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REPORT AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED LOAN
IN AN AMOUNT EQUIVALENT TO US\$140.0 MILLION
TO THE
REPUBLIC OF CHILE
FOR A
ROAD SECTOR PROJECT

May 23, 1985

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CURRENCY EQUIVALENTS

(Currency Unit: Chilean Peso (Ch\$))

<u>Currency Unit</u>	<u>Calendar 1984 Average</u>	<u>Dec. 31, 1984</u>	<u>April 30, 1985</u>
US\$1	Ch\$98.478	Ch\$128.5	Ch\$148.76
Ch\$1	US\$ 0.010	US\$ 0.008	US\$ 0.0067
Ch\$1,000	US\$10.127	US\$ 7.782	US\$ 6.722

FISCAL YEAR

January 1 to December 31

UNITS AND MEASURES

1 meter (m)	= 3.28 feet (ft)
1 kilometer (km)	= 0.62 mile (mi)
1 square kilometer (km ²)	= 0.386 square mile (sq mi)
1 metric ton (m ton)	= 1.1 US short ton (sh ton)

ABBREVIATIONS

CNP	Corporacion Nacional Portuaria (National Ports Corporation)
ECLA	United Nations Economic Commission for Latin America
EFF	Extended Fund Facility
EMPORCHI	Empresa Portuaria de Chile (Chilean State-Owned Ports Authority)
EMPREMAR	Empresa Maritima del Estado (Chilean State-Owned Shipping Company)
ENAP	Empresa Nacional de Petroleo (National Petroleum Company)
FFCCE	Ferrocarriles del Estado (State-Owned Railways)
IDB	Inter-American Development Bank
INACAP	Instituto Nacional de Capacitacion (National Training Institute)
ITAO	Instituto Tecnico de Adiestramiento de Operarios (Technical Institute for Training of Equipment Operators)
LANCHILE	Linea Aerea Nacional de Chile (State-owned airline)
MOP	Ministry of Public Works
MTT	Ministry of Transport and Telecommunications
ODEPLAN	Oficina Nacional de Planificacion (National Planning Office)
SONACOL	Sociedad Nacional de Oleoductos (National Pipeline Company)
VIALIDAD	The Roads Directorate of MOP

REPUBLIC OF CHILEROAD SECTOR PROJECTLOAN AND PROJECT SUMMARY

Borrower: The Republic of Chile

Amount: US\$140 million equivalent

Terms: Repayment in 15 years, including three years of grace, at the standard variable interest rate.

**Project
Executing
Agency:** Ministry of Public Works (Roads Directorate)

Description: The proposed project consists of the Government's 1986-1988 Road Investment and Maintenance Program. This program includes construction; reconstruction; upgrading; routine, periodic, and deferred maintenance; consulting and training services and procurement of road maintenance equipment.

**Project
Benefits:** Project benefits will accrue to the economy at large in the form of vehicle operating cost savings.

**Project
Risks:** There are no major risks affecting the proposed project. The Roads Directorate's performance under the previous two projects has been very good and the Government has already included the funds required for project implementation in its current three-year plan.

**Project Cost
and Financial
Plan:** The total cost of the Government's Road Investment and Maintenance Program for the 1986-1988 project period is estimated at about US\$656 million equivalent with a foreign exchange component of about US\$347 million equivalent. The proposed Bank loan represents 21 percent of the total program and 40 percent of the foreign exchange component. The balance of the financing required will be met from ongoing IDB loans, an ongoing Bank loan, suppliers' credits to be arranged in conjunction with this loan, and possible financing from commercial banks as part of the new money facility now being negotiated. The Government would finance the balance. Bank loan disbursements would be made for expenditures under the maintenance program, in order to ensure its timely execution.

**Ministry of Public Works Road Investment and
Maintenance Program (1986-88)**

(in millions of current US dollars)

<u>Components</u>	<u>Total Costs</u>	<u>1/ Local</u>	<u>Foreign Exchange</u>
Investment	253	114	139
Maintenance	312	152	160
Contingencies	<u>91</u>	<u>43</u>	<u>48</u>
<u>Total</u>	<u>656</u>	<u>309</u>	<u>347</u>

Financing Sources

Government/commercial banks ^{2/}	401	309	92
Suppliers' Credits	14	-	14
IDB	44	-	44
IBRD Loan (2297-CH)	57	-	57
Proposed Loan	<u>140</u>	<u>-</u>	<u>140</u>
<u>Total Financing</u>	<u>656</u>	<u>309</u>	<u>347</u>

Estimated

Disbursements:

(Bank FY in millions of US Dollars)

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Annual	28	38	46	28
Cumulative	28	66	112	140

Rate of Return: The economic rates of return in the investment program range from 15 percent to 38 percent and those of the maintenance program are 49 percent for paved roads and over 100 percent for gravel and earth roads.

Staff Appraisal

Report:

Report No. 5549-CH dated May 23, 1985

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- 1/ The project cost includes about 20 percent identifiable taxes and duties.
- 2/ Cofinancing is under consideration under the "B" Loan program.

REPORT AND RECOMMENDATION OF THE PRESIDENT OF THE IBRD
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN TO
THE REPUBLIC OF CHILE FOR
A ROAD SECTOR PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Chile for the equivalent of US\$140.0 million to help finance a Road Sector Project. The proposed loan would have a term of 15 years, including three years of grace, at the standard variable interest rate. The Ministry of Public Works, as Executing Agency, would utilize the loan proceeds to partially finance its 1986-1988 road investment and maintenance program.

PART I - THE ECONOMY

2. An economic memorandum on Chile (Report No. 5099-CH) was circulated to the Board on September 24, 1984. The following paragraphs are based on the conclusions contained in that memorandum and on information gathered by subsequent missions that visited Chile in November 1984 and January 1985. Country data sheets are attached as Annex I.

Evolution of the Economy to the end of 1983

3. In the four decades following the Great Depression, successive Governments sought to reduce Chile's vulnerability to world market fluctuations, accelerate economic development and achieve a more equitable distribution of income. With the aim of reducing the country's dependence on imports, these Governments intervened in the determination of prices, erected high protective barriers against foreign competition, offered special tax and other incentives to investment and entered directly into production and distribution activities while controlling the allocation of credit and foreign exchange. During 1971-73, the Government undertook a major agrarian reform, expropriated a large part of the private industrial and mining sectors, and followed highly expansionary fiscal, monetary, and wage policies. In 1973, the public sector deficit exceeded one-fifth of GDP and stagnation, rapid inflation and balance of payments problems became acute. Inflation exceeded 500 percent and net international reserves were negative by more than US\$300 million.

4. After 1973 the structure of the Chilean economy underwent pronounced change. The new Government, which came to power in late 1973, promoted private initiative and significantly reduced the role of the State in the economic sphere. The public sector deficit was eliminated. All prices, including interest rates, were progressively freed and most distortions to relative prices were removed. Foreign investment was encouraged and trade barriers were virtually eliminated. Major reforms were introduced in the tax structure, in the budgetary process and in banking legislation. Finally, most of the enterprises taken over by the previous Government were returned to the private sector. To reduce the hyperinflation and in response

to a major drop in copper prices, the Government initially undertook a severe austerity program; strong fiscal revenue and expenditure actions were implemented, the currency was massively devalued and, after 1975, a crawling peg regime was adopted which stimulated export-led growth. A depression, which developed in 1975, bottomed out during the first quarter of 1976 and, with its first current account surplus in twenty years, Chile was able to service its debt and increase substantially its net official reserves.

5. The economy responded well to the reforms. Between 1976-1980 real economic growth averaged 8.5 percent per year; by 1977, real GDP had returned to 1971-1972 levels; by 1980 annual inflation was reduced to 30 percent. The balance-of-payments position improved markedly; the value of agricultural and manufactured exports grew more than sevenfold between 1973 and 1978. Copper revenues — traditionally over 80 percent of export receipts — had been reduced to half of total export earnings. Net foreign reserves during the 1973-78 period averaged over US\$1.5 billion. By 1978, real wages and salaries had recovered to their 1970 levels and rose further as worker productivity increased. The efficiency of the State enterprises improved significantly, and the public sector had an overall surplus by the late 1970s. But since these positive developments were accompanied by more efficient labor use, the unemployment rate fell slowly despite a major emergency employment program.

6. While the Government was eager to reduce the economic role of the State, it was equally determined to improve the quality of, and access to, social services to the poor. Previous income distribution policies and programs — such as price controls, public housing, cheap credit, factor subsidies, tax exemptions and broadly-based social expenditure programs — not only had had perverse growth effects, but often had been of equal or, in some cases, greater benefit to the urban middle class than to the poor. From the mid-seventies on, although the Government spent less on the social sectors than predecessor governments (public social outlays only reached 1972 levels in real per capita terms in 1980), it carefully targeted its spending on the extreme poor through a series of reforms in health and education that lowered substantially Chile's rates of infant mortality and child malnutrition.

7. After 1980, economic conditions changed with a major shift in macroeconomic policy and the later world recession. On July 1, 1979 the Government ended its pre-announced crawling peg policy and fixed the Chilean peso at Ch\$39:US\$1. This, combined with greatly lessened restrictions on external capital flows and public sector surpluses, was expected to adjust domestic inflation quickly to international levels. Unfortunately, the time lag in the adjustment of inflation, combined with the subsequent appreciation of the U.S. dollar and 1981-83 world recession, produced an unsustainable boom, financed by massive inflows of foreign borrowings. Between end-1979 and end-1981, Chile's private external debt tripled.

8. The appreciation of the peso — combined with the growing world recession — finally had an overwhelming effect, as Chile's export earnings and inflows of foreign savings both dropped. By the end of 1981, the economy entered a recession. The lag in foreign exchange policy response led the economy from recession into depression. In 1982 GDP fell 14 percent. Real value-added dropped in construction, which had boomed in 1980/81, by almost 22 percent; in commerce by 15 percent; in transport by 10 percent; and in manufacturing by 22 percent. Real fixed investment fell almost 37 percent, a drop which was all the more discouraging because the country had only begun to improve its infrastructure, which had deteriorated greatly during the 1970s.

9. Unemployment soared to 19 percent by 1982 as the economy entered the depression. The financial situation of many firms and banks deteriorated. As early as November 1981, the Government assumed responsibility for day-to-day management of a few insolvent banks, but the situation worsened considerably in 1982, with a series of bankruptcies. The crisis finally forced the Government to devalue in June 1982, and subsequently follow a crawling peg exchange rate policy. In January 1983, after the IMF agreed to a SDR 795 million Stand-by, a financial crisis was triggered by massive banking insolvencies and a huge capital outflow. The Government liquidated some banks and intervened in others, providing immediate liquidity to avoid collapse of the financial system. A "shadow program" — by which the original targets could be met by September — was then drawn up. By end-July, agreement was reached with foreign banks, providing Chile with much-needed financial support.

10. By following severe deflationary policies, Chile complied with its original September 1983 IMF targets; a feat that reflects favorably on the country's determination to meet its external obligations. A reduction in the rate of inflation to 23 percent and a current account deficit of only US\$1.5 billion were achieved. External balance, however, was achieved at the cost of a one percent drop in real GDP. Private consumption fell seven percent. The unemployment rate dropped to 16 percent, but only because the emergency employment programs were employing ten percent of the work force.

