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REPORT AND RECOMMENDATIONS

OF THE

PRESIDENT OF THE

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN

TO

SPAIN

FOR A

INDUSTRIAL RESEARCH, DEVELOPMENT AND ENGINEERING PROJECT

May 4, 1977

CURRENCY EQUIVALENT

Currency Unit	=	Peseta
US$1	=	Ptas. 66
Pta. 1	=	US$0.0151
Ptas. 1000	=	US$15.15
Ptas. 1,000,000	=	US$15,150

Note:

1. The exchange rate has been floating since devaluation of the peseta against the US dollar in February 1976. Recently it has been valued at US$1 = Ptas. 68.6.

2. The appraisal calculations were made at the rate of US$1 = Ptas. 66.

FISCAL YEAR

January 1 - December 31

ABBREVIATIONS USED IN THIS REPORT

INI	=	Instituto Nacional de Industria
INIA	=	Instituto Nacional de Investigaciones Agronomas
RD&E	=	Research, Development and Engineering
RENFE	=	Red Nacional de los Ferrocarriles Espanoles

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT TO THE EXECUTIVE DIRECTORS ON AN INDUSTRIAL RESEARCH, DEVELOPMENT AND ENGINEERING PROJECT

1. I submit the following report and recommendation on a proposed loan to Spain for the equivalent of US$18 million to help finance an industrial research development and engineering (RD&E) project. The loan would have a term of 13 years, including three years of grace, with interest at 8.2 percent per annum.

PART I - THE ECONOMY

2. The last regular economic mission visited Spain in 1970; its report (R71-140), is dated May 20, 1971. Except for a review of the Spanish industrial sector in November 1971, economic work since that time has been limited to occasional collection of information mostly in conjunction with operational missions. This material and information from other sources is reflected in this report. Country data are attached in Annex I.

Spain's Economic Transformation

3. The years between 1960 and 1974 stand out as a period of rapid economic growth and structural changes which saw Spain's transformation into an essentially industrial nation. During 1960-74, GNP expanded in real terms on average by 7.2 percent per year, one of the highest rates achieved among developing countries, and the second highest, after Japan, among OECD countries. Spain's GNP per capita, growing at an average annual rate of over 6 percent during this period, reached US$2,700 in 1975. 1/ This rapid growth and the accompanying large scale absorption of labor force from the traditional sectors, especially agriculture, into the modern sector, and the rapid increase of real wages and salaries has led to sizeable improvements in the distribution of income.

4. Industry, the leading growth sector, expanded at an average rate of 9.8 percent per year during 1960-74. As a result, the share of industry in GDP at factor cost rose to around 39 percent in 1975, from approximately 30 percent in 1960. The service sectors, also reflected in their share in GDP at constant factor cost, appear to have maintained their combined relative weight in the economy, hovering around 48-52 percent. Agriculture, however, declined significantly in importance, as its share in GDP dropped to about 9 percent in 1975, a ratio typically found among more developed countries.

1/ World Bank Atlas methodology.

5. The intensity of these structural changes involved major shifts in the composition of Spain's labor force and the emergence of unprecedented migratory movements, both within Spain and abroad. During 1960-75 Spain's agricultural labor force declined by 2.2 million to 2.8 million, and its share in total labor force dropped from 43 percent to 21 percent. While the share of the labor force engaged in industry increased only from 30 percent to 38 percent during this period, the service sectors became the most important source of domestic employment. Mainly as a result of domestic employment creation and a labor legislation inhibiting the discharge of redundant workers, open unemployment had not been a serious problem in the past. The employment situation was furthermore alleviated by a substantial emigration of labor abroad, mainly to Western Europe, and a comparatively low participation of female labor.

6. Spain's impressive economic surge was facilitated by economic liberalization and high levels of savings and investment. During the last decade average investment expenditure have amounted to about 24 percent of GNP and, until 1974, national savings were of equal magnitude. Most of the investment financing was provided by plowed back profits, the banking system and capital markets. Savings and investment by central and local governments and the social security system were in the order of 3 percent of GNP.

7. Rapidly rising foreign exchange inflows from commodity exports, tourism, workers' remittances and foreign private investors strongly supported the country's economic transformation by removing foreign exchange constraints on growth and opening up the economy to foreign technologies and know-how. Despite the very strong growth of imports of investment goods, raw materials and semi-manufactures and, to some lesser extent, rising food imports, which together caused persistently high trade deficits (averaging some US$1.8 billion during 1965-70 and US$2.5 billion during 1971-73), it was possible to keep the balance of payments deficits on current account during the 1960's at tolerable levels, and to generate surpluses during 1970-73. On the average of 1965-73, net earnings from tourism alone helped offset 77 percent of the trade deficit. In 1973, when Spain was visited by 34.6 million tourists, net earnings from tourism had reached a volume of about US$3.2 billion, while workers' remittances came to US$0.9 billion.

8. Owing to substantial net inflows of medium- and long-term capital, primarily from private sources, Spain's basic balance also showed surpluses from 1967 to 1973. The net inflow of private medium- and long-term capital averaged about US$640 million a year during this period, of which 74 percent was accounted for by direct, portfolio and real estate investments. Public medium- and long-term capital inflows had been at moderate levels throughout the period, with amortizations exceeding disbursements during 1970-73.

9. The favorable development of Spain's balance of payments had led to a strong accumulation of foreign exchange reserves during 1970-73. At the end of 1973, total reserves stood at US$6.8 billion, equivalent to eight months of imports of goods and non-factor services.

10. While the stage of economic development and the process of integration with world markets advanced very far from the conditions of the past, important institutional deficiencies and structural weaknesses at the sectoral level have persisted, posing some difficult problems of adjustment in the future, particularly in view of the expected closer relationship to the European Common Market. The relative size of the public sector has changed little over the past decade despite increasing demand for social services and economic infrastructure. With mounting social pressures for further improvements in the fields of social security, health, education and other basic services, and a deficient tax system that is still heavily based on indirect taxes and payroll taxes (the overall ratio of taxes in GNP was only about 13 percent in 1975), Spain's fiscal system is in urgent need of overhaul. In industry, much of the past growth was based on imported technology, while competitiveness was maintained by labor cost advantages and the capability to produce in small series with flexibility of the output mix which more advanced industrial countries could not afford anymore at competitive prices. Despite the rapid development of new large-size industries, Spain's industrial structure remains dominated by small- and medium- scale family-based enterprises.

11. The inherent structural and managerial weaknesses in industry and, what follows from this, the neglected efforts to strengthen industrial capabilities in product development and marketing had been less evident and apparently less urgent to overcome as long as the Spanish economy benefitted from a fast growing world economy. These conditions, however, no longer exist.

Recent Economic Developments

12. Sharply increased petroleum prices and the recession in other OECD countries have, since 1974, caused a reversal in Spanish economic conditions and have given rise to major economic problems. First to be affected was the balance of payments. Mainly because of much higher payments for imports, stagnating earnings from tourism and a decline in workers remittances, Spain's balance of payments on current account reversed from a surplus of US$550 million in 1973 to deficits of around US$3.1 billion in 1974 and US$3.5 billion in 1975. Preliminary estimates for 1976 place the current account deficit at about US$4.2 billion.

13. Only through a substantial increase in foreign borrowings from suppliers and institutional lenders could a critical loss of foreign exchange reserves be avoided. In addition to drawing on the IMF oil facility in the equivalent of US$581 million in 1975, Spain resorted particularly to Eurocurrency loans in excess of US$1.0 million each in 1974 and 1975, and for the first nine months of 1976 the recorded borrowing from the international capital market approached US$1.5 billion; in August 1976 a loan in the amount of US$1.0 billion was syndicated, one of the largest such loans ever reported. Due to these efforts, the level of reserves declined only slightly to US$5.3 billion (by the end of 1976), equivalent to about four months' of imports. In order to improve the balance of payments situation, the peseta was depreciated against the US dollar by about 10 percent in February 1976, and had floated

downwards by another 3 percent by end 1976. In October 1976 the Government took a further step to curb imports by introducing a temporary surcharge of 20 percent on the import duties of a large number of commodities.

