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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL FINANCE CORPORATION

INTERNATIONAL DEVELOPMENT ASSOCIATION

APPRAISAL OF
YUGOSLAV INDUSTRIAL PROJECTS
YUGOSLAVIA

July 26, 1968

IFC - Department of Investments
Latin America, Europe and Australasia

CURRENCY EQUIVALENTS

Currency Unit:		New Dinar (N. D.)
US$1	=	N. D. 12. 50
N. D. 1	=	US$0. 08

Other Units

All measurements are in metric system.

APPRAISAL OF YUGOSLAV INDUSTRIAL PROJECTS

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APPRAISAL OF YUGOSLAV INDUSTRIAL PROJECTS

SUMMARY AND CONCLUSIONS

i. Following last year's $10.5 million loan for industrial modernization the Bank was asked to consider making a further loan for the same purpose. Ten projects recommended by the Yugoslav Investment Bank (YIB) were selected by the Bank for appraisal in the field. The projects include plants producing automotive engines, semi-finished copper and brass, textiles, electronic components, lead, ship repair facilities and woodworking (furniture and skis).

ii. The appraisal carried out by a mission from late January to early March 1968 showed the projects to be of economic priority, technically sound and financially viable. The enterprises are competently managed and capable of carrying out the projects successfully.

iii. The projects represent a wide spectrum of Yugoslav industry, both geographically and as to product. The projects are ready for implementation. The ten enterprises are not necessarily representative of Yugoslav industry as a whole. They appear to have been successful. However, economic forces such as increased costs, import competition and tight credit which have influenced Yugoslav industry in general did affect several of the enterprises adversely and the changes resulting from the Economic Reform of 1965 have been instrumental in making the enterprises increasingly cost conscious. All of the enterprises have been in operation for many years and are in sound financial condition.

iv. The projects are well conceived and studied. Their major purpose is to rationalize production with increased output in some cases resulting from additional capacity being introduced with the modernization of existing facilities. The projects are expected to result in cost reductions and improvements in the quality of products. Exports are expected to increase substantially in several cases. Imported equipment would be purchased after comparison of proposals from at least three foreign suppliers except when technical reasons make it impractical, i.e. when only one or two manufacturers of the required equipment exist. The amount of foreign exchange required for imported equipment is estimated at $16 million. It is proposed that the Bank provide these funds. Funds to cover local expenditures will be assured from Yugoslav banks and from the enterprises' own resources.

v. The loan of $16 million would be to the YIB and would be guaranteed by the Yugoslav Government. It is proposed that the Bank provide this amount on the same basis as last year's loan, i.e. for 14 years with 2-1/2 years grace. YIB would conclude Subsidiary Loan Agreements with each of the ten enterprises. The Bank would have no direct contractual relationship with the enterprises, but the Subsidiary Loan Agreements would be subject to its approval. The repayment period of the Subsidiary Loans would be the same as that of the Bank's loan to YIB and the YIB is expected to charge an interest rate not less than 1/2% above the interest rate on the Bank loan.

vi. The cost of the Bank funds to the enterprises would be the same in all ten projects with no bank guarantees being required. Dinar loans, where necessary, would be made available by the YIB and other Yugoslav banks on repayment terms similar to the Bank loan and at an interest rate of not more than 8%, the legal maximum. As cost estimates are firm with appropriate contingencies where necessary, no overall contingency provision was considered necessary. YIB would undertake to provide or cause to be provided additional funds to the enterprises if required to complete the projects and cover working capital needs.

vii. Financial forecasts based on reasonable sales and cost estimates show that all of the enterprises should be able to meet their obligations, carry out the projects and remain financially sound. Capitalization of interest during construction does not appear necessary for any of the enterprises.

viii. The normal financial covenants relating to debt and working capital are not practical within the Yugoslav system. The Subsidiary Loan Agreements would include a provision requiring YIB's approval for any obligation which would endanger the carrying out of the project or the servicing of the loans.

ix. The ten projects provide a suitable basis for a Bank loan of $16 million equivalent to the Yugoslav Investment Bank for a term of 14 years including a 2-1/2 years grace period.

IFC/LAEA
July 26, 1968

Exchange Rate
US$1 = N.D. 12.50

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APPRAISAL OF YUGOSLAV INDUSTRIAL PROJECTS

I. INTRODUCTION

1. Following the approval in July 1967 of the loan to the Yugoslav Investment Bank (YIB)[1] for industrial modernization by the IBRD, the Bank indicated that it would be ready to consider a second loan for that same purpose. It was then agreed that the projects to be financed should be of moderate size, that their number should be limited and that the size of the loan should be of the order of US$15 million.

2. In October YIB submitted preliminary information on twenty-four projects whose financial requirements in foreign exchange amounted to about US$25 million. YIB indicated that all the projects were of economic priority and were ready to be implemented. The information presented was limited and intended only to give the basis for deciding whether the projects could be considered.

3. Ten of the 24 projects were chosen, taking into account their size and geographical distribution; that they could be examined expeditiously and that their foreign exchange requirements in total were of the order of magnitude previously agreed upon with YIB. The projects represented a variety of industries and were in industrial sectors having economic priority. On the basis of the information available, it was not possible to determine the relative merits of the projects as compared with the others presented by the YIB.

4. More detailed information, which was received subsequently, showed that investigation of the ten projects would be warranted and a mission was in Yugoslavia from late January to early March 1968 for that purpose. The mission consisted of three investment officers and three engineers who reviewed technical, market and financial studies made by the enterprises and their regular bankers with the assistance of the YIB. It also had general discussions with industry and trade associations, export and import houses, local banks and the YIB. The information including financial projections was completed by the enterprises after discussions with the mission. In those cases where the forecasts seemed optimistic, appropriate revisions were made or qualifications stated. Revisions were also effected, where needed, to reflect such changes as interest during construction, reduction in reserve appropriations or smaller increases in surplus working capital.

1/ The YIB is described in Appendix 12.

5. The mission found that the ten projects chosen would be suitable for a Bank loan of about US$16 million. The enterprises carrying out the projects and the proposed allocation of the loan funds to each one of them would be as follows:

Name of Enterprise	Purpose of Project	Proposed Allocation from IBRD Loan (US Millions)
DMB	Automotive engines	4.10
SEVOJNO	Rolled copper and brass semi-finished products	3.50
MTT	Textiles	1.98
E.I. NIS	Semi-conductors, resistors, capacitors	1.76
TREPCA	Refined lead and by-products	1.70
ELAN	Skis	.70
VIKTOR LENAC	Ship repair facilities	.40
NOVOLES	Furniture and woodworking	.86
BREST	" " "	.68
STOL	" " "	.32
		16.00

6. Detailed appraisals of the projects are contained in Appendices 1 through 10 attached to this report. Their locations are shown in the map at the end of this report. It must be noted that the financial information in the Appendices should be interpreted taking into account the peculiarities of the "Self-Management System" which affects financial concepts and practices and the Yugoslav reporting procedures which differ from those of most IBRD member countries. These differences are discussed in some detail in the report "Appraisal of Yugoslav Industrial Projects" (LA-2a), dated June 29, 1967, prepared in connection with last year's loan to the YIB for industrial modernization. Particular reference is made to Appendix 3 of that report, entitled "Financial and Operating Characteristics of the Yugoslav Enterprise" and to the description of the "Self-Management System" at the end of Chapter III of the report.

7. It is well to recall here that in Yugoslavia the assets of an enterprise are social property and that their management and control are vested in its employees who act through their elected management. Both the Yugoslav Constitution and the Basic Law on Enterprises of April 1965 established the autonomy of the enterprise as the basis of the social and economic system. This autonomy is limited to some extent by administrative controls, particularly regarding prices, but the enterprises are free to make decisions regarding new investments, plant location, product lines, debt financing, marketing and purchasing and other contractual relationships, hiring of employees and wage policies. This includes the determination of the portion of net income which will be distributed to the employees as personal income.

8. The accounts of the enterprises are maintained on a mixed cash and accrual basis and current transactions are controlled by the Federal Government's Social Accounting Service. Yugoslav enterprises must submit their financial reports to that Accounting Service which also makes periodic audits. As was the case last year, the financial statements contained in this report were prepared by the enterprises with the assistance of the YIB from the statements submitted to the Accounting Service. These were recast to the extent possible in forms used by the Bank.

9. The presentation, therefore, should not be accepted and the normal tests of financial soundness, debt service coverage and profitability should not be applied without due regard to the differences between the two systems. These include, among others, the absence of share capital and the more extensive use of debt which affects the concepts of a debt/equity ratio; the use of segregated bank accounts and deposits whose use may be limited and which may, therefore, show a liquid position that is not as favorable as it appears but which, on the other hand, forces retention of earnings and is likely to result in a conservative current position; the use of contra-accounts, particularly for invoiced but unpaid sales1/ resulting in an apparent diminished current ratio; the use of retained earnings for community facilities which may give the appearance of overcapitalization and low productivity; the revaluations of assets effected in 1965 and 1966; and the practice of making supplementary wage distributions (shown in the accompanying statements as part of costs) which are in the form of a profit sharing bonus and which may be considered as part of the returns on capital when considering profitability.

II. THE ENTERPRISES

General

10. All the enterprises are going concerns. The newest one (Sevojno) was formed in 1950. They are located in various regions of Yugoslavia and include a wide range of industry including lead and zinc, copper rolling, electronics, automotive engines, textiles, ship repairs and woodworking (furniture and sporting equipment). They employ a total of 38,700 workers ranging from 550 to 13,000. The table on the following page shows the principal indicators of the enterprises' past performance and expected operating results such as annual rate of sales increase, capital structure and profitability.

Present Financial Position

11. The enterprises' combined assets at December 31, 1967 totalled N.D. 4,400 million (US$352 million). Their combined sales in 1967 reached N.D. 2,360 million (US$189 million). The enterprises' financial maturity is shown by the average relationship between their long-term debt and their "own funds" (retained earnings, including revaluations of assets, which are

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1/ For income statement purposes sales are recorded on a cash basis referred to as paid sales.

Major Indicators of Ten Industrial Enterprises in Yugoslavia

ITEMS	DATE	UNIT	TREPCA	DMB	SEVOJNO	EI NIS	M.T.T.	VIKTOR LENAC	ELAN	STOL	BREST	NOVOLES	TOTAL (OR AVERAGE)
Total Assets	Dec. 31,1967	ND Mil.	1,618	241	776	967	330	203	82	58	78	45	4,398
Paid Sales	1967	"	475	158	646	621	210	67	34	46	67	36	2,360
	1966	"	543	155	636	508	230	74	24	39	61	31	2,301
Average Annual Rate of Sales Increase	1965-1967 Inclusive	%	23	16	31	12	1/	29	26	19	22	23	(18)
Earnings from Operations as % of Sales	1967	%	7	2	2	5	1	15	7	11	8	6	(5)
	1966	%	11	6	8	10	7	19	9	9	8	5	(9)
as % of Own Funds	1967	%	6	3	4	13	1	17	13	16	14	10	(7)
	1966	%	11	8	15	31	10	26	15	14	12	9	(15)
Long-Term Debt/Own Funds	Dec. 31,1967	Ratio	49/51	38/62	26/74	53/47	16/84	64/36	38/62	20/80	24/76	28/72	(42/58)
Number of Workers	Early 1968	Number	10,000	2,300	2,700	13,000	5,700	980	550	1,160	1,385	912	38,687
Project													
(a) Estimated Total Cost 2/		ND Mil.	78	158	77	53	153	22	22	8	20	21	612
(b) IBRD Financing		"	21	51	44	22	24	5	9	4	9	11	200
(c) IBRD Financing as % of Total Cost		%	27	32	57	41	16	23	40	50	45	52	(33)
Ratio of Loan Financing to Financing from Cash Generation	Construction Periods	Ratio	.7:1	2.2:1	.3:1	1.8:1	.3:1	.5:1	1.9:1	.3:1	.8:1	2.4:1	-
Increase in Sales Value	1968-1972	ND Mil.	297	110	232	181	168	28	20	11	42	27	1,116
Increase in Export Sales Value	1968-1972	"	54	NA	138	82	53	7	15	3	22	20	394
Long-Term Debt Service Coverage	1971	Times	2.1	1.6	4.4	2.3	3.7	1.9	2.1	7.8	4.1	2.4	-
Earnings from Operations as % of Sales	1972	%	15	8	9	14	7	16	9	12	10	13	(12)
Exports: Clearing/Convertible Currency Area	1972	Ratio	34/66	NA	44/56	35/65	35/65	78/22	8/92	0/100	9/91	0/100	34/66

1/ Less than 1%.
2/ Excluding interest during construction.

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comparable to equity) since in Yugoslavia new companies are initially financed entirely by debt. At the end of 1967 in only two cases, E.I. Nis and Viktor Lenac, was long-term debt in excess of own funds due, primarily, to recent relatively large investments to finance expansion.

Prices

12. Most domestic prices for the enterprises' products, using the present exchange rate, are not substantially different from prices in Western Europe. This is due to the nature of the products and, in three cases (electronics, textiles and automobiles) to the pressure exerted by actual or potential competition from imports without significant tariff protection. In the case of lead, zinc and copper prices are based on world markets. In the woodworking industries the dependence on readily available domestic raw material and relatively low wages indicate that costs are not pressing prices upward. In the case of the ship repair yard the main reasons for low prices are the relatively low cost and high productivity of Yugoslav labor and competition with foreign shipyards. Thus the relaxation of price controls which is continuing should have no significant impact on the ten enterprises and, inversely, the existence of price controls today does not seem to have an important effect in the price structure of the enterprises.

Costs

13. Imported raw materials bear relatively small duties and those locally produced are in line with costs prevailing abroad. Although total wages have increased, they are still comparatively low and are linked to productivity and earnings. It appears that the enterprises' showing a deterioration in operating results have been able to keep in check workers' demands for increased wages. Financing costs do not appear to be out of line with those prevailing in Western Europe. Depreciation rates are reasonable and are no longer fixed by law (although minimum rates of 7% for equipment and 1.5% for buildings still prevail) and depreciation funds have become an increasingly important source of finance. Corporate taxes continue at the reduced levels brought about by the Economic Reform.

Profitability

14. Profitability has varied among the enterprises. In 1967 their earnings, with exception of those of the woodworking industries, declined fairly substantially. This was due to import liberalization, higher costs and tight credit. Viktor Lenac (ship repair) was affected adversely, in particular, by a slowdown in ship traffic brought about by the Middle East crisis last year and Trepca (lead and zinc) by technical interruptions in production. Earnings as a percentage of own funds in 1966 ranged between 8% and 31%. In 1967 they ranged between 1% and 17%. As indicated in the projections attached to the individual project appraisals, it is expected that the enterprises' earnings will start to recover in 1968.

Exports

15. All of the enterprises export part of their products, some of them in fairly substantial amounts. In 1967 exports as a percentage of total sales ranged from 3% in the case of DMB (automotive engines), whose output is practically sold in its entirety to Zastava, to 58% in the case of Sevojno (copper and brass semi-finished products).

Management

16. The enterprises' managements are, in general, able and well prepared to administer their respective operations. They are technically competent and, in most cases, have had long experience in their respective fields. The managers of each enterprise have developed appropriate teams who have demonstrated ability to overcome problems and carry out generally well-conceived plans. It seems that in no case have significant differences existed between management and the Workers' Councils (which resemble a company's Board and ultimately represent the enterprises' workers).

Foreign Technical Assistance and Market Collaboration

17. Several of the enterprises have technical or commercial relationships with foreign firms. DMB, through Zastava, obtains technical know-how from Fiat of Italy and E.I. Nis has licensing and other agreements with Dutch, German, Czech and Japanese firms. Gherzi of Switzerland studied the expansion of and designed the new plant for MTT and Viktor Lenac's drydock was designed by a Dutch company. The furniture manufacturers have well-established relationships with buyers abroad, particularly in the U.S. and, through Slovenjiales, arrangements have been worked out for the assembly of their furniture in the U.S. Sevojno has its own agents in the U.K. and in Germany. There are no foreign investors in the enterprises. Trepca was originally established by Selection Trust of the U.K. and has recently obtained a fairly substantial bank loan in London.

Association with Other Enterprises

18. In several of the enterprises there are definite moves to associate with other firms for rationalization. This trend towards larger production runs and specialization should become an important contribution to the continuing move towards competitiveness. This is particularly noticeable in the shipyard and in the textiles, electronics and furniture companies.

III. THE ENTERPRISES' PROJECTS AND EXPECTED RESULTS

General

19. The proposed projects are aimed at increasing capacities and at reducing costs by the addition of new plants, by the replacement of existing machinery in existing plants by more modern and efficient machinery and by rationalizing production. Since some of the enterprises are carrying out investments other than those that will be assisted by the proposed loan, it is

difficult to asses separately the effect of the project to be financed by the Bank. It may be noted, however, that the value of the enterprises' combined sales in 1972 is expected to reach N.D. 3,910 million, representing an increase of N.D. 1,550 (US$124 million) or 66% over 1967.

Future Profits

20. In the majority of cases profitability in 1972 is expected to show a substantial improvement over 1966 and 1967. Profits of the enterprises as measured by return on sales are shown in the table on page 4. Personal incomes are expected to increase indicating both the expected growth in productivity and the larger earnings part of which are to be passed on to the workers.

Future Exports

21. With the exception of DMB, which does not directly export its engines, all of the enterprises expect to increase exports. Exports, as a percentage of sales projected for 1972, range from 19% to 67% and the absolute increase over 1968's projections total N.D. 393 million (US$31 million). Of this increase US$20 million is projected to come from exports to convertible currency countries and is about 10 times larger than the annual debt service on the proposed IBRD loan.

Debt Service

22. By 1971 when the investment programs are to be completed and when repayment on the Bank loan would start, the debt service coverage of the enterprises is expected to be satisfactory. In all but two cases (DMB and Viktor Lenac) cash generation is projected to cover the principal and interest requirements at least twice. (As is the Yugoslav custom, because the year's earnings are not considered available until the following year, cash generation is taken to be the prior year's earnings plus the current year's depreciation and the current year's interest which adds a measure of conservativeness.) The relatively low debt service coverage before 1971 of DMB, Elan and Trepca appears acceptable in view of the enterprises' ability to incur additional short-term debt and their strong banking support.

Project Costs

23. The total estimated cost of the projects under consideration is N.D. 612 million (US$49 million) including N.D. 177 million (US$14 million) for working capital requirements related to the projects. This figure excludes interest during construction which is not expected to be significant due to the anticipated phasing of disbursements. The Bank is expected to provide US$16 million or 33% of the total cost.

24. Project costs are based on detailed engineering studies and tentative offers received from representative suppliers, both domestic and foreign and include specific contingencies in some cases. The estimates have been reviewed and revised to meet current conditions. The YIB will provide any additional funds that may be required, including any foreign exchange, to complete the projects and for working capital. No further provision for contingencies seems to be necessary.

25. The principal findings with respect to each of the enterprises and their projects are summarized below.

DMB

26. DMB is Yugoslavia's only producer of passenger car engines. It produces the requirements of Crvena Zastava which manufactures cars under Fiat license. Zastava's 750, 1300 and 1900 cc models (which are the equivalent of Fiat's models) make up 90% of Yugoslav production. Liberalization of imports in 1966-1967 led to about as many cars being imported into Yugoslavia as were produced locally. However, future prospects for Zastava's cars are good as long as imports are somewhat controlled, as is expected and credit for local vehicle sales is eased. Fiat is taking an active role in the marketing outside Yugoslavia of cars made by Zastava and has invested in a joint venture with Zastava, Yugoslavia's first such foreign investment.

27. DMB has balanced up and supplemented its original now outmoded facilities to progressively increase production to about 42,000 engines last year without any major investment in assets. Now DMB is compelled to build a new shop for the main manufacturing lines and equip it with modern machinery to produce 80,000 engines - and 130,000 at a later stage - to keep up with Zastava's expansion programs. The project, which is estimated to cost N.D. 158 million (US$12.6 million) is engineered by DMB's technical staff with assistance from Fiat.

28. The factory is small by international standards, and DMB is earning a relatively low return on sales and on its own funds. At present the lack of mechanization is not adequately compensated by the relatively low cost of Yugoslav labor. Until DMB increases production runs, it can expect a continuing small margin between costs and competitive selling prices which it must use in light of liberalized imports. Although the project is not meant to bring output, mechanization and automation up to the levels attained by international producers, it is designed to improve efficiency by further mechanization and should contribute to increase profitability.

29. Car manufacture in Yugoslavia is in a stage of transition from a small-scale protected industry. As a result of its close relationship with Zastava, DMB is playing an important part in this development. Its sales agreement and other operating arrangements with Zastava are functioning smoothly and DMB can expect Zastava's full support.

SEVOJNO

30. Yugoslavia has the largest known copper deposits in Europe (excluding the USSR) and accounts for nearly 40% of the region's mine production. Sevojno which produces semi-finished copper and brass sheets, strips, bars and tubes largely from domestic copper and zinc is the largest plant of its kind in Yugoslavia. It represents about 60% of total Yugoslav production of semi-finished copper and brass products. More than half of its production is exported.

31. While Sevojno has adequate capacity to meet the foreseeable demand for its extruded and drawn products, its ability to produce rolled products is limited by the capacity of the existing slab rolling mill and it is unable to produce sheets wider than 800 mm.

32. The project for which the Bank's assistance is being sought plans to remedy this situation by replacing the existing slab rolling mill and by installing a new cold finishing mill. These investments which are estimated to cost about N.D. 77 million (US$6.16 million) will also increase rolling capacity by about 12,000 tons to 54,000 tons per year.

33. The pricing policies for copper in Yugoslavia to which reference is made in Appendix 2 can accentuate the variations in the enterprise's earnings and cause periods such as 1967, when liquidity can become a problem. With the outlook for more stable copper prices the future for Sevojno may also be expected to be more stable. By law Yugoslav copper can be exported only in finished and semi-finished form and, with Sevojno's proven ability to manufacture and market quality semi-finished goods, the project should be successful.

MTT

34. MTT is one of Yugoslavia's leading cotton textile producers ranking about sixth or seventh in size and accounting for some 2.5% of Yugoslavia's textile production. It imports most of its cotton requirements. It is handicapped by being composed of eight small, old plants which underwent little renewal and are now merged into one enterprise. Consequently, its work force, although experienced and basically trained, is operating less efficiently than those in modern European, U.S. and Far Eastern textile plants.

35. The enterprise recognizes the handicaps - low labor productivity, a very diversified program, unscientific management practices and sales organization - under which it is operating. It has started to solve its administrative handicaps. It plans to reduce the labor force by about one-fourth, reduce the number of patterns and types of fabrics produced and specialize in finishing for other Yugoslav textile firms. As a result the project will not materially add to the volume of total Yugoslav production or exports.

36. The project, for which IBRD assistance is requested and which follows recommendations of Gherzi, Switzerland, an internationally known textile consultant firm, is a satisfactory first step of a long-range plan of modernization, consolidation and rationalization of the eight old plants. The project which is estimated to cost about N.D. 153 million (US$12.24 million) aims at centralizing MTT's finishing department, adding modern finishing equipment and renewing some spinning and weaving facilities. It will enable the enterprise to nearly double the value of sales by improving quality of product and utilization of equipment and to remain competitive in world markets.

E.I. NIS

37. E.I. Nis is Yugoslavia's most diversified manufacturer of electronic equipment. The two most important products are television sets and radio receivers which, over the past five years, have accounted for more than three-fourths of total sales and which in 1967 reached about N.D. 580 million (US$47 million). Other products include equipment for signalling, telecommunications and electro-medical applications. The enterprise is now ready to manufacture business equipment such as teleprinters and desk calculators.

38. Over the past several years, E.I. Nis has implemented projects to produce many of the components (such as semi-conductors, capacitors, resistors, electron tubes) and tooling required for its own use. The enterprise's long-term development plan includes a large number of different sub-projects some of which (such as the manufacture of loudspeakers, ferrite cores, ceramic capacitors) are already being implemented.

39. During its rapid growth the enterprise has not always developed optimal plant layouts which is noticeable in its component parts and television assembly lines. In several cases buildings designed for other purposes have had to be adapted. The management seems to be generally aware of this problem and is taking some action to alleviate it, at least in part, by the construction of a new, specially designed factory at Zemun on the outskirts of Belgrade. Also, the management has shown a tendency to undertake the production of tools and machinery going in some cases beyond the normal bound of an electronics producer. All in all, however, the enterprise has demonstrated its ability to manufacture quality electronic components and products and successfully market them. It has established close working relationships with local research and development institutions and has shown willingness to import foreign know-how wherever necessary.

40. The Bank is being asked to participate in two projects for the expansion of capacitor and resistor production and diversification and increase in the manufacture of semi-conductors. In terms of investments in fixed assets, these two projects represent about 10% of the approximately N.D. 545 million of total new investments envisaged. Their implementation will form the basis for the enterprises's subsequent expansion and further diversification.

41. Capacitors, resistors and semi-conductors are the fundamental components of any electronic circuit. With the gradual shift in emphasis from consumer to business electronic equipment, increasing quantities of components such as these will be required. Own manufacture should give the enterprise required flexibility and control over quality. The enterprise has already successfully acquired the technology and expertise to manufacture conventional semi-conductor devices. With the implementation of the proposed semi-conductor deversification program, E.I. Nis will be in a position to quickly move into integrated circuit manufacture when circumstances so require.

TREPCA

42. Trepca Mining and Metallurgical Combine (Trepca) which began operations in 1929 is one of Yugoslavia's largest enterprises with assets of N.D. 1,600 million (US$128 million) and a work force of 10,000. The enterprise is the largest lead producer in Europe and one of the five largest in the world. In addition to refined lead, Trepca also produces electrolytic zinc, several lead/zinc by-products (silver, bismuth and gold), sulphuric acid, simple superphosphate and lead batteries.

43. Trepca is currently implementing a series of projects designed to fully exploit its ore production. In 1967 sales reflected a small part of this expansion with the commencement of electrolytic zinc production, increased sulphuric acid and superphosphate production and the introduction of a new line of batteries.

44. Trepca is requesting US$1.7 million from the Bank to meet the estimated foreign exchange costs of its US$6.3 million lead refinery modernization project. The project is the last stage in the enterprise's integrated programs to increase the annual production of lead from about 80,000 tons to 162,000 tons.

45. The refinery project is to be assisted by loans from two local banks totalling N.D. 55 million (US$4.4 million). Other loans for the completion of the other projects and the continuing expansion of mining operations are included in the financial forecasts in the amount of N.D. 225 million (US$18 million). The value added to the lead in the refinery process and the increased production of by-products indicate that an attractive return should be obtained on the new investment.

46. In recent months Trepca has had some start-up difficulties in its lead smelter and zinc refinery and this has adversely affected inventories at a time when large principal payments are falling due on medium-term debt. Trepca, however, appears to have overcome these problems and its successful past expansions indicate that the refinery project will be well executed.

ELAN

47. Elan is an important international producer of skis, exporting 60% of its output mainly to Western Europe and North America. The enterprise has successfully competed with U.S., Japanese and West European producers. International ski makers who have maintained high quality standards are doing well while others are finding it progressively more difficult to stay in business - especially against low price competition. Therefore, Elan's project, which is estimated to cost about N.D. 22 million (US$1.8 million) is intended to modernize equipment and technology to stay competitive and retain the enterprise's position in the international market.

48. Elan's present facilities are not highly mechanized and operations are expensive because considerable labor time is required to produce a good quality product and because consumption of materials, especially glue, is high due to manual application. The enterprise has begun to change the bulk of its output from basic wood skis - which are losing popularity and must be priced low to be competitive - to metal and plastic (fiberglass) reinforced wood skis. While rationalization and further quality improvement are the major aims of the project, it will also allow higher ski production resulting in a sales revenue increased from N.D. 36 to N.D. 56 million per year.

49. In the last three years, Elan has been hampered by short winter ski seasons in Europe and by having to grant extended credit terms in connection with its exports. As a consequence, both inventories and accounts receivable increased at a time when expansion was resulting in higher debt service requirements. The emphasis on quality skis with greater earning potential is a rational approach to improve Elan's position. With an established market and successful efforts to create an effective distribution network in the U.S. and Europe, the project will back up marketing with modern, high quality products.

VIKTOR LENAC

50. In 1960 the ship repair yard Viktor Lenac in Rijeka drew up plans for a second completely new yard in the Bay of Martinscica, a natural harbor three miles east of the main yard. Due to financial limitations the plan was divided into stages. The first stage was completed in 1967 and included a 220 meter breakwater, a 495 meter wharf and the installation of a 24,000 ton floating dock complete with two 15 ton cranes.

51. The project which the Bank is requested to assist is the next stage in the development of the new yard and includes a new wharf, two new workshops and imported equipment. The total cost of the project is estimated at US$1.76 million and the Bank is requested to finance the cost of the imported equipment which is expected to be US$400,000.

52. The expansion of Viktor Lenac facilities is based on the growing ship trafffic in Rijeka which has made it impossible for the yard to accept all requests for repairs. The growth of the Yugoslav fleet, new port facilities in the Rijeka area and the fuel oil pipeline to Munich from Trieste are the major factors which are expected to increase traffic. Except for the temporary slowdown caused by the Middle East crisis, traffic growth has been fairly steady in recent years. With the low labor costs and productive skilled workers Viktor Lenac has demonstrated its competitiveness with the other domestic and foreign repair yards in the Adriatic and Mediterranean.

53. Viktor Lenac's long-term debt is high as related to its own funds as a result of loans obtained in recent years to finance expansion. However, a large portion of the long-term debt (the N.D. 35 million loan from the Rijeka Banka) has an unusually long repayment period. This, together with the stable earnings and the possibility of phasing of renewals and replacements, if necessary, indicates that the enterprise is capable of assuming and servicing the proposed additional long-term debt.

WOODWORKING AND FURNITURE ENTERPRISES

54. With an abundant domestic supply of good quality timber and comparatively low labor costs, Yugoslavia's woodworking and furniture industries have remained competitive in the export market.

55. The three enterprises STOL, BREST and NOVOLES commenced operations primarily as saw mills and gradually changed over to the manufacture of finished and semi-finished wood products. All three enterprises, located close to the border with Austria and Italy, are export oriented and have been engaged in foreign trade for several years. These enterprises are among the top ten in the industry.

56. STOL is basically a manufacturer of chairs and seats of various types and has recently started manufacture of office furniture. The proposed Bank loan will be used for importing equipment to remove production bottlenecks, mainly in the finishing lines and in internal transportation and material handling. STOL has long standing connections with U.S. and West European furniture importers and has established a good reputation for its products in those markets. Owing to competition, particularly from Poland, in the traditional bentwood chair market, STOL is changing over to the manufacture of more sophisticated models.

57. BREST's main product is veneered household furniture. It also manufactures particle board chairs and miscellaneous wood products. The project to be financed with IBRD funds is for replacement of some obsolete items of equipment and for securing general improvements in operation. These investments will help BREST to improve quality at lower costs. Almost half of BREST's sales are to foreign markets, primarily the United States. Improvements resulting from the proposed investment will serve to further consolidate the enterprise's position in those markets.

58. NOVOLES is primarily a producer of sawn lumber, plywood and "Colonial" chairs. These accounted for roughly two-thirds of the total invoiced sales in recent years. Bank financing is required for modernization of the saw mills, expansion of the plywood plant and for removing imbalance in the existing production capacity of the chair factory. Yugoslavia's large reserves of beechwood gives NOVOLES and other Yugoslav plywood manufacturers an inherent advantage over competitors in the export market.

