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REPORT AND RECOMMENDATION

OF THE

PRESIDENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED CREDIT

TO THE

REPUBLIC OF BOLIVIA

FOR A

RAILWAY PROJECT

November 15, 1972

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REPORT AND RECOMMENDATION OF THE PRESIDENT
TO THE EXECUTIVE DIRECTORS ON
A PROPOSED CREDIT TO THE
REPUBLIC OF BOLIVIA FOR A
RAILWAY PROJECT

1. I submit the following report and recommendation on a proposed development credit to the Republic of Bolivia for the equivalent of US\$8 million on standard IDA terms, to help finance the first stage (1973-1974) of the Plan for the technical and financial rehabilitation of the National Railway Enterprise of Bolivia.

PART I - THE ECONOMY

Introduction

2. An economic report entitled "Current Economic Position and Prospects of Bolivia" (WH-213a, dated November 9, 1972) was distributed to the Executive Directors on November 20, 1972. It incorporates the findings of an economic mission which visited Bolivia in January/February 1972 and of a subsequent visit. More recent economic developments, particularly those related to a financial reform program introduced on October 27, 1972, are highlighted below. A summary of Country Basic Data is attached as Annex II.

Background

3. Bolivia is the most underdeveloped country in South America. The vast majority of its population is engaged in low-productivity traditional agriculture; only a fraction of the labor force is employed in enclave-type export activities in the fields of mining, petroleum and, more recently, cotton. Economic development has been hindered by geographical isolation and political instability. The revolution of 1952 largely abrogated feudalism but led to serious declines in overall output which did not recover until the early 1960's. Despite appreciable GDP increases in the second half of the 1960's the problems of poverty and underemployment remain overwhelming and the living standards of the majority of the population are very low. GNP per capita reached US\$176 in 1971 but the harshness of the environment, the regional income disparities and the skewed income distribution mean that living standards of most of the population are at subsistence levels.

4. After a decade of post-revolutionary economic disorder, the country entered a period of consolidation and by 1965 reached limited economic viability. Rapid economic growth ensued in the following

three years, with GDP increasing at an average annual rate of 6.5 percent. Growth in this period was propelled by substantial increases in private investment and by satisfactory export performance due, principally, to exports of petroleum. Economic activity, however, slowed down after 1968 and during 1969-71 the rate of growth of GDP dropped to 2.8 percent annually, barely above population growth. Three main factors appear to have been responsible for the loss of growth momentum (i) the resurgence of political instability which impaired confidence and led to a decline in private savings and investment; (ii) the hostility of the authorities to foreign private investment as expressed in the form of nationalization of foreign-owned properties; and (iii) the continuing deterioration of public sector finances which limited the public sector's ability to offset the decline in private investment.

5. While the decline in private investment during 1969-71 was the result of a crisis of confidence and thus of a transitory nature, the deterioration of public sector finances reflected a deep-seated structural characteristic of the Bolivian economy. As a result of the nationalizations carried out during the 1952 revolution, Bolivia's public sector has become one of the largest in Latin America and one on which the people have progressively grown to depend for their livelihood. With the scarcity of employment opportunities in the private sector and the high level of open and disguised unemployment, pressures to expand the ranks of public servants have proved difficult to resist. Large expenditures on wages and salaries by the Central Government and, by the state enterprises, combined with a weak tax system which relies heavily on the external sector and is poorly administered, has left precariously few resources for public investment. Moreover, the inability of the public sector to generate an adequate volume of savings severely limited the capacity to utilize external development funds. The weakness of the public finances has also caused the public sector to rely heavily on internal credit reducing the availability of domestic savings in support of private investment. Thus, the inordinately high consumption by the public sector has been responsible for a drop in overall investment activity with its adverse effects on economic growth.

Recent Economic Developments

6. The slow rate of economic growth in the last three years accentuated social tensions in the country. On coming to power in the second half of 1971, President Banzer's Government faced the urgent need to provide jobs for the urban unemployed and to set the basis for the sustained growth of private and public investment. To achieve the first objective, the Government put into effect an "Emergency Program" financed by a US\$12 million loan and a US\$2 million grant from USAID, which aimed at creating jobs on public works. To establish a more favorable climate for private investment new laws offering guarantees

and incentives to private investors were promulgated; in addition, the Government settled all outstanding claims arising from earlier nationalizations.

7. Government efforts to stimulate the growth of public investment were carried out in two phases. The first phase involved improvement of the overall planning mechanism by means of administrative reforms, including the transfer of the planning function to the Presidency of the Republic. At the same time, the Government took steps to improve pricing policies for some public undertakings, particularly in power and transport. Power rates were increased substantially in La Paz, Oruro and Cochabamba to achieve a satisfactory return on capital, and significant increases were made in railway tariffs in order to support the proposed rehabilitation program. The second phase aimed at producing a prompt and significant improvement in the finances of the Central Government and the state economic enterprises. The design and implementation of this phase took somewhat longer due to the difficulties encountered in its technical preparation and in the creation of a political consensus conducive to its orderly implementation.

8. The need to implement a program for a substantial improvement in public finances has existed for some time, but became especially pressing in 1972. The authorities were faced at the beginning of the year with the need to finance a Central Government deficit equivalent to about 6 percent of GDP as a result of falling revenues and increasing expenditures. The Government's monetary program envisaged Central Bank financing of the Treasury at some 2 percent of GDP during 1972, but the annual target was exceeded by the end of July. In the absence of an offsetting contraction of credit to the private sector which would have depressed the growth prospects of the economy, inflationary pressures led to declining foreign exchange reserves. The previously unimportant black market in foreign exchange boomed and by mid-September, US dollars were traded at a premium of one-third over their official value. Throughout this period the Government was preparing a program to cope with the situation. The resulting Stabilization and Development Plan was put into effect on October 27, 1972.