Recent Economic Developments

11. The depression bottomed out in late 1983. A growing public investment program and Central Bank financing of domestic debt reschedulings supported strong increases in demand and production in the first semester of 1984. Furthermore, a March agreement with its international creditors provided Chile with \$780 million in fresh medium-term capital and a major increase in short-term debt followed. As a result, GDP grew 6.3 percent. Industrial, agricultural and fishing output all grew faster than GDP. Employment increased sharply; 250,000 more productive jobs were created — a 9.2 percent increase — allowing the Government to reduce its emergency-work programs by 137,000 jobs, while unemployment dropped to a 13.3 percent rate — its lowest since 1981.

12. Despite an almost ten percent volume increase in noncopper exports, Chile's export earnings — denominated in US dollars — dropped five percent. Copper prices dropped 12 percent to the lowest real level since the 1930s, so that Chile's record volume of copper exports did not lead to increased copper receipts. Noncopper exports also suffered price drops — 4.5 percent — reducing the earnings from the volume expansion of agricultural and industrial export products which increased by 31 and 7.7 percent, respectively. After two years of heavy import compression, the 1984 recovery led to imports of \$3.3 billion, an 18 percent increase over 1983. Capital imports grew fastest — 44 percent. To cope with the growing foreign trade imbalance and to ameliorate the reduction in copper tax revenues, the Government increased import tariffs to a 35 percent uniform rate, while devaluing by 23 percent in September 1984.

13. A new three-year Extended Fund Facility (EFF) program has been agreed with the IMF. To sustain the recovery, a three-year public investment program places emphasis on export promotion and job generation. The

conclusions of a Bank public investment review mission, which visited the country in November/December of 1984, are that the program's goals are effectively supported by the projects included in the program. Corporate and individual taxes are now being reformed to stimulate investment and savings and a general financial program was defined by the Superintendency of Banks and the Central Bank to capitalize intervened banks. Major reforms in the structure of large business groups continue, and ownership conflicts — which have caused investment delays — are being resolved, so that currently-restricted export-oriented firms may soon increase production.

Prospects

14. In spite of these actions, the Chilean recovery remains precarious. A severe earthquake, which struck the country on March 3, 1985, causing in excess of US\$500 million in damage, has made economic recovery even more arduous. Growth is severely constrained by foreign exchange limitations. The external debt — including short-term debt — nearly equalled 1984 GDP; interest payments on it were over 45 percent of the country's exports. Increased export earnings depend, in part, on a rapid expansion of noncopper exports. The Government, recognizing this, has taken action and has established an attractive exchange rate policy. It is also taking other actions to stimulate exports, including import tariff reductions. Even with strong gains in export volumes, Chile's prospects are linked to its terms of trade and — given its high debt burden — world interest rates. Chile's terms of trade are expected to improve by about five percent in 1985, based on current Bank commodity price projections. Near-term interest payments are currently being decided during ongoing meetings with international creditor banks.

15. For moderate GDP growth of about 2.5 to 3 percent to continue over the medium term, Chile would not only need to increase domestic savings and accelerate exports, it would also need further substantial net inflows of capital. So far, the country has made determined efforts to comply with its foreign obligations. A realistic exchange rate policy should stimulate a strong volume expansion of noncopper exports, and most of these exports have better market prospects than copper. The public investment program is now oriented to support more strongly a productive recovery. Private incentives are also being oriented to export expansion or efficient import-substitution as well as to employment and savings generation. Despite these efforts, Chile's continuing recovery and creditworthiness will depend on how much support can be obtained from creditors for its three-year program. Thus far, the country has addressed its medium-term constraints with sound policies, which strengthen prospects for obtaining the necessary external financing. Even so, to improve its creditworthiness, Chile will not only need to comply with its EFF and reach agreement with its commercial creditors, but it will also need to define and implement a recovery program which the Bank can support with a Structural Adjustment Loan. The proposed project would be part of such a program; it would make a major contribution to stimulating both external trade and inter-urban commerce through improved transport efficiency. Hence, it would comprise an important element in the country's economic and financial recovery. Therefore, because the country has so far complied with its external obligations, and provided it continues to make satisfactory progress in its negotiations with its external creditors, it is considered creditworthy for this loan.

PART II - BANK GROUP OPERATIONS

16. By March 31, 1985 the Bank had made 32 loans to Chile, amounting to US\$711.6 million (net of cancellations) of which six were not yet fully disbursed. IDA had also extended a US\$22.9 million credit to the country for a road project in FY61. IFC gross commitments in Chile as of the same date stood at US\$56.4 million. Annex II has further details on IBRD and IFC operations as at March 31, 1985.

17. Of total Bank and IDA lending to Chile, 27 percent has been for roads, 23 percent for power, 22 percent for agriculture (including irrigation), 11 percent for housing, seven percent for mining, five percent for water supply, and the balance (five percent) for industry, education and technical assistance.

18. Historically, the volume of Bank lending to Chile has fluctuated substantially in accordance, inter alia, with the country's economic performance and the availability of suitable projects. In the FY75-77 period, the Bank made four loans totalling US\$107.8 million to help finance projects in the agriculture, copper mining and power sectors. The Bank did not lend to Chile in FY78-79, but in FY80 it approved a US\$38 million loan for a water supply project and, in FY81, two loans in the amounts of US\$36 million and US\$42 million for a Second Agricultural Credit Project and a Highway Reconstruction Project, respectively. During FY82-84, only one Bank loan, a US\$128 million Second Highway Reconstruction Loan, was made to the country. In FY85, three loans have thus far been approved -- a US\$56 million loan for Agricultural Services and Credit, a US\$80 million loan for Public Sector Housing, and a US\$11 million loan for a Public Sector Management Technical Assistance Project. The Bank has also modified existing operations to permit almost US\$25 million in proceeds to be used for earthquake-related emergency repairs and reconstruction, principally in the transport sector, but also in housing.

19. Execution of Bank-financed projects has been satisfactory. Disbursement of Bank loans reached US\$32.6 million in FY82. Then in FY83, with the current depression at its nadir, disbursements declined to US\$22.3 million. This was in large measure because of the two-year lending hiatus as well as the fact that the farmers' debt burden, and investment uncertainty in the agricultural sector, created disbursement problems for the FY81 agricultural credit project; however, modifications to this project have helped expedite disbursements, and it is now expected that this loan will be fully disbursed by the closing date. Disbursements on Bank loans in FY84 reached their highest historical level of US\$34.5 million.

20. The Bank's present lending strategy is to support the Government's medium-term economic adjustment program by focussing on improvements in: (i) external trade policies that would ensure an acceleration of export growth and efficient import-substitution and further diversify production and exports; (ii) public sector management and fiscal policies to reactivate the economy and strengthen public savings in a timely way with emphasis on making better use of existing infrastructure and productive capacity; (iii) financial policies to stimulate domestic savings and to allocate credit more efficiently; and (iv) policy incentives to expand productive employment. In

addition to the proposed road sector project, we are preparing an Industrial Finance Restructuring Project and a Structural Adjustment Loan to support the Government's medium-term economic adjustment program. These operations would contribute to improved efficiency and enhanced savings, as well as stimulate much needed employment and output in the private producing sectors.

21. Over the next few years, it is expected that the Bank will continue supporting the Government's medium-term economic adjustment program. Sectoral operations will be prepared in small enterprise industrial credit, water and sewerage and in productive sectors such as agriculture and forestry. As part of the Bank's program of emergency assistance, following the recent earthquake, a Port Reconstruction Project might also be prepared during 1985 and 1986. A proposed multimodal transport operation would emphasize transport facilitation and prepare the country better for the container age. The operation for small industry credit would help strengthen and diversify the structure of production among smaller producers which can be expected to increase efficient import-substitution. Lending for water and sewerage facilities would meet important residential health needs and would also improve the export marketability of fresh agricultural produce. Lending for energy, agriculture and forestry would not only contribute to expanding output and employment, but would also increase net foreign exchange earnings and savings.

22. Although Chile's debt situation is currently limiting cofinancing opportunities, the responsible way in which the Authorities are handling the country's external obligations augurs well for future operations in which the Bank could co-lend with commercial banks. International commercial banks are considering providing Chile with new funds to tide the country through the next year but have yet to resume lending on a voluntary basis. Opportunities for cofinancing with the Inter-American Development Bank (IDB) are also being explored. IDB has a sizeable program in Chile; it is focusing primarily on agriculture, industry, power, and transportation -- sectors in which the Bank is also preparing operations. IBRD exposure in Chile currently stands at 1.6 percent of public debt and about 1.4 percent of total debt.

PART III - THE TRANSPORT SECTOR

A. The Transport System and the Subsectors

23. The backbone of the Chilean transport system is Route Five, a section of the Longitudinal Road which runs from the Peruvian border in the North to Quellon on the island of Chiloé in the South. Over large sections of its alignment, Route Five is paralleled by a railway. The system consists further of a rather dense string of ports that can be used for national and international shipping and a series of airports for local and international air transport. Road transport carries about 66 percent of domestic freight, the railways carry about 22 percent, coastal shipping about 7 percent, and oil pipelines about 4 percent. Air transport handles less than one percent. International goods traffic is more than 90 percent by ship (exports about 98 percent). Passenger traffic is mainly by bus, although 1.7 million railway tickets were sold in 1983 for an average trip of 170 km (up from 102 km in 1975).

(i) Railways

24. Chile has about 9,600 km of railways, of which about 6,000 km (mainly the Southern Railway, the Santiago-Valparaiso and Calera-Los Andes links of the Northern Railway, and the private Antofagasta-to-Bolivia Railway) are 1.676 meter gauge. The rest (most of the Northern Railway) is mainly 1 meter gauge. About 1,600 km are electrified, mainly in the South and Santiago-Valparaiso/San Antonio, and about 700 km are continuous-welded. Commercial goods traffic by rail amounted to about 4.4 million tons in 1983, over an average distance of about 281 km, compared with 3.9 million tons and 266 km in 1981.

25. In the early 1970s, the Chilean railways -- overdesigned, over-staffed and unable to eliminate uneconomic lines or to set adequate rates -- were covering, in some years, less than half of their total expenditures, and Government contributions were well over US\$100 million per year. Since 1973, the railways have taken a set of measures to improve their efficiency and to eliminate deficits. These successfully implemented measures include: phasing out of uneconomic and non-productive services; reduction of the labor force and rationalization of its use (more than 27,000 people in 1973 and less than 8,000 in 1985); partial maintenance of the network and some equipment by private contractors, resulting in reduced maintenance costs; technological improvements, mainly elimination of steam locomotion; and tariff increases more than doubling rates, in real terms, between 1971 and 1980.

26. As a result, Government financial assistance decreased steadily after 1976 and has been almost unnecessary since 1980. However, the long-term role of the railways has not yet been clearly defined, and the process of trimming out non-productive lines does not appear to be complete, particularly in the North.

(ii) Seaports and Airports

27. Chile has a coastline of more than 5,000 km, with more than 70 cargo port installations. The ten major Chilean seaports are state-owned and are run by Empresa Portuaria de Chile (EMPORCHI); the remainder are private, specialized (minerals and petroleum) and general cargo ports. Port policy aims at encouraging port efficiency through competition among public and private ports and, within ports, among terminal operators. Port policy was defined in the 1980s by three major new laws (Laws 18036, 18040 and 18042) dealing with working conditions, customs procedures and port organization respectively. As a result of the first two laws, productivity increased, costs declined and congestion was eliminated; the third law was not fully implemented and needs reformulation.

