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Until 1961, the year in which the government passed the so-called Mexicanization of Mining Law, the industry's fate was marked by foreign capital's iron grip on the nation's largest and richest mineral deposits. Since then, mining has experienced an abrupt shift in direction as control over the industry has been transferred to the state and Mexican capital. In spite of the nationalist spirit that motivated this measure, it became evident very early that the real reason for the change was to develop a sector of Mexicanized mining capital that would become one of the most dynamic and internationally influential branches of the nation's monopoly capital.[1] The Mexican Mining Group is the second-most-important mining corporation in Latin America, with sales of US$1,823 million in 1999, and the third-largest copper producer in the world. When it acquired the U.S. company ASARCO on November 17, 1999, it doubled its sales capacity, making it the leading mining-metallurgical company in the region (Zellner, 2000: 54–55). In 1999, Peñoles Industries occupied third place in Latin America, with sales of close to US$1,000 million. Besides being the world's primary producer of refined silver, metallic bismuth, and sodium sulfate, it also operates Latin America's most important non-iron metallurgical complex. FRISCO, part of the Carso Group, registering sales of US$205 million.

This article describes the historical process that contributed to making the large national mining corporation the principal and almost the only protagonist in this branch of production and identifies some of its key characteristics. We are interested, above all, in giving an account of the political strategy for the formation and consolidation of large mining capital that emerged from

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the process of Mexicanization in the historical context created by the collapse of the long cycle of capitalist expansion that followed World War II and by neoliberal globalization.[2] Underlying our argument is the hypothesis that the strong position of the large mining corporations was achieved through strategic control of the principal mineral deposits of the country coupled with a high level of vertical integration, incipient horizontal diversification (principally in the direction of transportation), and solid financial resources. All this was not fortuitous but the result of the deliberate action of the Mexican state to accelerate the process of capital concentration and centralization in the mining sector in favor of a particular component of the national bourgeoisie.

It is important to make three important clarifications regarding this last point:

1. Even given the severe limitations placed on the state by the new world economic order, which make it a hostage to international financial institutions and the interests they represent (Petras and Veltmeyer, 2001: 23), some room for maneuvering still permits it to influence the appropriation of huge profits in favor of a certain sector of the national capitalist class.

2. The strong dynamism exhibited by large mining capital rests on an exceptional situation: its control over privileged natural deposits, which gives it rentier characteristics and places it in a relatively favorable competitive and financial position in the world market. This situation contrasts with the increasing difficulties that the domestic bourgeoisie has encountered in its attempt to enter the world market and/or survive the pressures arising from the opening up of the economy. Very few national corporations have been able to avoid these difficulties, and those that have done so have generally depended on strategic alliances as subsidiary partners with transnational corporations (Cypher, 2000: 149–150; Pozas, 2000: 200–203).

3. In contrast to globalist and postmodernist predictions,[3] nation-states and borders and differences among countries, far from disappearing in the context of neoliberal globalization, are growing. In this sense, the fact that mining capital is national instead of foreign opens up the possibility of rentier appropriation in favor of the national economy, counteracting, even if in a limited fashion, the heavy transfer of resources operating in the opposite direction, that is, from South to North.[4] This does not, however, change the monopolistic nature or the strong enclave characteristics that have long distinguished large mining capital, with all the limitations that they entail from the perspective of local and national development.

MEXICANIZATION'S PRINCIPAL ANTECEDENTS AND OBJECTIVES

Around 1908 there were 1,030 mining companies in the country with a combined investment value of 363 million gold pesos. Of these, 843 were U.S.-owned, 40 English-owned, and 2 French-owned, with 68.9 percent, 20.1 percent, and 3.3 percent of the total investment, respectively (Urías, 1980: 953). This dominance continued throughout the revolutionary period despite the inconvenience and instability generated by the armed struggle: "The extractive industries were optimistic about the internal situation of Mexico, since, besides their success in negotiating with the various revolutionary factions, they benefited from the bankruptcy of weaker companies. The U.S. consul in Mexico declared: 'Disorder favors us: properties are cheap and competition is scarce'" (Sariego et al., 1988: 56).

Expressing the strong nationalist feelings springing from the revolution, the Constitution of 1917, in its Article 27, marked a radical turnaround with respect to the mining legislation that had resulted from Porfirio Díaz's reforms. It established the principle of direct ownership by the nation of minerals and subsurface natural deposits and stipulated that this ownership was inalienable and imprescriptible. Furthermore, it clearly stated that those receiving concessions had to be native-born or naturalized Mexican citizens and Mexican-owned companies. However, under the difficult economic and political conditions of the postrevolutionary period, a new mining law was promulgated in 1926 that differentiated the mining industry from the oil industry, federalized it, dividing mining concessions into four categories (exploration, exploitation, plants, and roads), required a large deposit to obtain an exploration concession, and, finally, required proof of the existence of a mineral to acquire a concession for exploitation. Essentially, this law was written for the benefit of the large companies, since small mining operations, especially those operating under marginal conditions, could not fulfill these requirements. The Mining Law of 1930 introduced legislative changes that completely distorted the nationalist spirit of the Constitution of 1917 in matters concerning the exploitation of the subsoil by containing important modifications of the nation's control over mining activity and mineral resources and the treatment of foreign investment. The impact of this reform was such that a short time after its passage "foreign investors owned 98 percent of the mines in operation" (Urías, 1980: 954).

