Distr.
RESTRICTED

LC/R.380(Sem.19/6)
6 November 1984

ENGLISH
ORIGINAL: SPANISH

ECLAC

Economic Commission for Latin America and the Caribbean

Workshop on Technical and Economic Co-operation for the Latin American Mining and Metallurgical Sector, organized by the Economic Commission for Latin America and the Caribbean (ECLAC) and the Latin American Integration Association (ALADI) under the auspices of the Commission of the European Communities (CEC)

Santiago, Chile, 19-23 November 1984

MAIN SYSTEMS OF MARKETING MINERALS AND METALS */

*/ This document was prepared by Mr. Pedro Zilveti, staff member of the United Nations Development Programme (UNDP), La Paz, Bolivia.

84-10-1779

In entering upon the topic of systems of marketing minerals and metals allusion must first be made to the history of this trade.

The oldest merchants on record in the history of the Western world are said to have been the Pheonicians, who occupied the Mediterranean area as far as parts of the Western coast of the Iberian peninsula. Barter was basically their system of operation, although they did also conduct money transactions.

In ancient Greece and in the Roman era, the marketplace and the forum were the marketing centres where raw materials, food products and rare spices were bartered, in substantial volumes, but only at interregional levels.

From the Middle Ages to the beginning of modern times, marketing was carried on in fairs in the big cities of Europe, as in the thirteenth century. The fifteenth century witnessed the emergence of more permanent markets, and was marked by the creation of marketing centres and the formation of guilds. During this period, the goods marketed were basically spices, gold, silver and costly products, which made the trade worth while.

The sixteenth and seventeenth centuries were distinguished by further innovations, such as, for example, the inauguration of the London Royal Exchange by Elizabeth I in 1571. Marketing centres gradually began to specialize, and establishments known as coffee-houses were opened, where specific products were traded.

In the nineteenth century, with the development of the so-called Industrial Revolution, which is officially said to have started in 1760, a series of events took place that may be summed up as follows:

a) The industrialization of Great Britain began, together with its domination of the shipping routes and the creation and expansion of the "Empire";
b) Shortly afterwards followed the industrialization of the rest of Europe, and the colonization of Africa was started by a group of nations eager for foodstuffs and raw materials;
c) The industrialization and development of the United States of America began towards the end of the century;
d) Great Britain's industrialization process and its enormous world influence resulted in the passing of the Free Trade in 1846. London became the centre of world trade, alongside which the great banking, financial, insurance and shipping firms, together with other services, were created

/and grew

and grew up. The pound sterling came to be the strongest and most influential currency, since not only were all trade transactions based on it, but in addition the currencies of other countries were subject to the influence of this freely convertible monetary unit;

e) In short, it may be said that the economic history of the nineteenth century is the outcome of the growth and expansion of world trade. Centered first in Great Britain, the process then spread to Europe and, towards the end of the century, to the United States of America. The industrialized countries bought raw materials and food products and sold machinery, manufactures and railway and port equipment. The improvement in communications and transport --with the introduction of steam navigation--- and industrialization in general provided the necessary conditions for the formation of marketing enterprises, in conformity with the principles and bases of free trade. What were then called Limited Liability Companies were the forerunners of the corporations of today;

f) Industrial progress and the increasing need for raw materials, in particular for non-ferrous metals, gave rise to the creation of a metal market in London, in 1862, when Great Britain was the world leader in the metallurgical and metalworking industry.

Hence significant structural changes were brought about in the production and the sale and purchase of minerals and metals in the world economy. This de facto situation made London the world centre for the marketing of minerals and metals.

Thus came into being the London Metal Exchange (L.M.E.), which started its activities in 1877 and was legally established as a close corporation in 1881. It has continued to operate ever since, with two interruptions during the two world wars.

As regards Latin America, the nineteenth century brought no great changes in respect of mining, except in the continuing post-colonial exploitation of the known silver deposits in Peru and Bolivia.

The only event of major importance was the discovery and subsequent exploitation of deposits of guano and nitrate. The latter was particularly significant because of the influence it had on the economy of Chile until well

/into the

into the 1930s, when nitrate began to be produced by chemical means and its exploitation gradually dwindled to the level at which it stands today.

