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# Chile-Canada: Trade and Investment Opportunities



The Embassy of Chile and

The Department of Foreign Affairs and International Trade - Canada

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Dept. of External Attairs Min. des Affaires extérieures

NOV 29 1994

RETURN TO DEPARTMENTAL LICRARY RETOURNER A LA BIBLIOTHEOUE DU MINISTERE Ottawa, October 1994

The Embassy of Chile is pleased to associate with the Canadian Department of Foreign Affairs and International Trade in this effort to assist you in discovering more about the present Chilean economy and its trade relations with Canada, through this joint publication.

In the seventies Chile developed an internal market liberalization process, and an open economy towards international markets. The reforms that were implemented allowed an increasing specialization of the economy in the sectors in which the country has comparative advantages; and this has also promoted a unilateral entry into the world economy.

Foreign investment has played a very important role in developing the exports sectors. The investors have responded to the opportunities and incentives offered by the different productive sectors. Canada is the second largest investor in Chile, at this point planned Canadian investments is 4,36 billion dollars. This indicates the confidence that Canadian businessmen have in the Chilean economic process and points to its political and social stability. Specifically, Canada has invested primarily in the mining sector, but also in banking services and television industry, among others.

Trade relationship between Canada and Chile has a very good forecast. Bilateral trade has increased lately and has reached 421.800 millions dollars in 1993. The interest in new business, in exploring investment potential and for creative joint ventures is increasing day by day. The Chilean Consulate Generals in Montreal, Toronto and Vancouver, as well as the Embassy in Ottawa, are receiving more and more inquiries from Canadian entrepreneurs who are looking for business opportunities.

Canadian entrepreneurs, Do business with Chile! Invest in Chile! There you will find stability, income yield capacity, security and friendship. Chile is waiting for you.

Rodrigo Diaz Ambassador of Chile

### Department of Foreign Affairs and International Trade



### Ministère des Affaires étrangères et du Commerce international

Ottawa, Ontario K1A 0G2

October, 1994

The Department of Foreign Affairs and International Trade is pleased to associate with the Embassy of Chile in producing this joint publication on the Canada-Chile trade and investment relationship.

Canada and Chile are both trading nations and we share a common belief in liberalized trade and a mutual interest in export development. The markets beyond our borders sustain our development, foster our prosperity, and challenge our competitiveness. The NAFTA accession option continues to be Canada's preferred vehicle for securing free trade within the region. We strongly support Chile as the first candidate for accession to NAFTA.

Chile's economic success is attributed to the policy reforms of the 1970s and 1980s which have created a dynamic, export-led private sector. The opening of the economy to global competition has led to increased investment and trade opportunities for Canadian firms. Twenty seven Canadian mining firms are now active in Chile, some 39 Canadian companies are establishing joint ventures, and Canadian planned investment in Chile has surpassed \$4 billion. Exports have also been steadily climbing.

We can do better by working together. By strengthening contacts between our respective trade and investment communities and developing partnerships between Chilean and Canadian companies even more business opportunities can be made. Market access, investment, joint ventures and technology transfers are the formulas for success for both our countries.

The prospects and opportunities for the Canada/Chile trade and investment relationship are excellent. Our offices in Canada and our Embassy in Santiago, Chile will be pleased to assist you in identifying and developing these opportunities.

Kathryn E. McCallion

**Assistant Deputy Minister** 

Latin America and Caribbean Branch

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#### 1+1

#### Chile

#### **General Description**

Population:

Capital

13.82 million (e)

Santiago:

5.1 mn (1989)

Pop. Growth Rate:

1.6% (1992); 1.4% (e)

**Total Area:** 

756,626 km<sup>2</sup>

Currency:

C\$1 = 298.8 Pesos

(September 7, 1994) US\$1 = 422.04 pesos

(July 1994)

Language:

Spanish (official)

Literacy:

93% (94%M/93%F) (1990e)

Life Expectancy:

71M/77F

National Holiday:

Sept. 18

(1810 Independence Day)

#### Political Data

#### Type of Government:

Republic of Chile; bicameral congress consisting of a 47-member Senate (38 elected & 9 appointed to serve 8-year terms), and a 120-member Chamber of Deputies serving 4-year terms.

#### Head of State:

President Eduardo Frei Ruiz-Tagle

Christian Democrat, head of <u>Concertacion Nacional</u> coalition of centre-left parties.

Minister of Foreign Relations: José Miguel Insulza Minister of Economy: Alvaro García Hurtado

Minister of Economy: Alvaro Garcia Hurtau Minister of Finance: Eduardo Aninat Ureta

Main Political Parties: (# of Congress seats as of Aug/'94)

PDC-Partido Demócrata Cristiano:37

PS-Partido Socialista:15

PPD-Partido por la Demócracia:15

Others: 9
Opposition

RN-Renovacion Nacional:29

UDI-Unión Demócrata Independiente: 15

**Next Elections** 

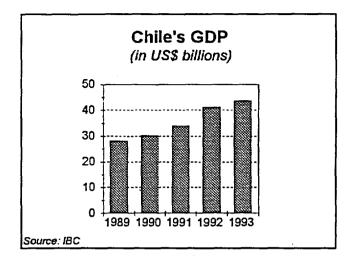
December 1999 (national)

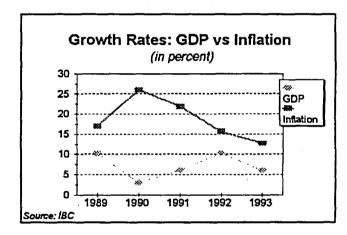
Memberships:

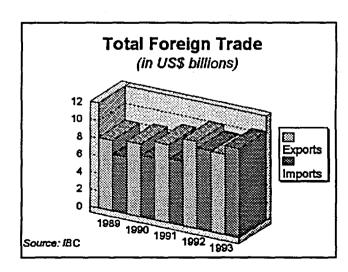
APEC, ECLAC, G-77, GATT, IADB,

IMF, INTERPOL, LAIA, OAS, Rio

Group, UN.







#### Chile

#### **Economic Data**

GDP:

\$43.7 bn

**GDP Growth Rate:** 

6%

GDP per Capita:

\$3,160

Inflation Rate:

12.7%

**Unemployment Rate: Total External Debt:** 

4.6%

\$20.2 bn (e); \$21.8 bn (1994f) \$1.0 bn (1991e)

Military Budget: Debt Held by Canada:

\$140 mn (1992)

Trade with Canada:

(C\$ millions) 1991 1992 1993 DOM. EXP. to Chile: 145.2 146.0 193.8 3.8 9.5 **RE-EXPORTS** to Chile: 18.8 IMP. from Chile: 183.5 202.5 209.2

Balance:

-33.7 -47.8

3.4

Major Canadian Imports from Chile:

Fresh grapes & other fruit, fish meal & other products, fertilisers, copper.

Major Canadian Exports to Chile:

Wheat, mechanical machinery & parts, coal, fertilisers, molybdenum, newsprint, mining equipment.

Canadian Investment:

C\$3.2 bn (1994p)

Visitors from Canada:

8,127 (1991)

Visitors to Canada:

5,900 (1991)

Immigration to Canada:

1,190 (1992)

#### Diplomatic Representation

#### The Canadian Embassy in Chile:

Ahumada 11, 10th Floor

(Casilla 771)

Santiago, Chile

TEL: (011-56-2) 696-2256 TELEX: 240341

FAX: (011-56-2) 696-2424 & 696-0738 (Commercial)

Ambassador: Marc Lortie

#### The Chilean Embassy in Canada:

151 Slater Street, Suite 605

Ottawa, Ontario K1P 5H3

TEL: (613) 235-4402 FAX: (613) 235-1176

Ambassador: Rodrigo Díaz Albonico

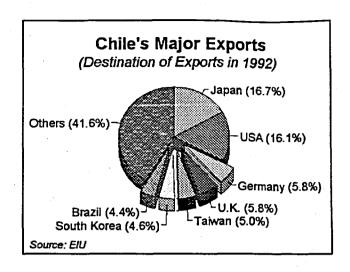


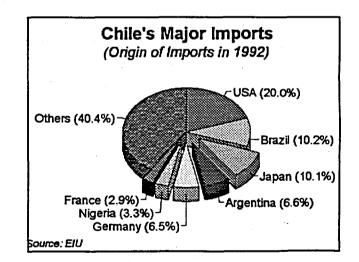
GDP - Gross Domestic Product

E - estimate; f - forecast; p - projection.

All statistics in 1993 figures & all currency in US\$ unless otherwise indicated.

Debt held by Canada is owed to the Export Development Corporation & the Canadian Wheat Board.





## Are You aware that....?

- Two-way trade between Canada and Chile totalled CDN\$ 421 millions in 1993. This figure reflects a 20.9 % increase over 1992, and a 27.4% increase over 1991.
- Chile is considered a pioneer in South America in opening its market and modernizing its economy.
- We are the only country in the Americas, other than Canada and the U.S.A. with an investment grade rating. Chile today is rated as triple "B" plus.
- In 1993, Canada Direct Investment in Chile was estimated to be between 450 and 500 million dollars.
- Canada has become the second largest investor in Chile, with a total planned investment of around 4 billion dollars.



## CHILEAN FOREIGN TRADE POLICY

## • IMPORT REGULATIONS

- -Free entry of imports without non-tariff barriers
- -Normal rate of customs duties is 11% ad-valorem
- -Private import services: Insurance, financing, quality certification, transportation and port services

## EXPORT REGULATIONS

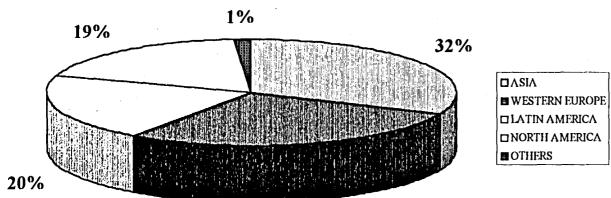
- -No restrictions applied to exports (in general)
- No maritime transportation restrictions
- -No production subsidies for exports
- -Tax relief: Fiscal credit is granted for imported products incorporated into export goods



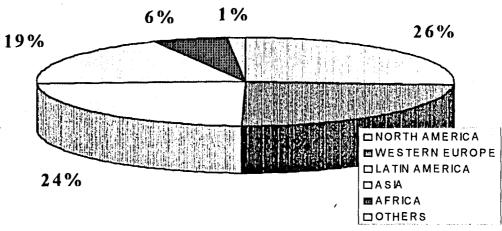


## CHILEAN FOREIGN TRADE (BY GEOGRAPHICAL AREA - 1993)

#### **DESTINATION OF EXPORTS**



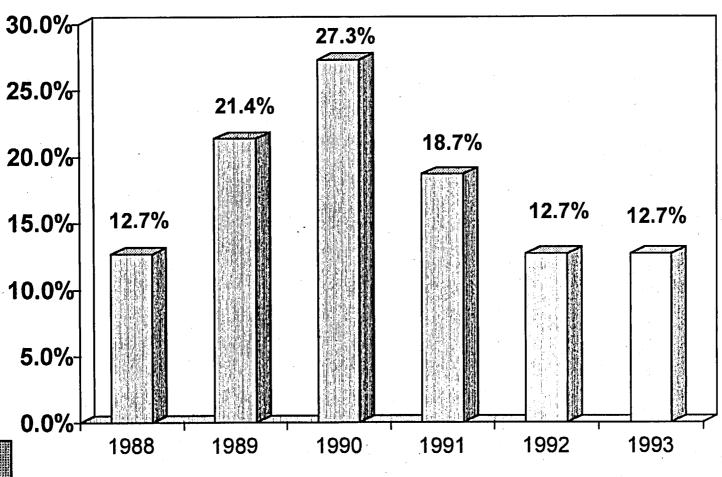
#### **ORIGIN OF IMPORTS**





**SOURCE: CENTRAL BANK OF CHILE** 

## CONSUMER PRICE INDEX - % AVERAGE





**SOURCE: CENTRAL BANK OF CHILE** 

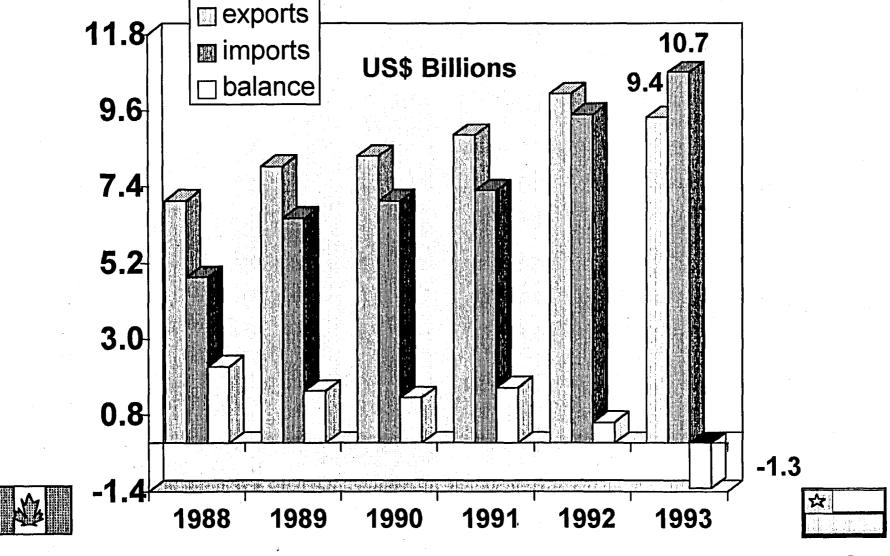
## **EXPORT DIVERSIFICATION**

YEAR	NUMBER OF EXPORTS	NUMBER OF MARKETS	NUMBER OF PRODUCTS
1975	200	50	500
1989	3465	121	1478
1992	5416	155	3433
1993	5486	151	3507





