# LATIN AMERICA AND CANADA<sup>1</sup>

By David B. Doan, Alfredo C. Gurmendi, Ivette E. Torres, and Pablo Velasco

#### INTRODUCTION

Mining and related activities in the countries of Latin America and Canada, as well as the Caribbean Islands, during 1998 are described in this regional summary.<sup>2</sup> As with the United States, these other countries of the Western Hemisphere are endowed with a great diversity of minerals, comprising metals, industrial minerals, and fuel minerals. For several of these countries, the mining, processing, and marketing of the mineral commodities play significant roles in supporting their economies, in many instances earning export revenues and foreign exchange reserves and offering business opportunities via privatization of state-run corporations, direct acquisitions made by foreign and domestic investors, joint-venture projects (investment in equity), and debt flows (credits).

Table 1 lists the major mineral commodities produced in Latin America and Canada during 1998. Table 2 lists the percentage of world mineral by Latin America and Canada. Table 3 lists the significant flows of foreign direct investments (FDI) to such mineral-producing countries as Argentina, Bolivia, Brazil, Chile, Ecuador, Paraguay, Peru, and Uruguay, as well as domestic and U.S. investments and joint ventures in their respective mineral sectors.

The abundant and varied mineral endowment of Latin America and Canada complement the mineral resources of the United States. Interest and investment flows continued to many of these countries in spite of the Southeast Asian and the Russian crises, the Brazilian economic turmoil, lower prices for Latin America's major mineral exports, and the El Niño weather phenomenon in the later part of the year as discussed in the ensuing country chapters.

#### **Position in the World Mineral Economy**

Latin America produced 39% of the world's silver, 38% of copper, 29% of bauxite, and 24% of tin; it also produced 24% iron ore, 20% of zinc, and 15% of lead and nickel each. Latin America and Canada combined produced 47% of the world's silver, 44% of its copper, and 34% of its zinc,<sup>2</sup> as well as 32% of its nickel, 28% of its iron ore, 21% of its lead, and 20% of its primary aluminum. (*See tables 1 and 2.*) Moreover, Latin America and Canada, separately and together, were of great significance to the global economy as producers of metals and steel, crude oil and natural gas, petroleum refinery derivatives, and coal, significant amounts of which were exported.

Canada led the world in the production of uranium and was the second largest producer of zinc after China, with a strong showing in output of gold, nickel, and silver. Chile led the world in the production of copper, and Mexico led in the production of silver and strontium. Peru was third in world production of silver after Mexico and the United States. Brazil led in output of columbium and, although not the largest producer of iron ore, has been the leading exporter in recent years, as well as eighth largest steel producer in the world. In the Western Hemisphere, Brazil and Canada were second and third largest producers of steel, respectively, after the United States. Brazil was also the fourth ranking source of manganese in the world, followed in Latin America by Mexico. After Russia. Canada was the second largest world nickel producer. with other significant production in the hemisphere by Cuba and the Dominican Republic. Jamaica was the world's third largest producer of bauxite.

The inclusion of the United States in table 1 shows the position of the entire Western Hemisphere in world supply of mineral commodities. This hemisphere produced 59% of the world's copper, 56% of its silver, 42% of its zinc, 36% of its aluminum, 36% of its lead, 34% of its gold and iron ore each, and 32% of its nickel. Among the industrial minerals, the Western Hemisphere produced 44% of the world's sulfur, 42% of its salt, 38% of its gypsum, and 36% of its phosphate rock. Of the mineral fuels, this hemisphere produced 35% of the world's output of natural gas, 32% of its crude oil, and 30% of its coal; farther in the processing stream, it produced 39% of refined petroleum products.

#### **Production Trends**

*Nonfuel Minerals.*—For Latin America, the most significant production in terms of share of world output included copper, silver, bauxite, tin, iron ore, zinc, lead, nickel, gold, and primary aluminum, as listed in table 2. In the past 10 years, exploration, investment, and development have taken various new discoveries to the point of production, such that copper, bauxite, nickel, tin, silver, and iron ore mines have came on-stream and increased Latin America's world position in the production of these metals.

Latin America's world share of output of copper and gold has increased, and conspicuous effort has been exerted to find and produce these minerals. Gold has been the center of attention in the Guyana Shield of Venezuela and Guyana, as well as in most of the Andean countries. The bauxite industry weathered an unusual surge of aluminum exports from the former Soviet Union during the early 1990's and has been the object of increased interest in Brazil and Venezuela for domestic aluminum production. Jamaica exported its bauxite production.

<sup>&</sup>lt;sup>1</sup> Based on information available as of December 31, 1999.

<sup>&</sup>lt;sup>2</sup> Unless otherwise notes, all listings of mineral commodities or countries for enumerative or comparative purposes are listed on the basis of volumes produces, exported, or imported.

*Energy Minerals.*—The world share of Latin American production of petroleum (crude) increased to 15% from 12% in 1997, and resultant derivatives of petroleum (products) increased to 10% from 8% in 1997. Natural gas production increased to 12% from 6% in 1997 after fluctuating unevenly since 1985. Output of crude oil reached new highs in Argentina, Brazil, Colombia, Ecuador, Mexico, and Venezuela. The top seven producers were Venezuela, Mexico, Brazil, Argentina, Colombia, Ecuador, and Peru, representing 97.6% of the regional total. In order of volume, Mexico, Venezuela, Argentina, Colombia, Brazil, and Peru also reached new highs in the production of natural gas.

Canada also reached a new high in the production of crude oil, as well as new highs in the production of natural gas and crude oil when combined with Latin America and the United States. Brazil, Mexico, Venezuela, and Argentina led Latin American production of refinery derivatives, and, with Canada and the United States, the region achieved a world share of 39%, also a new high.

In Latin America, coal output was led by Colombia, Mexico, Venezuela, and Brazil. Products were generally competitive in world markets and increased local and regional market shares during the past 10 to 20 years. Depending upon the country, anthracite, semianthracite, bituminous, and subbituminous, plus some lignites (used locally in most cases), were mined. Latin American coals are suitable for metallurgical and thermal use, as are Canadian and U.S. coals. The Western Hemisphere coal output amounted to a 30% world share.

#### **Trade Liberalization Developments**

Canada, Mexico, and the United States, members of the North American Free Trade Agreement (NAFTA), constituted the largest and richest trading bloc in the world-370 million consumers and an annual output of about \$7 trillion. The Southern Cone Common Market (MERCOSUR), including Argentina, Brazil, Paraguay, and Uruguay, plus Bolivia and Chile as associated members, had 230 million consumers and a \$1.5 trillion economy. The excellent infrastructural connections, including railroads, highways, and pipelines, from Canada through the United States to Mexico were a significant factor in the marketing of mineral commodities. MERCOSUR's shares of the total trade with the major economic blocks were 59% within the European Union, 42% within NAFTA, and 25% within MERCOSUR. For other Latin American nations, Chile in particular, joining NAFTA would provide greater freedom of mineral trade and, ultimately, greater efficiencies of production. Canada and Chile signed a bilateral trade pact on November 19, 1996. Since 1996, Canadian FDI has increased noticeably in Chile. (See table 3.)

During the past 30 years or more, Latin American countries have entered trade agreements among themselves, such as Chile's bilateral Free Trade Agreement with Mexico, the Venezuelan-Colombian agreement with the Central American Common Market, Venezuela's agreement with Chile to begin phasing out tariffs within a 6-year period, and a free trade pact among Colombia, Mexico, and Venezuela to phase out tariffs. In 1996, Chile signed an agreement with Colombia to eliminate tariffs entirely by the 1999-2000 period. In 1993, Argentina and the United States signed a bilateral investment treaty whereby U.S. investors receive most-favored-nation treatment, a guarantee of free transfer of profits, and access to international arbitration.

Investment opportunities for U.S. and foreign companies have increased because of the liberalization of the MERCOSUR countries' economies and the privatization of many Latin American mineral, oil and gas, utilities, and infrastructure sectors. In the mineral industries, 100% of equity ownership was allowed by means of privatization or by direct acquisition, profits were allowed to be expatriated, and, more importantly, restrictions on foreign investments were removed.

The U.S. Department of Commerce reported that Brazil received \$65.5 billion of FDI (services, 56.7%; industry, 41.5%; and other sectors, 1.8%) in 1998; Chile was the recipient of \$25.5 billion of FDI (mining, 43.8%; services, 22.8%; other sectors, 17.2%; and industry, 16.2%) from 1974 to 1997; and Peru received \$36.5 billion of FDI (services, 50.1%; other sectors, 30.6%; and minerals, 19.3%) from 1990 to 1998.

In 1998, the mining countries of Latin America, in alphabetic order, received the following mineral sector FDI's—Argentina, \$1.2 billion; Bolivia, \$2.6 billion; Brazil, \$5 billion; Chile, \$6.6 billion; Ecuador, \$107 million; Paraguay, \$5 million; Peru, \$2.3 billion; and Uruguay, \$29 million. Brazil and Peru, however, suffered capital outflows of \$33.5 billion and \$1.3 billion, respectively. *(See table 3.)* 

#### **Privatization and Investment Interest**

Latin America's economic growth was characterized by increased privatization, joint-venture projects, and reduced trade barriers. Privatization has been changing the industrial operating mode to a privately owned/Government-regulated regime from a Government-owned/Government-operated regime. The establishment of joint ventures, such as in construction and management of infrastructure, energy and mining projects, and deregulated industries (electricity, gas, telecommunications), was a common practice in the region. Foreign investors viewed Latin America as an attractive region with open-market economies. These changes, coupled with the growing awareness of environmental protection, are leading to the establishment of more-comprehensive environmental regulations and controls (MERC's) for all Latin American industries, including mining and energy. With respect to environmental, geologic, economic, and social impacts in the region, the implementation of MERC's, however, will require further consideration of many factors to find a balance between continued industrial profitability and environmental protection.

Governments of the region recognize that privatization and acceptance of foreign investment foster vigorous growth, not least in the mining industry, leading to enhanced revenues and, for many countries, expanded overall economic strength in labor and wages.

The lure of rights to private ownership in Latin American countries, such as Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Mexico, Peru, and Venezuela, attracted great interest in the mineral endowment of those countries. Seeking sources of hard currency for its economy, Cuba has increasingly allowed foreign companies to participate in exploration, production, and refining of metals and crude oil.

Some investment flows of U.S., Canadian, and European capital for mining, energy, communications, utilities, and other development continued to enter Latin America. Among the most popular geologic exploration targets continued to be the Cordillera and the Guyana Shield. The Cordillera extends southward through Mexico and Central America to the Andes of South America, virtually to Tierra del Fuego, and the Guyana Shield comprises northwestern Brazil, southeastern Venezuela, French Guiana, Guyana, and Suriname.