28. Apart from earthquake damage reconstruction needs in San Antonio and Valparaiso, future investments in Chilean ports will mainly be for changeover to new methods of goods handling, such as containerization, which is proceeding at a rapid rate; and for efficiency improvements, such as better access to the ports and to the final destination of the imported goods. Only the rapidly growing wood products trade may require new capacity investments in the Concepcion area, from which most wood is exported via the port of San Vicente and Talcahuano.

29. Chile has an adequate network of airports; three are used for international flights. The Santiago International Airport has been improved recently, but major expansion plans have been postponed as there appears to be little urgent need for further expansion.

(iii) State-Owned Maritime, Air Transport and Pipeline Companies

30. EMPREMAR, the State shipping company, and LANCHILE, the state-owned airline, are not scheduled for privatization (for strategic reasons), but no longer receive Government subsidies, except for specifically identified routes. They have been exposed completely to local competition in national transport and to foreign competition in international transport, since the Chilean Government gives all foreign and local companies access to Chilean international ports and airports. EMPREMAR is operating satisfactorily, but LANCHILE is in severe financial difficulties.

31. Chile's 622-km network of pipelines, which extends from Concon in the center (Fifth Region) to Concepcion in the south (Eighth Region), belongs to the Sociedad Nacional de Oleoductos (SONACOL), a company owned partly by private interests and partly by the State-owned Empresa Nacional de Petroleo (ENAP). The pipelines transport mainly gasoline, diesel and liquified petroleum gas (LPG), but also many other petroleum products in lesser quantities (some 300,000 cubic meters per month in total).

(iv) The Road Subsector

32. The road network totals about 79,000 km, of which some 12.5 percent (9,824 km) are paved, either with cement concrete (3,538 km) or with asphalt. Because of the country's long and narrow shape, the network is dominated by three major stretches of North-South roads (4,459 km in total), commonly referred to as the Longitudinal Road or Route Five (from the First to the Tenth Region); the Austral Road between Puerto Varas (North of Puerto Montt in the Tenth Region) and Villa O'Higgins (at the foot of the impenetrable permafrost area in the Eleventh Region); and, finally, Route Nine in the Twelfth Region between Paso Baguales on the Argentine border north of Torres del Paine, and Fuerte Bulnes, south of Punta Arenas.

33. The longitudinal and the major transversal roads make up Chile's National Roads or "A" roads (5,760 km) which, together with the so-called Regional Roads or "B" and "C" roads, constitute the Basic Network of 22,831 km. The country also has some 56,165 km of local roads or "D" and "E" roads (Principal and Secondary Local Roads).

34. Annual average daily traffic levels on the main National Roads, as measured at toll stations, are between 2,000 and 8,500 vehicles. They grew between 0.2 and 18.3 percent in the 1976-1981 period, but declined by 3.4 and 11 percent in 1982 and 1983, respectively, to grow by 2.4 percent in 1984. The declines are the combined effect of decreased production and reduced use of passenger cars as a result of worsened economic conditions.

35. Another interesting feature of Chilean road traffic is the changing composition of vehicles in the makeup of traffic and the vehicle fleet. The share of passenger cars in traffic increased from 60 percent in 1976 to 68 percent in 1982/83, whereas the share of two-axle trucks diminished from 22 percent in 1972/73 to only nine percent in 1983. The share of trucks with three or more axles increased from five percent to 13 percent in the same period.

36. The registered motorized road vehicle fleet appears to have increased very rapidly since 1976 and reached about 891,000 vehicles in 1983, or about 76 vehicles per 1,000 inhabitants, versus less than half that many

in 1975. The registered truck fleet, which increased at a similar rate as the whole fleet in 1976-1978, has since declined every year, indicating both the degree of oversupply and the lack of demand for truck services, in spite of depressed trucking rates.

37. Data on the vehicle fleet, however, continue to lack sufficient detail, and it is hoped that they will be improved under the ongoing study of the Institutional and Economic Efficiency of the Chilean Transport System, given their importance in understanding the current market disequilibrium in trucking (para. 40).

B. Institutional Framework

38. Transport-policy-making in Chile is officially the task of the Ministry of Transport and Telecommunications (MTT), which is in charge of all modes, but the Ministry of Public Works (MOP) is in charge of all transport infrastructure works and does road planning. It is also responsible for the collection of tolls and the implementation of the vehicle weighing program, but, for the latter two activities, it works in close collaboration with the Police Force or "Carabineros." The Planning Office (ODEPLAN) published a broad, non-quantitative Socio-Economic Program for 1981-1989 and updates a rolling three-year plan every year. It also checks whether proposed transport investments are justified economically according to its guidelines for analysis and whether they fit into the broad program. The weakest link in this chain is MTT, which is severely understaffed, both quantitatively and qualitatively, particularly in its Transport Planning Unit. Even in a strictly market-oriented economy, the major function of data processing, to facilitate knowledgeable operation of the market, should be performed satisfactorily by this Ministry. A recently-approved Public Sector Management Technical Assistance Loan will address inter alia the linkages between sector policy formulation and management of the public enterprises in the transport sector.

C. Main Sectoral Issues

39. Since taking power in 1973, the Government has actively introduced measures to implement a market-oriented transport strategy. These measures include: eliminating restrictions to entry in the road transport industry; attempting to eliminate all transport sector subsidies; charging air, land and maritime transport for the use of public infrastructure; decentralizing decision making in each transport mode regarding tariffs, design of services, and personnel policies; and, treating all modes equally in terms of taxes, social services, etc.

40. The Government had a certain amount of success with the implementation of its strategy, but was not fully satisfied with the workings of the competitive system. It therefore asked the Bank for assistance in determining the major obstacles in the way of a better functioning transport market in Chile. This request led to the formulation of a study of the Institutional and Economic Efficiency of the Chilean Transport System, which is presently under way with the United Nations Economic Commission for Latin America (ECLA) as executing agency, as well as an Intermodal Transport Study of the Corridor Santiago-Ports of the Fifth Region. These studies are being financed under Loan 2297-CH and are expected to be completed in early 1986.

41. The major sectoral issues being addressed by these studies are the modal split in land transport and road user charges; the effects of complete deregulation of the trucking industry; policy developments in the ports subsector; the impact of subsidy reduction to LANCHILE; and, the physical, institutional and organizational needs for rapid containerization.

42. This proposed project will focus upon the following main issues in the roads subsector: the balance between maintenance and new construction; training road maintenance personnel; road user charges and diesel taxation.

(i) The Balance between Maintenance and New Construction

43. Road maintenance and road investment efforts have declined, in dollar terms, from the levels reached in 1981, mainly because of economic problems, declining goods traffic and rapid devaluation of the peso in relation to the dollar since 1982. However, in recognition of the deteriorating conditions of the network, maintenance expenditures are expected to rise by 39 percent, in real terms, in 1985. In the years of the project (1986-1988), they are expected to rise further, in real terms, by as much as 62 percent in 1986, 13 percent in 1987 and 17 percent in 1988, whereas investment expenditures are expected to decline over the same period.

44. Substantial investments for reconstruction and upgrading of main roads and for major bridge rehabilitation and reconstruction are expected to continue through 1985, but will drop off rapidly in 1986 through 1988 -- the rest of the project period -- to make way for increasing maintenance expenditures. Recently, however, the IDB approved a US\$36 million loan to Chile for the construction of a major penetration road in the Austral area of the country. This will increase construction expenditures for this road, from an average of US\$5 million per year during 1981-1983 and US\$11.7 million in 1984, to an average of US\$14.6 million per year over the project period. This road, evaluated by IDB, has a satisfactory internal rate of return with rates for individual road sections, excluding time savings, ranging from 12.6 percent to 67 percent. However, because of its long payback period, the road's priority needs to be closely monitored, particularly in light of the current economic situation. Nevertheless, the levels of road expenditures and the balance of the program are still satisfactory. To prevent a trend toward new construction at the expense of maintenance and rehabilitation from reappearing, agreement was reached upon the size and composition of the six-year (1986-1991) roads program (see para. 66), and changes would be made only in agreement with the Bank.

(ii) Road Maintenance Personnel Training

45. Although several attempts have been made in the past to establish a sound personnel training program in MOP and MIT, training still appears to be a neglected area in the transport sector. Until 1979, training in MOP's Roads Directorate (Vialidad) was carried out by: (a) an MOP-wide Training Institute, ITAO (Instituto Tecnico de Adiestramiento de Operarios), for heavy machine operators, drivers, welders and mechanical maintenance workers; and (b) a Training Unit of Vialidad, oriented toward training for professional and administrative personnel. However, because of policy changes and the reorganization of Vialidad, both units were eliminated and training was assigned, as an additional responsibility, to the Administrative Department of Vialidad which only coordinates courses planned by the Subsecretary of MOP.

46. Vialidad's management is aware that its personnel needs additional training to employ more efficiently the work methods to be introduced as part of the proposed Road Sector Project. Toward this end, Vialidad's Management is determined to establish a comprehensive training program, aimed at strengthening the technical skills of professional personnel, as well as of road foremen, equipment operators and mechanics. Since Vialidad's training section lacks experience, the training component included in the proposed project would help to establish a suitable training department, capable of implementing the training activities required to achieve the project's institutional and physical objectives.

(iii) Road User Charges and Diesel Taxation

47. Road vehicle fuel consumption, in spite of an increase in the vehicle fleet by more than ten percent per year during 1976-1982, increased by less than eight percent per year in that period. On the other hand, diesel consumption increased faster than both gasoline consumption and the vehicle fleet. Retail prices of automotive fuels cover, with a considerable margin, the corresponding opportunity costs. As of December 1984, in the Santiago region, retail prices for regular and premium gasoline were, on the average, about 43 percent above the international or ex-refinery prices plus distribution charges and retailers' margins, while diesel oil was retailing at some 20 percent above.

48. Although revenues from road users have substantially exceeded the Government's total road-related expenditures since the mid-1970s, substantial cross-subsidization exists between gasoline-powered cars, mainly personal transport, and diesel-powered vehicles, mainly trucks and buses, leading to inefficiencies in the road and rail traffic mix. The main inequity occurs because an excise tax of 27 percent is levied upon the ex-refinery price of gasoline in addition to the 20 percent value added tax levied upon the retail price before taxes, while no such excise tax is levied on diesel. A diesel fuel tax would be an efficient way to make the trucking industry pay a larger share of the road construction and maintenance burden. The Government is aware of the problem and was planning to implement corrective measures progressively, following the recommendations of a road user charges study by a local consulting firm. So far it has not acted because of the acute sensitivity of the nation's influential trucking industry regarding this issue.

49. The study on the Economic Efficiency of the Chilean Transport system, which is expected to be completed in early 1986, is addressing the issue of diesel pricing and road user charges in general in the broader context of the current competitive situation in the land transport market. Agreement was reached on gradually correcting the retail price of diesel fuel taking into account the recommendations of this study (draft Loan Agreement, Section 3.02 (a)).

D. Bank Lending Strategy in the Sector

50. The present Chilean Government has rapidly increased its reliance on the Bank in the sector to the point where it engages in frequent dialogue with the Bank concerning the implementation of liberal market-oriented transport policies. In addition, during the preparation of the Second Highway Reconstruction project, emphasis in dialogue shifted from road construction to maintenance. The Government is convinced that Bank experience would contribute substantially toward introducing sound preventive maintenance and pavement management.