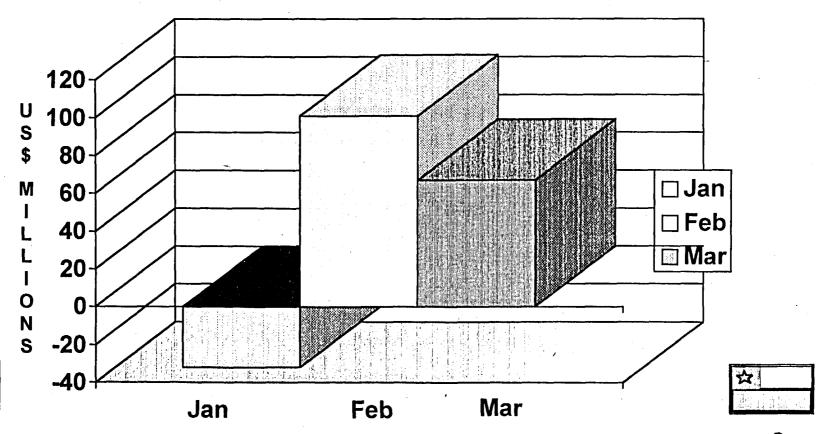
## CHILEAN FOREIGN TRADE



**SOURCE: CENTRAL BANK OF CHILE** 

## CHILEAN FOREIGN TRADE BALANCE - 1994 \*

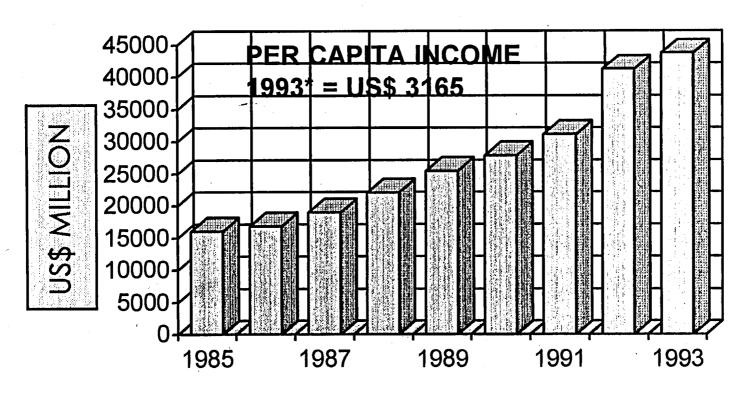
(JAN-MAR)





## **CHILEAN GDP**

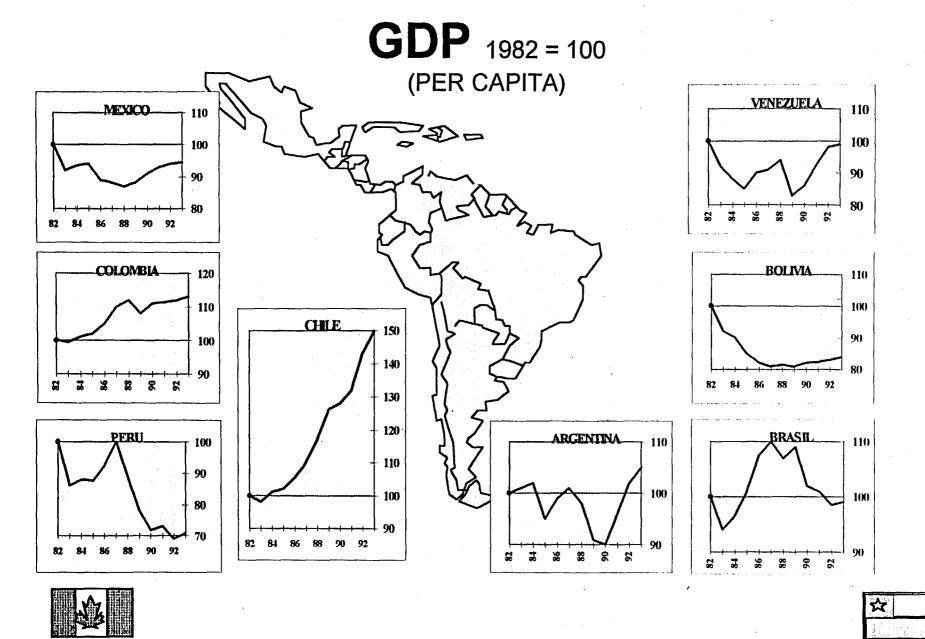
(NOMINAL FIGURES)





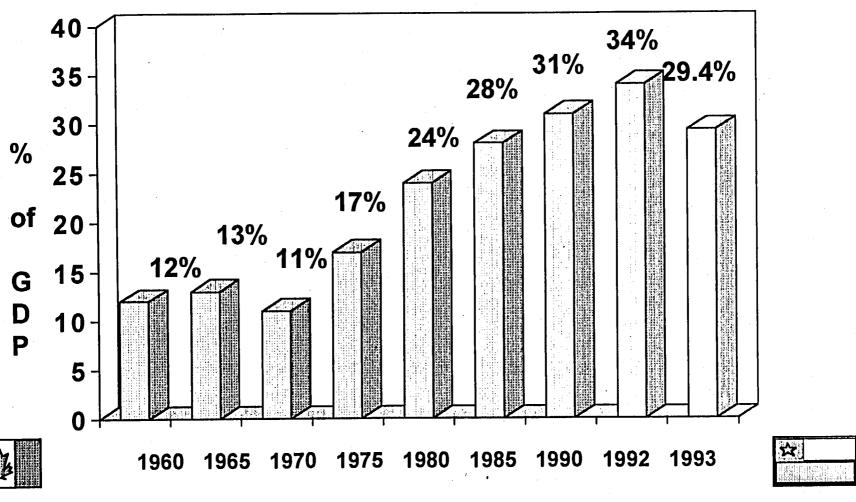
**SOURCE: CENTRAL BANK OF CHILE: \*1993 ESTIMATE** 







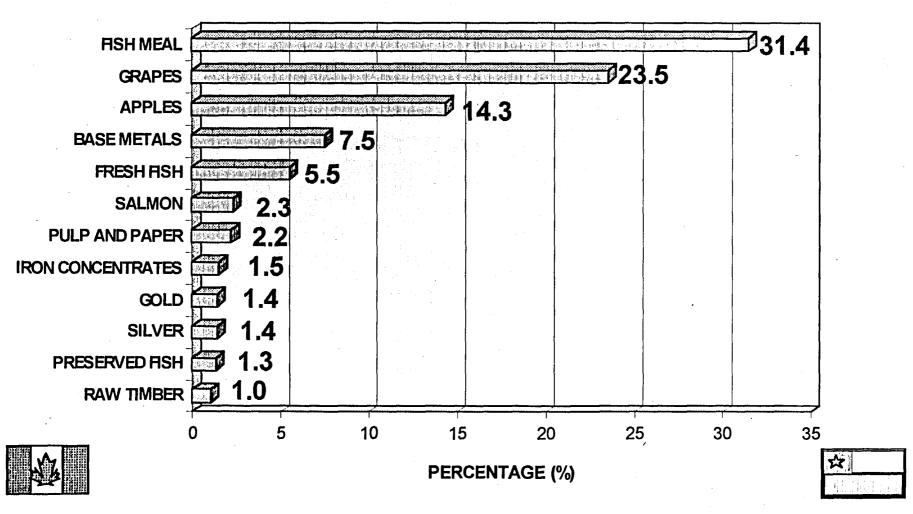
## EXPORTS OF GOODS AND SERVICES AS A PERCENTAGE OF GDP



**1993: ESTIMATE** 

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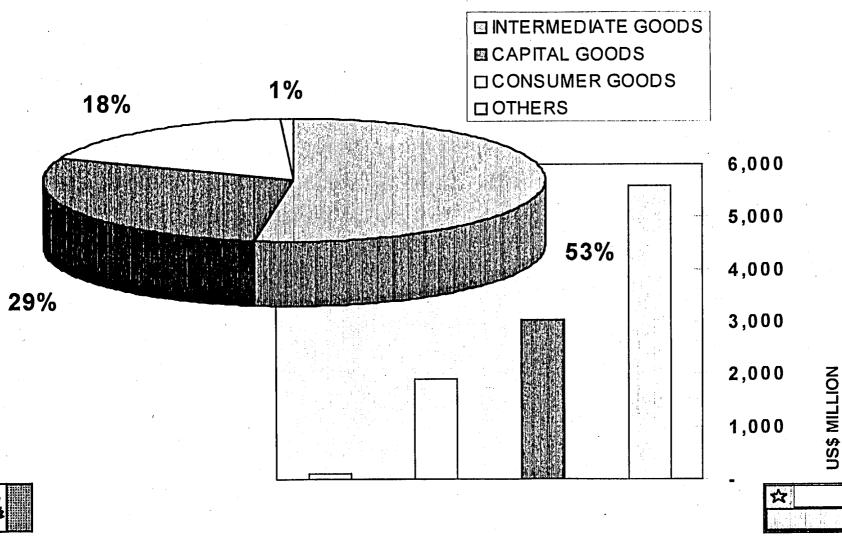
## MAJOR CHILEAN EXPORTS AS PERCENTAGE OF WORLD TRADE



SOURCE: Handbook of International Trade and Development Statistics (Unctad-Gatt 1990) 3

## **IMPORTS BY CATEGORY**

(1993)

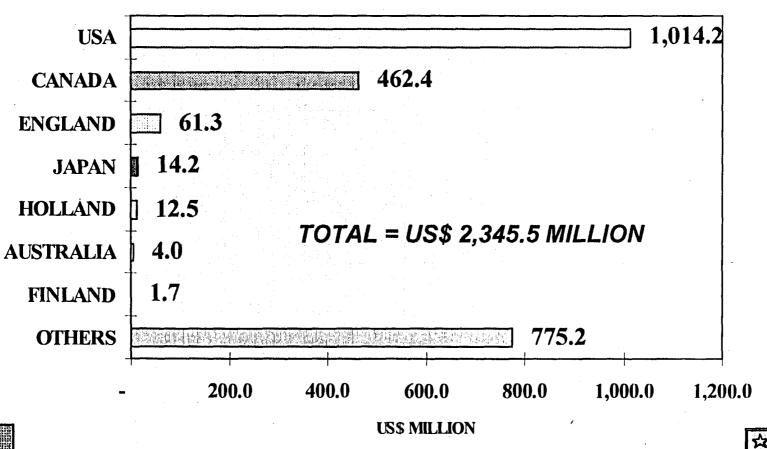


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## FOREIGN INVESTMENT

**AUTHORIZED, 1993** 

(BY COUNTRY OF ORIGIN)

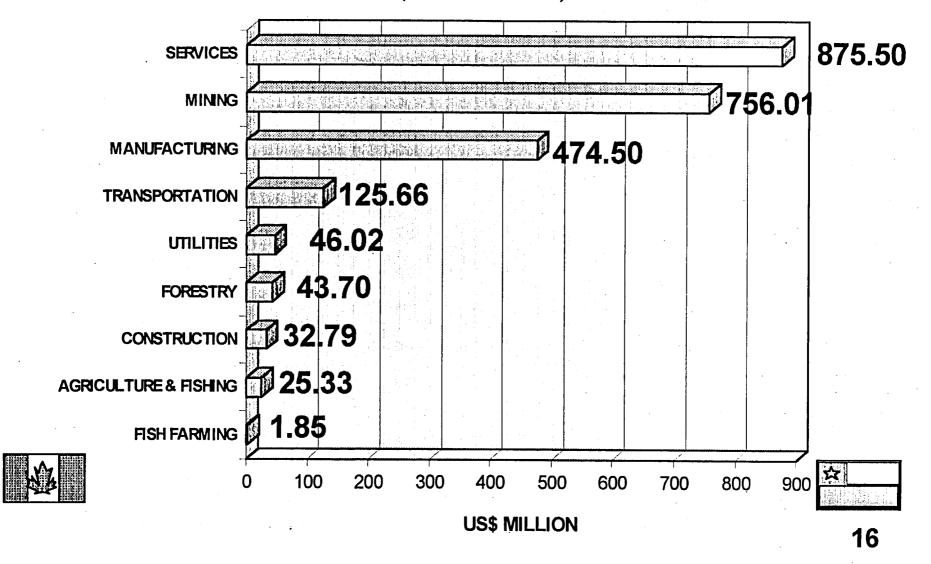




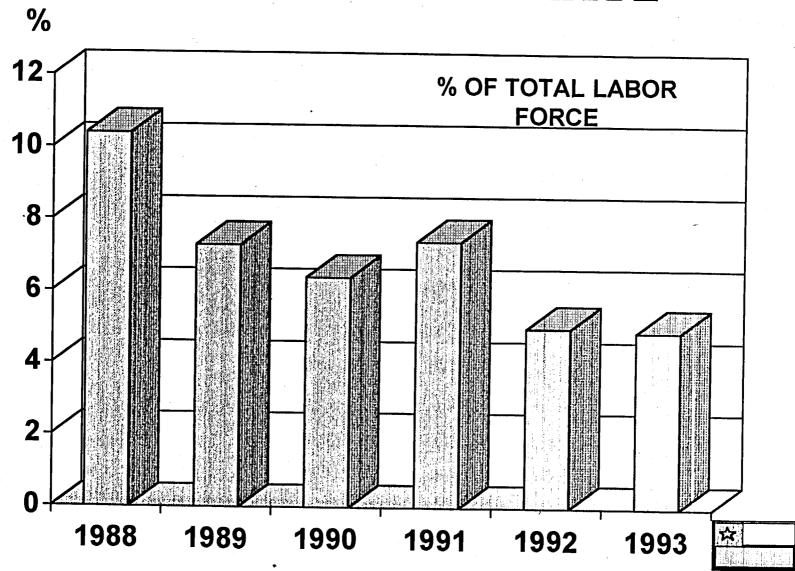
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## FOREIGN INVESTMENT