14. Spain entered the recession later than the other OECD countries. In 1974, the real growth rate of GDP was still 4.9 percent, down from over eight percent in both 1972 and 1973. In 1975, however, GDP growth came to a virtual standstill as real value added in manufacturing and construction declined. Preliminary estimates for 1976 suggest a continuing sluggish growth with a real growth rate of GDP below 2 percent, resulting mainly from the drop in fixed investment in 1975 and the continuing depressed investment climate. The recession was accompanied by a sharp rise in unemployment. By the end of 1976, unemployment had risen to about 800,000, equivalent to 6 percent of the labor force, the highest level in 20 years.

15. Slow economic growth was accompanied by rising inflationary pressure. Consumer prices in 1976 are estimated to have increased by some 20 percent, after 17 percent during the previous year. In addition to "imported inflation", which had its strongest impact in 1974, there have been important cost-push elements. Workers have tried to maintain the past upward trend in real wages (with a cumulative increase in the index of constant price hourly earnings in industry and services in excess of 30 percent during 1974 to 1976), while firms have frequently sought to maintain profits by price increases in excess of the rise in unit costs. In addition, the central government tried to stimulate private and public investment through tax rebates and public works programs, which resulted in some deficit financing via monetary expansion. In order to counter the inflationary pressures, the Government extended in October the system of price controls to a large number of goods and services and tightened it by introducing new detailed rules as to the determination of any permissible price increases. The expected dampening of the cost of living rise is deemed necessary if the wage restraints, introduced on the same date, are to be politically acceptable.

Short-term Prospects

16. Spain's current economic problems coincide with the difficult period of political transition following the death of Generalissimo Franco. Thus, the primary concern of the current Spanish leadership over the direction and pace of political reform has acted as a restraint on domestic economic policies. As a result, economic decision-making is currently focussing mainly on the difficult task of stimulating the economy while keeping inflation under control through ad hoc measures. Under the circumstances--with Spain's first parliamentary election scheduled for June 15, 1977--medium- and long-term programs for economic development, and institutional and structural reforms would have to wait for the post-election period. However, unless these programs and reforms are initiated in due course, Spain's eventual accession to the European Communities, although not likely to take place before the early 1980's, would be further complicated.

17. In the short run it appears that the complex problems of economic management will cause some degree of uncertainty, with adverse effects on investment, employment and output. Spain's economic recovery will, therefore, probably lag behind that of other OECD countries for some while. The country has, however, ample scope to improve productivity both in industry and in agriculture which would permit expansion of exports to OECD countries. There is also scope for considerable expansion of exports to new markets, particularly to Middle Eastern countries with which Spain is developing increasingly close relations. The economic recovery in Western Europe is expected to revive the tourism sector which stagnated for several years.

Creditworthiness and External Debt

18. Increased foreign exchange earnings should, in due course, lead to a reduction of the balance of payments deficits and external borrowing requirements. So far, Spain has not encountered any difficulties in raising the funds needed to maintain adequate external liquidity. Neither the total amount of borrowing in relation to the size of the economy and its growth potential nor the debt-service ratio give rise to serious doubts as to the creditworthiness, provided Spain can overcome within the next few years its current balance of payments problems. This seems also to be the prevailing judgment of the international banking community, as demonstrated by the eagerness with which foreign banks lined up to participate in the recent Euro-currency loan. Spain is also actively diversifying its sources of foreign borrowing, as indicated by the recent Kuwaiti Government guarantee of a bond issue reportedly in the equivalent of US$500 million, to be raised in Kuwait and other Arab countries; in February 1977 negotiations for a similar loan in the amount of $150 million from Saudi Arabia were announced. The Spanish Government is confident as to its future borrowing capacity.

19. Total public medium- and long-term debt (disbursed) at the end of 1975 amounted to US$3.33 billion, with Bank loans accounting for 7.5 percent of the total. Due to the heavy private borrowing during the recent years, total outstanding medium- and long-term loans (including a sizeable undisbursed portion) reportedly amounted to around US$11 billion by the end of 1976. Debt service payments on public debt were about 2.5 percent of foreign exchange earnings and total debt service ratio was about 9.1 percent for 1975. Amortization and interest on Bank loans amounted to about 9 percent of total public debt service payments.

PART II - BANK OPERATIONS IN SPAIN

20. The proposed loan, the Bank's twelfth operation in Spain, would bring total Bank lending to $416.3 million (net of cancellations). The net amount outstanding and held by the Bank as of March 31, 1977 was $301.6 million, of which $58.3 million was undisbursed.

21. Six loans, totalling $328 million, have been made in the transportation sector, one for highways ($33 million), three for railways ($205 million), and two for ports ($90 million). The Highways Loan of 1963 (No. 360-SP) which financed road improvements also made provision for a pilot highway maintenance program, as a first step towards a nationwide maintenance system. The autonomous State Railways (RENFE), recipient of three Bank loans in 1964 (No. 387-SP), 1967 (No. 507-SP) and 1971 (No. 772-SP), has been transformed from an obsolete enterprise into a modern and efficient railway system that now compares favorably with other European railways. A performance audit of the Railways loans (dated December 27, 1974) by the Operations Evaluation Department notes the good results achieved by RENFE and attributes them to RENFE's internal efficiency, the suitability of the Bank's approach and its sustained and timely attention, the quality of the consultant's work and the fact that they remained for the several years required, and the rapid growth of the Spanish economy, which facilitated absorption of personnel eliminated from RENFE and maintained total demand for transport services. However, beginning in 1975 Spanish Railways, in line with other European railways, were seriously affected by the recession and this was exacerbated by the internal political instabilities. Tariff increases, cost-cutting measures and new transport regulatory measures which could not be implemented caused serious financial problems. As Spain's financial and political problems are overcome and it becomes possible to introduce the necessary increases in tariffs the improved operational and organizational efficiency should be of considerable assistance in the restoration of Spanish Railway's profitability. Two loans have been made for Port Development (Nos. 429-SP of 1965 and (884-SP of 1973). Approximately $19 million of Loan 884-SP remains undisbursed. Notwithstanding the fact that implementation of the second project has been delayed largely as a result of substantial cost overruns it is recognized that Bank involvement through these two projects has resulted in major institutional and financial changes, particularly in respect of port administration and the preparation of development plans. The Ports Authorities, like the Railways, are currently encountering financial problems resulting from their inability to increase tariffs sufficiently to fully off-set inflation.

22. The Bank has made three agricultural loans, two for livestock development ($25 million loans in both 1969 and 1975) and a $12.7 million loan for agricultural research in 1971. The purpose of the agricultural research project was to raise the standard of research through the restructuring of the key official research organization, INIA (Instituto Nacional de Investigaciones Agronomicas) and reorienting its research activity on a commodity-oriented basis. This was the first project of this type undertaken by the Bank. Execution of this project was delayed initially by a time-consuming reorganization of INIA during which the government's financial and administrative support for the project was inadequate. Following the appointment of a new President of INIA in April 1974 support for the concept of commodity-oriented research became much stronger and project implementation improved considerably. During 1976 implementation was again delayed. As a result of Spain's overall financial constraints arising from the recession, inadequate funding was provided and, in addition, the political transition gave rise to a number of changes in ministerial and managerial

positions in the Ministry of Agriculture and INIA. The Presidency of INIA changed hands twice during 1976. These changes at the policy making level were not conducive to good management and served as an additional obstacle to project implementation. However, agricultural research, including the Bank project, continues to enjoy the support of the Spanish Government. Adequate funds to implement the program during 1977 have now been provided and the contract with the consultants responsible for managing and coordinating the research program has been extended through the end of the year.