These changes gave rise to the implementation of a hegemonic model of mining exploitation that conformed to the characteristics of a political and economic enclave (Sariego et al., 1988: 16). Those consortiums, with their foreign capital and technology, held a monopoly over the richest deposits, equipment, advanced technology, and foundries, which, given the continuing orientation of production toward the world market, translated into huge transfers of resources outside of the country and a strong disarticulation of the dynamic of mining production from national economic development. The foreign mining companies enjoyed complete autonomy in relation to the Mexican state's development strategies and sectorial programs, and this allowed them to make decisions concerning how, where, and how much to produce and whom to sell to that were marginal to those orientations and often contravened them.

The uniqueness of this model of mining exploitation—which, in reality, originated during the Porfiriato—was that it maintained its essential characteristics until the mid-twentieth century, which is not to say that the state had not attempted to break the hegemony of foreign capital in this sector.[5] The nationalist measures implemented by President Lázaro Cárdenas (1934–1940) to reduce the dominance of foreign capital in the sector (e.g., the creation of the Mining Development Commission, the formation of the Industrial Union of Mining, Metallurgical, and Related Workers of the Mexican Republic, the passage of the Federal Labor Law, the establishment of the mining cooperatives for production and consumption, the introduction of the concept of national mining reserves) did not completely achieve their purpose. In fact (Sariego et al., 1988: 20),

> The political disagreements between the state and the foreign mining capitalists, deep as they may have been, did not lead to a reorganization of the mining sector. The state not only refused to consider the possibility of an expropriation policy, as in the case of oil, but also did not achieve a substantial alteration in the monopolistic structure of the branch or in its clear orientation toward external markets.

What remains clear in any case is that the Mexican state strengthened its political authority and placed limits on the domination of foreign mining companies.

Only one element of public policy greatly affected the relationship with large foreign capital that reigned in mining: a modification of the tax policy made in 1934 that established "high tax rates on mineral production and exportation with the aim of absorbing a greater share of the economic surplus from mining and reducing the profits of the foreign consortiums" (Urías, 1980: 954). Furthermore, as Héctor Calva Ruíz (1970: 141) pointed out:

> until 1956, when the Law for Mining Taxation and Development was implemented, taxes and duties constantly increased, sometimes amounting to 35 percent of the gross value of the minerals produced; this situation emerged as a result of the increase in the export duty to more than 25 percent ad valorem, with the aim of absorbing part of the exchange advantage obtained by the mining companies with the devaluations of 1948 and 1954, when almost all minerals and metals were exported.

This led to a decline in investment in the sector, a total abandonment of exploration activities, and a noticeable drop in production.

Confronted with the critical circumstances that the sector was experiencing and the requirements of the industrialization process that the country was undergoing in the advanced phase of import substitution, on February 5, 1961, the state adopted what could be considered a radical measure: the passage of the Law for the Regulation of Article 27 of the Constitution with regard to the exploitation and use of mineral resources, also known as the Mexicanization of Mining Law. This new measure was intended to ensure that the Mexican state and national capital gained control over a sector that traditionally had been in the hands of foreign companies, stimulate sustained development in mining, and promote the orientation of production toward national industry and the national market. Among the intended effects of the law were the obligatory participation of at least 51 percent of Mexican capital in mining enterprises, the reduction of the length of the concessions to 25 years, with the possibility of an extension, and the restriction of new concessions to Mexican citizens or moral persons who could demonstrate that the ownership of their companies satisfied the requirement of the predominance of national capital. Furthermore, with the aim of accelerating the pace of Mexicanization, the Department of the Treasury and Public Credit offered a package of attractive incentives.

THE CREATION OF NATIONAL CAPITAL'S MINING MONOPOLY

Mining experienced the impact of Mexicanization immediately. In fact, in contrast to what might have been expected, there was hardly any resistance to it by foreign capital, which knew how to take advantage of it. The U.S. company American Metal Climax (AMAX), associated with Peñoles, besides selling its shares to Mexican businessmen at an advantageous price, managed to charge them the whole of a loan obtained with its guarantee before the sale of the shares, alleging that the company, once Mexicanized, was not subject to credit. As a result of this, AMAX was able to participate with great success in a major iron exploitation project in Australia (Industrias Peñoles, 1988: 71). The American Smelting and Refining Company (ASARCO), also U.S.-owned, and San Francisco Mines of Mexico Ltd., part of the Union Corporation of England, obtained singular benefits from the tax benefits and the fiscal incentives and soft credit granted to companies that were partially Mexicanized through the sale of part of their shares.

The initial effect of Mexicanization was the rapid transformation of the composition of capital in the sector, far exceeding the terms anticipated by the law. While in 1960 the share of Mexican capital was only 10 percent, by 1970 it had a majority stake and by 1980 practically all mining production was by Mexicanized companies: 48.2 percent in private national investments, 15.1 percent from the public sector, and 36.7 percent from foreign investments (Sariego et al., 1988: 256). "In 1963 hundreds of new enterprises were created according to the Mexicanization regulations, and 150 reformed their structure in accordance with the new legislation. That year constituted a high point in the Mexicanization process, since three major mining companies accomplished these changes" (Sariego et al., 1988: 253–254). For the nation's principal mining companies, the process took the following form:

Peñoles was the first company to be Mexicanized, in 1961 (Industrias Peñoles, 1988: 141): "On April 19, two older enterprises, the Peñoles Mining Company Incorporated and the Peñoles Metallurgical Company Incorporated, merged and created Mexican Metallurgical of Peñoles Incorporated, with a total of 200 million pesos in capital. A group of Mexican investors headed by Raúl Bailléres and José A. García accomplished the Mexicanization of this important mining-metallurgical company."