AUTHORIZED, 1993 (BY SECTOR)



## **UNEMPLOYMENT RATE**





**SOURCE: CENTRAL BANK OF CHILE** 

## **BILATERAL AGREEMENTS**

(during the last four Years)

ARGENTINA:

**ECONOMIC INTEGRATION** 

**AGREEMENT** 

• BOLIVIA:

**ECONOMIC INTEGRATION** 

**AGREEMENT** 

COLOMBIA:

**ECONOMIC INTEGRATION** 

**AGREEMENT** 

CANADA - USA: NAFTA OR BILATERAL

FREE TRADE ON GOING

**NEGOTIATIONS.** 

MERCOSUR:

**NEGOTIATIONS CURRENTLY** 

**TAKING PLACE** 

• MEXICO:

FREE TRADE AGREEMENT

VENEZUELA:

FREE TRADE AGREEMENT



## CONTACTS FOR INVESTING IN CHILE

- BOLSA DE COMERCIO DE SANTIAGO (SANTIAGO STOCK EXCHANGE)
  - · Address: La Bolsa 64, Santiago Chile
  - Phone: (56-2) 698-2001, 695-8077
  - Fax: (56-2) 672-8046
- BOLSA ELECTRONICA DE SANTIAGO (ELECTRONIC STOCK EXCHANGE)
  - Address: Moneda 1020, 3rd Floor, Santiago Chile
  - Phone: (56-2) 698-3828, 696-5737
  - Fax: (56-2) 696-0503, 696-6291
- CORPORACION DE DESARROLLO TECNOLOGICO DE BIENES DE CAPITAL (CAPITAL GOODS TECHNOLOGICAL DEVELOPMENT CORPORATION)
  - Address: Silvina Hurtado 1844, Santiago Chile
  - Phone: (56-2) 204-9349, 204-9350
  - Fax: (56-2) 204-9350
- COMITE DE INVERSIONES EXTRANJERAS (FOREIGN INVESTMENT COMMITTEE)
  - Address: Teatinos 120, 10th. Floor, Santiago Chile
  - Phone: (56-2) 698-4254
  - Fax: (56-2) 698-9476





## CHILEAN COMPANIES WITH AMERICAN DEPOSITORY RECEIPT PROGRAMS

- CTC
  - TELECOMUNICATIONS
- CHILECTRA
  - UTILITY
- CCU
  - BEVERAGES
- MADECO
  - COPPER PRODUCTS
- MASISA
  - PARTICLE BOARDS
- SOQUIMICH
  - FERTILIZERS
- ENERSIS
  - HOLDING COMPANY
- CRISTAL CHILE
  - GLASS PRODUCTS
- BANCO O'HIGGINS
  - FINANCIAL

#### PLANNED CHILEAN ADR OFFERINGS

- EMBOTELLADORA ANDINA
  - BEVERAGES
- CHILQUINTA
  - UTILITY
- LABORATORIO CHILE
  - PHARMACEUTICAL
- CONCHA Y TORO
  - VITICULTURE
- TELEFONICA DEL SUR
  - TELECOMUNICATIONS
- TELEX CHILE
  - TELECOMUNICATIONS
- CHILGENER
  - UTILITY
- ENDESA
  - UTILITY
- ENTEL
  - TELECOMUNICATIONS
- SODIMAC
  - RETAILER



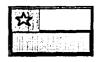


**JUNE 1994** 

## MAIN CHILEAN FAIRS & EXHIBITIONS

- TEXVECAL: Int'l Fair For The Textile and Footwear Industry, Santiago,
  - June 22nd 25th 1994. Phone (56-2) 231 6515, Fax (56-2) 233 4981
- SOFTEL: Int'l Fair for Computer technology & Telecomunications, Santiago,
  - July 5th 10th 1994, July 4th 9th 1995. Phone (56-2) 533 2838, Fax (56-2) 533 1667
- FISA: Santiago's Int'l Fair, Santiago,
  - October 26th November 6th 1994. Phone (56-2) 533 2838, Fax (56-2) 533 1667
- EXPOMADERA: Int'l Forestry Show, Santiago,
  - December 6th 9th 1994. Phone (56-2) 533 2838, Fax (56-2) 533 1667
- FITAL: Maule Int'l Show, Talca,
  - March 23rd April 2nd 1995. Phone (56-71) 22 2437, Fax (56-71) 22 2421
- FIDAE: Int'l Air & Space Show, Santiago,
  - March 10th 17th 1996. Phone (56-2) 557 1002, Fax (56-2) 557 1256
- EXPOMIN: International Mining Exhibition for the Latin American Markets, Santiago,
  - May 14th 18th 1996. Phone (56-2) 533 2838, Fax (56-2) 533 1667

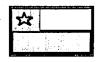




## MAIN CHILEAN NEWSPAPERS & MAGAZINES

- EL MERCURIO: (562) 330 1111, fax: 228 9042
- LA TERCERA: (562) 551 7067, fax: 556 6089
- LA EPOCA: (562) 638 444, fax: 638 1105
- ☐ **EL DIARIO**: (562) 695 1242, fax: 695 1324
- □ **ESTRATEGIA**: (562) 236 1313, fax: 236 1114
- ◆ QUE PASA: (562) 551 7067, fax: 550 7529
- ◆ HOY: (562) 274 3746, fax: 225 4669





#### CANADA-CHILE TRADE AND INVESTMENT RELATIONS

Two-way Canadian-Chilean trade has more than doubled over the past decade from a total of \$202.4 million in 1983 to a high of \$421.8 million in 1993. During that same period, Canadian exports of motor vehicles and parts as well as wheat, pulp and paper machinery, telecom equipment, and iron and steel products increased by several hundred percent. Canadian companies have traditionally shipped primarily resource products to Chile, although recently, the product mix has been changing to more value-added products. In 1993, Canadian exports of mining equipment and parts doubled those of 1992.

The only Latin American country with an "investment grade BBB" debt rating, Chile attracted a record US \$1.69 billion of total foreign investment in 1993. Canada removed Chile from its List of Designated Countries last March 1993. Canadian investment flows to Chile increased sharply, making Canada Chile's largest foreign investor in 1990 and 1992. The cumulative total of actual Canadian foreign investment to date is \$1.7 billion, while the cumulative total of planned investment exceeds \$4.0 billion. The bulk of these funds are located in the mining sector, chiefly in mine development, although other sectors such as banking, communication and agriculture are becoming of more interest.

The Chilean economy is remarkably open and has been called an economic model for Latin America by the IMF. Tight, responsible fiscal policies have created an attractive investment climate in Chile for both nationals and foreigners. Investment has grown from 14% of GNP in the middle of the 80s to an average of 20% in the last 3 years. Chile has a robust economic record of an annual average real GNP growth rate of 6% for ten straight years, as well as a stable political environment and rich natural resources, means capital investment will continue to increase reaching a record 27% of GDP in 1993. The generalized import tariff is set at 11% CIF and there is an 18% sales tax.

The Central Bank of Chile's reserve requirement of 20% for one year for all foreign currency inflows continues to be a mild irritant for speculators, as is the stamp tax placed on investments of approximately 0.1% per month, to a maximum of 12 months or 1.2%. Profits on foreign investments can be repatriated immediately, while the original capital outlay only after one year.

On investment protection, the substantive holdings of Canadian investment in Chile have placed a priority on addressing possible bilateral instruments to protect more effectively these investments in the medium to long-term. Currently investment in Chile is eligible for foreign investment insurance from the Export Development Corporation (EDC). EDC has financing lines of credit with both the Banco Sud Americano and Banco O'Higgins, as well as with the Compañia de Telefonos de Chile (CTC). EDC is open for all its programs with both the private and public sectors. Canada has placed a high priority on negotiating both *Double Taxation (DTA)* and *Foreign Investment Protection Agreements (FIPA)* with Chile to better facilitate investment and to protect Canadian private sector interests.

Canadian commercial objectives centre on the Chilean mining, forestry, power generation, communications and environmental sectors. Canada and Chile's resource-based economies have much in common, and Canada enjoys an excellent reputation as an advanced supplier, which enhances the potential for sales of goods and services, and technology transfer.

Indications are that the Chilean-Canadian commercial relationship will continue to expand. Chile's relatively small population of 14 million and geographic distance from Canada does not limit its possibilities as a base for third country operations, which is supported by a sophisticated industry, professional business culture, and rich resource base. It is interesting to note that, in 1992 and 1993, record-breaking numbers of Canadian firms attended Chilean trade fairs focused on forestry, aerospace and mining. EXPOMIN '94, held in Santiago, Chile in May 1994, attracted a record-breaking 140 Canadian mining equipment and services companies.

CIDA's Industrial Cooperation Program (INC) is currently the most active CIDA mechanism in Chile. CIDA Inc has identified Chile as a priority market in Latin America and focuses its support on technology transfer and joint ventures. Projects range from highly technical engineering and geological services through demonstration projects such as those in hydroponics and forest-fire fighting to niche technology development such as automated construction and financial software. In 1992-1993 there were 35 projects with a total value of \$1.8 million.

Both countries have recently made commitments toward a number of cooperative pacts and joint endeavours. In June 1991, a *Memorandum of Understanding (MOU)* was signed to establish a Chile-Canada Joint Economic and Trade Council (JETC). The second meeting of the JETC was held in Ottawa in October 1993. In April 1993, the Minister of International Trade & Industry, Science and Technology led a trade mission to Chile and Argentina of 55 Canadian manufacturers and service companies, represented by over 85 business leaders. In January 1994, the Honourable Roy MacLaren, Minister for International Trade met with his Chilean counterparts in Santiago to discuss the bilateral relationship and the prospect of Chile becoming a full member of NAFTA.

Several sectors have already begun the process towards greater cooperation: the Canadian Manufacturers Association (CMA) and SOFOFA (the Chilean equivalent) have established a formal relationship exchanging high-level missions to Chile in September 1992, followed by a SOFOFA mission to Canada in June, 1993. CANMET of Energy, Mines and Resources Canada and CIMM (the Chilean mining and metallurgy institute) signed an MOU in August 1991 to pursue cooperative research in mining technology; the Pacific Research Centre of Forestry Canada and INFOR (the Chilean forestry research institute) have begun a seed exchange program; the Canadian Centre for Remote Sensing of Natural Resources Canada and the Instituto Geografico Militar (Chile's cartographic agency) signed an MOU on technical exchanges in December 1993; and the Association of Consulting Engineers of Canada (ACEC) signed an information and technology exchange with its Chilean counterpart the Asociacion de Ingenieros Consultores de Chile (AIC) in October 1993.

#### **CANADA-CHILE EXPORT/IMPORT STATISTICS**

January to December, 1993 (\$,000 Cdn)

EXPORTS TO CHILE	1992	1993
1000 Cereals	38,725	46,147
8400 Mchy, mechanical appliances, engines	23,990	39,842
2700 Mineral fuels & oils	10,834	12,822
8500 Electrical machinery	3,507	12,298
9800 Special classification provision	3,041	11,367
3100 Fertilisers	13,547	9,985
2600 Ores	10,834	9,849
4800 Paper & paperboard	4,505	7,449
3900 Plastics & articles	5,283	5,667
2500 Salt & sulphur	10,816	5,413
Sub-Total	125,082	160,839
Others: inorganic chem., optical equip., iron & steel	20,140	31,998
TOTAL EXPORTS	145,222	192,837

IMPORTS FROM CHILE	1992	1993
0800 Edible fruits & nuts	112,545	111,633
2200 Beverages	22,275	25,322
2300 Residues & waste from food industry	16,640	15,935
2600 Ores	158	15,405
2800 Inorgn chemicals	5,368	6,565
0300 Fish & seafood	3,538	4,398
2000 Prep of vegetables, fruits & nuts	7,629	3,839
72-7300 Iron and steel & articles	1,682	2,917
4400 Wood	2,807	2,831
6400 Footwear	2,387	2,525
Sub-Total	175,029	191,370
Others: fabrics, coffee, sugar	27,462	16,867
TOTAL IMPORTS	202,491	208,237

Source: Statistics Canada, Merchandise Trade Statistics

Note: The revised Statistics Canada figures for 1993, including re-exports are: Exports to Chile - \$212.6 million; Imports from Chile \$209.2 million

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### Canada - Chile Merchandise Trade Exports and Imports

### January to December 1993 (\$,000 Cdn) Updated figures

	Exports to Chile	Imports from Chile	Total Two-Way Trade
1991	145,867	183,464	329,331
1992	145,222	202,491	347,713
1993*	193,800	209,200	421,800

Source: Statistics Canada, Merchandise Trade Statistics.