23. At the request of the Government of Spain the Bank agreed in late 1975 to consider providing additional funding to expand the agricultural research projects underway and to initiate new research activities. Such a project was appraised in November/December 1975 and it was intended that a separate component for agricultural research would be provided under the new loan proposed for industrial RD&E. However, in the end, the Government concluded that, given its financial constraints and the need to fully support the research activities already initiated, it could not provide additional funds for even a minimum size project, and therefore withdrew its request for additional funding for agricultural research.

24. The Bank also made two loans for education, in 1970 and 1972, totalling $62 million. During the implementation of these loans, there were frequent changes in the leadership of the Education Ministry, and significant uncertainty concerning the Government's intention to implement the educational reform program adopted by the Government in 1970. Due to the growing pressure on the Government to build more basic education schools, combined with increased construction costs, the Government decided it would not follow the standards of student accommodation envisaged in the projects, but instead would significantly reduce the resources devoted to pre-technical training. In the Bank's judgment, improvement in this field was a key element in the educational reform. Consequently, the Bank did not accept the revisions proposed in the project by the Government, and at the request of the Government the undisbursed balance of these loans amounting to $61.5 million was cancelled on March 25, 1975. (Report to Executive Directors on Bank and IDA Operations, dated April 3, 1975 - R75-52.)

25. Annex II contains a summary statement of Bank loans and IFC investments as of March 31, 1977, and notes on the execution of ongoing projects.

26. Despite the recent deterioration in Spain's balance of payments, its reserves, export potential and access to foreign capital markets should ensure the availability of adequate external financing for its continued economic development. In view of this and of Spain's relatively high income level, the proposed loan is the last contemplated for Spain.

27. IFC has made investments in four Spanish enterprises totalling $18.8 million (see Annex II, page 2). The loans to Fabrica Espanola Magnetos, S.A. (FEMSA - an automotive electrical equipment manufacturer), Banco del Desarollo Economico Espanol, S.A. (BANDESCO), Industrias del Papel y de la Celulosa, S.A. (INPACSA), a pulp and paper manufacturer, have been fully

disbursed, and repaid, and IFC has sold its shareholdings in these enterprises. A loan of $4.4 million to Industries de Tableros y de Derivados de Madera was signed June 21, 1974, with an IFC equity participation of $0.9 million, the total amounting to $5.3 million.

PART III - THE INDUSTRIAL SECTOR

28. During the last ten years, industry's contribution to Spain's GDP has been increasing, while agriculture's share has been declining. In neither sector has research to improve the technology of production and develop new or improved products kept up with the requirements of Spain's rapidly developing economy. This weakness in research support has resulted from somewhat similar causes in both sectors, although the institutional framework for industrial research is quite different from that for agriculture.

Characteristics of the Industrial Sector

29. Despite the rapid development of new large-size industries since 1960 Spain's industrial structure remains dominated by the small-scale, family-based enterprise, which in the past had been able to remain competitive because of the relatively low labor costs and its capacity to produce in small individual series and with a high product flexibility. The new industries have been mostly large-scale and capital-intensive, utilizing up-to-date equipment and modern foreign technologies, frequently through direct foreign participation.

30. While Spain's industrial growth in the 1960's was induced mainly by rapidly expanding domestic demand, export sales have become much more important over the last decade. In 1974 about 14 percent of manufacturing output was exported as compared to five percent in 1961. During the same period industrial exports rose from US$150 million to US$4.1 billion, and their total share in commodity exports rose from 21 to 58 percent.

31. Many of the comparative advantages on which Spain's industrial successes were based are gradually diminishing however. For example, Spanish labor costs, including social security costs, have increased very rapidly in recent years and will probably continue to rise faster than in other Western European countries. With labor costs now getting closer to those in other Western European countries, Spanish industry can no longer depend for its competitiveness on cheap labor. This has implications also for the capability of Spanish firms to accommodate small orders with varying specifications.

32. The gradual disappearance of previously important comparative advantages occurs during a period of increasing integration with the European Communities (EC) (which in 1974 absorbed about 42 percent of Spanish industrial output) and changed economic conditions in OECD countries. These developments have put additional competitive pressures on Spanish enterprises and given further evidence of the serious weaknesses in Spain's industrial

structure and in industrial management. Concentrated efforts from industry and the Government will be required to prevent a further erosion of current competitive positions. In view of the prospects of a much closer economic integration with the EC, vigorous and selective efforts must begin now to develop technologically improved processes and products in areas in which Spain can expect to be competitive.

33. It needs to be stressed that without such efforts to improve products, processes and productivity, including, but not restricted to, the proposed project, the necessary adjustments would not only be unduly delayed and probably too little to be effective but would also lead to a situation in which Spain might find itself losing its competitive edge, and its capability to grow and compete in expanded markets, particularly the EC.

Role of Research, Development and Engineering (RD&E)

34. Although expenditures on RD&E have been rising rapidly in the last few years, total allocations for it are still small, are spread too thinly over too many fields, and are supporting too many institutions which are often very small in size and lacking in significant impact on technological improvements. In 1974 payments by Spanish industry for licenses, royalties, and technical assistance amounted to about US$316 million and rose to approximately $500 million in 1975. The cost of dependence on foreign technology has been high, and often at the cost of conditions imposed by the foreign seller that have limited the ability of Spanish enterprises to export and to compete in foreign markets.

35. There is not now any institution in Spain with responsibility for the systematic support and exploration of industrial research and development opportunities and the engineering of new products. There are scattered programs of support but they lack breadth of coverage in problems and in sector representation. Of industrial RD&E spending, only little more than half is accounted for by private enterprises, and there are currently no tax or other incentives designed to promote research activities. Lack of venture capital, the conservatism of the banking system, and the fragmentation of existing programs are also inhibiting factors. Thus the establishment of an RD&E program that will help to fulfill industry's needs requires provision of both resources and the institutional means.

PART IV - THE PROJECT

36. Spanish officials concerned with the long-range strengthening of Spain's industrial sector have for some time been aware of the need to improve both the quality and the quantity of research in support of Spain's long-term economic development. In the mid-1960's, the Spanish authorities discussed with the OECD, the Bank, and other organizations a possible program to improve industrial research. A feasibility study by consultants was commissioned by the Ministry of Industries in 1975 after discussions with a Bank mission which followed the Bank's Economic Report of 1971 and an industrial sector study,

completed in 1972. These reports and studies identified industrial research as a key element in long-term development. The proposed project is intended to encourage and increase the quality and quantity of efforts to develop new products and processes, and to bring them to the point of commercial exploitation.

37. The proposed project was appraised by missions which visited Spain in November/December 1975 and May 1976. Processing of the project has been delayed by prolonged but abortive discussions between the Government and the Bank regarding possible additional lending for agricultural research as a component of the proposed loan (see para 23).

38. Negotiations were held in Washington in March, 1977 with a Spanish delegation, which was led by Don Gregorio Gutierrez Escudero and comprised of representatives from the Ministries of Commerce, Industry and Finance.

Project Description

39. This project, the first of its kind to be undertaken by the Bank, would establish an organization (RD&E Unit) and provide it with the required technical capabilities to carry out research, development and engineering operations intended to develop new products and processes in related industrial fields, under specified criteria and procedures agreed between the Spanish Government and the Bank (see para 49).