59. While all three enterprises have facilities to manufacture chairs, they have worked out an arrangement through the Slovenian Woodworking Association to avoid duplication of production.

IV. FINANCING

Bank Financing and Procurement

60. The proposed Bank loan of US$16 million is based on the estimated foreign exchange requirements of the enterprises' projects. The proceeds of the loan will be used to purchase goods that, in all likelihood, cannot be procured locally for reasons of quality, price or delivery time. The enterprises do not expect any major changes in project costs or in the relationship between domestic and foreign currency requirements.

61. It is proposed that the Bank loan to the YIB be for a term of 14 years, including a grace period of 2-1/2 years. It would carry interest at the rate prevailing for Bank loans at the time the loan is approved. These terms should not overstrain the debt servicing capacity of any of the ten enterprises. It is proposed that interest during construction should not be capitalized. Few, if any, funds would be disbursed in 1968. In 1969 perhaps only half of the funds would be outstanding and the balance would be paid out in 1970.

62. The proceeds of the loan would be relent to the enterprises in the same currencies and on the same repayment terms as those for the loan from the Bank to YIB. It is proposed that the interest rate on the loans from YIB to the enterprises should be no less than 1/2% in excess of the rate on the Bank loan to YIB. If YIB decides to charge a higher rate which is not out of line with prevailing rates in Yugoslavia, the Bank should not object.

63. The 1967 loan provided that items costing under $100,000 would be procured by the enterprises on the basis of comparing at least three offers, without requiring the Bank's prior approval. For items above this amount, constituting about half of last year's loan, procurement is on the basis of international competitive bidding as set forth in the Bank's Guidelines. Experience, gained with the 1967 loan and in appraising the projects for the proposed loan, has shown that Yugoslav enterprises procure imported goods and services on an international basis. However, it has become

increasingly clear that strict adherence to full international competitive bidding is impractical. Generally speaking, wide competition is limited by the special nature of the equipment involved, which usually does not need to be manufactured according to exact customer specifications, can be procured from among existing lines of production, and is offered by a relatively small number of suppliers. This is particularly the case when the technical process or license determines the choice of equipment. Additional limitations to a wide selection of suppliers are imposed by the enterprises' preference to buy from the same manufacturers that have supplied their existing plant to reduce difficulties of maintenance, to avoid duplication of stocks of spare parts and improve suppliers' service. Furthermore, the procedures for wide international competitive bidding - apart from putting disproportionately heavy demands on the enterprises, the YIB and the Bank Group because of the large number of sub-loans and procurement contracts involved - are slow and therefore run counter to the objective of the enterprises and the Bank to proceed quickly with the needed modernization.

64. It is therefore proposed that the Bank permit the enterprises general international shopping, that is to say the comparison of at least three offers from suppliers in Bank member countries and Switzerland, and entrust the YIB with the responsibility of supervising adequate adherence to this procedure. This would be similar to the procedure which is followed in loans to development finance companies. The Bank has reserved the right to review with the YIB adequate adherence to these procedures from time to time.

Domestic Financing

65. Of the total project costs (excluding interest during construction) of N.D. 612 million, some 26% (N.D. 163 million) is to be provided by local loans. It is likely that, as is the Yugoslav practice, interest during construction on these loans will be capitalized. The YIB will assist several of the enterprises, usually in combination with their local banks. The terms of the local loans would not be generally more onerous than those of the loan from the YIB to the enterprises.

66. The balance of the funds are to be provided from the enterprises' own resources, i.e. earnings plus depreciation. The following table summarizes the proposed financing:

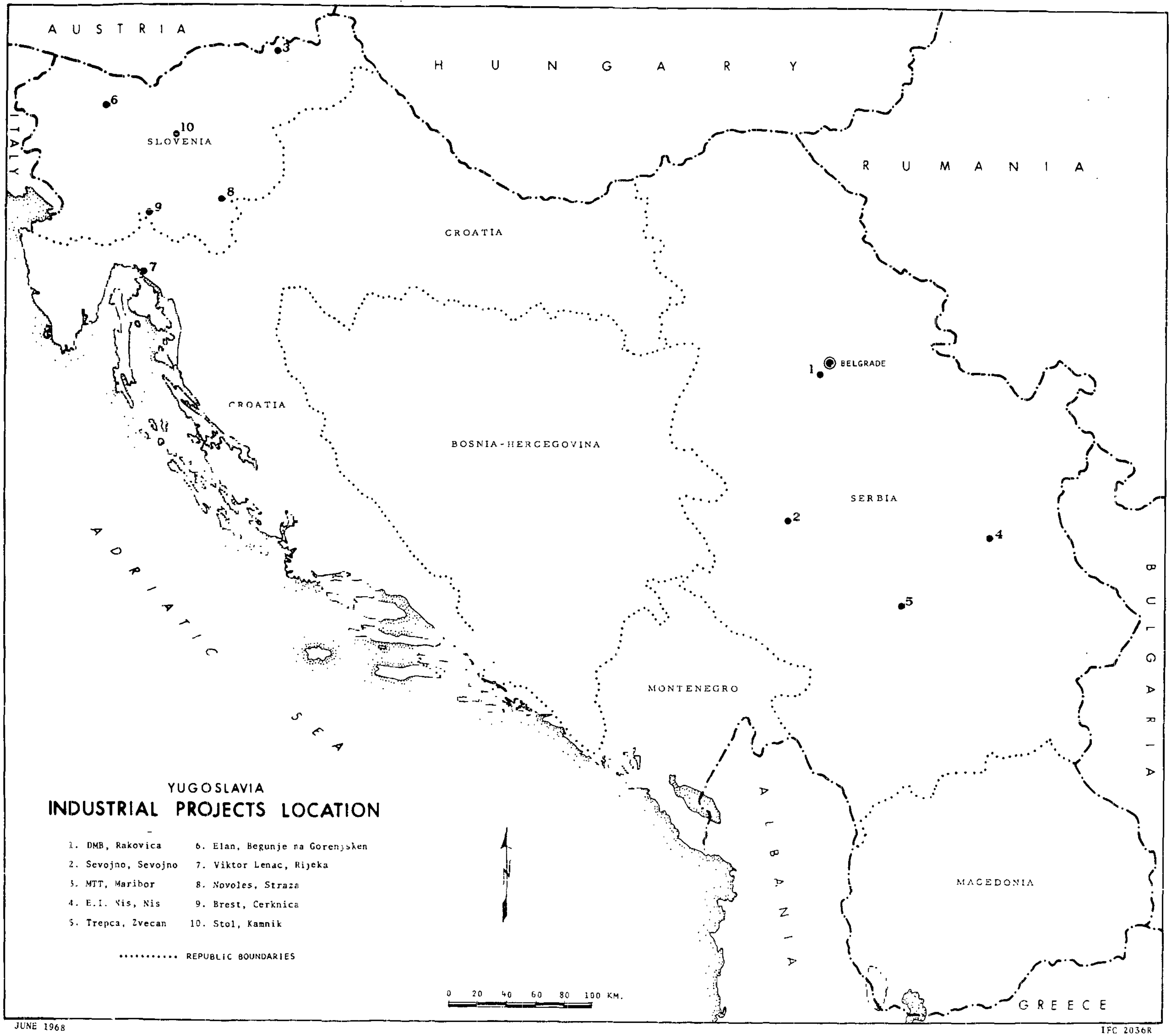
(In millions of dollars)

Enterprise	Bank Loan	Yugoslav Bank Loans	Own Funds	Total
DMB	4.1	4.8	3.7	12.6
Sevojno	3.5	-	2.7	6.2
MTT	2.0	.8	9.5	12.3
E.I. Nis	1.7	-	2.5	4.2
Trepca	1.7	4.5	-	6.2
Elan	.7	.7	.4	1.8
Viktor Lenac	.4	1.4	-	1.8
Novoles	.9	.6	.2	1.7
Brest	.7	.4	.5	1.6
Stol	.3	-	.3	.6
	16.0	13.2	19.8	49.0

V. GENERAL CONCLUSIONS

67. The projects submitted for the consideration of the Bank have been found to be of economic priority, technically feasible and financially viable. From the available information, it is reasonable to anticipate that, as a result of growing demands for their products and of additional capacity, the enterprises' sales will continue to increase. Exports would also increase and represent a fairly substantial proportion of total sales. The enterprises' projects are designed not only to increase output and quality but, by rationalizing production, to reduce costs. The profitability of the enterprises is likely to improve and their ability to service the proposed debt seems to be well assured.

IFC/LAEA
July 26, 1968


AUSTRIA
HUNGARY
RUMANIA
ITALY
BULGARIA
ALBANIA
GREECE
SLOVENIA
CROATIA
CROATIA
BOSNIA-HERCEGOVINA
SERBIA
MONTENEGRO
MACEDONIA
BELGRADE
ADRIATIC SEA
1
2
3
4
5
6
7
8
9
10
YUGOSLAVIA
INDUSTRIAL PROJECTS LOCATION
1. DMB, Rakovica
2. Sevojno, Sevojno
3. MTT, Maribor
4. E.I. Nis, Nis
5. Trepca, Zvecan
6. Elan, Begunje na Gorenjsken
7. Viktor Lenac, Rijeka
8. Novoles, Straza
9. Brest, Cerknica
10. Stol, Kamnik
REPUBLIC BOUNDARIES
0 20 40 60 80 100 KM.
JUNE 1968
IFC 2036R

THE "DVADESTPRVI MAJ" (21st of May) MOTOR FACTORY

The Borrower

The prospective borrower is the Dvadestprvi Maj (21st of May) Motor Factory (DMB), a producer of benzine engines which it sells exclusively to Zavodi Crvena Zastava, Yugoslavia's only integrated passenger car maker. The enterprise also makes gears and other components for the market and has a comprehensive engine overhauling department. The plant is located in Rakovica, an industrial suburb of Belgrade and some 120 miles from Kraguevac where Zastava is located. The DMB factory began operation in 1949 and was initially a producer of aero engines. It began producing automobile engines in 1954 and is now the largest automobile engine factory in Yugoslavia. The enterprise employs 2,300 workers.

The plant is at present capable of producing with two full shifts, and some departments working part of a third shift, 46,500 engines (32,000 750 ccs, used in the most popular car in Yugoslavia, the Zastava 750; 9,500 1,300 ccs used in the 1300 passenger car and in its light commercial vehicle version; and 5,000 1,900 ccs used in the Zastava jeep, small delivery trucks and vans). The enterprise also has the capacity to produce about 5,000 gear boxes for medium-size trucks and 400,000 medium to large gears. DMB has an engine overhauling department capable of reconditioning 7,500 of its engines per year.

In 1967 DMB had total sales revenue of N.D. 158 million, or about $12.6 million. Of this amount, approximately N.D. 110 million or 70%, came from the sale of engines either to Zastava or in the spare parts market for Zastava cars. Although the factory was basically designed for a capacity of 32,000 engines per year, modest investment in additional equipment during 1966 and 1967, and increasing working hours (a partial third shift in some departments) has made it possible for the enterprise to produce 42,000 engines in 1967 and it is hoping to increase output in 1968 to over 50,000 units. Demand for the enterprise's engines is entirely determined by the production targets of Zastava, their principal client. Zastava's production has increased rapidly in the last 3 or 4 years from 30,000 cars to almost 45,000 last year and they are planning to increase this to 120-150,000 vehicles within the next 8-10 years. Their immediate plan is to increase output to about 80,000 vehicles within the next three years. DMB cannot attain an output of a similar quantity of engines except by a considerable expansion of their existing facilities.

Existing facilities consist of a large building on 15,000 square meters, which houses the engine production, gear production and engine reconditioning, and smaller buildings for subsidiary and auxiliary departments,

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Prepared by A. Bandy, A.R. Perram and A.S. El Darwish.

also, a new building of about 4,000 square meters into which the engine reconditioning is to be moved. The enterprise possesses 330 machine tools, of which 35 are older than 15 years and are to be scrapped. Of the remaining 295, two-thirds are over 10 years old and the other third were purchased after 1958.

For the expansion, a new engine production building of about 16,000 square meters will be constructed on the other side of the road from the existing plant, together with office space, auxiliary departments and services. The present building will then be occupied by gear production, automatics, pipe-making and welding and some auxiliary departments. One hundred fifteen (115) new machines will be added to the 295 which will be retained, all of which are for the production of engine parts.

A new engine of about 1,000 ccs is being developed, but will not be ready for production for several years. When it goes into production, part of the capacity foreseen for the existing engines could also be utilized for the new engine. Investment in the necessary productive facilities for the new engine will consequently be reduced. D.M.B., Fiat and Zastava, in designing this engine, are taking into consideration that as many as possible of existing, or newly acquired machines, should be adaptable to its manufacture.

After the expansion, the company will increase not only engine production, but also their output of gears, gear boxes and engine spare parts. However, they intend to cut down the manufacture of parts and components for other factories in Yugoslavia. As a result of the proposed expansion sales revenue is expected to increase to N.D. 290 million by 1972, compared to N.D. 158 million in 1967. The fixed asset cost of the investment is estimated at N.D. 127.7 million (approx. $10.2 million) which does not include an estimated working capital requirement of N.D. 30 million, and excludes interest during the period of construction. Of this amount, U.S. $4,089,000 will be needed in foreign exchange to be provided by the IBRD credit and engineering and design expenses of $250,000 to be provided from DMB's own resources. The company expects, in conjunction with Zastava, to continue in its extension of facilities in the coming years so that by the mid-1970's they could be producing between 120,000 and 150,000 engines a year.

Short History of the Borrower

The D.M.B. Motor Factory began operations in 1949, producing both the reaction and normal multicylinder IC engines for small trainer aircraft. In cooperation with Crvena Zastava, the enterprise began the production of automobile engines in 1954 under a license agreement with Fiat. By 1959, the enterprise had dropped entirely, the production of aero engines. The factory's capacity for the production of automobile engines has increased steadily over the years and by 1964, it was producing 32,000 units. As early as 1960, DMB, in cooperation with Zastava, had applied to Fiat for help in engineering an expansion up to 80,000 engines per year. DMB has no direct relationship with Fiat, but receives the license and know-how of the Fiat engines through Zastava. In the meantime, DMB had been increasing output from 32,000 engines in 1964 to 42,000 in 1967 by gradual and modest additions to equipment and by partially working an extra shift. Management estimates that by continuing in this manner, it will be possible to increase output to 50,000 engines without substantial additional investment. In 1964, Fiat undertook a supplementary study to increase output to 130,000 engines. DMB engineers have geared these two projects so that in increasing output to 80,000 engines, it will be relatively simple after that to increase output in another stage to 130,000 units.

Although DMB and Zastava have always operated as entirely separate enterprises, in 1966 they signed a ten-year contract by which they agreed to completely synchronize the production of DMB engines and Zastava vehicles. This long-term agreement is supplemented by annual contracts, which determine such matters as production goals for that year. Both enterprises, however, are individually responsible for such matters as mobilizing the necessary resources for mutually-agreed expansion programs.

The company has no foundry or forge and has only small press-shop facilities for engine parts. Like most engine factories, it buys a number of its components such as carburetors, pistons, valves, electrical equipment, etc. Purchased materials make up about 60% of the costs of the factory. Of these, two-thirds, or 40% of the total costs, are purchased finished parts. The other materials, or 20% of the total costs, ae raw and semi-finished materials which are converted into finished parts in the factory itself. The factory imports very little of its raw materials and it does not need to import any important semi-finished or finished components.

Management

The enterprise is managed by a competent team. The General Manager, Mr. George Brkic, is an economist and has about 20 years of experience in management of industrial enterprises. He has come up from the ranks in DMB, both in the Financial and Sales department, to his present post. The Director in charge of engineering the present project, Mr. Dragomir Milojevic, the Chief of the Technical Section, is a mechanical engineer with 15 years of experience, of which 10 were in DMB. He and his staff appear capable and have a good awareness of standards of other similar enterprises overseas. The financial supervisor, Mr. Gavrilovic, is an economist with 20 years of experience, of which 16 have been in DMB. The satisfactory general condition of the plant denotes the competence of the Production Manager and the operating team in the factory, the facilities are well maintained and order in the mill is of high standard. The factory has a fairly comprehensive staff working in planning, technological development, product development, research, and testing and have made a considerable number of modifications both to the product and to the manufacturing technology. This suggests that they are capable of engineering their expansion project with little or no help from Fiat.

Recent Financial and Earnings Record

Balance Sheets for the past four years (1964-7) are shown in Annex 1, page 1. A summary of the Balance Sheet as at December 31, 1967 is given below (in millions of N.D.'s):

Assets		Liabilities	
Cash & Equivalent	17.4	Short-term Bank Debt	-
Trade Receivables	19.3	Trade Payables	20.5
Inventories	65.3	Other Current Liabilities	33.0
Other Current Assets	30.7	Total Current Liabilities	53.5
Total Current Assets	132.7	Long-term Debt	70.8
Net Fixed Assets	108.7	Bus. Fund & Reserves	117.1
	241.4		241.4

The enterprise's investments in productive assets over the past four years have been mainly used to increase the production of engines from 20,000 to approximately 42,000 in 1967. Of N.D. 35 million, used for invesment purposes between 1963 and 1967 about 80% was used to increase the production of engines and most of the remainder to increase the production of gearshift and serrated parts. About one-third of this amount was financed from internal cash generation, and two-thirds by long-term borrowings.

DMB has made considerable use of long-term debt in recent years as they have steadily expanded their engine production, although percentage-wise, the amount of long-term debt in relation to their own funds has diminished slightly. Of present long-term debt outstanding, about half was used for financing fixed-asset investment and the other half for working capital purposes. Debt-service coverage, as a result, has been relatively slim, rising from 1.4 in 1964 to 1.7 in 1967. On the other hand, short-term debt is non-existent at present, and the Current Ratio in 1967 was a healthy 2.5 to 1. The favorable current ratio can be expected to continue as production is so closely synchronized with Zastava's that inventories of engines are only held a matter of days and the agreement with Zastava requires payment within 30 days of delivery. As production increases, the company also expects to turn over inventories of raw materials and semi-finished products much faster.

Unlike many Yugoslavian enterprises, DMB has not, as yet, transferred its sizeable collective consumption assets out of company accounts. It is their intention in the future, however, to finance additions to collective consumption assets predominantly out of bank borrowings, but only if such loans can be justified on a paying basis and constitute no cash drain on the enterprises's business activities.

Earnings' statements for the past 5 years are shown in Annex 1. Production of the major groups of products, sales and earnings from operations in those years are summarized below:

PRODUCT	1963	1964	1965	1966	1967
	Thousands of Units				
ENGINES 750cc	14.1	23.0	29.2	29.6	30.6
1300cc	3.3	5.6	6.7	7.7	7.4
1900cc	3.9	3.8	4.7	4.6	4.4
Engine Overhauling	-	-	-	2.0	2.3
	Millions of Dinars				
Engines and overhaul	48.0	71.0	103.0	111.3	114.3
Gears & Boxes	0.3	1.1	2.9	9.0	10.0
Spares, components for other producers, etc.	51.7	34.9	39.1	34.7	33.7
Total Paid Sales	100.0	107.0	145.0	155.0	158.0
Net Earnings from Operations	5.0	4.0	7.0	6.0	2.0

During this period, Materials and Overhead costs actually dropped as a percentage of Total Paid Sales from 77% in 1963 to 69% in 1967.

The drop-off in net income from operations in 1964 was mainly attributable to increases in costs from interruptions to production resulting from the reconstruction of production facilities to increase the output of engines to 32,000 units. The sizeable increase in total paid sales in 1965 was partially due to increased output but also, in that year, the pricing authority allowed an increase in the price of the Zastava car which resulted in higher prices received by DMB for its engines.

It will be noted that net earnings from operations were reduced from N.D. 6 million in 1966 to N.D. 2 million last year, although total paid sales increased from N.D. 155 million to N.D. 158 million. The two main reasons for this were the increase in depreciation rates on equipment from 7% on the average to 10-12%, and the increase in interest expense due to the relatively large increase in debt from 1965 on.

Market Prices and Competition

DMB has undertaken, according to a long-term cooperation contract signed with Zastava in 1966, to provide for 10 years all the engines for Zastava vehicles. Only if DMB is incapable of providing all the engines that Zastava requires is Zastava permitted to purchase engines temporarily elsewhere. According to this contract, DMB is to receive a fixed 17% of the total car price in payment for the engine. In addition to the long-term agreement which defines the general relationship between the two enterprises supplemental annual contracts are also negotiated to deal with such matters as production targets for that year. Evidently, therefore, the future prices and market for DMB's engines are a direct derivative of the prices and future market of Zastava automobiles.

Consumption of Passenger Cars

The following table indicates cars registered, ownership per 1,000 people, rate of increase of registration, per capita income at current rates and price of a representative local car in the period 1959 to 1967:

	1962	1963	1964	1965	1966	1967
Registered (000)	98	113	142	188	237	335
Ownership (cars/1000 inhabitants)	5.2	5.9	7.4	9.6	12	17
Per capita income (in US$ equivalent)	270	340	430	520	550	620
Rate of increase of Registration	29%	15%	26%	32%	26%	41%
Car Prices: Zastava 740 (US $)	1500	1500	1500	1000	1000	1000

Zastava (from a very complete and intricate market study based on incomes, distribution of spending, comparisons with Europe, scrappage, second-hand car purchase, etc.) has estimated ownership in 1971 will have increased to about 31.5 cars per 1,000 inhabitants. The 1967 forecast of ownership according to the Zastava study (made mid-1967 based on 1966 statistics) was exceeded because of particularly high imports that year, but it is reasonable to assume that this will be corrected in the near future. The projected ownership of about 31.5 cars per thousand inhabitants by 1971 appears to be reasonable, assuming that the relationship between ownership and per capita income continues to follow the trend of the past seven years. This also shows that Yugoslav ownership is:

a) Still low in relation to per capita income compared with other European countries;

b) In the region of straight line growth, at least until 1971;

c) Following a common pattern of increase.

Furthermore, long waiting times for delivery and very stiff payment terms -- 65% down: 35% over 2½ years at 7% interest as a personal loan to employed persons have prevailed in Yugoslavia in past years. Increases in car production capacity will now make it possible for waiting times to be radically reduced. Zastava is optimistic that easing of payment terms for passenger cars will be authorized later this year (45% down, 55% deferred). This, together with the end of supply limitations should, under normal conditions, allow car ownership to grow at the rates projected by Zastava.

Prices & Competition

The price to consumers of the Zastava 750, which presently accounts for over 70% of all passenger cars produced in Yugoslavia, is about US $ 1,000 at the present rate of exchange, before registration and taxes. The same car made by Seat in Spain was sold in 1967, before the November devaluation, at US $ 1,050 before taxes. Both these prices are virtually the same as Fiat's price in Italy (about US $980).

These 3 prices must leave different margins of earnings to the makers as the same car is produced in different quantities in the three countries. Fiat has made as many as 200,000 of this model yearly but now are making only 80,000 during the period of phasing the 600/750 model out, as the 850 replaces it as a best seller. Seat, Spain, makes 60,000 per year and Zastava is expecting to make 35,000 in 1968, but increase gradually to 50,000 in 5 years. However, wages appear to be much cheaper in Yugoslavia (DMB pay average is N.D. 14,000, or, US$1,100 per year, including all contributions) than they are in Spain (Femsa paid in 1967 average 140,000 Pesetas, or US $2,300), while Italian wages are considerably higher still. As against that, raw, semi-finished and finished components purchased by car makers are slightly cheaper in Italy than in Spain. They may well be more expensive in Yugoslavia than both Italy and Spain, because of scale of production, except in the cases where they are related to car prices (as the DMB engines). Sales costs and promotion are higher in Italy than Spain and Yugoslavia, but they are shared over a larger volume of sales. One can conclude that it is feasible that Fiat (Italy), Seat (Spain) and Zastava (Yugoslavia) can sell the 750 car at virtually the same price if higher cost producers sell at a lower margin.

Passenger cars imported into Yugoslavia pay a 50% import duty. This rate has been constant throughout the last few years except for an experimental year (March 1966 to 1967) when it was reduced to 36%. Imported cars are subsequently higher in price by about 40 to 50% than comparable local cars, but they offer the advantages of variety, immediate delivery and sometimes better credit terms.

With car ownership reaching 31.5 per 1,000 in 1971, there should be about 600,000 cars registered in Yugoslavia, that is, about 265,000 more than 1967.

The supply pattern of passenger cars in the past 7 years has been as follows:

	---000 Cars---			
		Import		
Year	Local Production	New	Used	Export
1961	15	1.2	7.9	0.2
1962	13	0.5	2.4	0.9
1963	21	0.9	0.1	0.2
1964	28	4.8	0.1	0.9
1965	36	13.1		6.2
1966	37 1/	20.2		3.6
1967	46 1/	50.3	1.5	5.4

1/ Including assembly with relatively small quantities of local parts of NSU cars and Fiat 850 and 1100.

This year will apparently bring important changes which will affect supply patterns such as:

1. Reducing imports for which the foreign currency is licensed by the exchange control, whether the importation is part of a barter-type deal or not;

2. Restricting imports paid for by Yugoslav citizens out of overseas earnings. These accounted for over 50% of 1967 imports;

3. Prohibiting preferential treatment to customers who buy cars from Zastava with payment in hard currency;

4. Easing of payment terms (reducing down-payment) as outlined above.

Bearing these in mind, and adding to the 265,000 new registrations between end 1967 and end 1971 about 55,000 cars to replace cars scrapped in the coming four years, supply could be expected to be as follows:

	---------------------------000---------------------------			
Year	Total Supply	Local Production	Import	Export
1968	70	50	28	8
1969	75	55	30	10
1970	80	60	32	12
1971	95	75	35	15

A drop in imports in 1968, as a result of measures listed above, the difficulties in spares and service foreign cars will start giving, and the reduction of the foreign car attraction, is an essential assumption of these projections.

The only local producers other than Zastava are Pretis, who assemble NSU Prinz cars, paid for in welded and pipe parts exported to NSU-Germany, Thomos who assemble Citroen 2 and 3 CV and recently IMV who assemble the Austin 1100. The market is shared between them as follows:

	Zastava	Pretis/NSU	Thomos	IMV
1965	32,000 (91%)	about 1,500	1,000	-
1966	33,000 (91%)	2,500	800	-
1967	41,400 (90%)	3,800	600	400

As Zastava expects to retain a 90% share of local supply, its potential sales in the coming four years would be as follows:

1968	45,000 passenger cars
1969	50,000 passenger cars
1970	54,000 passenger cars
1971	68,000 passenger cars

DMB supplies engines for all Zastava cars except the Fiat 850 and 1100, which have imported engines. Production of these cars reached 12% of Zastava's output in 1967 because the company was allowed to take payment for them in hard currency. In future, they are not likely to account for more than 5% of output. Furthermore, DMB now makes about 6,000 engines for Zastava light commercial vehicles and about 2 to 3% new engines for replacement and various applications. Bearing in mind an increase in commercial vehicle and jeep engine production to about 10,000 engines DMB's sales potential would be as shown in the following table, which compares it with the projected production program of the company:

		000 Engines		
		Production Program		
Year	Cars Sales Potential	Cars	Commercial	Total
1968	50	46	5	51
1969	55	50	5	55
1970	60	55	7.5	62.5
1971	75	62	11	73

DMB projects its engine prices to be unchanged during this period, assuming that purchases of materials, semi-finished and finished parts will also be at unchanged prices. Zastava and all its suppliers are linked by a federation which would regulate changes in prices between its members, and, when necessary, negotiate an increase in car prices, which are fixed by the authorities.

DMB does not export any engines except those which are built into exported Zastava cars. DMB exported directly gears and tools of the value of $400,000 in 1967, but only $20 - 30,000 of this was to convertible currency areas. Zastava has built up its exports to about 5 to 6,000 cars per year and hopes to increase this quantity to about 10 or 12,000 in the next five years. Presently, most of these exports are in clearing areas, with little over 10% going to free currency areas. However, local sales in hard currency were about 5,400 cars last year -- raising Zastava's free currency revenue to about US $9 million -- but many of these may have been Fiat 850 and 1100 models assembled in Zastava and having an imported engine. DMB have apparently not received any sizeable sums of hard currency allocation for participating with their engines in Zastava exports, but they are entitled, should they require it, to 17% of the foreign currency Zastava obtains.

Description of the Project

The project aims at allowing DMB to increase engine capacity to about 80,000 units per year and to modernize its technology of manufacture by purchase of modern machines and scrapping out-dated ones, mostly over 20 years old. The project will also permit further expansion in future to 120,000 units with relatively less investment. DMB has been increasing output by eliminating bottlenecks, buying additional machines when needed, working extra hours in various sections, until output can no longer be increased satisfactorily except by setting up a new shop for more up-to-date machining lines and group manufacture of engine components.

In planning and engineering this project, DMB has struck a compromise between increasing automation and retaining flexibility through the use of less specialized machines. Only one-third of the new investment will be for single purpose applications and a good part of that will allow variations in dimensions. The enterprise has demonstrated that its plans are well conceived.

The schedule of execution of this expansion has been modified, together with DMB, to make it more in line with prevailing circumstances. It is now expected that some of the effects of expansion will be felt by 1970 and engine production is projected as over 60,000 units that year making sales revenue about 15% higher than in 1969. This assumes an orderly transfer of equipment to the new buildings during 1969 and 1970. In 1971, the expansion should be complete and sales revenue should be about 45% higher than in 1969.

As a result of modernization DMB expects to be able to increase its over-all productivity thus making more engines per worker. Since they will retain the same degree of integration as the present, and as Fiat recommended in their suggestions for DMB's expansion in 1960 to 80,000 units, it is possible to compare the plant labor output present and future as shown in the following table:

DMB Productivity (Engines/Man)

Before Expansion 1967	After Expansion 1971
66.5	77.5

DMB's reduction in direct machining times for engines will be between 22 and 40% for different engines as a result of modernization.

Cost of the Project.

The cost of the project to increase the production of automobile engines to 80,000 is estimated at N.D. 127.7 million ($10.2 million) excluding working capital requirements of N.D. 30 million and interest during construction. Foreign exchange expenditure is estimated at $4,339,000 of which I.B.R.D. is asked to provide $4,089,000. The remaining $250,000 needed for engineering know-how and design will be provided by the enterprise.

A brief summary of the project cost is as follows:

	US$000	000NDin	
	Foreign	Local	Total
Land	-	8,460	8,460
Levelling, Fencing & Access Roads	-	3,107	3,107
Buildings --			
Factory (basically 16,000 m^2 @NDin 1350 plus cheaper subsidiary buildings services, etc.	-	25,158	25,158
Office, etc. (3,800 m^2 @1400)	-	5,628	5,628
Contingency for buildings	-	1,500	1,500
Machinery and Equipment	-		
Imported Convertible (FOB)	3,689	-	46,113
Imported from Clearing & Local	-	6,144	6,144
Insurance, Freight, Customs & Erection	-	19,438	19,438
Contingency on Machinery	400	3,500	8,500
Engineering, Knowhow, Design	250	502	3,627
Preliminary & Startup Expenses	-----charge to operations		
Total Fixed Assets excluding Capitalized Interest during Construction	4,339	73,437	127,675
Working Capital Contributions[1/] based on Rotating Assets 3 times per year	-	30,000	30,000

Most of the foreign equipment is likely to come from Western Europe and the U.S. Import duties are estimated at about 35%. Contingency allowances for buildings and equipment have been calculated on the basis of current prices rather than on prices when the estimates were made and some allowance is made for variations.

1/ Before deduction of supplier credits, additional short-term bank borrowing, use of cash generated by operations, etc.