Thus we came to the twentieth century, when the growth of international trade continued uninterruptedly up to 1913. By way of illustration, it is of interest to note that whereas between 1716 and 1913 the population of Great Britain increased fivefold, its import trade in food products and raw materials increased 70 times over in the same period.

In Latin America, the discovery of large deposits of copper, lead, zinc and tin, and the industrialized countries' thirst for these products, marked the beginning of a series of large-scale investments in their industrial exploitation. The countries that benefited most were Chile, Peru and Bolivia, where there are big deposits of these metals.

Thus, in Chile, the Braden Copper-Kennecott transnational group began mining copper at El Teniente in 1911 and the Guggenheim-Anaconda group followed suit at Chuquicamata in 1915. Today, El Teniente is the biggest underground copper mine in the world, while Chuquicamata is the largest known open-cut mine. These are integrated groups which, starting from the exploitation of the deposit, go on to process the ore and convert it into refined metal, and end up by using it and manufacturing it in their own plants abroad, or by selling it on the international market.

In Peru, in the same period, Cerro de Pasco Corporation initiated the exploitation of known and abandoned deposits of lead, zinc, copper and silver in the Cerro de Pasco mine, the ores from which are processed at La Oroya refinery.

In Bolivia, the discovery of rich deposits of tin, lead, zinc and wolfram --besides silver-- led to their exploitation on the basis of mixed capital.

With this "new wealth" the aforesaid countries joined the group of "suppliers of raw materials to the industrialized countries" and attracted marketing firms established in London (and subsequently in New York), which opened subsidiaries and/or agencies in the countries in question.

Thus the marketing era dawned in Latin America. The marketing process took two basic forms:

1. Direct, carried on by big corporations which exploited and processed the ores from the largest mining centres and which either used the refined metal in their plants in the United States and Europe, or placed it on the market through established traders or marketing firms, especially on the London Metal Exchange;

/2. Indirect,

2. Indirect, through rescatadores, as they were called (jobbers of a kind), who in fact represented agencies or subsidiaries of the London traders, and who financed and purchased the production of the so-called small and medium-sized mining companies. They were really middlemen who placed investments which, though at some risk, brought in fat profits to the operators of this system.

In Africa the same phenomenon occurred: heavy investment on the part of Anglo-American and Belgian consortia, in what are today the Republics of Zambia, Zaire and South Africa, major producers of copper, cobalt, zinc, tin, gold, antimony and diamonds, inter alia.

Here too jobbers made their appearance, fulfilling the same function as in Latin America, with identical results.

The prices quoted on the London terminal market were of fundamental importance, since it was on these that transactions in the ores/concentrates and metals produced were based.

The First World War and the subsequent inflation and crisis which scourged almost all countries and which culminated in the Great Depression of the 1930s brought formidable problems in their train and dealt the coup de grâce to the commercial system of the nineteenth century, causing the abandonment of free trade. Tariff barriers were set up and import duties, protectionism and import quotas were introduced.

Great Britain suffered the loss of its foreign investments, equivalent to 3 billion pounds sterling, and ran into debts for an equal sum, with the result that London had to resign its sceptre as the centre of trade and finance to New York. Eventually, this situation came to its end in the Second World War.

In the course of the twentieth century, new products were incorporated into the market, including, among others, aluminium and petroleum. The progress made in technology in general, as well as in the techniques of the chemical and petrochemical industries, brought with it new uses, substitute products and other consequences which greatly affected consumption of traditional metals, causing sharp variations in world quotations, with their respective effects on supply and demand. The repercussions of these changes were particularly severe for the economies of the countries dependent upon exports of these raw materials; except for short periods during the Second World War, they were unable to regain their raw material markets, and thus embarked upon their own industrialization process.

/To the

To the L.M.E. market was added in 1933 the New York Commodity Exchange (COMEX), although its importance and influence never became as great as that of L.M.E. Whereas COMEX basically serves for transactions between United States producers and consumers, with the addition of marketing firms established in the United States, in London 70% of the volume of transactions represents operations on the part of the rest of the world, so that L.M.E. quotations are accepted as world prices.