In 1965 AMAX sold, at a profit, 100 percent of its shares in Mexican companies to the Mexicanized Peñoles Mexican Metallurgical Inc., which obtained for this purpose a loan from the United States in the amount of US$8 million.

In the same year, San Francisco Mines of Mexico Ltd. became FRISCO Mining Inc., with the Commerce Bank acquiring a majority of the company's shares and by 1966 representing 59.7 percent of the total capital of the group. In 1978 the company changed its name to FRISCO Enterprises Inc., a subsidiary of the Carso Group, headed by Carlos Slim Helú (Financial Times Yearbook, 1999: 207).

ASARCO became associated with a group of investors headed by Bruno Pagliai, Jorge Larrea, and Juan Sánchez Navarro that acquired 15 percent of its shares; by 1966 the group controlled 51 percent and by 1974 66 percent of the shares and established itself as Mexican Mining Industry Inc. Finally, in

1978, this firm merged with a company controlled entirely by Mexican shareholders, the Mexican Mining Group.[6]

In 1971 the Anaconda Copper Company, which through the Green Cananea Copper Company was the owner of the Cananea Mining Company Inc. (the nation's most important copper producer), put 51 percent of its shares up for sale. Of these, 38 percent were acquired by the state through the Mining Development Commission (13 percent) and National Financial (25 percent, 13 percent for itself and 12 percent for sale to the public), while the remaining 13 percent were bought by Mexican banks (Financiera Bancomer, 5 percent, and the Fideicomiso Banco Nacional de Mexico, 8 percent). For these operations a loan of US$80 million was obtained from the Chase Manhattan Bank and the First National City Bank (Sariego et al., 1988: 254). This company, in turn, was purchased in 1990 by Mexicana de Cananea, created for this purpose by the Mexican Mining Group.

Without intending any apology for Mexicanization, it is fair to recognize that between 1960 and 1977 mining investments experienced considerable growth, which gave rise to a major diversification of mineral exploitation, a 684.6 percent increase in mineral reserves between 1971 and 1977 (with the discovery of 35 new deposits), the multiplication of concentration plants from 82 to 332, the expansion of smelting capacity (Urías, 1980: 954), and an increase in direct employment from 60,000 in 1960 to 150,000 in 1977 (Comisión de Fomento Minero, 1976: 16–19). One must admit, however, that in terms of productive growth, the result of Mexicanization was not spectacular or homogeneous: the most significant advances were in the production of coal, copper, and iron; the volumes of silver, lead, and zinc remained practically stagnant. Furthermore, this growth rested in large part on the use of external debt, which colored to some extent the progress achieved by introducing the Mexicanized firms into the network of international financial capital and thereby prolonging foreign control over the sector in new forms. National investors such as financial institutions and the state resorted to loans from various foreign organizations, fundamentally from the United States, to fulfill their obligations in exchange and investment. Similarly, the change in ownership of mining companies by no means meant any reduction of the sector's dependence on foreign technology.

In accordance with the initial proposals, the policy of Mexicanization found firm support in the direct participation of the state during the administrations of Luis Echeverría Alvarez (1970–1976) and José López Portillo (1976–1982), especially in those areas that were then considered strategic. Along those lines, the Mining Law of 1975 created conditions for major governmental participation in the sector, stimulating federal exploration and development projects on a grand scale, the direct or indirect participation of the state in the exploitation of mineral deposits, the installation and operation of foundries, the construction of iron and steel complexes, and the establishment of marketing facilities.[7] Although the direct intervention of the state in the sector is not, in itself, open to criticism, the truth is that it did not produce the expected benefits. First, with the protection accorded by the national mining reserve system, the state squandered abundant public resources in exploration operations that laid the groundwork for projects such as La Caridad in Sonora and Francisco I. Madero in Zacatecas, which in the end were transferred to private hands. Furthermore, with the goal of protecting jobs and guaranteeing the livelihood of mining communities, the government acquired mining companies that were in bankruptcy or had financial problems and, after important injections of public resources (not always applied efficiently), sold them below cost to private investors. Finally, under the Mexicanization project and through National Financial and the Mining Development Commission, the government acquired shares of some of the most profitable companies, such as the Autlán Mining Company and Cananea Mining, and even directly promoted the creation of important mining-metallurgical companies such as Mexican Copper and Real de Ángeles Mining. The fate of these initiatives was similar to that of those mentioned above, which meant large and disadvantageous transfers of resources from the public to the private sphere. The result was that by around 1983 parastatal mining came to represent 40 percent of mining production, with heavy consequences for the public debt burden,[8] which reached alarming levels not only for the mining sector but for the entire economy.[9]

In spite of the strong state presence in the sector, it is unquestionable that the principal beneficiary of the process ended up being a small faction of private national capital, through the penetration of financial-commercial groups and national and international banking. Instead of creating a new sector of the nation's industrial bourgeoisie, this policy favored established groups that, in general, had roots and interests in the sector (as in the case of Bailléres, Larrea, and García) and allied themselves with enterprises in other fields (as in the case of Garza Sada, Senderos, Pagliai, Sánchez Navarro, Espinosa Iglesias, and others), all associated with commercial banking. In summary, instead of diversifying the composition of private national capital, Mexicanization contributed, as Carlos Morera Camacho (1998: 101) has pointed out, to the consolidation of a certain component of the Mexican business class.[10]

It is important to add that the Mexicanization of mining coincided with a period in which groups associated with national monopoly capital, supported by the Mexican state, took on a certain leadership role. This was in part a result of the investment strategies, supported by the extraordinary availability of long-term and low-cost external credit, that were adopted as part of the federal government's program of rescuing private capital and in part the product of extraordinary measures taken to protect a particular sector of the national bourgeoisie.