9. The Plan's objective is to strengthen public finances and to increase resource availability for public investment in 1973, while preserving internal stability and balance of payments viability. Its most important elements are as follows: (i) a reduction of the par value of the peso from \$b11.88 to \$b20.00 per US dollar; (ii) the introduction of a 20 percent tax on the value of traditional exports and of a 15 percent tax on non-traditional exports; (iii) a 5 percent tax on the revaluation of corporate assets resulting from the devaluation of the peso; (iv) a general increase of \$b1.35 per month in salaries and wages to compensate for the anticipated increase in the cost of living to be followed by a one-year long wage freeze; and (v) a freeze on residential rents.

10. The Plan aims at reversing the outflow of foreign exchange reserves in 1973 and achieving a considerable improvement in the finances of the public sector. The Treasury's balance on current account is expected to turn around from a deficit of \$b500 million in 1972 to a surplus of some \$b400 million in 1973. Most of the improvement is expected to come from the introduction of new export taxes, yielding about \$b750 million. The principal state export enterprises -- COMIBOL and YPF -- would also contribute to the build-up of public sector savings. The Plan also anticipates increases in public utility tariffs in line with domestic price increases. The increased level of public saving should allow an acceleration of public investment expenditures without recourse to Central Bank credit, thereby freeing resources for private investment.

11. On the whole, the Government's program meets the requirements of the situation and is in line with the recommendations of the Bank's latest economic report. The lasting success of these measures will depend to a large extent on the Government's ability to hold the line on incomes. As a result of the devaluation of the peso, the price level is expected to rise during the next several months and to stabilize itself in 1973-74 at a level some 25 percent above that of 1972. The \$b135 per month wage increase will raise nominal wages on average by some 15 percent. The measures imply, therefore, a scaling down of the large increase in public sector real wages which took place in the immediately preceding years. They would have the effect, however, of increasing real incomes of the lowest paid workers.

12. While as a consequence of the Stabilization Plan fiscal prospects for 1973 appear to be bright, prospects for subsequent years depend on the implementation of reforms capable of inducing more lasting improvements. The Government is conscious of this situation. The stabilization decree stipulated that a program for the reform of the Government revenue system be submitted for Cabinet approval within the next six months. A reasonable objective for such a program would be to raise public sector savings from about 3.7 percent of GDP in 1965-71 to over 6 percent in 1973-77. This level of public savings ought to make it possible for the country to raise gross capital formation from 16 percent of GDP in 1965-71 to 18 percent in 1973-77, and permit an annual expansion of domestic output of between 6 and 7 percent per annum. Since the public investment program is expected to average about US\$110 million annually over the next five years, the above-mentioned level of public savings would cover some 70 percent of public sector investment during the period -- a reasonable proportion given the relatively low level of income in the country.

External Assistance Requirements

13. To launch the Stabilization Plan, the Government obtained the support of USAID which recently authorized the conversion of a US\$20 million investment-support-loan into a program loan. An IMF mission is currently in Bolivia studying the possibility of a Stand-by, and the Government is discussing with private foreign banks the possibility of obtaining supplementary funds in support of the Plan. The authorities

are also hopeful that implementation of the Plan will lead to a considerable increase in the activities of the other Washington-based development agencies in support of public investment over the coming five years.

14. The above-mentioned public investment program of about US\$110 million annually during 1973-77 is expected to contain projects suitable for external project lending with a foreign exchange component estimated at some 60 percent of total costs. If external lenders limited their financing to this foreign exchange component, they would cover only about 80 percent of the public sector's gross external capital requirements. To fill the remaining gap, even taking into account available program financing, it would be necessary for external lenders to cover some local costs of development projects in addition to their foreign exchange component.

15. The above resource requirements for the public sector are consistent with the country's overall balance of payments financing needs. To sustain a growth rate of GDP of between 6 and 7 percent per annum, gross capital inflows in 1973-77 will have to average some US\$68 million annually, as compared with average inflows of US\$46 million in 1965-71. On the basis of the "pipeline" of undisbursed loans and the existing lending programs of the principal bilateral and multilateral agencies, Bolivia's public sector may reasonably expect to obtain an average of US\$50 million annually from these sources in 1973-77. The remaining US\$18 million are likely to come into the country in the form of suppliers' credits and private capital inflows. If this pattern of financing materializes, Bolivia's outstanding external debt repayable in foreign currency would increase slowly, from US\$532 million at the end of 1971 to US\$628 million at the end of 1977. However, the external debt service ratio would fall from its height of 18 percent of exports of goods and services in 1971 to 13 percent by 1977. Bolivia is a very poor country and the harshness of the environment renders economic development costly. External capital requirements for development are quite high, but with the recently enacted measures, especially those increasing public sector savings, the prospective improvements in project preparation and the strengthening of development institutions, it is reasonable to expect that they will be forthcoming. Given its poverty, the outlook for satisfactory performance stemming from the recently adopted reforms, and the present lack of creditworthiness for Bank lending, Bolivia may be considered to be IDA-worthy. The successful implementation of the Stabilization Plan would contribute greatly to Bolivia's economic growth as well as to its creditworthiness, and would, therefore, justify the above external financial assistance. Indeed, if the balance of payments effects of the Plan materialize as envisaged, Bolivia, while continuing to be IDA-worthy, should be in a position to seek part of the external financial assistance required from development agencies on conventional terms.

PART II - THE BANK GROUP'S ROLE IN BOLIVIA

Introduction

16. Bank Group assistance so far made available to Bolivia reflects the country's difficult budgetary position, the low income level of its people, and its limited capacity to service external debt. Except for a Bank loan to help finance an "enclave" project, lending to Bolivia has been in the form of IDA credits only. We have so far limited our financing to those projects which made no call on the Government's budget for domestic financing.

Status of Bank Group Operations

17. A summary statement of Bank Group Operations is attached as Annex I. Until now, the sectoral distribution of our lending has been fairly limited. IDA has made three credits each for power generation and distribution (\$22.4 million), and for livestock development (\$10.2 million). The one and only Bank loan (\$23.25 million) helped finance the construction of a pipeline to transmit natural gas for export.