Note: 1993 export figure includes \$18.8 million in re-exports.

### **CANADA-CHILE EXPORT/IMPORT STATISTICS**

January to June, 1994 (Cdn\$ 000)

EXPO	ORTS TO CHILE	1993*	1994*
8400	Mechanical Machinery	18,588	20,350
1000	Cereals and grains	10,997	16,299
8500	Electrical Machinery	6,548	11,439
2700	Mineral oils & fuels	4,833	9,603
2600	Ores, slag and ash	5,679	4,673
7300	Articles of iron & steel	1,333	4,333
2500	Salt, sulphur and plastering materials	2,208	4,150
2800	Inorganic chemicals	932	4,116
4800	Paper & paperboard	1,806	3,550
0700	Edible vegetables & tubers	916	2,511
Sub-T	'otal	53,840	81,024
Other	S	25,053	15,871
TOT	AL EXPORTS	78,893	96,895

IMPC	RTS FROM CHILE	1993*	1994*
0800	Edible fruits and nuts	97,163	92,056
2200	Beverages, spirits & vinegar	9,997	7,518
2300	Prepared animal fodder	8,007	4,259
0300	Fish and seafood	1,970	2,901
2000 Prep. of vegetables, fruits & nuts		1,384	2,270
7200	Iron & steel	1,424	2,158
0700 Edible vegetables & tubers		850	1,840
2800	Inorganic chemicals	4.351	1,586
2600	Ores, slag & ash	15,406	1,441
4400 Wood and wooden articles		1,282	1,328
Sub-T	otal	137,487	117,357
Other	S	11,191	8,933
ТОТ	AL IMPORTS	148,678	126,290

\* January to June only
Sources: Statistics Canada, Imports by Country, Domestic Exports by Country

#### THE CHILEAN MINING SECTOR

Chile is becoming increasingly competitive in the global market. Chilean exports should

achieve a value of US\$10 billion in 1993 (growth of 65% over 1985 exports), and they continue to diversify away from the traditional reliance on copper (38.7% of Chilean exports in 1992 vs. 80% in 1980).

Expectations for 1994 are equally promising. Current predictions estimate that GDP should grow by 4%: inflation will remain around 11-12%; unemployment be approx. at 5%; and foreign and domestic investment will increase slightly to a level of over 25% of GDP.

Chile is the largest copper producer and exporter in the world, accounting for 22% of total western world production. It is also the largest producer and exporter of potassium nitrate and sodium nitrate, the second largest producer of rhenium, lithium, iodine and molybdenum; the fifth largest producer of boron; the seventh largest producer of selenium; eighth largest producer of silver and ninth largest producer of gold. Additionally, Chile has approximately 23% of the world's copper reserves.

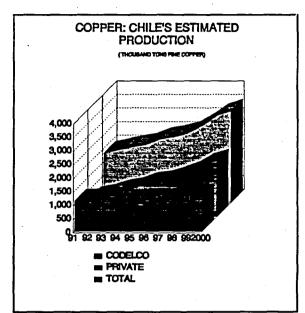
Mining generates more than 7.6% of the country's GDP. It is a capital intensive activity directed towards exports (only 3% of Chile's copper production is consumed in the country). Total value of mineral exports in 1993 was over US\$ 4 billion, or 42.9% of the total (82.6% of this figure corresponds to copper). Copper accounts for 35.5% of total exports.

Because Chile is a mining country, it is an important market for mining equipment and services. Growth in the mining sector will increase imports of equipment and services. Market for equipment in 1994 is valued around US\$ 500 million.

The Chilean State owns the largest copper mines through the corporation CODELCO. This corporation exploits 4 important mines; Chuquicamata (largest open pit mine in the world, 640,000

☐ Agric. & Fish Industrial Copper Minina

OURCE: BANCO CENTRAL DE CHILE



CHILE: EXPORTS (FOB, %)

100

t/year of fine copper); El Salvador; La Andina; El Teniente (largest underground mine in the world, 330,000 t/year of fine copper). Codelco's sales are approximately US\$ 4 billion per year. It is a very important consumer of all kinds of capital goods, inputs and services; its authorized investment for 1993 was US\$ 460 million.

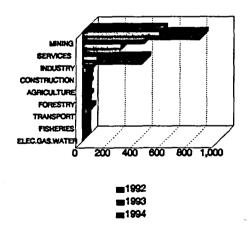
Private sector mining is growing rapidly as a result of large natural reserves and several deliberate incentives. Copper production will increase from 1.3 million tons/year in 1987 to 2.2 million in the first half of the 1990s. Gold will increase from 20 to 36 tons/year and silver will increase from 500 to 850 tons/year for the same period.

Foreign investment in 1993 was US\$ 1,665 million, of which US\$ 861 million (51.7%) was in mining. For the 1992/1997 period, Chile's Deputy Minister of Mines has estimated a volume of mining investments of US\$ 9 billion, one third of which corresponds to Stateowned companies (many of which offer Joint-Venture potential for Canadian companies). Canada's presence in local mining operations has increased significantly in recent years, to the point that in 1990 and 1992 Canada was the largest foreign investor. Canadian investment will soon reach US\$ 4 billion, if current projects under study materialize, 27 Canadian mining companies are operating in Chile, and another 10 have Chilean representatives. Canadian companies supplying equipment/services in the mining sector are constantly increasing their presence in the Chilean market. Many of them have decided to set up commercial agreements such as Joint-Ventures with local firms to have a competitive presence in the market and to use the local know-how, contacts and labour skills.

On May 10-14, 1994, Latin America's most important mining show/seminars took place in Santiago, Chile: EXPOMIN'94. During this show 140 Canadian companies exhibited their products/services in the Canadian Pavilion. Several of these companies have made important business connections in Chile as well as in other Latin American countries.

Chile 1992, the Canadian Embassy commissioned a study on the mining sector: "CHILEAN MINING. SUPPLY AND DEMAND FOR **EQUIPMENT AND SERVICES".** This August 1992 study, is being distributed by International Trade Centres across Canada at request from Canadian companies. This study gives a comprehensive review of current projects, mines, import mechanisms, contacts, and directories of equipment inventory, suppliers of equipment and services for mining.

CHILE: FOREIGN INVESTMENT 92-94 US\$ MOECREE LAW 600)



## CANADIAN MINING COMPANIES IN CHILE

	IN CANADA		IN CHILE
1	LAC MINERALS LTD. Royal Bank Plaza, 21st. Floor N. Suite. 2105, North Tower, Toronto, Ontario, Canada M5J 2J4 Ph.: (416) 777 2400, Fax:(416) 777 2405 Mr. Peter Munk, Chairman Mr. Robert Smith, President Mr. Michael B. Richings, VP South America	Le	MINERA LAC CHILE LTDA.  Las Urbinas 53, P. 13, Providencia, Santiago, Chile Ph: (56-2)231-9766 Fax:(56-2)232-1023 Sr.Héctor Araya, Gerente General Sr.Lukas Yaksic, Gerente Finanzas y Administ. Sr.Ramón Araneda, V.P. Exploraciones  COMPAÑIA MINERA EL INDIO S.A. Barrio Industrial, Alto Peñuelas 58, Coquimbo, Chile Ph:(56-51)24-1323 Fax:(56-51)24-1735 Sr.Ralph Matteson Gerente General Sr.Herman Vega, Gerente de Mina El Indio Sr.Jorge Aoun, Gerente Mina Tambo Sr.Carlos Pinto, Gerente Mina Viento  MINERA LAC EL TOQUI Baquedano 500, Coyhaique, Chile Ph.: (56-67) Fax: (56-67)
2	PLACER DOME INC. Suite 1600, 1055 Dunsmuir St. P.O.Box 49330 Bentall Post Station, Vancouver B.C. Canada V7X 1P1 Ph.: (604) 682 7082. Fax:(604) 682 7092 Mr. John Willson, President and CEO	2	Sr. Ken Castleton, Gerente de Operaciones  PLACER DOME SUD AMERICA LIMITED  Av. Gertrudis Echeñique 30, Piso 14, Santiago, Chile Ph.: (56-2)206-3535 Fax(56-2)206-6605 Sr. Jay Taylor, Presidente Sr. William Hayes, Gerente General Cia. Minera Mantos de Oro
3	COMINCO RESOURCES INTERNAT. LTD. 400, 200 Burrard St. Vancouver, B.C. Canada V6C 3L7 Ph.: (604) 682 0611.Fax: (604) 844 2516 Mr. G.D. Tikkanen, President	3	MINERA COMINCO RESOURCES CHILE LTDA.  Av. Los Leones 234, Santiago, Chile Ph.: (56-2)231-1463 Fax:(56-2)232-4215 Sr. R. Michael. Clarke, Gerente General Sr. Myron Osatenko, Gerente General Técnico  CIA. MINERA QUEBRADA BLANCA S.A.  Av. Los Leones 212, Santiago, Chile Ph.: (56-2)231-5228 Fax:(56-2)231-2036 Sr. James S. Drake, Gerente General Sr.Robert Hutchinson, VP de Desarrollo
4	TECK CORPORATION 600, 200 Burrard St. Vancouver, B.C., Canada V6C 3L9 Ph.: (604) 687 1117. Fax: (604) 687 6100 Mr.Norman B. Keevil, Chairman Teck Corp. Mr.David A. Thompson, Senior V.P. and C.F.O.	4	MINERA TECK CHILR S.A. Josue Smith Solar 390, Providencia, Santiago, Chile Ph: (56-2)234-3758 Fax:(56-2)231-9225 Sr. Robert J. Young, Vice Presidente y Gerente General MINERA QUEBRADA BLANCA S.A.

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5	BEMA GOLD CORPORATION 1400, 510 Burrard, Box 48 Vancouver,B.C.Canada V6C 3A8	5	BEMA GOLD (CHILE) LTDA.  Av. 11 de Sept. 2250, Of.1503, Santiago, Chile  Ph.: (562) 233 2041. Fax:(562) 231 9226
	Ph.: (604) 681 8371. Fax: (604) 681 6209 Mr. C.T.Johnson, Chairman & CEO		Sr. Roberto Escaffi, Gerente General
6,-	TVX GOLD INC. Trust Tower, BCE Place Ste.4.300 161 Bay St., Toronto Ontario, Canada M5J 2S1 Ph. (416) 366 8160. Fax: (416) 366 8163 Mr. E.F. Batista, Chairman Mr.Martin H. Robinson, Pres. & CEO Mr. Ian W. Telfer, Executive V.P.	6	COMPAÑIA NACIONAL DE MINERIA Av. 11 de Sept. 2353, Piso 13, Santiago, Chile Ph.: (562) 231 6629. Fax:(562) 231 9120 Cristián Parker, Gerente General Joseph Ambrus, V.P. Exploraciones
7	BRIDGER RESOURCES INC. 308, 595 Howe Street Vancouver, B.C. Canada V6C 2T5 Ph:(604) 685 7666, Fax:(604) 688 9727 Mr.Tony Floyd, President	7	MINERA BRIDGER CHILE Casilla 22, Correo 34, Santiago, Chile Jorge VI 858, Las Condes Ph./Fax: (562) 201-3835 Sr. Tony Floyd, Presidente
8	DAYTON MINING CORPORATION 1610-200 Burrard St.	8	MINERA DAYTON DE CHILE LTDA. Mac-Iver 125, Piso 17, Santiago, Chile
	Vancouver, B.C., Canada V6C 3L6 Ph.:(604) 662 8383. Fax:(604) 684 1329 Mr. Wayne D. McClay, President and CEO		Ph.: (562) 633 8453/4. Fax:(562)633 1886 Sra. Pilar Oyarzún, Representante legal y Asuntos Públicos
			ANDACOLLO PROJECT (BECHTEL CHILE) Av. Holanda 254, Providencia, Chile Ph: (562) 231 5297, Fax:(562) 231 5234 Sr. Juan Walker, Coordinador Proyecto Andacollo
			CIA. MINERA DAYTON DE CHILE S.A. Balmaceda 1619, La Serena, Chile Ph.: (56-51)22-5075 Fax: (56-51)22-5010 Sr. Rex Outzen, Gerente General
9	NORTHGATE EXPLORATION LTD.  2701, 1 First Canadian Place 181 University Ave. Toronto ONT. Canada M5X 1C7 Ph: (416) 362 6683.Fax:(416) 367 3250 Mr.J.F.Kearney, President and CEO.	9	SOC. CONT. MINERA VILACOLIO Santa María 2639, Aríca, Chile Ph : (56-58)22-3370. Fax:(56-58)22-2377 Sr. Andrés Hevia H., Gerente General
10	RAYROCK YELLOWKNIFE RESOURCES INCORPORATED. 30 Sondan Ave.Suite 500 Toronto, Ontario, Canada M4S 1V6 Ph.: (416) 489 0022. Fax:(416) 489 0096 Mr. David R. Crombie, Chairman	10	MINERA RAYROCK (CHILE) Isidora Goyenechea 2925, Of. 303 Providencia, Stgo. Ph.: (562) 231 8176. Fax:(562) 232 1969 Sr. Michael Seaward, V.P. Ejecutivo
11	RIO ALGOM LTD. Suite 2600, 120 Adelaide St.W. Toronto, Ontario, Canada M5H 1W5 Ph.: (416) 367 4000.Fax:(416) 365 6870 Mr. Gordon C.Gray, Chairman Mr. Colin A. Macaulay, President and CEO	11	COMPAÑIA MINERA CERRO COLORADO S.A. Las Urbinas 53, Piso 11, Santiago, Chile Ph:(562) 233 2781. Fax:(562) 233 2781 Sr.Pedro Campino, Presidente Sr. Jorge Paredes,Ingeniero de Proyecto
			Oficina Iquique: Vivar 493, Piso 5, Iquique. Ph: (565) 742 1366. Fax:(565) 742 1358 Sr. Jorge Astorga, Gerente de Personal
			COMPAÑIA MINERA RIOCHILEX S.A. Jose Antonio Soffia 2747, Of. 404 Providencia, Santiago, Chile Ph: (562) 234 4811. Fax:(562) 234 2531