Organization and Plan of Operation

40. The RD&E Unit would be established initially within the Ministry of Industry and would survey available technology and resources of Spanish industry for the purpose of evaluating its capacity to develop new processes and products likely to be competitive in future markets. In close cooperation with industry, the RD&E Unit would then conduct market studies, identify product lines and marketing strategies and commission, finance and supervise the necessary research, development, design and engineering activities required to develop the technologies and adapt them to Spanish conditions. Although some specialized studies may be contracted abroad most of the activities would be carried out in Spanish institutions and laboratories in both the public and private sector, largely in existing industrial firms. The patent rights to products or processes produced wholly or dominantly from RD&E Unit contracts or funding would belong to the RD&E Unit, but licenses for use would be made freely available to all domestic manufacturers upon payment of reasonable royalties, which would be determined by the Managing Director and approved by the Board of the RD&E Unit. Commercial exploitation of the products resulting from this development effort would be the responsibility of public and private enterprises. The RD&E Unit would not engage in commercial activities nor provide funds for that purpose.

41. A draft Decree for the establishment of the RD&E Unit, detailing its functions and organization and the responsibilities of the Board of Directors and the Managing Director has been prepared. This draft Decree, which has

been reviewed by the Bank and found satisfactory, is expected to be submitted to the Council of Ministers for final approval immediately following the signing of the proposed loan. Its promulgation is a condition of effectiveness of the proposed loan (Section 5.01(i) of draft Loan Agreement).

42. Ideally, the RD&E Unit should be an autonomous organization from its inception, to provide maximum independence of action and to enable it to receive income from sources other than the Ministry of Industry's budget, such as royalties from the sale or licensing of patents. However, since passage of legislation required to establish an autonomous organization is likely to take some time, and since outside income is unlikely to be received for several years, the RD&E Unit would be established initially as a servicio publico centralizado sin personalidad juridica, within the Ministry of Industry. As soon as possible, but not later than the end of 1979 the Government has agreed to submit a draft law to the legislative body to transform the RD&E Unit into an autonomous organization. It is projected that the program of the RD&E Unit could become self-sustaining after 8 years and the Government has undertaken to provide all funds necessary to enable the unit to carry on its operations at least for that period.

43. The RD&E Unit would be headed by a Managing Director operating under the direction of a Board of Directors (Governing Council). It would have a small permanent staff of about ten professionals and would establish ad hoc task forces for specific assignments.

44. The Board of Directors would be appointed by the Minister of Industry and would be comprised of three Directors-General from the Ministry of Industry, five representatives prominent at the managerial level in industry, engineering and consulting firms, and two representatives of research centers. The Board would be under the Chairmanship of the Director-General for Industrial Promotion and Technology. Staggered terms of appointment would ensure a continuous flow of ideas between the RD&E Unit and Spanish institutions concerned with industrial technology.

45. The Board of Directors would supervise the management of the RD&E Unit, maintain a continuous dialogue and cooperate with industry and research centers, approve the Unit's plan of activities and development programs and approve the Annual Report.

46. The Managing Director would have had extensive experience in private industry and would be appointed by the Minister of Industry in consultation with the Bank. His appointment would be a condition of effectiveness of the proposed loan, (Section 5.01(ii) of the draft Loan Agreement). Although the Managing Director would report to the Chairman of the Board he would operate independently, hire and dismiss staff, launch and terminate studies, prepare and allocate the budget, authorize contracts for outside research and approve arrangements for participation of industry.

47. The small permanent staff would consist of specialists in the fields of markets forecasting, new product and process development and technological promotions. The ad hoc task forces, which would be established as required to

provide technical assistance in the execution of specific sub-projects by prime contractors, would be comprised of specialists recruited from industry, universities, research agencies and consulting firms, from both within and outside Spain, for appropriate fixed periods.

48. The criteria and procedures established by the Government of Spain for the selection of sub-projects have been reviewed by the Bank and found satisfactory. Since it is intended that Spanish industry should be the beneficiary, only sub-projects of the kind capable of being absorbed within existing Spanish industry would be selected. Projects would be required to be innovative and would be judged on their prospective contribution to the market competitiveness of civilian Spanish industry, judged on techno-economic criteria. Projects solely aimed at improving aesthetic forms and designs would not be eligible for financing. The main criteria for selection would be that reasonable prospects exist for the development of new products or processes that will build principally on Spain's comparative advantage in existing industries.

49. During the first three years of project implementation, the choice of sub-projects estimated to cost more than $500,000 would be made in consultation with the Bank. Based upon studies already under way sub-projects in electronics, mechanical engineering and food industries are likely to receive preference initially. These are among the most promising sub-sectors for the promotion of technological development.

Project Costs and Financing

50. This project represents a new type of venture for the Bank and cannot at this time be related to ongoing project activities. Cost estimates have therefore been derived from the experience of Government supported industrial research projects during the recent past, the experience of Instituto Nacional de Industria (INI) enterprises and the Bank's evaluation of the composition of expenditures in other similar research projects.

51. In order to achieve the objective of the program becoming self-supporting in eight years, by deriving sufficient revenues from royalties for products and processes developed, it is estimated that an average of about nine projects per year would be the minimum program required. While the cost of projects will vary considerably, an average cost per project of about $745,000, spread over the estimated three year RD&E phase has been derived. Based upon these assumptions the estimated cost of the proposed project over the first five years would be $40.3 million of which the foreign exchange component is estimated at about $19.8 million.

52. The proposed $18.0 million Bank loan would finance most of the estimated foreign exchange cost of imported test equipment and machinery and foreign technical services. The proceeds of the proposed loan, and the Government contribution ($22.3 million), will be made available to the RD&E Unit on a grant basis since the RD&E Unit will have no source of revenues unless and until such time as it begins to receive royalties from the licensing of patent rights for products or processes to be developed under the project.

Audit

53. The accounts of the RD&E Unit, and its successor autonomous organization would be audited by the Government's Intervencion General de la Administracion del Estado, in accordance with appropriate auditing principles, consistently applied.

Procurement (see Annex III)

54. Procurement of equipment and machinery would be through international competitive bidding in accordance with the Bank Group's "Guidelines for Procurement", with a preference of up to 15 percent for domestic suppliers, except for items costing US$100,000 or less; and proprietary, limited, or long lead time items critical to the timely completion of sub-projects, which, subject to approval by the Bank, would be procured through international shopping. No specific estimate of the value of equipment to be procured through international shopping can be made but it is not expected to be a substantial fraction of the total. Technical services will be obtained through recruitment from industry, universities, research agencies and consulting firms, both within and outside Spain, as appropriate.

Disbursement

55. The proceeds of the proposed loan would be disbursed on the basis of 48 percent of expenditures for equipment, machinery and technical services, which represents the estimated foreign exchange component. The schedule of disbursements will be dependent upon timing of selection and approval of sub-projects, but it is estimated that disbursements will be completed by the end of 1982.

Benefits and Risks

56. The proposed project is innovative and unique for Bank lending. While it would not be appropriate for direct replication in many countries it is regarded as particularly suitable for Spain with its already developed industrial capacity and large pool of skilled workers. For research programs such as those to be undertaken in this project, it is not possible to calculate either financial or economic rates of return. Nevertheless, the project is expected to yield substantial non-quantifiable benefits. The program would initiate a systematic effort to develop new products and processes leading to commercial exploitation where none previously existed. It would create an institutional organization and procedures for controlling and directing research, which could and should be perpetual, as part of the Government's industrial development policy. By encouraging the participation of the private sector it would promote the undertaking of RD&E activities as a means of developing and maintaining a competitive position in foreign and domestic markets. The level and complexity of Spain's industrial structure is such that a project aimed at improving its capabilities to undertake indigenous technological development appears timely and appropriate with good chances of success. However, it has to be recognized that all research programs carry

substantial elements of risk but the degree and timing of success can be substantially advanced by good program management, intelligent and well considered project selection and good cooperation by and with the industrial sector. The proposed project has a good chance of becoming self-sustaining in eight years but inadequate funding by Government, inadequate supervision or lack of enthusiasm could prolong this period and substantially increase the risks. For this reason the Bank would undertake intensive supervisory activity which would be augmented by consultants as needed.