DMB had originally expected to manage with only an additional N.D. 15 million of working capital. They concede, that this is not possible with their present methods of procurement, stocking, selling, and borrowing on inventory. The enterprise is expected, however, to markedly improve their purchasing of raw materials and parts, resulting in a more rapid turnover in inventory. Even if this materializes, it is felt that they will require an amount closer to N.D. 30 million.

The expansion eventually planned from 80,000 to 120,000 engines (including some of 1,000 cc capacity) is expected to require an additional investment of N.D. 70 million in fixed assets. Relatively speaking, this is at considerably lower cost than the N.D. 127.7 million required for expansion from 42,000 to 80,000 engines. The main reason for this is that the second expansion will reap considerable cost saving through the use of equipment and facilities acquired as necessary for the first, but also capable of use on the second.

Project Financing

A summary of DMB's estimated financial requirements and sources of funds during the period of construction (1968-1970) is given below (in N.D. millions):

Uses		Sources	
Project (fixed assets)	127.7	Net earnings	19.2
Related working capital	17.0	Depreciation	40.2
Renewals and replacements	5.3	Long-term debt	126.3
Debt repayment	27.3	Short-term debt	3.0
Reserves & other allocations	9.5		
Additional working capital	1.9		
	188.7		188.7

Detailed earnings and cash flow projections for the construction period and the following two years together with the major assumptions and further explanations are given in Annex 2. Forecasts in Annex 2 assume that orders would be placed in 1969, that equipment would be arriving and be installed in 1970 and completely operational from the beginning of 1971.

The total cost of this project as originally submitted was N.D. 118.1 million. This amount has been increased to N.D. 157.7 million, after consultation with the enterprise. This increase of N.D. 39.5 million in the total cost of the investment is explained by an increase in convertible currency costs of N.D. 11.3 million due to out-dated quotations, revised dinar fixed investment costs of N.D. 13.2 million and estimated additional working capital required of N.D. 15 million. As a result, short-term debt of N.D. 27 million is estimated as necessary in 1971 and 1972. Prior to now the enterprise was clear of short-term debt and had not projected any for the next several years. As the major part of the short-term debt is calculated not to be necessary before 1971, and, at that time earnings should be fully reflecting the results of the expansion at the same time as other obligations are falling off, it should not prove unduly onerous.

Of the total project cost of N.D. 157.7 million IBRD would provide N.D. 42.9 million and the Beogradska Udruzena Banka has agreed to lend the enterprise N.D. 60.2 million. The remaining N.D. 54.5 million required will be covered by the enterprise's own resources and by short-term borrowing.

Earnings and Debt Service Coverage

Earnings forecasts (Annex 2) are based on the assumption that sales would equal production. As already stated, earnings in 1967 were materially reduced due to an increase in interest costs and depreciation rates. It is estimated that the full effect on production of the new investment will not be realized until 1971. As a result, there is only a modest gain in total sales in 1968 and 1969 to be achieved through a more intensive use of existing facilities. In 1969 a small part of the new equipment will be assisting in the elimination of bottlenecks and modest improvement in earnings will be realized. The major leap in production, however, takes place in 1971 and earnings almost double that year. By 1972 sales will have increased by nearly 80% while net earnings are expected to be eight times as high as they were in 1967.

Due to the considerable legacy of long-term debt in existence before the new debt-load resulting from this project and the somewhat lengthy lead-time before the investment results in substantially higher sales and earnings, long-term debt service coverage fluctuates in the narrow range of between 1.4 in 1968 and 2.1 in 1972. After 1972 it improves rapidly. For this reason any further new investment that would involve new long-term debt should be deferred until at least 1972.

Conclusions

Zastava is the largest producer of automobiles in Yugoslavia and depends exclusively on DMB for the engines to be installed in its vehicles. From an immediate point of view an increase in the production of motor vehicles, particularly passenger cars, at a time when the Yugoslavian consumer is becoming increasingly more car conscious will cut down substantially the demand for imported automobiles. As Zastava plans to export approximately $20 million of vehicles by 1970, DMB will also, indirectly, be an important earner of foreign exchange. Its own experimentation with automobile engines and the construction of several original prototypes demonstrates that DMB has the managerial and technical capability to contribute towards the growth of a truly endemic automobile industry.

IFC/IAEA
July 26, 1968

THE "DVADESTPRVI MAJ" MOTOR FACTORY

Comparative Balance Sheet
(In millions of New Dinars)

	1963	1964	1965	1966	1967
ASSETS					
Current Assets					
Cash, Banks & Near Cash	8.3	6.5	12.7	17.1	17.4
Trade Receivables	1.6	2.8	19.9	18.3	19.3
Inventories					
Raw Materials & Supplies	26.4	31.2	42.4	44.2	45.6
Semi-finished Products	8.9	10.4	11.4	11.6	12.8
Finished Products	2.2	1.8	5.2	6.8	6.9
Total Inventories	37.5	43.4	59.0 1/	62.6	65.3
Other Current Assets 2/	19.7	24.0	23.0	27.6	30.7
Total Current Assets	67.1	76.7	104.6	125.6	132.7
Gross Fixed Assets					
Land 3/	--	--	--	--	--
Buildings	16.0	16.7	16.9	29.0	4/30.9
Machinery & Equipment	51.4	55.1	61.1	83.4	5/85.9
Fixed Assets under Construction	2.5	2.2	.1	1.1	5.6
Collective Consumption Assets 6/	16.3	17.4	18.3	42.3	40.9
Other Fixed Assets 7/	1.5	1.8	2.0	2.7	2.3
Total Gross Fixed Assets	87.7	93.2	98.4	158.5	165.6
Less Depreciation 8/	(28.3)	(32.6)	(37.8)	(49.4)	(56.9)
Net Fixed Assets	59.4	60.6	60.6	109.1	108.7
TOTAL ASSETS	126.5	137.3	165.2	234.7	241.4
LIABILITIES					
Current Liabilities					
Short-term Debt to Banks	--	--	4.9	6.1	--
Trade Payables	11.7	12.3	7.2	9.5	20.5
Other Current Liabilities 9/	77.8	34.9	25.0	38.3	33.0
Total Current Liabilities	39.5	47.2	37.1	53.9	53.5
Long-term Debt 10/	36.2	36.7	54.9	68.5	70.8
Funds of the Enterprise					
Business Fund	32.9	34.2	51.4	70.7	72.3
Reserve Funds	2.2	2.9	2.8	3.6	7.8
Collective Cons. Funds	15.7	16.3	19.0	38.0	37.0
	50.8	53.4	73.2	112.3	117.1
TOTAL LIABILITIES	126.5	137.3	165.2	234.7	241.4
CURRENT ASSETS/CURRENT LIABIL.	1.69:1	1.63:1	2.82:1	2.33:1	2.48:1
LONG-TERM DEBT/OWN FUNDS	42:58	41:59	43:57	39:61	38:62

THE "DVADESTPRVI MAJ" MOTOR FACTORY

Notes to Comparative Balance Sheet

1/ Reflects revaluation of inventories in 1965.

2/ Includes Cost of Goods Sold for sales invoiced but not paid, prepaid expenses and other current assets.

3/ The approximate 16 hectares of land owned by the enterprise is valued at N.D. 28,000.

4/ In 1966 buildings were revalued by approximately N.D. 12 million or about 75%.

5/ In 1966 Equipment was revalued by approximately N.D. 15 million, or about 25%.

6/ Workers Housing and Resort Hostels, etc.

7/ Preliminary Expenses, patents, licenses and intangibles.

8/ Depreciation on Buildings is at 1.3%, on equipment it was on the average, through 1966 7%, in 1967, it was increased to 10 - 12%.

9/ Includes sales value of goods invoiced but not paid, and other transitory items and accrued charges.

10/ Includes Current Maturities, Permanent Working Capital Loans, and Long-term Loans for Social Assets.

IFC-LAEA
May 22, 1968

THE "DVADESTPRVI MAJ" MOTOR FACTORY

EARNINGS STATEMENT
(In millions of New Dinars)

	1963	1964	1965	1966	1967
SALES 1/	100.0	107.0	145.0	155.0	158.0
Operating Costs					
Materials & Overhead	77.0	77.0	102.0	107.0	110.0
Net Wages	7.0	10.0	15.0	20.0	21.0
Related Social Payments	4.0	5.0	7.0	7.0	6.0 2/
Taxes and Contributions	2.0	4.0	5.0	7.0	7.0
Total Operating Costs	90.0	96.0	129.0	141.0	144.0
Depreciation	3.0	5.0	7.0	5.0	8.0
Interest	2.0	2.0	2.0	3.0	4.0
Net Earnings from Operations	5.0	4.0	7.0	6.0	2.0
Nonoperating Earnings 3/	1.0	1.0	2.0	4.0	2.0
Nonoperating Expenses	(2.0)	(2.0)	(1.0)	(1.0)	(1.0)
Net Earnings	4.0	3.0	8.0	9.0	3.0

1/ On the basis of paid sales.

2/ Social Payments were reduced by 14 percent in 1967.

3/ Includes rebates, penalties received on deliveries, etc.

IFC-LAEA
May 22, 1968

THE "DVADESTPRVI MAJ" MOTOR FACTORY

FINANCIAL FORECASTS
(In Millions New Dinars)

	1968	1969	1970	1971	1972
I. Earnings Statement					
Sales Revenue 1/	180.0	195.0	230.0	280.0	290.0
Operating Costs					
Materials & Overhead	121.5	131.3	153.0	185.4	192.5
Net Wages	22.4	23.4	25.0	26.3	26.3
Related Social Payments	6.7	7.0	7.9	7.9	7.9
Taxes & Contributions	7.6	8.0	8.8	9.1	9.4
Total Operating Cost	158.2	169.7	194.7	228.7	236.1
Depreciation	11.6	12.0	16.6	18.1	18.1
Interest	3.8	3.9	7.8	13.9	11.6
Net Earnings from Operations	6.4	9.4	10.9	19.3	24.2
II. Sources and Applications of Funds					
Sources					
Net Earnings (Previous Year) 2/	3.0	6.4	9.4	10.9	19.3
Interest	3.8	3.9	7.8	13.9	11.8
Depreciation	11.6	12.0	16.6	18.1	18.1
Increase in Long-Term Debt:					
IBRD ($4,089,000) (N.D. 51.1 million)		10.0	41.1		
B.U.B. and others		27.9	47.3		
Short-term Debt Requirements	1.0	2.0		22.0	5.0
Total Sources	19.4	62.2	122.2	64.9	54.2
Application					
New Investment:					
Fixed Assets (foreign)	--	10.0	41.1	--	--
Fixed Assets (local)	--	27.9	47.7	1.0	--
Working Capital	[illegible]	6.0	9.2	14.8	--
Total Investment	3.0	43.9	98.0	15.8	--
Renewals & Replacements	--	1.0	4.3	20.1	24.1
Other Fixed Assets	--	--	--	--	--
Interest:					
Existing Long-term Debt	3.7	3.3	2.7	2.3	1.8
IBRD 3/	--	.4	1.8	3.4	3.2
B.U.B. and others 4/	--	--	2.3	6.7	6.5
Short-term Interest	.1	.2	--	1.5	.3
Total Interest	3.8	3.9	6.8	13.9	11.8
Principal Repayments:					
Existing Long-term Debt	9.3	9.4	7.7	7.1	5.7
IBRD	--	--	--	3.1	3.3
B.U.B. and others	--	--	0.9	2.4	2.6
Total Repayments	9.3	9.4	8.6	12.6	11.6
Allocation to Reserve	1.0	1.5	1.0	--	0.5
Allocations for Collective Consumption 5/	2.0	2.5	2.5	2.5	4.5
Net Additions to Working Capital	3.3	--	--	--	1.7
Total Applications	19.4	62.2	122.2	64.9	54.2
Long-term Debt Service Coverage	1.4	1.6	2.0	1.6	2.0

1/ Based on the assumption that sales equal production in each year.
2/ Earned funds are released for use only in the following year.
3/ Interest at 7%, 2½ year grace period, repayable in 24 equal semi-annual installments.
4/ Estimated at 8-9% and other terms, duration, etc. similar to IBRD.
5/ For investment in collective consumption assets.

IFC-LAEA
May 22, 1968

THE "DVADESTPRVI MAJ" MOTOR FACTORY

Sales - 1963 to 1967 Actual & Forecast Until 1972

	A C T U A L										F O R E C A S T									
	1963		1964		1965 1/		1966		1967		1968		1969		1970		1971		1972	
	000 Units	mio NDin																		
Engines 750 cc	14.1	26.0	23.0	43.0	29.2	60	29.6	61.0	30.6	64.0	35	72.5	37.5	77.6	42	87.0	45.5	94.0	45.5	94.0
1300 cc	3.3	9.0	5.6	15.0	6.7	21	7.7	24.0	7.4	23.0	12	37.5	13	40.8	15	47.0	18.2	57.0	18.2	57.0
1900 cc	3.9	13.0	3.8	13.0	4.7	22	4.6	22.0	4.4	21.0	4.4	21.0	4.6	22.0	5.5	26.2	9.1	44.0	9.1	44.1
Engine Overhauling	-	-	-	-	-	-	2.0	4.3	2.3	6.3	3.0	10.0	3.4	11.2	5.0	14.8	6.0	17	6.2	17.9
Gears & G-boxes	-	0.3		1.1		2.9		9.0		10.0		19.0		22.0		32.0		40		47.0
Spares, Components for Other Producers, etc.	-	51.7		34.9		39.1		34.7		33.7		20.0		20.0		23.0		28		30.0
TOTAL SALES REVENUE	N.D.	100.0		107.0		145		155		158		180		195		230		280		290

1/ Engine prices increased as compared to 1963 and 1964.

IFC-LAEA
May 22, 1968

SEVOJNO

The Borrower

The prospective borrower VALJAONICA BAKRA SLOBODAN PENEZIC-KRCUN is the largest Yugoslav processor of copper (and alloying materials such as zinc and lead) into semi-finished products - mainly sheets, strips, bars and tubes. The plant is located in Serbia at Sevojno, six km. from Titovo Uzice which is 320 km. from the principal raw material source - the copper mines at Bor. Sevojno is connected at present with Bor by a broad gauge railway from Bor to Cacak and a narrow gauge line from Cacak to Sevojno. Zinc, the other principal raw material is obtained from Zorka, Sabac and lead and zinc from Trepca, Zvecan. Sevojno has satisfactory highway and railroad connections which will be substantially improved after the completion of the Belgrade-Bar railway.

Sevojno produces about 60% of the total Yugoslav production of semi-finished copper and brass. In 1967 production was about 42,000 tons - 22,000 tons of rolled products and 20,000 tons of extruded and drawn products. Total sales in that year amounted to N.D. 646 million ($51.7 million) of which N.D. 376.2 million ($30 million), or 58%, represented export sales. Approximately 60% of exports went to convertible currency areas. The principal export markets are U.S.A., Italy, W. Germany and France.

The main production facilities consist of a rolling mill deprtment which produces sheets, trips and other rolled products, and the extrusion and drawing department which produces bars, tubes and other sections. These departments are served by common auxiliary facilities including a melting and casting shop which supplies the necessary slabs and billets. The plant has a total covered area of approximately 45,000 sq. meters. Sevojno's total assets at December 31, 1967 were N.D. 775.8 million ($62 million) and the enterprise employs 2,700 persons.

While Sevojno has adequate capacity to meet the foreseeable demand for extruded and drawn products, it needs to modernize and expand its rolling mill capacity to meet the requirements of the market. Output of rolled products is limited by the capacity of the existing hot rolling mill which is currently being used both for primary hot reduction of slabs and also for cold rolling of plates. On the finishing side, the existing equipment limits sheet width to about 800 mm.

The enterprise proposes to install a new hot slab rolling mill and a new cold finishing mill which will enable production of wider sheets and increase the rolled products' manufacturing capacity by about 12,000 tons per annum. The project is estimated to cost N.D. 77.0 million ($6.16 million). The foreign exchange cost of the project is estimated at $3.5 million which IBRD has been requested to finance.

Prepared by A. Bandy and M.V. Dehejia.

History of the Borrower

The enterprise was founded by a Federal Government decree in June 1950 under the name VALJAONICA BAKRA SEVOJNO. The name was changed to VALJAONICA BAKRA SLOBODAN PENEZIC-KRCUN in 1964. The project was engineered by a consortioum of W. German firms consisting of Messrs. G.H.H. and Schloemann of Dusseldorf. Schloemann supplied most of the equipment, a considerable part of which was reconditioned and was made available to the Yugoslavs under the war reparation program. The contract with the German consortium provided for training of Yugoslav technicians in Germany and the deputation of German engineers to Sevojno for start-up and initial operation of the plant.

The plant was designed for an initial capacity of about 14,000 tons per annum of rolled products and 7,000 tons per annum of extruded and drawn products. However, the design of buildings and layout of equipment was such as to facilitate subsequent expansion of capacity.

Production commenced in December 1955 and during the first year of operations the enterprise produced approximately 8,000 tons of rolled products and 6,000 tons of extruded and drawn products. Output increased steadily thereafter and by 1959 the plant was operating at design capacity. During 1956-1967 total output in tons increased at an average rate of 10.5%. per annum; rolled products averaging a growth rate of 9.4% per annum and extruded and drawn products 12.2% per annum.

The increase in output was made possible primarily by the enlargement of production capacities. During 1961-1964 the capacity of the extruded and drawn products department was expanded by the installation of additional draw benches,annealing furnaces and pickling facilities. In 1965 a new 2500 ton extrusion press was added. This department now has in operation four extrusion presses, three continuous tube drawing machines, a battery of eighteen draw benches for bars and other profiles, fifteen wire drawing machines and necessary annealing and pickling equipment. At current production levels, approximately 66.5% of the extrusion capacity is utilized on a 2 shift basis. The enterprise does not foresee the need for any increase of capacity in this department. New investments will be directed towards plant renewal and replacement.

In the rolling mill department new investments in recent years have been primarily for cold rolling and finishing equipment. There has been no addition to the primary hot rolling capacity since Sevojno was established. In 1964 a new 4-high reversing cold strip mill was installed together with a continuous annealing and pickling line and a Torrington plate milling machine. In 1966 a new mill was acquired to augment the finishing capacity of the plant. The existing facilities in this department now comprise principally one 2-high primary hot slab rolling mill, six 4-high reversing cold rolling mills for sheet, strip and foil production, one 2-high skin pass mill and necessary slab reheating furnaces, intermediate and final annealing furnaces, pickling, shearing and slitting lines. The production capacity of this department, although dependent on the final product mix, is governed largely by the capacity of the primary slab rolling mill which is currently working at full load on a 3-shift basis.

The capacity of the melting and casting shop has also been expanded to meet the increasing demand for billets and slabs. In 1964 a semi-continuous casting unit was installed as well as three melting furnaces and a unit for continuous casting of high conductivity oxygen free copper billets. This foundry now has a capacity of about 98,000 tons per annum of slabs and billets whereas the current requirements amount to about 67,000 tons per annum.

Management

The General Manager, Mr. Vlajko Brkovic, has been with the enterprise since its inception and was closely associated with the initial project engineering work and its implementation. He was elected General Manager eight years ago prior to which he was manager of the extruded and drawn products department. Mr. Brkovic is a metallurgical engineer and has undergone specialised training in this field in Czechoslovakia and W. Gemany. His 4-year term as General Manager expired in March 1968 and he has been re-elected by the Workers' Council for another four years. He is a Deputy in the Economic Chamber of the Yugoslav Federal Assembly and is currently the President of the Yugoslav Business Association of Copper Producers and Processors.

Mr. Brkovic is assisted by an able team of technical and financial men, the majority of whom have been with the enterprise for 5 to 7 years. Only the Technical Manager, Mr. Petar Milosevic, and the Development Manager, Mr. Aleksander Hristic, have been with the enterprise since its inception.

The key man on the production side is Mr. Relja Sutic, Production Manager. He is a metallurgical engineer and has received some practical training in W. Germany. He has been with the enterprise for seven years and is responsible for the modernization and expansion program now under review.

The Commercial Manager is Mr. Desimir Petrovic who has been with the enterprise for five years. He has organized an efficient sales department and has been successful in developing close contacts with foreign buyers.

Mr. Bozidor Rmandic is the Financial Manager. He too has been with the enterprise for five years and is a graduate economist of some seven years' experience.

In all, the supervisory staff consists of over 110 professionally qualified persons of whom 57 are graduate engineers. The plant appears to be managed efficiently.

The Yugoslav Copper Industry

Yugoslavia has the largest known copper ore deposits in Europe (excluding USSR) and accounts for over 40% of this region's mine production in terms of copper content of ores and concentrates produced. Although copper has been mined in Eastern Serbia since Roman times, systematic exploration and exploitation of ore reserves began in the early 1900's. The mining and refining of copper in Yugoslavia is now the exclusive responsibility of the enterprise RUDARSKO TOPIONICARSKI BAZEN BOR1/. is currently mined at Bor and Majdanpek which have proved reserves of about 440 million tons of copper bearing ore with an estimated copper content of about 3.2 million tons. In addition, probable and possible reserves are currently estimated at 350 million tons. Over the last 5 years the rate of ore extraction has averaged 5.8 million tons per annum; this is expected to increase to about 13.5 million tons per annum by 1971/72 when the second phase of the current expansion program is completed. Production of electrolytic copper averaged 57,000 tons per annum over the last 5 years, reaching 66,000 tons in 1967. Refining capacity is planned to be increased to about 95,000 tons per annum by 1971/72.

Yugoslavia does not export any blister or refined copper made from local ores. (Enterprise Bor however does export small quantities of refined copper made from imported scrap and secondary materials; in 1967 this amounted to about 1,400 tons.) Bor's output is processed into finished and semi-finished products by seven Yugoslav enterprises. The total copper and copper alloy processing capacity of these enterprises currently amounts to about 72,400 tons per annum, of which 42,000 tons or 58% is accounted for by the Sevojno plant. The other six enterprises are:

	Enterprise	Location	Product	Approximate Capacity
1.	Mariborska Livarna	Slovenia	Castings	4,800 t.
2.	Kombinat Prokuplje	Serbia	Rolled Products	7,200 t.
3.	Djuro Salaj Nis	Serbia	Drawn Products	3,700 t.
4.	Elka Zagreb	Croatia	Wire	3,500 t.
5.	Fabrika Kablova Svetozarevo1/	Serbia	Wire	9,200 t.
6.	Novkabel Novi Sad	Serbia	Wire	2,000 t.
			Total	30,400 t.

Except for a setback in 1965 (the year of the Economic Reform) production of copper and copper alloy products over the last few years increased at average annual rate of about 8.4% as shown below. During the same period Sevojno's production averaged about 66.8% of the total Yugoslav output.

	1960	1961	1962	1963	1964	1965	1966	1967
Total Production ('000 tons)	34.1	35.0	38.2	44.9	52.1	49.0	55.9	59.8
Sevojno	22.2	22.7	24.0	29.2	34.3	35.1	38.5	42.0

1/ IBRD financed Bor ($329,000) under Loan 51 YU and Fabrika Kablova Svetozarevo ($2.7 million) under Loan 73 YU.

Enterprise "Mining and Smelting Basin Bor" and the seven processing enterprises are members of the Udruzenje Proizvodjaca I Preradjivaca Bakra, Beograd (Business Association of Copper Producers and Processors). Until the Economic Reform the price of copper was controlled by the state pricing authority, but afterwards, this function was passed over to the Association. As a result there is still one price in Yugoslavia which domestic processors pay for domestic copper. Every year "Bor" signs a contract with the seven copper processors parcelling out its expected total production among them roughly in proportion to their position in the industry. The price at which this copper will be sold to the processors is discounted 15-20% from the average price prevailing on the London Metal Exchange during the previous April/October or October/ April. In substance, therefore, although the Yugoslav price has never exceeded the LME prices, in periods of rising world copper prices the comparative advantage of the Yugoslav copper processors is greater, as they are still purchasing on the basis of an index when prices were lower, and in periods when the world price is falling their comparative advantage is diminishing in the same manner. As a result of this formula in recent years the following relationship has existed between Bor prices and the prevailing London price.

Yugoslav Domestic Copper Prices
as a % of LME Current Average Price

1964	78%
1965	70%
1966	60%
1967	91%
1968	71% (for January)

To the extent, therefore, that the Yugoslavian copper processors can depend on domestic supplies of copper at lower prices than the prevailing world price they enjoy some initial advantage in world markets for their semi-finished products. Unfortunately, the mines at Bor will not be capable of meeting all domestic needs until the mid-1970's. In 1966 and 1967 approximately one-third of the copper utilized by Sevojno was purchased from external sources. This partial dependence on imported copper will steadily diminish until in 1972 it will represent only 10-15% of total needs (and by 1975 will have been eliminated completely).

Sales and Market

The level of Sevojno's sales have in the past been determined largely by the availability of copper and the capacity of Sevojno's production facilities rather than the demand for its products in the domestic or export markets.

The following table shows the development of domestic and export sales (in tons) in the domestic and export markets during the past five years.

SALES
(in metric tons)

	Domestic Market	Export Market	Total Sales
1963	14,676	14,680	29,356
1964	15,540	18,371	33,911
1965	14,550	20,016	34,566
1966	13,795	24,578	38,373
1967	14,285	27,157	41,442

Domestic Sales

Domestic sales, which in recent years have accounted for about 35% to 40% of total sales volume, are primarily to the electrical, metal working and shipbuilding industries. The following table shows the extent of Sevojno's share of the domestic market for copper and brass semi-finished products in recent years:

(in '000 metric tons)

	1963	1964	1965	1966
Domestic Production	44.9	52.1	49.0	55.9
Imports	0.6	2.6	2.2	4.9
Exports	17.8	20.2	22.5	31.9
Apparent Domestic Consumption	27.7	34.5	28.7	28.9
Sevojno's Share	14.7	15.5	14.6	13.8
%	(53.1)	(44.9)	(50.9)	(47.8)

Domestic selling prices for copper and brass products are controlled and are established every six months by the SAVEZNI ZAVOD ZA CENE, Beograd, a Government agency. Since the Economic Reform of 1965, domestic selling prices have been, on an average, 8 to 10% lower than prices obtainable in the export market. Because of the more lucrative export business, enterprises like Sevojno have tended to neglect the domestic market with the result that a considerable backlog of domestic orders has built up. By early February 1968 Sevojno had booked firm orders for delivery in December 1968, whereas export orders are normally quoted a delivery of 25 to 35 days.

Sevojno has very little competition in the domestic market. The only other enterprise capable of producing rolled products is Kombinat Prokuplje but its range of products is limited. For extruded and drawn products, the tube and wire drawing units at Nis and Novi Sad are the only possible competitors but their plants have very small capacities.

Competition from imports is unlikely to be of any consequence in the next few years because of the level of tariff protection for imports into Yugoslavia (5°/o for drawn products and 6°/o for rolled) and the favorable price at which domestic processors receive their raw copper from Bor.

Export Sales

Export sales have increased steadily from 1959, the year in which the enterprise first exported its products. In 1963 export sales accounted for about 50% of the total sales; the proportion increased to 58% by 1967.

Sevojno's exports account for a substantial portion of total Yugoslav exports of copper and brass semi-finished products as shown in the table below:

	1963	1964	1965	1966
Total Yugoslav Exports (000 t)	17.8	20.2	22.5	31.9
Sevojno's Exports (000 t)	14.7	18.4	20.0	24.6
%	(82.6)	(91.1)	(88.9)	(77.1)

In the earlier years roughly half of Sevojno's exports (by volume) were to clearing currency areas. This ratio has been gradually diminishing and is currently around 33%. Sales to clearing currency areas are generally by long-term contracts. Sevojno currently has contracts running through 1972 for about 5,000 tons of copper strip to the USSR, 1,200 tons of tubes and sheets to Czechoslovakia and 2,000 tons of miscellaneous items to Poland, Hungary and Bulgaria. Unit sales prices for export to these areas are on an average 20 to 25% higher than prices for exports to convertible currency areas. For example, rolled copper sheets were exported to the USA at an average price of NDin 16,400 per ton whence similar sheets were exported to the USSR at NDin 19,700 per ton. However, Sevojno prefers to export to convertible currency areas because of the foreign exchange retention quota (currently at 14%) and the export premium (6%) facilities available for such exports.

Sevojno exports to over 25 countries in the convertible currency area. The major importers being the USA, Italy and West Germany. In each of these countries Sevojno has its own agent in addition to a representative on the London Metal Exchange. Export orders are contracted on an FOB Rijeka basis and on the prevailing L.M.E. wire bars 3 months' price. Delivery periods quoted vary from 25 to 35 days. Because Sevojno can buy electrolytic copper at lower than world market prices, it has no difficulty in competing in the export market.

Sales Projections

The following table summarizes Sevojno's projections for domestic and export sales for the next five years:

	Sales Projections (in tons)				
	1968	1969	1970	1971	1972
Domestic	13,777	13,777	14,429	16,911	18,633
Export - Clearing	10,225	10,225	11,225	12,896	12,909
- Convertible	17,536	17,536	18,384	20,731	21,996
Total	41,538	41,538	44,038	50,538	53,538

Projections of domestic sales and exports to clearing currency areas are based on current contracts with buyers of long standing. Projections of exports to convertible currency areas are based on individual country projections made by Sevojno's agents stationed in these respective regions. The projections foresee an annual rate of growth in these markets of about 4.7% per year which is reasonable.

Recent Financial and Earnings Record

Balance Sheets for the last 5 years (1963-1967) are shown in Annex 1. The Balance Sheet as of December 31, 1967 is summarized below (in N.D. millions):

Assets		Liabilities	
Cash and equivalent	81.5	Short-term bank debt	189.2
Receivables	116.3	Accounts payable	15.0
Inventory	173.7	Other current liabilities	131.3
Other current assets	129.0	Total current liabilities	335.5
Total current assets	500.5	Long-term debt	90.5
Net fixed assets	275.3	Business fund and reserves	349.8
Total Assets	775.8	Total Liabilities	775.8

Since 1962 Sevojno has increased its total production from 24,026 tons of rolled, extruded and drawn products to 42,000 tons. The necessary investment to accomplish this increase in output was undertaken in two phases at a total cost of approximately 102 million NDin. Of this amount 70% was covered by additional long-term debt and 30% was mobilized from the Company's own funds. Also during this period (1966) assets were revalued by approximately N.D. 105 million and about N.D. 14.0 million of equipment was written off.

Since 1963 the level of long-term debt in relation to Sevojno's own funds has diminished from 43% of the total to 26% in 1967. In some measure this has been due to the difficulty of the Company to obtain long-term loans for working capital purposes and it has been forced to turn increasingly to short-term funding. This dependence on short-term borrowing has grown in the last two years as the need for funds has increased due to higher copper and zinc prices, a new regulation requiring that payment be made one month in advance for copper purchases, and slower collection of receivables particularly by export customers. Although long-term debt service coverage has been adequate the current ratio of the Company, for the last five years, has not exceeded 1.5 on the average. A sizeable diminution of short-term debt is expected in 1968 due to better copper prices, better payment terms from overseas customers and the elimination of the regulation requiring prepayment for copper.