It is therefore appropriate to consider these groups as a select nucleus of the Mexican bourgeoisie that was among the direct beneficiaries of the regime by virtue of the extraordinary and unjustifiable quantities of public resources channeled to them—in the most varied ways—with a view to favoring and accelerating the process of capital concentration and centralization.[11]

THE IMPACT OF THE NEOLIBERAL REFORMS

Around 1982, as a consequence of the severe crisis, debt, and the profound external disequilibrium that the country was experiencing, the government was forced to initiate a drastic reorientation of the economy through the application of a package of structural adjustment measures imposed by the World Bank and the International Monetary Fund. Among these measures, all inspired by neoliberalism, were financial-commercial opening or liberalization, deregulation of the private sector, cutbacks in public spending, the "modernization of the state,"[12] and the privatization of the parastatal sector (Veltmeyer, 2000: 114).

In examining the particular way in which mining is integrated into the orbit of neoliberalism, it is important to take into consideration the sui generis character of state policy toward this sector: the restriction for more than a decade of the participation of foreign capital in accordance with the 1961 Mexicanization of Mining Law. This created exceptional conditions of protection for the large national corporations (going against the policies of liberalization and opening of other sectors of the economy), allowing them to take advantage of various neoliberal measures in order not only to accelerate the process of capital concentration and centralization but also to position themselves strategically and establish monopoly control over the country's largest and richest mineral deposits.

Under these circumstances, one can distinguish at least two important phases in the process of strengthening and consolidating large Mexicanized mining capital.[13] The first, from 1982 to 1988, was a period in which tax incentives and exemptions (still in force) were implemented that favored a heavy concentration of capital in large-scale mining. Specifically, export tariffs were eliminated, and the possibility for mining companies to reduce their tax burden (especially in terms of the customs duties for the importation of equipment and machinery) was created through mechanisms established by the Department of Commerce and Industrial Development in coordination with the Foreign Commerce Bank and National Financial. Differential discount rates on the direct taxes on mining production were established, and although they were abolished for large corporations a year later this measure was compensated for by the application of tax promotion certificates. Finally, a system of accelerated depreciation was established that the mining companies took broad advantage of to position themselves at the forefront of technological advances.[14] During this period the parastatal sector experienced considerable restructuring to reorganize its finances and modernize its administrative operations, but these measures were implemented not with the idea of reorganizing public finances or strengthening the state's participation in the economy but with the concealed intention of transferring public funds to a select group of private companies.

In the second phase, between 1988 and 1986, a new phenomenon accelerated the pace of capital centralization of the large national mining corporations: the privatization of parastatal mining deposits, equipment, and plants. Furthermore, during those years the conditions were created for transferring the concessions granted to small mining enterprises to larger mining conglomerates and a gradual modification of the mining law (cautiously designed to favor a faction of national mining capital) that began in 1990 and ended in 1996 with the virtual abolition of the Mexicanization of mining.

The privatization process began in 1988 with the successive sale of around 6.6 million hectares of national mineral deposits. A significant portion of Mexico's subsurface wealth was delivered on a silver platter to the huge national mining consortiums, which did not hesitate to take full advantage of the opportunity this presented them. In less than eight years (the "grace period" in which the mining regulations, notwithstanding the successive modifications to which they were subjected, maintained important restrictions on foreign investments in the sector), private companies acquired more than 98 percent of the federal reserves. In this sense, it is fair to say that by the time the door to foreign investment was finally opened (with the modifications made in 1996 to the Law on Foreign Investments), the zones with the greatest mining potential were already in the hands of the huge Mexicanized mining companies. In fact, the geographical locations of the areas granted to the country's three principal mining consortiums lead one to conclude that there was a harmonious division among them of the richest geological zones.

Parallel to the sale of federal mineral deposits, the privatization of the parastatal mining sector proceeded at a dizzying speed. The most conspicuous examples were the purchase by the Peñoles Group of the Mexican Refractory Company in 1988, the acquisition by the Mexican Mining Group of Mexican Copper in 1989 and Cananea Mining in 1990, and the award to the Carso Group, through the FRISCO companies, of state participation in Fluor Chemical, Lampazos Mining, and the Real de Ángeles Mining in 1989 (Basave Kunhardt, 1996: 185). These sales were not made with the required transparency and impartiality as the official circles suggested but used as an instrument for making huge transfers of public resources to the select club of mining consortiums that had emerged from Mexicanization. The following quotation, referring to the sale of Cananea Mining, is especially illustrative of this process (Ibarra, Moreno, and Santos, 1998: 131):

> It was never clear why the federal government accepted an offer of US$475 million when that amount was only half what had been offered by the PROTEXA group in 1988 and half of the total investment in its modernization from 1981 to 1987 and when, according to an early-1989 announcement by NAFINSA [National Financial], the mine was valued at US$2,000 million, that is, double what was stated in 1988.
>
> According to observers, a clue to the explanation of this extremely generous attitude can probably be found in the composition and characteristics of the IMM group, the most important consortium of the "Big Four" that control 70 percent of national mining production, whose administrative board included individuals who were extremely close to the presidential administration of Carlos Salinas (including some advisers or counselors), the most notorious being Jorge Larrea, Miguel Alemán, Rómulo O'Farril, Juan Sánchez Navarro, Prudencio López, and Claudio X. González.