57. The project, being the first of its kind for the Bank, is expected to provide experience that will yield lessons for a number of developing countries concerned about developing their indigenous RD&E capabilities and their ever growing technological dependence on the industrially advanced nations. The benefits that the project is expected to generate over time--both from the point of view of its deliberate orientation towards the development and engineering end of industrial research and in actual product development--could give encouragement to other countries to adopt similar strategies in their RD&E efforts and introduce an important new element in technology transfers among nations.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

58. The draft Loan Agreement between the Bank and Spain and the Report of the Committee provided for in Article III, Section 4 (iii) of the Articles of Agreement and the text of a draft resolution approving the above loan, are being distributed to the Executive Directors separately.

59. Special conditions of effectiveness of the proposed loan are:

(i) the RD&E Unit has been established (paras 41 and 42); and

(ii) the Managing Director of the RD&E Unit has been appointed (para 47), in consultation with the Bank.

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

PART VI - RECOMMENDATIONS

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

Robert S. McNamara
President

Europe, Middle East and North Africa Region
Country Programs I
May, 1977

TABLE 3A
- SOCIAL INDICATORS DATA SHEET

SPAIN

LAND AREA (THOU KM2)
TOTAL 504.8
AGRIC. 322.8

	SPAIN 1960	SPAIN 1970	SPAIN MOST RECENT ESTIMATE	REFERENCE COUNTRIES (1970) GREECE	FRANCE	GERMANY FED.REP.OF **
GNP PER CAPITA (US$)	630.0	1560.0	2700.0	1390.0	3620.0	4420.0
POPULATION AND VITAL STATISTICS						
POPULATION (MID-YR, MILLION)	30.3	33.6	35.4	8.8	50.8	61.6
POPULATION DENSITY						
PER SQUARE KM.	60.0	67.0	70.0	67.0	93.0	240.0
PER SQ. KM. AGRICULTURAL LAND	87.0	97.0	107.0	99.0	154.0	439.0
VITAL STATISTICS						
AVERAGE BIRTH RATE (/THOU)	20.8	21.0	19.5	18.1	17.6	17.3
AVERAGE DEATH RATE (/THOU)	9.8	8.8	8.3	8.0	11.2	11.6
INFANT MORTALITY RATE (/THOU)	43.7	27.9	15.1	29.6	18.2	23.6
LIFE EXPECTANCY AT BIRTH (YRS)	67.5	70.8	72.1	70.9	71.6	70.3
GROSS REPRODUCTION RATE	1.4	1.4	1.4	1.0	1.3	1.2
POPULATION GROWTH RATE (%)						
TOTAL	0.8	1.1	1.0	0.5 /a	1.1 /a	1.0 /a
URBAN	1.9	2.0	..	1.5	2.5	4.1
URBAN POPULATION (% OF TOTAL)	53.9	59.1	..	62.6	70.2	82.4
AGE STRUCTURE (PERCENT)						
0 TO 14 YEARS	27.0	27.8	27.0	24.9	24.0	23.2
15 TO 64 YEARS	65.0	62.5	62.3	64.0	62.6	63.6
65 YEARS AND OVER	8.0	9.7	10.7	11.1	13.4	13.2
AGE DEPENDENCY RATIO	0.5	0.6	0.6	0.6	0.6	0.6
ECONOMIC DEPENDENCY RATIO	1.0	1.1	1.0 /a	..	0.9	0.9
FAMILY PLANNING						
ACCEPTORS (CUMULATIVE, THOU)	..	..	..	..	..	..
USERS (% OF MARRIED WOMEN)	..	..	..	..	..	..
EMPLOYMENT						
TOTAL LABOR FORCE (THOUSAND)	11600.0	11900.0	13300.0	..	20600.0	26500.0
LABOR FORCE IN AGRICULTURE (%)	41.0	25.0	23.0	..	15.1	8.9
UNEMPLOYED (% OF LABOR FORCE)	..	1.0	1.0	..	2.2	0.7
INCOME DISTRIBUTION						
% OF PRIVATE INCOME REC'D BY-						
HIGHEST 5% OF HOUSEHOLDS	18.5 /a	..	..	..	..	..
HIGHEST 20% OF HOUSEHOLDS	45.5 /a	..	..	..	..	..
LOWEST 20% OF HOUSEHOLDS	6.0 /a	..	..	..	..	..
LOWEST 40% OF HOUSEHOLDS	16.5 /a	..	..	..	..	..
DISTRIBUTION OF LAND OWNERSHIP						
% OWNED BY TOP 10% OF OWNERS	..	..	..	..	..	..
% OWNED BY SMALLEST 10% OWNERS	..	..	..	..	..	..
HEALTH AND NUTRITION						
POPULATION PER PHYSICIAN	830.0 /b,c	740.0 /a	700.0 /b,c	620.0	750.0	580.0
POPULATION PER NURSING PERSON	1290.0 /d	..	950.0 /d	1140.0	370.0	350.0
POPULATION PER HOSPITAL BED	220.0 /d	220.0	190.0 /b	160.0	140.0 /b	90.0
PER CAPITA SUPPLY OF -						
CALORIES (% OF REQUIREMENTS)	107.0	107.0	106.0 /e	116.0	127.0	121.0
PROTEIN (GRAMS PER DAY)	79.0	81.0	81.0 /e	99.0	104.0	88.0
-OF WHICH ANIMAL AND PULSE	32.0 /e	40.0	..	52.0 /b	66.0	56.0
DEATH RATE (/THOU) AGES 1-4	..	0.9	..	..	0.8	0.9
EDUCATION						
ADJUSTED ENROLLMENT RATIO						
PRIMARY SCHOOL	116.0 /f,g	131.0 /b	139.0 /d,I	106.0	118.0 /i	129.0 /b,c
SECONDARY SCHOOL	24.0 /g	57.0 /b	71.0 /b,f,g	66.0	74.0 /i	66.0 /b,c
YEARS OF SCHOOLING PROVIDED (FIRST AND SECOND LEVEL)	..	11.0	11.0	12.0	14.0	15.0
VOCATIONAL ENROLLMENT (% OF SECONDARY)	29.0	20.0	14.0 /b,g	20.0	19.0	48.0 /b
ADULT LITERACY RATE (%)	87.0	94.0	..	82.0	99.0	99.0
HOUSING						
PERSONS PER ROOM (AVERAGE)	0.9	..	..	..	0.9	0.7 /d
OCCUPIED DWELLINGS WITHOUT PIPED WATER (%)	55.0 /h	..	..	..	9.0	0.3 /e
ACCESS TO ELECTRICITY (% OF ALL DWELLINGS)	89.0	..	..	..	99.0	100.0
RURAL DWELLINGS CONNECTED TO ELECTRICITY (%)	84.0	..	..	..	98.0	..
CONSUMPTION						
RADIO RECEIVERS (PER THOU POP)	90.0	214.0	230.0	111.0	314.0	318.0
PASSENGER CARS (PER THOU POP)	9.0	71.0	123.0	26.0	254.0	220.0
ELECTRICITY (KWH/YR PER CAP)	606.0	1627.0	2273.0	1072.0	2759.0	4128.0
NEWSPRINT (KG/YR PER CAP)	2.7	5.7	6.4	1.6	11.9	17.7

SEE NOTES AND DEFINITIONS ON REVERSE

NOTES

Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961, for 1970 between 1968 and 1970, and for the Most Recent Estimate between 1973 and 1975.