Earnings Statements for the past five years are shown in Annex 1, page 2. Production of the major groups of products, sales and earnings are summarized below:

Production (in metric tons)	1963	1964	1965	1966	1967
Rolled Products					
Strip	6,541	8,426	8,683	8,631	7,872
Sheet	5,281	6,136	6,796	7,485	9,624
Others	3,307	3,138	2,163	2,205	2,287
Sub-Total	15,129	17,700	17,642	18,321	19,783
Extruded and Drawn Products					
Bar and Rod	7,174	8,744	10,610	10,898	9,825
Tube	3,695	4,062	4,268	4,652	5,369
Wire	2,292	1,788	1,865	4,218	5,650
Other	946	1,975	757	433	815
Sub-Total	14,107	16,569	17,500	20,201	21,659
Total Production	29,236	34,269	35,142	38,522	41,442
Total Paid Sales	252.0	337.0	417.8	635.5	645.9
Net Earnings from Operations	15.3	41.1	41.5	58.3	7.6

The very considerable disparity between growth in real output (42% between 1963 and 1967) and the increase in Total Paid Sales over the same period (156%) was substantially due to an increase allowed in the domestic price of copper in 1965 of 63% which was immediately reflected in selling prices and the devaluation of the dinar in the same year from 7.50 to the dollar to 12.50, which enhance the dinar value of export sales. The same two factors influenced materials and overhead principally through the higher prices that had to be paid for domestic and imported copper and zinc.

Although the number of employees have only increased from 2,000 to 2,700 between 1963 and 1967 (35%), Net Wages have increased from NDin 8.7 million to NDin 33.4 million (284%). This is due to substantial wage increases given in 1965 and 1966 at the same time as the major price increases were reflected in sales. As a result of these increases, which in some measure can be considered a windfall, the average net wage at Sevojno (NDin 1,050 a month) is above the national average. It is for this reason that projections of net wages for the next five years show no change (except for the addition of 24 men to the work force). Management confidently expects that present rates can be maintained.

Despite the fact that real output increased between 1966 and 1967 by about 3,000 tons and total paid sales increased by NDin 10 million to NDin 645.9 million net earnings from operations decreased from NDin 58.3 million to NDin 7.6 million. 1967 proved to be a bad year due to the congruence of several unfavorable factors which are not expected to be repeated. First, in 1967 both the price of copper and of semi-finished copper products were declining from the highs of 1966. As a consequence Sevojno found that at the same time that its selling prices were weakening it was paying, relatively, considerably more for its domestic copper supplies. As explained previously Sevojno has, in the last several years, received its domestic copper supplies at considerable discounts from the prevailing London Metal Exchange price. In 1964, 1965 and 1966 they paid 78%, 70% and 60% respectively of the prevailing average L.M.E. price for copper for their domestic supplies. In 1967 they paid 90%. This narrow differential in 1967 arose because of the formula used by Bor to determine the selling price to its domestic customers. Thus in 1967, a period when current prices were dropping substantially, Sevojno was paying Bor on the basis of higher prices that were prevailing six months previously. In 1968 the situation is expected to be reversed to the advantage of Sevojno.

Average Price of Electrolytic Copper
(in US$ per metric ton)

	Domestic Price	L.M.E. Price	Domestic Price as % of L.M.E. Price
1964	761	968	78%
1965	882	1,246	70%
1966	920	1,528	60%
1967	1,018	1,123	90%
1968 (Jan)	1,000	1,409	77%

In addition to paying more for domestic copper in 1967 Sevojno also paid higher prices for its domestic zinc supplies. The main reason for this was inadequate zinc processing facilities at Trepca necessitating the transportation of zinc concentrate to Celje in Slovenia for processing. These additional transportation and processing costs were passed on to Sevojno. As Trepca now has adequate processing facilities this situation is not likely to arise again.

Interest expense was also considerably higher in 1967 due to a substantial increase in short-term debt from 113 to 189 million N.D. and an increase in interest rates from 7-9%. As explained above, the level of short-term debt is expected to be considerably decreased in 1968 and with it, interest expense.

As these three major increases in costs are not expected to recur next year, net earnings from operations are expected to revert to previous higher levels.

Description of Project

The aim of the project under review is to modernize and expand Sevojno's rolling mill facilities. No additions are contemplated to the foundry or the extrusion and drawing department where existing capacities are considered adequate.

As stated earlier, Sevojno has at present only one rolling mill which is used for both primary hot reduction of slabs as well as for intermediate cold rolling of plates. For technical reasons it is undesirable to use the same mill for hot and cold rolling operations. Moreover, the capacity of the existing mill is fully utilized. The enterprise proposes to install a new hot rolling mill and recondition the existing hot mill for cold rolling operations. The new hot mill will not only have a higher capacity than the existing one but will also permit rolling of wider plates. It is proposed to purchase a 1,800 mm x 900 mm Ø 2-high reversing mill with a nominal capacity of 25 tons/hour. For the level of production foreseen during the next few years it is estimated that the new mill will be utilized 64% on 2 shift-basis.

The enterprise also proposes to install a new 1,600 mm x 1,100/430 mm Ø 4-high reversing cold rolling mill primarily for wide sheet and strip production. With the present equipment, the enterprise can produce sheets with a maximum width of 800 mm while the demand for wider sheets is increasing. The new mill will have a nominal capacity of 7.5 tons/hour and for the production levels foreseen in the next few years it is estimated that this will be utilized 66.5% on 3-shift working.

The installation of these two mills will enable the enterprise to increase production by about 12,000 tons per annum, i.e. a total of approximately 34,000 tons of rolled products per year. Of these, sheets will account for about 12,800 tons, strip 15,000 tons and other rolled products 6,200 tons.

It is estimated that about 24 new employees will be needed to man the new mills. However, because of the modern equipment proposed to be installed, labor productivity for the whole enterprise, measured as total effective man-hours per ton of output, is expected to improve substantially as shown below:

	ACTUAL					PROJECTED				
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Output (000 tons)	29.2	34.3	35.1	38.5	41.4	41.5	41.5	44.0	50.5	53.5
No. of employees	1988	2177	2442	2714	2714	2714	2714	2738	2738	2738
Effective man-hours (000 hrs/year)	4211	5626	4776	5033	5070	5051	5051	5096	5096	5096
Man hour per ton	144	135	136	131	122	122	122	116	101	95

Raw Materials

Electrolytic copper and zinc are the basic raw materials required by Sevojno. The enterprise also needs small quantities of other alloying materials such as lead and tin. The relative physical magnitudes of the various prime and scrap materials needed are illustrated by the following table which shows average material inputs (including recirculating scrap) during 1963-1966, as a percentage of finished goods output:

Prime Copper	71.9
Zinc	20.5
Lead, Tin, etc.	0.6
Copper Scrap	32.6
Brass Scrap	35.8
Total Material Input	161.4
Finished Goods Output	100.0
Yield	62%

Over the last few years approximately 40% of the finished goods were copper and 60% brass. With the proposed installation of the new cold rolling mill it is expected that production of copper sheet and strip will increase relative to other products and the copper/brass ratio will tend to increase. For this reason the enterprise expects that the need for zinc will be lower and for copper higher as a percentage of finished output than in the past. The table below shows the enterprise's projections of electrolytic copper and zinc requirements for the next five years.

(in 000 Metric Tons)

	1968	1969	1970	1971	1972
Copper	31.4	31.4	33.2	41.1	42.9
Zinc	8.9	8.9	9.4	9.2	9.7

Owing to a shortage of smelting and refining capacity at Bor, Sevojno has been unable to obtain all the electrolytic copper it needs from domestic sources and has had to supplement local supplies by imports. In 1967 Sevojno imported about 12,000 tons of electrolytic copper. With the expansion of the Bor plant, imports will decrease progressively and are expected to be about 5,000 to 6,000 tons in 1972.

Zinc and lead are procured entirely from local sources. Zinc is bought from "Zorka" Sabac (an enterprise financed by an earlier IBRD loan) and "Cinkarna", Celje. The commissioning of the new zinc electrolytic plant of "Trepca" Zevecan, in 1967 provides an additional source of zinc supplies. Sevojno consumes small quantities of tin (approximately 4 tons/year) which are imported.

Reference has already been made to prices of domestic and imported copper, and, as pointed out in the report on Trepca, domestic prices of zinc and lead are generally in line with world prices.

Cost of Project

The project is estimated to cost NDin 77.0 million (US$6.16 million) excluding interest during construction. Foreign exchange expenditures are estimated at US$3.5 million which IBRD has been requested to provide. A summary of the project cost estimate is given below:

	NDin Million	US$ Million	Total NDin Million
Foundations and civil works	1.16	-	1.2
Plant and equipment	-	3.47	43.4
Freight	1.00	-	1.0
Import duty (@22%)	9.74	-	9.7
Erection	0.38	0.03	0.8
Miscellaneous	1.62	-	1.6
Working capital	19.33	-	19.3
Total	33.23	3.50	77.0

The project has been engineered by Sevojno's own staff. Equipment cost estimates are based on recent quotations received from prospective suppliers. Costs of foundations and civil works and erection expenses are based on the enterprise's experience in installing similar equipment in 1964 and 1966. No provision is made in cost projections for expenditures in connection with the reconditioning of the existing hot mill, and relocation of the slab reheating furnaces as these are included in the enterprise's maintenance budget for 1970.

The prospective suppliers have indicated delivery periods of about 14 months from the date of order. Assuming orders can be placed by January 1969, the enterprise expects to have the new equipment in operation by August 1970. Projections of production and sales have been based on this assumption.

Project Financing

A summary of Sevojno's estimated financial requirements and sources of funds during project construction (1969-1970) is given below:

(in million NDin)

	Uses		Sources
Project	63.3	Net earnings	78.1
Replacement investment	40.0	Depreciation	53.9
Debt repayment	11.6		
Reserves & other allocations	28.5	Long-term debt	44.0
Net additions to working capital	32.6		
	176.0		176.0

Detailed earnings and cash flow projections for the construction period and the ensuing three years together with the major assumptions and further explanations are given in Annex 2, page 1. Forecasts in Annex 2 assume that orders will be placed in early 1969, arrivals and erection will mainly take place in 1970 and that the plant will be in full operation at the beginning of 1971.

Out of a total project cost of 77 million ND's, long-term debt will cover 57% or ND's 44 million. Long-term debt incurred is exclusively for foreign exchange purchases and no domestic long-term debt is required to cover domestic costs.

Earnings and Debt Service Forecasts

Earnings forecasts (Annex 2) are based on the assumption that sales would equal production.

As already stated, net earnings were abnormally low in 1967 due to several factors which are not expected to recur in 1968. Consequently, although real production in 1968 will not differ materially from 1967 (41,538 tons as opposed to 41,442 tons in 1967) because of more favorable copper and zinc prices and lower interest charges, profits are expected to climb substantially from ND's 14.6 million to ND's 38.9 million.

Earnings projections for the period 1968-1972 are based on the assumption that Sevojno will be able to continue to enjoy a substantial favorable differential in price for its domestic copper from prevailing world prices. Whether this materializes or not depends on future movements in world copper prices. Should these prices drop, or rise, substantially the earnings of Sevojno will be effected accordingly, resulting either in the kind of windfall profits the Company enjoyed in 1966 or the considerable diminution of earnings that happened in 1967 (although not to the same extent).

It is for this reason that earnings estimates for Sevojno in the period 1968-1972 should be approached only as aggregates that take as their assumption steadier prices for raw copper than are actually likely to result. On this basis long-term debt service coverage seems to be ample. Should earnings be irregular (due to volatile world prices) or substantially diminished (due to a secular decline in world copper prices) there appears to still be adequate coverage for the Company to meet all its debt obligations.

Conclusions

The aim of this project is to modernize and expand Sevojno's rolling mill facilities with the installation of a new hot rolling mill, the reconditioning of the existing hot rolling mill for cold rolling operations and the installation of a new cold rolling mill designed for wider sheet and strip production. Sevojno will not only be able to increase its production of rolled products by some 12,000 tons but also increase its competitive position in foreign markets by reduced costs and capacity to produce a wider variety of rolled copper products.

Sevojno has been a valuable earner of foreign exchange in the past exporting as much as 65% of total production. This new expansion besides substantially increasing the potential export sales of the enterprise should also enable Sevojno to provide more processed copper to a growing domestic market.

IFC/LAEA
July 26, 1968

COPPER ROLLING MILL "SLOBODAN PENEZIC-KRCUN"
Comparative Balance Sheet
(in millions of N.Ds.)

As at December 31	1963	1964	1965	1966	1967
ASSETS					
Current Assets					
Cash, Banks and near Cash	31.8	51.3	32.7	45.3	81.5
Trade Receivables	37.6	59.7	132.2	137.6	116.3
Inventories					
Raw Materials and Supplies	31.2	34.0	52.0 1/	64.5	67.4
Semi-finished Products	20.8	15.5	24.9	42.0	46.9
Finished Products	6.2	8.8	20.5	25.9	59.4 2/
	58.2	58.3	97.4	132.4	173.7
Other Current Assets 3/	33.0	36.0	73.2	110.2	129.0
Total Current Assets	160.6	205.3	335.5	425.5	500.5
GROSS FIXED ASSETS					
Land	0.2	0.2	0.2	0.2	0.2
Buildings	53.6	53.9	58.5	94.9 4/	97.8
Machinery & Equipment	131.9	149.9	163.9	270.8 5/	276.1
Fixed Assets under construction	18.8	16.8	34.6	2.8	4.2
Collective Consumption Assets	26.7	30.4	35.8	9.3	5.9
Other Fixed Assets 6/	-	.1	1.0	0.9	0.6
Total Gross Fixed Assets	231.2	251.3	294.0	378.9	384.7
Less Depreciation 7/	37.3	43.8	56.1	87.3	109.4
Net Fixed Assets	193.9	205.5	237.9	291.6	275.3
TOTAL ASSETS	354.5	410.8	573.4	717.1	775.8
LIABILITIES					
Current Liabilities					
Short-term debt to Banks	14.2	9.9	85.7	113.2	189.2
Trade Payables	2.5	12.4	13.7	9.8	15.0
Other Current Liabilities 8/	87.0	97.0	135.4	149.0	131.3
Total Current Liabilities	103.7	119.6	234.8	272.0	335.5
Long-term Debt 9/	108.2	122.6	115.2	100.8	90.5
Funds of the Enterprise					
Business Fund	116.0	138.3	183.5	322.4	322.9
Reserve Funds	5.5	6.3	6.8	8.9	13.1
Collective Consumption Funds	12.1	24.0	33.1	13.0	13.8
Total Own Funds	142.6	168.6	223.4	344.3	349.9
TOTAL LIABILITIES	354.5	410.8	573.4	717.1	775.8
Current Assets/Current Liabilities	1.55	1.72	1.43	1.56	1.49
Long-term Debt/Own Funds	43:57	42:58	34:66	29:71	26:74

1/ Revaluation due to devaluation mid-1965 and increase of domestic prices of copper by 63%.
2/ Revalued due to increase in price of copper - April 1967. Some slow-down in deliveries.
3/ Includes cost of goods invoiced but not paid, prepaid expenses and other current assets.
4/ Revaluation increment 34.4 million.
5/ Revaluation increment 70.9 million.
6/ Preliminary expenses, patents and licenses.
7/ Although depreciation on buildings has not changed (between 1.4-1.8%) depreciation on equipment increased from 6.5% on the average in 1966 to 8.5% in 1967.
8/ Includes sales value of goods invoiced but not paid, accruals and other current liabilities.
9/ Includes current maturities.

IFC-LAEA
May 22, 1968

COPPER ROLLING MILL "SLOBODAN PENEZIC-KRCUN"

Earnings Statement

(in millions N.D.)

	1963	1964	1965	1966	1967
Sales Revenue 1/	252.0	337.0	417.8	635.5	645.9
Operating Costs					
Materials & overhead	156.2	200.6	296.4	486.1	538.2
Net wages	8.7	12.8	18.6	33.5	33.4
Related social payments	3.2	4.5	5.8	10.3	8.3
Taxes & contributions	53.8	61.7	39.8	23.4	23.5
TOTAL OPERATING COSTS	221.9	279.6	360.6	553.3	603.4
Depreciation	6.2	9.1	9.4	15.3	21.2
Interest	8.6	7.2	6.3	8.6	13.7
NET EARNINGS FROM OPERATIONS	15.3	41.1	41.5	58.3	7.6
Other earnings 2/	(0.8)	-	0.8	(6.9)	7.0
NET EARNINGS	14.5	41.1	42.3	51.4	14.6

1/ On the basis of paid sales.
2/ Mainly attributable to scrap retained after processing and re-used but not accounted for until year-end.

IFC-LAEA
May 22, 1968

COPPER ROLLING MILL - SEVOJNO
Financial Statements
(in million N.Ds.)

Year ending December 31	1968	1969 (Period of Construction)	1970 (Period of Construction)	1971	1972
I. EARNINGS STATEMENT					
Sales Revenue 1/	654.2	654.2	699.2	828.4	886.1
Operating Costs					
Materials and Overhead	515.7	515.7	550.1	648.7	691.8
Net Wages	33.3	33.3	33.6 2/	33.6	33.6
Related Social Payments	9.3	9.3	9.4	9.4	9.4
Taxes and Contributions	30.2	30.4	32.0	34.3	35.9
Total Operating Costs	588.5	588.5	625.1	726.0	770.7
Depreciation	24.5	24.5	29.4	29.4	29.4
Interest	7.8	7.9	9.3	9.8	10.5
Earnings from Operations	33.4	33.3	35.4	63.2	75.5
Other Income 3/	5.5	5.5	5.5	5.5	5.5
Total Net Income	38.9	38.8	40.9	68.7	81.0
II. SOURCES & APPLICATION OF FUNDS					
Sources					
Net Earnings (previous year) 4/	14.6	38.9	38.8	40.9	68.7
Interest	7.8	7.9	9.3	9.8	10.5
Depreciation	24.5	24.5	29.4	29.4	29.4
Increase in Long-term Debt:					
I B R D		10.0	34.0		
TOTAL SOURCES	46.9	61.3	111.5	80.1	108.6
Applications					
Fixed Assets - foreign		10.0	34.0		
" " - domestic		2.0	11.0		
Working Capital		3.0	3.3	12.2	1.5
Total Investment (project)		15.0	48.3	12.2	1.5
Replacement Investment	8.0	10.0	30.0	30.0	30.0
Interest					
Existing Debt L/T.	2.7	2.4	2.2	1.9	1.6
I B R D		.4	2.0	2.8	2.8
YIB and Others Short-term Debt 6/	5.1	5.1	5.1	5.1	5.1
	7.8	7.9	9.3	9.8	9.5
Repayment of Principal					
Existing Long-term Debt	6.0	5.7	5.9	5.2	5.0
I B R D				3.0	3.0
Total Repayments	6.0	5.7	5.9	8.2	8.0
BOR Investment 5/	10.0	-	-	-	-
Allocations for Collective Consumption	10.0	10.0	10.0	10.0	10.0
Allocations to Reserve Funds	4.0	4.2	4.3	4.4	4.4
Net Additions to Working Capital 6/	1.1	28.5	3.7	5.5	45.2
TOTAL APPLICATIONS	46.9	81.3	111.5	80.1	108.6
Long-term Debt Service Coverage	3.4	5.2	5.1	4.4	5.8

1/ Based on the assumption that sales equal production.
2/ Due to the addition of 24 extra employees.
3/ Revenue from interest payments on loan to BOR, time deposits and other funds loaned.
4/ Earned funds are released for use only in the following year.
5/ Second installment of 40 m. N.D. loan to BOR Copper Mines (30 m. ND. advanced in 1967).
6/ In 1968 current assets and short-term debt are expected to be reduced to 1966 levels.

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SALES PROJECTIONS
(Qty. in Metric Tons, Value in Million N.D.)

	1968		1969		1970		1971		1972	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
Rolled Products										
Strip	11145	205.52	11145	205.52	12482	230.49	14200	263.20	14688	273.01
Sheet	8579	121.94	8579	121.94	9507	137.77	11643	175.05	12820	193.29
Other	1965	31.21	1965	31.21	2200	35.46	4846	94.69	6181	124.32
Sub-total	21689	358.67	21689	358.67	24189	403.72	30689	532.94	33689	590.62
Extruded & Drawn Products										
Bar & Rod	10796	128.07	10796	128.07	10796	128.07	10796	128.06	10796	128.07
Tube	6059	114.52	6059	114.52	6059	114.52	6059	114.52	6059	114.52
Wire	2382	41.07	2382	41.07	2382	41.07	2382	41.07	2382	41.07
Other	612	11.84	612	11.84	612	11.84	612	11.84	612	11.84
Sub-total	19849	295.50	19849	295.50	19849	295.50	19849	295.50	19849	295.50
Total Sales	41538	654.17	41538	654.17	44038	699.22	50538	828.44	53538	886.12
Export Sales:										
- Convertible	17536	237.33	17536	237.33	18384	251.15	20731	296.21	21996	320.08
- Clearing	10225	192.88	10255	192.88	11225	211.93	12896	246.12	12909	248.31
Total Export Sales	27761	430.21	27761	430.21	29609	463.08	33627	542.33	34905	568.39
Domestic Sales	13777	223.96	13777	223.96	14429	236.14	16911	286.11	18633	317.73
TOTAL SALES	41538	654.17	41538	654.17	44038	699.22	50538	828.44	53538	886.12

IFC-LAEA
May 22, 1968

MTT

The Borrower

The prospective borrower, Mariborska Tekstilna Tovarna Maribor, Textile Factory (MTT) is principally an integrated cotton textile plant composed of eight factories founded in 1926 to 1934, five of which are in the same location, two others - a fancy yarn dyed cotton specialist and a wool and blended fiber suiting manufacture - are further away but still in Maribor and the last is a weaving shed in Ljutomer, about 40 miles out of Maribor. Maribor (Slovenia) is about 100 miles northwest of Zagreb, close to the Yugoslav-Austrian border, and is the home of a number of light, medium and heavy industries. Slovenia is reputed to be the leading textile-producing republic in Yugoslavia. The eight factories which make up MTT have merged progressively from 1946 to 1963; they have the same management but are only now starting large scale integration in facitlities, as far as location permits. MTT ranks about 6th or 7th among textile producers in Yugoslavia and accounts for 2.5% of turnover by value of all textile products.

The plants have at present a total annual capacity at three shifts of about 42 million square meters of grey fabrics (including 1.5 million wool and wool-type), 38 million square meters of finishing, 8,000 tons of yarn, 400 tons of sewing thread and cut and sew equipment to make 200,000 square meters into ready-made sheets, ladies' dresses and blouses.

Since 1963 the enterprise has been operating at full capacity in finishing. The value of total production of all articles (at sales prices) has been steadily increasing from N.D. 185 million in 1963 to N.D. 230 million in 1966, with sales following the same pattern. In late 1966 liberalization of imports slowed down sales and increased inventories at year end. In 1967 production was reduced in quantity both due to the enterprise carrying high inventories (partly of fabrics which could not compete with imports) and because of start of work on the modernization project. Furthermore, prices in 1967 were cut down by about 15% on the average, with some fabrics reduced 40% so that the enterprise could dispose of stocks carried from 1966. MTT's sales of fabrics in value over the last four years are given in Annex 1. The following table summarizes these and compares them with production, receipt from sales and indicates the quantities exported (in million N.D.):

Production, Sales and Exports (at Sales Price)

	1964	1965	1966	1967
Production	205	225	270	200
Invoiced sales	208	228	234	221
Paid sales	208	223	230	210
Exports - Convertible currencies	12	20	26	39
Clearing currencies	7	17	10	8

Prepared by A. R. Perram and A.S. El Darwish.

MTT believes the difficulties of 1967 sales are the result of a special situation which is already over and is not likely to recur. Its effect has been to reduce earnings in 1967 to N.D. 1.9 million on N.D. 210 million of sales, i.e. less than 1%. Earnings in 1965 and 1966 were N.D. 18.3 million on N.D. 223 million (7%) and N.D. 16.2 million on N.D. 234 million (8.2%) respectively.

MTT plans to modernize, without increasing capacity, spinning and weaving equipment of their different units and scrap outdated machinery in many cases without replacing it. This will result in reducing capacity of woven grey fabrics from 38 million square meters to about 31 million square meters. They will then centralize and diversify finishing facilities so that high quality and versatile finishing of fabrics is possible. Capacity of finishing will increase to about 61 million square meters; fabric for half of this will come from MTT's own weaving and half will be purchased from local weavers. MTT will also add facilities to produce synthetic sewing thread and increase polyester blending with cotton as blended fabrics are gaining popularity in Yugoslavia following the general European and world trend. This plan appears to be a reasonable step towards rationalizing the merger of eight plants without making a large investment in new buildings and equipment. Gherzi, Zurich have engineered the basic modernization after a study made in 1965/1966.

MTT employs 5,700 people on its payroll and has the following principal facilities in its Melje (cotton), Tabor (yarn dyed fancy), Ljutomer (cotton weaving) and Merinke (wool) mills:

(a) Buildings - about 120,000 square meters over about 45 production and service buildings;

(b) Equipment - 65,000 spindles and preparation equipment
3,000 mule spindles and preparation
1,000 doubler and 3,000 twister spindles
10 knitting machines
1,750 looms mainly autos width 1 to 1.75 meters and weaving preparation equipment;

(c) Cotton sewing thread doubling, twisting, finishing and winding equipment (capacity - 400 tons);

(d) Complete range of finishing equipment for dyeing yarn and fabric, screen and roller printing including all types of cloth finish;

(e) Cut and sew equipment for 200,000 square meters of sheets, dresses, and blouses.

In the modernization the following machinery will be discarded and only part of it will be replaced:

(a) 5,000 spindles and certain ancillaries;

(b) 2,000 mule spindles and certain ancillaries;

(c) 300 looms and certain ancillaries;

(d) About half of the cotton thread equipment;

(e) Various items of finishing including 20 jiggers, 3 singeing machines, 1 stenter, 4 dryers, 2 calenders, 1 mercerizer, 2 boilers of 11 ton/hour capacity.

The bulk of the new investment is in replacing the 300 discarded looms, half locally produced and half imported, the old finishing machines (with a few extra additions) adding a complete synthetic sewing thread production department, renewing the boilers, back pressure turbines and other services and reconstruction and modification of buildings.

After the modernization and expansion of finishing facilities, MTT will increase the added value of its output (sales minus raw materials and services) from about N.D. 107 million in 1966 to about N.D. 187 million in 1971. The fixed assets costs excluding capitalized interest during construction will be N.D. 70 million, of which about 40% (US$2,262,000) is needed in foreign exchange. This is over and above N.D. 80 million which the enterprise expects to need as working capital contribution and N.D. 8 million has already been invested in the purchase of boilers, turbines and other service equipment and about US$500,000, also from MTT's own funds, in purchase of finishing equipment. If market prospects, earnings and cash generation live up to expectations, the enterprise will continue its rationalization, modernization and expansion possibly integrating backwards to make all the cloth it can finish.

Short History of the Borrower

As outlined above, MTT is a firm made up of eight factories founded from 1924 to 1934. They merged in the years 1946, 1947, 1949, 1962 and 1963. A number of the smaller and older plants have been liquidated. Corporate management has been centralized and the firm has one workers' council. The merging of facilities has been difficult; services, cafeteria, medical and similar departments have gradually been centralized for the mills which are located near one another in Melje. The production facilities were not merged but to an extent specialized in types and qualities of yarn and fabrics. In recognition of the need for more extensive rationalization of the merger, and modernization of certain sections, MTT engaged the services of Gherzi, Zurich (textile consultants) to study this, probably with certain limitations on the additional investment which can be made in purchasing new assets.

Gherzi made a comprehensive study in 1965-1966 and it has been the basis for the project. Gherzi is now engaged in a joint study with MTT on organization and management and has started a new study of marketing procedures and product mix selection.

Management

The enterprise is managed by a competent team. The General Manager, Mr. Miro Pinter, is an engineer with over 25 years of experience. He has come up from the ranks in textile manufacture and is now also serving on strategic textile planning and marketing boards in Yugoslavia. The Production Manager, Eng. Skerbinjek, is a chemist with 10 years' experience; he is widely read and keeps in touch with developments in the industry. The plants show satisfactory maintenance, order and discipline (in spite of their age and planning). Eng. Branko Slavinec, the firm's Financial Manager, has over 25 years of service and Mr. Skerbic, its Economic Department Manager, has 13 years of experience. They, together with Mr. Fattur, who is the project engineer, are capable, particularly due to the depth of their analysis and scrutiny of different aspects of the project.

Recent Financial and Earnings Record

Balance sheet and earnings statements for the past four years (1964-1967) are shown in Annex 1. A summary of the balance sheet as at December 31, 1967 is given below (in million N.D.):

Assets		Liabilities	
Cash and equivalent	25	Short-term bank loans	22
Receivables	40	Trade payables	29
Inventories	106	Other current liabilities	80
Other current assets	83	Total current liabilities	131
Total current assets	253		
		Long-term debt	32
Net fixed assets	76	Business fund and reserves	167
	330		330

Fixed assets were increased some N.D. 15 million in 1965 when the bleaching and mercerizing departments were completed, the pump-house on the Drava River was built and the new weaving mill was erected. In 1966, as a consequence of the economic reform measures, MTT revalued its fixed assets from N.D. 194 million to N.D. 235 million gross. Net fixed assets were reduced from N.D. 81 million to N.D. 77 million net as a result of increased depreciation on outmoded buildings and equipment. In 1967 gross fixed assets increased only slightly to N.D. 238 million as a consequence of minor replacements and the commencement of the construction of new facilities under the modernization program. In addition a small increase in collective consumption assets, mainly housing for the workers occurred in 1967. With the exception of suppliers' credits for looms in 1964, the new investments in recent years have been financed by the enterprise's own funds without an increase in long-term debt outstanding. The weighted average of MTT's debt and its average life was as follows:

Buildings	2%	15 yrs.
Machinery	3%	4-3/4 yrs.
Working capital	6.5%	16 yrs.

The largest amount of debt was for working capital purposes obtained from the Kreditna Banka of Maribor which totalled almost N.D. 20 million at the end of 1967.

In 1967 MTT's cash position declined as a consequence of the drop in sales and earnings. However, liquid assets exceeded the 1965 balance and both MTT and its bankers are confident that additional funds can be obtained if needed for the project based on the strength of current assets and the almost 2:1 current ratio.

MTT's financial management has been conservative and well controlled. The relatively high current ratio and low long-term debt places the enterprise in a good position for future growth despite a disappointing year in 1967.

MTT's sales and earnings for the past four years are summarized below:

(In million N.D.)

	1964		1965		1966		1967	
Cotton								
Yarn (tons)	13.3	(850)	11.4	(480)	10.7	(674)	11.3	(626)
Thread (tons)	15.0	(314)	15.8	(299)	14.8	(308)	12.3	(261)
Fabrics (millions of M^2)	141.5	(38.4)	155.8	(34.1)	158.8	(29.7)	149.2	(32.6)
Services	7.8		14.3		17.1		17.7	
Total	177.6		197.3		201.4		190.5	
Woolen								
Yarn (tons)	1.5	(50)	1.5	(42)	-	(1)	.2	(12)
Fabrics (tons)	24.8	(1,055)	24.8	(975)	27.5	(894)	23.3	(832)
Wadding (tons)	3.7	(180)	4.5	(201)	2.7	(105)	3.7	(161)
Total	30.0		30.8		30.2		27.2	
Apparel (000 pieces)	-		-		2.4	(61)	3.2	(71)
Total Sold	207.6		228.1		234.0		220.9	
Of which Exports	18.3		36.9		35.8		46.6	
Paid Sales	207.7		222.7		230.0		209.5	
Earnings	10.0		18.3		16.2		1.9	

MTT's profitability as a percentage of sales reached a level of 7% in 1965 and 1966 but declined to less than 1% in 1967 as a result of (a) a flood of imports, especially from Czechoslovakia and Rumania, (b) credit restrictions in Yugoslavia and (c) a general slackening in consumer demand for textiles of the style and quality produced by MTT in 1966. The enterprise has determined that sales were higher than normal growth indicated in 1965 and 1966 in anticipation of price increases following the economic reform. Credit availability built up retail stocks which could not be run down in 1967 in the face of cheap imports plus unusually fast style changes. Having reduced unseasonal stocks and arrived at a smaller inventory, MTT expects to make a satisfactory recovery in 1968. Volume sales in 1967 exceeded 1966. Discounts of N.D. 29 million in 1967, while offset by wage reductions of some N.D. 13 million, was the primary cause of the N.D. 14 million decline in profits. Imports to Yugoslavia in 1968 are expected to be lower as a result of the reduction of foreign exchange availability and also imports should be at higher prices following recognition that 1967's imports, particularly under bilateral agreements, were below prices in the exporting countries.