Electric Power

18. Our first lending operation in Bolivia consisted of two IDA credits totalling \$15 million. The newly established Government-owned Empresa Nacional de Electricidad (ENDE) benefited from \$10 million to build the Corani hydroelectric plant and transmission and distribution facilities. The Bolivian Power Company received the other \$5 million, through the Government, to build the Chururaqui hydroelectric project and some transmission lines. Both projects were executed efficiently and completed on time. In 1969, a \$7.4 million credit was made to assist ENDE constructing the Santa Isabel hydroelectric plant. The Santa Isabel project is now expected to be completed in early 1973, the delay of about 10 months being accounted for by unexpectedly difficult excavation conditions.

Livestock

19. In 1967, IDA made its first credit of \$2 million for livestock development in the Beni region. The proceeds, together with a contribution by Banco Agricola, supported a credit program for beef ranchers and related technical services. The money was taken up rapidly and IDA followed up with an interim credit of \$1.4 million in 1970. Meanwhile, work proceeded on a third livestock project for which IDA lent \$6.8 million in June 1971. This project comprises credit programs for beef ranchers in the Beni region and for small sheep ranchers on the Altiplano. Disbursements on this credit have just started.

The Gas Pipeline

20. The only Bank operation in Bolivia has been the \$23.25 million loan of July 1969 (revised in July 1971) to Compania Yacibol Bogoc Transportadores (YABOG) for the construction of a 330 mile gas pipeline from Santa Cruz to the Argentine border. The IDB also assisted in the financing of the project.

Over the twenty years of the sales contract proceeds from gas exports to Argentina are expected to reach about \$300 million. Payments will be applied in the first place, to service the loans made to finance the pipeline and to compensate the Gulf Oil Corporation for the properties taken over by the Government.

21. The proposed credit would be the Bank Group's eighth operation in Bolivia, bringing the amount of IDA assistance to \$40.6 million. External financing to Bolivia, other than by the Bank Group, is principally provided by USAID and the IDB. USAID has been active in transport, agriculture, electric power and mining, and also made available significant amounts in program assistance. The IDB mainly financed road transport, manufacturing and mining investments as well as investments in the social sectors. The past lending of the main official lending agencies is summarized below:

External Financial Commitments, January 1, 1961-July 31, 1972
(in millions of US\$)

	<u>BANK GROUP</u>	<u>USAID</u> ^{1/}	<u>IDB</u>
Agriculture	10.2	18.5	15.2
Mining	-	10.4	11.9
Manufacturing	-	11.8	22.3
Power	22.4	4.8	12.0
Transport	23.3	69.8	25.3
Water and Sewerage	-	-	15.1
Housing and Education	-	-	9.8
Program Support	-	36.5	-
Other	-	9.7	12.4
	<u>55.9</u>	<u>161.5</u>	<u>124.0</u>
Total			

^{1/} Excluding Grants.

Future Direction of Bank Group Lending

22. The problems which the Bolivian Government is confronting are formidable. The country's poverty, coupled with the heritage of political instability, severely limits the scope of Government action. Nevertheless, the Government is endeavoring to accelerate economic development to draw the peasants of the Altiplano out of the subsistence economy and to alleviate the critical unemployment situation. This demands increasing amounts of investment, both public and private. It is in this context of Bolivia's dire poverty, insistent expectations, increasing demands on domestic resources and foreign exchange earnings, and the encouraging efforts of the present Government to remedy past deficiencies and to reorganize for the future, that external assistance programs for Bolivia need to be considered. Responding to early indications from the Bolivian Government regarding its plans for a significant expansion in its public investment and savings effort, we

considerably expanded our project preparation efforts. As a result, we hope to be able to increase significantly Bank Group lending to Bolivia during the coming years. In so doing, we plan to continue our efforts to support the building up of an adequate infrastructure of power and transport, and to help in the Government's efforts to expand and diversify Bolivia's exports, but put greater emphasis on helping the Government in creating additional employment opportunities.

23. In May/June 1972, a field appraisal was undertaken of the expansion programs of both ENDE and BPC. These two companies have prepared programs for the much-needed expansion in their power distribution and transmission programs which would merit financial support from IDA. We expect to present these projects to the Executive Directors in the course of this fiscal year.

24. In our future assistance to Bolivia we hope to be able to enter a new field, that of mining and metallurgy. In view of the predominance of this sector for export earnings, a Bank mission studied the sector in February-March 1971. Subsequent discussions with the Bolivian Government indicated a basis for starting off on an active program of project identification and preparation. In June 1972, we appraised a project for the expansion of a tin tailings recovery plant located at Catavi. This project is expected to be presented to the Executive Directors in this fiscal year. We have also commenced preparatory work on a program of credit for medium miners which we expect will result in an operation in FY 1974. We expect to proceed thereafter with the preparation of a project for assisting the small miners.

25. Our plans for the agriculture sector include assistance for improving poultry and dairy production in the Cochabamba area, and for expanding and improving the production of cotton in the Santa Cruz region.

26. With the progress made by the Government in its plans for fiscal improvement, it will now be possible to explore possibilities for projects which are dependent upon contributions from the Central Government. The Government's recent fiscal action justifies consideration by the Bank Group of the proposed railway credit which -- unlike earlier operations -- will depend on a financial contribution from the Central Government, albeit in a small amount.

PART III - THE TRANSPORT SECTOR

Introduction

27. The topography of Bolivia, with three distinct and separate regions, makes the provision of transport facilities a formidable and costly task. The problem is aggravated by the sparse population which means that land transport must cover long distances to serve small volumes of traffic. The existing transport system is the cumulative result of isolated responses to specific demands over the last 100 years. Commencing with the privately-owned railway companies building lines from major mining areas of the Altiplano to Pacific ports between 1870 and 1920, railway development received further stimulus from the Brazilian and Argentine Governments after 1935 and road development was promoted by the U.S. in the 1960's. On the whole, therefore, the land transport system has been shaped by a variety of autonomous and uncoordinated impulses. This piece-meal genesis did not result in an integrated transport system.