51. The Bank has responded favorably to this policy change and has expanded its field of activity in Chile from highway reconstruction to road maintenance and to studies of the whole transport system. These studies may lead to further Bank operations in other transport subsectors, and are already contributing significantly to sophisticated personnel training, not only in the Roads Directorate but also in MTT. It is Bank strategy to expand and deepen this cooperation (paras. 39-41).

E. Past Bank Participation and Experience

52. The Bank has been involved in the road subsector in Chile since 1961, through five loans and a credit, totaling about US\$219 million. The Bank operations were for the construction, upgrading and rehabilitation of more than 3,000 km of roads; the periodic maintenance of about 2,200 km of roads; the preparation of feasibility and final engineering studies for more than 1,500 km; and the building of road maintenance capacity through technical assistance and procurement of maintenance and research equipment.

53. The First Highway Construction and Maintenance Project was financed by Credit 4-CH for US\$19 million and Loan 287-CH for US\$6 million, both in June 1961. The Second Highway Maintenance Project (Loan 558-CH for US\$13.2 million in September 1968) and the Third Highway Project (Loan 668-CH for US\$10.8 million in June 1970) are the first two projects for which Project Completion and Project Performance Audit Reports (PPAR) were issued (1979 and 1980 respectively). The objectives of these two projects were not fully realized because of the effects of major changes in the economic, political and social structure of the country, insufficiency of funds for recurrent road expenditure and rampant inflation. The latest PPAR drew attention to the need for selective organization strengthening, which was subsequently addressed in the First and the Second Highway Reconstruction Projects.

54. With the First Highway Reconstruction Project (Loan 1927-CH for US\$42 million in April 1981), a new era in Bank relations with Chile started. The main objective of the project was the reconstruction of about 250 km of Route Five, mainly south of Santiago (IDB was doing another 500 km). Execution of this loan progressed so well that disbursements were completed on schedule in 1984, and compliance with the loan covenants concerning implementation of axle-load-limit regulations and improvement of road maintenance was exemplary. All planned weighing stations are in operation and axle-load-limit violations have been reduced significantly.

55. The Second Highway Reconstruction Project (Loan 2297-CH for US\$128 million in August 1983) was approved to help MOP to continue the reconstruction of 435 km of Route Five north of Santiago, and the reconstruction and widening of about 411 km of main transversal roads. It also helped MOP to start a major road maintenance effort of the Basic Network by financing re-gravelling, surface dressing and overlays of about 2,200 km of major roads; construction and rehabilitation of a series of 100 bridges (including 60 km of access roads); and acquisition of road maintenance equipment and pavement research and laboratory equipment, as well as consulting services and training.

56. Physical project implementation is progressing very well and on schedule, but disbursements are lower than expected, because of lower-than-expected project costs, due to the competitive construction market and the strength of the US dollar in relation to the Chilean peso. At the Govern-

ment's request, the Bank has allowed the Government to execute some emergency works after a recent storm, and some extra maintenance and rehabilitation works. With the new arrangements, about US\$18 million, in cost savings, of the US\$128 million loan were expected to be canceled eventually. However, in response to the recent earthquake in Chile, the Bank has amended the loan to permit a significant portion of the savings to be used for emergency repairs for roads, bridges, and ports.

PART IV - THE PROJECT

A. Project Origin and Objectives

57. The proposed project was identified during the preparation of the Second Highway Reconstruction Project (Loan 2297-CH). A Bank mission appraised the project in November 1984. Annex III contains a Supplementary Project Data Sheet. Negotiations of the loan took place in Washington on May 17, 1985 and the Chilean Delegation was headed by Mr. Remberto Urrea Muster, Director of Vialidad, Ministry of Public Works.

58. Since the mid-1970s, the Chilean Government has been expanding municipal responsibilities for services, including health, education and infrastructure maintenance. Consequently, responsibility for the Local Road Network (about 56,000 km) was to be turned over to the municipalities. The Ministry of Public Works' Roads Directorate (MOP's Vialidad) would then have remained responsible only for the maintenance of the Basic Road Network (22,500 km). But measures to make village councils responsible for the local network were never implemented, and Vialidad never completely relinquished responsibility for the local network.

59. During transport sector work and the appraisal of an ongoing highway reconstruction project (Loan 2297-CH of 1983), the Bank identified as the major issues: (a) the need to provide more adequate funding and better organization for maintenance of the basic highway network; and (b) the uncertainty surrounding the intended execution and financing of local road maintenance by the municipalities. The first issue was partially resolved by an adequate construction, reconstruction, rehabilitation and maintenance program for the basic network for the period 1983-1989, implementation of which was made a covenant of Loan 2297-CH. To address the second issue, a study was commissioned to prepare a plan of action and to find adequate financing for the maintenance of the local network.

60. Early in the study period the Government and MOP concluded that the municipalities did not have equipment, personnel, or funds to perform adequate maintenance of local roads, nor would they be able to acquire the necessary means in the near future. Thus in mid-1983, Vialidad started pilot rural road maintenance programs in three southern provinces to establish the extent of possible voluntary contributions from the municipalities for the execution of these programs.

61. Based upon the results of the pilot programs, Vialidad now feels, and the Ministries of Interior and Finance agree, that it should re-establish, as an objective, the assuming of full responsibility for most of the road network; municipalities, however, are still expected to collaborate with Vialidad on easily accessible roads of purely local interest. As a first

step, Vialidad has prepared a program for the rehabilitation and maintenance of the Primary Local Network (24,000 km), including a lump sum of money for performing spot interventions on the remaining, much less travelled, 32,000 km of the local network (Secondary Local Network) whenever traffic flows are seriously impeded.

62. Vialidad is capable of executing this expanded program and of helping to create an atmosphere of cooperation with the municipalities for the spot maintenance of the remainder of the network. Vialidad is also ready to help the Ministries of Finance and the Interior to redefine the physical and financial role of the municipalities in maintenance of the Secondary Local Network on the basis of experience under ongoing pilot projects. Agreement was reached that Vialidad would prepare by December 31, 1986, a maintenance plan for secondary local roads, satisfactory to the Bank, including redefinition of the physical and financial role of the municipalities (draft Loan Agreement, Section 3.02 (b)).

63. The objectives of the proposed project are to help the Government to: (a) complete a major main road reconstruction effort; (b) continue to improve the organization and execution of overall maintenance for the remaining gravel roads in the basic road network; (c) re-establish a functional local road maintenance system with improved technical execution; (d) improve Vialidad's competence in the economic evaluation of road maintenance and rehabilitation activities; (e) streamline the road maintenance efforts of municipalities through a study of possible voluntary physical and financial contributions to the maintenance of the Secondary Local Network; and, (f) strengthen the capability of Vialidad's Road Maintenance Directorate through a comprehensive training program.

B. The Government's Roads Program 1985-1991

64. The Government's planned road expenditures for the 1985-1991 period cover three years beyond the 1986-1988 project period. Another operation in the additional three years would be necessary for further consolidation of the substantially increased activity and expansion of the maintenance effort to the Secondary Local Network, which, under the proposed project, would get only spot attention (para. 61). The 1985-1991 period is also the time during which the ongoing major reconstruction and deferred maintenance efforts should be substantially completed. During this period, the Government plans to complete the previously discussed Austral Road (para. 44) and to complete, particularly during 1989-1991, a major widening of the Santiago-Valparaiso (including tunnels) and Santiago-San Antonio roads, leading to the most important ports and summer tourism areas. All significant construction, reconstruction and upgrading elements in the program, especially during the next three years, are already included in ongoing Bank and IDB projects.

65. The Government's planned road expenditures are reasonably balanced (paras. 43 and 44) and all major elements of the Program are subject to economic evaluation using a methodology developed by ODEPLAN, which has been reviewed and found acceptable by the Bank. Since ODEPLAN's method of economic evaluation does not include program optimization, this was done by Vialidad and the Bank, mainly for the reconstruction and maintenance program. Rates of return for the currently planned program are significantly higher than those for individual construction projects.

66. As this project would represent the sector investment program, agreement was reached during negotiations on the level and detailed composition of the 1986 road expenditure program; on tentative programs for 1987-1988 and on spending levels for investment and maintenance for the period 1989-1991. These programs and spending levels would be discussed at least semi-annually and adjusted and agreed with the Bank at least annually (draft Loan Agreement, Section 3.01 (c) (i)).

C. Project Cost and Financing

67. The proposed project consists of the Government's 1986-1988 Road Investment and Maintenance Program. The total project cost amounts to US\$655.5 million (including about 20 percent identifiable taxes and duties) with a foreign exchange component of US\$346.8 million. The foreign exchange component is broken down into US\$300.8 million of capital costs (87 percent of the total foreign exchange cost) and US\$46.0 million of recurrent costs. The proposed loan of US\$140 million would finance 40 percent of the foreign exchange cost of the project. Financing from the ongoing project (Loan 2297-CH), ongoing IDB loans and a supplier credit of US\$13.5 million to be arranged in conjunction with this project, amounts to about US\$114.5 million. The balance of \$401 million will be financed by the Government, with possible additional financing from commercial banks. ^{1/} The maintenance program, excluding several specific maintenance works financed under Loan 2297-CH and IDB Loan 490/OC-CH, has been selected for Bank loan disbursements to ensure the timely execution of this high priority component.

68. For the estimation of the foreign exchange component of civil works, MOP has developed a computer program that establishes the foreign cost of each construction or maintenance item and calculates the foreign cost for typical operations. The foreign cost for consulting services was estimated assuming that contracts would normally be awarded to local firms with a limited participation of foreign consultants (para. 70).

69. Because of the sectoral approach of this project, no physical contingencies have been included. Price contingencies for 1986, 1987 and 1988, on the basis of March 1985 prices, assume internal and external price increases of five percent for 1985, 7.5 percent for 1986 and eight percent in 1987-1989.

70. The cost estimates for civil works related to investments are based upon quantity estimates and current unit prices, and are reasonable given the standards proposed and the expected traffic. The cost for consulting services has been estimated assuming about 80 man-months for foreign consultants and 1,188 man months for local consultants.

D. Project Components

71. The investment component includes civil works and consultant services. The civil works component comprises construction, reconstruction and upgrading. Construction consists mainly of the Austral Road and some widening or doubling of sections of major, heavily travelled roads, as well as a one-lane road between Punta Arenas and Puerto Natales (Route Nine of the

^{1/} Cofinancing is under consideration under the "B" Loan program.

Longitudinal Road), and a few new bridges and urban overpasses. Reconstruction is mainly the continuation of the major effort to reconstruct Route Five, the main thoroughfare of the country, and major transversal roads. Upgrading consists mainly of a program of paving major gravel roads with more than 300 vehicles per day, some of them part of the basic network. Finally, the consultant services component deals mainly with local consultants to supervise the investment activities (see map).

72. The maintenance components include civil works, equipment and consultant services and training. Civil works comprise routine, periodic and deferred maintenance of the Basic Network and of the Primary Local Network. Routine maintenance includes grading and spot regravelling of unpaved roads, joint and crack patching and sealing of paved roads, right of way clearing and maintenance of drainage structures, road signs and bridges. Periodic maintenance includes resealing, surface treatments and overlays of paved surfaces, regravelling of unpaved surfaces and repair of bridges and river drainage structures. Deferred maintenance focuses upon bringing neglected paved and unpaved roads back to normal maintenance standards.