Indicative of MTT's competitive position in the world market was its increased exports in 1967 which accounted for 21% of its sales, compared with 11% in 1966 and 9% in 1964. More than 75% of these exports were made in cotton fabrics. Approximately one-third of MTT's cotton fabric sales of 32.6 million square meters were exported in 1967, N.D. 39 million was sold to convertible currency countries and N.D. 7.6 million to clearing currency countries.

Market, Prices and Competition

Consumption of textiles per capita in Yugoslavia was only 7.8 kgs in 1966, even though it has more than doubled since 1957 (when it was 3.8 kgs). There has been a noticeable change in the apparel used in the cities, with greater use of finer, less utilitarian, more comfortable and pleasant looking fabrics, but ones which need to be replaced more rapidly. There is still great scope for further development of textile consumption for apparel and household, both in the cities and rural areas. Per capita consumption in Yugoslavia now is still about half of Western Europe's per capita consumption ten years ago. Yugoslav production, imports, exports and the resulting estimate of consumption of the principal textiles is given in the following table (in million square meters):

Textile Trade and Consumption

Year	Local Factory Sales	Exports	Imports	Consumption
1957	240	30	10	220
1961	290	45	35	280
1966	450	130	50	370

This shows a positive upward trend in both exports and consumption, even though consumption has been higher in 1964 and 1965 than in 1966.

Cotton piece goods and garments account for about 75% of all textiles but the rate of the increase in their consumption averages under 5% per year while synthetic cotton blends, which started virtually from scratch in 1961, are now increasing at the rate of 70 to 80% per year. The following table demonstrates this trend:

Breakdown of Consumption of Certain Textiles in Yugoslavia

(In million square meters)

	1957	%	1961	%	1966	%
Cotton	189	87.7	223.0	78.7	245.0	72.8
Synthetic	1	0.4	2.4	0.8	20.5	6.1
Wool type	4	1.8	15.2	5.4	17.0	5.1
Cellulose staple & filament	22	10.1	42.7	15.1	53.8	16.0
	216	100.0	283.3	100.0	336.3	100.0

MTT, who has about 6 to 7% by volume (though only about 2.5% by value) of the textile market, has been reducing its output of cotton goods, of which it had a 12% share in the early 1960's.

Competition

Yugoslavia has a large number of textile firms. The principal ones are listed in the following table which indicates their lines of specialty and their approximate overall market share.

Large Textile Producers in Yugoslavia

Firm	Main Products	Market Share
Tekstilindus - Kranj	- cotton, synthetic, artificial yarn - cotton poplins, creton, cambric, velvet piece goods - sheets, handkerchiefs, bed linen	7%
Tekstilna Industrija - Dugaresa	- twills, flannel for underwear, satin lining - cotton prints for dresses	7%

Firm	Main Products	Market Share
Makedonka - Stip	- cotton, synthetic, artificial yarn - grey, bleached dyed printed, cotton, rayon and synthetic piece goods - children and ladies' white garments and towels	6 to 8%
Beogradski pamucni Kombinat - Belgrade	- cotton yarn - wool types cotton piece goods	3 to 4%
Tekstilni Kombinat - Zagreb	- cotton piece goods and flannel for underwear - synthetic piece goods	3%
MTT Maribor	- cotton and synthetic yarns - rayon and cotton piece goods - sewing thread - synthetic cloth - wool and wool blend suitting	2.5%

Other firms not mentioned above cannot be considered as directly competitive with MTT because of differences in product mix, size or quality.

All local firms were subjected to particularly great competition from imports in 1966-1967 when liberalization allowed imports paying 20 to 22% duty into Yugoslavia. Superior finish, variety and possibly the novelty of imports slowed down sales of local piece goods and forced makers to cut down prices by average 15% (in certain cases up to 50%) during the first half of 1967 so as to get rid of high inventories. These price cuts took the form of discounts which have apparently been discontinued since June 1967.

Textile factories in Yugoslavia have reorganized so as to meet this competition by modernization of facilities, more specialization and better fabric finishes.

MTT's plans fit in reasonably in this market pattern, as the enterprise is not planning any increase, rather a cutdown, in production of fabric. Its improved, modernized, centralized and diversified finishing department should be a good step in enhancing its market performance. Since MTT has apparently taken the lead in becoming one of two or three principal finishers for the whole country, it can reasonably hope to be finishing fabrics in sizable quantities for other makers who have small scale and poor finishing facilities. Though this is feasible, it is debatable whether the enterprise will be able to obtain a large markup from finishing of purchased grey fabric as the profit may be limited by weavers giving MTT finishing work and paying the enterprise on a per yard basis.

Yugoslavia has trebled its exports of textiles by value since 1961. Foremost in value are garments, which accounted for about 55% of total exports in 1967. Of these, 40% went to the USSR, 23% to West Germany and 11% to Sweden. The grey cottons are the second largest export, accounting for about 25% of the total in 1967, with half of them going to Western Europe and the U.S. and the other half scattered among various countries. The rest is made up of cotton whites, mainly to Western Europe, dyed and printed cottons mainly to Africa and the Near East, and small quantities of rayons, synthetics and wool fabrics. The Yugoslavs have established export markets in Europe through a basic barter philosophy, while they have set up more of a one-way export traffic to Africa and the Near East.

Prices

The prices of MTT exports have been checked for a number of fabrics and found to be in line with world prices. Current examples are given in the following table which also gives the local price.

Trade Name	Construction	Finish	Price ND/lin. m. Export	Local
Mitja	$\frac{\text{Nm } 34 \times 34}{24 \times 23 \text{ per cm}} \times 96$ cm	Grey	1.75 (US 14¢)	2.89
Kozana	$\frac{\text{Nm } 50 \times 40}{28 \times 37 \text{ per cm}} \times 140$ cm	Dyed Mercerized	4.59 (US 37¢)	7.46
Barbette	$\frac{\text{Nm } 60 \times 60}{33 \times 28 \text{ per cm}} \times 80$ cm	Yarn dyed	3.55 (US 28¢)	6.05
Tripolis	$\frac{\text{Nm } 34 \times 34}{25 \times 23 \text{ per cm}} \times 90$ cm	Print	3.44 (US 27¢)	5.62

This shows that domestic prices are between 60 to 70% higher than exports, which explains the vulnerability of Yugoslav textile firms to competition from abroad when imports are liberalized and the duty is 20% to 22%. Exporting firms have the benefit of:

(a) 7% free retention quota increasing to 14% with volume

(b) Better banking credit facilities for receivables

(c) Refund of duty on imported raw materials (cotton and fiber and dyed stuffs). This is N.D. 4 per ton of cotton (less than 1 per 1,000), 4% on synthetics, slightly more on other fibers, 8 to 12% on dyes and chemicals.

The exporting textile manufacturers get priority in their licenses for importation of raw materials.

Prices of MTT have tended to increase in past years by an average of under 10% per year from 1963 to 1965. Certain articles rose sharply with devaluation in 1965 while others continued virtually unchanged. Little or no change has occurred since then in the basic prices, but increases in domestic discounts averaged 15% of sales in 1967 as mentioned previously. Discounts have since then returned to normal.

Market Prospects

Forecasts are very difficult at this juncture. Consumption will continue its increase and emphasis of buyers will follow the evident shift to better goods and synthetic blends. Unless the authorities control the liberalized import licensing and duty, competition from imports will be critical for the smaller firms who have not got the means of making large investments in rationalization and modernization. MTT's project is a compromise between the modernization and revamping required in an enterprise made up of eight old, one time independent plants and a reasonable size of investment in proportion to scale of operation and cash generation. The enterprise has recognized in 1965 the need to modernize so as to survive, otherwise its prospects in future years would be no better than in 1967, when MTT broke even with N.D. 210 million of sales, after reducing wages and related social payments by N.D. 13 million. Once the modernization plans are implemented, MTT can look forward to considerably improved earnings.

Description of the Project

The project aims at rationalizing and modernizing the facilities of MTT as far as this is possible with limited investment in new assets. The equipment to be retained, scrapped and added have been described above. MTT has engineered the new department for synthetic thread manufacture from their own experience and investigations together with consultations with machine markers. Plans to diversify, complete, modernize and centralize finishing facilities have been studied in conjunction with Gherzi, Zurich and appear to be sound in principle. The finishing department will be increased in capacity, and it will then finish purchased grey cloth and possibly sell finishing services. MTT has not planned, at this stage, to produce the additional fabric to bring its output of grey cloth up to the capacity of the finishing department. As long as the market situation permits, the plans for the finishing department, which are worked out together with the textile producers' federation as part of a national specialization plan, should be successful. Further rationalization and expansion along appropriate lines, once the project is completed, would be possible and compatible with the current program.

The schedule of execution of this expansion has been modified to make it more in line with prevailing circumstances. It is now expected that full implementation will not take place until 1971. Improvement in quality of finishing is likely to start by the end of 1968 as a result of equipment purchased with the enterprise's own resources. Synthetic thread production could attain half its capacity by 1970 while finishing of purchased grey cloth would start in 1969 with 5 to 6 million square meters increasing to about 15 in 1970 and finally reaching 30 million squre meters in 1971 - over and above finishing 30 million square meters more of MTT's own fabric. Sales are forecasted to reach N.D. 422 million approximately. The enterprise has projected 1968 production to increase to earlier levels. However, the mission found the 1968 projections optomistic and the financial forecasts have been noted accordingly. The mission, however, finds the project should not be delayed by less than anticipated production in 1968. By 1969 the forecasts appear obtainable.

At full capacity of N.D. 422 million of sales, MTT will need to import 40% or about US$6.5 million of raw materials annually - US$4.6 million for U.S. cotton, fibers, wool, dyes, chemicals and spares coming from convertible currency areas and US$1.9 million for Egyptian cotton, other fibers, some wool and chemical from clearing areas. The local raw materials, 60% of the total requirement, is mainly locally purchased grey cotton and rayon bloth, for which fiber is mainly imported by MTT's suppliers. The truly local supply of material is a small quantity of lower staple cotton, rayon staple and filament, all the purchased grey rayon fabrics, and a part of the cotton and all the added value in locally purchased grey cotton cloth. This adds up to about N.D. 70 to 75 million (35%) truly local material, while N.D. 140 million (65%) are imported raw materials, imported by MTT or their local grey cloth suppliers.

As against this MTT hopes to export about N.D. 100 million of fabrics, about two-thirds of which go to convertible currency areas and one-third to clearing areas. This covers MTT's own requirements (N.D. 82 million) and leaves some surplus. However, this evidently does not cover the overall foreign exchange requirement of MTT and its suppliers.

As a result of the modernization, MTT expects to be able to reduce its labor force from 5,700 to 4,700 in spite of an increase in value added over 70%. This improvement is not unreasonable when one realizes that the equipment to be scrapped is over 25 years old.

The productivity is expected to improve as shown by the following table:

	Actual			Forecast
	1965	1966	1967	1971
Spinning (yarn average metric is 38 = Ne 22.4)				
Machine (grm/sp/hr)	15.40	15.30	15.10	16.20
Labor (kg/manhr)	2.35	2.40	2.25	2.50
Weaving (adjusted to 1 m width - 2,600 picks/m)				
Machine (meters/loom/hr)	2.85	2.95	2.85	3.60
Labor (meters/manhr)	5.85	6.10	5.70	9.20

The productivity in spinning is improved little because relatively small additional investment is made in this department. Weaving productivity shows considerable improvement, both in machine and labor utilization. MTT intends to reduce labor gradually by not replacing dropouts.

The productivity after investment is compared with other countries (based on an interpolation to the yarn count and fabric mentioned above) in the following table:

	Machine		Labor	
	Spinning gm/sp/hr	Weaving m/loom/hr	Spinning Kg/manhr	Weaving m/manhr
MTT - Yugoslavia	16.2	3.6	2.5	9.2
Coltejer - Colombia (1965)	18.0	4.3	5.5	24.0
U.S.A. (1965)	NA	NA	9.8	54.0
La Internacional - Ecuador (1967)	14.1	3.2	3.0	9.5

This suggests that MTT will still be behind international producers, even in machine utilization, since most of its remaining machinery is still old and outdated.

Labor wage rates in MTT are basic about US$600 per year for a spinner or weaver; the overall average annual basic wage was US$700 in 1966 and US$600 in 1967, when wages were cut because of low earnings. Related social benefits were about 55% additional. Wages in Colombia are somewhat higher than this basic rate with benefits running about 80% additionally and they are 6 to 10 times as much in the United States.

Cost of the Project

The estimates of the cost of the project are set out below. Most of the equipment is likely to come from Western Europe and the U.S. Import duties are about 33%. Contingency allowances for buildings and equipment have been calculated, based on price increases since estimates were made and making some allowance for variations.

MTT can manage to operate with N.D. 83 million of fresh funds for working capital if they do not have to let inventories reach the late 1966, early 1967 levels, when they carried almost three months in process and three months finished goods. Since half of MTT's turnover in 1971 will be goods made from purchased grey cloth, the time needed for turning over working assets may well be much shorter than it is now.

MTT has not considered the cost or schedules of further expansion for the time being.

MTT Capital Costs

	US$000 Foreign	N.D. Million Local	N.D. Million Total
Land	-	-	-
Buildings	-	8.2	8.2
Boiler Room/Power Plant (heating and electricity) 1/, Trafo, water treatment	-	6.4	6.4
Contingency on buildings and services		1.2	1.2
		15.8	15.8
Machinery and equipment			
Imported CIF local spinning additions	56.1	1.7	2.5
weaving "	543.8	5.5	12.3
finishing "	566.7	.2	7.3
equipment for modernization 2/	60.3	.5	1.2
synthetic thread production	550.8	2.4	9.1
wool and poly/wool weaving and finishing 3/	184.4	.5	2.9
	1,962.1		
Insurance, freight, customs and erection	-	11.8	11.8
Contingency of machinery	300.0	3.5	7.2
Subtotal	2,262.1	26.1	54.3
Total Fixed Assets (excluding capitalized interest during construction)	2,262.1	41.9	70.1
Working Capital Requirements	-	83.0	83.0

1/ Other than Phase 1 boiler/generator (N.D. 7.5 million) and Tabor water treatment N.D. 0.19 million already arrived.

2/ Other than US$467,000 of equipment already purchased from MTT's own resources.

3/ Other than US$22,500 of wool finishing equipment already purchased from MTT's own resources.

Financing

A summary of MTT's estimated financial requirements and sources during project construction is given below (in N.D. millions):

Uses		Sources	
Project (including working capital)	126	Funds available - 1967	9
Renewals and replacements	5	Net earnings (1967-1970)	53
Debt repayment	24	Depreciation	66
Reserves and other allocations	20	Long-term debt	
		IBRD (US$1,962,150)	25
		YIB and others	22
	175		175

Detailed earnings and cash flow projections for 1968-1972 together with the major assumptions are given in Annex 2.

Estimated project cost includes working capital increases of N.D. 52 million during the construction period. Investments in renewals and replacements are minor as this is covered by the project which is essentially a modernization program. The project investment in fixed assets will add about 39% to gross fixed assets at the end of 1967. Of the N.D. 170 million required during the construction period, N.D. 128 million is to be provided from the enterprise's own resources, with its local bankers ready to provide additional working capital financing if necessary. MTT has excellent banking relationships in Maribor and Ljubljana as well as with the YIB.

The projected net earnings available for the project are conservatively stated by using prior years' earnings as is the custom in Yugoslavia. Earnings forecasts have been revised to allow reasonable time for project implementation.

MTT's low long-term debt to own funds ratio of 1:5 will still be conservative after the IBRD loan is included, at which time it would be about 1:3, a further indication of the enterprise's conservative financial management and ability for future growth.

Earnings and Debt Service Coverage

Earnings forecasts (Annex 2) are based on the production program and the market forecasts established by MTT and reviewed by the mission. In 1968 and 1969 earnings are expected to recover towards previous levels after 1967's abnormal results. Forecasts for 1970-1972 are based on the increased production resulting from the beginning of the project which gives the enterprise sufficient time for ordering and installing the equipment after financing is obtained. At capacity MTT's sales are projected to increase 65% over 1968. Debt service is lowest in 1968 at a comfortable 2.8:1 and increases satisfactorily to 5.6:1 in 1972.

Conclusions

MTT is an example of an enterprise which has found it necessary and advisable to modernize in the face of the Economic Reform. The effects of liberalization on the textile industry - reduction in outmoded stocks and modernization of production - was foreseen by MTT's management in 1965 when it contracted with the Swiss firm Gherzi for a study of the enterprise's requirements. By supporting MTT the IBRD would assist rationalization which prompted the Reform. The benefits in earnings and per capita productivity indicate the soundness of MTT's plans. The project is viable and should increase the potential foreign exchange earnings of MTT without adding to the volume of Yugoslav exports.

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MTT

Comparative Balance Sheets
(In million New Dinars)

As at December 31	1964	1965	1966	1967
ASSETS				
Current Assets				
Cash, banks and near cash	18.3	18.9	33.9	25.2
Trade receivables	18.7	24.2	28.2	39.5
Inventories				
Raw materials and supplies	24.4	34.0 1/	37.0	27.5
Semi-finished products	26.8	40.6 1/	33.9	51.2
Finished products	16.7	18.6	48.2	27.4
Total inventories	67.9	93.2	119.1	106.1
Other current assets 2/	29.9	42.1	54.5	83.2
Total Current Assets	134.8	178.4	235.7	254.0
Gross Fixed Assets				
Land	.1	.5	.5	.5
Buildings	44.2	49.1	80.5	80.3
Machinery and equipment	104.5	108.7	145.3	140.2
Fixed assets under construction	4.1	5.4	.8	6.3
Collective consumption assets 5/	26.4	31.2	7.6	10.9
Total Gross Fixed Assets	179.3	194.9	234.7 3/	238.2
Less depreciation	107.3	113.8	157.5	161.6
Net Fixed Assets	72.0	81.1	77.2	76.6
Total Assets	206.8	259.5	312.9	330.6
LIABILITIES				
Current Liabilities				
Short-term debt to banks	9.6	12.9	20.0	22.0
Trade payables	4.9	6.4	20.3	28.3
Other current liabilities 4/	50.2	51.5	71.0	80.7
Total Current Liabilities	64.7	70.8	111.3	131.0
Long-term debt	32.9	36.3	33.4	32.3
Funds of the Enterprise				
Business fund	82.1	118.2	151.4	154.0
Reserve funds 5/	6.3	7.6	9.0	6.2
Collective consumption funds 6/	20.8	26.6	7.8	7.1
Total Own Funds	109.2	152.4	168.2	167.3
Total Liabilities	206.8	259.5	319.9	330.6
Current Assets/Current Liabilities	2.1:1	2.5:1	2.1:1	1.9:1
Long-term Debt/Own Funds	23/77	19/81	17/83	16/84

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May 22, 1968

MTT

Notes to Comparative Balance Sheets

1/ Raw materials and semi-finished products revalued in 1965 following the Economic Reform measures and devaluation of the Dinar. Revaluation totalled N.D. 14.4 million.

2/ Includes sales invoiced but not paid, prepaid expenses, inventory adjustments and other current assets.

3/ Increase in fixed assets in 1966 was due to revaluation as a consequence of the Economic Reform.

4/ Includes sales invoiced but not paid, accrued expenses and other current liabilities.

5/ On a basis of 2% of average working capital for five years up to a total of 10%.

6/ Major portion of collective consumption assets (mainly workers' housing) transferred to separate enterprises in 1966.

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Earnings Statements
(in million New Dinars)

	1964	1965	1966	1967
Sales 1/	207.7	222.7	230.0	209.5
Operating Costs				
Materials and overhead	106.4	115.6	131.3	137.3
Net wages 2/	25.0	32.7	40.6	32.4
Related social payments	19.0	22.5	22.0	17.0
Taxes and contributions	34.7	22.6	4.9	6.2
Total Operating Costs	185.1	193.4	198.8	192.9
Depreciation 3/	9.6	8.7	12.8	13.8
Interest	3.0	2.6	2.5	2.6
Net Earnings from Operations	10.0	18.0	15.9	.2
Non-operating earnings 4/	.4	4.2	1.1	4.0
Non-operating expenses 5/	.4	3.9	.8	2.3
Net Earnings	10.0	18.3	16.2	1.9

1/ On basis of paid sales. Decrease in sales in 1967 due to abnormal discounts.

2/ Wages reduced some N.D. 13 million below expected level in 1967 as a consequence of reduced earnings.

3/ Depreciation rates are 1-1/2% p.a. on buildings, 8% on spinning machinery and equipment, 10% on weaving and finishing equipment and 20% on automobiles.

4/ Non-operating earnings include interest earned on bank deposits, discounts received and other income.

5/ Non-operating expenses include some discounts granted, adjustments and other expenses.

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Financial Forecasts
(In Millions New Dinars)

	1968	1969	1970	1971	1972
Earnings Statement					
Sales Revenue 1/	254.0	260.0	333.0	422.0	422.0
Operating Costs					
Materials & Overhead	150.0	151.0	210.0	279.0	279.0
Net Wages	42.0	44.0	48.0	53.0	53.0
Related Social Payments	23.0	24.0	26.0	29.0	29.0
Taxes & Contributions	6.0	7.0	7.0	9.0	9.0
Total Operating Cost	221.0	226.0	291.0	370.0	370.0
Depreciation	15.0	16.0	17.0	18.0	18.0
Interest (Excluding Capitalized Interest)	3.0	3.0	4.0	5.0	4.0
Net Earnings from Operations	15.0 1/	15.0	21.0	29.0	30.0
Sources and Applications of Funds					
Sources					
Funds Available	9.0	-	-	-	-
Net Earnings (Previous Year) 2/	2.0	15.0	15.0	21.0	29.0
Interest Charged During Year	3.0	3.0	4.0	5.0	4.0
Depreciation	15.0	16.0	17.0	18.0	18.0
Increase in Long-Term Debt:					
IBRD ($1,962,150) (N.D. 24.5 million)	-	20.0	5.0		
YIB and others	-	18.0	4.0	-	-
Total Sources	29.0	72.0	45.0	44.0	51.0
Application					
New Investment:					
Fixed Assets (Foreign)	-	20.0	5.0	-	-
Fixed Assets (Local)	1.0	27.0	3.0	9.0	5.0
Working Capital (Including Contingencies)	9.0	10.0	23.0	19.0	22.0
Total Investment	10.0	57.0	31.0	28.0	27.0
Renewals & Replacements	5.0	-	-	-	-
Other Fixed Assets	-	-	-	-	-
Interest:					
Existing Long-term Debt	2.0	1.0	1.0	1.0	1.0
IBRD 3/	-	1.0	2.0	2.0	1.0
YIB and others 4/	-	-	-	1.0	1.0
Short-term Interest	1.0	1.0	1.0	1.0	1.0
Total Interest	3.0	3.0	4.0	5.0	4.0
Principal Repayments:					
Existing Long-term Debt	6.0	5.0	4.0	4.0	3.0
IBRD	-	-	-	1.0	1.0
YIB and Others	-	-	2.0	2.0	2.0
Total Repayments	6.0	5.0	6.0	7.0	6.0
Allocation to Reserve and Skopse Fund	4.0	4.0	4.0	4.0	3.0
Additional Working Capital and Contingencies	1.0	3.0	-	-	11.0
Total Applications	29.0	72.0	45.0	44.0	51.0
Long-term Debt Service Coverage (Times)	2.8	4.8	3.6	4.4	5.6

1/ Based on the assumption that sales equal production in each year. IFC estimates 1968 sales may be only N.D. 230 million and earnings N.D. 7 million. The reduction in earnings could be offset by a reduction in the working capital increase projected for 1968 which appears to be increasing.

2/ Earned funds are released for use only in the following year.

3/ Interest at 7%, 2-1/2% year grace period, repayable in 24 semi-annual installments.

4/ Bank loan estimated at terms, duration, etc. similar to IBRD. Suppliers credits of 7-8% with 20% down at signing of contract and balance in 4 to 5 years.

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MTT

Production and Sales
1967 Actual and Forecast Until 1972
(In millions of New Dinars)

		1967		1968 1/		1969		1970		1971/1972	
		Qty.	N.D.	Qty.	N.D.	Qty.	N.D.	Qty.	N.D.	Qty.	N.D.
Cotton and rayon yarn (combed & carded)	tons	498.0	5.2	1,195.0	13.2	1,195.0	13.2	-	-	-	-
Synthetic yarn	"	128.0	6.1	186.0	7.8	186.0	7.8	200.0	8.9	200.0	8.9
Cotton sewing thread	"	261.0	12.3	247.0	11.7	230.0	10.9	100.0	4.7	100.0	4.7
Synthetic sewing thread	"	-	-	26.0	4.5	50.0	8.0	200.0	25.0	200.0	25.0
Cotton fabrics	million M^2	24.8	102.7	18.1	86.9	18.0	88.4	17.0	86.7	16.6	87.8
Rayon fabrics (spun & filament)	"	6.7	33.8	6.5	42.0	6.5	38.2	6.6	32.1	7.0	32.7
Synthetic fabrics	"	1.1	12.7	1.9	26.7	2.0	23.8	4.5	53.6	6.7	62.6
Wool, worsted fabrics	"	0.7	17.1	0.5	16.2	0.5	16.2	0.5	16.2	0.3	6.7
Poly/wool fabrics	"	0.1	6.1	0.3	10.0	0.3	10.0	0.3	10.0	0.5	12.3
Finished fabrics from purchased grey cotton and rayon	"	-	-	10.9	24.7	12.6	33.1	17.1	85.5	30.5	170.0
Dresses, blouses, sheets, made up			3.2		5.8		5.8		5.8		8.9
Other: Wool and waste yarn Matting services, etc.			21.6		4.9		4.9		4.8		2.0
Total			220.8		254.4		260.3		333.3		421.6
Export sales											
- Convertible Currencies			39.0		44.8		44.8		50.0		65.0
- Clearing Currencies			7.7		3.8		3.8		15.0		35.4
			46.7		48.6		48.6		65.0		100.4

1/ See footnote 1/, Annex 2, page 1.

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E.I. Nis

The Borrower

The prospective borrower, Elektronska Industrija Nis (E.I. Nis), manufactures a wide range of electronic components and finished products, and is the largest producer of such items in Yugoslavia. The main production facilities are located in plants near Nis and Belgrade. Nis is situated in Serbia approximately 230 km southeast of Belgrade on the Belgrade-Sofia highway.

By value of sales, the two most important products are television sets and radio receivers which, over the past five years, have accounted for approximately 60% and 17% of total invoiced sales respectively During this period the sales of "professional" equipment such as teleprinters, desk calculators and analogue and digital computing devices have become increasingly important and in 1967 these items accounted for 7.7% of total invoiced sales. E.I. Nis is the largest and, in some instance, the only Yugoslav producer of electronic components such as radio tubes, transistors, diodes, capacitors and resistors; merchandise sales of these components have accounted for approximately 3.6% of total invoiced sales over the last five years with the largest part of component production going into the enterprise's own products.

Total invoiced sales in 1967 amounted to some N.D. 583 million (US$46.64 million) of which N.D. 48.5 million (US$3.88 million) were export sales; 60% of export sales went to convertible currency areas, primarily to West Germany.

The enterprise employs about 13,000 persons and manufacturing facilities are located in over 20 plants with a total covered area of approximately 145,000 sq. m.

The enterprise's long-term development plan consists of 24 separate projects requiring a total investment of about N.D. 545 million (US$43.5 million), (including approximately US$14 million in foreign exchange) for new fixed assets and working capital (N.D. 111 million). Some of these projects have already been implemented and some others are under implementation. IBRD has been requested to help finance two of these projects - the expansion of the semi-conductor manufacturing plant at Nis, and the expansion of the resistor and capacitor plant at Avala near Belgrade. The total investment required for these two projects is estimated at N.D. 53 million (US$4.2 million) including US$1.76 million in foreign exchange which IBRD has been requested to provide.

Prepared by A. R. Perram and M. V. Dehejia.

History of Borrower

E.I. Nis was formed in 1962 by the merger of two existing enterprises, Zavodi R.R. of Nis, founded in 1947, and Belind of Belgrade which was established in 1959.

Zavodi R.R. and Belind were earlier formed by the merger of smaller units such as Nikila Tesla, Pupin, Pionir and Avala which were more in the nature of development laboratories rather than commercial manufacturing units. Zavodi R.R. was established primarily for the assembly of radio receivers and production of x-ray equipment. Manufacture of TV sets commenced in 1958. Belind concentrated primarily on the production of components for electronic apparatus and also manufactured telephones, railway signaling equipment and electronic instruments.

The enterprise has in several instances purchased technical know-how from leading electronic equipment manufacturers in Europe and Japan. For example, the manufacture of electron tubes was established in 1960 with the technical know-how of Philips of Holland. This department currently manufactures about 8 million tubes per annum and it is planned to expand its capacity to about 15 million in the next few years. E.I. Nis is the only producer of electron tubes in the country.

Manufacture of electrocardiograms was initiated in 1963 with know-how from Hellige of West Germany. E.I. Nis has purchased know-how from Siemens of West Germany for the manufacture of a number of products including x-ray apparatus, railway signaling equipment and high frequency carrier communication equipment. Tape recorders assembly was started with the help of Czechoslovak know-how.

In 1967 the enterprise entered into technical agreements with Murata of Japan for the manufacture of high frequency ceramic capacitors and with Philips of Holland for the manufacture of soft ferrite cores. These projects are now under construction.

Early in 1968 the enterprise was reported to have finalized plans to take over the Rudi Cajavec plant at Banja Luka. Rudi Cajavec manufactures TV sets and some electronic components and small electrical equipment such as horns, relays, wiper motors, etc. for automobiles.

Management

The General Manager, Mr. Vladimir Jasic is a graduate electrical engineer who has been with the enterprise since 1956. By delegating authority to the department heads, Mr. Jasic has been able to manage the complicated organization although rapid growth has brought with it problems such as poor plant layout in such areas as television assembly and component manufacture.

Mr. Jasic is assisted by a top management team of three - Mr. Sehusch Suscevic, Commercial manager, Mr. Parkajic, Chief of Production and Mr. Apostolovic, Development Manager - which is responsible for the day to day operation of the enterprise. Mr. Jasic has two technical advisers, Mr. Acimovic and Mr. Cerovac, who are electronic engineers and who advise the enterprise mainly on new products and process development and design. Mr. Acimovic is the Head of the Electronic Faculty at Nis University.

The Accounts Department, headed by Mr. Zivic and the Sales Department headed by Mr. Antic, report to the Commercial Manager.