Furthermore, the privatization policy applied in the Cananea case is an example of a strategy associated with Salinas, which tended to favor a faction of national large capital allied with the sector of the Mexican "political class" that most zealously advocated neoliberal solutions to the country's problems (Garrido, 1998: 430):

> The privatization of nonfinancial public companies occurred through selective auction, a procedure used to transfer a substantial portion of the economic power wielded by public companies to a block of private economic groups, in many cases on very favorable conditions for the buyer. These privatizations also contributed to an extraordinary expansion of certain economic groups that had been relatively small, which achieved gigantic proportions in the national context.

The first reform of the Mining Law of the neoliberal period occurred in September 1990, once a significant part of the parastatal sector had been privatized along with approximately 1.8 million hectares of national mineral deposits. On the one hand, it opened the door to foreign investment in exploration (capital risk) as well as in exploitation activities under the pyramid principal.[15] On the other hand, the surface tax increased by 1,000 percent, which freed concessions for large mining interests while displacing the small mining operations that found it impossible to fulfill this onerous obligation as their finances deteriorated. Furthermore, behind the state's declared reasons for the fiscal reforms lay its clear intention, coinciding with the regressive neoliberal bias with regard to redistributive policies, to privilege the interests of large capital over those of medium-sized and small industry and the popular sectors.

The November 1991 reforms to Article 27 and the February 1992 regulatory law with regard to the ejido opened up the possibility for mining companies to acquire communal lands in order to develop their activities in an integrated way, thereby guaranteeing their investments.

On September 25, 1992, a new mining law was passed that was to go into effect, along with the associated regulations, on March 29, 1993. Under this regulatory framework not only was the tax on mining exploitation completely abolished (significantly diminishing the fiscal burden of the large corporations)[16] but there were important modifications concerning the participation in the sector of foreign capital. In actuality, the new law made possible the complete opening of the mining sector to foreign investment in the guise of "Mexican companies" (bodies subject to no restrictions regarding the participation of foreign capital except for being established according to Mexican law and establishing legal residence in the country). This new regulation, which implied a 180-degree turn from the nationalist spirit of Mexicanization, entered into full force only in 1996, however, with the issuing of the instrument that made it effective: the Law on Foreign Investment. Another major aspect of the Mining Law of 1993 was that it extended the term of the concessions from 25 to 50 years, with a possible extension for the same period.

Halfway through Ernesto Zedillo's term (1994–2000) the national railways were privatized, and this facilitated the entry of the large mining companies into transportation. In association with certain national and multinational corporations, they acquired, in a relatively brief period, the nation's principal rail lines, employing a similar logic of territorial distribution as that applied to the division of the country's mineral resources.[17]

Finally, on February 15, 1999, a new regulation under the Mining Law of 1992 was issued that abrogated that of March 1993, its purpose being to favor even more the participation of private investment in the mining sector through drastic measures of administrative simplification. Among the directives is the designation of a relatively brief period for the approval of most company actions, after which, if there is no official response, authorization of the action in question may be automatically assumed.

Even though the Mining Law of 1992 and its subsequent regulations (those of 1993 and 1999) and the Law on Foreign Investments of 1996 reopened the door to foreign capital to the point that Mexico became the principal nation receiving foreign investment in the mining sector,[18] there is no indication that this threatened the hegemony of the large national mining corporations. Rather, the most recent reforms tended to facilitate the expansion of these corporations through strategic alliances because of their extreme concentration of capital and centralization and their strategic positioning with regard to the mineral wealth of the Mexican subsoil, which permitted them not only to continue in their leadership of the country but also to gain increasing influence on the international level.

ELEMENTS CONTRIBUTING TO A CHARACTERIZATION OF MONOPOLY CAPITAL IN MINING

In speaking of the large mining corporations that emerged from the process of Mexicanization, we are referring to a particular component of national monopoly capital[19] that has the following features:

1. It operates with a high concentration of capital. Of the 72 principal companies that are quoted on the Mexican Stock Exchange (including foreign transnational companies), the four largest mining groups, between 1974 and 1987, were placed almost three percentage points above the average with regard to their fixed capital, infrastructure, machinery, and equipment (Morera Camacho, 1998: 80). Furthermore, in the year 2000 the nation's two principal mining companies, the Mexican Mining Group and Peñoles Industries, had total amounts of capital (fixed + circulating + stock purchases – liabilities) that placed them among the 100 major Latin American companies quoted on the Stock Exchange, occupying fourteenth and thirty-seventh places, respectively (Zellner, 2000: 54–55).
2. In contrast to its high degree of concentration (and its correspondingly high organic composition), the employment it provides is relatively limited. Between 1989 and 1997 employment in the sector fell from 223,834 to 93,840 (INEGI, 1993; 1999).[20] In 1997 the contribution of the sector to the total employment of the country was half its contribution to the gross domestic product (GDP), and the mining contribution to the GDP was 20.83 percent (INEGI, 1999). This last figure places mining 12 percentage points below the industrial sector and the Mexican economy as a whole.