The Various Transport Modes

28. The existing highway system is almost entirely confined to the south-western part of the country. Even with considerable US Government assistance during the last decade, only about 800 km of roadway, out of the existing network of 4,000 km of primary and 2,700 km of secondary roads, have so far been paved. A tentative highway plan was drawn up in 1969-70, envisaging a massive road construction and upgrading program along with improved road maintenance, but the poor state of public finances allowed little progress in these directions. Despite the rudimentary highway system, however, the trucking industry has grown rapidly in the last decade and carries at present about 60 percent of domestic freight. It does so, however, at high cost. The lack of direct road access to the ports and the relative advantage of the railways on heavy and long hauls, has meant that the role of road transport in external trade has been negligible.

29. The potential of inland water transport has not yet been exploited in Bolivia. The two major rivers, the Beni and the Mamore, are isolated and still in their natural state. They are used only for short hops by primitive craft, and by a small fleet of outmoded motorized vessels carrying food, cement and fuel for the Beni region in the north. Traffic generated in Bolivia over the Amazon and the Paraguay rivers is as yet insignificant. The most important waterborne traffic is by steamer across Lake Titicaca.

30. The two modes of transportation that have shown rapid development are air freight and pipelines. Three major airports and numerous unpaved airstrips support a fleet of over 200 airplanes transporting some 200,000 passengers and 36,000 tons of freight annually. The hauling of fresh beef from the lowlands to the urban centers and the Altiplano mining towns has become an important service. Bolivia installed over 2,000 km of oil pipelines between 1949 and 1967. They allow access from the major production fields to the Pacific seaport of Arica and the Argentine border town of Yacuiba, and carry about 95 percent of all petroleum transported. The Bank-financed gas pipeline conveys gas over 550 km from Santa Cruz to Yacuiba.

Railways

31. The Bolivian economy relies primarily on the railway system to carry its external trade, and a significant part of its domestic freight and passenger traffic. The system consists of about 3,500 km of railway line. Except for two branch lines, the system is administered by the Empresa Nacional de Ferrocarriles (ENFE). The railways form two separate systems: the Western and the Eastern system, linked only by a long detour through Argentina.

32. The Western system was built in the period between 1870 and 1920, largely in response to the need of the mining industry to transport its products to the Pacific ports. These lines were built with private capital, albeit often backed by Government guarantees. This system consists of 2,300 km of meter-gauge railway, linking the main towns in the south-western part of the country and providing access to the port of Matarani in Peru, to those of Arica and Antofagasta in Chile, and (via Villazon) to the Argentine ports. About 55 percent of the traffic consists of exports and imports, including about 90 percent of minerals transported.

33. The Eastern system consists of two major lines operating over 1,200 km, and was built after 1937. One connects Corumba on the Brazilian border to Santa Cruz, and the other connects Santa Cruz with Yacuiba on the Argentine border. A third line, extending north-eastwards from Santa Cruz, is presently under construction. Its construction is financed by Argentina and the line will provide access to the unexploited Beni region. The railways are the only significant mode of transport in Eastern Bolivia, the region where most of the new exports (cotton, timber and fruits) originate. About 70 percent of the traffic on the Eastern railway system consists of exports and imports

34. Comparisons of railways marginal costs with those estimated for roads in the west (excluding road infrastructure) indicate that road costs are considerably higher for freight and for the preponderance of passengers (second class). Analysis of ENFE's freight traffic shows that a large proportion consists of bulky, relatively low value products with long hauls, for which transportation cost is a prime factor. On the basis of the existing data it can, therefore, be concluded that the railways have an important role to play in the Bolivian transportation system.

Transport Coordination and Planning

35. The Bank Group became associated with Bolivia's transport development in 1962 when we financed a consultant's survey of the various railways then operating in Bolivia. In 1964 the Empresa Nacional de Ferrocarriles was established, partly on the strength of the consultant's recommendations. During 1967-69 the Bank Group administered a National Transport Survey financed by the UNDP. The Survey concluded that, except for pipelines, the economic costs of providing transport services are not covered by collected user charges, due not only to inadequate charges but also to evasions of them. The poor quality of the statistics available precludes an accurate estimation of the

real subsidy provided by the Government to the various transport modes and the Government proposes to study the entire question of road and rail charges as a prelude to adopting corrective measures.

36. Given Bolivia's limited resources and the high cost of road and rail construction in Bolivia, sound transport planning and coordination must play an important role in the future development of Bolivia's transport system. Numerous proposals had been made for major new investments in the sector, such as the interconnection of the Eastern and Western railway systems, extending the railways to Trinidad in the Beni region, and the construction of roads, at times paralleling the railways. Bolivia's weak public finances have deterred the implementation of these proposals, and only externally-aided projects, such as the USAID-financed Alto-Oruro road, and the Argentina-financed extension of the railway north from Santa Cruz, have gone forward. While many of these proposed works may eventually be justified, it is desirable that the investments be planned rationally and integrated into a national plan.

37. The Bolivian Government has recently effected various measures that should result in the introduction of sound transport planning and coordination. Under a recent Administrative Reorganization Law (September 1972) this is to be undertaken at three levels. First, each transport agency (ENFE, Servicio Nacional de Caminos, Lloyds Boliviano) is to have a group responsible for accumulating data, initiating investment proposals and making related studies. The Planning Unit in ENFE became operational a few months ago. With the assistance of foreign experts, ENFE is building up a nucleus of personnel to allow this Unit to maintain and analyze current statistics, assist management in monitoring the execution of ENFE's investment plan, and in undertaking traffic costing studies. Second, the Ministry of Transport has been made responsible for formulating and executing transport policy. It will receive the proposals of the various transport agencies and adjust these to the national transport requirements. The Government proposes to augment the staff in this Ministry to undertake the required studies and to prepare investment programs. Technical assistance is expected to be provided by the UNDP. Finally, the investment proposals, as screened by the Ministry of Transport, are to be considered by a National Economic and Planning Council which determines overall priorities.