12	FRINCETON MINING CORP. 2000, 1055 West Hastings St., Vancouver, B.C., Canada V6E 3V3 Ph.: (604) 688 2511. Fax: (604) 688 4772 Mr. J.C. O'Rourke, President & CEO	12	CIA. MINERA PRINCETON CHILE LTDA.  Carmencita 227, Las Condes, Santiago, Chile Ph.:(562) 231 1566, 232 2051.Fax:(562) 233 5231 Sr. Patrick Burns, Gerente General Sr. Carlos Rojas, Gerente Exploración
13	ARAUCO RESOURCES CORPORATION 860 - 625 Howe Street, Vancouver, B.C., Canada V6C 2T6 Ph: (604) 687 7545, Fax:(604) 689 5041 Mr. Donald McLeod, President	13	MINERA ARAUCO S.A. Carmencita 227, Las Condes, Santiago, Chile Ph.:(562) 231 1566, 232 2051.Fax:(562) 233 5231 Sr. Patrick Burns, Gerente General Srta.Alix Pardo, Gerente Relaciones Públicas
14	NORANDA MINERALS INC. Noranda Exploration Company Limited 4 King St. W., Ste.1300, Toronto, Canada M5H 1B6 Ph.: (416) 982 7453. Fax:(416) 982 7420 Mr. Clarence Logan, International Director Exploration	14	NORANDA EXPLORACION CHILE LTDA. Málaga 89, Piso 6 Las Condes, Santiago. Ph.:(562)206-3416 Fax:(562)206-3456 Sr.Marco Fernández-Concha, Gerente Proy. Sr. Ronald Mac Arthur, Gerente General
15	FALCONBRIDGE LIMITED 95 Wellington Street. W. Toronto, Ontario, Canada M5J 2V4 Ph.: (416) 956 5700. Fax: (416) 956 5757 Mr. F.G.T. Pickard, President and CEO	15	FALCONBRIDGE CHILE S.A.  AV.11 de Septiembre 2353, Fiso 10, Casilla 165, Correo 9, Providencia, Santiago, Chile Ph: (562) 233 6670. Fax:(562) 231 5237  Sr. Thomas Pugsley, Gerente General
			CIA. MINERA DOÑA INES DE COLLAHUASI Succia 178, Santiago, Chile Ph.: (562) 231 3592 Fax: (562) 233 3184 Sr.Steve Kesler, Vicepresidente Ejecutivo(CEO) Sr. Lawrence A. Dick, Gerente de Exploración Sr. Horacio Bruna, Gerente General
16	KAP RESOURCES LTD. 407, 325 Howe St. Vancouver, B.C. Canada V6C 1Z7 Ph: (604) 684 3354, Fax:(604) 684 3499 Mr.P.L. Deutz, Chairman & President	16	MINERA YOLANDA LTDA.  11 de Septiembre 2353, Piso 15, Santiago, Chile Ph.: (562) 232 7615. Fax: (562) 233 0093 Sr. Eduardo Bobenrieth, Gerente General Sr. Fernando Ares, Gerente de Desarrollo
17	INTERNATIONAL MAHOGANY CORP. Suite 1305, 1090 West Georgia St. Vancouver, B.C. Canada V6E 3V7 Ph.: (604) 685 9316. Fax:(604) 683 1585 Mr Anton R. Hendriksz, Chm., Pres. and CEO.	17	MINERA MAHOGANY LTDA.  Av. El Bosque Sur 175  Providencia, Santiago, Chile  Ph.: (562) 231 2791. Fax: (562) 231 2995  Sr. Thomas L. Crom, Gerente General
18	CAN PRO DEVELOPMENT LTD.  10th Floor, 900 W. Hastings St.  Vancouver, B.C. Canada V6C 1E5  Ph.: (604) 683 8352. Fax: (604) 684 9959  Mr. Michael D. Philpot, President and CEO.	18	MINERA SERENA LIMITADA Pasco Las Palmas 2212,0f.54, Providencia, Santiago, Chile Ph.: (562) 231 7474. Fax:(562) 234 1074 Sr. Doug MacDonald, Gerente General
19	HOMESTAKE CANADA LTD. 700 W. Pender St., 25th Floor Vancouver, B.C. Canada, V6C 2X8 Ph.: (604) 669 1011.Fax: (604) 669 669/7177 Mr.Jack Thompson, President	19	MINERA HOMESTAKE CHILE S.A. Pedro de Valdivia 0193, Piso 4, Providencia, Santiago, Chile. Ph.: (562) 231 7103. Fax: (562) 231 8047 Sr.Sergio Chávez, Gerente General Sr.Ricardo Palma, Gerente Operaciones
20	AMERICAN BARRICK RESOURCES CORPORATION 24 Hazelton Ave. Toronto, Ontario, Canada M5R 2E2 Ph: (416) 923 9400. Fax:(416) 923 2457 Mr. Peter Munk, Chairman & CEO. Mr. Robert Smith, President & COO.	20-	MINERA AMERICAN BARRICK LIMITADA Fidel Oteíza 1953, Of. 701, Santiago, Chile Ph: (562) 274 4231/4251. Fax:(562) 274 1170 Sr. Luis J. Baertl, Presidente

21	AUREX RESOURCES CORP. 1000-1177 West Hastings St. Vancouver, B.C. M6E 2K3, Canada Ph.: (604) 687 6600. Fax: (604) 687 3932 Mr. I.S. Walton, President	21	MINERA AUREX (CHILE) LTDA. Edificio Panorámico, Torre A. Av. 11 de Sept. 2155, Of. 402 Providencia, Santiago Ph : (56-2) 231 5278, Fax: (56-2) 232 1482 Sr. Ralph A. González, Gerente General
22	CAMBIOR INC.  1075, 3rd Ave. E., P.O. Box 9999  Val d'Or, QUE., Canada. J9P 6M1  Ph: (819) 825 0211. Fax:(819) 825 0342  M. L.P. Gignac, President & CEO.	22	CAMBIOR CHILE S.A.  La Concepción 177 Piso 4, Providencia Santiago, Chile Ph: (562) 235 1990 Fax:(562) 233 4005 Sr. Ricardo Sandoval, Gerente Sr. Daniel Vanin, Director
23	CANADA TUNGSTEN INC. Suite 160, 1066 W. Hastings St. Vancouver, B.C. V6E 3X1, Canada Ph: (604) 689 0046, Fax:(604) 688 8370 Mr. Wayne.D. Lenton, President & CEO.	23	CANADA TUNGSTEN INC.  Nueva de Lyon 072, Piso 15, Providencia, Santiago, Chile Ph: (562) 233 7050, Fax:(562) 233 6871  Sr. Chris J. Hodgson, Gerente Exploraciones Sr. Vernon E. Smith, Gerente General Proyecto Andacollo
24	INCO LIMITED  Royal Trust Tower, Toronto Dominion Centre  Toronto, Ontario, M5K IN4, Canada  Ph: (416) 361 7723, Fax: (416) 361 7734  Dr. Michael D. Sopko, Chairman & C.E.O.	24	MINERA INCO CHILE LTDA.  Isidora Goyenechea 2932, Of. 802  Las Condes, Santiago  Ph: (56-2) 232 8704, Fax: (56-2) 232 8688  Sr. Aurelio Petracchi, Vice Presidente y Gerente General
25	PEGASUS GOLD INC. 2800, 650 West Georgia Street., P.O.Box 11506, Vancouver B.C. V6B 4R7 Ph: (604) 685 3456 Mr L.J. Smith, CEO Mr P.H. Atkinson, Director	25	PEGASUS MINERA DE CHILE LTDA.  La Gloria 36, Las Condes Santiago, Chile  Ph: (562) 228 1107, Fax:(562) 228 7443  Sr. Luis Ignacio Silva, Gerente General
26	ECHO BAY MINES LTD.  3300 Manulife Place, 10180-101".  Edmonton, Alberta, T5J 3S4  Ph: (403) 429 5811, Fax:(403) 429 5899  Mr. R.F. Calman, Chm. & CEO.	26	ECHO BAY MINES LTDA.  Monseñor Sotero Sanz 55, Of. 100  Providencia, Santiago, Chile.  Ph: (562) 231 1669, Fax:(562) 231 1243  Sr. Roberto Muñoz, Director de Exploración Sud America
27	METALL MINING CORPORATION Suite 3400, Actna Tower, 79 Wellington St.West P.O.Box 19, Toronto Dominion Centre Toronto Ontario, M5K 1A1, Canada Ph: (416) 361 6400, Fax: (416) 368 4692 Dr. Klaus M. Zeitler, President & CEO	27	METALL MINING CORPORATION CHILE Malaga 89, Of. 22, Las Condes, Santiago, Chile Ph: (562) 206 3840, Fax: (562) 206 3848 Sr. Ian D. Pirie, Exploration Manager

# MINING: PROJECTS IN CHILE

## **METALLIC**

FIRM	PROJECT	AMOUNT US\$ M	LOCATION	PROJECT DESCRIPTION	STAR- TING
Rio Algom •	Cerro Colorado	300	Mamiña, Iquique	COPPER:Open pit & lixiv. plant.(Cathodes.40,000 t/y) Res. 79 m t i.39% Cu.	Į994
	Cerro Colorado Stage II	n/a		COFFER: Increase capacity to 60,000 t/y. Feasibility study to start 1994.	n/a
Cominco * (42.5%) TECK (32.5%) ENAMI (10%), S.A.Pudahuel (5%)	Quebrada Blanca	360	170 km SE Iquique	COFFER:Open pit. Lixiv. & electrowining plant. (Cathodes.75,000 t/y). Reserves 77.7 million t 1.41% Cu.	1994
Falconbridge *, Shell & Minorco (each 33,33%)	Doña Ines de Collahuasi	1400	160 km SW Iquique	COPTER: Res. 1.5 million t, 1 % Cu. Mine development & flotation & lixiv. plant. Concen-trate 300,000 t/y & cathodes 50,000 t/y (electrowinning). Feasibility by March 1995.	1998
Ray Rock *	Iván, Zar	40	50 km N Antofagasta	COFFER:Open pit & underground. Lixiv. & flotation plant (8,000 t/y). Reserves 4.7 million t 2.5%Cu.	1994
	Sierra Valenzuela	n/a	75 km NE Antofagasta	COPPER: Exploration of a major deposit	n/a
Minera Michilla S.A. (Luksic)	Estefanía	30	50 km N Antofagasta	COPTER:Mine development & lixiv. plant. Cathodes 20,000 t/y Postponed.	1994
Minera Michilla S.A. (Luksic)	Lince	62	130 km N Antofagasta	COFFER: Res. 16 m t 1.56% Cu. Lixiviation. Cathodes 22,000 t/y	1993
	Lince Cathodes	60	•	COFFER: Increase capacity to 50,000 t/y (Cathodes).	
	Lince Cathodes	5	•	Increase capacity to 55,000 t/y (Cathodes).	
Minera Leonor, Equatorial N.L. & others)	Leonor	70	27 km N Sierra Gorda (Chuquicamata)	COFFER:1.6% Cu. Res:24 Million MT. Open pit. Lixiv. & Electrowinning. Cathodes 30,000 t/y	1995
Placer Dome *	Purén		Near La Coipa, Copiapo	GOLD: Joint Venture (51%) with CODELCO to explore deposit.	n/a
Gibraltar Mines Ltd.* (Placer Dome)	Lomas Bayas	16.8 (possible 130)	100 km NE Antofagasta	COFFER: Purchase of deposit to Mantos Blancos. Reserves 79 million t, 0.76% Cu.	n/a
Placer Dome * & Outokumpu	Zaldivar	600 (up to 1000)	200 km SE Antofagasta	COFFER:Open pit. Flotation & lixiv. Cathodes 140,000 t/y. Res.1.i Bn t, 0.57% Cu. Feasibility study by August 93	1993/5