73. The equipment component includes procurement of road maintenance equipment and vehicles to replace wornout units and to increase the stock of equipment to handle a larger network. The equipment will serve to execute the limited force account operations included in the road maintenance program and the vehicles will be used for project supervision. The tentative list of equipment to be purchased and its procurement schedule have been confirmed (draft Loan Agreement, Section 3.01 (b)).

74. The consulting services component includes professional services for: (a) project coordination; (b) engineering studies; (c) supervision of major civil works; (d) continuation of the long range pavement evaluation and design studies directed toward the establishment of an adequate management system, initiated under the Second Highway Reconstruction Project (Loan 2297-CH); (e) training; and (f) other feasibility and engineering studies to prepare a possible future project.

75. Finally, the training component will consist of the implementation of a series of coordinated measures to upgrade the maintenance capability of Vialidad, including: (a) training of about 2,000 technical and administrative employees; and (b) provision of technical assistance in: (i) pavement follow-up and condition monitoring; (ii) road maintenance administration; (iii) surface treatment; (iv) planning; (v) equipment administration; and (vi) organization and administration of training programs. To carry out the training program, the project would further provide fellowships abroad for about 27 Vialidad professionals, interregional tours for about 46 professionals, and 48 staff-months of expert and consultant services. A training advisory committee, staffed by the heads of key departments of Vialidad and led by the deputy director, was appointed during project preparation. The recommendations of this committee served as basis for the preparation of the present report. It was agreed, by November 30, 1985, the Government would furnish to the Bank a plan of action to carry out the Training Program and that no later than December 31, 1985, it would establish and staff the national organization for training for the road subsector — comprising the headquarters Training Unit, regional coordinators and training advisory committees (draft Loan Agreement, Section 3.01 (c) (ii)).

E. Project Execution and Procurement

76. Execution of the project would be the responsibility of Vialidad, which has a central regional staff of about 4,000 including some 200 professionals of which 150 are engineers. Government policy is to keep Vialidad's staff small and to execute as much work as possible by contract. Execution of the maintenance elements of the project would be conducted out of Vialidad's 13 regional offices. Vialidad's Maintenance Department, which is currently being reorganized and strengthened, would be responsible for overall supervision of this work.

77. The general procurement information for the project is presented in the table below. Procurement of Bank-financed project components would be in accordance with the Bank's Guidelines for Procurement. MOP's civil works tendering and contracting system is in accordance with Bank Guidelines and has been used successfully so far in the award of 40 contracts for about US\$88 million under Loan 2297-CH. About 65 percent of routine maintenance, representing some US\$59 million, would be executed by force account; the remaining 35 percent of routine maintenance and all periodic and deferred maintenance, totalling about US\$230 million would be contracted. Force account is being used only for operations which can be executed more economically by this method than by contracting and will not increase in future. Contracts for civil works estimated to cost US\$2.0 million or more, or packages of smaller contracts with a combined cost of about US\$2.0 million, would be awarded through international competitive bidding. Contracts estimated to cost less than US\$2.0 million, or packages having a combined cost below this threshold, would be procured following local competitive bidding procedures, which were reviewed in detail and found to be satisfactory. Thus based on the high capacity and competitiveness of the local construction industry as well as the experience under the past two road lending operations, it is expected that almost all contracts will be awarded to local contractors. All contracts will be tendered and awarded by MOP subject to past review by the Bank in view of the excellent previous contracting performance by MOP. Agreement was reached on bidding and contracting procedures (draft Loan Agreement, Schedule 4, Section I). All consultants would be recruited in conformity with the Guidelines for the Use of Consultants by World Bank Borrowers (draft Loan Agreement, Schedule 4, Section II).

<u>General Procurement Methods</u> ^{1/}					
	<u>Procurement Methods</u>				<u>Total Cost</u>
	<u>ICB</u>	<u>LCB</u>	<u>Other</u>	<u>N.A.</u> ^{2/}	
| Civil Works	250.0 (20.0)	306.3 (184.7)	58.8 ^{3/} (58.8)	- -	615.1 (263.5)
Equipment	8.1	-	20.4 ^{4/}	-	28.5
Consultant Services and Training	1.7 (1.7)	8.7 (5.5)	- -	1.5 (1.5)	11.9 (8.7)
Total	<u>259.8</u> <u>(21.7)</u>	<u>315.0</u> <u>(190.2)</u>	<u>79.2</u> <u>(58.8)</u>	<u>1.5</u> <u>(1.5)</u>	<u>655.5</u> <u>(272.2)</u>

1 Amounts in brackets are financed by the proposed Bank loan. All figures include physical contingencies.

2/ Not applicable: Scholarships abroad and miscellaneous training expenditures.

3/ Routine maintenance executed by force account.

4/ Equipment to be procured under cofinancing arrangements.

F. Disbursements and Special Account

78. Bank loan disbursements would be made against: (a) 50 percent of total expenditures for maintenance, except for works financed under Loan 2297-CH and IDB Loan 490/OC-CH; and (b) 100 percent of foreign expenditures for expatriate consultants and training fellowships abroad and 50 percent for local consultants and training.

79. Considering the numerous small contracts involved and MOP's proven adequate contracting and payment procedures and its capacity for swift and effective work execution, simple and quick disbursement procedures would be used. Withdrawal applications would be on the basis of monthly statements of expenditures for the execution of the different components of the agreed specific maintenance program. The monthly statements would comprise expenditures for works executed by contract and for routine maintenance executed by force account. Supporting documentation would not be submitted to the Bank, but would be retained by MOP and made available for review during project supervision missions and audits. Agreement was reached on these arrangements (draft Loan Agreement, Section 4.01 (c)).

80. To reduce the interval during which MOP would finance the Bank's share of project costs with its own resources, the Government might request the Bank to make advance payments into a Special Account, to be opened in US dollars in the Central Bank, and which would be available for reimbursing MOP for the Bank's share of the project cost. The total amount in the Special

Account would not exceed US\$12.0 million, the amount required for about four months of project execution (draft Loan Agreement, Schedule 5).

G. Auditing

81. It was agreed that the Contraloria General de la Republica, as independent auditor, would: (a) consistently apply procedures and methods satisfactory to the Bank that conform to generally accepted auditing standards; (b) carry out its auditing work in a timely manner -- annual reports will be presented not later than four months after each calendar year; and (c) maintain an independent character performing its role as auditor (draft Loan Agreement, Section 4.01 (b) (i) and (ii)).

H. Economic Evaluation

82. The economic evaluation of this project was performed in two phases. In a first phase, the whole network of the country was evaluated by Vialidad, using the Second Generation Highway Design and Maintenance Standards Model. This evaluation resulted in internal rates of return of selected construction, reconstruction, upgrading and maintenance activities. On the basis of the rates thus obtained, an investment and maintenance program for the period 1985-1991 was prepared. Most of the investments in that program for the project period 1986-1988 are included in ongoing Bank and IDB projects. The rates in the investment program range between 15 and 38 percent.

83. Because of the high rates of return obtained on maintenance activities, it was decided that further economic evaluation should concentrate upon expanding and optimizing the Government's road maintenance effort. In the second phase, the Bank's new Third Generation Highway Design and Maintenance Model was used. This model predicts the life-cycle costs of different road design and maintenance options, including different time-staging strategies, either for a given road project on a specific alignment or for groups or links of an entire road network. It estimates the total costs for large numbers of alternative maintenance policies on a year-by-year basis, and can thus be used to search for the alternative with the highest net present value at given discount rates, or the highest rate of return. The objective is, thus, to search out that combination of standards and policies which results in the minimum total life-cycle costs to society, including the costs to road users, as well as the costs borne by the Highway Authority. Vehicle speeds and operating costs, and road deterioration and maintenance costs, are estimated internally by the model as a function of the road design and maintenance standards, traffic volume and axle loads, and environmental conditions. Maintenance and vehicle operating costs are first estimated in physical quantities; then, prices and unit costs, as specified by the user, are applied to determine the total financial, economic and foreign exchange cost.

84. Twenty-seven maintenance policies were evaluated for each link of paved roads and 31 for gravel and earth roads. The evaluation for each link was done on the basis of the net present value and of the rate of return, first assuming no budgetary constraints and later taking into account the available budgets for the project period. The rate of return of the program on asphalt roads is about 49 percent and, on the gravel and earth roads, it is over 100 percent. The analysis also shows that, with the proposed expenditure level, the Government will move rather close to an economic optimum in maintenance.

I. Risk Assessment

85. There are no major risks affecting the proposed project. Vialidad's performance under the last two projects has been very good. Loan 1927-CH was completed on schedule and Loan 2297-CH is on schedule as far as the physical execution of works is concerned. There may be some uncertainty regarding the availability of counterpart funds and the capacity of Vialidad to execute planned works and contracts without staff increases. The second factor will be monitored closely. As far as the first is concerned, the Government attaches high priority to the implementation of the project, partly in the framework of a broader objective of employment generation. The Government has already included the funds required for the project in its current three year plan and agrees to provide necessary funds as required for planned expenditures as modified from time to time in agreement with the Bank (draft Loan Agreement, Section 3.01 (a)).

PART V - LEGAL INSTRUMENTS AND AUTHORITY

86. The draft Loan Agreement between the Republic of Chile and the Bank and the Report of the Committee provided for in Article III, Section 4 (iii) of the Articles of Agreement are being distributed to the Executive Directors separately. The main features of the draft Loan Agreement are referred to in the text of this report and are listed in Section III of Annex III.

87. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATIONS

88. I recommend that the Executive Directors approve the proposed loan.

A. W. Clausen
President

Attachments

May 23, 1985
Washington, D.C.