Venezuela courted foreign exploration for metals, particularly gold, and encouraged joint efforts in petroleum operations. Interest in Las Cristinas, Venezuela's major gold project in the "Kilometro 88" on Highway 10 south of El Dorado, decreased significantly for several reasons—review of the mining law, the legal entanglement between Placer Dome Ltd. and Crystallex International of Canada regarding Las Cristinas, difficulty of governmental administrative procedures, and prevailing lower gold prices.

In 1998, Argentina's changes in national mining legislation opened up business opportunities in its mining and oil sectors. After peaking in 1997, however, exploration will continue on a smaller scale by a reduced number of firms with long-term commitments in the country. In the country, FDI appears to be strong—a consortium led by Mount Isa Pacific Pty. Ltd. invested \$1.2 billion in the Bajo de la Alumbrera, Argentina's first operating copper mine; it is located in Catamarca in northwestern Argentina.

In 1998, the Corporación Minera de Bolivia, once the leading mineral producer in the country, sought private partners to operate its existing mines under joint-venture agreements or other contracts. The Bolivian Government undertook significant legal and regulatory reforms, such as a single income tax rate of 25%, enactment of environmental laws to protect the environment and to pursue sustainable development, and revision of its mining code to ensure equal treatment of foreign and domestic investors. The construction of the 3,150kilometer Bolivian-Brazilian gas pipeline, being financed by a consortium led by the World Bank, was completed on December 26, 1998. Bolivia will begin delivering natural gas in April 1999, and by October 1999, 6.3 million cubic meters per day will be pumped to Brazil. An export market worth \$300 million, which could be created by the end of 1999, would increase Bolivia's annual export earnings to \$1.5 billion.

Brazil responded to its economic crisis, provoked, in part, by the financial turmoils in Southeast Asia and Russia during 1997-98 that started to diminish the flow of funds to Latin America. The resulting massive increase in interest rates to 46% per year from the 28% as of September 1997 to pull in foreign portfolio investment and a package of \$28 billion in emerging budget cuts as of November 1998, congressional reforms to address the twin deficits in the current and fiscal accounts, and funds available under its \$41.5 billion financial agreement with the International Monetary Fund helped improve the sluggish economy. Despite the financial difficulties, the Brazilian Government was able to identify \$160 billion in investment opportunities for U.S. and foreign corporations, particularly in the telecommunication and energy sectors; privatization was expected to account for about one- third of the inflows. Brazil received \$5 billion of FDI in the mineral sector in 1998. Between August and October 1998, capital outflow was \$33.5 billion.

Colombia ended 1998 in a recession with only 0.2% growth in the gross domestic product (GDP); this was down about 5% from that of 1997, the result of low world oil prices, diminished demand for exports, and a decline in the investment stream. Colombia has had positive growth of its GDP for more than six decades and was the only Latin American country not to default on or restructure its foreign debt during the 1980's, probably owing in no small part to the conservative monetary policy conducted by its independent Central Bank. Efforts to expand the mineral sector were hindered by continuing terrorist activity, including destruction of oil pipelines and attacks on mines, petroleum production facilities, and personnel. Privatization continued, in descending order of revenues received, in the electric power, mining, natural gas, and telecommunications sectors.

Foreign investment has played an important role in the modernization and growth of the Chilean economy. In Chile, FDI was \$6.55 billion, a 6.4% increase compared with that of 1997, despite investment withdrawals from Latin America. The mining sector received about 40% of this investment in 1998. Most of the foreign capital went to 20 projects.

After adopting new mining and environmental laws in 1992, Mexico concentrated on its privatizing efforts. After being hindered by the collapse of the peso at the end of 1994 and into 1995 that resulted in a deep economic recession and temporary financial uncertainty, its economy was bolstered by strong new foreign investments in many of its basic industries. Plans for privatization of the petrochemical industry stalled.

In spite of the effects of El Niño, the Asian financial crisis, the instability of the Brazilian markets, and the lower prices for its major mineral exports, mainly copper, gold, lead, and zinc, the Peruvian economy was still upright. The privatization of state-owned corporations and the formation of joint ventures in the mining industry continued, and foreign investors viewed Peru as an attractive open-market economy in Latin America. In Peru, FDI amounted to about \$2 billion, and revenues from the mining sector were \$1.15 billion, with projected investments of \$4.5 billion in 1998. The Government also slashed subsidies and tariffs, freed foreign exchange and interest rates, established concessions for construction and operation of public infrastructure (roads, ports, and airports), and embarked on fiscal austerity and investment in social development and agriculture. A final border agreement with Ecuador was finalized.

Exploration continued in the Central American countries, primarily for gold, with Nicaragua as the only significant producer. Guatemala produced antimony, and Honduras continued its output of lead and zinc. Panama has huge copper resources that were not being rapidly developed.

The decline in metals prices from 1997 and throughout 1998 led to a decrease in Canadian mine output of base and precious metals that was compensated, in part, by greater production of industrial minerals and so-called structural mineral materials. The GDP slowed for most of 1998, but in the fourth quarter, however, gross national expenditures rose by 2.8% compared with those of the fourth quarter of 1997, and growth accelerated to more than 4% from October to December. After spreading to most of Canada, exploration for diamond continued with less public excitement than previously, but with an increasing number of discoveries. With the opening of the Ekati mines in the Northwest Territories, Canada became a factor in world diamond markets for the first time. Inco Limited's huge nickelcopper-cobalt discovery at Voisey's Bay on the Labrador coast languished after the Provincial Government of Newfoundland demanded that the ore be smelted and refined in that Province

rather than in the Sudbury district, which had been the company's intention. Some Canadian companies sought mineral properties in Central America and South America where they saw that foreign investment was welcomed, mining laws were coherent and reasonable, and profits could be repatriated.

### SELECTED GENERAL SOURCES OF REGIONAL INFORMATION

- American Petroleum Institute, Washington, DC: Basic Petroleum Data Book, annual.
- Barclays Bank International, London: ABECOR Group Country Reports.
- British Sulphur Corp. Ltd., London:

Nitrogen, bimonthly.

Phosphorus and Potassium, bimonthly.

- Sulphur, bimonthly.
- Bureau de Documentation Minière, Paris: Annales des Mines, monthly.
- Bureau de Recherches Geologiques et Minieres, Paris: Chronique de la Recherche Miniere, quarterly.
- Business International Corporation, New York: The New Latin America Market Atlas, 1992.
- EMEP—Editorial Ltda. São Paulo, Brazil: Minerios Extração and Processamento, monthly.
- G & T International (Chile): Latinominería, quarterly.
- Institute of the Americas, La Jolla, California: HEMISFILE and News & Events and summary reports all major conferences.
- Instituto Latinoamericano del Fierro y el Acero (ILAFA), Santiago:
  - Anuario Estadístico de la Siderúrgia y Minería del Hierro de América Latina, annual.

Siderúrgia Latinoamericana, monthly.

- Inter-American Development Bank, Washington, DC:
- Economic and Social Progress in Latin America, annual report.
- IDB News, monthly.
- International Lead and Zinc Study Group, London.
- International Monetary Fund, Washington, DC:
- International Financial Statistics, monthly.

Annual Yearbook.

- International Nickel Study Group, The Hague, the Netherlands, monthly.
- Latin American Energy Organization (OLADE): Energy Statistics, annual.

Energy Magazine, issued every 4 months.

- Latin American Mining Institute, Washington, DC: The South American Investment and Mining Guide for the mid 80's.
- Mexico and Central America Investment and Mining Guide, annual.
- Latin American Newsletters Ltd., London: Weekly Report.

Commodities Report, biweekly.

- Latin American Economic Report, weekly.
- McGraw-Hill, Inc., New York: Engineering and Mining Journal, monthly.
- Metals Economics Group, Halifax, Nova Scotia, Canada: Latin America Gold—Transactions and Opportunities.
- MllDa Limited, London: Latin American Mining Letter, biweekly. Miller Freeman Publications, San Francisco: World Mining Equipment, yearbook. Mining Journal Ltd., London: Mining Magazine, monthly. Mining Journal, weekly. Mining Annual Review, July issue. Metallgesellschaft Aktiengesellschaft, Frankfurt: Metal Statistics, annual. Metal Bulletin, London: Metals & Minerals Latin America. biweekly. National Mining Association, Washington, DC: International Coal. annual. Organization of American States, CECON, Washington, DC: Trade News, monthly. Organization of Petroleum Exporting Countries, Vienna, Austria: Annual Report. Annual Statistical Bulletin. PennWell Publishing Co., Tulsa, Oklahoma: International Petroleum Encyclopedia, annual. Robertson, Andrew. Ed. Atlas of the Latin American and Caribbean Mineral Industry. Mining Journal Books, Kent, England, 162 pp. United Nations, New York, NY: Chronicle of the United Nations Mineral Resources. Exploration in Developing Countries 1988-93, annual updates. United Nations Economic Commission for Latin America and the Caribbean: Preliminary Economic Overview, annual. CEPAL News, monthly. Statistical Office, U.N. Trade Statistics. U.S. Agency for International Development: Latin America and the Caribbean--Selected Economic and Social Data, annual. U.S. Department of Commerce: Bureau of the Census, trade statistics. International Trade Administration: Foreign Economic Trade and Their Implications for the United States, semiannual by country. International Marketing Information Series. U.S. Department of Energy, Office of International Energy Analysis: International Energy Annual, DOE/EIA-0219. Petroleum Supply Annual v. 1 and 2, DOW/E1A-0340. U.S. Department of the Interior, U.S. Geological Survey: Mineral Commodity Summaries, annual. Minerals Yearbook, annual commodity reports. University of Miami, North-South Center for Latin American Studies: North-South, the Magazine of the Americas, bimonthly. World Bank, Washington, DC: Bank news releases (http://www.worldbank.org).
- World Bureau of Metals Statistics, London: World Metal Statistics, monthly.
- World Reports Limited, New York: The Latin American Times, monthly.