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Outokumpu Chile (Outukumpu Copper Res.)	Santa Catalina	Over 100	Sierra Gorda, 140 km NE Antofagasta reserves 100 million tn, 1,1% Cu. Potencial for 50,000 tly fine Cu. Open Pit. Feasibility in 1994.		n/a
Amax Gold	Guanaco	70	Antofagasta	GOLD & SILVER: Lixiv. to process 9,000 t/d	1992/4
CODELCO	Various	180	Chuquicamata	COFFER: Various	1990/6
	Radomiro Tomic	450	Chuquicamata	COPPER:Open pit.Lixiv. & electrowinning. Cathodes 150,000 t/y.Cost US\$ 35¢/pou.	n/a
	Various (Inca)	39	El Salvador	COPPER:Various	1992/4
	Lixiviation	60	El Salvador	COPPER: Lixiviation plant (Cathodes 25,000 t/y)	1994/5
	Various	80	Andina	COPPER:Various	1990/3
	Expansion 60,000 t/d	220	Andina (Los Andes)	COFFER:Increasing of extrac-tion capacity & processing 25,000 t/d	1993/6
	Various	332	El Teniente (Rancagua)	COFFER: Exploitation of underground pit by in site lixiviation. Prod: 100,000 t/y (Esmeralda, Diamante and hydrometallurgy projects)	1993/8
	Refinería Central	100	Someplace Central Chile	COFFER: Smelter for 180,000 t/y refined copper (needs private partners), postponed.	1993
	Mansa Mina	n/a	Near Chuqui- camata.	COPTER:Reseserves 300 Million MT, 1.14% Cu. Open pit. To be decided.	1998
	Acid plant	100	El Teniente	COPPER: New acid plant, Cap. 1,550 t/d, capturing 38% of Calctones smelter gases	1 <del>99</del> 5/7
Sociedad Minera El Abra; Cyprus Amax Minerals (51%),Codelco (49%).	El Abra	1000	Near Chuquicamata	COFFER:For lease with private sector. Open pit.Lixiv. & electrowinning. Cathodes 225,000 t/y Reserves 672 million t, 0.76% Copper	1997
Minera Escondida Ltds. (BHP, RTZ)	Lixiviation process	280	Escondida mine and Coloso, Antofagasta	COFFER:Increase plant capacity to 439,000 t/y Plant for cathods 80,000 T/Y	1993/4
	Stage III	500	Escondida Mine	COPPER: Capacity to 800,000 t/y (80,000 cathodes + 720,000 Cu concentrate. Plant capacity to process 100,000 t/d. Will make mine largest producer in the world.	1997
S.Punta del Cobre	Punta del Cobre	13	Tierra Amarilla, Copiapó	COFFER: Flotation & lixiv. plant; 25,000 t/y. Cathods 7,000 t/y	1993

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ENAMI	Various	19	Paipote Smelter	Various	1993
	Las Ventanas Smelter updating	46	Quintero	COPPER: Smelter updating (new converter) I Stage, environmental problems, basic engineering by Sep 94.	1999
		30	u	Increase electrowinning capacity from 210,000 to 270,000 t/y fine Cu	
Sociedad Minera Pudahuel S.A. (90%). ENAMI (10%).	Altamira	38	Near Chañaral	COPPER: Res. 12 million t, 1.7% Cu, estimated for 2,000 t/d fotation plant (12,000 t/y). Feasibility stage	1997
COCAR (60%), Browne Koester (20%),Delta (20%)	Can-Can	20	Copiapó (160 km NE, 4,000 m h)	GOLD & SILVER: Lixiviation plant for 80,000 Au Oz./y and 280,000 Ag Oz./y	1992/3
COCAR (50%), BELFI (50%)	Río de Oro	1-2	Tierra del Fuego	GOLD: Aluvial exploitation, 200 k/y or 6,500 Oz fine Au/y	1992/3
COCAR S.A.	Riesco	50	Isla Riesco (Magallanes)	COAL: New mine for 2 million t/y. Postponed	1993/7
	Pecket	40	Seno Otaway (Magallanes)	COAL: New machinery to increase production	1994
Cardoen & Nuñez Hermanos	Amolanas	34	Copiapó (40 km E)	COFFER: Underground pit. Lixiviation, 4,900 T/y fine Cu Oxides, I Stage; 6,000 T/y fine Cu Sulphurs, II Stage. Reserves 7 million T, 1.7% Cu.	1993/5
Bema Gold-Chile *, AMAX (50% each)	Refugio	130	Maricunga (80 km E Copiapó)	COLD & SILVER: Lixiviation for 250,000 Oz./y Au. Reserves 216 millioin t, 0.88 g/t. Plant for 30,000 t/d. Basic eng. stage	1996
	Aldebarán				
Anglo American	Manto Verde	170	Chañaral	COFFER: Open pit. Reserves 85 million t. 0.85% Cu. Lixiviation for 40,000 t/y Cathods (Sx-Ew)	1994/6
	Santa Barbara	153	Mantos Blancos, Antofagasta	COFFER: Open pit to interco- nect two mine sectors and ex-pand capacity. New reserves 130 million t. New equipment and plant construction for elec-trowinning.	
Phelps Dodge (80%), SUMITOMO (20%)	La Candelaria	560 (future 1,500)	Tierra Amarilla (Copiapó)	COFFER: Open pit, copper concentrate 400,000 t/y . Financial stage.	1995
CAP S.A.	Los Colorados	150	Near Algarrobo, Vallenar	IRON: 4/5 million t/y capacity Feasibility stage.	1998/9
·	Pellets plant	n/a	Huasco	IRON: Increase of pellets plant capacity in 25%, from 4 to 5 million t/y . Feasibility by Jul 93.	n/a
	Sinter feed plant	n/a	Huasco	IRON: Plant construction for I million t/y sinter feed on study	n/a
Dayton •	Andacollo Oro	50	Andacollo	GOLD: Lixiviation 110,000 Oz./y Au. Financial stage	1993

Antofagasta Holdings (Luksic), Midland Bank, Lucky Goldstar Int.	Los Pelambres	66	Illapel (limit with Argentina)	COPPER: Copper concentrate 20,000 t/y. Increase to 60,000 t/y up to year 2000	1992/ 2000
EXXON (Disputada de las Condes)	El Soldado	15	El Soldado (near Valparaíso)	COPPER: Lixiviation plant for oxides 3,000 t/y	1992/3
	Fundición Chagres	200	Chagres (Llay llay)	COPPER SMELTER: Increase production in 80,000 t/y Blister & 215,000 t/y sulphuric acid	1992/4
	Tranque El Torito	20	-	Dam deposit 47 Million M <sup>3</sup>	1992/3
	Repulpeo de relaves	60	Los Bronces (Las Condes)	Washing dam reextraction	1992/4
	Las Tortolas	440	Los Bronces, Las Condes	Increase of treatment capacity 46,000 to 120,000 t/y Cu	1989/93
	Las Tortolas new Moly circuit	11	Los Bronces (Las Condes)	MOLYBDENUM: Concentrate production cap. 230/300 t/y	1994
Coer D'Alene, Chilean Mining Corp.	Fachinal	52	Chile Chico (30 km)	GOLD & SILVER: Mine & Plant for 30,000 Au Oz./y, 1 Million Oz. Ag/y.Feasibility.	1995 -
COMALCO (Australia)/ ENDESA			Aysén, Río Baker	ALUMINIUM: Refinery (Preliminary stage)	
COMALCO			Magallanes	ALUMINIUM: Refinery (Preliminary stage)	
Proyectos Aysen: NORANDA *, Walker Family	ALUMYSA	1,500	Aysén, Río Cuervo	ALUMINIUM: Refinery for 230,000 t/y	1993/7
Refinería del Pacífico (Sud.de Metales Com. Ltda.,ACEC, ARBI, ENAMI, LAC Minerals*)	Refinería del Pacífico	400/550	n/a	COFFER: Smelter to produce 200,000 t/y blister. Include Refinery to preocess 3/4 of output. Decision postponed.	1999?
LAC Minerals*	El Indio	13	Coquimbo	GOLD: New mining equipment to reduce operation costs	1994
	Nevada	160	Vallenar	GOLD:Estimated reservs 2.7 million oz., to produce 225.000 oz/y Au	1998
	El Tambo	100	Coquimbo (part of El Indio)	GOLD:Expansion, Heap leaching plant. Res. 17.8 m t, 0.061 Au oz/t. 350,000 oz/y.	1995
Citiminera	Las Luces	23	Tal Tal (Antofagasta)	COFFER: Copper concentrate to produce 9,000 t/y. Reserves 2 Million t, 2.2% Cu 7g Ag/t. Searching for partners.	*

	1	ι			
Princeton *	4 Prospects	30	-	GOLD & COPPER:Projected investment.	n/a
	Palmani .	n/a	Quebrada Palmani (80 km NW Arica)	COPPER: Porfid. Exploration stage	1998
	Elenita	n/a	Near Michilla, 90 km N Antofagasta	COPTER:Oxides, reserves 3.5 million t, 1.42% Cu. Evaluation stage	
Cambior *	Polo Sur	2	80 km North Antofagasta	(Approved Sept. 1992) COFFER, reserves 88 million t, 0.45% Cu, 80% oxides	п/а
Aurex Resources*	Copper tailing pond recovery	25	El Teniente	COFFER: 16,000 t/y, 600,000 t/y Moly. Negociation Stage.	1994
	San Esteban	4.2	Copiapó	GOLD & COPPER: Increase prod./plant cap. to 2,000 t/d	n/a
	Molina	4	La Serena	SILVER & COPPER: Mines & plant, increase prod.to 1,000 t/d	n/a
	Las Pascualas	2.1	North La Serena	COPPER:Est. Reserves 10 M t, 1.5% Cu. Exploration stage.	n/a
	Mercedes	n/a	Andacollo	GOLD: Option to develope several properties. Exploration stage.	n/a
Canada Tungsten Inc.* (60%), ENAMI (10%), CAP (30%)	Andacollo copper (SCM Carmen de Andacollo)	53	Andacollo	COTTER: Leaching and electrowinning; cathodes 17,000 t/y. Feasibility stage, completion date Oct 94.	1996
Minera Teck * Chile S.A.(Teck Corporation)	Exploration	6	Various (North Chile)	COFFER & GOLD:Exploration budget for 1993 (Copaquirri, Cerro Negro, Estrellita	1993
Puerto Mejillones, Bolidem- Chemtrade, Sudmetal & Ultragas	Mejillones Sulphuric Acid	44	Mejillones	SULFHURIC ACID: Produced & demanded by mining operations. Storage, transport and commercialization.	1995
Compañía C. Minera Mamiña* (INCO Ltd.100%)	Mamiña	500	Mamiña (65 km E Iquique)	COFFER: Joint Venture with CODELCO. Exploration stage. Deposit estimated for open pit to produce 90,000 t/y Cu. Construction to start 1998 flotation and concentration plant.	n/a
Homestake	Agua de la falda		Near La Coipa (Copiapó)	GOLD: Joint Venture with CODELCO. Exploration stage	n/a
Fundición Refimet S.A. • (33.4% Lac	Fundición La Negra	50	Antofgasta	COFFER: Smelter 80,000 t/y blister. Operating.	1993
Minerals)	и	37	•	COFFER: Increase capacity to 160,000 t/y and new acid & oxigen plants will increase sulphuric acid prod. from 70,000 to 270,000 t/y.	1995
		16	•	COFFER: Electrowinning plant to produce 60,000 t/y. On study.	n/a
	Rungue	n/a	•	COFFER: Smelter to process anods from La Negra Smelter, 50,000 t/y.	n/a

C. Minera Estrella de Oro (Arizona Star Res. Corp.) •	Aldebarán	65	Maricunga District (Copiapó)	GOLD: Res. 99 million t, 0.021 Au ounces/t (2.05 million Au t). Open pit & lixiv. Feasibility to be finished Nov 94.	n/a
	Eva	n/a		GOID: Exploration stage, probable 0.025 oz/Au/t	n/a
	Olimpo, Orus & Yeguas Heladas	0.8		GOLD: Option to purchase Anglo american properties. Compromise to invest US\$ 0.8 M in exploration up to 1996	n/a
Minera Santa Fe Pacific Chile	Cerro de Coya	2	200 km East Chañaral (III Region)	GOLD:Joint venture with CODELCO to explore deposit	n/a

FIRM	PROJECT	US\$ M	LOCATION	PROJECT DESCRIPTION	STAR- TING
Yolanda (British Co. Ltd./KAP Resources)	Yolanda	40	60 km NE Taltal	IODINE & NTTRATE: 1,000 t/y iodine, 300,000 t/y nitrate 357,000 t/y Potassium nitrate Financial stage	1993/4
Soquimich, Mo- limet & CORFO	Minsel	150	Atacama Salar	POTASIUM & LITHIUM: 300,000 t/y	1993/4
Teslin Químicas de Chile Inc.	Aguas Blancas	50	Antofagasta	IODINE & NITRATE:	1993
ENAP, SIGDO KOPERS & others	Amonium-Urea Plant	160	Cabo Negro (Magallanes)	UREA: New plant for 300,000 t/y	1992/4
SQM (Soquimich)	Nitrate explor. and new equipment	150	Iquique	IODINE & NITRATE: Explor. (Pampa Rencoré & Soronal). Equipment purchase plan; updating.	1993/8

• Canadian Company.

"Chilean Mining. Supply and Demand for Equipment and Services" will supply contacts, addreses, phones, faxes, etc. plus more detailed information on projects listed above. Study is available through International Trade Centres across Canada; or CHARLOTTE WARD in Ottawa, Ph. (613) 996 4199. 2.-

July, 1994

#### THE CHILEAN FORESTRY SECTOR

Chile has a surface area of 75.7 million hectares, which includes vast expanses of natural and cultivated forests. Approximately 16 million hectares are woodlands, of which 10% (1.6 million hectares) represents cultivated forests; the remaining 90% (14.4 million) are native forests which are mostly on private, federally protected land and therefore cannot be used commercially.

At the heart of Chile's forestry sector development are its forest plantations, privately owned operations that now supply close to 90% of the industry's raw materials. Through the successful development of its forest plantations, Chile has almost 1.3 million hectares of Radiata Pine and 170,000 hectares of Eucalyptus, as well as 100,000 hectares of other species (about 10% of the nation's total productive forests). Companies currently operating in the industry say that there is between one and five million more hectares for potential plantation use.