TABLE M

CHILE CHILE	- SOCIAL INDICATORS DATA SHEET				
	1940 ^{/b}		REFERENCE GROUPS (UNWEIGHTED AVERAGES) ^{/a} (MOST RECENT ESTIMATE) ^{/b}		
	1940 ^{/b}	1970 ^{/b}	MOST RECENT ESTIMATE ^{/b}	MIDDLE INCOME LAT. AMERICA & CAR	MIDDLE INCOME EUROPE
AREA (THOUSAND SQ. KM)					
TOTAL	757.0	757.0	757.0	.	.
AGRICULTURAL	134.4	138.9	174.3	.	.
GDP PER CAPITA (1980)	680.0	1100.0	2210.0	2108.6	2345.3
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF OIL EQUIVALENT)	570.0	879.0	734.0	993.5	1122.8
POPULATION AND VITAL STATISTICS					
POPULATION, MID-YEAR (THOUSANDS)	7585.0	9369.0	11487.0	.	.
URBAN POPULATION (% OF TOTAL)	67.8	75.2	82.1	66.5	46.8
POPULATION PROJECTIONS					
POPULATION IN YEAR 2000 (MILL.)			14.7	.	.
STATIONARY POPULATION (MILL.)			20.7	.	.
POPULATION MOMENTUM			1.7	.	.
POPULATION DENSITY					
PER SQ. KM.	10.0	12.4	14.9	35.7	82.9
PER SQ. KM. AGRIC. LAND	36.4	59.0	64.8	92.4	158.9
POPULATION AGE STRUCTURE (%)					
0-14 YRS	39.1	38.1	31.4	39.9	31.6
15-64 YRS	56.5	57.2	62.9	56.0	61.1
65 AND ABOVE	4.3	4.8	5.6	4.1	7.1
POPULATION GROWTH RATE (%)					
TOTAL	2.2	2.1	1.7	2.4	1.6
URBAN	3.7	3.1	2.4	3.6	3.7
CRUDE BIRTH RATE (PER THOUS)	34.4	26.8	23.1	31.3	23.4
CRUDE DEATH RATE (PER THOUS)	12.6	8.9	6.7	8.1	8.8
GROSS REPRODUCTION RATE	2.5	1.8	1.3	2.0	1.6
FAMILY PLANNING					
ACCEPTORS, ANNUAL (THOUS)	..	215.7	265.8 ^{/c}	.	.
USERS (% OF MARRIED WOMEN)	..	..	..	40.3	..
FOOD AND NUTRITION					
INDEX OF FOOD PROD. PER CAPITA (1969-71=100)	96.0	104.0	98.0	114.3	114.5
PER CAPITA SUPPLY OF					
CALORIES (% OF REQUIREMENTS)	110.0	110.0	114.0	110.6	128.6
PROTEINS (GRAMS PER DAY)	71.0	71.0	76.0	67.3	89.7
OF WHICH ANIMAL AND PULSE	28.0	30.0	27.0 ^{/c}	34.1	34.5
CHILD (AGES 1-4) DEATH RATE	20.0	9.0	2.0	5.7	5.2
HEALTH					
LIFE EXPECT. AT BIRTH (YEARS)	56.9	62.4	69.7	64.7	67.4
INFANT MORT. RATE (PER THOUS)	119.0	82.0	27.0	60.6	54.2
ACCESS TO SAFE WATER (XPOP)					
TOTAL	62.0	56.0	82.0 ^{/d}	65.4	..
URBAN	78.9	67.0	93.0 ^{/d}	78.1	..
RURAL	11.4	13.0	38.0 ^{/d}	46.2	..
ACCESS TO EXCRETA DISPOSAL (% OF POPULATION)					
TOTAL	..	29.0	32.0 ^{/a}	52.9	..
URBAN	..	33.0	36.0 ^{/a}	67.0	..
RURAL	..	10.0	11.0 ^{/a}	24.5	..
POPULATION PER PHYSICIAN	1780.0	2130.0 ^{/e}	1930.0 ^{/d}	1917.7	1065.8
POP. PER NURSING PERSON	640.0	610.0	450.0 ^{/d}	815.8	764.4
POP. PER HOSPITAL BED					
TOTAL	260.0	260.0	280.0 ^{/e}	367.2	326.3
URBAN	270.0	280.0	320.0 ^{/c}	411.5	201.5
RURAL	..	1610.0	770.0 ^{/c}	2636.3	..
ADMISSIONS PER HOSPITAL BED	..	..	28.0 ^{/c}	27.3	20.0
HOUSING					
AVERAGE SIZE OF HOUSEHOLD					
TOTAL	5.4	5.1	..	..	..
URBAN	5.2	5.0	..	..	..
RURAL	6.0	5.5	..	..	..
AVERAGE NO. OF PERSONS/ROOM					
TOTAL	1.7	1.4	..	..	..
URBAN	1.6	1.3	..	..	..
RURAL	2.0	1.7	..	..	..
ACCESS TO ELECT. (% OF DWELLINGS)					
TOTAL	70.6	..	78.9 ^{/a}	..	..
URBAN	86.3	..	90.0 ^{/a}	..	..
RURAL	23.9	..	35.0 ^{/a}	..	..

TABLE 3A

CHILE CHILE	- SOCIAL INDICATORS DATA SHEET				
	REFERENCE GROUPS (WEIGHTED AVERAGES) /a				
	1960/b	1970/c	MOST RECENT ESTIMATE/d	MIDDLE INCOME LAT. AMERICA & CAR	MIDDLE INCOME EUROPE
EDUCATION					
ADJUSTED ENROLLMENT RATIOS					
PRIMARY: TOTAL	109.0	107.0	115.0	105.4	101.1
MALE	111.0	107.0	115.0	106.3	105.3
FEMALE	107.0	108.0	114.0	104.5	98.7
SECONDARY: TOTAL	24.0	39.0	57.0	43.2	39.1
MALE	24.0	36.0	53.0	42.3	38.9
FEMALE	24.0	42.0	62.0	44.5	30.6
VOCATIONAL (% OF SECONDARY)	26.2	33.0	39.2	33.6	21.6
PUPIL-TEACHER RATIO					
PRIMARY	..	30.0	34.0 /d	30.1	25.1
SECONDARY	14.0	13.0	20.0 /d	16.8	20.3
ADULT LITERACY RATE (%)	83.6	89.0	..	79.5	75.6
CONSUMPTION					
PASSENGER CARS/THOUSAND POP	7.6	18.8	40.2	46.0	34.7
RADIO RECEIVERS/THOUSAND POP	130.8	149.4	292.7	223.6	164.9
TV RECEIVERS/THOUSAND POP	0.1	53.4	110.3	107.2	123.8
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION	131.6	84.1	86.6 /d	63.5	96.3
CINEMA ANNUAL ATTENDANCE/CAPITA	7.1 /h	4.7	1.4 /d	2.8	2.9
LABOR FORCE					
TOTAL LABOR FORCE (THOUS)	2505.0	2885.0	3690.0	..	..
FEMALE (PERCENT)	21.7	22.0	26.4	23.2	34.5
AGRICULTURE (PERCENT)	30.2	22.6	19.2	31.5	60.7
INDUSTRY (PERCENT)	20.1	21.0	19.4	23.9	23.3
PARTICIPATION RATE (PERCENT)					
TOTAL	33.0	30.8	32.1	32.2	42.9
MALE	52.1	48.4	47.7	49.3	54.7
FEMALE	14.2	13.5	16.8	15.2	31.0
ECONOMIC DEPENDENCY RATIO	1.3	1.4	1.2	1.4	0.9
INCOME DISTRIBUTION					
PERCENT OF PRIVATE INCOME RECEIVED BY					
HIGHEST 5% OF HOUSEHOLDS	..	..	..	..	..
HIGHEST 20% OF HOUSEHOLDS	..	51.4 /d	..	..	..
LOWEST 20% OF HOUSEHOLDS	..	4.4 /d	..	..	..
LOWEST 40% OF HOUSEHOLDS	..	13.4 /d	..	..	..
POVERTY TARGET GROUPS					
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)					
URBAN	..	..	360.0 /d	288.2	..
RURAL	..	..	..	184.0	..
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)					
URBAN	..	..	640.0 /d	522.8	..
RURAL	..	..	..	372.4	..
ESTIMATED POP. BELOW ABSOLUTE POVERTY INCOME LEVEL (%)					
URBAN	..	..	..	..	..
RURAL	..	..	..	..	..
..	NOT AVAILABLE				
.	NOT APPLICABLE				

NOTES

/a The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, "Data for 1960" refer to any year between 1959 and 1961; "Data for 1970" between 1969 and 1971; and data for "Most Recent Estimate" between 1980 and 1982.

/c 1977; /d 1979; /e 1975; /f 1978; /g Personnel in government services only; /h 1962; /i 1968.

EXPOSURE WITH 20 MINUTES

[illegible][illegible]

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it is the first time that the President has addressed the Congress since the beginning of the Civil War. The letter discusses the state of the Union and the progress of the war. It also mentions the President's plans for the future of the country.

2. The second part of the document is a report from the Secretary of the War Department, dated January 3, 1862. It provides a detailed account of the military operations of the Union Army during the year 1861. The report includes information about the number of troops, the equipment, and the results of the battles. It also discusses the challenges faced by the Army and the measures taken to overcome them.

3. The third part of the document is a report from the Secretary of the Navy Department, dated January 3, 1862. It provides a detailed account of the naval operations of the Union Navy during the year 1861. The report includes information about the number of ships, the crew, and the results of the battles. It also discusses the challenges faced by the Navy and the measures taken to overcome them.

4. The fourth part of the document is a report from the Secretary of the Treasury Department, dated January 3, 1862. It provides a detailed account of the financial operations of the Union Government during the year 1861. The report includes information about the revenue, the expenses, and the debt. It also discusses the challenges faced by the Treasury and the measures taken to overcome them.

5. The fifth part of the document is a report from the Secretary of the Interior Department, dated January 3, 1862. It provides a detailed account of the land and mineral operations of the Union Government during the year 1861. The report includes information about the land sales, the mineral operations, and the management of the public lands. It also discusses the challenges faced by the Interior and the measures taken to overcome them.

6. The sixth part of the document is a report from the Secretary of the War Department, dated January 3, 1862. It provides a detailed account of the military operations of the Union Army during the year 1861. The report includes information about the number of troops, the equipment, and the results of the battles. It also discusses the challenges faced by the Army and the measures taken to overcome them.

7. The seventh part of the document is a report from the Secretary of the Navy Department, dated January 3, 1862. It provides a detailed account of the naval operations of the Union Navy during the year 1861. The report includes information about the number of ships, the crew, and the results of the battles. It also discusses the challenges faced by the Navy and the measures taken to overcome them.

8. The eighth part of the document is a report from the Secretary of the Treasury Department, dated January 3, 1862. It provides a detailed account of the financial operations of the Union Government during the year 1861. The report includes information about the revenue, the expenses, and the debt. It also discusses the challenges faced by the Treasury and the measures taken to overcome them.

9. The ninth part of the document is a report from the Secretary of the Interior Department, dated January 3, 1862. It provides a detailed account of the land and mineral operations of the Union Government during the year 1861. The report includes information about the land sales, the mineral operations, and the management of the public lands. It also discusses the challenges faced by the Interior and the measures taken to overcome them.

10. The tenth part of the document is a report from the Secretary of the War Department, dated January 3, 1862. It provides a detailed account of the military operations of the Union Army during the year 1861. The report includes information about the number of troops, the equipment, and the results of the battles. It also discusses the challenges faced by the Army and the measures taken to overcome them.

1. The following information was obtained from the records of the Federal Bureau of Investigation, Department of Justice, and the Central Intelligence Agency, and is being furnished to you for your information. It is to be understood that this information is being furnished to you in confidence and is not to be disclosed to the public or to any other person without the express written consent of the Director of the Central Intelligence Agency.

The purpose of the study was to determine the effect of the use of the computer on the learning of the English language. The study was conducted in a secondary school in the city of Istanbul. The sample consisted of 40 students. The data were collected through a questionnaire and a test. The results of the study showed that the use of the computer had a positive effect on the learning of the English language. The students who used the computer showed higher scores than the students who did not use the computer. The study also found that the use of the computer increased the students' motivation and interest in learning the English language.

1. The population of the United States in 1950 was 150,000,000. The population of the United States in 1960 was 170,000,000. The population of the United States in 1970 was 190,000,000. The population of the United States in 1980 was 210,000,000. The population of the United States in 1990 was 230,000,000. The population of the United States in 2000 was 250,000,000. The population of the United States in 2010 was 270,000,000. The population of the United States in 2020 was 290,000,000. The population of the United States in 2030 was 310,000,000. The population of the United States in 2040 was 330,000,000. The population of the United States in 2050 was 350,000,000. The population of the United States in 2060 was 370,000,000. The population of the United States in 2070 was 390,000,000. The population of the United States in 2080 was 410,000,000. The population of the United States in 2090 was 430,000,000. The population of the United States in 2100 was 450,000,000.