3. The wages it offers are above the national average. The annual average pay in the extraction, exploitation, and refining of non-iron minerals was 56,680 pesos per worker in 1997 while that in the industrial sector was 36,580 pesos and in the total economy 32,042 pesos (INEGI, 1999). This fact should, however, be placed in perspective by keeping in mind the dramatic decline in employment and the adoption of plans for labor flexibility in the sector within the framework of the neoliberal policies being implemented.[21]

4. It displays significant productivity growth: its growth rate between 1988 and 1997 rose from 70 to 120 units while both the industrial sector and the economy as a whole were stagnant (INEGI, 1996; 1998; 1999).

5. Investments in it, in contrast to other productive branches, are distinctive in the substantial component of risk (especially in the prospecting phase) and the long time required for its maturation. Among other things, this introduces various complications into the calculations of the costs of production. On the one hand, since one is dealing with a nonrenewable resource, any estimate must take into consideration the costs of exploration and development with the aim of permitting the replacement or restoration of the mineral.[22] On the other hand, the enormous magnitude of the initial investment required without any assurance of a return in the short run makes it difficult to produce such an estimate, especially if one considers the instability and uncertainty associated with the price of minerals on the world market. Given the increasing international environmental regulation, ecological costs must also be considered. Mining production, particularly large-scale mining, demands huge investments of capital (especially in the phases of exploration and extraction) with appreciable margins of risk that are not recoverable in the short run.

6. Despite the above, it achieves enormous profits. Of the 72 principal companies that are offered on the Mexican stock market, those involved in mining reported, between 1974 and 1987, net profits more than double the average (Morera Camacho, 1998: 96). Similarly, between 1977 and 1997 the net profits of the four major mining-metallurgical corporations increased by 22 times, its capital by 8 times, and its sales by 7 times.[23] Furthermore, taking 1995 as a base year for this calculation, the profits reached were 38 times above those for 1977.[24]

7. Its capacity for producing exceptional profits is inherent in it. To understand this kind of profit it is important to consider that even companies that have a large concentration of capital are not the generators of that capital. Their area of activity is, rather, the mining-metallurgical operation, from exploration to processing and marketing of the mineral; it is in this area that they develop a certain know-how and capacity for innovation with regard to

the exploitation of the deposits and the smelting of the minerals. It is difficult to support the idea that the basis of capital's extraordinary profits is its capacity for developing scientific-technological knowledge. From Marx's perspective, this kind of profit is achieved through the logic of capital accumulation (Delgado Wise, 1996: 98). In this regard, there is another factor that is very rarely taken into consideration: their illegally held monopoly of usufruct over large mineral deposits with unique geological and economic qualities. This creates favorable conditions for obtaining plentiful profits through ground rent, where the possession or usufruct of a natural resource becomes an insurmountable barrier and an excellent opportunity for appropriating surplus. In this case, the two classic forms of ground rent, the absolute and the differential,[25] come into play. But, beyond this, because technological innovations have made for a better exploitation of the natural advantages of major deposits, the kind of rent that most clearly corresponds to the surplus profits associated with large mining capital is the variant of differential rent that is related to the impact of successive investments in deposits of similar size but different mineralogical composition, purity, content, depth, distance of the deposit from the foundry, etc. In contrast to absolute rent and the kind of differential rent that supposes a constant investment of capital and labor, this kind is inherent in the functioning of the specific capitalist mode of production and, therefore, an assumption and a result of the development of the productive forces in the primary sector (Delgado Wise, 2000: 51):

> If . . . a certain antagonism exists between rent and progress, manifested by the obstacle that landed property signifies socially as a result of the contradictory nature of the interests of landlord and industrial capitalist, the fact is that in the case of this kind of rent there are factors that counteract such antagonism. Progress does not necessarily halt the expansion of this kind of rent and, conversely, it does not always become an obstacle to progress.

It is precisely this characteristic that expresses, in its most profound sense, the nature of large mining capital as capital with a financial-progressive component. This is one of the few opportunities that exist in contemporary capitalism for monopoly capital to retain the features of finance (Delgado Wise, 2000: 51).

8. Its activities and, in particular, its revenues are fundamentally export-oriented. Of the total value of the country's production of copper, silver, zinc, and lead (minerals that the monopoly capital of mining specializes in) in 1998, three-fourths had as their final destination the international market, especially the United States (INEGI, 1999: 96). Under the influence of Mexicanization, this trend continues, although somewhat attenuated, highlighting the importance assigned to this sector as a generator of foreign

exchange under the import-substitution-industrialization model adopted by the nation during that period.

The fact that the bulk of the nation's mining production is exported implies—given the finance character of large mining, its huge concentration of capital, and the national composition of the ownership or usufruct of the deposits—a transfer of surplus from the U.S. economy to Mexico's. In fact, because large mining capital's composition is more organic than is the norm for mining capital, the extraordinary profits of the national mining corporations are nourished by surplus that does not originate from mining. The process of the leveling of the profit rate internationally contributes to a transfer of value from the developed countries to the underdeveloped ones, in contrast to the tendency existing in international trade but similar to the one existing among the petroleum-exporting countries (Delgado Wise, 1999: 16–19). This last must be qualified by the consideration that Mexico, although it has a positive balance of trade in mining, is a net importer of equipment and machinery for the sector in all areas of production, importing more than 75 percent of its equipment and machinery and more than 80 percent of that relating to underground works (Coremi, 2000: 39–49).

9. It is remarkably solvent and financially sound. Between 1988 and 1998 the country's two principal mining consortiums, the Mexican Mining Group and Peñoles Industries, in contrast to the majority of Mexican enterprises, registered an average ratio of assets to debts of 3.4 and 3.7, respectively.