38. It is expected that this new system of planning will assist the Government to take rational decisions in the field of transport. The Government already proposes to study the economic justification of the possible interconnection between the Eastern and Western systems, the extension of the railway line north of Puerto Mamore and the proposed Cochabamba-Oruro highway. It will also carry out the study of road user charges, referred to above, to guide future transport policy.

PART IV - THE RAILWAY PLAN AND THE PROJECT

Problems of the Railways

39. Since its creation in 1964, ENFE has suffered from managerial, financial and technical problems which have been aggravated by the paucity of investment. In 1969, the UNDP agreed to finance a program of technical assistance which was administered by the Bank Group. Under this program, a team of French consultants, Sofrerail, assisted ENFE to prepare a five-year plan for the modernization of ENFE which is beset by virtually all the difficulties encountered in many of our railway projects: poor operations, badly maintained and over-aged equipment, lack of experienced management and a low standard of staff training, lack of commercial policy, low traffic density leading to uneconomic lines and services, and excess staff. These resulted in a difficult financial situation, aggravated by insufficient financial support from Government, and in the threat of continuously diminishing capability to move export and import traffic.

Railway Development Plan

40. The Bolivian Government and ENFE have adopted a Five-Year Rehabilitation and Investment Plan for modernizing the railway system. The Plan is estimated to cost about \$37 million equivalent. It will be executed over the period 1973-77. Its objective is to technically and financially rehabilitate ENFE, and to develop the railway system in such a way that it can efficiently meet the future transport needs of the economy.

41. The Plan envisages three inter-related groups of actions: acquisition of equipment to make up for the heavy arrears of maintenance and replacement and to expand ENFE's transport capability; financial rehabilitation of the enterprise; and the modernization of the engineering and commercial practices, and of the managerial methods. The preponderance of expenditure during the Plan will be on procuring rolling stock (31 percent), improving track, and related civil works (30 percent) and substituting diesel motive power for the more costly steam traction (15 percent). The financial rehabilitation of ENFE is of considerable significance in view of the difficult fiscal problems that confront the Bolivian Government. During the last two years the Government has contributed US\$3.0-3.5 million equivalent per year to ENFE to meet the deficit on operations and to service ENFE's debt. These deficits are planned to be eliminated by 1977-78, by mounting efforts in three directions: by reducing unit costs, increasing traffic and charging realistic tariffs. The rehabilitation of ENFE, along with the introduction of modern operational, commercial and management methods, has been detailed in a comprehensive Program of Action which establishes time-phased targets for the rehabilitation of the enterprise, including modernizing the workshops, redeploying and reducing the staff, and streamlining the traffic operations.

The Project

42. The Five-Year Rehabilitation and Investment Plan (1973-77) is to be implemented in two stages. The Project consists of the first two years (1973-74) of the Plan at a total estimated cost of about \$11.6 million equivalent. The foreign exchange cost would be \$7.9 million equivalent. The Project's emphasis is on improving the quality of ENFE's operations, and constitutes the minimum investment required to allow better use of existing facilities and to cope with the immediate prospective increase in traffic. The acquisition of new motive power and rolling stock has, therefore, been kept at a modest level.

43. A Report entitled "Appraisal of a Railway Project: Bolivia" (No. PTR-111a) dated November 15, 1972, is being circulated separately. A credit and project summary is attached as Annex III. The calculations contained in the Appraisal Report and cited in this one are based on the exchange rate prevailing in Bolivia prior to the devaluation effected on October 27, 1972 and without the application of a shadow exchange rate. The change in the parity of the Bolivian peso and the expected increase in domestic prices is not likely to effect the estimates of costs relative to those of benefits to such an extent as to alter the overall judgment regarding the economic justification of the Plan or the Project. This is so because, while the foreign exchange cost of the Project is substantial, and will rise when expressed in local currency, the benefits being predominantly savings in alternative transport costs and having an even more substantial foreign exchange component, will also rise. Moreover, to the extent that benefits take the form of assured continuation of exports, the value of such benefits will rise pari passu with the extent of the devaluation. The expected increase in the domestic contribution required for implementing the Project is covered by the Government's undertaking to provide all funds required by ENFE to carry out the Project, and prospects for fulfillment of this undertaking are advanced by the tax measures applied in association with the devaluation.

44. At the negotiations, held in Washington in April and October of 1972, the Government of Bolivia was represented by Mr. Guido Gutierrez, Under-Secretary in the Ministry of Transport, Communications and Civil Aviation, Mr. Walter Jorgensen, Under-Secretary in the Ministry of Finance, and Mr. Oscar Zapata, Director in the Ministry of Planning. ENFE was represented by its General Manager, Mr. Rene Navajas.