### TABLE 1 PRODUCTION OF SELECTED MINERALS IN LATIN AMERICA AND CANADA, 1998

#### (Thousand metric tons unless otherwise specified)

	Metals										
	Aluminum		Copper mine Gold		Gold Iron ore,	Lead	Nickel		Steel,	Tin mine output	Zinc, mine output
	primary			Gold		mine	mine	Silver			
	metal	Bauxite	output	(tons)		output	output	(tons)	crude		
Argentina	187			19		15		50	4,201		32
Belize				(1/)							
Bolivia			(1/)	14		16		404		11	152
Brazil	1,208	12,688	34	50	200,000		37	34	25,100	14	87
Chile			3,691	45	9,112	(1/)		1,100	1,171		16
Colombia		2	1	19	526	(1/)	29	5	700		
Costa Rica				(1/)	89			(1/)			
Cuba			4				64		284		
Dominican Republic				1			42	8	36		
Ecuador			(1/)	4		(1/)		2	40		(1/)
El Salvador	3										
Guatemala				(1/)	4	(1/)					
Guyana		2,500		14							
Honduras				(1/)		5		47			39
Jamaica		12,646									
Mexico	62		385	25	10,557	166		2,686	14,213	(1/)	395
Nicaragua				4				2			
Panama				2				2			
Paraguay									70		
Peru			554	94	4,825	258		2,025	510	26	869
Suriname	29	4,000		(1/)				·			
Trinidad and Tobago		, 							781		
Uruguay				2	7				40		
Venezuela	580	5,100		7	19,932				3,700		
Others 2/		, 		4		1			·		
Total Latin America	2,069	36,936	4,669	304	245,052	461	172	6,365	52,846	51	1,590
Share of world total (percent)	9	29	38	13	24	15	15	39	7	24	20
Canada	2,374		705	166	38,875	189	208	1,179	15,800		1,065
Total Latin America and Canada	4,443	36,936	5,374	470	283,927	650	380	7,544	68,646	51	2,655
Share of world total (percent)	20	29	44	20	28	21	32	47	9	24	34
United States	3,713	W	1,860	350	62,000	450		1,600	96,000		635
Total Western Hemisphere 5/	8,156	36,936	7,234	820	345,927	1,100	380	9,144	164,646	51	3,290
Share of world total (percent)	36	29	59	34	34	36	32	56	21	24	42
Total world	22,700	126,800	12,308	2,400	1,020,000	3,080	1.170	16,200	775,300	216	7,800

See footnotes at end of table.

#### TABLE 1--Continued PRODUCTION OF SELECTED MINERALS IN LATIN AMERICA AND CANADA, 1998

#### (Thousand metric tons unless otherwise specified)

	Industrial minerals					Fuels				
								Natural gas,	Petroleum	1
				Phosphate	Salt,	Sulfur,	Coal,	gross	(million 42-ga	llon
	Barite	Cement,	Gypsum	rock	all	all	all	(million cubic '	barrels)	
	crude	hydraulic	crude	(P2O5)	forms	forms	grades	meters)	Crude	Products
Argentina	14	7,100	650		851		300	41,000	305	177
Bolivia	3	1,167			4,562			6,800	13	14
Brazil	56	40,000	1,632	1,561	6,837	240	5,382	10,841	446	799
Chile	3	3,750	781	15	6,207	899	921	3,075	3	62
Colombia	6	9,190	560	50	495	63	33,751	13,000	273	102
Costa Rica		1,180			37					5
Cuba		1,800	130		180	5		37	11	60
Dominican Republic		1,885	81		62		1			12
Ecuador		2,690				14		190	144	60
El Salvador		1,065	6		89					6
Guatemala	3	1,500	30		48			35	10	8
Guyana										
Honduras		1,250	30		25					2
Jamaica		558	154		16					5
Mexico	162	27,744	7,045	756	8,412	1,387	12,379	49,500	1,122	490
Nicaragua		377	23		15					6
Panama		750			23					10
Paraguay		556	5							2
Peru	75	3,850	71	47	220	60	52	1,402	60	62
Suriname		50							4	
Trinidad and Tobago		690				15		10,294	45	49
Uruguay	(1/)	960	1,123			2				11
Venezuela		7,900	80	314	350	425	6,324	40,000	1,180	372
Others 3/		630			650	78		35	(1/)	140
Total Latin America	322	116,642	12,401	2,743	29,079	3,188	59,110	176,209	3,616	2,454
Share of world total (percent)	5	8	12	6	15	6	2	6	15	10
Canada	86	12,064	8,175		13,310	9,248	75,386	204,022	808 4/	683
Total Latin America and Canada	408	128,706	20,576	2,743	42,389	12,436	134,496	380,231	4,424	3,137
Share of world total (percent)	7	9	20	6	21	23	4	13	18	13
United States	660	82,200	19,000	13,300	42,100	11,300	988,970	905,000	3,453	6,701
Total Western Hemisphere 5/	1,068	210,906	39,576	16,043	84,489	23,736	1,123,466	1,285,231	7,877	9,838
Share of world total (percent)	17	14	38	36	42	44	30	35	32	39
Total world	6,200	1,500,000	105,000	45,100	200,000	54,000	3,683,777	2,846,318	24,409	25,000
1/ Less than 1/2 unit.										

2/ Includes French Guiana.

3/ Includes Aruba, Barbados, French Guiana, Guadeloupe, Martinique, and the Netherlands Antilles,

4/ Includes synthetic crude (from oil shale and/or tar sands).

5/ Entirely remelted metal.

#### TABLE 2 ROLE OF LATIN AMERICA IN WORLD MINERAL PRODUCTION

#### (Percentage of world output) 1/

	1005	1000	1007	1000	1007	1000
Commodity	1985	1990	1995	1996	1997	1998
Copper	26	26	33	36	48	49
Silver	35	35	33	40	42	39
Bauxite	20	24	30	30	32	30
Tin	25	28	31	32	29	24
Iron ore	17	21	22	22	22	24
Zinc	17	17	20	21	21	20
Lead	15	13	16	16	16	15
Nickel	6 e/	11	14	15	16	15
Crude oil	12	11	12	14	12	15
Gold	10	9	10	12	12	13
Petroleum products	7	9	7	8	8	10
Aluminum	8	10	10	10	10	9
Cement	7	7	6	7	7	8
Steel	5	5	6	6	7	7
Coal	1	1	1	1	1	2
(						

e/Estimated.

1/ By volume.

### TABLE 3 SIGNIFICANT INVESTMENT IN SELECT COUNTRIES OF LATIN AMERICA 1/ 2/

#### (Million dollars unless otherwise specified)

Major operating companies and major equity owners	Country	Investmen	t Product	Year
Minas Argentinas S.A. 50%: Ima Resources Corp. 50%	Argentina/Canada	50	Α11/Ασ	1997
6	*			1997
				2000
Mount Isa Pacific Pty. Ltd., 50%; North Ltd. of Australia,	Australia/Canada	1,200	Au/Cu	2000
BHP Minerals Inc., 70%, and Northern Orion Exploration	do.	25	do.	1997
Minera del Altiplano S.A. (FMC Lithium Corp., 100%)	United States	110	Lithium	2000
Minera Mincorn S.A. (Anglo American Corn. 100%)	South Africa	190	Gold	2000
				2000
				2000
		2,250		
		110		
		NA		
Inti-Raymi S.A., Battle Mountain Gold 88%; EMUSA 12%	United States/Bolivia	50	Au/Ag	1999
Orvana Minerals Corp./EMUSA	Canada/Bolivia	54	do.	2000
Apex Silver Mines Ltd., 70%: Phelps Dodge Corp., 30%	United States	413	Ag/Pb/Zn	2000
	Bolivia	50	Sn/Sb	2000
Ţ,				
Petrobras 35%; Petrolera Andina 50%; Total of France, 15%	Brazil/Bolivia/France	2,000	Natural gas	2000
·····, ····, ····,		/	0	
		·		
		457		
Companhia Vale do Rio Doce (CVRD); Consortium led by Cia Siderurgica Nacional (nrivate 100%)	Brazil	7,600	Privatization Fe/Mn/Au	1997
· · · ·	Brazil/South Africa	20		1997
<u> </u>				1997
	Brazil	86	Ni-expansion	1997
Alcan Aluminio do Brazil S.A. (Alcan Aluminum Ltd. (private, 100%)	Canada	380	Al-expansion	1997
Alcoa Aluminio S.A. [Aluminum Co. of America (Alcoa)] (private, 100%)	United States/ Netherlands	400	do.	1997
		20	Cu-expansion	1997
1 1		200	*	2000
	Ū.	8,756		
		25		
		65,507		
		5,000		
		70,507		
		17,210		
ng				
ng				
ng		33,500		
	Minas Argentinas S.A., 50%; Ima Resources Corp., 50%         Argentina Gold Corp., 40%; Barrick Gold Corp., 60%         Cía. Minera San José S.A., 50%; Cambior Inc., 50%         Mount Isa Pacific Pty. Ltd., 50%; North Ltd. of Australia, 25%; Rio Algom Ltd., 25%         BHP Minerals Inc., 70%, and Northern Orion Exploration Ltd., 30%         Minera del Altiplano S.A. (FMC Lithium Corp., 100%)         Potasio Rio Colorado S.A. (CRA-Minera TEA S.A., 100%)         Grupo Minero Aconcagua S.A., (private, 100%)         Inti-Raymi S.A., Battle Mountain Gold 88%; EMUSA 12%         Orvana Minerals Corp./EMUSA         Apex Silver Mines Ltd., 70%; Phelps Dodge Corp., 30%         Corporacion Minera de Bolivia (COMIBOL)         Petrobras 35%; Petrolera Andina 50%; Total of France, 15%         Companhia Vale do Rio Doce (CVRD); Consortium led by Cia. Siderurgica Nacional (private, 100%)         CVRD/Anglo American Corp./BNDES         CVRD/Phelps Dodge Corp.         Cia. Niquel Tocantins         Alcan Aluminio do Brazil S.A. (Alcan Aluminum Ltd. (private, 100%)	Minas Argentinas S.A., 50%; Ima Resources Corp., 50%       Argentina/Canada         Argentina Gold Corp., 40%; Barrick Gold Corp., 60%       do.         Cía. Minera San José S.A., 50%; Cambior Inc., 50%       do.         Mount Isa Pacific Pty. Ltd., 50%; North Ltd. of Australia,       Australia/Canada         25%; Rio Algom Ltd., 25%       BHP Minerals Inc., 70%, and Northern Orion Exploration       do.         Ltd., 30%       Minera del Altiplano S.A. (FMC Lithium Corp., 100%)       United States         Minera Mincorp S.A. (Anglo American Corp., 100%)       South Africa         Potasio Rio Colorado S.A. (CRA-Minera TEA S.A., 100%)       Australia         Grupo Minero Aconcagua S.A., (private, 100%)       Canada         Inti-Raymi S.A., Battle Mountain Gold 88%; EMUSA 12%       United States/Bolivia         Orvana Minerals Corp./EMUSA       Canada/Bolivia         Apex Silver Mines Ltd., 70%; Phelps Dodge Corp., 30%       United States         Corporacion Minera de Bolivia (COMIBOL)       Bolivia         Petrobras 35%; Petrolera Andina 50%; Total of France, 15%       Brazil/Bolivia/France         Companhia Vale do Rio Doce (CVRD); Consortium led by Cia. Siderurgica Nacional (private, 100%)       Brazil         CvRD/Phelps Dodge Corp.       Brazil/United States         CvRD/Phelps Dodge Corp.       Brazil/United States         Cia. Niquel Tocantins       Brazil	Minas Argentina S.A., 50%; Ima Resources Corp., 50%       Argentina/Canada       50         Argentina Gold Corp., 40%; Barrick Gold Corp., 60%       do.       150         Mount Isa Pacific Pty, Lid., 50%; North Lid. of Australia,       Australia/Canada       1,200         25%; Rio Algom Lid., 25%       BHP Minerals Inc., 70%, and Northern Orion Exploration       do.       25         Lid., 30%       Minera del Altiplano S.A. (FMC Lithium Corp., 100%)       United States       110         Minera del Altiplano S.A. (FMC Lithium Corp., 100%)       South Africa       190         Potasio Rio Colorado S.A. (CRA-Minera TEA S.A., 100%)       Australia       150         Grupo Minero Aconcagua S.A., (private, 100%)       Canada       25         110       NA         Inti-Raymi S.A., Battle Mountain Gold 88%; EMUSA 12%       United States/Bolivia       50         Orvana Minerals Corp/EMUSA       Canada/Bolivia       54         Apex Silver Mines Lid., 70%; Phelps Dodge Corp., 30%       United States       413         Corporacion Minera de Bolivia (COMIBOL)       Bolivia       50         Petrobras 35%; Petrolera Andina 50%; Total of France, 15%       Brazil/Bolivia/France       2,000         2,567       2,567       2,567         Companhia Vale do Rio Doce (CVRD); Consortium led by       Brazil/United States       50	Minas Argentinas S.A., 50%; Ima Resources Corp., 50%       Argentina/Canada       50       Au/Ag         Argentina Gold Corp., 40%; Barrick Gold Corp., 60%       do.       150       Coper         Mount Isa Pacific Py, Lid., 50%; North Lid. of Australia,       Australia/Canada       1,200       Au/Cu         25%; Rio Algom Lid., 25%       BHP Minerals Inc., 70%, and Northern Orion Exploration       do.       25       do.         Lid., 30%       Minera del Altiplano S.A. (PMC Lithium Corp., 100%)       United States       110       Lithium         Minera del Altiplano S.A. (Anglo American Corp., 100%)       South Africa       190       Gold         Potasio Rio Conado S.A. (CRA-Minera TEA S.A., 100%)       Australia       150       Potassium         Grupo Minero Aconcagua S.A., (private, 100%)       Canada       25       Au/Cu         2,250       110       NA         Inti-Raymi S.A., Battle Mountain Gold 88%; EMUSA 12%       United States/Bolivia       50       Au/Ag         Orvana Minerals Corp./EMUSA       Canada/Bolivia       54       do.         Apex Silver Mines Ltd., 70%; Phelps Dodge Corp., 30%       United States/Bolivia       50       Sn/Sb         Petrobras 35%; Petrolera Andina 50%; Total of France, 15%       Brazil/Bolivia/France       2,000       Natural gas         2,567 <td< td=""></td<>