** The Federal Republic of Germany has been selected as an objective country on the basis that the growing importance of industrial production in Spain will create an economic structure closer to that of Germany.

SPAIN — 1960 /a 1964-65; /b 1962; /c Including dental physicians; /d 1963. /e 1960-62; /f 1965; /g 6-10 and 11-16 years of age respectively; /h Inside only.

1970 /a Registered, not all practicing in the country; /b 6-10 and 11-16 years of age respectively.

MOST RECENT ESTIMATE: /a Ratio of population under 15 and 65 and over to total labor force: /b 1972; /c Registered. not all practicing in the country: /d 1971; /e 1969-71 average. /f 6-10 and 11-16 years of age respectively; /g Beginning 1972, certain vocational and all teacher training institutions are classified as education at the third level.

GREECE — 1970 /a Due to emigration, growth rate is lower than rate of natural increase; /b 1967.

FRANCE — 1970 /a Due to immigration, growth rate is higher than rate of natural increase; /b Government hospital establishments only; /c 6-10 and 11-17 years of age respectively.

GERMANY, FED. REP. OF — 1970 /a Due to immigration, growth rate is higher than rate of natural increase; /b Including the relevant data relating to Berlin for which separate data have not been supplied; /c 6-10 and 11-18 years respectively; /d Total, urban and rural; /e Inside only.

RI, December 28, 1976

DEFINITIONS OF SOCIAL INDICATORS

Land Area (thou km²)
Total - Total surface area comprising land area and inland waters.
Agric. - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market & kitchen gardens or to lie fallow.

GNP per capita (US$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1973-75 basis); 1960, 1970 and 1975 data.

Population and vital statistics
Population (mid-yr. million) - As of July first: if not available, average of two end-year estimates; 1960, 1970 and 1975 data.

Population density - per square km - Mid-year population per square kilometer (100 hectares) of total area.
Population density - per square km of agric. land - Computed as above for agricultural land only.

Vital statistics
Crude birth rate per thousand - Annual live births per thousand of mid-year population: ten-year arithmetic averages ending in 1960 and 1970, and five-year average ending in 1975 for most recent estimate.
Crude death rate per thousand - Annual deaths per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970, and five-year average ending in 1975 for most recent estimate.
Infant mortality rate (/thou) - Annual deaths of infants under one year of age per thousand live births.
Life expectancy at birth (yrs) - Average number of years of life remaining at birth; usually five-year averages ending in 1960, 1970 and 1975 for developing countries.
Gross reproduction rate - Average number of live daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970 and 1975 for developing countries.
Population growth rate (%) - total - Compound annual growth rates of mid-year population for 1950-60, 1960-70 and 1970-75.
Population growth rate (%) - urban - Computed like growth rate of total population; different definitions of urban areas may affect comparability of data among countries.
Urban population (% of total) - Ratio of urban to total population; different definitions or urban areas may affect comparability of data among countries.
Age structure (percent) - Children (0-14 years), working age (15-64 years), and retired (65 years and over) as percentages of mid-year population.
Age dependency ratio - Ratio of population under 15 and 65 and over to those of ages 15 through 64.
Economic dependency ratio - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years.
Family planning - acceptors (cumulative, thou) - Cumulative number of acceptors of birth control devices under auspices of national family planning program since inception.
Family planning - users (% of married women) - Percentages of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

Employment
Total labor force (thousand) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc.; definitions in various countries are not comparable.
Labor force in agriculture (%) - Agricultural labor force (in farming, forestry, hunting and fishing) as percentage of total labor force.
Unemployed (% of labor force) - Unemployed are usually defined as persons who are able and willing to take a job, out of a job on a given day, remained out of a job, and seeking work for a specified minimum period not exceeding one week; may not be comparable between countries due to different definitions of unemployed and source of data, e.g., employment office statistics, sample surveys, compulsory unemployment insurance.

Income distribution - Percentage of private income (both in cash and kind) received by richest 5%, richest 20%, poorest 20%, and poorest 40% of households.

Distribution of land ownership - Percentages of land owned by wealthiest 10% and poorest 10% of land owners.

Health and Nutrition
Population per physician - Population divided by number of practicing physicians qualified from a medical school at university level.
Population per nursing person - Population divided by number of practicing male and female graduate nurses, "trained" or "certified" nurses, and auxiliary personnel with training or experience.
Population per hospital bed - Population divided by number of hospital beds available in public and private general and specialized hospital and rehabilitation centers; excludes nursing homes and establishments for custodial and preventive care.
Per capita supply of calories (% of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day; available supplies comprise domestic production, imports less exports, and changes in stock; net supplies exclude animal feed, seeds, quantities used in food processing and losses in distribution; requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distributions of population, and allowing 10% for waste at household level.
Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day; net supply of food is defined as above; requirements for all countries established by USDA Economic Research Services provide for a minimum allowance of 60 grams of total protein per day, and 20 grams of animal and pulse protein, of which 10 grams should be animal protein; these standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey.
Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day.
Death rate (/thou) ages 1-4 - Annual deaths per thousand in age group 1-4 years, to children in this age group; suggested as an indicator of malnutrition.

Education
Adjusted enrollment ratio - primary school - Enrollment of all ages as percentage of primary school-age population; includes children aged 6-11 years but adjusted for different lengths of primary education, for countries with universal education, enrollment may exceed 100% since some pupils are below or above the official school age.
Adjusted enrollment ratio - secondary school - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational or teacher training instruction for pupils of 12 to 17 years of age; correspondence courses are generally excluded.
Years of schooling provided (first and second levels) - Total years of schooling; at secondary level, vocational instruction may be partially or completely excluded.
Vocational enrollment (% of secondary) - Vocational institutions include technical, industrial or other programs which operate independently or as departments of secondary institutions.
Adult literacy rate (%) - Literate adults (able to read and write) as percentage of total adult population aged 15 years and over.

Housing
Persons per room (average) - Average number of persons per room in occupied conventional dwellings in urban areas; dwellings exclude non-permanent structures and unoccupied parts.
Occupied dwellings without piped water (%) - Occupied conventional dwellings in urban and rural areas without inside or outside piped water facilities as percentage of all occupied dwellings.
Access to electricity (% of all dwellings) - Conventional dwellings with electricity in living quarters as percent of total dwellings in urban and rural areas.
Rural dwellings connected to electricity (%) - Computed as above for rural dwellings only.

Consumption
Radio receivers (per thou pop) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.
Passenger cars (per thou pop) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.
Electricity (kwh/yr per cap) - Annual consumption of industrial, commercial, public and private electricity in kilowatt hours per capita; generally based on production data, without allowance for losses in grids but allowing for imports and exports of electricity.
Newsprint (kg/yr per cap) - Per capita annual consumption in kilograms estimated from domestic production plus net imports of newsprint.

