. 3.