## TABLE 3--Continued SIGNIFICANT INVESTMENT IN SELECT COUNTRIES OF LATIN AMERICA 1/ 2/

(Million dollars unless otherwise specified)

Redemits Tormic         Corporation Nacional del Contre de Chile S.A. (100%         Chile         6.62         Copper         199           Conhahas, Region I         Rhonkinge L.M., Minoro Ple.         Canada Lanesheroung         2.185         do.         199           Cerro Colorado, Region I         Rhonkinge M.M., Minoro Ple.         Canada Chile         733         Copper         199           Cerro Colorado, Region I         Exconside and think on Plence Scatter	Country and project CHILE	Major operating companies and major equity owners	Country	Investmen	t Product	Year
Collabasis, Region I         Falconting Ed. M. Murco Pic.         Canada (14)         205         do.         199           Corro Colorado, Region I         Connico Lid, Teck Resources International Lid, and Canada (14)         Canada (14)         73         Copert         199           Corro Mortado, Region II         Cyprex Anax Minerals Co., 51%, Corporación Nacional del United States (14)         100         0.         199           La Disputadi, Region II         Excon Minerals Company (20)         United States (14)         100         0.         199           Santa Barbara (expans), Region II         Mattos Blancos S.A. and Arajo American Corp.         Chile South Arites (16)         0.         199           Janas Bayas, Region II         Mattos Blancos S.A. and Arajo American Corp.         Chile South Arites (13)         0.         199           La Keoundida (expans), Region II         Broken HII Poprieny Company Lid, Rio Troto Zorc Corp.         Attribus Arites (14)         100         100         199           Janas Sayas, Region II         Mattor Manora Mando, Roscone Corp. and Nortiem Corp.         Chile Argon II         1307         do.         199           Janas Gayas, Region II         Mattor Manora Mando, Manora		Corporación Nacional del Cobre de Chile S.A. 100%	Chile	667	Copper	100
Cerro Colondo, Region I         Rin Algon Inc.         Canada         200         do.         199           Operhards Blanca, Region II         Connico Lid, Treek Resources International Lid, and Empress Nacional de Mineria of Chile (EMAMI)         1						
Operhand Blanca, Region I         Common Uni, Teck Resources International Lid, and Empress Nacional del Ninorá of Chile (ENAM)         1373         Copper         199           El Ahn, Region II         Cypnex Amax Minerals Co., 51%; Corporación Nacional del Cohre de Chile S. A., 49%         1800         do.         199           La Disputado, Region II         Excon Minerals Company         United States Finland         1600         do.         199           Janta Barbara (expans), Region II         Brack and Outokunga Opper Resources         United States Finland         1600         do.         199           La Bisquadida (expans), Region II         Bracken Hill Proprietary Company Lud, Rin Tinto Zun Corp., Austrialu/United         1,303         do.         199           La Scengton II         Manteo Blancos S.A. and Angle American Sorth         Canada         300         do.         199           La Scengton II         Bracken Anlingany and Minera Norther         Chile/Sonth Arik         30         do.         199           La Scengton II         Manero Mindragany and Minera Norther         Canada Chile         55         do.         199           Andacilo Cobre, Region II         American Barrick Resource Darie All Particion Ancara Barrick         do.         199           Andacilo Cobre, Region II         American Allengan Resource Darie Allengan Minero Line.         Tod.		0	U	/		
Empress Nacional de Minerai do Chile (CMAMI)         United States United         United States United           La Dospatada, Region II         Excon Minerals Co. 518': corporación Nacional del         United States United         400         do.         199           Zadórar, Region II         Placer Dome Ltd. and Outoknmpu Copper Resources         United States United         400         do.         199           Zadórar, Region II         Broken HII Proprietary Company Ltd., Rio Tinto Zinc Corp.         Australiau United         1,303         do.         199           Lescondida (expans), Region IV         Lakos Coraug O Chile and Japanese Group         Chile/Sapan         1,507         do.         199           Janan Region IV         Luksic Coraug O Chile and Japanese Group         Chile/Sapan         1,507         do.         199           Reindie Change, Region IV         Luksic Coraug O Chile and Japanese Group         Chile/Sapan         1,507         do.         199           Reindie, Region II         American Barrick Resources Corp. and Normada Inc.         Canada         48         do.         199           Reindie, Region III         American Barrick Resources Corp. (ABRC), and Normada Inc.         Canada         50         doid         199           Reindie, Region III         American Barrick Resources Corp. (ABRC), and Normada Inc.         Canada						
Cohere de Chile S.A., 49%           Labspatiale, Région II         Exaon Minerals Company         United States         1,731         do.         199           Zaldvar, Region II         Placer Done Ld. and Outokumpu Copper Resources         United States/Finand.         600         do.         199           Jams Babran (regnor), Region II         Gibraltar Mines Ld.         Chile/Seam Africa         1303         do.         199           Las Scondida (expans.), Region II         Gibraltar Mines Ld.         Chile/Stapan         1,307         do.         199           Japan Eacondida Corp. and International Finance Corp.         Chile/Stapan         1,307         do.         199           Andcold Ocher, Region IV         Laksic Coroup of Chile and Japanese Group         Chile/Japan         1,307         do.         199           Refine IA Negra, Region IV         Laksic Coroup of Chile and Japanese Group         Chile/Japan         1,307         do.         199           Refine IA Negra, Region IV         Laksic Coroup of Chile and Japanese Group         United States         400         000         00         199           Refine Region II         American Barrick Resources Corou and None American Barrick Resources Corou Acte Mark Mines Coroup         United States         30         Gold I         99           Refine Region III		Empresa Nacional de Minería of Chile (ENAMI)				
Zakifwar, Region II         Placer Dome Lad, and Ontokumpa Copper Resources         United States-Fridmad         600         do.         199           Lomas Bayus, Region II         Gibralar Mines Lad.         Canada         300         do.         199           La Escondida (expans.), Region II         Gibralar Mines Lad.         Canada         300         do.         199           La Escondida (expans.), Region II         Broken Hill Propertary Company Lid., Rin Tirto Zorp.         Astranla Altinited         1,393         do.         199           Las Pelanhers (expans.), Region IV         Lukis Group of Chile and Japanese Group         Chile/Japan         1,307         do.         199           Hunne, Region II         Miners Malongay and Minera Moreado Inc.         Canada         180         199           Refinet, Region II         American Barrick Resources Corp. and Normada Inc.         Canada         180         6.01         199           Refinet, Region II         American Barrick Resources Corp. (ABRC) and Normada Inc.         Canada         180         Fold         199           Refinet, Region II         Amar Goid Refugio Inc. and Berna Goid Ltd.         United States States         38         AnA (a         199           Leandor Corp. (ABRC) and Mines de Chile SA.         Chile         290         Chilana         199	El Abra, Region II		United States/Chile	1,800	do.	199
Santa Barbara (espans.), Region II         Mattens Blancos SA. and Anglo American Corp.         Chile/Scuth Aria         100         do.         199           La Escondida (espans.), Region II         Broken Hill Proprietary Company Ltd., Rin Tinto Zinc Corp., Japan Escondida (corp., and International Pinanee Corp.         Austriala United         1,303         do.         199           La Escondida (espans.), Region II         Mineen Malogany and Minera Northeen         United States/Chile         7         do.         199           Fundicin La Payer, Region II         Minera Malogany and Minera Northeen         United States/Chile         55         do.         199           Andcollo Coher, Region II         American Barrick         Romata         do.         199           Andcollo Coher, Region III         American Barrick         Romata         do.         100         do.         199           Andcollo Coher, Region III         Minera del Parifico, American Barrick         do.         100         do.         199           Andcollo Coher, Region III         Anaro Cold Religio Inc.         Canada Chile         55         Au/A         199           Andregion RI         Canada Chile Congo Of Chile and Ligatorial of Australia         Australia Chile         130         Copper         199           Andregion RII         Anaro Cold Religo Inc.	1 2			/	do.	199
Lomes Bayas, Region II       Gibrathar Mines Lid.       Canada       300       do.       199         La Escondida (expans.), Region IV       Bracken Hill Proprietary Company Ltd., Ris Tino Zinor Corp., Japan Escondida Corp., and International Finance Corp.       Chile/Japan       1,303       do.       199         Las Pelminers (expans.), Region IV       Lukis: Group of Chile and Japanese Group       Chile/Japan       1,307       do.       199         Jana Region II       Minera Mahogany and Minera Northerm       United States/Chile       7       do.       179         Andacolin Cohre, Region IV       ENAMI, Tungaten Inc. and Cin. Minera del Pacifico S.A.       Canada       48       do.       199         Andacolin Cohre, Region III       Mineras del Pacifico S.A.       Canada       130       Gold       199         Refuer, Region RI       Mineras del Pacifico S.A.       Canada       130       Gold       199         Refuer, Region III       Anara Gold Region III       Mineras del Pacifico S.A.       Canada       130       Gold       199         Fachinal, Region III       Anara Gold Region III       Anara Gold Region III       Anara Gold Region III       Anara Gold Region III       Sociedal Qirinica y Minera de Chile S.A.       Chile       230       Copre 7         Janabo Veche, Region II       Resources Luka	Zaldivar, Region II	Placer Dome Ltd. and Outokumpu Copper Resources	United States/Finland	600	do.	199
La Escondida (expans.), Region II Japan Escondida (expans.), Region II Japan Escondida (corp. and International Finance Corp. Las Pelambres (expans.), Region IV Las Pelambres (expans.), Region IV Las Pelambres (expans.), Region II Minera Mahogany and Minera Northern United States/Chile 7 do. 199 Andacollo Cohe, Region II Minera Natore Region II Minera States/Chile 55 do. 199 Relimet. Region II Anatore Region II Corear Alteen Mines Corp. United States/Canada 130 Gold 199 Hone-Xier, Region II Asare Corear Alteen Mines Corp. United States/Canada 130 Gold 199 Minas Legion II Sociedad Quinica y Minera de Chile SA. Chile 200 Lithium 199 Minas Legion II Asare Korper Lai and Yakan Lai Canada 130 Corper 199 Minas Legion II Asare Korper Lai and Yakan Lai Canada 130 Corper 199 Minas Legion II Angrock Yellow Kinfe Kesoures Enc. Canada 300 Corper 199 Manto Verde, Region II Angrock Yellow Kinfe Kesoures Enc. Canada 440 Au/Ag 199 Anatore Region II Angrock Yellow Kinfe Kesoures Inc. Canada 450 do. 199 Canada 200 Corper 199 Manto Verde, Region II Angrock Yellow Kinfe Kesoures Inc. Canada 460 Au/Ag 199 Canada 300 do. Natore Canada 460 Au/Ag 199 Canada 460 Au/Ag 199 Canada 460 Au/Ag 199 Tambic Region II Angrock Yellow Andree Region II Angrock Region II Angrock Yellow Andree Region II Angrock Re	· · · · ·	Mantos Blancos S.A. and Anglo American Corp.	Chile/South Africa	160	do.	199