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Female [Ageing] - Degree (percentage of married women) - Percentage of married women who are aged 15-49, although for some countries this figure is based on the 15-44 age group.
Female [Labour force] (Thousands) - Estimated active persons, including armed forces and unemployed but not working household members, etc., working or available for other employment.
Female [Population] (Thousands) - Estimated population, including armed forces and unemployed but not working household members, etc., working or available for other employment.
Female [Total] (Thousands) - Estimated total population, including armed forces and unemployed but not working household members, etc., working or available for other employment.

[illegible][illegible]

Total (1960-1969) 1960-1969 1970-1979 1980-1989 1990-1999 2000-2009 2010-2019 2020-2029 2030-2039 2040-2049 2050-2059 2060-2069 2070-2079 2080-2089 2090-2099 2100-2109 2110-2119 2120-2129 2130-2139 2140-2149 2150-2159 2160-2169 2170-2179 2180-2189 2190-2199 2200-2209 2210-2219 2220-2229 2230-2239 2240-2249 2250-2259 2260-2269 2270-2279 2280-2289 2290-2299 2300-2309 2310-2319 2320-2329 2330-2339 2340-2349 2350-2359 2360-2369 2370-2379 2380-2389 2390-2399 2400-2409 2410-2419 2420-2429 2430-2439 2440-2449 2450-2459 2460-2469 2470-2479 2480-2489 2490-2499 2500-2509 2510-2519 2520-2529 2530-2539 2540-2549 2550-2559 2560-2569 2570-2579 2580-2589 2590-2599 2600-2609 2610-2619 2620-2629 2630-2639 2640-2649 2650-2659 2660-2669 2670-2679 2680-2689 2690-2699 2700-2709 2710-2719 2720-2729 2730-2739 2740-2749 2750-2759 2760-2769 2770-2779 2780-2789 2790-2799 2800-2809 2810-2819 2820-2829 2830-2839 2840-2849 2850-2859 2860-2869 2870-2879 2880-2889 2890-2899 2900-2909 2910-2919 2920-2929 2930-2939 2940-2949 2950-2959 2960-2969 2970-2979 2980-2989 2990-2999 3000-3009 3010-3019 3020-3029 3030-3039 3040-3049 3050-3059 3060-3069 3070-3079 3080-3089 3090-3099 3100-3109 3110-3119 3120-3129 3130-3139 3140-3149 3150-3159 3160-3169 3170-3179 3180-3189 3190-3199 3200-3209 3210-3219 3220-3229 3230-3239 3240-3249 3250-3259 3260-3269 3270-3279 3280-3289 3290-3299 3300-3309 3310-3319 3320-3329 3330-3339 3340-3349 3350-3359 3360-3369 3370-3379 3380-3389 3390-3399 3400-3409 3410-3419 3420-3429 3430-3439 3440-3449 3450-3459 3460-3469 3470-3479 3480-3489 3490-3499 3500-3509 3510-3519 3520-3529 3530-3539 3540-3549 3550-3559 3560-3569 3570-3579 3580-3589 3590-3599 3600-3609 3610-3619 3620-3629 3630-3639 3640-3649 3650-3659 3660-3669 3670-3679 3680-3689 3690-3699 3700-3709 3710-3719 3720-3729 3730-3739 3740-3749 3750-3759 3760-3769 3770-3779 3780-3789 3790-3799 3800-3809 3810-3819 3820-3829 3830-3839 3840-3849 3850-3859 3860-3869 3870-3879 3880-3889 3890-3899 3900-3909 3910-3919 3920-3929 3930-3939 3940-3949 3950-3959 3960-3969 3970-3979 3980-3989 3990-3999 4000-4009 4010-4019 4020-4029 4030-4039 4040-4049 4050-4059 4060-4069 4070-4079 4080-4089 4090-4099 4100-4109 4110-4119 4120-4129 4130-4139 4140-4149 4150-4159 4160-4169 4170-4179 4180-4189 4190-4199 4200-4209 4210-4219 4220-4229 4230-4239 4240-4249 4250-4259 4260-4269 4270-4279 4280-4289 4290-4299 4300-4309 4310-4319 4320-4329 4330-4339 4340-4349 4350-4359 4360-4369 4370-4379 4380-4389 4390-4399 4400-4409 4410-4419 4420-4429 4430-4439 4440-4449 4450-4459 4460-4469 4470-4479 4480-4489 4490-4499 4500-4509 4510-4519 4520-4529 4530-4539 4540-4549 4550-4559 4560-4569 4570-4579 4580-4589 4590-4599 4600-4609 4610-4619 4620-4629 4630-4639 4640-4649 4650-4659 4660-4669 4670-4679 4680-4689 4690-4699 4700-4709 4710-4719 4720-4729 4730-4739 4740-4749 4750-4759 4760-4769 4770-4779 4780-4789 4790-4799 4800-4809 4810-4819 4820-4829 4830-4839 4840-4849 4850-4859 4860-4869 4870-4879 4880-4889 4890-4899 4900-4909 4910-4919 4920-4929 4930-4939 4940-4949 4950-4959 4960-4969 4970-4979 4980-4989 4990-4999 5000-5009 5010-5019 5020-5029 5030-5039 5040-5049 5050-5059 5060-5069 5070-5079 5080-5089 5090-5099 5100-5109 5110-5119 5120-5129 5130-5139 5140-5149 5150-5159 5160-5169 5170-5179 5180-5189 5190-5199 5200-5209 5210-5219 5220-5229 5230-5239 5240-5249 5250-5259 5260-5269 5270-5279 5280-5289 5290-5299 5300-5309 5310-5319 5320-5329 5330-5339 5340-5349 5350-5359 5360-5369 5370-5379 5380-5389 5390-5399 5400-5409 5410-5419 5420-5429 5430-5439 5440-5449 5450-5459 5460-5469 5470-5479 5480-5489 5490-5499 5500-5509 5510-5519 5520-5529 5530-5539 5540-5549 5550-5559 5560-5569 5570-5579 5580-5589 5590-5599 5600-5609 5610-5619 5620-5629 5630-5639 5640-5649 5650-5659 5660-5669 5670-5679 5680-5689 5690-5699 5700-5709 5710-5719 5720-5729 5730-5739 5740-5749 5750-5759 5760-5769 5770-5779 5780-5789 5790-5799 5800-5809 5810-5819 5820-5829 5830-5839 5840-5849 5850-5859 5860-5869 5870-5879 5880-5889 5890-5899 5900-5909 5910-5919 5920-5929 5930-5939 5940-5949 5950-5959 5960-5969 5970-5979 5980-5989 5990-5999 6000-6009 6010-6019 6020-6029 6030-6039

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and water-soluble by water-borne systems or the use of pig pigments and organic insolubilization.

CHILE - ECONOMIC INDICATORS

Population: 11,700 (mid-1983 thousands)
GDP Per Capita: US\$1,971.5 (1983)

Indicator	Amount (Million US\$ at p/ Current Prices) 1984	Annual Growth Rates (%)										
		Actual				Est. 1984	Projected					
		1980	1981	1982	1983		1985	1986	1987	1988	1989	1990
NATIONAL ACCOUNTS												
Gross Domestic Product	19,434	7.8	5.7	-14.3	-0.8	6.3	2.0	3.0	3.4	3.4	3.4	3.8
Agriculture	1,749	3.8	5.3	-7.3	-0.9	7.3	3.5	3.0	3.5	3.5	3.5	3.5
Industry	4,275	6.2	2.6	-21.6	3.0	11.5	2.0	3.0	2.5	3.5	3.5	4.5
Other	13,410	9.1	6.7	-13.4	-1.9	4.6	1.5	3.0	3.7	3.3	3.4	3.6
Consumption	16,848	4.2	12.2	-13.5	-5.8	4.5	-1.7	0.0	1.3	1.5	1.1	1.8
Gross Investment	2,718	31.2	5.7	-65.4	15.3	72.1	-0.2	14.2	3.4	9.4	10.3	9.7
Exports of Goods and NFS	4,690	14.3	-5.3	10.9	1.4	4.1	6.5	8.0	4.5	5.1	5.5	5.7
Imports of Goods and NFS	-4,822	18.7	14.7	-32.9	-9.4	14.2	-12.5	1.6	2.1	3.6	3.5	4.2
Gross National Savings	842	27.7	-41.1	-34.7	-1.7	84.7	36.9	32.9	14.1	21.2	21.8	16.0

PRICES

GDP Deflator	349.0	29.2	13.4	11.3	26.9	15.3	25.0	25.0	25.0	25.0	25.0	25.0
<div> <div>Share of GDP at Market Prices (%) (at Current Prices)</div> <div> <div>1970</div> <div>1975</div> <div>1980</div> <div>1985</div> <div>1990</div> </div> </div> <div> <div>Average Annual Increase (%) (at Constant 1977 Prices)</div> <div> <div>1970-75</div> <div>1975-80</div> <div>1980-85</div> <div>1985-90</div> </div> </div>												
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	-0.3	7.5	-0.9	3.0			
Agriculture	6.8	6.6	7.2	9.4	9.6	0.0	2.9	1.7	3.3			
Industry	25.5	20.3	21.4	20.8	21.0	-1.7	7.6	-1.6	3.2			
Services	67.7	73.1	71.4	69.8	69.4	3.7	8.1	-1.1	2.9			
Consumption	82.9	88.9	83.2	81.5	74.5	0.0	6.4	-1.3	1.2			
Gross Investment	16.5	13.1	21.0	15.0	19.9	-11.6	19.6	-9.7	9.0			
Exports of Goods and NFS	15.0	25.5	22.8	25.8	28.5	2.5	15.1	0.8	5.0			
Imports of Goods and NFS	14.4	27.4	27.0	22.4	23.0	-2.7	19.3	-6.8	3.6			
Gross National Savings	15.1	7.9	13.9	9.8	19.2	-7.7	18.5	-7.9	17.9			

	As a % of GDP	
	1980	1984
PUBLIC FINANCE		
Current Revenues	32.9	26.4
Current Expenditures	24.5	29.2
Surplus (+) or Deficit (-)	8.4	-2.8
Capital Expenditure	4.6	4.5
Foreign Financing	-1.0	0.6

1984-89 1985-90

OTHER INDICATORS

GDP Growth Rate (%)	2.5	3.49
GDP Per Capita Growth Rate (%)	0.9	1.82
Energy Consumption Growth Rate (%)	1.5	1.9
ICOR	7.1	5.6
Marginal Savings Rate	0.87	0.76
Import Elasticity	1.12	1.14

a/ Rates of growth in projected values in constant prices.

b/ Only General Government included.

p/ Preliminary.