Program of Action

45. An important aspect of the Project is the carrying out of a comprehensive Program of Action. The UNDP has agreed to provide the necessary technical assistance to support this Program. The Program of Action, summarized in Schedule 3 of the draft Credit Agreement, consists of various actions which would be executed according to a fixed time schedule. It extends over the entire Plan period (1973-77), but significant advances by the end of 1974 are planned. The Program of Action establishes targets for the following steps:

- (i) extending the track rehabilitation scheme, which is underway, to cover the whole system by mid-1974;
- (ii) rehabilitating the existing main line diesel locomotives and diesel rail cars by the end of 1974;
- (iii) rehabilitating the existing passenger and freight cars;
- (iv) modernizing and concentrating the work shops, including the establishment of an organized store and supplies system;
- (v) establishing an effective operations and car allocation system for the entire railways by mid-1973;
- (vi) establishing a commercial department and introducing a new passenger tariff schedule by mid-1973, as was already introduced for freight in mid-1972;
- (vii) redeploying of staff and, reducing it by about 750 employees to achieve a target of 5,500 by 1977;
- (viii) the closing of the Sucre-Tarabuco line, which has no prospects of generating sufficient traffic to justify its continuance;
- (ix) improving the financial performance of ENFE, to achieve the following targets:

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Working Ratio %	110	101	97	90	84	79
Operating Ratio %	126	116	112	104	98	92

The progressive improvement in ENFE's financial condition required to achieve these targets will be the cumulative effect of executing all aspects of the Action Program. The introduction and maintenance of a rational tariff structure is, however, of critical significance. ENFE started to move in this direction by making a new freight tariff structure effective in July 1972. The new rates are based on marginal costs of transporting each commodity and take account of competition from other modes of transport. This new tariff schedule should raise average revenue per ton-km by about 10 percent. The new passenger fare structure, to be introduced in mid 1973, is expected to raise average revenue per passenger-km by about 10 percent. The Government and ENFE would also

undertake in the Credit and Project Agreements to maintain rates in real terms by the prompt introduction of tariff increases to compensate for future cost increases; while this understanding does not cover the adjustment now made necessary by the recent devaluation and consequent domestic price changes, the Bolivian authorities will in fact have to institute prompt tariff increases to meet the 1973 financial performance targets, and we are confident they will do so.

The Financing Plan

46. The Project would be financed from the following sources:

	\$ million		
	Foreign cost	Local cost	Total
Government	-	2.8	2.8
Proposed IDA Credit	7.2	0.8	8.0
UNDP Grant	0.7	0.1	0.8
	<u>7.9</u>	<u>3.7</u>	<u>11.6</u>

Thus, external agencies would be financing 76 percent of the Project cost. Their total financing would exceed the foreign exchange costs of \$7.9 million. This is justified in view of the analysis of external financing requirements cited in paragraph 14. It should also be noted that the domestic contribution would be provided entirely by the Government, as ENFE's finances will not allow it to contribute to investment during 1973-74. The total Government contribution to ENFE will be much larger, as the Government will also have to assist ENFE to meet its operational deficit and to service its debt. The total Government assistance to ENFE during the 1973-74 period will, in fact, amount to \$7.5 million equivalent.

Government Contribution	(\$ million)						Total Plan (1973-77)
	1972	1973	1974	1975	1976	1977	
A. Towards deficit due to Operations, Debt Service and Retrenchment of Staff	3.3	2.7	2.0	1.2	0.7	0.2	6.8
B. Towards Investment	0.1	1.2	1.6	1.8	2.0	1.4	8.0
TOTAL	3.4	3.9	3.6	3.0	2.7	1.6	14.8

The IDA Credit

47. The proposed IDA credit of \$8 million would finance the following items:

	<u>US\$ million</u>
Way and Works	2.5
Motive Power	1.2
Rolling Stock	2.4
Locomotive & Car Maintenance	.8
Workshops	<u>.5</u>
Total	7.4
Unallocated	<u>.6</u>
Grand Total	8.0

The Way and Works item includes material and equipment required to implement the track rehabilitation program and to facilitate the introduction of modern track maintenance practices. It also covers the first phase of bridge strengthening and of protection works on the Oruro-Cochabamba line which crosses the Eastern Cordillera, and the procurement of telecommunication equipment to improve traffic control. The investment in motive power would allow the procurement of 13 rail tractors to replace large locomotives that are presently being used for shunting operations, and add three more diesel rail car sets to the existing fleet, in part to replace old uneconomic passenger coaches, in part to carry increased passenger traffic between the urban centers. The \$2.4 million allocated for rolling stock would finance 200 freight cars, out of the 850 required during the Plan Period, to replace the existing over-aged and small capacity cars and to provide additional capacity. The locomotive and car maintenance item relates to the provision of components to rehabilitate existing diesel locomotives and railcars and to improve existing passenger and freight cars.

Procurement and Disbursement

48. Most of the contracts to be financed by the proposed credit would be awarded after international competitive bidding. One exception will be the procurement of \$500,000 worth of components and new parts for locomotive and rail car rehabilitation and maintenance. Their procurement will involve negotiated procurement from the original suppliers of the locomotives and railcars. These components are needed to restore to service capital assets now out of service. Suppliers credits are not normally available for this type of purchase. Another exception will be the local procurement of permanent way material (mainly sleepers) in an amount estimated at about \$800,000 equivalent.

49. The disbursements regarding expenditure on the components and new parts will be made on the full CIF costs of the items, while that for the locally procured permanent way material will be on the basis

of ex-factory costs. The disbursement of the proposed credit is projected to be:

FY 1974	\$4.3 million
FY 1975	\$3.7 million

Project Execution

50. The Project would be carried out by ENFE. The Board of ENFE is chaired by the Minister of Transport, Communications and Civil Aviation and consists of six members, including the General Manager of ENFE. The enterprise is presently governed by a law promulgated in July 1970 which assures it of sufficient autonomy. The technical assistance of 210 man months already provided under the UNDP-financed program has significantly improved the technical performance of ENFE's staff. The UNDP has agreed to continue supporting a program of technical assistance to ENFE, and allocated up to \$1 million for providing about 180 man months of expertise, from October 1972 up to June 1974. This phase of technical assistance is focussed largely on the execution of the Plan. The continuation of this assistance during the Project period will provide further training for the staff and support for the management, thus ensuring satisfactory execution of the Program of Action.