Mr. Djorjevic is in charge of new investment programs under the overall supervision of the Development Manager. The Development Manager at present also supervises the work of various research sections attached to the operating departments. The enterprise currently spends about N.D. 15 million annually on research programs and has a staff of about 300 engineers and 600 technicians. It is proposed to centralize all research activity in one department.

Recent Financial and Earnings Record

Balance sheets for 1964-1967 are shown in Annex 1. E.I. Nis' balance sheet as at December 31, 1967 is summarized below (in million N.D.):

Assets		Liabilities	
Cash and equivalent	72	Short-term debt	110
Trade receivables	210	Trade payables	160
Inventories	312	Other current liabilities	234
Other current assets	166	Total current liabilities	504
Total current assets	760		
		Long-term debt	247
Net fixed assets	207	Own funds	216
	967		967

The recent financial history of the enterprise shows its continuous growth and its reliance on debt financing. The merger of factories in the earlier years has given way to expansion of present capacities and diversification of products. In addition to the varied line of electronic goods, E.I. also added a tool plant in 1967. The enterprise's relatively low current ratio of 1.5:1 and its long-term debt relative to own funds of more than 50/50 indicates both its ability to borrow and its need for longer term financing. The recent expansion program has resulted in the enterprise and its bankers, primarily Y.I.B., being hard pressed to find the necessary foreign exchange to complete the two plants requesting IBRD loan funds.

The major investments to date under the expansion program totalled N.D. 156 million over the past four years (excluding N.D. 34 million in revaluation of assets in 1966). These investments were financed in large part by the increase of N.D. 133 million in long-term debt. However, a large part of this debt was for working capital which freed earnings for the expansion programs.

Under the programs, US$14.1 million in foreign currency credits has been approved in principle by the Y.I.B. Of this, funds have been procured in the amount of US$5 million with suppliers' credits (US$2.6 million) and a Y.I.B. loan from its own resources (US$2.4 million) at 5.5%-6% for 5-7 years. The balance of the expansion program is to be financed with the proposed IBRD loan (US$1.76 million) and credits for the cathode ray tubes (US$7.4 million) when the tube process is decided. In addition to its foreign currency credits, the enterprise utilizes long-term credits from several Yugoslav banks for fixed assets with repayment terms of from 5-10 years and for working capital from 10-25 years.

At the beginning of 1968 credits for over three years (considered medium term) were composed of the following:

	N.D. 000's
Dinar credits for fixed assets - 9 year average term	67.4
Foreign currency credits for fixed assets - 6 year average	15.7
Working capital credits - 12 year average	85.7
	168.8

The average interest rate for fixed asset loans was 7.2%, ranging from 3 to 8%, and the average interest rate for working capital loans was 7-1/4%, ranging from 6% to 7-3/4%.

E.I. Nis' current position has been tight in recent years basically as a result of a growing need to finance its wholesale clients who in turn have granted credit for retail sales, particularly of television sets. Growing volume with increasing inventories of raw materials and production have also contributed to the relatively low current ratio. In 1967 the enterprise was successful in maintaining its current liabilities at the 1966 level and the prospects of an improving current ratio appear good with increased cash flow in the coming years. With a reduction in short-term debt in 1967 the enterprise is in a good position to mobilize credit for retail sales which it has already done in 1968 in conjunction with the broadcasting industry.

Earnings statements for 1964-1967 are shown in Annex 1. Production of major products, sales and net earnings are summarized below:

Past Production, Sales and Earnings

	1964	1965	1966	1967
Physical Production				
Finished Goods				
TV sets - 000 units	214	195	214	192
Radio sets - "	423	409	286	172
Tape recorders - "	3	1	2	3
Telephone sets - "	37	23	29	32
Misc. electronic equipment - tons	105	109	176	189
X-ray sets - 000 units	219	230	205	180
Electro-medical equipment - tons	55	61	63	74
Components (for merchandise sales)				
Electronic tubes - 000 units	5,118	6,883	7,322	7,820
Transistors - "	680	834	970	1,250
Diodes - "	2,612	3,340	2,240	2,820
Condensers - "	13,260	15,234	14,994	15,888
Resistors - "	2,722	2,476	1,584	4,168
Production and Sales Value	(In million N.D.)			
Value of production	566.74	527.49	634.40	617.69
Invoiced sales	472.65	418.71	536.08	583.05
Paid sales	456.61	387.66	508.41	580.08
Exports and Domestic Sales				
Exports - Convertible Currency	13.03	41.09	28.98	33.36
- Clearing Currency	3.43	33.73	41.25	15.19
Total export sales	16.46	74.82	70.23	48.55
Domestic sales	440.15	312.84	438.18	571.94
Total	456.61	387.66	508.41	620.49
Net Earnings	47.2	18.4	53.5	28.3

The uneven pattern of production and sales evident in 1964 and 1965 is reported to have been due to hesitant market demand in the face of devaluation and Economic Reform. Despite the advent of liberalized imports at lower prices, 1967 showed higher invoiced sales which, thanks to hire-purchase credit and lower prices have reportedly increased in 1968. In looking at invoiced sales a steady pattern of growth with the exception of 1965 is noticeable. Production on the other hand has shown a tendency to fluctuate indicating the difficulty in forecasting market demands in such a rapidly developing industry with new technology and competition from imports requiring constant attention to product development and longer production runs.

Earnings which are based on paid sales show large fluctuations which are accounted for by the failure of operating expenses to match the decline in sales in 1965 while they rose more than the increase in sales in 1967. This together with increasing depreciation and interest costs has created an uneven pattern which the enterprise expects to overcome with its increased sales, the improvements brought about by the expansion programs and its ability to manufacture more of its component parts. In 1967 the drop in earnings of N.D. 25 million despite the increase in sales of N.D. 112 million was attributable to increased wages, taxes, depreciation and interest which all increased more than the approximately 25% growth in sales and material costs.

Yugoslav Electronic Industry and Market

The electronics industry developed in Yugoslavia after World War II. In the early years there were several small factories which essentially carried out assembly-type operation of simple products such as radio receivers, telephones, and telephone switching equipment. Today there are four manufacturing units:

(1) E.I. Nis - Nis, Bosnia
(2) Iskra - Kranj, Slovenia
(3) Rudi Cajavec - Banja Luka, Bosnia-Herzegovina
(4) Radio Industry (RIZ) - Zagreg, Croatia

As stated earlier, the Rudi Cajavec plant is being merged with E.I. Nis. It has also been reported that RIZ has recently merged with Iskra. Thus, there will be only two competitors of electronic equipment in Yugoslavia. RIZ is primarily a manufacturer of consumer electronic equipment such as radio and TV sets, tape recorders and phonographs. In 1967 it produced about 27,000 TV sets, 2,000 radio sets, 21,000 phonographs and 400 tape recorders. Iskra is primarily a manufacturer of commercial and industrial equipment such as telephones and electronic measuring instruments. It also makes radio sets (approximately 60,000 units in 1967) and components such as semi-conductors (1.5 million pieces) and capacitors and resistors (13 million pieces).

By value of sales, the major products of the Yugoslav Electronics Industry and E.I. Nis were consumer goods like TV and radio sets. The following table shows the total production and apparent consumption of these items in the country during the past five years. For comparison, the production of E.I. Nis is also shown:

	Domestic Production	Imports	Exports	Apparent Consumption	Production E.I.Nis
TV Sets					
1963	117,052	11,973	9,870	119,155	91,106
1964	262,545	6,548	29,650	248,443	213,783
1965	253,516	8,194	62,426	199,248	195,166
1966	286,371	10,118	48,322	248,167	213,538
1967	252,400	12,650	22,455	249,595	191,589
Radio Sets					
1963	377,254	11,450	10,820	377,884	288,850
1964	527,611	2,151	46,876	482,886	423,138
1965	504,439	14,686	92,366	426,759	409,307
1966	369,069	53,157	36,416	385,810	286,015
1967	239,862	141,396	37,455	343,803	171,733

(Source: Zavod za statistiku SFRJ)

The table shows that over the past five years, E.I. Nis has accounted for, on an average, approximately 77% of the country's TV production and 78% of radio production.

The table also brings out the adverse effect of the Economic Reform on the TV and radio apparatus industry. The phenomenal rise in radio imports in 1967 represents the large imports of portable transistor radios mainly from Japan. Also, because of the credit squeeze in 1967, demand for consumer goods such as TV and radio dropped noticeably and manufacturers built up substantial inventories. In November 1967, radio and TV broadcasting stations, E.I. Nis, its bankers and its dealer network set up a special fund to provide credit to purchasers. Results have been very encouraging and in the first two months, E.I. Nis was able to sell 100,000 TV sets. The system enables a customer to buy a TV set by putting 5% down and pay the balance over 20 monthly installments. Credit sales for radio sets are expected to be initiated in April 1968.

Annex 2 shows E.I. Nis' sales projections for the next five years. TV and radio sets and tape recorders are expected to account for over 70% of total sales. The enterprise has based these projections on the past consumption pattern, and taking into account the effect of the new credit sales system introduced in November 1967. The number of sets in use in the country at present is estimated at about 1.1 million TV sets and 3.7 million radio sets which on a per capita basis is considerably below the levels prevailing in the neighboring West European countries. The prevailing duty on imports of radio and TV sets averages 26%. Provided there is no large scale import of cheap foreign products the enterprise should be able to achieve its projected sales.

E.I. Nis' chief exports are TV and radio sets and electron tubes. The export incentive premium is 12%. In addition to exporting through agents such as Invest-Import, Jugoelectro and Electrotehna, E.I. Nis also exports directly items such as components to Philips in Holland. The largest importer of TV and radio sets and electron tubes has been West Germany. Czechoslovakia has also imported significant amounts of radios and tubes have been exported to Rumania, East Germany and the United States as well as to Holland.

Description of Project

The IBRD has been requested to finance two projects which form part of the enterprise's overall development plan. These projects are the expansion of the semi-conductor manufacturing facilities at Nis and the expansion of the capacitor and resistor manufacturing plant near Belgrade.

Semi-conductor Project

Semi-conductor production commenced in 1961 with a total capacity of 600,000 germanium transistors and 1,330,000 silicon diodes on a two-shift basis. The department occupied approximately 1,500 sq. m. of factory space and employed a labor force of 300 persons. Production capacity has been gradually expanded and currently the department has a nominal capacity capable of producing approximately 4.3 million elements, 1.3 million transistors and 3.0 million diodes per annum.

The enterprise has under implementation an expansion program to set up a development laboratory and to increase production to 9 million semi-conductor elements. The laboratory which will be used for experimental production of items such as silicon planar transistors, planar diodes, integrated circuits, will be equipped mainly with British and American equipment which will include new lines for manufacturing low frequency and drift transistors, new continuous furnaces, and automatic equipment for making glass-metal seals, has been purchased from Toshiba, Japan, and is expected to be installed and put into operation by June 1, 1968. After expansion, the semi-conductor department will occupy approximately 2,550 sq. m. and employ about 350 persons on two shifts. The total investment for this phase is estimated at approximately N.D. 9 million.

The project now under consideration is for the manufacture of silicon planar diodes and transistors. Silicon transistors are gradually replacing germanium transistors in many fields because of their superior technical characteristics. Germanium transistors will, however, still be required for a number of special applications as for instance in the UHF tuner. Japan which is the world's leading producer of silicon transistors registered an increase in germanium semi-conductor production. It has been estimated that germanium elements will be used side by side with silicon planar elements for another ten years or so before being completely replaced except for special application. As the enterprise does not have sufficient technical expertise in the manufacture of silicon transistors, it proposes to obtain a license from one of the leading companies in the world. So far, E.I. Nis has had offers of collaboration from Toshiba and Sanyo of Japan, Siemens of West Germany and SGS of Italy. Negotiations have been held with Toshiba and a draft technical collaboration agreement initialed. The agreement provides that Toshiba will furnish complete documentation on the requirements of a plant, equipment and facilities, will train E.I. Nis personnel at Toshiba's works and will second Toshiba experts to Nis for start-up and initial operation. The agreement which will be for 10 years provides for the payment of an initial lump-sum know-how fee of US$250,000 and a royalty of 5% on sales.

The project prepared on the basis of preliminary information furnished by Toshiba, calls for the construction of a new building of about 2,500 sq. m. in which will be installed the diffusion lines for silicon ingot and wafer production, equipment for wafer evaporation, and the planar transistor and power transistor production lines. This section of the department will employ about 200 workers in two shifts.

With the commissioning of this project, semi-conductor production capacity will increase from about 9 million elements per year to about 28 million elements per year - 15 million transistors and 13 million diodes. Almost 80% of the increased production will be for internal consumption and the balance 6 million elements will be sold to other consumers.

Capacitors and Resistors Project

The enterprise's plant at Avala, a suburb of Belgrade, manufactures passive components, i.e. capacitors and resistors, required for its own consumption and for merchandise sales to other users. The main products are electrolytic polyester, polystyrene and paper capacitors and metal film resistors. The enterprise has initiated trial production of graphite composition resistors to prove a process developed by one of its development laboratories. Results have been encouraging.

To meet the increased need for these passive components both within the enterprise and in the Yugoslav market, the enterprise proposes to expand production as shown below:

	Production 1967	Proposed Production 1972	Approximate Unit Value
	(million units)		(N.D.)
Electrolytic capacitors	3.9	7.5	3.0
Polyester capacitors	6.8	29.7	0.5
Polystyrene capacitors	5.0	12.5	0.3
Paper capacitors	0.2	0.5	10.0
Metal film resistors	3.2	5.0	1.0
Composition resistors	1.0	120.0	0.25
	20.1	175.2	
Total Estimated Value (in million N.D.)	22.1	81.1	

Apart from investment in a new line for the production of composition resistors to be established at Zemun near Belgrade, the projected increase in production is proposed to be achieved by relatively minor additions of machinery and equipment in the existing plant. The more expensive pieces of equipment to be installed are a silicon power rectifier for the etching of aluminum foil for the electrolytic capacitors, special equipment for metalizing polyester foil for polyester capacitors, a vacuum impregnation machine for paper capacitors. No new investment is contemplated in the metal film resistor section.

The enterprise is sufficiently experienced in the technology of production of capacitors and resistors and it does not need to seek any foreign know-how for implementing this project.

Cost of Project

Fixed assets for the semi-conductor and capacitor resistor projects are estimated to cost N.D. 41.21 million (US$3.30 million) excluding interest during construction, but including foreign exchange requirements of US$1.76 million which IBRD has been requested to finance. Working capital during the period of construction is estimated to be N.D. 12 million. A summary of the project cost estimate is given below:

	Currency Breakdown		
	Million	$ Million	Total ND Million
Buildings and civil works	5.92	-	5.9
Plant and equipment - imported	-	1.51	18.9
- domestic	8.12	-	8.1
Import duties	4.62	-	4.6
Freight, insurance and handling	0.33	-	0.3
Erection	0.34	-	0.3
Technical license fee	-	0.25	3.1
Working capital	12.00	-	12.0
Total	31.33	1.76	53.2

Cost estimates for equipment for the semi-conductor project are based on quotations furnished by Toshiba. Cost of equipment for the capacitor and resistor project is based on recent quotations from prospective European and U.S. suppliers.

The cost of the project is divided between the two factories as follows (in million N.D.):

	Semi-conductor	Capacitor and Resistor
Fixed assets	26.25	14.95
Working capital	6.50	5.50
	32.75	20.45

Project Financing

A summary of E.I. Nis' estimated financial requirements and sources of funds during project construction (1968-1969) is given below (in million N.D.):

Uses		Sources	
Project	53	Net earnings (1967-1968)	77
Other investments in fixed assets and related working capital	200	Depreciation	46
		Long-term debt	
		IBRD	22
Debt repayment	64	Other	198
Reserves and other allocations	26		
	343		343

Detailed cash flow projections for the 1968-1972 period are given in Annex 2. The long-term debt requirements of N.D. 198 million is composed of N.D. 68 million in dinar credits for fixed assets, N.D. 60 million in foreign credits and N.D. 70 million in dinar credits for working capital. The timing of the bulk of these credits depends on the progress of the cathode ray tube factory estimated to require N.D. 156 million which may be delayed for some months. The balance of the funds have been arranged for completion of the projects underway and near completion and include working capital requirements. The large increase in working capital is scheduled to be used to the extent possible for further consumer credit following the pattern of financing receivables for wholesalers who in turn grant credit to retail customers.

Earnings and Debt Service Forecasts

Enterprise-wide earnings forecasts for 1968-1972 are shown in Annex 2. Overall sales are projected to grow at a slower rate than in 1967 based on the outlook for reduced consumer demand in the immediate future, reflecting the Yugoslav economy, and other related factors such as lower prices. The forecasts show sales reaching capacity in 1971 after completion of the current programs. These sales projections have been reviewed in detail by the mission and appear obtainable. The N.D. 49 million net earnings projected for 1968 although much higher than 1967's poor performance are less than 1966's earnings of N.D. 53.5 million as a consequence of high operating costs (86°/o of sales) compared to 1966 (83°/o). Materials which equalled 60°/o of sales revenue in 1966 are projected to be 57.5°/o in 1968 while wages and social benefits of 23.5°/o in 1968 compare to only 18.5°/o in 1966. Also affecting the lower earnings projected for 1968 is the absolute increase in depreciation and interest which totalled N.D. 24 million in 1966 compared to the forecasted N.D. 46 million in 1968.

Looking at 1969 and 1970, before the full capacities are reached, the net earnings are projected to more than double 1968's N.D. 49 million. This is due to an increase of sales by almost N.D. 100 million (15°/o) and an increase in operating costs of N.D. 37 million (6.3°/o). Increased earnings after 1969 are relatively modest reflecting increasing production and a stable ratio of operating costs to sales revenue (about 80°/o).

Long-term debt service coverage in 1968 and 1969 is projected to be over 1.5 to 1 and from 1970 to 1972 reaches 2.3 to 1. Although the debt service requirements in 1968 and 1969 appear to be high compared to cash generation the margin of safety contained in the build-up of additional working capital and reserves should assure no problem in meeting the maturing obligations. E.I. Nis' excellent relationships with Y.I.B. and other local banks indicate that any shortfall in funds generated from operations can be met by short-term borrowings.

Conclusions

The growth of electronic technology in Yugoslavia has enabled the population to obtain telephones, radios and television receivers without a large drain on foreign exchange reserves. E.I. Nis has also developed an export program adding N.D. 48 million to the balance of payments income in 1967. The wide range of E.I. Nis' production which includes railway signalling equipment, X-ray and other medical machinery as well as the component parts to be produced by the loan requested from the IBRD will add to Yugoslavia's ability to provide industry and consumers with modern electronic technology.

IFC/LAEA
July 26, 1968

EI NIS

Comparative Balance Sheets
(In million New Dinars)

As at December 31,	1964	1965	1966	1967
ASSETS				
Current Assets				
Cash, banks and near cash	10.3	23.7	64.9	71.9
Trade receivables 1/	47.1	94.9	130.5	210.1
Inventories				
Raw materials and supplies	102.1	121.9	120.3	128.8
Semi-finished products	50.2	68.1	91.7	95.0
Finished products	16.3	39.6	83.1	87.9
Total inventories	168.6	229.6	295.1	311.7
Other current assets 2/	67.7	121.9	173.2	166.3
Total Current Assets	293.7	470.1	663.7	760.0
Gross Fixed Assets				
Land	-	0.1	0.1	0.1
Buildings	37.4	46.7	90.8	101.3
Machinery and equipment	44.6	61.7	111.1	140.0
Fixed assets under construction	4.1	11.9	8.9	10.7
Collective consumption assets	7.3	10.9	8.9	8.0
Other fixed assets	2.4	5.9	6.4	2.1
Total Gross Fixed Assets	95.8	137.2	226.2 3/	262.2
Less depreciation	21.9	24.9	42.8	54.7
Net Fixed Assets	73.9	112.3	183.4	207.5
Total Assets	367.6	582.4	847.1	967.5
LIABILITIES				
Current Liabilities				
Short-term debt	10.5	121.1	173.6 4/	110.3
Trade payables	42.4	59.3	100.0	159.8
Other current liabilities 5/	104.9	144.3	229.6	234.3
Total Current Liabilities	157.8	324.7	503.2	504.4
Long-term debt	118.0	142.2	169.2	246.8
Funds of the Enterprise				
Business fund	83.2	96.8	162.5	185.0
Reserve funds	3.6	5.8	9.2	19.8
Collective consumption funds	5.0	12.9	3.0	11.5
Total Own Funds	91.8	115.5	174.7	216.3
Total Liabilities	367.6	582.4	847.1	967.5
Current Assets/Current Liabilities	1.9:1	1.4:1	1.3:1	1.5:1
Long-term Debt/Own Funds	56:44	55:45	49:51	53:47

IFC/LAEA
May 22, 1968

EI Nis

Notes to Comparative Balance Sheet

1/ Reflects increasing length of credit terms and introduction of installment credit extended through retailers (N.D. 73 million at end of 1967).

2/ Includes goods invoiced but not paid, prepaid expenses and inventory valuations.

3/ Includes approximately N.D. 34 million (N.D. 21.7 million for buildings and N.D. 11.6 million for machinery and equipment) in revaluation of fixed assets in 1966.

4/ Increased accounts payable result from devaluation of the dinar and longer payment terms granted by suppliers.

5/ Includes goods invoiced but not paid, accrued expenses and inventory adjustments (contra account to other current liabilities).

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May 22, 1968

EI-NIS

Earnings Statement
(In million New Dinars)

	1964	1965	1966	1967
Sales Revenue 1/	456.6	387.6	508.4	620.5
Operating Costs				
Material and overhead	248.8	232.3	305.7	376.0
Net wages 2/	46.5	51.4	71.7	94.8
Related social payments	16.3	17.5	22.1	28.9
Taxes and contributions 3/	83.6	53.8	28.2	45.2
Total Operating Costs	395.2	355.0	427.7	544.9
Depreciation 4/	3.6	4.7	9.3	19.6
Interest	6.3	9.4	15.0	24.7
Net Earnings from Operations	51.5	18.5	56.4	31.3
Non-operating earnings 5/	3.3	5.7	8.7	12.0
Non-operating expenses 6/	7.6	5.8	11.6	15.0
Net Earnings	47.2	18.4	53.5	28.3

1/ On basis of paid sales.
2/ Wage increases reflect increased number of workers, more highly paid skilled workers and engineers and per capita wage increases based on productivity and generally higher basic wage levels.
3/ Taxes and other contributions decreased until 1967 as a result of the Economic Reform measures; 1967 taxes increased due to higher contributions and a growing tax base, i.e. the Business Fund.
4/ Depreciation increased in 1967 as a consequence of the large increase in fixed assets at the end of 1966 and increased depreciation rates permitted by law in 1967.
5/ Non-operating earnings include interest on bank accounts and installment loans plus other income.
6/ Non-operating expenses include discounts granted and other expenses.

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May 22, 1968

El Nis
Financial Forecasts
(In Million New Dinars)

Year Ending December 31,	Construction Years 1968	1969	1970	1971	1972
Earnings Statement					
Sales Revenue 1/	679	772	812	860	860
Operating Costs					
Materials and Overhead	390	405	420	432	432
Net Wages 2/	110	122	131	142	142
Related Social Payments	31	34	37	40	40
Taxes and Contributions	53	60	66	72	74
Total Operating Cost	584	621	654	686	688
Depreciation	22	24	28	30	30
Interest	24	22	20	19	18
Net Earnings	49	105	110	125	124
Sources and Application of Funds					
Sources					
Net Earnings (Previous Year)	28	49	105	110	125
Interest	24	22	20	19	18
Depreciation	22	24	28	30	30
Increase in Long-Term Debt					
IBRD	-	22	-	-	-
YIB and Other Banks	114	84	85	39	-
Total Sources	188	201	238	198	173
Applications					
Project: Fixed Assets - Foreign	-	22	-	-	-
- Local	-	19	-	-	-
Working Capital	-	12	-	-	-
Total Project	-	53	-	-	-
Renewals and Replacements	2	3	3	3	3
Other Fixed Assets 3/	74	54	65	30	-
Interest: 4/					
IBRD	-	1	2	2	1
YIB and Other Banks 5/	17	17	15	14	14
Short-Term Debt	6	4	3	3	3
Total Interest	23	22	20	19	18
Principal Repayments 6/					
IBRD	-	-	-	1	2
YIB and Other Banks	28	36	48	51	56
Total Repayments	28	36	48	52	58
Allocations to Reserve Funds	7	7	7	8	8
Allocations for Collective Consumption	6	6	6	6	6
Sub-total	140	181	149	118	93
Net additions to Working Capital 7/	48	20	89	80	80
Total Applications	188	201	238	198	173
Long-Term Debt Service Coverage (Times)	1.5	1.7	2.3	2.3	2.3

IFC/LAEA
May 22, 1968

EI Nis

Notes to Financial Forecasts

1/ As projected in Annex 3.

2/ On the basis of present wage scales.

3/ Largest increase in fixed assets for television tube production may be postponed pending decision on process to be used.

4/ Assumed 7% per annum beginning in mid-1969.

5/ As projected by enterprise based on loan outstanding and arranged.

6/ Assumed 24 semi-annual installments beginning in second half of 1971.

7/ To be used for installment credit and other current asset requirements.

IFC/LAEA
May 22, 1968

EI Nis

Sales Projections
(In million New Dinars)

		1968		1969		1970		1971		1972	
Finished Goods		Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
TV sets	- 000 units	280	420.00	320	480.00	330	495.00	330	495.00	300	450.00
Radio sets	- "	300	75.00	300	75.00	300	75.00	300	75.00	300	75.00
Tape recorders	- "	10	9.00	20	18.00	30	27.00	40	36.00	50	45.00
Radio telephones	- units	200	1.60	200	1.60	300	2.40	500	4.00	500	4.00
Telephone sets	- 000 units	30	3.05	40	5.40	40	5.40	50	6.75	30	6.75
Misc. electronic equipment	- tons	217	50.40	250	56.50	300	68.00	340	73.75	340	73.75
Measuring instruments	- units	600	4.80	800	6.40	800	6.40	800	6.40	1,000	8.00
X-ray sets	- "	200	3.00	200	3.00	200	3.00	200	3.00	200	3.00
Electro-medical equipment	- tons	70	15.40	70	15.40	80	17.60	90	19.80	100	22.00
			582.25		661.30		699.80		719.70		687.50
Components											
Electric tubes	- 000 units	2,000	12.00	3,000	18.00	3,000	18.00	4,000	24.00	6,000	36.00
Transistors	- "	2,000	8.00	4,000	16.00	4,000	16.00	5,000	20.00	6,000	24.00
Diodes	- "	2,000	4.00	4,000	8.00	4,000	8.00	6,000	12.00	7,000	14.00
Condensers	- "	4,000	4.00	5,000	5.00	6,000	6.00	7,000	7.00	8,000	8.00
Resistors	- "	3,000	0.90	10,000	3.00	10,000	3.00	15,000	4.50	30,000	9.00
Ferrite cores	- tons	-	-	-	-	20	1.60	30	2.40	50	4.00
Ceramic capacitors	- 000 units	-	-	-	-	5,000	2.00	10,000	4.00	20,000	8.00
			28.90		50.00		54.60		73.90		103.00
Miscellaneous sales and services			67.85		60.70		57.60		66.40		69.50
Total			679.00		772.00		812.00		860.00		860.00
Export sales											
Convertible			54.68		71.50		89.00		98.25		107.72
Clearing			29.44		38.50		47.92		52.90		58.00
Total export sales			84.12		110.00		136.92		151.15		165.72
Domestic sales			594.88		662.00		675.08		708.85		694.28
Total			679.00		772.00		812.00		860.00		860.00

TREPCA

The Borrower

The prospective borrower is the Trepca Mining and Metallurgical Combine which has its head office and the majority of its processing facilities at Kosovska Mitrovica in the Republic of Serbia, between Belgrade and Skopje. The operations carried out under the name of Trepca comprise the extraction of lead and zinc ores, flotation, smelting of the concentrates and refining to produce refined lead and zinc, recovery of bismuth, copper, silver and gold, the production of sulphuric acid and simple superphosphate fertilizer and the manufacture of lead acid batteries. When the recently constructed blast furnaces are commissioned, Trepca will have a smelting capacity of 170,000 tons of pig lead per annum which the enterprise expects will confirm it as the largest producer in Europe and one of the five largest in the world.

Trepca is in the process of implementing a series of expansion projects designed to increase output, reduce costs and enable it to convert its entire production of lead and zinc ores into refined metal and to utilize the by-products resulting from the manufacturing processes. Within the past twelve months, apart from mine reconstruction schemes, new flotation plants, a new sinter plant and smelter for the treatment of lead concentrates, an electrolytic zinc plant with a capacity of 40,000 tons per annum, a battery plant with a capacity of 6,000 tons per annum and additional sulphuric acid manufacturing capacity have been put on stream and the granulating capacity of the fertilizer plant expanded. In addition to the proposed modernization and expansion of the lead refinery, for which IBRD funds have been requested, the enterprise intends to construct a fuming plant for the recovery of lead and zinc from the lead blast furnace slag.

The enterprise sells its production of lead under the brand name of Trepca and its batteries too are marketed under its own name. Trepca's products appear to be fully competitive, in respect to quality, with those produced in the developed countries.

Trepca's total assets at December 31, 1967 were N.D. 1,600 million and it is, therefore, one of the most important industrial enterprises in the country. Total sales revenue in 1967 amounted to N.D. 475 million. The enterprise employs some 10,000 workers and is by far the largest employer of labor in the region.

Trepca as such has not received an IBRD loan in the past, but in 1953 the Lece mine received US$135,000 under IBRD Loan 51-YU to finance part of the foreign exchange cost of equipping the mine and mill. At the time the loan was made, arrangements already existed for smelting the lead concentrate in Trepca's smelter and more recently Lece has merged with and become fully integrated in the enterprise's operations.

Prepared by A. R. Perram and J. W. Jaffe.

The purpose of the proposed project for the modernization and expansion of the lead refinery is to balance its capacity with that of the lead smelter and to improve the separation of secondary metals such as silver, bismuth, gold, antimony, copper and zinc. Some of these metals cannot at present be separated from the slag at all and there is scope for improvement in the recovery of others. The design capacity of the refinery will be approximately 162,000 tons of refined lead. The total cost of the project, excluding interest during construction but including additional working capital requirements, is estimated at N.D. 78.4 million ($6.27 million) of which $1.7 million is required in foreign exchange. IBRD has been requested to provide this amount.

History of the Borrower

Commercial exploitation of the mineral ores in the Kosovska Mitrovica region began in 1929 when "Trepca Mines Limited" was founded in London with a capital of £200,000. Ore production, which was 500 tons per day initially, increased rapidly to 2,000 tons per day at which level it remained until the outbreak of the Second World War. During the pre-war period the greater part of the enterprise's production was exported in the form of concentrates.

The present Trepca Mining and Metallurgical Combine was formed in 1946 by the nationalization of Trepca Mines Limited and mergers with other lead and zinc mines in the Republic of Serbia, as a result of which Trepca became the largest lead and zinc producer, not only in Yugoslavia but also in Europe. In the process of integrating its operations the enterprise has taken up the production of by-product sulphuric acid, simple superphosphate fertilizer, cryolite and lead-acid batteries and maintains its own research establishment with a staff of 230 for pure and applied research in the field of extractive metallurgy. As part of the expansion of the enterprise's activities, a number of knowhow-technical assistance agreements with established equipment suppliers have been concluded and the recently commissioned production facilities give every indication of being of up-to-date design and competently operated.