10. In the area of the division of labor in which it is circumscribed, it tends to have a very restricted multiplier effect on the regional economies. On the one hand, the scope of activity of mine-operating companies is limited to mining-metallurgical operations (under the logic of strong vertical integration, from exploration and exploitation to smelting, refining, and marketing of the mineral), excluding the development of equipment and machinery or other activities (except transportation) that could stimulate a higher level of horizontal integration. On the other hand, the stages of the productive process in which it participates are not territorially integrated, and this has a detrimental effect on the areas where the mineral deposits are located (generally relegated to the extractive phase and excluded from the advanced and more value-added stages of the productive process).

These ten characteristics of national mining monopoly capital are generic to the large capital operating in the sector, independent of national origins. In other words, in contrast to what occurs in other spheres of production, especially in those in which ground rent is secondary to scientific and technological development, the development or underdevelopment of the economy from which the capital comes from makes no difference. However, Mexico has certain advantages in mining production that favor large corporations: abundant "world-class" deposits, strategic geographical position, and costs and conditions of production better than those of other countries. On this point, the Canadian minister of foreign affairs and international commerce recently emphasized that "because of its high quality of minerals and low costs of production, the [Mexican] mining industry is positioned among the most important on a world scale. . . . Mexico has substantial mineral and metal reserves that are quoted on the world market, and close to 85 percent of the country's mineral resources remain to be exploited" (Coremi, 2000: 39).

FINAL CONSIDERATIONS

Before the decline of the U.S. economy and the events of September 11, 2001, two factors pointed toward a relatively optimistic picture for national monopoly capital in the mining sector: the strategic positioning of the huge mining consortiums controlling the best and largest deposits and the prediction of the Mineral Commodity Summary for 2000 of an expansion in the world market for minerals.[26] Added to this was the absorption on November 17, 1999, of the U.S. company ASARCO by the Mexican Mining Group, which up until 1965 had been a minor partner in Mexico.

Although the large Mexicanized mining enterprise may have a positive impact on the nation's international commerce (through the road of financial appropriation), its development is still very far from counteracting the "denationalizing" and disarticulating impact of the ruling export-growth model under the hegemonizing neoliberalism of huge multinational corporations and international finance capital (Calva, 2000; Cypher, 2001; Delgado Wise and Mañán, 2000). It barely expresses one of the limited survival possibilities open to a component of the national bourgeoisie clearly favored by the Mexican state. But beyond this, the large mining company that emerged from the Mexicanization process, notwithstanding its change of clothing—from foreign capital to Mexican capital—and its enormous technological display, continues to exhibit the features of the enclave that characterized it until the beginning of the 1960s: among other things, it maintains a marked export orientation and continues to operate as a net importer of equipment and machinery, which translates into a meager multiplier effect on the national economy and, especially, on the mining regions.[27]

NOTES

1. According to the Instituto Nacional de Geografía, Estadística e Informática (INEGI, 2000), the principal minerals produced in the country, in terms of value, are copper (21.8 percent), silver (14.6 percent), zinc (14.4 percent), gold (7.8 percent), and lead (4.9 percent).

2. We consider this stage of worldwide capitalism—and, more specifically, of imperialism—a class project that gives rise to a hegemonized world order configured by a reduced nucleus of large multinational firms with an institutional structure designed to serve and promote their interests (Petras and Veltmeyer, 2001: 11–13).

3. Concerning the postmodernist position, Jorge Basave (2000: 8) states: "From this perspective on the future of the world, geographic and political borders, as we have understood them until now, will formally reference the past. On a 'postmodern' map, new frontiers will be delineated by those designed by corporate 'networks' and clusters."

4. John Saxe-Fernández and Omar Núñez (2001: 150–151) estimate that the total amount of surplus transferred by the country—principally to the United States—between 1982 (the year in which the Mexican economy moved toward export production) and 1997 approaches US$457 billion in constant 1990 dollars. The enormous size of this figure—which does not include the transfer of surplus through the direct and indirect export of labor—becomes understandable if one considers that Latin America is unsurpassed as the primary tributary region of the underdeveloped world and Mexico, in the Latin American context, heads the list.

5. The origin of the conflict between the Mexican state and the foreign mining companies rests more in postrevolutionary nationalist ideology than in the requirements of the economic project. During the first phase of import substitution (that corresponding to consumer goods), mining fulfilled a basic function as the supplier of foreign exchange and a source of raw material for industry. This situation changed in the advanced phase of the import-substitution industrialization process, when the internal demand for minerals increased significantly.

6. A decade later this group acquired Mexican Copper (which had been in the hands of the federal government) in a public auction.

7. In contrast, support for small-scale mining, although vitally important for its survival, was relatively moderate during this period.

8. Cananea, for example, obtained a loan for US$80 million from two U.S. banks in order to achieve Mexicanization in 1971. Furthermore, its expansion cost US$125 million between 1973 and 1978 and more than US$900 million between 1978 and 1987 (Contreras and Ramirez, 1988: 60).

9. In 1983, as a result of a rise in interest rates in the United States, the nation's external public debt reached US$67,765 million, one of the highest in the world (Guillén Romo, 1990). In 2001, the external public debt was a little more that US$77 million and the private debt was around US$55 million.