ECONOMIC INDICATORS

Gross National Product in 1975	US$ Million	Percent	Annual Rates of Growth (Percent, constant prices) 1965-69	1970-74	1975
GNP at Market Prices	101,059	100.0	6.5	6.1	0.8
Gross Domestic Investment	26,007	25.7	8.6	7.4	-3.4
Gross National Saving	22,480	22.2	7.6	8.2	-4.7
Current Account Balance	-3,527	-3.5	.	.	.
Exports of Goods & NFS	12,572	12.4	10.6	11.4	-1.2
Imports of Goods & NFS	16,729	16.6	12.0	9.0	-1.0

Output, Labor Force and Productivity in 1975	Value Added		Labor Force		V.A. Per Worker	
	US$ Million	Percent	Million	Percent	US Dollars	Percent
Agriculture	9,079	9.4	2,769	21.0	3,279	44.9
Industry (incl. mining & construction)	37,210	38.6	5,019	38.1	7,404	101.4
Services	49,999	51.9	5,385	40.9	9,285	127.0
Total	96,288	100.0	13,173	100.0	7,309	100.0

Government Finance in 1975	General Government/1		Central Government/2	
	US$ Million	Percent of GDP	US$ Million	Percent of GDP
Current Receipts	21,454	21.3	13,516	13.4
Current Expenditures	18,891	18.7	10,643	10.5
Current Surplus	2,563	2.5	2,873	2.8
Capital Expenditure	3,120	3.1	2,620	2.6

Money, Credit and Prices	US$ Million			
	1972	1973	1974	1975
Money and Quasi-Money	45,215	62,414	75,204	89,462
Bank Credit to Public Sector	7,702	9,049	9,469	10,608
Bank Credit to Private Sector	36,035	51,442	64,644	79,045
Money and Quasi-Money as % of GDP	85.0	88.0	87.7	88.7
General Price Index (1970 = 100) /3	117.2	130.6	151.1	176.7
Annual Percentage Charge in:				
General Price Index /3		11.4	15.7	16.9
Bank Credit to Public Sector		17.5	4.6	12.0
Bank Credit to Private Sector		42.8	25.7	22.3

/1 Budgeted figures, including social security.
/2 Estimated actuals, excluding social security.
/3 Consumer Prices.

Europe, Middle East and North Africa Region
April 20, 1977

TRADE, PAYMENTS AND CAPITAL FLOWS

Balance of Payments	US$ Million 1973	1974	1975 /1	1976 /2
Exports of Goods & NFS	9,280	11,528	12,572	14,100
(merchandise)	(5,303)	(7,206)	(7,798)	8,900
(tourism)	(3,227)	(3,208)	(3,481)	3,100
(other receipts)	(750)	(1,114)	(1,293)	2,100
Imports of Goods & NFS	9,995	15,846	16,729	19,200
(merchandise)	(8,748)	(14,245)	(15,186)	(16,400)
(oil imports)	(1,013)	(3,398)	(3,658)	(4,400)
Resource Balance	-715	-4,318	-4,157	-5,100
Investment Income (net)	-83	99	-229	-500
Workers' Remittances	902	859	830	850
Net transfers, n.e.i.	446	237	29	350
Current Balance	550	-3,123	-3,527	-4,400
M&LT Capital, net				
Direct Investment	321	238	219	165
Private	484	1,184	2,338	2,000
Public	-45	53	15	575
Capital transactions, n.e.i.	-145	920	168	860
Change in Reserves (- = increase)	-1,165	728	787	800
Gross Reserves (End Year)	6,772	6,485	6,090	5,284

Rates of Exchange (Pesetas per US$)

Average 1972	64.27
Average 1973	58.24
Average 1974	57.67
Average 1975	57.41
Average 1976	66.90
1976 Year End	68.29

/1 Preliminary.
/2 Estimates.

Merchandise Exports, 1975

	US$ Million	Percent
Agricultural and Food Products	1,775	22.6
Transport Equipment	1,032	13.3
Metals and Metal Products	974	12.5
Machinery and Appliances	949	12.2
Chemicals	695	8.9
Textiles and Clothing	397	5.1
Pulp, Paper and Books	284	3.6
Other	1,682	21.6
Total	7,798	100.0

External Debt, December 31, 1975

	US$ Million
Public Debt, incl. undisbursed	3.92
Non-guaranteed private debt	5.08 /2
Total outstanding incl. undisbursed	9.00 /2

Debt Service Ratio (percentage of exports incl. NFS) 1975

Public debt	2.5
Private debt	6.6
Total	9.1

IBRD/IDA Lending, November 30, 1976

	US$ Million IBRD	IDA
Outstanding and Disbursed	247.8	.
Undisbursed	68.5	.
Total	316.3	.

Europe, Middle East and North Africa Region
April 20, 1977

THE STATUS OF BANK GROUP OPERATIONS IN SPAIN

A. STATEMENT OF BANK LOANS
(As of March 31, 1977)

Loan Number	Year	Borrower	Purpose		US$ million Amount (less cancellations) Bank	Undisbursed
Eight loans fully disbursed					302.6	
768-SP	1971	Spain	Agricultural Research		12.7	3.9
884-SP	1973	Spain	Ports II		50.0	23.8
1141-SP	1975	Spain	Livestock II		33.0	30.6
		Total (less cancellations)			398.3	58.3
		of which has been repaid			86.1	
		Total now outstanding			312.2	
		Amount sold		13.9		
		of which has been paid		3.3	10.6	
		Total now held by Bank			301.6	
		Total undisbursed				58.3

B. STATEMENT OF IFC INVESTMENTS
(As of March 31, 1977)

Year	Obligor	Type of Business	Amount in US$ million Loan	Equity	Total
1962 1965 1967	Fabrica Espanola Magnetos, S.A.	Automotive Parts	2.50	0.86	3.36
1963 1965	Banco del Desarrollo Economico Espanol S.A. (Bandesco)	Development Bank	-	0.59	0.59
1972	Industrial del Papel y de la Celulosa S.A.	Pulp and Paper	7.20	2.36	9.56
1974	Industrias de Tableros y de Derivados de Madera	Fiberboard	4.39	0.86	5.25
	Total gross commitments		14.09	4.67	18.76
	Less cancellations, terminations, repayments and sales		9.70	3.81	13.51
	Total commitments now held by IFC		4.39	0.86	5.25
	Total undisbursed		-	0.19	0.19

C. PROJECTS IN EXECUTION

Loan 768 Agricultural Research: US$12.7 million Loan of June 28, 1971; Effective Date: November 1, 1971; Closing Date: December 31, 1977.

Initially, changes in the leadership of the executing agency (INIA) and its internal reorganization delayed adequate planning and implementation of the project although foreign research experts were employed and a fellowship training program commenced. Following the appointment of a new President of INIA in early 1974 coupled with the provision of adequate funding substantial progress was made in 1974 and 1975. As a result of the recession and the political transition project implementation was again seriously hampered in 1976 by the lack of adequate funding and two changes in the Presidency of INIA as well as ministerial changes in the Ministry of Agriculture. Adequate funding for 1977 has now been provided, the supervising consultants have been re-engaged for a further year and good progress on the research programs may be expected. The original Closing Date of June 30, 1976 was extended to December 31, 1977.

Loan 884 Second Ports: US$50 million Loan of March 27, 1973; Effective Date: August 13, 1973; Closing Date: June 30, 1978.

Civil works and organizational changes are now proceeding satisfactorily, however technical problems encountered during early stages of construction are likely to result in project completion being delayed by about 2 years, to the end of 1979. Substantial cost overruns have so far been met from internally generated funds which have been augmented by substantial tariff increases.

Traffic has fallen over the last two years, partly as a result of the world-wide recession and particularly from a change in bunkering patterns following the re-opening of the Suez Canal. This fall in traffic, coupled with the inability of the Ports Authorities to fully reflect through tariff increases the effects of the serious inflation over the last two years, has resulted in rate of return ratios falling below those targetted for the period.

The Bank is currently reviewing with the Ports Authorities and the Government a possible revision of the project which would be expected to reflect the changes in traffic patterns and improve financial performance.

Loan 1141 Second Livestock: US$33.0 million Loan of July 16, 1975; Effective Date: December 15, 1975; Closing Date: October 1, 1980.

Effectiveness was delayed two months due to administrative problems but satisfactory progress has been made since that time. Staffing to acceptable strength has been accomplished and farmer interest has been somewhat better than expected mainly because of the satisfactory results of the First Livetock Project. The project is expected to develop satisfactorily without serious slippage.