Japan Escondula Corp, and International Finance Corp.         Kingdom/Japan/ World Bank           Los Pelnahres (expans.), Region IV         Luksić Group of Chile and Japanese Group         Chile/Japan         1.307         do.         199           Judan, Region II         Miners Adhargany and Miners Northem         United States/Chile         7         do.         199           Andacolio Cobre, Region II         American Barrick Resources Corp, and Noranda Inc.         Canada         48         do.         199           Andacolio Cobre, Region III         Inversiones Minera del Pacífico. Anerican Barrick         do.         100         do.         199           Refinet, Region III         Annas Cold Refugio In c. and Berne Gold Lad.         United States/Canada         130         Gold         199           Refugio, Region II         Laksic Group of Chile and Equatorial of Australia         Australia/Chile         230         Copper         200           Yolanda, Region II         Scaleciad Quinties y Mirrat ed Chile S.A.         Chile         290         Linhum         199           Yolanda, Region II         Rayock Yellow Kaif Resources Inc.         Canada         36         do.         199           Yolanda, Region II         Rukari Yolano Yene, Region II         Anglo American Cary, and Minorco Scale Scale Auguinitica y Minera de Chile S.A.         Chile	Lomas Bayas, Region II		Canada	300	do.	199
World Bank         World Bank           Los Pelanhres (expans.). Region II         Minern Mahogany and Minera Northern         United States/Chie         7         do.         17B           Pindición La Negra, Region II         American Barrick Resources Corp, and Noranda Inc.         Canada         48         do.         199           Refinet, Region II         American Barrick Resources Corp, and Noranda Inc.         Canada Chile         5         do.         199           Refinet, Region III         Amexicones Corp, ABRC), and Noranda Inc.         0         0         do.         199           Refugio, Region III         Amax Gold Refugio Inc., and Berma Gold Lld.         United States/Canada         130         Gold         199           LeonorJEI Tesoro, Region II         Laksic Group of Chile and Epitatorial of Australia         Australia/Chile         230         Corper         200           Volanda, Region II         Sociedad Química y Minera de Chile S.A.         Chile         290         Linhium         199           Manu Verde, Region III         Ango American Corp, and Minoro Services Lld.         Canada         36         do.         199           Jan Zar, Region III         Ango American Corp, and Minoro Services Lld.         Canada         180         Corper         199           La Candelariria, Region III	La Escondida (expans.), Region II	Broken Hill Proprietary Company Ltd., Rio Tinto Zinc Corp.,	Australia/United	1,393	do.	199
Tuhn, Region II         Minera Mahogany and Minera Nortkern         United Sutes/Chile         7         do.         TB           Fundición Lo Negron, Region IV         ENAMIL, Tungsten Inc. and Cía. Minera del Pacífico S.A.         Canada         48         do.         199           Andaciol Cobre, Region IV         ENAMIL, Tungsten Inc. and Cía. Minera del Pacífico S.A.         Canada         48         do.         199           Refinet, Region III         Anac Gold Refugio Inc. and Bena Gold Ld.         United States         88         Au/g         199           Leonor El Tesoro, Region II         Lixici Group of Chile and Bquatorial of Australia         Australic/Like         230         Copper         200           Jonan-Zar, Region II         Aglo Aurice Liku And Yuhon Lid.         Canada         80         Nitrates/Odim         199           Mana-Zar, Region III         Aglo American Corp. and Minorco Ld.         Canada         80         117141145         180         Copper         199           Mana-Zar, Region III         Aglo American Corp. and Minorco Ld.         Canada         36         do.         199           Mana-Zar, Region III         Anglo American Corp. and Minorco Services Lid.         Canada         50         0.         198           La Calopia, Region III         Paleo Ambridge Ld.         Canada		Japan Escondida Corp., and International Finance Corp.	• •			
Fundscion La Negra, Region II         American Barrick Resources Corp. and Noranda Inc.         Canada         4.8         do.         199           Refinet, Region IV         EXAMI, Imagetan Ic. and Cia. Minera del Pacifico S.A.         Canada/Chile         5.5         do.         199           Refinet, Region III         Inversiones Mineras del Pacifico, American Barrick         do.         100         do.         199           Refugio, Region II         Anax Gold Refugio II:         Anax Gold Refugio II:         Gold         199           LonorFil Texon, Region II         Lakis Corput of Chile and Equatorial of Australia         Australia/Chile         230         Copper         200           Volanda, Region II         Sociedad Quinnica y Minera de Chile S.A.         Chile         290         Linkium         199           Ivan-Zar, Region II         Region Rife Resources Inc.         Canada         36         do.         199           La Candelaria, Region III         Anglo American Corp. and Minorco Luf.         Canada         36         do.         199           La Caipa, Region III         Pheler Dodge Co., Sumitomo Corp., Minorco Services Lud,         United States/Japan/         1,500         do.         199           La Coipa, Region III         Pheler Dome and TVX Gold Inc.         La Serva, Region III         Narada Cold Inc.	Los Pelambres (expans.), Region IV	Luksic Group of Chile and Japanese Group	Chile/Japan	1,307	do.	199
Andacollo Cobre, Region IV       ENAMI, Tungsten Inc. and Cia. Minera del Pacífico S.A.       Canada Chile       55       do.       199         Refinet, Region III       Inversiones Mineras del Pacífico, American Barrick       do.       190       do.       199         Refugio, Region III       Amax Gold Refugio Inc. and Berna Gold Ld.       United States       88       Au/Ag       199         LeonorFil Tesoro, Region II       Lusics Group of Chile and Equatorial of Australia       Australi-Chile       230       Copper       200         Jonarda, Region II       Sociedad Química y Minera de Chile S.A.       Chile       290       Lithium       199         Junar-Zar, Region II       Region KI       Canada       36       do.       199         Junar-Zar, Region II       Pacifico S.A.       Chile       290       Lithium       199         Jana Zar, Region III       Paleya Dodge Co., Sumiomo Corp., and Minorco Ld.       Canada       180       Copper       199         La Coipa, Region III       Paleya Dodge Co., Sumiomo Corp., Minorco Services Ld.,       United States       Ma/Ag       199         La Coipa, Region III       Palexa Dome and TVX Gold Inc.       Canada       100       Au/Ag       199         Neudos Domo, Region IV       Andacollo One, Region III       Canada <t< td=""><td>Tulna, Region II</td><td></td><td>United States/Chile</td><td>7</td><td>do.</td><td>TB</td></t<>	Tulna, Region II		United States/Chile	7	do.	TB
Andacollo Cobre, Region IV       ENAMI, Tungsten Inc. and Cia. Minera del Pacífico S.A.       Canada Chile       55       do.       199         Refinet, Region III       Inversiones Mineras del Pacífico, American Barrick       do.       190       do.       199         Refugio, Region III       Amax Gold Refugio Inc. and Berna Gold Ld.       United States       88       Au/Ag       199         LeonorFil Tesoro, Region II       Lusics Group of Chile and Equatorial of Australia       Australi-Chile       230       Copper       200         Jonarda, Region II       Sociedad Química y Minera de Chile S.A.       Chile       290       Lithium       199         Junar-Zar, Region II       Region KI       Canada       36       do.       199         Junar-Zar, Region II       Pacifico S.A.       Chile       290       Lithium       199         Jana Zar, Region III       Paleya Dodge Co., Sumiomo Corp., and Minorco Ld.       Canada       180       Copper       199         La Coipa, Region III       Paleya Dodge Co., Sumiomo Corp., Minorco Services Ld.,       United States       Ma/Ag       199         La Coipa, Region III       Palexa Dome and TVX Gold Inc.       Canada       100       Au/Ag       199         Neudos Domo, Region IV       Andacollo One, Region III       Canada <t< td=""><td></td><td></td><td></td><td>48</td><td>do.</td><td>199</td></t<>				48	do.	199
Refined, Region III       Inversions Mineras del Pacífico. American Barrick       do.       100       do.       190         Refugio, Region III       Amas Gold Refugio Inc. and Berna Gold Ld.       United States       85       Au Ag       199         Fachnal, Region XI       Coeur d'Alene Mines Corp.       United States       85       Au Ag       199         Insal, Region II       Kako Corpor J Chie and Equatorial of Australia       Australia/Chile       230       Copper       200         Yolanda, Region II       Sociedad Química y Minera de Chile S.A.       Chile       200       Lithium       199         Ivan-Zar, Region II       Ango American Corp. and Minoroo Ld.       Canada/Africa       80       Copper       199         La Candelaria, Region III       Ango American Corp. and Minoroo Ld.       Canada/Africa       180       Copper       199         La Candelaria, Region III       Paley Dodge Co., Sumitomo Corp., Minorco Services Ltd.,       United States/Japan/       1,500       do.       199         Andacollo Coo, Region IV       Andacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)       do.       50       Copper       199         Anadacollo Coo, Region IV       Barrick of Canada       Canada       300       do.       199         Tanbo (expansion), Region IV       Ba						
Resources Corp. (ABRC), and Noranda Inc.           Refugio, Region III         Amax Gold Refugio Inc. and Bena Gold Lud.         United States         85         Au/Ag         199           LeonorT21 Tesoro, Region II         Luksic Group of Chile and Equatorial of Australia         Australia/Chile         230         Copper         200           Valanda, Region II         Sociedad Química y Minera de Chile S.A.         Chile         290         Lithiumin         199           Pana-Zar, Region II         Raylock Yellow Knife Resources Inc.         Canada         36         do.         199           Mana Verde, Region III         Raylock Yellow Knife Resources Inc.         Canada         36         do.         199           Jana-Zar, Region III         Regio Autoritation Corp. and Minoroo Lud.         Canada         36         do.         199           La Coipa, Region III         Phelps Dodge Co., Sumitomo Corp., Minoreo Services Ltd.         United States/Japan/         1,50         do.         199           Andacollo Oro, Region IV         Andacollo Coro, Region III         Canada         300         do.         190           Nanda Otoro, Region III         Canada         Sono.         T99         Nandacollo Toro, Sono.         190           Newada, Region III         Canada Coll Coro, La Serena Inc. (Dayton Minin						199
Refugio, Region III         Amax Gold Refugio Inc. and Bena Gold Lud.         United States/Canada         130         Gold         199           Fachinal, Region II         Luksic Group of Chile and Equatorial of Australia         Australia/Chile         250         Copper         200           Minsal, Region II         KAP Resources Lud. and Yukon Lud.         Canada         89         Ntrates/iofine         199           Immail, Region II         Sociedad Química y Minera de Chile S.A.         Chile         200         Lithium         199           Ivan-Zar, Region II         Anyorok Yellow Knife Resources Inc.         Canada         36         do.         199           Anato Verde, Region III         Anglo American Corp. and Minoreo Luc.         Canada/South/Tria         1500         do.         199           La Candelaria, Region III         Phelps Dodge Co., Sumitomo Corp., Minoreo Services Lud.         United States/Japan/         1,500         do.         199           La Coipa, Region III         One and TXX Gold Inc.         Amdacollo Gol Inc., La Serena Inc. (Dayton Mining Corp.)         do.         168         God.         199           Nanda Catala         100         Canada         130         do.         199           Tambo (expansion), Region IV         Barick Io Canada         Canada         300         <		*				- / /
Fachinal, Region XI         Coeur of Alene Mines Corp.         United States         85         Au Ag         199           Leonor/El Tesoro, Region II         KAP Resources Ld, and Yukon Ld.         Canada         80         Nitrates/iodine         199           Minsal, Region II         Sociedad Quínica y Minera de Chile S.A.         Chile         200         Lithium         199           Mano Verde, Region III         Rayrock Yellow Knife Resources Inc.         Canada         36         do.         199           La Candelaria, Region III         Paleor Moreo Lad.         Canada/South Africa         180         Copper         199           La Coipa, Region III         Phelps Dodge Co., Sumitomo Corp., Minorco Services Ltd.,         United States/Japan/         1,500         do.         199           Andacollo Oro, Region IV         Andacollo God Inc., La Serena Inc. (Dayto Mining Corp.)         do.         50         Copper         199           Natacollo Aro, Region IV         Andacollo Coro, Region IV         Andacollo Oro, Region IV         Andacollo Oro, Region IV         Andacollo Oro, Canada         300         do.         199           Nata Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Segra, Region II         Noranta Catalina         Canada	Refugio, Region III	1 · · · · · ·	United States/Canada	130	Gold	199