The significance of L.M.E. and COMEX can be defined as follows: "They are commodity markets engaged in the transfer of goods from producers to processers, manufacturers and lastly, to the final consumer. Their main function is the determination of prices and transfer of ownership". The term "commodity" generally refers to a special class of goods, comprised in the phrase "raw materials and food products", and including, among others, wheat, maize, rice, tea, coffee, sugar, rubber, tobacco, tin, lead, zinc and copper.

From the functional standpoint, the following is a possible definition: "The operation of economic forces, generally relating to supply and demand, among the results of which is the fixing of physical and futures spot prices".

Both markets operate in accordance with extremely strict rules imposed by and on their members and use standard contracts for transactions in each metal.

The London Metal Exchange has acquired even greater importance inasmuch as to its traditional operations in copper, lead, zinc and tin have been added those in aluminium, since October 1978, and in nickel since 1979. Transactions in silver were resumed in the L.M.E. as from 1968, after two previous suspensions.

Furthermore, London, apart from the L.M.E. is still the centre where prices are fixed for transactions in all metals and ores/concentrates, whether ferrous or non-ferrous, which have no "terminal markets", and which range from antimony to zirconium, and include, among others, molybdenum, palladium, cobalt, bismuth, vanadium and wolfram. These prices are published twice a week in the specialist periodical London Metal Bulletin (L.M.B.).

Since transactions in gold were liberalized, the main marketing centres for this metal have been New York, London, Paris, Zurich, Luxembourg and Hong Kong.

To close these remarks on the history of marketing, reference must be made to certain fundamental changes which have come about in the developing countries and which have influenced the system of marketing minerals and metals.

/In Africa

In Africa and the countries of Southeast Asia, their attainment of independence of the colonizing powers brought in its wake corresponding nationalist movements which led to nationalizations or reversions of these nations' non-renewable resources, if not immediately, at least over the medium term, so that today it may be said that the basic industries of this branch are in the hands of the owner countries, although without complete severance of all the ties linking them to the transnational corporations, either because of the continued presence of foreign experts and technical assistance or because of the transnationals' easy access to final consumers and markets.

In Latin America, a movement was launched in the 1930s to attempt to displace the rescatadores (or jobbers) through the creation of State promotion and development institutions. Thus, Bolivia established a Banco Minero; Peru, a Banco Minero; and Chile, an Empresa Nacional de Minería. The efficiency of these institutions is, however, questionable, for at botton all that they have managed to do has been to assume the risks of the financial credit which the jobbers used to grant, since marketing is still undertaken by these latter, who have changed their role and have become middlemen/purchasers. Financing is something that they still do undertake, but only in the case of the medium-scale mining companies, whose production is tied for the purpose of paying off their debt.

The 1950s saw the initiation of the nationalizing movements, which started in Bolivia, with the nationalization of the three large mining companies --Patiño, Aramayo and Hochschild-- and the creation of the State enterprise COMIBOL.

In Chile, the "Chileanization" of the large-scale copper industry began in the time of President Frei in 1970 and culminated in nationalization, under the Government of President Allende.

In Peru, the first step was the creation of MINPECO, a State institution which was supposed to assume responsibility for the marketing of the production of Peru's small and medium-sized mining companies, and concluded with the nationalization of Cerro de Pasco Corporation at the end of 1973 and the creation of CENTROMIN.

In each case, the results have been different and, except in Chile, may be said to have proved negative.

In Bolivia, for example, all that COMIBOL has achieved is to eject the former owners, since marketing is carried on through traders who represent transnational

/corporations. Neither

corporations. Neither has liberation been attained by the Empresa Nacional de Fundiciones, which, in 1969, began smelting and refining tin and antimony, because the marketing of these products follows the old pattern, except for a few direct sales to consumers in the Latin American area and to socialist countries, although trade with these latter is based on barter.