The forestry industry is one of the most active engines driving sustained economic growth in Chile. Total forestry exports totalled US\$1.3 billion in 1992 or 12.8% of total Chilean exports for that year According to Eladio Susaeta, President of the Wood Corporation, exports for the sector should reach a similar level for 1994.

Expectations among industry players are that the Chilean Forestry Sector will continue to achieve positive growth well into the next century - which necessarily implies that the market for industry related products and services will also increase. Radiata pine plantations are expanding at a rate of 70,000 hectares per year and their expected production will exceed the total forest volume felled each year. Chile's forestry exports are projected to reach \$2.7 billion a year within the next 20 years. Reaching such a level would require a steady growth above 4% annually, which seems attainable if compared with the 7% average growth which occurred over the past five years.

For a more comprehensive examination of the Chilean forestry sector refer to THE CHILEAN MARKET FOR CANADIAN GOODS AND SERVICES IN THE FORESTRY SECTOR (December, 1992).

(tel: toll free: 1-800-267-8376 or direct: (613) 944-4000; fax: 613-996-9709.

Key contacts in the industry are listed below.

#### A. INSTITUTIONAL

Giamberto Bisso, Generente General
 CORMA (La Corporación Chilena de la Madera)

**National Office** 

Agustinas 814, Of. 407

Clasificador 914

Santiago, Chile

Phones: (56-2) 633-5728 638-4194 638-1724 632-4767

Fax: (56-2) 639-7485

The Chilean Timber Association, CORMA, is a trade association made up of forestry industry professionals, businessmen and corporations. With over 300 members, CORMA represents 100% of paper, pulp, veneer and board businesses, 50% of sawmills, 60% of forest plantations, and 85% of forestry product exports.

2. José Antonio Prado, Director Nacional

**CONAF (Corporación Nacional Forestal)** 

Av. Bulnes 285, Of. 703

Santiago, Chile

Phones: (56-2) 696-6677 699-2833 698-1632

Fax: (56-2) 671-5881 671-2007

CONAF is a section of the Ministry of Agriculture in charge of Forestry. Its fundamental objective is to contribute to the preservation, growth, management and exploitation of the country's forest resources for the purpose of supporting the development of forestry along with the protection of the forest and its environment.

3. Tomás Balanguer, Director Ejecutivo

**INFOR** (Instituto Forestal)

Huérfanos 554

Casilla 3085

Phone: (56-2) 639-7911

Fax (56-2) 633-8286

INFOR is a state institution meant to have an active role in developing forestry activities in Chile, through its research programs in silviculture, forest management, forest economics, wood technology and also through technology transfer. One of its most important activities is the compilation and analysis of the data related to the forest activity in the country, including domestic and international markets, in order to provide useful information to foresters, companies and government.

#### B. FOREST LAND OWNERS

NOTE:

The following private companies own more than 90% of

the cultivated forest lands in Chile.

1. FORESTAL ARAUCO

Agustinas 1070, Piso 6

Casilla 880 Santiago, Chile

Phone: (56-2) 698-1961

Fax: (56-2) 698-5967

2. CAP S.A.

Huérfanos 669, Piso 8

Santiago, Chile

Phone: (56-2) 632-2322

Fax: (56-2) 633-7082

3. CMPC, Compañía Manufacturera de Papeles y Cartones

Agustinas 1342, Piso 3

Santiago, Chile Phone: (56-2) 698-1941

Fax: (56-2) 672-1115

4. COPIHUE

Av. 11 de Septiembre 2155, Piso 14 C

Providencia, Santiago

Chile

Phone: (56-2) 231-1831

Fax: (56-2) 231-1903

5. FORESTAL BIO BIO

Paivaví 3280

Casilla 151 C Concepción, Chile

Phone: (56-41) 233-857

Fax: (56-41) 229-595

6. TASMAN FORESTAL S.A.

Ahumada 179, Piso 7

Casilla 1511

Santiago, Chile

Phone: (56-2) 699-0088

Fax: (56-2) 698-1275

7. SHELL CHILE S.A.C.

El Bosque 90

Las Condes, Santiago

Chile

Phone: (56-2) 233-7085

Fax: (56-2) 231-9847

#### THE CHILEAN TELECOMMUNICATIONS SECTOR

Chile's robust economy and far-flung resource extraction industries are fuelling a major expansion of the telecom infrastructure. Canadian telecom firms have many opportunities with corporate telecom users (datacom, voice systems, dedicated lines, etc) as well as with telecom operators (digitalization, cellular, fibre optics, rural telecom, etc).

ENTEL (formely 24%-owned by TELEFONICA DE ESPAÑA which recently sold their shares to the Chemical Bank), until recently enjoyed a monopoly of the long-distance market. ENTEL is now engaged in a 2-year US\$60 million expansion program.

- Installation of a \$45 million national fibre-optic network;
- Connection of Chile's fibre optics and traditional trunk lines to international networks (UNISUR, AMERICAS, COLUMBUS).
- Consolidation of its satellite transmission facilities.
- Expansion of rural microwave transmission facilities.
- ENTEL's 1993 profits were approx. US\$92 million.

CTC is Chile's dominant supplier of local telephony (48% owned by TELEFONICA DE ESPAÑA) and accounts for over 80% of all investment in the telecom sector. CTC too has an aggressive expansion plan aimed at increasing the ratio of telephones to Chileans. Currently, only 6.5 telephone lines exist for every 100 Chileans. CTC plans to have that ratio raised to 10 per 100 or 1.8 million lines in operation. CTC's 1993-96 investment program is valued at US\$2.1 billion.

- In 1993, CTC installed 608,000 lines and completed the total digitalization of its network.
- CTC will invest another US\$400 million in 1994 to bring ratio of Chileans to telephone-lines to 10 per 100.
- CTC will expand cellular phone systems from 40,000 to 65,000 (investment of US \$22 million in 14 NEC switching stations).
- CTC will install a "multi-carrier system" to allow callers to choose longdistance firms: ENTEL, Chilesat, VTR or CTC.
- In 1993, CTC earned profits amounting to US\$250 million on investments of US\$441 million.

Both CTC and ENTEL are facing increasing competition from a slew of small cellular and regional communications firms -- who are, for the most part, backed by foreign capital and funds. CIDCOM CELLULAR, for example, which is owned by PACIFIC BELL of the USA, recently purchased over \$12.5 million in Northern Telecom cellular switching equipment. Other smaller firms such as VTR TELECOMUNICACIONES, CHILESAT and TELEFONICA DEL SUR also continue to claim telecom market share from two majors and aim specifically

for more of the long-distance and international market. VTR plans to invest up to US\$20 million in its plans to provide competitive service to ENTEL's international calling systems. TELEFONICA DEL SUR is also investing \$12 million in a rural telephone system For the 11th Region. CHILESAT has secured agreement from CTC to handle up to 50% of overseas calls and plans to integrate more satellite capacity into its already active corporate data services (CHILESAT is a subsidiary of the large TELEX CHILE group which provides a wide range of business services such as telex, fax and land-line rentals). CHILESAT will be spending over US \$40 million over next three years to upgrade its international and national long-distance capacity.

The Chilean Ministry of Communications has also recently introduced a new telecom law, which will complete the removal of telecom monopolies by opening up all aspects of the industry to all players. The key element of this law is the institution of a "multicarrier system" which was effective the end of August and will allow users to select the operator of their choice for long-distance services. All operators, including CTC through its affiliate CTC MUNDO, are now free to compete for this market segment. The new law also considers expanding the subsidy given to rural telecom and mandating that operators of the lucrative urban and long distance markets also invest in the marginal rural and remote systems.

Finally, due to an April 1992 ruling by the Chilean Monopolies Commission, TELEFONICA DE ESPAGNE (TDE) had until October 1994 to divest itself of ownership of its CTC or ENTEL shares. There were five international telecom operators positioning themselves to obtain the controlling position currently held by TDE in ENTEL. TDE decided to sell its 24% participation in ENTEL to The Chemical Bank.

Chilean demand for data and text transmission, electronic and voice-based is also a function of robust economic growth. With centralization of decision-making in Santiago, and far-flung operations, data transmission is a growing necessity. Banks with widespread offices are in particular need of data-transmission facilities, and several have already developed their own networks (based on public and private telecom facilities). There is strong domestic competition for data services, CTC, CHILEPAC, TELEX-CHILE, ENTEL DATA and VTR all offer data transmission services within Chile. SATEL (an affiliate of ENTEL) and CHILESAT (TELEX-CHILE) also provide dedicated satellite-based data transmission services to corporate clients.

Plant specific telecom needs are also growing. In terms of sheer size, the second largest telecom operator in Chile is CODELCO, the state-owned copper mining company. CODELCO; other mining firms (which include all the major Canadian mining companies -- which are all active in Chile); pulp & paper operations; government departments; fishing companies and even hotel/tourism complexes are all proving to be important clients to Canadian niche and corporate telecom equipment and services suppliers.

#### **TELECOM OPERATORS**

Isaud Flores
Vice Presidente de la Red
Compañía de Teléfonos de Chile (CTC)
Agustinas 640, Piso 25
Casilla 16-D
Santiago de Chile (tel: 562-632-3474, fax: 562-632-3700)

Carlos Haramoto, Gerente de Planificacion y Desarrollo CTC
Agustinas 640, Piso 25
Casilla 16-D
Santiago de Chile (tel: 562-632-3474, fax: 562-632-3700)

Jorge Fritis Castro, Jefe Planificacion ENTEL Santa Lucia 360, Piso 8 Santiago de Chile (tel: 562-384-203, fax: 562-690-2893)

Ivan Van de Wyngard, Gerente General Empresa Nacional de Telecomunicaciones (ENTEL) Santa Lucia 360, Piso 8 Santiago de Chile (tel: 562-384-203, fax: 562-690-2893)

Mauricio Huidobro, Gerente General VTR Telecomunicaciones Bandera 168 Santiago de Chile (tel: 562-714-024, fax: 562-698-4127)

Alejandro Ulloa, Director de Operaciones CHILESAT Morandé 147 Santiago de Chile (tel: 562-696-8807, fax; 562-698-7462)

**TELECOM: CELLULAR OPERATORS** 

Gerente Ingeniero y Operaciones, Jorge Merino CIDCOM CELULAR fax: 562-231-0915

Gerente Ingeniero, Carlos Canete VTR TELECOMUNICACIONES fax: 562-698-4127

Gerente Técnico, Marío Raúl Domínguez ENTEL

fax: 562-699-3424

Presidente Ejecutivo, Geraldo Marti CTC CELULAR

fax: 562-380-044

#### THE CHILEAN ENVIRONMENTAL SECTOR

The Canadian Embassy in Chile commissioned a study on the environment in 1991. The study Environmental Issues in Chile, conducted by Dr. Ramiro Trucco, provides an overview of the legal and institutional aspects of Chile's environmental policies, and reviews issues concerning the mining, forestry, agriculture, urban, and marine sectors. The study concluded that environmental awareness is increasing in all sectors of the Chilean economy, sustainable development is the base concept around which all environmental proposals are being discussed, and the public perceives environmental deterioration as threatening to health and environmental related problems.

Dr. Trucco is currently updating this study to reflect recent environmental legislative changes in Chile. The update will be available in November 1994.

The new environmental framework law - "Basic Law on the Environment" - was passed in March 1994 and regulations and standards are currently being drafted. The Frei government has declared the environment a priority. Significant IFI funding in excess of \$100 million, along with more stringent regulations and discussions concerning NAFTA accession, are opening up a strong market for Canadian technology. The Chilean government has committed some \$300 million for waste water treatment.

Under the new law, the National Commission on the Environment (CONAMA) has been mandated to specify the new environmental codes in Chile. These codes will provide the basis for the specifications used by Canadian vendors of environmental equipment. Dr. Trucco is currently employed by CONAMA, under CIDA INC sponsorship, to assist with the development of these new standards and regulations. CIDA INC is actively sponsoring joint ventures in this sector.

### **Business opportunities**

The areas of greatest potential for Canadian companies include: environmental assessments in the mining sector, wastewater treatments, marine rehabilitation, and forestry conservation.

Opportunities also exist for Canadian environmental products and consulting services especially in the fields of water purification, solid and toxic waste management, waste recycling equipment, pollution control instrumentation, environmental impact assessment, environmental monitoring equipment, emission control equipment, instrumentation, and environmental consulting services.

#### THE CHILEAN AGRICULTURAL SECTOR

#### 1. GENERAL

Agriculture is one of the most important sectors of the Chilean economy, second only to mining.

Chile is a large producer and exporter of fruits, vegetables and wines.

Fruits such as grapes, apples, pears and plums are being exported to Japan, E.E.C, USA and Canada in large quantities.

Chile exports Cdn \$ 120 million dollars /year to Canada, principally grapes and apples. This figure represents approximately 70% of the total Chilean exports to Canada.

Local wine production is also high. In the last five years this country has triplicated its exports mainly to North and South America and Japan.

Chile is exporting Cdn\$ 35 million dollars per year to Canada.

On the animal side, cattle, poultry and swine are the most predominant areas in the market.

#### 2. EXPORT OPPORTUNITIES FOR CANADIAN COMPANIES

#### A. <u>GRAINS</u>

Wheat represents a great market opportunity for Canadian producers. Chile is no longer self-sufficient on wheat, therefore has to import 1,700,000 tons every year. Canada is currently exporting 400,000 tons /year to Chile or Cdn \$ 48 million worth of *durum wheat* principally.