Leonor/El Tesoro, Region IILuksic Group of Chile and Equatorial of AustraliaAustralia/Chile230Copper200Yolanda, Region IISociedad Química y Minera de Chile S.A.Chile290Lifkium199Ninsal, Region IIAsprock Yellow Knife Resources Inc.Canada36do.199Jano Vercle, Region IIAnglo American Corp. and Minoro Ltd.Canada/South Africa180Copper199La Candelaria, Region IIIPalecer Done and TVX Gold Inc.United States/Japan/1,500do.199La Coipa, Region IIIPlacer Done and TVX Gold Inc.400Au'Ag199Andacollo Oro, Region IVAndacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)do.50Copper199Yanda de Pascua, Region IIICia. Minera San Jose Inc. (ABRC)do.168Gold199Yanda de Canada300do.199199Andacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)do.168Gold199Yanda Kegion IIICia. Minera San Jose Inc. (ABRC)do.168Gold199Yanda Kegion IIICia. Minera San Jose Inc. (ABRC)do.168Gold199Parabare, Region IIINoranda Inc.Canada300do.190La Negra, Region IIINoranda Inc.Canada150do.200PucobrePunta del Cobre S.A.Chile50do.200PucobrePunta del Cobre S.A.Chile50do.199Aldebarán, Region I		č				
Yolanda, Region II         KAP Resources Lud, and Yukon Lud.         Canada         89         Nirrates/doline         199           Minsal, Region II         Sociedad Química y Minera de Chile S.A.         Chile         200         Lithium         199           Mana Zar, Region III         Rayrock Yellow Knife Resources Inc.         Canada         36         do.         199           Manto Verde, Region III         Pageo American Corp. and Minoro Lud.         Canada/South Africa         180         Copper         199           La Cadelaria, Region III         Pheles Dodge Co. Sumitomo Corp. Minoreo Services Lid.         United States/Japan/         1,500         do.         199           Andacollo Oro, Region IV         Andacollo Gold Inc.         Canada         200         Antriag         199           Andacollo Oro, Region IV         Andacollo Oro, Region IV         El Antio Property         do.         168         Gold         199           Quebrada de Pascua, Region IV         El Antoi Property         Chile         105         do.         199           Quebrada de Pascua, Region IV         Barrick of Canada         Canada         130         do.         199           Quebrada de Pascua, Region II         Noranda Inc.         Canada         130         do.         200		1			U	
Minsal, Region II         Sociedal Química y Minera de Chile S.A.         Chile         290         Lithium         199           Van-Zar, Region III         Angto American Corp. and Minorco Ltd.         Canada/South Africa         180         Copper         199           La Candelaria, Region III         Phelps Dodge Co., Sumitomo Corp., Minorco Services Ltd.,         United States/Japan/         1,500         do.         199           La Candada Couth Africa         180         Copper         199           Anda Verle, Region III         Placer Dome and TVX Gold Inc.         400         Au/Ag         199           Andacollo Oro, Region IV         Andacollo Inc., La Serena Inc. (Dayton Mining Corp.)         do.         168         Gold         199           Ambo verzda, Region IV         El Indio Property         Chile         105         do.         199           Austa Catalina         Outokumpu Copper Resources         Finland         100         Copper         199           Austa Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Negra, Region II         Noranda Inc.         Canada         188         do.         200           Austa Catalina         Outokumpu Copper Resources         Finland         100         Copper <td></td> <td></td> <td></td> <td></td> <td>**</td> <td></td>					**	
Ivan-Zar, Region II         Rayrock Yellow Knife Resources Inc.         Canada         36         do.         199           Manto Verde, Region III         Anglo American Corp. and Minorco Ltd.         Canada/South Africa         180         Copper         199           La Candelaria, Region III         Phelps Dodge Co., Suminoro Corp., Minorco Services Ltd., United States/Japan/         Lorda         1500         do.         199           Andacollo Oro, Region IV         Andacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)         do.         50         Copper         199           Nexda, Region III         Cia. Minera San José Inc. (ABRC)         do.         168         Gold         199           Nexda, Region IV         Andacollo Property         Chile         105         do.         199           Nexda, Region IV         Barrick of Canada         Canada         300         do.         No         180         Copare TB           Janta Catalina         Outokumpu Copper Resources         Finland         100         Copare TB         18         do.         200           Atacama Kosan         Cia. Minera Cominor S.A.         do.         130         do.         200           Pacorbe         Punta del Coher S.A.         Chile         50         do.         200 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
Manto Verde, Region IIIAnglo American Corp. and Minorco Ltd.Canada/South Africa180Copper199La Candelaria, Region IIIPhelps Dodge Co., Sumitomo Corp., Minorco Services Ltd., CanadaUnited States/Japan/1.500do.199La Coipa, Region IIIPlacer Dome and TVX Gold Inc.400Au/Ag199Andacollo Oro, Region IVAndacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)do.50Copper199Nevada, Region IIICia. Minera San José Inc. (ABRC)do.168Gold199Tambo (expansion), Region IVBi Indio PropertyChile105do.199Quebrada de Pascua, Region IVBarick of CanadaCanada300do.199La CatalinaOutokumpu Copper ResourcesFinland100CopperTBLa Abegra, Region IINoranda Inc.Canada158do.200JucobrePunta del Cobre SA.Chile50do.199Sierra GordaYuma Gold Mines Ltd.do.800Gold199Aldebarán, Region IIIPlacer Dome Ltd.do.130do.199Pascua, Region IIIPlacer Dome Ltd.do.200Gold179Aldebarán, Region IIIPlacer Dome Ltd.do.792do.719Pascua, Region IIIPlacer Dome Ltd.do.792do.718Lobo Marte, Region IIIPlacer Dome Ltd.do.792do.718Lobo Marte, Region IIIPlacer Dome Ltd.<						
La Candelaria, Region III         Phelps Dodge Co, Sumitomo Corp., Minorco Services Ltd., and Falconbridge Ltd.         United States/Japan/ Canada         1,500         do.         199           La Coipa, Region III         Piacer Dome and TVX Gold Inc., La Coipa, Region IV         Andacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)         do.         168         Gold         199           Nevada, Region IV         El Indio Property         Chile         105         do.         199           Quebrada de Pascua, Region IV         Barrick of Canada         Gold         199           Andacollo Coro, Negion IV         Barrick of Canada         Gold         199           Quebrada de Pascua, Region IV         Barrick of Canada         Canada         300         do.         NP           Santa Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Negra, Region II         Noranda Inc.         Canada         158         do.         200           Pucobre         Punta del Cobre S.A.         Chile         50         do.         200           Sterra Gorda         Yuma Gold Mines Ltd.         Canada         85         do.         199           Aldebarán, Region III         Placer Dome Ltd.         Canada         300         Gold	, 0					
and Falconbridge Ltd.         Canada           La Coipa, Region III         Placer Dome and TVX Gold Inc.         400         Au/g         199           Andacollo Oro, Region IV         Andacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)         do.         50         Copper         199           Nandacollo Oro, Region IV         Cia. Minera San José Inc. (ABRC)         do.         168         Gold         199           Tambo (expansion), Region IV         Barrick of Canada         Canada         300         do.         NN           Santa Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Negra, Region II         Norada Inc.         Canada         158         do.         2000           Pacobre         Punta del Cobre S.A.         Chile         50         do.         200           Atacama Kosan         Cía. Minera Cominor S.A.         do.         130         do.         199           Sterra Gorda         Yum Gold Mines Ltd.         Canada         85         do.         TB           Aldebarán, Region III         Placer Dome Ltd.         do.         400         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         do.         400         Fool	-	· ·				
Andacollo Oro, Region IV         Andacollo Goid Inc., La Serena Inc. (Dayton Mining Corp.)         do.         50         Copper         199           Nevada, Region III         Cía. Minera San José Inc. (ABRC)         do.         168         Gold         199           Quebrada de Pascua, Region IV         Barrick of Canada         Canada         300         do.         N           Santa Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Negra, Region II         Noranda Inc.         Canada         158         do.         200           Pucobre         Punta del Cobre S.A.         Chile         50         do.         200           Pucobre         Punta Gold Mines Ld.         Canada         85         do.         109           Sierra Gorda         Yuma Gold Mines Ld.         Canada         85         do.         119           Aldebarán, Region III         Placer Dome Ld.         do.         200         199           Pascua, Region III         Barrick of Canada         do.         400         Gold         TB           Aldebarán, Region III         Placer Dome Ld.         do.         400         Gold         TB           Lobo Marte, Region III         Placer Dome Ld. </td <td>La Candelaria, Region III</td> <td></td> <td>-</td> <td>1,300</td> <td>d0.</td> <td>199</td>	La Candelaria, Region III		-	1,300	d0.	199
Nevada, Region III         Cía. Minera San José Inc. (ABRC)         do.         168         Gold         199           Tambo (expansion), Region IV         El Indio Property         Chile         105         do.         168         Gold         199           Quebrada de Pascua, Region IV         Barrick of Canada         Canada         300         do.         N           Santa Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Negra, Region II         Noranda Inc.         Canada         158         do.         200           Pucobre         Punta del Cobre S.A.         Chile         50         do.         199           Sierra Gorda         Yuma Gold Mines Ld.         Canada         85         do.         TB           Aldebarán, Region III         Placer Dome Ld.         do.         800         Gold         199           Chimberos, Region III         Placer Dome Ld.         do.         792         do.         TB           Lobo Marte, Region III         Placer Dome Ld.         Canada         300         Gold         TB           Lobo Marte, Region III         Placer Dome Ld.         Canada         300         Gold         TB           Lob Colorados<	La Coipa, Region III	Placer Dome and TVX Gold Inc.		400	Au/Ag	1992
Tambo (expansion), Region IVEl Indio PropertyChile105do.199Quebrada de Pascua, Region IVBarrick of CanadaCanada300do.NSanta CatalinaOutokumpu Copper ResourcesFinland100CopperTBLa Negra, Region IINoranda Inc.Canada158do.200PucobrePunta del Cobre S.A.Chile50do.200Atacama KosanCía. Minera Cominor S.A.do.130do.199Sierra GordaYuma Gold Mines Ltd.Canada85do.199Chimberos, Region IIIPlacer Dome Ltd.do.200Silver199Pascua, Region IIIBarrick of Canadado.200Silver199Pascua, Region IIIPlacer Dome Ltd.do.200Silver199Lobo Marte, Region IIIPlacer Dome Ltd.do.792do.TBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLobo Marte, Region IIIPlacer Dome Ltd.CanadaSo1	Andacollo Oro, Region IV	Andacollo Gold Inc., La Serena Inc. (Dayton Mining Corp.)	do.	50	Copper	199
Quebrada de Pascua, Region IVBarrick of CanadaCanada300do.NSanta CatalinaOutokumpu Copper ResourcesFinland100CopperTBLa Negra, Region IINoranda Inc.Canada158do.200PucobrePunta del Cobre S.A.Chile50do.200Atacama KosanCía. Minera Cominor S.A.do.130do.199Sierra GordaYuma Gold Mines Ltd.Canada85do.TBAldebarán, Region IIIPlacer Dome Ltd.do.800Gold199Pacua, Region IIIBarrick of Canadado.200199Pacua, Region IIIBarrick of Canadado.200199Pacua, Region IIIPlacer Dome Ltd.do.200GoldTBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLobo Marte, Region IIIPlacer Dome Ltd.Canada6,550Total U.S. investment in	Nevada, Region III	Cía. Minera San José Inc. (ABRC)	do.	168	Gold	199