Management

The General Manager of the enterprise is Mr. Caslav Zivkovic and his Deputy is Mr. Manojkovic. Five Assistant General Managers report to them with responsibility for finance, investment, mining and geological operations, metallurgical and chemical operations and the research establishment respectively. They are also assisted, in a staff capacity, by a group of nine advisors the basis of whose selection is to complement the experience of the line managers.

The senior management of the enterprise appears technically oriented and its record in implementing the recent series of modernization, expansion and balancing schemes is impressive. The production units which the mission visited were efficiently run and their managers appeared well informed and enthusiastic.

Recent Financial and Earnings Record

Balance sheets for the past four years (1964-1967) are shown in Annex 1. Trepca's balance sheet as at December 31, 1967 is summarized below (in million N.D.):

Assets		Liabilities	
Cash and equivalent	138	Short-term debt	73
Receivables	65	Accounts payable	69
Inventories	261	Other current liabilities	285
Other current assets	205	Total current liabilities	427
Total current assets	669	Long-term debt	580
Net fixed assets	949	Business fund and reserves	611
	1,618		1,618

Additions to Trepca's fixed assets during 1964-1967 amounted to about N.D. 480 million (excluding some N.D. 445 million of revaluation of fixed assets in 1966 resulting from the Economic Reform). Thus Trepca's gross fixed assets increased from N.D.361 million to N.D. 1,289 million on the balance sheet during the period. Net fixed assets increased from N.D. 220 million to the figure of N.D. 949 million shown above. As described earlier, the major increases in fixed assets were the electrolytic zinc plant, the lead battery plant and the expansion of the lead smelter. These fixed assets were financed by long-term loans which increased about N.D. 500 million during the period.

Trepca's long-term debt outstanding of N.D. 580 million at the end of 1967 consisted of N.D. 410 million in local currency loans from the Investment Bank of Pristina, YIB, the Yugoslav Bank for Foreign Trade, the Economic Bank of Belgrade and several local commercial banks financing some of the mines and plants in various parts of Yugoslavia. These loans were granted at various interest rates with an average of about 5%. The largest loans carried a rate of 4%. The terms of the loans also varied and ranged up to 25 years. The average of loans outstanding at the end of 1967 was about 13 years.

Foreign currency loans outstanding at the end of 1967 totalled N.D. 110 million. The loans were for the zinc plant - N.D. 36.6 million at 6.5% for five years from the Yugoslav Bank for Foreign Trade - commercial credits from a group of British banks headed by the Bank of London and South

America (BOLSA), N.D. 32.4 million[1/] at 8-1/2% for 4-1/2 years - the battery plant, N.D. 19.5 million at 6-1/2% for 5 years from German suppliers - N.D. 2.2 million for mining from Belgium, U.K. and Swiss suppliers at 6% for 3-1/2 years average and for the lead production a total of N.D. 20 million at 6-1/2% for 5 years from the Yugoslav Bank for Foreign Trade and Swiss suppliers.

The balance of the long-term debt, totaling N.D. 38 million for working capital was received from the Investment Bank of Pristina, the Commercial Bank of Kosovska Mitrovica, Y.I.B. and some local commercial banks financing mines and a battery plant in the north of Yugoslavia. These loans ranged from 4 to 7-1/2% and were granted a term of up to 25 years. In addition Trepca had obtained N.D. 21 million for financing its social assets such as meeting halls, housing, etc. Until 1967 Trepca had made little use of short term debt and in 1967 it was also small in relation to current assets.

Trepca's earnings statements for the years 1964 to 1967 are shown in Annex 1. Sales volume of major items and net earnings for the past four years are summarized below. A part of the earnings derives from services rendered by Trepca to companies with which it has co-operative arrangements.

	Sales volume in metric tons[2/]			
	1964	1965	1966	1967
Refined lead	81,470	80,697	75,399	68,522
Electrolytic zinc	-	-	-	2,033
Zinc concentrates	64,941	68,650	64,047	63,254
Fine silver	106	116	107	97
Bismuth	82	89	105	104
Gold (kg)	320	434	310	304
Lead acid batteries	1,657	2,015	2,161	670
Sulphuric acid	21,732	37,048	52,067	51,773
Simple superphosphate	122,887	100,012	195,876	199,442
Cryolite	-	2	43	84
Aluminum sulphate	-	496	742	674
Pyrite concentrates	74,085	19,247	69,668	47,280
	Sales and earnings in N.D. millions			
Net paid sales	283.3	413.8	543.4	475.4
Net income	30.6	67.0	61.6	33.6

1/ The total credit granted by the British banks in October 1967 was £ 2.5 million. In addition to BOLSA the British banks included Lloyds, Midland, Kleinwort-Benson, Chartered Bank and the Bank of London and Montreal.
2/ Except gold.

Sales revenue in 1967 shows a decrease of N.D. 68 million compared with that for the previous year due chiefly to

(i) a decline in the price of lead and zinc on the world market (sales of refined lead and zinc concentrate accounted for about two-thirds of the enterprise's sales revenue in 1966),

(ii) a reduction in output of refined lead owing to interference with the production of pig lead resulting from the reconstruction of the smelter.

Net earnings in 1967 amounted to N.D. 33.6 million compared with the previous year's figure of N.D. 61.6. This reduction is due partly to the fact that operating costs in 1967 did not decrease in the same proportion as sales revenue and partly to increased interest charges and increased non-operating expenses in relation to non-operating earnings.

Yugoslav Industry and Domestic and Export Market

A. Lead

Yugoslavia's entire production of lead concentrate is processed in the smelters and refineries of the Trepca and Mexica combines. The dominant position of Trepca, as well as the domestic consumption of refined lead in the years 1964 to 1966 is shown in the following table:

	Total Production	Trepca's Production		Domestic Consumption	Trepca's Exports
	'000 tons	'000 tons	%	'000 tons	'000 tons
1964	101.1	80.2	79.5	41.1	54.7
1965	101.1	81.6	80.5	42.4	55.6
1966	97.5	74.8	76.5	43.2	44.2

A comparison of domestic ceiling prices, average London Metal Exchange (LME) spot prices and Engineering & Mining Journal (E&MJ) prices for common grade delivered New York, from the second half of 1965, that is to say after the Yugoslav Economic Reform, to 1967 is given below:

	Domestic Price		LME Price		E&MJ Price
	ND/m.t.	US¢/lb.	£/lg.ton	US¢/lb.	US¢/lb.
1965/II	3,240	11.76	115.13	14.39	16.000
1966	3,240	11.76	95.18	11.90	15.115
1967	3,240	11.76	83.82	10.48	14.000

B. Zinc

Zinc is produced in Yugoslavia in the plants at Sabac[1/] (electrolytic) and Celje (refined) and, since the end of last year, in Trepca's new electrolytic plant. Existing refining capacity is estimated to be 86,000 tons per annum of which Trepca's contribution is 40,000 tons per annum.

A comparison of domestic ceiling prices, average LME spot prices and E&MJ prices for Prime Western grade, f.o.b. East St. Louis, from the second half of 1965 to 1967 is as follows:

	Domestic Price		LME Price		E&MJ Price
	ND/m.t.	US¢/lb.	£/lg. ton	US¢/lb.	US¢/lb.
1965/II	3,600	13.07	112.97	14.12	14.500
1966	3,600	13.07	102.01	12.75	14.500
1967	3,600	13.07	100.55	12.57	13.843

It is reported that credits have recently been extended for the erection of a new lead and zinc smelter complex at Titov Veles in Macedonia with an annual production capacity of 35,000 tons of zinc and 30,500 tons of lead.

Marketing

The enterprise has in the past sold its production of refined lead to consumers in Yugoslavia, Western Europe, Eastern Europe and the United States. Its export agent is Jugometal which has affiliates in a number of importing countries. Domestic prices are set by the Association of Lead and Zinc Producers and are based on the LME price plus 3%. Sales to Western Europe are based on the LME price, with individual arrangements concerning freight and import duty. Sales contracts to Eastern Europe are based on a price which is calculated on the basis of 75% LME + 25% E&MJ. Sales to the United States which are free consumers' plant are based on the U.S. domestic price and subject to discounts and variable premiums for high grade metal. The enterprise is proud of its long-standing connections with American consumers which have been buying an average of 28,500 tons of lead for many years.

When proper allowance is made for freight costs and import duty which Trepca has to bear, it is apparent that domestic sales are on somewhat better terms than export sales. It is not possible, however, to generalize about export prices as the extent to which freight and import duty are included depends on the state of the market at the time the contracts are concluded. No incentive premium is payable on the export of lead and zinc metal.

Both Trepca and Jugometal are confident that the enterprise will have no difficulty in selling its proposed increased production of refined lead and the output from the recently completed electrolytic zinc smelter.

1/ Financed by IBRD loan No. 51-YU in the amount of $2,480,000. Originally this project was to be located at Trepca but was moved to Sabac where sulphuric acid was already being produced.

The enterprise's financial forecasts for the years 1968 to 1972 are based on the following f.o.b. Zvecan prices for sales to Western Europe and the United States, with appropriate differentials for domestic sales and sales to Eastern Europe:

	Price
Refined lead	
European price	9.26¢ per lb.
U.S. price - 1968	11.25 "
U.S. price - 1969 to 1972	10.71 "
Electrolytic zinc	10.89 "
Fine silver	$ 1.70 per oz.
Bismuth	$ 3.81 per lb.
Cadmium	$ 1.81 "

Gold, refined antimony, zinc and pyrite concentrates and chemical products will be sold entirely within Yugoslavia and projected prices are generally in line with current domestic prices for these commodities.

The price assumptions for refined lead and electrolytic zinc, from which the bulk of the enterprise's income derives, have been reviewed and are considered to be reasonably conservative.

Reserve Position

The enterprise claims that from 1955 through 1966 approximately 40 million tons of lead and zinc ores were developed. This quantity is 3-1/2 times greater than the amount of ore extracted during the same period and is indicative of the efforts the enterprise has made to assure its reserve position. The present rate of extraction from the enterprise's mines is 1,300,000 tons of ore per annum, analyzing 5% lead, 4% zinc and 65 grams of silver per ton, but this rate will double when the current phase of mine reconstruction has been completed. The enterprise also purchases ore concentrates under long-term contracts with a number of independent mines.

Even at the increased rate of extraction,reserve life of the enterprise's mines will be over 15 years and there are good indications that reserve development can keep pace with ore extraction for many years to come.

Description of the Project

The proposed project is for the modernization and expansion of the existing lead refinery to permit the refining of the entire output of pig lead of the recently reconstructed smelter and the extraction of most of the accompanying metals, such as silver, bismuth, gold, antimony, copper and zinc.

Based on an input of 168,814 tons of pig lead and 2,000 tons of scrap lead the capacity of the refinery in terms of the grade and quantity of metals to be produced is expected to be

	Grade	Quantity
Refined lead	99.99%	162,112.0 MT
Refined silver	99.995%	203.4 MT
Bismuth	99.98%	121.9 MT
Refined antimony	98.50%	309.8 MT
Gold (kg)	99.99%	645 Kg
Accumulator lead	97 Pb 3 Sb	1,800 MT

The specified grades are those in which the respective metals are commonly traded.

The project has been engineered by Masinoprojekt, consulting engineers, of Belgrade which has had considerable experience in the metallurgical industry in Yugoslavia. On the process side discussions have been held with representatives of three leading plant suppliers in the field of lead refining and budget quotations have been received. These quotations reflect the views and practices of the respective manufacturing enterprises whose knowhow and performance guarantees form the basis of the plant suppliers' choice of equipment and, consequently, are not strictly comparable.

The most comprehensive offer was submitted by Mechim of Belgium, and is backed up by the experience of Metallurgie Hoboken, also of Belgium. At the time of the mission Trepca favored Machim's offer over those of the other two equipment suppliers and was arranging to visit the Hoboken plant with a view to settling outstanding questions. The cost of the equipment in the capital cost estimate given below is based on Mechim's quotation. Both Mechim and Hoboken are established companies with a world-wide reputation in the field of non-ferrous metallurgy and can be relied upon successfully to implement their part of the project.

The purpose of the equipment included in Mechim's offer is as follows:

(a) Extraction of dust from the fumes of the copper matte furnace,

(b) Two Harris machines for refining decopperized lead and the treatment of sodium salts for the production of antimony, elimination of arsenic and recovery of the sodium,

(c) Improvement of the zinc recovery from the argentiferous slag,

(d) Vacuum dezincing of the desilverized lead,

(e) Continuous debismuthizing of the lead and the production of bismuth metal,

(f) Casting of the refined lead into ingots.

To accommodate the new equipment the existing refinery building will have to be extended, new roads and sewers constructed and additional mechanical and electrical services installed. This part of the project has been designed and its cost estimated by Masinoprojekt.

Cost of the Project

The cost of the project, including additional working capital requirements but excluding interest during construction, is estimated at N.D. 78,410,560 ($6.27 million). While Trepca and Masinoprojekt are confident, on the basis of the design work already completed and their recent experience of expansion projects undertaken by the enterprise, that this figure represents a close approximation of the ultimate project cost, an exact allocation of the cost of imported and domestic equipment cannot be made at this stage. The cost of imported equipment of $1.70 million for which an IBRD loan is sought, therefore, represents the upper limit of the cost of possible equipment imports and may ultimately be reduced with a corresponding increase in the cost of domestic equipment. The estimate contains no specific contingency provision, but according to Masinoprojekt a suitable allowance for possible overruns has been included under each heading. A summary of the project cost is as follows:

	Foreign Exchange (US$ 000)	Local Currency (N.D. 000)	Total Expressed (N.D. 000)
Civil engineering and building	-	22,031.6	22,031.6
Equipment	1,360.0	8,656.4	25,656.4
Customs duties	-	5,270.0	5,270.0
License fees	340.0	-	4,250.0
Engineering, insurance and other	-	2,002.6	2,002.6
Working capital	-	19,200.0	19,200.0
Total	1,700.0	57,160.6	78,410.6

Project Execution Schedule

The enterprise's financial forecasts shown in Annex 2 assume that the reconstructed refinery will be on stream at the beginning of 1971. Mechim has offered to despatch the equipment which it may be asked to supply within 18 months of receipt of order and the delivery of equipment of domestic origin will have to be arranged to suit this schedule. A further nine months should be sufficient for erection and start-up.

On this basis orders for the equipment should be placed by the end of September 1968 which appears a realistic target date.

Project Financing

A summary of Trepca's estimated financial requirements and sources of funds during project construction (1968-1970) is given below (in million N.D.):

Uses		Sources	
Project	78	Net earnings (1967-1969)	187
Other investments in fixed assets	300	Depreciation	224
Debt repayment	296	Long-term debt	
Reserves and other allocations	33	IBRD	21
Additional working capital	5	Other 1/	280
	712		712

Detailed earnings and cash flow projections for the period 1968-1972 are given in Annex 2. Of the other investments shown above, the bulk of the funds are allocated for mining for which financing has been arranged from Trepca's banks mentioned earlier.

Earnings and Debt Service Forecasts

Trepca's financial forecasts for 1968 to 1972 are shown in Annex 2. The 1968 forecasts may be optimistic in view of the delays which have been experienced in starting up the new smelter and the consequent loss of production in the existing refinery. However, the source of funds in 1968 exceed the requirements by N.D. 24 million and no delays in project implementation are expected even if income is less than forecasted. Trepca's credit is also an important factor during this critical period and no serious financial difficulty in raising funds is anticipated. The sales volume of refined lead which accounts for about 45% of sales revenue in 1969 appears reasonable as does the growth of production and sales (assumed to be the same) through 1972. Earnings from operations in 1968 are projected to increase 50% as a consequence of an increase in sales revenue of 55% while operating costs increase 53%. Non-operating expenses (basically price adjustments after shipment at preliminary prices) are expected to disappear thus adding an additional 50% to earnings in 1968. This is consistent with prior years in which non-operating earnings exceeded non-operating expenses.

1/ Includes N.D. 55 million in local bank loans for the project.

The accuracy of 1968's forecasts as mentioned above depend on the success of the on-going modernization program and the figures presented to the mission in mid-March 1968 reflect the best estimates of Trepca's management and have, therefore, been accepted by the mission after discussions with the enterprise. Although they appear optimistic in comparison to 1967, they seem reasonable compared to the more normal year of 1966 when sales were N.D. 543 million and operating profits N.D. 64 million compared to the 1968 sales forecast of N.D. 735 million with the same operating profits of N.D. 64 million. In both years the wage figure is virtually the same with the primary cause of reduced profit margin being due to high material costs, particularly purchased ore. In the long run the improvement in profitability will be based on the increased output of lead ore from Trepa's own facilities which will reduce the material costs.

Due to the buildup of production capacities in various other plants during the construction period it is not possible to meaningfully relate profits to the project. It is clear, however, that the increased capacity of the refinery will permit Trepca to market a more valuable product, refined lead, instead of the crude lead coming from the smelter. The value added to the lead, including the by-products obtained in the refining process, should provide an attractive return on the relatively small investment in fixed assets and working capital.

Debt service coverage would be lowest in 1969 at 1.1 times requirements for principal and interest on long-term debt. This would increase to 2.1 by 1971 and Trepca should have no difficulty in exporting sufficient production to convertible currency countries to meet the foreign exchange requirements for debt service needs.

Conclusions

Trepca is an enterprise with a record of successful growth. It is one of the largest firms in Yugoslavia and an important earner of foreign exchange for the economy. It is exploiting natural resources and has a capable management.

Trepca's ability to raise most of its required funds in Yugoslavia and abroad indicates its financial soundness. IBRD support at this time when foreign long-term borrowing on reasonable terms has not been found would contribute to the balancing of Trepca's wide spread modernization and expansion program.

IFC/LAEA
July 26, 1968

TREPCA

Comparative Balance Sheets
(In million New Dinars)

As at December 31,	1964	1965	1966	1967
ASSETS				
Current Assets				
Cash, banks and near cash	85.6	123.7	249.9	138.0 1/
Trade receivables	8.3	15.1	32.0	65.5
Inventories				
Raw materials and supplies	36.7	48.0	88.8	171.2
Semi-finished products	14.6	16.8	27.4	56.7
Finished products	5.6	10.4	19.5	33.6
Total inventories	56.9	75.2	135.7	261.5 2/
Other current assets 3/	77.4	61.7	295.5	204.7
Total Current Assets	228.2	275.7	713.1	669.7
Gross Fixed Assets				
Land	1.2	.9	1.2	1.2
Buildings	106.7	111.1	230.0	301.8
Machinery and equipment	137.2	151.8	275.6	414.5
Fixed assets under construction	30.0	68.8	309.8	263.2
Collective consumption assets 4/	68.7	78.0	96.7	112.8
Other fixed assets	55.2	58.8	133.2	195.6
Total Gross Fixed Assets	399.0	469.4	1,046.5	1,289.1
Less depreciation	160.1	182.1	292.1	340.1
Net Fixed Assets	238.9	287.3	754.4	949.0
Total Assets	467.1	563.0	1,467.5	1,618.7
LIABILITIES				
Current Liabilities				
Short-term debt to banks	.8	-	15.7	73.2
Trade payables	4.3	5.0	74.3	69.3
Other current liabilities 3/	102.9	97.9	460.5	285.2
Total Current Liabilities	108.0	102.9	550.5	427.7
Long-term debt	55.6	92.3	361.2	580.2
Funds of the Enterprise				
Business fund	243.8	297.7	465.1	469.4
Reserve funds	4.5	3.6	6.6	37.1
Collective consumption funds	55.2	66.5	84.1	104.3
Total Own Funds	303.5	367.8	555.8	610.8
Total Liabilities	467.1	563.0	1,467.5	1,618.7
Current Assets/Current Liabilities	2.1:1	2.7:1	1.3:1	1.6:1
Long-term Debt/Own Funds	16:84	20:80	34:56	49:51

IFC/LAEA
May 22, 1968

TREPCA

Earnings Statement
(In million New Dinars)

	1964	1965	1966	1967
Sales Revenue	283.3	413.8	543.4	475.4 5/
Operating Costs				
Materials and overhead	145.0	201.8	248.4	220.2
Net wages	40.3	62.5	103.5	94.3
Related social payments	14.4	20.5	23.6	18.4
Taxes and contributions	35.9	40.4	48.4	47.4
Total Operating Costs	235.6	325.2	423.9	380.3 5/
Depreciation	21.6	22.8	47.8	38.3
Interest	1.9	2.2	8.0	14.0
Net Earnings from Operations	24.2	63.6	63.7	42.8
Non-operating earnings	12.8	13.3	13.0	10.7 6/
Non-operating expenses	6.4	9.9	15.1	19.9 6/
Net Earnings	30.6	67.0	61.6	33.6

Notes to Comparative Balance Sheet and Earning Statement

1/ Cash at the end of 1967 was reduced to earlier levels as a consequence of lower earnings, the investment program and increased inventories.

2/ Total inventories increased in 1967 due primarily to interruptions to production during reconstruction of the smelter.

3/ Other current assets and current liabilities include contra accounts relating to invoiced but unpaid sales (receivables) and exclude intra-company accounts.

4/ Collective consumption assets include workers' housing, public facilities and recreation centers. Earlier assets such as the hotel in Zvecan are now separate enterprises.

5/ The drop in sales revenue and operating costs are related to the lower volume of sales in 1967. Wages and material costs relating to inventories are not shown on the earnings statement.

6/ Non-operating earnings and expenses reflect price changes between shipping and final delivery which in 1966 and 1967 were declining.

IFC/LAEA
May 22, 1968

TREPCA

Financial Statements
(In million New Dinars)

Year ending December 31	1968	1969	1970	1971	1972
Earnings Statement					
Sales Revenue (including services)	735.2	779.3	869.4	970.7	1,031.5
Operating Costs					
Materials and overhead	397.8 1/	374.5	442.1	426.2	483.4
Net wages	103.5	110.9	111.5	128.1	128.1
Related social payments	20.1	22.3	22.8	27.4	27.4
Taxes and contributions	62.2	79.9	81.5	84.1	84.2
Total Operating Costs	583.6	587.6	657.9	665.8	723.1
Depreciation 2/	66.7	71.7	85.1	129.7	129.7
Interest (excluding interest charged to operations)	21.8	32.0	30.9	29.4	22.9
Net Earnings from Operations	63.1	88.0	95.5	145.8	155.8
Non-operating earnings	5.0	6.0	6.0	6.0	7.0
Non-operating expenses	4.0	5.0	5.0	5.0	6.0
Net Earnings	64.1	89.0	96.5	146.8	156.8
Net earnings as % of sales	9%	11%	11%	15%	15%
Sources and Applications of Funds					
Sources					
Net earnings (previous year)	33.6	64.1	89.0	96.5	146.8
Interest	21.9	33.7	33.2	37.6	30.8
Depreciation	66.7	71.7	85.1	129.7	129.7
Increase in long-term debt					
IBRD	3.7	15.0	2.5	-	-
YIB and other banks	95.7	123.4	-	-	-
Other sources (liquid assets)	50.5 3/	10.8	0.5	0.5	0.5
Total Sources	272.1	318.7	210.3	264.3	307.8
Applications					
Project					
Fixed assets	19.2	35.0	5.0	-	-
Foreign	3.7	15.0	2.5	-	-
Local	15.5	20.0	2.5	-	-
Working capital	-	-	19.2	-	-
Total Investment	19.2	35.0	24.2	-	-
Renewals and replacements	20.0	20.0	20.8	29.0	26.0
Other fixed assets 4/	109.3	124.2	5.4	-	-
Interest					
Existing long-term debt	20.1	30.4	29.4	28.1	21.7
IBRD	0.1	0.8	1.3	1.4	1.3
YIB and other banks (new investment)	- 5/	0.9	1.0	6.8	6.6
Short-term debt	1.7	1.6	1.5	1.3	1.2
Total Interest	21.9	33.7	33.2	37.6	30.8
Principal repayments					
Existing long-term debt	66.7	120.7	108.5	86.1	48.4
IBRD	-	-	-	1.3	1.4
YIB and other banks (new investment)	-	-	-	3.5	3.8
Total Repayments	66.7	120.7	108.5	90.9	53.6
Allocations to reserve funds	5.0	5.0	5.0	6.0	6.0
Allocations for collective consumption	6.0	6.0	6.0	6.0	6.0
Subtotal	248.1	344.6	203.1	169.5	122.4
Net additions to working capital 6/	24.0	(25.9)	7.2	94.8	185.4
Total Applications	272.1	318.7	210.3	264.3	307.8
Debt Service Coverage (times) 6/	1.4	1.1	1.5	2.1	3.6

1/ Material costs in 1968 include ore to be purchased from other mines pending completion of mining investments.

2/ The major depreciation rates are 16-1/2% p.a. for mining equipment, 12% for flotation and 7% for smelter and refinery.

3/ In 1968 the Company intends to use or borrow against its liquid assets to the extent necessary. Its cash position and inventory level should make this possible, particularly when the smelter capacity is completed and raw materials can be converted into salable production.

4/ Other fixed assets include mining improvements, a fuming plant and additional sulfuric acid manufacturing capacity.

5/ Interest during construction is to be capitalized on loans for new investment.

6/ The decrease in working capital projected in 1969 plus the low debt service coverage may require medium-term borrowing which could be covered by the net addition to working capital projected in 1971 and 1972. The Economic Bank of Belgrade is aware of these possibilities and is prepared to make the necessary funds available.

IFC/LAEA
May 22, 1968

TREPCA

Financial Forecasts - Assumptions and Explanations

Sales Volume and Sales Revenue (excluding services)

(In million New Dinars)

	Actual 1967		1968		1969		1970		1971		1972	
	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value
Products												
Refined lead	68,522	208.1	108,000	320.3	115,000	332.1	120,000	346.7	135,000	387.7	145,000	415.5
Electrolytic zinc	2,033	6.7	32,000	100.6	40,000	125.6	40,000	125.6	40,000	125.6	40,000	125.6
Fine silver	97	61.5	135	100.3	140	105.0	145	108.7	160	120.0	180	135.0
Bismuth	104	11.0	113	11.6	115	11.8	115	11.8	115	11.8	115	11.8
Cadmium	-	-	88	4.6	112	5.8	112	5.8	112	5.8	112	5.8
Gold (kg)	304	4.3	350	4.9	350	4.9	350	4.9	450	6.3	550	7.7
Refined antimony	-	-	-	-	-	-	-	-	240	2.3	280	2.7
Lead acid batteries	670	4.2	6,300	41.0	7,000	46.0	7,500	49.5	8,000	53.0	8,500	56.5
Sulphuric acid	51,773	13.9	100,000	22.0	108,000	23.8	120,000	26.4	130,000	28.6	140,000	30.8
Superphosphate - powder	106,473	36.6	125,000	37.5	125,000	37.5	40,000	12.0	40,000	12.0	40,000	12.0
Superphosphate - granulated	92,969	39.2	100,000	34.0	100,000	34.0	100,000	34.0	100,000	34.0	100,000	34.0
NPK - granulated	-			-	-	-	150,000	84.0	150,000	84.0	150,000	84.0
Cryolite	84	0.2	1,000	2.0	1,000	2.0	2,300	4.6	2,300	4.6	2,300	4.6
Aluminum sulphate	674	0.6	2,500	2.5	2,500	2.5	2,500	2.5	2,500	2.5	2,500	2.5
Zinc concentrate	63,254	51.1	12,000	9.6	-	-	-	-	40,000	32.0	45,000	36.0
Pyrite	47,280	2.5	86,000	4.3	86,000	4.3	4,300	4.3	150,000	7.5	200,000	10.0
Total		439.9		695.2		735.3		820.8		917.7		974.5
Refined Lead Exports												
Convertible currencies	30,085		43,000	125.0	47,000	132.0	47,000	132.0	55,000	152.0	60,000	164.0
Clearing currencies	14,475		25,000	71.0	25,000	71.0	28,000	80.0	30,000	86.0	30,000	86.0
Total	44,560	130.0	68,000	196.0	72,000	203.0	75,000	212.0	85,000	238.0	90,000	250.0

IFC/LAEA
May 22, 1968

ELAN

The Borrower

The prospective borrower is Tovarna Sportnega Orodja "Elan," Begunje na Gorenjsken (factory of sporting articles "Elan"), a producer of skiing equipment, gymnasium apparatus and boats made of plastic material. The enterprise was founded in 1945 and is located 55 kilometers northwest of the Slovenian Republic's capital, Ljubljana. Ljubljana is on the main railroad to the east and to Western Europe and has convenient highway connections to the north and east as well as to the Adriatic coast.

The factory has an annual capacity of about 170,000 pairs of skis, 100,000 pairs of ski sticks and 400 boats, working two shifts in most departments. In addition the factory also produces a variety of gymnastic equipment, hockey sticks and other sporting products made of wood.

The current share of exports amounts to 60% of total production. The goods are exported to the convertible currency areas, primarily Switzerland, USA, Scandanavia, Canada, Italy and France as well as the east European countries which take less than 15% of the factory's export sales. Elan's products have a reputation for quality and are among the leaders in ski equipment.

The new investment sought from the IBRD is to finance Elan's project for completing the modernization of the factory, putting an end to bottlenecks and increasing the quantity and quality of skis with new machinery. The basic purpose of the modernization program is to enable a large proportion of output to be used for manufacture of reinforced wood skis known as metal, fiberglass and plastic skis, because these materials are employed in them. These are in increasing demand in Western Europe and North America. Upon completion of the project the factory's capacity will be raised to some 200,000 pairs of skis. The entire increase will be in the fiberglass and metal reinforced skis, which will be increased from a capacity of about 40,000 pairs to about 70,000 pairs. In addition the factory would be able to produce a large number of hockey sticks and other sporting equipment. In total, sales revenue is expected to increase from about N.D. 40 million at present to N.D. 56 million in 1972. The total cost of fixed assets is estimated at N.D. 18.9 million (US$1.5 million) excluding interest during construction, of which US$700,000 is required in foreign exchange which the IBRD is being asked to lend. Elan estimate their working capital requirements to be another N.D. 3.5 million of which US$120,000 is required in foreign exchange.

The enterprise employs about 550 persons on its payroll and has the following principal facilities at present:

(a) Two principal ski manufacturing, painting, finishing buildings with general woodworking and special ski-making equipment;

Prepared by A.R. Perram and A.S. El Darwish.

(b) Wood ageing and storage buildings and sheds, temperature steam impregnation building and equipment;

(c) General woodworking department; gymnasium equipment manufacturing department;

(d) Workshop for production of metal parts and for maintenance and repair.

The general and gymnasium equipment departments are in old, low, wooden buildings which are unsuited to the operation, but can be used for storage. The workshop building appears to have outlived safe and sanitary usefulness for virtually any purpose. The wood, metal and plastic ski production are squeezed into one building making layout and flow of material poor.

Various techniques and operations can clearly be improved with some investments in new equipment as is planned in the present project. Manual administration of glue is expensive and apparently leads to consumption of considerably more materials. Replacement of saw cutting, milling and grinding (one cut at a time for one operation at a time) by multi-head stage milling cutters which finish four cuts in one operation are in line with Elan's scale of production.

History of Borrower

The plant was founded after World War II as a specialized factory for the production of sporting articles with firemen's equipment as a secondary line. The factory was located in the Alpine foothills of Slovenia where traditional woodworking industries are predominant. During its first 10 years of operation, the factory had virtually no exports and had reached the employment level of 155 persons. Exports were begun in 1955 at a modest level of under $10,000 per year out of a total production of N.D. 2.2 million. In 1967 the factory produced N.D. 39 million worth of goods and exported over N.D. 23 million (almost US$2 million).