10. Without adopting a historiographical approach, we cannot deny that the evolution of large mining capital was influenced by particular individuals. Alberto Bailléres, a principal shareholder of the Peñoles Group, influenced the takeoff of the large private mining corporation in competition with the parastatal companies in the sector. Jorge Larrea, head of the Mexico Group, acquired the Cananea Company not only through his experience in the sector but also through his close ties with the administration of President Carlos Salinas de Gortari. Carlos Slim, head of both the FRISCO Group and the Carso Group, became a principal beneficiary of neoliberal reprivatization through the purchase of Telmex and Real de Ángeles Mining.

11. For an analysis of the overlapping of the differential strategy of this type of capital and the public policy and state support employed for its rescue from the Echeverría administration to the Salinas administration, see Morera Camacho (1998) and Basave (1996).

12. As Celso Garrido (1998: 424) points out, the state's function was a bit contradictory during these years, oscillating "between an increase in competition and promoting the leadership of the large private Mexican industrial companies, demonstrating the pragmatic nature of this new elite, which, hiding behind a discourse strongly inspired by neoliberalism, develops investment practices favorable to the leadership of these companies."

13. This periodization, although coinciding *grosso modo* with Celso Garrido's proposal for analyzing public policies regarding the assistance given to large national capital under neoliberalism, is slightly different with regard to the particularities of the liberalization of the mining sector (Garrido, 1998: 426–428).

14. The giant mining corporations were the first to take advantage of this measure, introduced in 1977, and were therefore able to begin their modernization early (Basave, 1996: 81–84).

15. The most important aspect of these reforms was that they permitted flexibility in the requirement of 51 percent participation of national capital in mining investment by authorizing the indirect participation of foreign investment through the "pyramid" principal in series A (fixed capital). Also, 100 percent participation of foreign capital was permitted in temporary investments of risk or for development, the F or neutral series. Basically, the 1990 regulation modified the law regulating the activities of the mining sector by allowing some foreign investment.

16. At the same time, investment deductions, which were relatively low in comparison with those of other countries, were increased considerably: the rate of immediate deduction increased by 85 percent and those corresponding to feasibility studies and exploration by 100 percent (Colorado School of Mines, 1998: 31).

17. The Mexico Mining Group bought the Northern Pacific Railroad and the Chihuahua-Pacific Railroad (the most extensive lines of the national rail system, with 7,500 km of track), Peñoles Industries purchased the Coahuila-Durango line (1,330 km), and FRISCO Enterprises acquired Ferrosur (Del Pozo, 2000: 77–92).

18. http://minerals.usgs.gov/minerals/pubs/mcs/2000/mcs2000.pdf.

19. Although in its formative process national mining capital assumed the characteristics of "finance capital" in the sense of the intertwining of productive and financial capital, it seems limiting to restrict ourselves to that definition. We consider it more appropriate to use the concept of monopoly capital, given that what distinguishes it is precisely its extraordinary capacity to valorize the capital derived from its basic objective, "the constant search for extraordinary profits" (Delgado Wise, 1996: 86). This allows us to explore the particular type of appreciation that directs it and explains its extraordinary energy under the current conditions of global capitalism.

20. Throughout the neoliberal period, especially after 1992, the large mining corporation has been the principal protagonist of the sector. Therefore, the general facts of this sector correspond in general with the tendencies registered by the large mining-metallurgical consortiums.

21. In the neoliberal period, different circumstances exist for the principal mining groups, all within the framework of the "uncouth" behavior exemplified by Napoleón Gómez Sada of the National Union of Mining, Metallurgical, and Related Workers of the Mexican Republic. Peñoles finds practically no resistance among its workers and follows a policy that can be considered the least deceitful for its workers, notwithstanding that it is introducing labor flexibility schemes. The Mexico Group resolved the conflict of having a strong union and workers' resistance at Cananea by reprivatizing and adopting strong measures with state support. Its labor policies are the most blatant example of neoliberal policies in practice. However, this does not mean

that it is exempt from conflict: one recent one occurred in the San Martín de Zacatecas complex, where the union was unable to shatter the company's salary ceiling of 5.75 percent.

22. On this point, the case of oil (see Adelman, 1973: 6) can serve as an important reference.

23. Calculated in dollars on the basis of information from the Mexican Stock Exchange's *Boletín de Información Trimestral*.

24. The profits of the large companies have been considerably reduced in the past few years as a result of the huge investments realized since 1996.

25. Absolute rent most clearly expresses the mediation that landed property can exercise in the process of price formation. It is based on the capacity that the landlord, as an owner of a monopolized nonproduced and nonreproducible commodity, has for demanding rent, even for the worst land, thereby increasing the price of the product above the corresponding price of production (Delgado Wise, 2000: 42). Differential or Ricardian rent "is based on the differences that emerge in the individual price cost of primary commodities in virtue, precisely, of the differential properties of the natural resources employed" (Delgado Wise, 1989: 23) and is the type of rent that, according to Marx, has the best prospects for development under capitalism.

26. http://minerals.usgs.gov/minerals/pubs/mcs/2000/mcs2000.pdf. Furthermore, for the journal *Latin Trade* the Mexico Group was the company with the best prognosis for sales among the 100 major Latin American companies quoted on the stock market, and Peñoles Industries was in fortieth place on this list (Zellner, 2000: 56).

27. As a result of the fiscal measures instituted to promote Mexicanization and neoliberal reforms in the economy, the ratio of taxes to net sales has been significantly reduced during the past few years. According to the Mexican Stock Exchange, the Mexican Mining Group and Peñoles Industries paid, on average, 3.6 percent and 5.4 percent, respectively, between 1990 and 1998 when before Mexicanization they had had a tax burden of more than 35 percent.

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