Santa Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Negra, Region II         Noranda Inc.         Canada         158         do.         200           Pucobre         Punta del Cobre S.A.         Chile         50         do.         200           Atacama Kosan         Cía. Minera Cominor S.A.         do.         130         do.         199           Sierra Gorda         Yuma Gold Mines Ltd.         Canada         85         do.         TB           Aldebarán, Region III         Placer Dome Ltd.         do.         200         Silver         199           Pascua, Region III         Barrick of Canada         do.         200         Silver         199           Pascua, Region III         Barrick of Canada         do.         200         Silver         199           Pascua, Region III         Placer Dome Ltd.         do.         200         TB         Lobo Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         Canada         100         Iron o	Tambo (expansion), Region IV	El Indio Property	Chile	105	do.	199
Santa Catalina         Outokumpu Copper Resources         Finland         100         Copper         TB           La Negra, Region II         Noranda Inc.         Canada         158         do.         200           Pucobre         Punta del Cobre S.A.         Chile         50         do.         200           Atacama Kosan         Cía. Minera Cominor S.A.         do.         130         do.         199           Sierra Gorda         Yuma Gold Mines Ltd.         Canada         85         do.         TB           Aldebarán, Region III         Placer Dome Ltd.         do.         200         Silver         199           Pascua, Region III         Barrick of Canada         do.         200         Silver         199           Pascua, Region III         Barrick of Canada         do.         200         Silver         199           Pascua, Region III         Placer Dome Ltd.         do.         200         TB         Lobo Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         Canada         100         Iron o	Quebrada de Pascua, Region IV	Barrick of Canada	Canada	300	do.	N
La Negra, Region II         Noranda Inc.         Canada         158         do.         200           Pucobre         Punta del Cobre S.A.         Chile         50         do.         200           Atacama Kosan         Cía. Minera Cominor S.A.         do.         130         do.         199           Sierra Gorda         Yuma Gold Mines Ltd.         Canada         85         do.         TB           Aldebarán, Region III         Placer Dome Ltd.         do.         800         Gold         199           Pascua, Region III         do.         do.         200         Silver         199           Pascua, Region III         Barrick of Canada         do.         400         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         do.         792         do.         TB           Lobo Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Lob Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Lob Colorados         Mitsubishi of Japan         Japan         100	Santa Catalina	Outokumpu Copper Resources	Finland	100	Copper	TB
Pucobre         Punta del Cobre S.A.         Chile         50         do.         200           Atacama Kosan         Cía. Minera Cominor S.A.         do.         130         do.         199           Sierra Gorda         Yuma Gold Mines Ltd.         Canada         85         do.         TB           Aldebarán, Region III         Placer Dome Ltd.         do.         800         Gold         199           Chimberos, Region III         do.         ado.         400         200         Silver         199           Pascua, Region III         do.         do.         200         Silver         199           Pascua, Region III         Barrick of Canada         do.         400.         200         Gold         TB           Lobo Marte, Region III         Placer Dome Ltd.         do.         792         do.         TB           Lobo Marte, Region III         Placer Dome Ltd.         Canada         300         Gold         TB           Los Colorados         Mitsubishi of Japan         Japan         100         Iron ore         195           Total investment in the minerals         sector in 1998 1/         1,074         sector in 1998 1/         1           Foreign direct investment during         25,535	La Negra, Region II	Noranda Inc.	Canada	158		200
Sierra GordaYuma Gold Mines Ltd.Canada85do.TBAldebarán, Region IIIPlacer Dome Ltd.do.800Gold199Chimberos, Region IIIdo.do.20Silver199Pascua, Region IIIBarrick of Canadado.400GoldTBLobo Marte, Region IIIPlacer Dome Ltd.do.792do.TBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLos ColoradosMitsubishi of JapanJapan100Iron ore199Total investment in the minerals sector in 1998 1/17,409Total U.S. investment in the minerals sector in 1998 1/25,535Total 1.57,535Foreign direct investment during (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/6,550SSForeign direct investment during (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,085SS		Punta del Cobre S.A.	Chile	50	do.	200
Sierra GordaYuma Gold Mines Ltd.Canada85do.TBAldebarán, Region IIIPlacer Dome Ltd.do.800Gold199Chimberos, Region IIIdo.do.20Silver199Pascua, Region IIIBarrick of Canadado.400GoldTBLobo Marte, Region IIIPlacer Dome Ltd.do.792do.TBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLos ColoradosMitsubishi of JapanJapan100Iron ore199Total investment in the minerals sector in 1998 1/17,409Total U.S. investment in the minerals sector in 1998 1/25,535Total 1.57,535Foreign direct investment during (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/6,550SSForeign direct investment during (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,085SS	Atacama Kosan	Cía. Minera Cominor S.A.	do.	130	do.	199
Aldebarán, Region IIIPlacer Dome Ltd.do.800Gold199Chimberos, Region IIIdo.do.20Silver199Pascua, Region IIIBarrick of Canadado.400GoldTBCerro Casale, Region IIIPlacer Dome Ltd.do.792do.TBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLos ColoradosMitsubishi of JapanJapan100Iron ore199Total investment in the minerals sector in 1998 1/1,0741,0741Foreign direct investment in the minerals sector in 1998 1/25,53511Foreign direct investment in 1998 1/5511Foreign direct investment in 1998 1/6,550111Foreign direct investment in 1998 1/5511Foreign direct investment in 1998 1/132,08532,0851Foreign direct investment in 1998 (Mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/6,55032,0851Foreign direct investment uring (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,08532,0851	Sierra Gorda	Yuma Gold Mines Ltd.	Canada		do.	TB
$\begin{tabular}{ c c c c c c } \hline Chimbers, Region III & do. & do. & 20 & Silver & 199 \\ Pascua, Region III & Barrick of Canada & do. & 400 & Gold & TB \\ \hline Cerro Casale, Region III & Placer Dome Ltd. & do. & 792 & do. & TB \\ \hline Lobo Marte, Region III & Placer Dome Ltd. & Canada & 300 & Gold & TB \\ \hline Lobo Marte, Region III & Placer Dome Ltd. & Canada & 300 & Gold & TB \\ \hline Lobo Marte, Region III & Placer Dome Ltd. & Canada & 300 & Gold & TB \\ \hline Lobo Marte, Region III & Placer Dome Ltd. & Canada & 300 & Fold & TB \\ \hline Lobo Marte, Region III & Placer Dome Ltd. & Canada & 300 & Fold & TB \\ \hline Lobo Marte, Region III & Placer Dome Ltd. & Canada & 300 & Fold & TB \\ \hline Lobo Marte, Region III & Placer Dome Ltd. & Canada & 300 & Fold & TB \\ \hline Los Colorados & Mitsubishi of Japan & Japan & 100 & Iron ore & 199 \\ \hline Total U.S. investment in the minerals sector in 1998 1/ & & & & & & & & & & & & & & & & & & $	Aldebarán, Region III	Placer Dome Ltd.			Gold	
Pascua, Region IIIBarrick of Canadado.400GoldTBCerro Casale, Region IIIPlacer Dome Ltd.do.792do.TBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLos ColoradosMitsubishi of JapanJapan100Iron ore199Total investment in the minerals17,409100Iron ore199sector in 1998 1/1,0741,0741,074Total U.S. investment during25,5351974-1997 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/6,5501Foreign direct investment in 1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,08532,085						
Cerro Casale, Region IIIPlacer Dome Ltd.do.792do.TBLobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLos ColoradosMitsubishi of JapanJapan100Iron ore199Total investment in the minerals17,409551998sector in 1998 1/100Iron ore1991/Total U.S. investment in the minerals sector in 1998 1/1,07451Foreign direct investment during 1974-1997 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/25,53551Foreign direct investment during 1974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/6,55051Foreign direct investment during services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,08532,0851						
Lobo Marte, Region IIIPlacer Dome Ltd.Canada300GoldTBLos ColoradosMitsubishi of JapanJapan100Iron ore199Total investment in the minerals sector in 1998 1/17,40917,4091Total U.S. investment in the minerals sector in 1998 1/1,07411Foreign direct investment during 1997 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/25,53511Foreign direct investment in 1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,08532,085						
Los ColoradosMitsubishi of Japan100Iron ore199Total investment in the minerals sector in 1998 1/17,409Total U.S. investment in the minerals sector in 1998 1/1,074Foreign direct investment during 1997 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/25,535Foreign direct investment in 1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/6,550						
Total investment in the minerals17,409sector in 1998 1/1,074Total U.S. investment in the minerals sector in 1998 1/1,074Foreign direct investment during 1974-1997 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/25,535Foreign direct investment in 1998 (mining, 40%; others, 60%) 2/6,550Foreign direct investment during 1974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,085						
Total U.S. investment in the minerals sector in 1998 1/1,074Foreign direct investment during 1974-1997 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/25,535Foreign direct investment in 1998 (mining, 40%; others, 60%) 2/6,550Foreign direct investment during 1974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/32,085	Total investment in the minerals	Misubish of Japan	Japan		non ore	17,
minerals sector in 1998 1/       25,535         Foreign direct investment during       25,535         1974-1997 (mining, 43.8%;       services, 22.8%; industry, 16.2%;         others, 17.2%) 2/       6,550         Foreign direct investment in 1998       6,550         (mining, 40%; others, 60%) 2/       32,085         Foreign direct investment during       32,085         1974-1998 (mining, 43.8%;       services, 22.8%; industry, 16.2%;         others, 17.2%) 2/       2/				1.074		
1974-1997 (mining, 43.8%;         services, 22.8%; industry, 16.2%;         others, 17.2%) 2/         Foreign direct investment in 1998         (mining, 40%; others, 60%) 2/         Foreign direct investment during         32,085         1974-1998 (mining, 43.8%;         services, 22.8%; industry, 16.2%;         others, 17.2%) 2/				1,074		
services, 22.8%; industry, 16.2%; others, 17.2%) 2/ Foreign direct investment in 1998 6,550 (mining, 40%; others, 60%) 2/ Foreign direct investment during 32,085 1974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/	Foreign direct investment during			25,535		
others, 17.2%) 2/Foreign direct investment in 19986,550(mining, 40%; others, 60%) 2/32,085Foreign direct investment during32,0851974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/	1974-1997 (mining, 43.8%;					
others, 17.2%) 2/         Foreign direct investment in 1998         (mining, 40%; others, 60%) 2/         Foreign direct investment during         1974-1998 (mining, 43.8%;         services, 22.8%; industry, 16.2%;         others, 17.2%) 2/	services, 22.8%; industry, 16.2%;					
Foreign direct investment in 19986,550(mining, 40%; others, 60%) 2/32,085Foreign direct investment during32,0851974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/4000000000000000000000000000000000000						
Foreign direct investment during 32,085 1974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/	Foreign direct investment in 1998			6,550		
1974-1998 (mining, 43.8%; services, 22.8%; industry, 16.2%; others, 17.2%) 2/				32.085		
services, 22.8%; industry, 16.2%; others, 17.2%) 2/	6			52,005		
others, 17.2%) 2/						
	•					
	See footnotes at end of table.					