SPAIN

INDUSTRIAL RESEARCH, DEVELOPMENT AND ENGINEERING PROJECT

LOAN AND PROJECT SUMMARY

Borrower: Spain

Amount: US$18 million

Terms: Amortization in 13 years, including a 3 year grace period, with interest at 8.2 percent.

Project Description: The project is to establish an RD&E Unit to carry out selected subprojects in industrial research, development and engineering as part of a program by the Borrower to promote related industrial capabilities and support the competitive stance of Spanish industry through the development of indigenous technology and marketing expertise in specialized industrial fields.

Estimated Cost:

	Local	Foreign	Total	Foreign Exchange Component (%)
Sub-Project Costs				
(a) Capital costs	3.8	14.0	17.8	78.7
(b) Operating costs	10.8	1.8	12.6	14.3
Sub-total	14.6	15.8	30.4	52.0
Administrative Costs	1.5	-	1.5	-
Sub-total	16.1	15.8	31.9	49.5
Price Escalation	4.4	4.0	8.4	47.6
Totals	20.5	19.8	40.3	49.1

Financing Plan:

Sources	Total Amount US$ Millions	Total Percent of Financing
Government	22.3	55.3
IBRD	18.0	44.7
	40.3	100.0

Estimated Disbursement: Rate of disbursements will necessarily be dependent upon the selection and implementation of sub-projects. It is anticipated that disbursements would be approximately as follows in US$ millions, on a calendar year basis:

	1977	1978	1979	1980	1981	1982
Annual	1.00	3.50	5.50	3.50	3.50	1.00
Cumulative	1.00	4.50	10.00	13.50	17.00	18.00

Procurement: For equipment and materials, international competitive bidding, with up to a 15 percent preference for domestic suppliers, will be required except for items and packages costing less than $100,000 or for proprietary or long lead time items critical to the timely completion of certain projects. These items will be procured through international shopping and are not expected to be a substantial percentage of the total.

Rate of Return: The nature of the project precludes the calculation of financial or economic rates of return.

Estimated Project Completion Date: December 31, 1982

Appraisal Report: Report No. 1153-SP
Date: April 22, 1977
Industrial Research, Development & Engineering
Industrial Projects Department

SPAIN

INDUSTRIAL RESEARCH, DEVELOPMENT AND ENGINEERING PROJECT

SUPPLEMENTARY PROJECT DATA SHEET

Section I--Timetable of Key Events

(a)	Time taken to prepare project	-	about 2 years
(b)	Agency which prepared project	-	Ministry of Industry, with assistance from consultants
(c)	Project first presented to Bank	-	early 1973, as an idea.
(d)	First Bank Mission to review feasibility	-	June 9, 1973
(e)	Departure of Appraisal Mission	-	November 5, 1975 May 3, 1976--Review with new Government
(f)	Completion of Negotiations	-	March 24, 1977
(g)	Planned Date of Effectiveness	-	August 1, 1977

Section II--Special Bank Implementation Actions

Expanded supervisory effort will be made in view of the fact that this is the first Bank project of this type.

Section III--Special Conditions

1. The organizational structure, operating procedures and policies of the Unit have been defined in consultation with the Bank, together with criteria for the selection of RD&E sub-projects (paras. 44-50).

2. The appointment of the Managing Director of the Unit will be made in consultation with the Bank (para. 47).

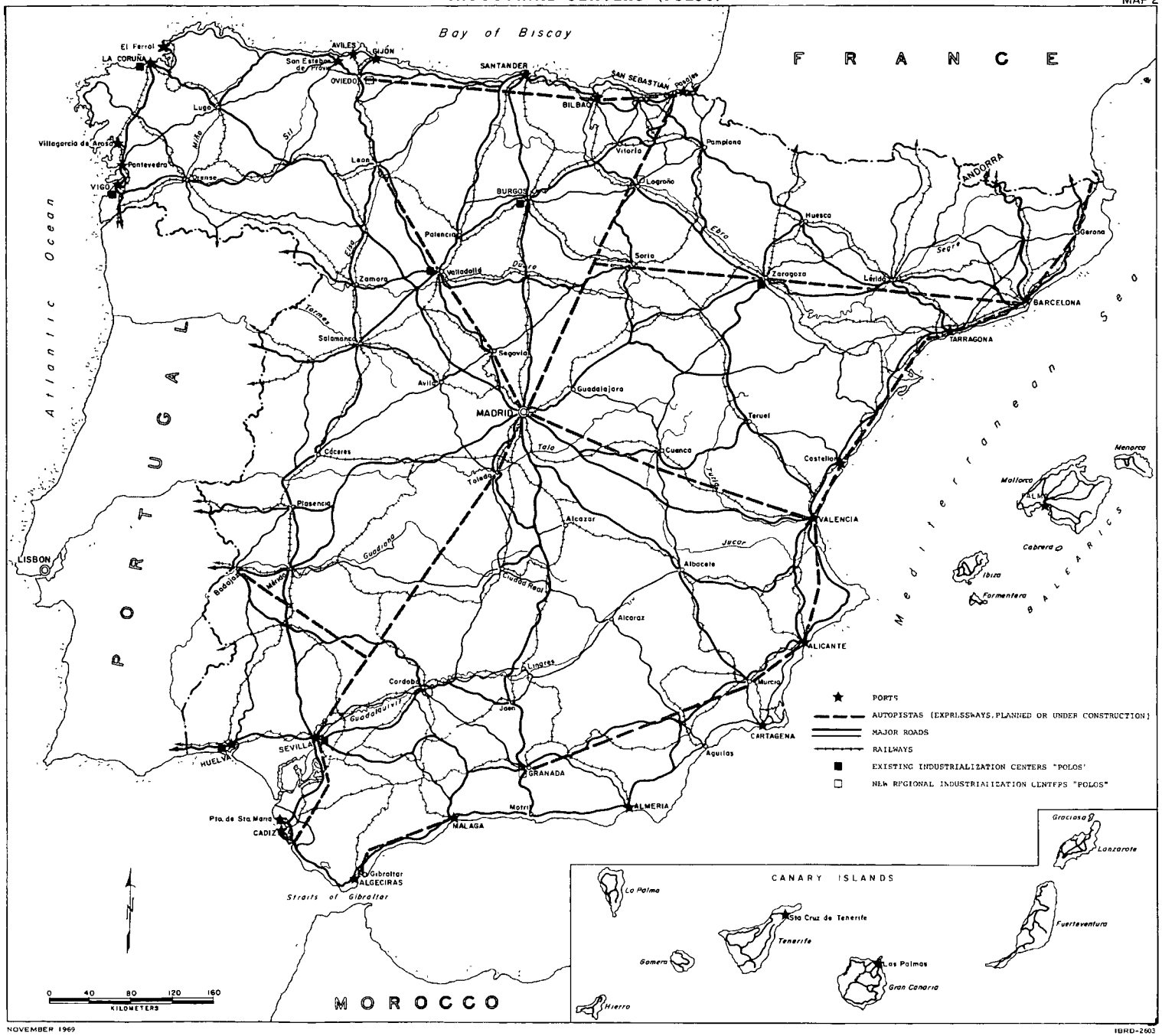
3. By not later than the end of 1979 a law will be drafted and submitted to the legislative body to transform the Unit into an autonomous organization (para. 43).

4. Selection of Research projects estimated to cost in excess of $500,000 will be done in consultation with the Bank (para. 50).

5. Patent rights to products and processes developed wholly or dominantly through contracts funded by the RD&E Unit will belong to it, but licenses to use patents will be made freely available to all domestic firms upon employment of a reasonable royalty as determined by the Unit's Managing Director and approved by the Board of Directors. Non-patentable information resulting from the program will be freely available to all domestic firms (para. 41).

SPAIN
TRANPORTATION NETWORK & INDUSTRIAL CENTERS (POLOS)

MAP 2



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