Economic Evaluation

51. The Project is economically well justified. As the first part of the Plan, it will improve the operating efficiency of the railway system and expand its capacity to meet the future demands of traffic. If the Railway Rehabilitation and Investment Plan were not to be implemented, the decline in the quality of service and the reduced capability to move traffic would result in a massive diversion to more expensive road traffic. The economic rate of return for the Plan, which takes into consideration the higher cost of transportation by road and the potential loss of traffic, has been estimated at 21 percent.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

52. The draft Credit Agreement between the Association and the Republic of Bolivia, the draft Project Agreement between the Association and the Empresa Nacional de Ferrocarriles, the Recommendation of the Committee provided for in Article V, Section 1 (d) of the Articles of Agreement, and the text of a resolution approving the proposed credit are being distributed to the Executive Directors separately. The draft agreements conform to the normal pattern of credits for railway projects and include undertakings in the matters heretofore described.

53. I am satisfied that the proposed development credit would comply with the Articles of Agreement of the Association.

PART VI - RECOMMENDATION

54. I recommend that the Executive Directors approve the proposed credit.

Robert S. McNamara
President

Attachments

November 15, 1972

STATUS OF BANK GROUP OPERATIONS IN BOLIVIA

A. Statement of Bank Loans and IDA Credits (as at October 31, 1972)

<u>Loan or Credit No.</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	(US\$ million)		
				<u>Amount (less cancellation)</u>		
			<u>Bank</u>	<u>IDA</u>	<u>Undisburs</u>	
61	1964	Bolivia	Power generation and transmission (ENDE)		10.00	-
62	1964	Bolivia	Power generation and transmission (BPC)		5.00	-
107	1967	Bolivia	Livestock		2.00	-
148	1969	Bolivia	Power generation (ENDE)		7.40	2.05
635	1969	Compania Yacibol Bogoc Transportadores (YABOG)	Gas Pipeline	23.25	-	0.24
171	1970	Bolivia	Livestock		1.40	0.30
261	1971	Bolivia	Livestock		6.80	6.76
		Total now held by Bank and IDA		23.25	32.6	-
		Total undisbursed		0.24	9.11	9.35

B. IFC Investments

There have been no IFC investments in Bolivia.

C. Projects in Execution

US\$6.8 million Credit of June 25, 1971, for Livestock Development (Cr. 261)

This is the third development credit for financing programs of credit to the livestock sector. While the earlier two credits were committed rapidly and disbursed, there has been some delay in commitments under the third credit. The delay is ascribable to the unwarranted expectation amongst potential borrowers that the lending rate would be reduced. The rate of commitments is, however, reported to be improving of late.

US\$7.8 million Credit of April 2, 1969, for Power Generation (Cr. 148)

The completion of the Santa Isabel hydroplant, being built by the Empresa Nacional de Electricidad (ENDE) has been delayed by about a year due to adverse geological conditions in tunneling. This, along with wage increases has also increased the cost of the project by about \$2 million. These over-runs are being met by ENDE from its own funds.

COUNTRY DATA - BOLIVIA

Form No. 81.02
(5-77)

COUNTRY: BOLIVIA

AREA: 1,098,000 km²POPULATION: 5.06 million (1971)
Rate of Growth 2.6 % (annual average 1960-70)POPULATION DENSITY: 4.6 persons per km²
Ibid 376 peasants per km² of cultivated land
135 inhabitants per km² of (potentially) arable land

POPULATION CHARACTERISTICS:

Crude Birth Rate (per 1,000) (1960-1970) - 40 per 1,000
Crude Death Rate (per 1,000) (1960-1970) - 14 per 1,000
Infant Mortality (per 1,000 live births) - (1970) - 154 per 1,000

HEALTH:

Population per physician 2,500 inhabitants (1968)
Population per hospital bed 552 inhabitants

INCOME DISTRIBUTION:

% of national income, lowest quintile - 2.5 percent
highest quintile - 65.0 percent

DISTRIBUTION OF LAND HOLDINGS

Distribution of land by land by size of holding not available after 1950.

ACCESS TO POTABLE WATER (% of population)

Urban - 35 percent
Rural - 1 percent

ACCESS TO ELECTRICITY (% of population)

Urban - About 90 percent
Rural - About 5 percent

NUTRITION:

Calorie intake as % of requirements - 85 percent (1968)
Per capita protein intake - (incl. animal - gr. per day) - 46 grams
(1964-66)

GNP PER CAPITA: \$176.00 (1970)

EDUCATION:

Adult literacy rate - 38 percent (1970)
Primary school enrolment (%) - 66 percent (1971)

GROSS NATIONAL PRODUCT

	1971 (in US\$ mln)	%
GNP at market prices	856	100.0
Gross Investment	153	17.8
Gross National Savings	105	12.3
Current Account Balance	55	-6.4
Exports of Goods, NPS	193	22.5
Imports of Goods, NPS	231	27.0

ANNUAL RATE OF GROWTH (% constant prices):

	1965-70	1965-70	1971
n.a.	4.4		3.0
n.a.	4.3		3.1
-	-		-
n.a.	9.3		-1.1
n.a.	2.8		9.6

OUTPUT, LABOR FORCE AND PRODUCTIVITY

	1970	
	Value Added (US\$ Million)	%
Agriculture	170.4	20.0
Industry	261.3	30.7
Services	420.4	49.3
Total	852.1	100.0

1970	
Labor Force	millions
	1,285
	273
	374
	1,932

1970		
Value Added Per Worker	% of national average	
	(US\$)	
132.6		30.1
957.1		217.0
1,124.1		254.9
441.0		100.0

PUBLIC FINANCE:

Total Public Sector - (incl. State enterprises)

	1971		% of GDP - Average 1969-71	
	US\$ million	% of GDP		
Current Receipts	330.4	37.6	36.1	
Current Expenditures (incl. transfers)	306.4	34.9	32.3	
Current Surplus/Deficit (-)	24.0	2.7	3.8	
Capital Expenditures	93.5	10.7	10.4	
External Assistance (net)	39.5	4.5	4.0	

Central Government

	1971		% of GDP - average 1969-71	
	US\$ million	% of GDP		
	94.7	10.8	10.9	
	103.8	11.8	11.4	
	-9.1	-1.0	-0.5	
	27.3	3.1	4.0	
	13.8	1.6	2.4	