#### B. PULSES

Chile is presently importing lentils, peas, canary seed, beans and other pulses from North America and neighbouring countries such as Argentina and Brazil. This country needs to import almost a 20% of the total national consumption. This situation creates excellent market opportunities for Canadian producers.

#### C. ANIMAL GENETICS

Animal genetics represents a good chance for Canadian companies, principally in both cattle (beef and dairy) and swine sectors.

Chile needs to improve its cattle and swine breeds through importing semen and embryos. The country is currently importing genetics from Europe, USA and Canada.

The Canadian embassy has recently published a study on the Chilean agricultural sector. This study is available from International Trade Centres across Canada.

#### THE CHILEAN POWER AND ENERGY SECTORS

For the period 1990/1993, the global demand for energy increased by 15 % (7% per capita). The electricity sub sector increased 31 %; the oil subsector increased 10%; and the coal subsector decreased 25%.

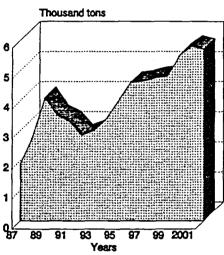
Coal subsector: production in the country is low and decreasing. Canada is one of Chile's main suppliers of Bituminous Coal (Can \$ 12.2 million in 1993). Projections of consumption are indicating constant increases as thermal power plants in the north of the country are increasing their production and as new projects are being decided for construction. The principal reason for this is that mining operations are demanding more energy. Mining projects to be constructed in the next five years are valued at more than US\$ 5 billion.

Gas subsector: The energy demand in Chile is growing at an annual rate of 6% +. In order to sustain economic growth, Chile will have to find ways to increase it's energy production. One option is to bring in a new source of energy: natural gas. Natural gas is no doubt of great interest to the Chilean Government as it would help greatly in lowering particle and emission contamination, a major problem in the Metropolitan region.

Two private sector projects are being studied at this time. One project is being conducted by a consortium called Gas de Chile which is formed by Chilectra, Enap, Tenneco and British Gas. They proposes to construct a pipeline from Neuquén to Concepción and then up to Santiago and build 2 to 3 thermo-electric plants. The elevated cost of this option, USD 1.7 billion, requires an in depth study of it's financial viability as it is expected to generate a 6 to 7 year negative cash flow. The type of financing contemplated for this project will most likely be project financing. The other option is being presented by Gas Andes, a consortium formed by

### **COAL CONSUMPTION**

(Bituminous coal)



Source: Comisión Nacional de Energía

Chilgener, GASCO and NOVA Corp.. They are proposing an alternative routing (making use of NOVA's pipeline in Argentina) and the conversion of Chilgener's Renca power plant from coal to natural gas. The ultimate cost for phase I of this project is US\$ 600 million which would be financed through capital investment. Gas Andes' project would bring gas directly to Santiago from Mendoza, Argentina.

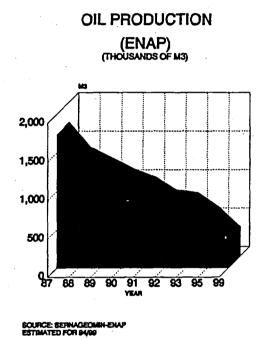
An additional gas pipeline project is under study whereby Bolivian natural gas would be transported to Chile's I<sup>st</sup> and II<sup>nd</sup> Regions where the majority of the country's copper mines are located. The initial investment would be in the order of US\$ 500 million for a 1,130 kms pipeline of which, 470 kms would be in the Chilean territory.

Given the above, we believe Chile offers many business opportunities for the Canadian energy sector companies. These are: construction and engineering of

pipelines and thermo-electric plants as well as conversion of the local industries from traditional fuels (oil, coal or wood) to natural gas fired plants. The introduction of cogeneration technology should also be of interest.

Oil subsector: Most of the energy consumed in Chile is supplied by oil and its by-products (51%). Local production of crude oil satisfies less than 15% of the domestic demand and it is expected that national reserves will be depleted by year 2000. The recently inaugurated oil pipeline (Argentina to Chile) will provide 35% to 40% of the demand while the balance is imported from West African countries and Venezuela. It is expected that by next year, ENAP's crude production abroad, through its subsidiary SIPETROL in association with foreign and local companies, will surpass local production. SIPETROL's investments are mainly in Ecuador, Colombia, Venezuela and Argentina. The most important project is in Argentina where they plan to operate five platforms of which three will be inaugurated this year. Two more platforms will be built next year.

Electrical subsector: Figures for 1993 were not as good as the ones for 1992, because firms had lower profits. Net profit value for this sector is US\$ 611 million a decrease of 16%. Operational results decreased in 67%. In 1994, it is expected more competition in generation transmission will bring changes and the Congress approval of a reform in the electricity regulatory aims at establishing a set of more transparent rules. In 1993, investment was US\$ 1,150 million for the electric subsector. Another US\$ 1,365 million is considered for projects under development, to be decided during Projections for the sector are 5-6%/year growth and 4.5% increase in consumption (industrial consumption to 4%). For the medium term period, new construction of major mining megaprojects will stimulate an increase in the demand for energy in the northern part of the country (thermal power plants). An investment of US\$ 400/year average is needed to cope with the increase of the electric energy demand.



Modifications to the electricity law and natural gas regulatory bases are expected to be approved during the current year.

During 1991, the Embassy commissioned a Power & Energy study that provides information on projects, names of companies and contacts; these are distributed through International Trade Centres, across Canada.

#### THE CHILEAN SERVICES SECTOR

As Chile is becoming increasingly industrialized, the importance of services as a contributor to the country's GDP is expanding. In 1992 alone, services accounted for 62% of GDP. Services in Chile include a wide range of sectors of which, transportation, communications, commerce and construction have been the leading ones in terms of growth during the period 1988-1992. Ongoing deregulation and privatization characterize the Chilean Government's modernization policy and have greatly contributed to the sustained growth registered in sectors such as banking, insurance, telecommunications, energy and transportation.

Because the services sector includes such a wide range of activities, this overview will focus on those areas that have not been covered in previous Embassy studies. More specifically, the following service sectors will be profiled: banking, private pension funds, life insurance, health services, and consulting and engineering services as they apply to infrastructural development.

#### **BANKING**

Banking activities are controlled and supervised by the Superintendency of Banks, an autonomous agency linked to the Government through the Ministry of Finance.

As a result of the 1982 banking crisis when the Central Bank was forced to bail out all national banks (except for one) through subordinated debt, in 1986, the Government implemented a new banking regulation which generated a more stable but also more restrictive environment.

Chile's banking system is made up of 36 commercial banks of which 22 are predominantly foreign owned. Two Canadian banks are represented in Chile - the Bank of Nova Scotia owns 30% of Banco Sudamericano while La Banque Nationale du Canada holds a 10% participation in Banco Osorno.

The Association of Banks and Financial Institutions has been pushing for the authorization of a less restrictive banking law. A proposed Bill of Law was sent to Congress recommending to expand activities of the banking system, including: leasing, factoring, securitization, issuing and operating credit cards, transporting securities, and providing financial consulting services among other business activities. There is very little local expertise in these new activities. Possible changes in the regulatory banking framework could open interesting opportunities for the supply of services in these fields.

#### PENSION FUNDS

In 1981 a private pension plan system based on individual capitalization was created. AFPs (Administradoras de Fondos de Pensión) are private corporations whose sole and exclusive purpose is that of managing a pension fund and the granting of the benefits and social security assistance stipulated in the law. Members can switch from one

AFP to another if they wish to do so since the profitability margin varies monthly from one AFP to another. In 12 years, the system has managed to incorporate over 5 million people in the Chilean labour force.

The institutions which regulate the AFPs are the Superintendency of AFPs and Superintendency of Securities and Insurance. Even though the regulatory framework is very restrictive regarding the diversification of their portfolio, AFP's are still the largest institutional investor in the country. Their assets amount to more than US\$15.94 billion (approx 36% of GDP). Given the limits imposed by law they tend to limit the spectrum of sectors in which they buy financial instruments. The majority of their funds are invested in the energy and telecommunication sectors, and to a lesser extent, heavy industry, mining, and agroindustry.

There is a proposed Bill of Law which is recommending: an increase in the type of financial instruments in which AFPs can invest; a modification in the limits of investment to enable a greater diversification; and an improvement in capital market regulations, especially those pertaining to conflict of interest guidelines. Also, the proposed modifications include a broader spectrum of activities performed by the AFPs, such as consulting services abroad and private safe customer service of securities.

#### **INSURANCE**

Life insurance in Chile has experienced a significant expansion over the past few years as it closely related to the evolution of the social security system (private). Compared to other countries of Latin America, Chile has a relatively low premium/GDP ratio (3.3% in 1992). In 1992, 46 insurance and 2 reinsurance companies were operating in Chile, of which 27 were life insurance companies. The insurance sector has a wide participation of foreign investment which operate in conjunction with national investors.

The Superintendency of Securities and Insurance Companies is responsible for the supervision of the insurance business. The insurance companies are, after the pension funds, the second most important institutional investors in the country. By December 1993, they had invested US\$3.34 billion. The main volume of investment is allotted to fixed income instruments.

Given the Chilean Government's forecasts for continued economic growth in Chile through the 1990s, the insurance business, as well as other financial services, will undoubtedly realize an increase in operational revenues. Also, the proposed Bill of Law for insurance companies, if accepted, should allow this sector to expand its investments in a broader spectrum of financial instruments, should entail greater expediency for risk coverage, and should improve the operational processes in the intermediation and sale of insurance. Canadian expertise in this field could find interesting business opportunities with the expansion of insurance services in Chile.

#### **HEALTH SERVICES**

Since 1981, the Chilean health system has been comprised of two different entities, where private and state institutions co-exist, but service two different markets. Any person affiliated to any social security system automatically belongs to the State Health Regime (FONASA). Several years of neglect coupled with fiscal austerity have

left state run hospitals in very poor condition. Although the private health sector (ISAPRE) has reduced their administrative costs and lowered the prices for their plans, the private health scheme is available mainly to the richest third of the population, leaving an important segment of the community to the state administered FONASA scheme. Given that the per capita income is steadily rising (US\$3000 as of 1993), ISAPREs are looking at designing low priced schemes where medium to low income people could join.

Improvement of state health care services is a Government priority. In fact, over the period 1991 to 1993, public expenditures on health care have risen from 86,000 million Chilean pesos to over 180,000 million pesos (nominal), an increase of close to 110% (this compares to a 58% increase in total public expenditures for the same period). The World Bank and Inter-American Development Bank are looking at projects in this field. Given Canada's world class expertise in developing and providing health care services, there exists a real potential for Canadian companies to participate in these future developments.

#### **CONSULTING AND ENGINEERING SERVICES**

The gap between the dynamism of the national economy and the slow modernization of the physical infrastructure, particularly in the transportation sector, must be resolved in order to ensure sustained growth in Chile. The Chilean Government, in order to ensure an adequate development of infrastructure, established a system of public concessions in public works.

Among the various components that comprise Chile's infrastructure, Canadian companies can play a particularly active role in assisting the country develop its energy and transportation systems. Chile's increasing demand for energy has meant the need for additional thermoelectric and hydroelectric plants. Instead of relying on a depleting domestic base of oil and coal stock though (for its thermoelectric plants), Chile is looking to Argentina and Bolivia for the supply of natural gas. Questions such as, 'how to reconfigure the plants from hard combustibles, such as coal or wood, to soft combustibles, such as natural gas', or 'how to manage an efficient distribution system', must be, and can be answered with Canadian solutions. As well, Canadian expertise in the area of co-generation is something that could be exploited in Chile.

With respect to transportation, opportunities are unfolding in road construction and port operations. The privatization of railroad services, and the possible construction of a monorail in Santiago should also be of interest to the Canadian business community.

Water resource management is another topic that is becoming increasingly important in Chile, especially as the country continues to industrialize. Canadian companies can, and in fact are already starting to provide consulting services in this particular area.

President Frei's Government has repeatedly identified the improvement of Chile's standard of living as being part of its most pressing priorities. It is therefore anticipated that much will be accomplished in the next six years in the areas of health, education and infrastructure. Also, with the arrival of natural gas, the increase in energy demand and the depletion of national oil reserves, the energy sector should be one of great diversification and expansion in the coming years. These are the sectors where international financial institutions are focusing their projects, and subsequently the sectors where Canadian companies should direct their efforts.

## **TRADE FAIRS PROGRAM 1994-95-96**

For information, contact InfoCentre toll -free, between 9:00 a.m. and 5:00 p.m. (EST), at 1-800-267-8376 from outside Ottawa. (Ottawa callers dial 944-4000). Or for "faxback" information call 1-613-944-4500.

Date	City	Trade Show	Туре
1994			
Oct.28-Nov.6	Santiago	FISA	Consumer goods, industrial machinery
Nov.21-24	Osorno	SAGOFISUR	Livestock
Nov.30-Dec.7	Santiago	EXPOPESCA	Fishery equipment & services
1995			
May 2-3	Santiago	MINING SHOW/ SEMINAR	Mining equipment & services
Oct/Nov.	Santiago	FISA	Consumer goods, industrial machinery
November	Concepcion	EXPOCORMA	Forestry equipment and services
November	Osorno	SAGOFISUR	Livestock
1996			
March	Santiago	FIDAE	Aerospace, security equipment and services
May	Santiago	EXPOMIN	Mining equipment & services



DUE DATE							
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