### TABLE 3--Continued SIGNIFICANT INVESTMENT IN SELECT COUNTRIES OF LATIN AMERICA 1/ 2/

(Million dollars unless otherwise specified)

Country and project	Major operating companies and major equity owners	Country	Investment	t Product	Year
CHILEContinued: Total U.S. investment during 1974-			0.519		
1998 (mining, 43.8%; services, 22	Q0/ •		9,518		
industry, 16.2%; others, 17.2%) 2					
ECUADOR	'				
Beroen Gold/Silver, southwest	Ecuadorian Minerals Corp.	Canada	103	Au/Ag	2000
TVX's Santa Barbara	Valerie Gold Resources Ltd., 50%; TVX Gold Inc., 50%	do.	4	Au/Cu	2000
Total U.S. investment in the			107		
minerals sector in 1998 1/					
PARAGUAY					
Exploration Program in Paraguay	Yamana Resources and Newmont Mining Corp.	United States	5	Gold	1999
Total U.S. investment in the			5		
minerals sector in 1998 1/					
PERU Smalker refinant. La Oravia	Dee Due Decourses Com 000/ (USA), Dense Decourses	United States/Conside	247	Europaian	1997
Smelter-refinery, La Oroya	Doe Run Resources Corp., 90% (USA); Renco Resources Inc., 10% (Canada)	United States/Canada	247	Expansion, base/precious metals	1997
Casapalca Mine, Lima	Glencore International, 80% (Switzerland); Group Gubbins, 20% (Peru)	Switzerland/Peru	120	Cu/Pb/Zn/Ag	1998
Cuajone, Moquegua Department	Southern Peru Limited (United States) (Asarco Corp.,	United States	1,816	Expansion	1997
and Toquepala, Tacna Depart-	63.0%; Phelps Dodge Overseas Capital Corp.,			Cu/Pb/Mo/Au	
ment; smelter and refinery	16.3%; The Marmon Group Inc., 20.7%)				
at Ilo, Moquegua Department	$O(z, M)$ and $M_z = M_z = \frac{1}{2} \left( \frac{1}{2} - \frac{1}{2} \frac{1}{2} \frac{1}{2} \right)$	D	72	C /Dl- /7 / A	1000
San Cristóbal, Mahr Túnel, and Andaychagua, Junín Department	Cía. Minera Volcán S.A., 100% (Peru)	Peru	73	Cu/Pb/Zn/Ag	1998
Yauricocha, Junín Department	Cía. Minera San Ignacio de Morococha, 100% (Peru)	do.	4	do.	1997
La Granja, Cajamarca Department	Cambior S.A., 100% (Canada)	Canada	2,300	Copper	1999
Cerro Negro, Arequipa	Sociedad Minera Cerro Verde S.A., (Cyprus-Amax	United States/Peru	100	do.	1998
Department	Minerals Co., 90.9% (United States); Cía. de Minas				
Electrowon at Cerro Verde	Buenaventura, 9.1% (Peru)				
Antamina, Ancash Department	Cía. Minera Antamina S.A., (Canada) (Noranda Inc., 37.5%; Rio Algom Limited, 37.5%; Teck Corporation, 25%)	Canada	2,520	Copper/zinc	2002
Cerro Yanacocha Mine, Cajamarca	Minera Yanacocha S.A., (Newmont Mining Corp.,	United States/Peru/	50	Gold	1997
Department	51.4%; Cía. de Minas Buenaventura S.A., 43.6%; World	World Bank			
	Bank's International Finance Corp., 5%)				
Pierina, La Libertad Department	Minera Barrick Misquichilca S.A., (Canada)	Canada	316	do.	1998
Quellaveco, Moquegua Department	Minorco of Luxembourg, 50%; Anglo American Corp., 50%	Luxembourg/ South Africa	800	Copper	2000
Refinery at Cajamarquilla, Lima	Refinería Cajamarquilla S.A., (Cominco Ltd. of Canada,	Canada/Japan	356	Expansion,	2000
	87%; Marubeni Corp. of Japan, 13%)	TT 1: 10: -	070	zinc	1004
Tintaya, Cusco Department Marcona, Ica Department	Minera Tintaya S.A., (United States, 100%)	United States	273	Copper	1994 1992
Total investment in the minerals	Shougang Hierro Perú S.A., (China, 100%)	China	9,099	Iron ore	1992
sector during 1992-1997 1/			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Total investment in the minerals			292		
sector for 1998 1/					
Total investment in the minerals			9,391		
sector to 1998 1/					
Total U.S. investment in the mineral sector during 1992-1998 1/	S		2,437		
Foreign direct investment May 31,			36,487		
1990-May 31, 1998 (services,					
50.1%; others, 30.6%; and minerals,					
19.3%) 2/					
Foreign direct investment during			29,600		
1993-1998 (mining, 51%; petroleum	,				
34%; others, 15%) 2/			6.027		
Total U.S. direct investment during 1995-98 (minerals,			6,037		
84.0%; electricity, 12.5%;					
industry, 3.5%) 2/					
See footnotes at end of table.					

#### TABLE 3--Continued SIGNIFICANT INVESTMENT IN SELECT COUNTRIES OF LATIN AMERICA 1/2/

(Million dollars unless otherwise specified)

Country and project	Major operating companies and major equity owners	Country	Investment	Product	Year
PERUContinued:					
Capital outflow during 1998 1/	-		1,300		
URUGUAY					
San Gregorio gold mine	Crystallex International of Canada	Canada	29	Gold	1999
Total investment in the minerals			29		
sector in 1998 1/					
NA Not everilable TPD To be devel	anad				

NA Not available. TBD To be developed.

1/ Ministries of Mines and Energy of Argentina, Bolivia, Brazil, Chile, Ecuador, Paraguay, Peru, and Uruguay.2/ U.S. Department of Commerce: National Trade Data Bank, The Export Connection, September 1998.