In Peru, the MINPECO operation has been so nearly a disaster that the Government of President Belaunde has deprived it of its former power and the tonnage it handles has been significantly reduced. CENTROMIN, moreover, has continued to use the old familiar marketing channels of Cerro de Pasco and, in some instances (for example, in trade with the United States), does so through MINPECO, whose function is buying and selling rather than marketing proper.

Chile's large-scale copper industry is the exception. The "Chileanization" started by President Frei was at bottom a reversion of the mining deposits to the State, in pre-established phases, in such a way that Chilean personnel began, by virtue of their training, specialization and knowledge of the market, to be incorporated in the sales units of Kennecott and Anaconda, respectively.

Concurrently, the Corporación del Cobre (CODELCO), which had begun long before to supervise sales of Chilean copper, was also prepared to assume "support functions". Thus, when nationalization came about in 1971 --a very difficult phase of transition-- CODELCO was ready to undertake the task of buying and selling (not marketing). This state of affairs has continued virtually unchanged up to the present day.

As regards the small and medium-sized mining companies, their situation is almost the same as in Peru, Bolivia and the other Latin American producers of minerals and metals: that is, they continue selling their production to traders and occasionally to foundries in the case of concentrates.

Brazil and Mexico are cases apart. The former's principal line of production is that of high-grade iron ore, which is basically in the hands of the State enterprise Vale do Rio Doce, although there are also some foreign producers who on occasion reach the first stage of steel production, incorporating value added, and sell --or market-- billets. National and foreign investors have developed large deposits of manganese, bauxite, cobalt, chromium, nickel, rutile, wolfram, tin and other metals, so that Brazil's mining industry is highly diversified.

/Mexico, another

Mexico, another major producer of minerals and metals, has been and still is strongly influenced in its development by United States investors. Not long ago it launched a policy of "Mexicanizing" mining industry, which is now controlled by Mexican capital. This country has another important factor in its favour, that of possessing a "captive market" within its own frontiers, which places it at a great advantage over other Latin American producer countries.

On broaching the topic of "systems of marketing minerals and metals" it is important to ascertain exactly what marketing means. It may be defined as "the art of buying and selling products (commodities) and, in the process, gaining a profit".

This activity, from ancient times until the present day, has been all but exclusively in the hands of traders. Of old, and until the opening of the London Stock Exchange, it was based almost entirely on barter.

The L.M.E. brought in a new concept of marketing, since in it are fixed the prices at which the different world transactions are conducted, but up to a short time ago it was a sort of club reserved solely for established merchant or trading houses, recognized as such.

Until comparatively lately, producers of minerals and metals had no direct access to markets --with the usual exceptions to the rule-- but reached them through the established traders. This situation is tending to change, as more and more producers are creating their own marketing or trading units, which have to run the risk of gaining or losing, in accordance with their position-taking, which is determined by market trends: upward or downward. The element of speculation is not lacking, when a trader or a group of investors attempts to corner the market, with disastrous consequences, as demonstrated by the examples of Metal Traders, a London marketing firm, and its débâcle with tungsten, and more recently, Bunker Brothers, with silver in the New York market. In the former case, Metal Traders went bankrupt, and in the latter the losses of Bunker Brothers amounted to more than a billion dollars.

Activities of this type have compelled the Executive Committees of the various Stock Exchanges to adopt a series of security measures, in the shape of heavy guarantee deposits against day-to-day operations.

A more conservative marketing practice is what is known as the back-to-back operation, in which the trader buys and sells the product almost simultaneously and obtains his profit at once.

/In any

In any event, with the progress of technology in communications, the complexity of trading operations has increased. Every such operation must include hedging of futures not only in the corresponding metal but also as regards the currencies in which the operation was closed. The opening of the futures market up to 18 months' sight in such metals as copper, aluminium, silver and gold has introduced new elements of risk.

Thus it is easy to see the importance of traders in world commerce, their operational networks having been extended to the international level and to cover the main centres of production and consumption, despite the efforts of producers of raw materials to secure direct access to the final consumer.

Traders are in fact what may be termed a necessary evil, since their precise knowledge of the market and their connections enable them to carry through extremely complex transactions which include the purchase, sale and barter of several products --almost simultaneously-- and which are known today as countertrading operations.