COUNTRY DATA - BOLIVIA

PRICES AND CREDITS

end of year:

1963
1969
1970
(month) 1970 December
(month) 1971 December

Index	General Price Index	
	(1963=100)	% change
1963	120.5	-
1969	125.3	4.0
1970	126.6	1.0
(month) 1970 December	129.7	2.5
(month) 1971 December	134.0	3.3

BALANCE OF PAYMENTS

Exports of Goods, US\$
Imports of Goods, US\$
Resource Gap (deficit = -)

Interest Payments (net)
Workers' Remittances
Other Factor Payments (net)
Net Transfers
Balance on Current Account

Direct Foreign Investment
Medium and Long-term Loans (net)
Disbursements
Amortization
Official Grants
Other Capital Inflow
Increase in Official Reserves

	1969	1970	1971
	(millions US \$)		
Exports of Goods, US\$	190.2	207.0	192.7
Imports of Goods, US\$	215.2	210.7	231.0
Resource Gap (deficit = -)	-25.0	-3.7	-38.3
Interest Payments (net)	-4.8	-6.4	-9.4
Workers' Remittances	0.0	0.0	0.0
Other Factor Payments (net)	-16.3	-14.7	-12.2
Net Transfers	7.9	4.0	5.0
Balance on Current Account	-38.2	-20.8	-55.0
Direct Foreign Investment	4.1	0.4	-
Medium and Long-term Loans (net)	33.9	26.8	46.7
Disbursements	(48.6)	(45.3)	(66.1)
Amortization	(-14.7)	(-18.5)	(-24.4)
Official Grants	-	-	4.5
Other Capital Inflow	-0.5	-3.1	5.2
Increase in Official Reserves			
Gross Reserves	49.4	57.4	57.2
Net Reserves	33.0	38.8	34.0

Bank Credit to Public Sector

US\$ million	% change
120.3	-
130.8	8.7
148.8	13.8
148.8	13.8
176.5	18.6

Bank Credit to Private Sector

US\$ million	% change
60.3	-
73.1	21.2
89.1	21.9
89.1	21.9
99.6	11.8

MERCHANDISE EXPORTS (Average of the last three years):

	(\$ mln.)	
Tin	101.6	48.1
Oil	19.3	9.1
Antimony	17.1	8.1
Tungsten	14.0	6.1
Zinc	12.2	5.1
Copper	10.4	4.1
Sub-Total (CIF)	174.6	82.1
TOTAL (CIF)	211.1	100.1

EXTERNAL DEBT ON DECEMBER 31, 1971

Medium and Long-term Credits, Public
Non-Guaranteed Private MLT

Total Outstanding and Disbursed

(\$ mln.)
594.7
-
594.7

DEBT SERVICE RATIO 1971:

18.2

IBRD/IDA LENDING, DECEMBER 31, 1971

Outstanding and Disbursed
Undisbursed

Outstanding incl. Undisbursed

(\$ mln.)
IBRD IDA
18.2 21.4
5.2 11.2
23.2 32.6

Exchange Rate:

US \$1.00 = 11.88 pesos
\$b- 1.00 = US \$ 0.084

After October 27, 1972:-

US \$1.00 = 20.0 pesos
\$b1.00 = US \$0.05

Date: November 14, 1972

Department: LAC II

BOLIVIA - RAILWAYS

CREDIT AND PROJECT SUMMARY

Borrower: Republic of Bolivia

Beneficiary: Empresa Nacional de Ferrocarriles (ENFE)

Amount: \$8.0 million equivalent

Terms: Standard

Relending Terms: Payable in 25 years, including a five-year period of grace, at 7¼ percent interest per annum.

Project Description: The first two years of a Five-year Plan (1973-77) for the technical and financial rehabilitation of the Bolivian Railways (ENFE).

<u>Cost of Project:</u>	<u>Component</u>	<u>(US\$ million)</u>		
		<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	Way and Works	2.5	1.7	4.2
	Motive Power	-	1.2	1.2
	Rolling Stock	-	2.4	2.4
	Locomotive and Car			
	Maintenance	-	.8	.8
	Workshops	.8	.5	1.3
	Technical Assistance	<u>.1</u>	<u>.7</u>	<u>.8</u>
	Total	3.4	7.3	10.7
	Contingencies			
	Physical (1%)	.1	-	.1
	Price (7%)	<u>.2</u>	<u>.6</u>	<u>.8</u>
	Grand Total	3.7	7.9	11.6

<u>Financing:</u>	<u>Source</u>	<u>Amount (US\$ million)</u>		
		<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	IDA	0.8	7.2	8.0 (69%)
	UNDP	0.1	0.7	0.8 (7%)
	Government	<u>2.8</u>	-	<u>2.8</u> (24%)
		3.6	8.0	11.6(100%)

Procurement: Most of the contracts to be financed by the proposed credit would be awarded after international competitive bidding. One exception will be the procurement of \$500,000 worth of components and new parts for locomotive and rail car rehabilitation and maintenance. Their procurement will involve negotiated procurement from the original suppliers of the locomotives and railcars. Another exception will be the local procurement of permanent way material (mainly sleepers) at an estimated cost of \$800,000 equivalent.

As no duties are payable by ENFE on equipment to be financed by the proposed credit, the preferential trade agreements between Bolivia and the members of the Latin America Free Trade Association (ALALC) are not applicable.

Consultants: Phase II of UNDP-financed program of technical assistance being administered by Bank Group. A French consulting firm Sofrrerail, has been retained for the purpose.

<u>Estimated</u> <u>Disbursements:</u> (<u>\$ million</u>)	<u>FY 1974</u>	<u>FY 1975</u>
	4.3	3.7

Rate of Return: The internal economic return of the total five-year plan investment is estimated at 21 percent.

Appraisal: Report No. PTR 111a (November 15, 1972)