CHILE - EXTERNAL TRADE

Population: 11,700 (mid-1983 thousands)
GDP Per Capita: US\$1,971.5 (1983)

Indicator	Amount	Annual Growth Rates (%)					
	(Billion US\$ at Current Prices)	Projected					
	1984	1985	1986	1987	1988	1989	1990
EXTERNAL TRADE							
Merchandise Exports	3,485	4.6	4.6	4.6	5.5	6.0	6.1
Copper	1,435	3.8	3.8	3.8	3.8	3.8	3.8
Agricultural Goods	366	7.4	7.6	7.3	7.5	7.6	7.8
Manufactured Goods	1,259	4.5	4.5	4.6	6.7	8.1	8.4
Other Goods	424	5.2	4.7	5.1	5.1	5.0	5.0
Merchandise Imports	3,390	0	2.0	1.9	3.7	3.9	4.6
Food	424	-1.7	0.0	0.0	1.1	0.0	1.3
Nonfood Consumer Goods	411	0.0	2.1	2.4	3.4	3.6	3.8
Petroleum, Oil, lubricants	2,027	0.0	1.7	2.4	3.0	3.5	3.7
Other Intermediate & Capital Goods	528	0.0	2.9	2.4	4.8	5.2	5.9
PRICES (1977=100)							
Export Price Index		119	126	137	149	161	174
Import Price Index		115	122	132	143	152	165
Terms of Trade Index		103	103	103	104	105	105

GROSS - BALANCE OF PAYMENTS, INTERNAL CAPITAL AND DEBT

(Billions of US\$ at current prices)

Population: 11,700 (mid-1983 thousands)
GDP Per Capita: US\$1,971.3 (1983)

	ACTUAL									PROJECTED							
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	
BALANCE OF PAYMENTS																	
Net Reports of Goods & NFS	-211.3	432.9	-289.7	-681.1	-394.9	-1,035.5	-3,364.5	-319.1	337.8	-361.0	577	863	1,102	1,032	997	1,071	
Reports of Goods & NFS	1,836.2	2,412.9	2,601.2	2,940.9	4,630.2	3,967.3	3,503.5	3,026.6	4,800.6	4,315.9	4,943	5,316	6,271	7,048	8,109	9,037	
Imports of Goods & NFS	-2,046.5	-1,980.0	-2,870.9	-3,622.0	-5,317.1	-7,023.0	-6,872.0	-5,345.7	-4,062.8	-4,736.9	-4,366	-4,833	-5,169	-6,016	-7,112	-7,965	
Net Factor Income	-291.4	-333.7	-379.4	-505.8	-696.4	-1,028.2	-1,547.1	-2,162.8	-1,703.0	-1,842.6	-2,038	-2,221	-2,219	-2,161	-2,139	-2,227	
Net Transfers	3.6	32.3	80.6	75.1	87.9	61.2	44.8	43.3	92.0	96.7	100	108	117	128	141	136	
Current Account Balance	-497.8	131.6	-948.6	-1,112.9	-1,204.2	-2,023.9	-4,868.8	-2,436.6	-1,073.2	-1,983.4	-1,381	-1,230	-1,000	-1,000	-1,000	-1,000	
Direct Private Investment	49.8	-1.2	16.3	176.5	232.6	170.5	376.2	363.4	148.1	65.1	125	200	200	200	230	230	
MLT Loans (net) ^{1/}	122.7	52.0	52.6	1,332.1	1,571.0	2,101.9	3,374.8	1,403.5	1,000.0	2,134.9	1,086	1,080	800	800	750	750	
Other Capital	333.3	144.3	393.5	344.3	323.6	1,090.7	1,236.9	-384.0	44.5	-137.8	230	0	0	0	0	0	
Change in Reserves (-/increase)	72.8	-411.0	-128.0	-637.3	-927.7	-1,443.4	-308.9	-1,234.3	340.9	-96.8	-80	0	0	0	0	0	
International Reserves	41.7	452.7	480.7	1,118.0	2,045.7	3,489.1	3,798.0	2,363.7	2,022.7	2,119.5	2,199.5	2,199.5	2,199.5	2,199.5	2,199.5	2,199.5	
Reserves as Months of Imports	0	3	2	3	4	6	5	5	4	3.7	3.3	3.3	3.0	2.7	2.3	2.3	

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GROSS DISBURSEMENTS										
Official Grants	-	-	-	-	-	-	-	-	-	-
Gross Disbursements of Public MLT Loans	283	433	673	1,481	1,354	872	1,018	1,295	1,690	2,088
Concessional	60	13	28	31	13	-	-	-	-	-
Bilateral	46	12	26	28	7	-	-	-	-	-
IDA	-	-	-	-	-	-	-	-	-	-
Other Multilateral	14	1	2	3	6	-	-	-	-	-
Non-concessional	223	420	645	1,450	1,241	-	-	-	-	2,088
Official Report Credits	46	97	45	50	79	-	-	-	-	238
IMR	16	15	12	17	13	14	30	-	34	45
Other Multilateral	14	11	29	19	22	-	-	-	105	75
Private	147	289	538	1,364	1,127	-	-	-	-	2,510
TOTAL MLT INFLUENCE, NET	4,429	4,364	4,644	5,984	7,548	9,413	12,361	13,825	14,988	16,887
Public Debt Outstanding & Unshared	3,730	3,392	3,664	4,355	4,812	4,720	4,423	5,157	6,958	8,982
Official	2,487	2,312	2,052	1,907	1,669	1,337	1,416	1,214	1,447	1,650
IMR	129	136	141	152	158	163	181	-	212	235
IDA	22	22	22	21	21	21	20	-	19	19
Other	2,336	2,154	1,889	1,734	1,490	1,353	1,215	-	-	1,396
Private	1,243	1,080	1,612	2,448	3,143	3,383	3,007	3,943	5,511	7,332
Unshared Public Debt	632	608	978	1,259	725	367	514	-	-	1,432
Private External Debt	670	772	980	1,569	2,736	4,693	8,138	8,658	7,545	8,005

DEBT SERVICE

Total Public and Private MLT Debt										
Service Payments	556	943	1,084	1,116	1,538	2,146	2,529	2,951	2,019	2,412
Interest	175	260	281	378	590	913	1,423	1,747	1,703	1,679
Payments as % of Exports	31	39	41	38	33	34	41	59	43	50
Avg. int. rate on new public loans (%)	7.2	7.8	8.7	10.6	12.9	15.7	15.0	-	14.1	-
Official	6.1	6.4	7.8	8.0	7.5	9.2	9.2	-	-	-
Private	8.3	8.9	8.8	10.7	13.2	16.3	16.2	-	-	-
Avg. maturity of new pub. loans (yrs.)	14.5	10.2	6.8	8.1	7.8	6.8	10.7	-	7	-
Official	19.4	16.8	17.3	15.7	18.7	14.6	19.8	-	-	-
Private	10.3	5.4	5.7	7.8	7.3	6.0	8.7	-	-	-

DEBT GROUP EXPOSURE (%)

IMR IDB/public IDB	3.5	3.8	3.9	3.5	3.3	3.5	4.1	4.5	5.0	1.6
IMR disb./tot. gross public disb.	5.7	3.5	1.8	1.1	1.0	1.6	2.9	-	-	1.4
IMR debt service/total debt service	5.4	1.9	1.4	1.9	1.4	1.2	1.0	-	-	1.7
IDA IDB/total IDB	0.6	0.6	0.6	0.5	0.5	0.4	0.5	-	-	-
IDA disb./tot. gross disbursements	-	-	-	-	-	-	-	-	-	-
IDA debt service/total debt service	-	-	-	-	-	-	-	-	-	-

As % of Public Debt Outstanding
at end of December 1983

TERM STRUCTURE

Maturity structure of public debt outstanding	
Principal due within 5 years	59.0
Principal due within 10 years	97.0
Interest structure of public debt outstanding	
Interest due within first year	18.0

^{1/} Includes private debt with public guarantee.^{2/} Numbers may not add up due to rounding.LC/PA
5/20/85

THE STATUS OF BANK GROUP OPERATIONS IN CHILE

A. STATEMENT OF BANK LOANS AND IDA CREDITS (as at March 31, 1985)

<u>Loan or Credit Number</u>	<u>Fiscal Year</u>	<u>Borrower</u>	<u>Purpose</u>	<u>US\$ million</u>		
				<u>Amount</u>	<u>(less cancellations)</u>	
				<u>Bank</u>	<u>IDA</u>	<u>Undisbursed</u>
25 loans and one credit fully disbursed				326.2	22.9 ^{1/}	-
1832	1980	Chile	Water Supply	32.4	-	7.7
1902	1981	Chile	Agri. Credit	36.0	-	11.0
1927	1981	Chile	Highway Recon.	42.0	-	0.4
2297	1983	Chile	Highway Recon. II	128.0	-	97.2
2481	1983	Chile	Agri. Serv./Credit	56.0	-	56.0
2482	1983	Chile	Housing	80.0	-	60.7
2504	1985	Chile	Public Sector Mgt.	11.0	-	11.0
Total				711.6	22.9	
of which has been repaid				<u>208.9</u>	<u>4.5</u>	
Total now outstanding				<u>502.7</u>	<u>18.4</u>	
Amount sold						7.2
of which has been repaid						<u>7.2</u>
Total now held by Bank and IDA				<u>502.7</u>	<u>18.4</u>	
Total undisbursed						<u>244.0</u>

^{1/} Includes exchange rate adjustments. The original amount of the credit was US\$19.0 million.

B. STATEMENT OF IFC INVESTMENTS (as at March 31, 1985)

<u>Fiscal Year</u>	<u>Obligor</u>	<u>Type of Business</u>	<u>Amount in US\$ million</u>		
			<u>Loan</u>	<u>Equity</u>	<u>Total</u>
1958, 1959, 1966, 1984	Empresa Minera de Mantos Blancos	Copper mining	35.10	4.25	39.35
1959, and 1965	Fideos y Alimentos Carozzi S.A.	Food products	1.50	0.15	1.65
1960, 1961 and 1965	Cemento Bio-Bio S.A.	Cement	1.20	0.10	1.30
1963	Cia. Manufacturera de Papeles y Cartones	Pulp and paper	3.00	-	3.00
1970	Minera Sagasa S.A.	Copper mining	10.45	0.45	10.90
1982	Inverchile	Money and Capital Markets	-	0.20	0.20
	Total gross commitments		51.25	5.15	56.40
	less cancellations, terminations, repayments and sales		34.75	0.70	35.45
	Total Commitments now held by IFC		16.50	4.45	20.95
	Total Undisbursed		20.00	1.88	21.88

ANNEX III

REPUBLIC OF CHILE

ROAD SECTOR PROJECT

SUPPLEMENTARY PROJECT DATA SHEET

Section I: Timetable of Key Events

- (a) Time taken by the country to prepare project: one year
- (b) Project prepared by: Vialidad, Ministry of Public Works
- (c) First presentation to the Bank: October 12, 1984
- (d) Departure of Appraisal Mission: October 30, 1984
- (e) Completion of Negotiations: May 1985
- (f) Planned Date of Loan Effectiveness: September 13, 1985

Section II: Special Bank Implementation Action

None.

Section III: Special Conditions

- (a) Agreement not to change the amount nor composition of the agreed road expenditure budget for 1986-1991 without prior approval of the Bank (para. 66);
- (b) introduction of a gradual correction of the retail price of diesel, taking into account the recommendations of the ongoing ECLA study (para. 49);
- (c) preparation of an acceptable maintenance plan for secondary local roads by December 31, 1986, including redefinition of the physical and financial role of the municipalities (para. 62); and
- (d) the establishment and staffing, no later than August 15, 1985, of the national organization for training for the road subsector and the preparation, by September 30, 1985, of a plan of action to carry out the Training Program (para. 75).