Traditionally, then, marketing has been and still is in the hands of traders, although, as was noted above, producers are penetrating into this field, but as semi-independent trading branches.

The differences between the marketing of ores/concentrates and that of metals are fundamental.

In the first case, the ores/concentrates concerned may be "clean" or "complex"; the latter, before being sold to the final users/consumers, have to be treated and refined to convert them into primary metals.

The producer, therefore, has the alternative of negotiating his production through a trader or directly with the refiners.

Whichever choice is made, the terms of the contract are established to include: the quantity and quality of the minerals/concentrates; unit discounts; the quotation period and the market on which prices will be based (L.M.E. or COMEX); premiums (for valuable metals) or penalties (for impurities or harmful elements); and treatment and refining costs. It may happen that escalating costs under the head of wages and energy are included. Sales are effected normally, through private or public tenders, spot lots or long-term contract.

Every type of ore/concentrate has its own system of unit discounts, as well as of treatment and refining costs, operating in relation to the value of the

/metal content.

metal content. The general rule is that the terms offered by refineries do not vary very much, because of the competition they have to face to feed their plants and make them profitable.

Here again traders almost always enjoy advantages over refineries, unlikely though it may seem, when they submit tenders for concentrates by lots. Cases have occurred in which in competition for the same ore/concentrate the trader has offered a better price than the refinery (despite the fact that ultimately the concentrate ends up by being treated in that same refinery) because he has access to different qualities of concentrates, and can provide the refinery with a variety of concentrates whereby a better and more homogeneous plant load can be obtained.

When the trader wants to "take a position" or has future contractual commitments for deliveries of primary metal, he can negotiate a toll or conversion contract, which means that the refinery charges only for the unit discount, the premiums and penalties and the expenses of treatment and refining, and returns the refined metal to the trader, at an internationally accepted standard of quality.

The marketing system described above is the one used by most (if not all) of the producers of minerals/concentrates in the world. When these are more "sophisticated", coverage operations can be effected both for the metal content and for the currency in which payment will be made; but always provided that the metal sold has a futures market. Otherwise, only the currency can be covered.

The marketing of metals is totally different; firstly, because these are products which are ready for delivery to the final consumer, or for trading on the Metal Exchanges, to the same end.

The basic differences lies in the fact that the corresponding contract is a standard document, prepared and accepted on the Metal Exchanges, in which mention is made only of delivery and the quotation period or the end price at which the operation was negotiated.

The producer then has different sales alternatives from which to choose: direct to the final consumer, through long-term contracts negotiated by agents or the enterprise's own offices established in consumer centres; indirect, by appointing agents (normally traders) to whom areas are assigned or who are nominated as exclusive representatives; on the Metal Exchanges, through established brokers; and, lastly, by way of public or private tenders.

/In any

In any event, it is a well-known and accepted fact that the transnational traders are those who handle the biggest volume of world transactions.

Some producers are also venturing into the futures market for silver, gold, aluminium, copper, etc., through brokers, but this means having at their disposal highly specialized personnel, in order to avoid collapses like that of Peru, which suffered a loss of about 80 million dollars on silver coverage operations.

In conclusion, possibly those of Chile, Mexico and Peru are the only Latin American producers who market --a medias-- parts of their production through agencies of their own in London and New York, which make use of the brokers established on the Metal Exchanges and undertake futures operations.

In Asia, Malaysia is the only country that has decided to operate directly on the Exchange. To that end, it bought a seat on the L.M.E. last November, in order to market tin, a metal of which it is the leading world producer.

Finally, there is also another underworld of traders operating with the so-called secondary metals, and engaged in the recovery of metals contained in scrap. They are of great importance, inasmuch as in the developed countries there is a steadily increasing trend towards recycling.

These operations are complex and are a curious mixture of the marketing of ores/concentrates and of metals, in that the scrap has to be selected in accordance with its content and separated into internationally accepted types. The bases for these transactions are the same as for concentrates, since the products have to be refined before reaching the market, unless they are to be used just as they are by the final consumer.