The ski making, which originally was primarily a manual operation, has been mechanized by the enterprise itself based on its research in ski-making technology. The next stage in the factory's development is to mechanize many of the operations further with modern equipment. In recent years the world demand for skis has become increasingly sophisticated and the introduction of aluminum and fiberglass reinforcing plus the growing desire for plastic coating has made the change from a hand-working industry to a machine-oriented industry not only possible but essential for reducing costs and maintaining competitive quality.

The basic glued wood ski is manufactured by Elan with a variety of arrangements of layers of ash wood. The wood is obtained from local forests and is aged, dried, treated, cut and glued in the various arrangements of layers at the factory. Recently, the wood skis have been reinforced with aluminum sheet produced in Yugoslavia and fiberglass, which is imported. In order to meet the demand for several types of skis, the factory is in the process of reorganizing its production line on a rational basis to allow flexibility in meeting changing market demands for the combination of wood, metal and fiberglass (known commonly as plastic) reinforced skis.

Management

The factory's management is led by the General Manager, Joze Osterman, who has held this position for over 10 years. The other members of management include Jurij Hocevar, the Production Manager and Chief of the Development Institute who holds an engineering degree, Vinko Vogataj, Sales Manager and for Chief of the Export Department and Joze Lipnik, Chief of the Finance Section. All of these men have worked in Elan for several years. Talks with them indicate their personal technical capacity. The second level of management is composed of production experts many of whom have been with the enterprise since the beginning and have had technical training. The management is familiar with the latest manufacturing techniques and the shifting demands of the market. This has been demonstrated by the recent improvements in the production process which have been carried out successfully and in the study done for the present project.

Recent Financial and Earnings Record

Balance sheets for the past four years (1964-1967) are shown on Annex 1. A summary of the balance sheet as of December 31, 1967 (in N.D. million) is given below:

Assets		Liabilities	
Cash and equivalent	4.9	Short-term bank debt	19.9
Receivables	16.7	Trade payables	7.8
Inventories	20.5	Other current liabilities	27.3
Other current assets	30.3	Total current liabilities	55.0
Total current assets	72.4		
		Long-term debt	10.2
Net fixed assets	9.2	Business fund and reserves	16.4
	81.6		81.6

Since the end of 1963 Elan has increased its fixed assets by building a hall for its ski making, installed an automatic kiln for drying and treating the ash wood, and by purchasing and installing a few machines for forming and conditioning the skis. The total increase in fixed assets, excluding revaluation of assets at the end of 1966, equalled some N.D. 5 million. The major portion of this earlier program was completed by the end of 1965. Of the total assets carried at a revalued cost of N.D. 13.4 million, almost 30% has been depreciated, primarily the original buildings and outdated machine shop equipment which is to be replaced. In 1964 and 1965 Elan increased its long-term debt for fixed assets some N.D. 3 million by borrowing from the Splosna Gospodarska Bank of Ljubljana and the Y.I.B. These loans in addition to earlier loans for fixed assets and a supplier's credit in 1967 for the kiln bring Elan's total long-term debt for fixed assets outstanding at the end of 1967 to N.D. 3.3 million with an average interest rate of about 6% and an average term of about 4½ years excluding a N.D.304,000 loan of 20 years at 2% granted in 1959 for mortgage type financing. For the other loans the maximum term is five years and the rates range from 2% to 7%. Long-term working capital loans outstanding from local banks totalled N.D. 6.7 million at the end of 1967 and averaged 6⅓% and 10 years.

Due to relatively light snow and a short skiing season for the past three years plus credit tightness, Elan has increased its inventory from N.D. 5 million at the end of 1963 to N.D. 20 million at the end of 1967 while sales were growing from N.D. 15 million to N.D. 34 million. Most of this increase in inventories has been financed out of the enterprise's own funds while the growth of receivables has been financed by export credits from the Yugoslav Bank for Foreign Trade and the Kranj Credit Bank.

Elan's current ratio has weakened in recent years to less than 1.5 to 1 but the continued assistance of local banks which support the project submitted to the IBRD and the improvement expected from long-term financing of the project should ease the enterprise's liquidity in the future. Debt service coverage in 1966 and 1967 has been tight and this will continue until 1971 when earnings should increase as a consequence of the project, and debt repayments begin to decrease as a result of the medium-term loans being repaid.

Elan's income statements for the past four years are summarized in Annex 1, page 2. Production volume, sales and earnings for these years are shown below:

Production Volume	1964	1965	1966	1967
Wood skis (pair)	133,176	145,336	114,000	131,624
Metal skis "	9,830	12,310	19,840	30,580
Plastic skis "	288	480	631	5,315
Ski sticks "	42,067	49,673	48,720	51,616
Gym equipment (000/ND)	2,210	2,349	1,584	1,400
Boats (number)	-	135	366	867
Other products (000/ND)	2,012	3,777	4,356	3,763
Sales and Earnings (in million ND)				
Net sales, paid	19.1	24.2	24.1	34.2
Earnings from operations	1.2	2.1	2.1	2.4

Wood ski production outpaced sales in 1965 and was cut back in 1966 to approximately the sales level. In 1967 production again exceeded sales indicating the changing demand to metal and plastic. With more expensive skis, the raw material costs as a percentage of sales have increased which taken with higher wages, taxes, interest and depreciation have produced profits at practically the same level as 1966 and 1965 when sales were considerably less in dinars.

In 1967 production was at capacity, slightly more than double the 1964 production due to increased value of the reinforced skis and to the introduction of plastic boats. The value of gymnasium apparatus produced has decreased and the value of wood skis had increased due to higher prices for better quality, especially the plastic veneer coating and steel tips and runners. The increased sales between 1965 and 1967 are also due to the higher quality and average price. Invoiced sales have shown an increasing trend since 1963 although paid sales (shown on the income statements) have fluctuated due to changes in financing exports which until 1966 were financed by an export agency and are now financed by the enterprise using credits from local banks.

Market, Competition and Prices

Home Market

Yugoslav annual consumption of skis is estimated to be about 300,000 pairs of wood skis, 20,000 pairs of metal skis and less than 1,000 of plastic skis. The total value is about N.D. 32 million, with wood skis accounting for 75% by value. Elan is the only metal and plastic ski producer and has about 60% share of the wood ski sales as well. The other makers DIP and JELA in Delnice are still small manual production shops as was the ski plant in Rijeka which closed down in 1967. These cannot be considered as competitors to Elan, which is going to specialize in the more expensive reinforced skis, which eventually should increase its share of the Yugoslav market as they have done elsewhere in the world.

Domestic sales of Elan have not increased in the last three years due to unfavorable weather for skiing as is shown by the following table:

Domestic Sales by Value
(N.D. millions)

1963	1964	1965	1966	1967
5.1	6.4	12.7	11.8	12.1

As more expensive skis are being purchased at present, the quantity has gone down over the last two years.

Export Market and Competition

The following table indicates the estimated world consumption and production of skis in 1966 together with a rough estimate of rate of growth in demand in the principal consumer countries excluding the USSR for which Elan had no information:

(in 000's pairs)

	Consumption	Annual Growth of Consumption	Makers	
United States	900	about 12 to 15%	Head	120
			Hart	60
			Northland	40
			Others	80
Japan	900	about 10%	Toyo)	
			Kasano)	1,000
			Others)	
Austria	600	8 to 10%	Fischer	360
			Kustle	60
			Kneisel	80
			Blizzard	60
			Others	140
West Germany	600	5 to 6%	Erbacher	100
			Vastra	100
			Others	290
France	200	4%	Rossignol	80
			Others	70
Italy, Czechoslovakia, Yugoslavia	200	3 to 6%	Elan Yugo	135
			Persenico It.	70
			Others (in all 3)	480
Switzerland	200	6%	Attenhofer	50
			Others	90
East Germany, Poland Others	200	-		600
	3,800			4,065

Elan is one of the top five in capacity, though it is second in number of pairs only to Fischer because of the relatively large number of the cheaper wood skis that it makes. The enterprise has an established network of dealers, an organized sales network and an established name as a good quality international producer. The enterprise should have no difficulty in continuing to compete as it does with other makers, especially as its expansion will not increase its capacity much (from 170,000 to 200,000 pairs) but will make Elan capable of very versatile product mix.

Elan gets a 12% tax refund on exports and a special exchange retention quota of 14% since they export more than half their turnover (below a certain limit the retention quota is 7%). These benefits and the priority they get in licenses to import raw materials because they export a large proportion of output, encourage them to promote exports. Elan's requirements of imported raw material now is about 50% of the materials they use (i.e. 30% of total costs). It is expected to be about the same in the future because their change to more sophisticated skis requiring more imported materials will be balanced by development of the local material suppliers in Yugoslavia. These imports of materials should always be less than half receipts from exports.

Prices

The prices of Elan's skis on the home market and exports are shown in the following table (in N.D.):

	Home		Export (FOB Border)	
	1963	1966	1963	1966
Wood skis - Jet	98	138	100	111
- Ski Master	144	174	156	156
- Attache	194	224	194	196
Metal skis - M64200	335	445	475	486
- Super VSL	386	520	500	638
Plastic skis - Snowstar	-	620	663	663

In 1967 prices remained the same as 1966 but trade and cash payment discounts were increased by up to 5 to 8% on certain types of cheaper skis to reduce inventories of goods whose orders were cancelled. Apparently, the export prices quoted above are competitive; retail prices and the usual ranges of markup suggest that they are about right. It is evident that Elan makes use of the 20% import duty into Yugoslavia in the cheaper types which they sell more expensively on the local market. They do, however, sell the more expensive skis cheaper locally, apparently because of their desire not to deprive local skiers (including champions and clubs) of use of quality goods, especially as very few people in Yugoslavia are prepared to pay more than double for the reinforced ski.

Elan is meeting with stiff price competition in Europe, especially in EEC and EFTA countries. The EEC countries impose a 30% duty on Yugoslav ski imports compared to 15% (half) on skis imported from within the group. EFTA duties are three times as much on Yugoslav skis than imports from other EFTA countries. Austria has a 50% import duty on skis to protect its industry. Only the U.S. has no high protection barrier on imports. They are Elan's second largest export market and the enterprise hopes to increase yearly sales there from US$368,000 or 26% of total exports now, to US$800,000 or 30% of total exports after their project, when they can deliver more reinforced skis. Switzerland, another country where import duties are relatively low, is presently Elan's largest export market, taking 27% of their overseas sales (about US$375,000 per year). They are expected to drop to second place behind the U.S. after implementation of Elan's project, but sales will be still much higher than at present - US$600,000 making up 22% of exports.

Elan has no serious price problems in the reinforced skis, in which growth of demand has been somewhat slow (probably because of the weather) in Europe over the last two years. In cheaper skis, Japan is a formidable price setter, selling certain skis as cheap as US$5 to US$6 per pair. Elan has on occasions linked up quantities they supply of cheaper wood skis, which are priced in export virtually at cost, to a number of reinforced skis which their overseas agent must take simultaneously. Elan's plans to concentrate on reinforced skis will ease its overall average price to cost situation.

Description of the Project

Elan's project aims at:

(1) Separating the production lines of wood and reinforced skis so that material flow is improved;

(2) Moving general woodworking and gymnasium equipment production into suitable buildings;

(3) Extending the facilities that are overcrowded at present;

(4) Replacing outdated and manual machines by more modern, automated and specialized ones which are more in line with the scale of operation of Elan.

The project has been engineered by the enterprise's own production technicians and those of its specialized development institute. They have visited various factories to get an idea of the modern technology in use. The machine expositions and makers, which they visited, have also contributed to the engineering of the project, much of which is based on modernized and automated woodworking technology.

The original schedule of execution of the project has been modified to correspond with prevailing circumstances; production and performance projections have been based on the modified schedule.

Cost of the Project

The estimates of the cost of the project are set out below. Most of the equipment is likely to come from Western Europe and the U.S. Import duties are about 35%. Contingency allowances for buildings and equipment have been calculated, based on price increases since estimates were made, and making some allowance for variations.

Elan expects to manage with N.D. 3.5 million of fresh funds for working capital. This would not be possible if working capital after this project had to retain the same proportion to turnover as at present. Elan hopes that turning over of working assets will be more rapid in future. They claim that the present situation is a temporary and unfortunate one caused by relatively poor snow in Europe and Yugoslavia over the 2-3 years and by unfortunate marketing errors in orders by their leading agent (in the U.S.) who has been changed.

Elan Capital Costs

	US$000	N.D.000	
	Foreign	Local	Total
Land - 27,300 square meters	-	164	164
Buildings - 1,500 square meters @ N.D. 880/sq. m.			
- 1,900 square meters @ N.D. 620/sq. m.			
Other buildings, fencing and sewers, etc.	-	3,134	3,134
Contingency on buildings (most prices firm)	-	60	60
Machinery and equipment (to Yugoslav border)	624	2,800	10,600
Insurance, freight, customs and erection	16	3,300	3,500
Contingency on machinery	60	400	1,150
Studies, design and similar expenses	-	282	282
Total Fixed Assets excluding Capitalized Interest during Constrution	700	10,140	18,890
Working capital contribution 1/	120	2,000	3,500

1/ As estimated by Elan on the assumption that stocks will not need to be as high as 1966 and 1967. Foreign exchange costs to be financed from dinar resources.

Project Financing

A summary of Elan's estimated financial requirements and sources of funds during the project's construction period (1968 and 1969) is given below (in million N.D.):

Uses		Sources	
Project	18.9	Liquid assets	2.0
Debt repayment	4.2	Net earnings (1967-1968)	4.9
Reserves and other allocations	1.9	Depreciation	1.9
Additions to working capital	0.1	Long-term debt - IBRD	8.8
		- Other	7.5
Total	25.1	Total	25.1

Detailed earnings and cash flow projections for the construction period and ensuing three years together with the major assumptions are shown in Annex 2.

Project costs of N.D. 18.9 million exclude working capital requirements of N.D. 3.5 million which would be needed in 1970 and will be financed by Elan's local bankers. At the end of 1967 Elan had reserved about N.D.2 million of liquid assets, primarily cash and receivables to cover the project costs. If necessary, credit for the financing of receivables can be obtained from the sponsoring banks thus releasing additional cash for project needs. The long-term loans from domestic banks for not less than N.D. 7.5 million have been arranged.

Earnings and Debt Service Forecasts

Earnings forecast (Annex 2) is based on production and sales estimates prepared by Elan. Sales forecast exceeds production estimates which have been projected taking into account the high 1967 year-end inventory. The sales forecast appears reasonable considering past growth of invoiced sales. Sales from 1964 to 1967 and projections for 1968 to 1972 compare with production and finished goods inventory levels as follows (in million N.D.):

	Actual				Forecast				
	1964	1965	1966	1967	1968	1969	1970	1971	1972
Inventory January 1	1.3	2.3	4.5	6.2	10.3				
Produced	19.2	26.7	31.4	39.1	33.0	35.0	45.0	49.0	56.0
Invoiced	17.9	24.9	30.5	35.6	39.0	39.0	45.0	50.0	55.0
Paid	19.1	23.8	23.8	34.2	36.0	38.0	45.0	50.0	56.0
Earnings	1.2	2.1	2.1	2.4	2.5	2.5	3.1	3.8	4.6

In 1968 production may drop as indicated if inventories at the end of 1967 have not been worked off by mid-1968. However, the uncertainties of the market which depend on the late winter snow, the West European economic recovery and a more sophisticated ski market make projections difficult. The timing of the IBRD loan will also determine the 1968 production plans in preparation for the modernization program. If new equipment is installed in early 1969, 1968 production may be increased for inventory purposes so that sales are not lost if production has to be reduced during the installation period.

Sales prices are projected at current prices with higher quality raw material costs increased as well as wages and depreciation. The assumptions used by Elan were reviewed by the mission and found to be realistic and acceptable.

At capacity operation in 1972, income is projected to increase N.D. 2 million over the 1969 level of N.D. 2.6 million. As a percentage of sales, earnings grow slightly from 7°/o in 1969 to 8°/o in 1972. However, wages, which increase almost N.D. 3 million during the same period, indicate that the real increase in profitability is in fact higher than the earnings figure above indicates.

Debt service is adequate and ranges from 1.3 in 1968 to 3.5 in 1972.

Conclusions

Yugoslavia's important woodworking factories, of which Elan is a leading member, has a growing reputation for quality products. The project for increasing the value of production of this enterprise is justified from several viewpoints. First, Elan is a factory using domestic raw materials, particularly timber and aluminum. Second, the technology developed in the last 20 years would be more efficiently used with greater mechanization making the already well trained workforce more productive and competitive. Third, the increased foreign exchange earnings would benefit the balance of payments. Fourth, the project's contribution to higher earnings and increased wages indicates it is economically sound and viable.

IFC/LAEA
July 26, 1968

ELAN

Comparative Balance Sheets
(In million New Dinars)

As at December 31	1964	1965	1966	1967
ASSETS				
Current Assets				
Cash, banks and near cash	2.4	2.6	5.8	4.9 1/
Trade receivables	1.6	3.8	13.5	16.7 2/
Inventories				
Raw materials and supplies	3.2	4.5	7.0	5.7
Semi-finished products	1.8	3.6	3.9	4.5
Finished products	2.4	4.5	6.2	10.3 3/
Total inventories	7.3	12.6	17.1	20.5
Other current assets 4/	3.6	3.9	19.2	30.3
Total Current Assets	14.9	22.9	55.6	72.4
Gross Fixed Assets				
Land 5/	-	-	-	-
Buildings	2.9	4.8	6.2	6.2
Machinery and equipment	3.0	4.4	5.9	6.7
Fixed assets under construction	1.9	.2	-	.3
Preliminary expenses, patents, etc.	.3	.5	.5	-
Collective consumption assets 6/	.2	.2	-	-
Other fixed assets	-	-	.1	.2
Total Gross Fixed Assets	8.3	10.1	12.7	13.4
Less depreciation	1.8	2.3	3.7	4.1
Net Fixed Assets	6.5	7.8	8.9	9.2
Total Assets	21.4	30.7	64.5	81.6
LIABILITIES				
Current Liabilities				
Short-term debt	2.6	4.9	17.6	19.9
Trade payables	.9	1.9	1.3	7.8
Other current liabilities 4/	5.0	6.1	21.2	27.3
Total Current Liabilities	8.5	12.9	40.1	55.0
Long-term debt	6.6	7.7	11.1	10.2
Funds of the Enterprise				
Business fund	5.2	8.8	11.4	13.1
Reserve funds	.8	.9	1.1	2.0
Collective consumption funds	.3	.4	.8	1.3
Total Own Funds	6.3	10.1	13.3	16.4
Total Liabilities	21.4	30.7	64.5	81.6
Current Assets/Current Liabilities	1.8:1	1.8:1	1.4:1	1.3:1
Long-term Debt/Own Funds	52:48	43:57	46:54	38:62

ELAN

Earning Statements
(In million New Dinars)

	1964	1965	1966	1967
Sales Revenues	19.1	24.2	24.1	34.2
Operating Costs				
Materials and overhead	11.4	14.2	14.1	21.1
Net wages	2.8	3.4	3.5	4.6
Related social payments	1.0	1.2	1.1	1.7
Taxes and contributions	1.7	2.0	1.9	2.6
Total Operating Costs	16.9	20.8	20.6	30.0
Depreciation	.3	.5	.6	.8
Interest	.7	.8	.8	1.0
Net Earnings	1.2	2.1	2.1	2.4
Debt Service Coverage	2.0	1.5	1.5	1.2

Notes to Comparative Balance Sheets

1/ Cash was reduced in 1967 as a consequence of the need to increase other current assets without further increasing the already high debt position.

2/ Trade receivables which increased markedly in 1966 and 1967 are now financed by Elan instead of by its previous export agent.

3/ Finished goods inventory at the end of 1967 was extraordinarily high as a result of the lack of early winter snow, changing demands away from wooden skis, and a build-up of inventory in anticipation of the modernization program which may interrupt production in 1968.

4/ Other current assets and current liabilities include contra accounts for unpaid sales (receivables).

5/ The cost of land as is usual in Yugoslavia is only nominal and too small to be reflected on the balance sheet in millions of dinars.

6/ Unlike most other enterprises Elan does not finance housing and other facilities for its workers. This is a consequence of the rural location of the plant and the relatively small size of the workforce.

IFC/LAEA
May 22, 1968

ELAN

Financial Forecasts
(In million New Dinars)

Year ending December 31	1968 (Construction Years)	1969 (Construction Years)	1970	1971	1972
Earnings Statement					
Sales Revenue 1/	36.0	38.0	45.0	50.0	56.0
Operating Costs					
Materials and overhead	21.7	22.5	26.9	28.6	31.6
Net wages	5.0	5.4	6.0	7.2	8.3
Related social payments	1.8	1.9	2.0	2.2	2.6
Taxes and contributions	3.1	3.4	3.8	4.2	4.7
Total Operating Costs	31.6	33.2	38.7	42.2	47.2
Depreciation	0.9	1.0	1.6	2.0	2.1
Interest	1.0	1.2	1.6	2.0	2.1
Net Earnings	2.5	2.6	3.1	3.8	4.6
Sources and Application of Funds					
Sources					
Net earnings (during the past year)	2.4	2.5	2.6	3.1	3.8
Liquid funds available 2/	2.0	-	-	-	-
Interest	1.0	1.2	1.6	2.0	2.1
Depreciation	0.9	1.0	1.6	2.0	2.1
Increase in long-term debt					
IBRD 3/	3.0	5.8	-	-	-
Banks suppl. fixed assets 4/	4.5	3.0	-	-	-
Banks suppl. working capital	-	-	3.5	-	-
Total Sources	13.8	13.5	9.3	7.1	8.0

1/ Sales based on production program less adjustments for inventory and receivables.
2/ The enterprise expects to reduce receivables and inventories sufficiently in 1968 to obtain necessary cash to meet requirements.
3/ The IBRD loan includes N.D. 0.8 million in 1969 to cover contingencies on the machinery suggested by the IFC mission in the amount of US$60,000.
4/ Local bank loans expected to be for terms similar to IBRD with interest from 7% to 8%.

IFC/LAEA
May 22, 1968

PLAN

Financial Forecasts
(In million New Dinars)

	Construction Years 1968	1969	1970	1971	1972
Applications					
New investment					
Fixed assets					
Foreign 1/	3.0	5.8	-	-	-
Domestic	6.6	3.5	-	-	-
Working capital	-	-	3.5	-	-
Total Investment	9.6	9.3	3.5	-	-
Maintenance and replacements	-	-	0.5	1.0	1.0
Other fixed assets	-	-	-	-	1.5
Interest					
Existing long-term debt	0.6	0.5	0.3	0.2	0.1
IBRD	0.1	0.3	0.6	0.5	0.4
Short-term credits	0.3	0.4	0.4	0.6	0.9
Domestic banks (new investment)	-	-	0.3	0.7	0.7
Total Interest	1.0	1.2	1.6	2.0	2.1
Principal repayments					
Existing long-term debt	2.2	2.0	1.7	1.4	0.2
IBRD	-	-	-	0.3	0.6
Domestic banks (new investment)	-	-	0.4	0.8	1.0
Total Repayments	2.2	2.0	2.1	2.6	1.7
Allocations to reserve funds	0.6	0.7	0.8	0.9	1.0
Allocations to the fund for collective consumption	0.3	0.3	0.3	0.5	0.7
Total Allocations	0.9	1.0	1.1	1.4	1.7
Net additions to working capital	0.1	-	0.5	0.1	-
Total Applications	13.8	13.5	9.3	7.7	8.0
Long-term Debt Service Coverage (times)	1.3	1.5	1.5	2.1	3.5

1/ Due to the nature of the equipment, it may be possible to expedite the approval of orders and the acceptance of contracts in 1968.

IFC/LAEA
May 22, 1968

ELAN

Financial Forecasts - Assumptions and Explanations
Production Volume and Sales Revenue
(In millions of New Dinars)

	Sales		Production											
	1967 (Actual)		1967 (Actual)		1968		1969		1970		1971		1972	
	Qty.	N.D.	Qty.	N.D.	Qty.	N.D.	Qty.	N.D.	Qty.	N.D.	Qty.	N.D.	Qty.	N.D.
Wood skis (000 pairs)	114	12.2	132	14.8	114	13.6	114	13.6	130	15.0	135	15.3	135	15.3
Metal skis "	29	11.4	31	12.6	25	9.0	26	9.4	32	11.5	35	12.6	40	14.7
Plastic skis "	5	1.8	5	2.1	3	1.0	4	1.3	14	5.4	20	7.6	29	11.0
Ski sticks "	40	1.1	52	1.9	40	1.6	40	1.6	45	1.8	55	2.2	65	2.5
Gymnastic apparatus	-	1.5	-	1.4	-	2.5	-	2.9	-	3.8	-	4.3	-	4.3
Boats	800	2.3	900	2.4	400	1.3	600	1.9	600	1.9	800	2.1	1,000	2.2
Other products	-	5.1	-	3.8	-	4.0	-	4.3	-	4.6	-	4.9	-	5.0
Production				39.1		33.0		35.0		44.0		49.0		55.0
Invoiced sales		35.6				38.0		39.0		45.0		50.0		55.0
Paid sales		34.2				36.0		38.0		45.0		50.0		56.0
Of which Exports		N.A.												
Wood skis (000 pair)					90	9.8	90	9.8	95	10.4	100	10.6	100	10.6
Metal skis (")					22	7.8	23	8.2	28	10.0	31	11.3	35	12.8
Plastic skis (")					2.6	.9	3.6	1.2	12	3.9	15	5.7	23.4	9.3
Ski sticks (")					20	.9	20	.9	20	.9	22	1.0	22	1.0
Gymnastic apparatus						.3		.4		.8		1.1		1.1
Boats					400	1.3	600	1.9	600	1.9	400	1.3	400	1.3
Hockey sticks (000)					4	.1	5	.1	9	.2	15	.2	20	.3
Total exports		23.5				21.1		22.5		28.1		31.2		36.4
Export sales														
- Convertible Currencies		21.5				19.3		20.7		26.1		28.7		33.2
- Clearing Currencies		2.0				1.8		1.8		2.0		2.5		3.2

VIKTOR LENAC

The Borrower

The prospective borrower is the ship repair yard "Viktor Lenac" in Rijeka, in the Republic of Croatia. The enterprise was established 70 years ago and has operated since 1948 under its present name. Its main activity is ship repair, both of foreign and Yugoslav vessels, although the yard also has facilities for the reconstruction and conversion of vessels.

The shipyard is licensed by the Government of Yugoslavia to carry out repairs and overhauls in connection with annual and special surveys of vessels, all kinds of damage and wear and tear to the hull and repairs to main and auxiliary engines, electrical gear, rigging, woodwork and cabin furnishings.

Viktor Lenac's total assets on December 31, 1967 were N.D. 203 million (US$16 million) and its sales revenue in 1967 amounted to N.D. 67 million. The enterprise employs a labor force of 980, but the use of sub-contractors may increase the number of workers employed in the yard to as many as 1,200.

The proposed project represents the second stage of the enterprise's development plan for the bay of Martinscica, where the major part of the repair work will be carried out in the future. It comprises the construction of 280m of wharf and of two prefabricated steel workshops, and the installation of new machines and equipment intended partly to meet existing deficiencies in metal-working facilities and partly to replace obsolete equipment. The capacity of the compressed air system will be doubled and a boiler plant installed. The total cost of the project, excluding interest during construction and additional working capital, is estimated at N.D. 22 million (US$1.76 million) of which some US$0.4 million is required in foreign exchange. IBRD has been requested to provide this amount.

History of the Borrower

Construction of the seaport of Rijeka (then part of Austria- Hungary) was begun by the Hungarian government in 1846. All major repair work was until 1896 carried out by the navy arsenal in Pula. In that year Mr. Joseph Lazarus was granted a license to set up a ship repair yard in Rijeka. The yard was located at the beginning of the main breakwater, where it still is today. In 1923 as a result of the partition of the town under the Rome Treaty, a part of the yard fell under the Italian jurisdiction and only the part in Yugoslav territory continued to carry out regular ship repair work. The yard suffered severe damage during World War II.

Prepared by A. R. Perram and J. W. P. Jaffe.

The main occupation during the immediate aftermath of the war was to clear the harbor of sunken ships and mines and to reconstruct the damaged steel structures in the town. On January 1, 1948 the shipyard began normal work again under the name of "Viktor Lenac."

With the steady increase of cargo traffic through Rijeka, greater use was made of the enterprise's yard. A floating dock was added to the basic equipment and subsequently lengthened to provide a lifting capacity of 5,500 tons. However, as bigger ships began to enter the harbor, it became apparent that the capacity of the dock was inadequate and this forced the enterprise to reject a considerable number of requests for repairs.

In 1960 plans for a fundamental yard reconstruction scheme were drawn up. Since space limitations prevented the widening of the yard in Rijeka harbor, the enterprise chose the nearby Bay of Martinscica as the site of a completely new yard. This bay which forms a natural harbor is three miles east of the present yard and lies between the port of Rijeka and the new iron ore and oil terminal at Bakar. Because of financial limitations the plan was divided into several stages. The first stage, which included the construction of a 220m long breakwater and a 495m long east wharf and the installation of a new floating dock with a lifting capacity of 24,000 tons complete with two 15-ton cranes and two luffing cranes on the east wharf was completed in 1967. The second stage constitutes the project for which an IBRD loan is requested.

The enterprise is one of six members of "Jadranbrod", together with shipyards at Rijeka, Pula, Split, Kraljevica and Trogir which formally associated in February 1968 with the object of improving employment, reducing cost and enabling further modernization and reconstruction to be carried out. Viktor Lenac affirms that the new agreement will not affect its present expansion plans in any way, as these were fully reviewed and accepted prior to the formation of the coordinating association.

Management

The General Manager of the enterprise is Mr. Sergio Lukes, by profession a naval architect, with 11 years of experience in the industry. The Technical Department is headed by Mr. Josip Tolja, a naval architect with 18 years of experience and the Commercial Department by Mr. Tito Kresic. Mr. Pavle Mavrinac, an economist with 22 years of experience is responsible for financial management.

The management team appears to be well informed and providing the right kind of leadership in an industry where labor management is of great importance.

Recent Financial and Earnings Record

Balance sheets for the past four years (1964-1967) are shown in Annex 1. Viktor Lenac's balance sheet as at December 31, 1967 is summarized below (in million N.D.):

Cash and equivalent	19	Short-term bank debt	7
Trade receivables	12	Trade payables	4
Inventories	16	Other current liabilities	28
Other current assets	16	Total current liabilities	39
Total current assets	63		
		Long-term debt	104
Net fixed assets	140	Business fund and reserves	60
	203		203

Since the end of 1964 the enterprise's gross fixed assets have increased from N.D. 50 million to N.D. 166 million of which some N.D. 10 million was the consequence of the revaluation of assets in 1966. The balance of N.D. 114 million is due to the completion of the new dry dock, quays, bridge, breakwater, building adaptations, workshops, compressors and preparatory work for the project to be financed. The increase in fixed assets was financed by a N.D. 35 million, 30-year, 7% loan from the Rijeka Banka, N.D. 29.6 million from the Yugoslav Bank for Foreign Trade for 8 years at 6.7% interest and an 8.5 million Dutch guilders (N.D. 29.2 million) suppliers' credit from Verolme Vereenigde Scheepswerven N.V., Rotterdam for 7 years at 6% interest. The balance of the fixed assets were financed from internally generated funds.

The growth of current assets has been modest and reflects the growth of business in recent years. Spare parts inventory has been somewhat of a problem for the yard as the parts are not obtainable in Yugoslavia and relatively large quantities must be kept in stock. The growth in current assets is also attributed to inflation over recent years and the policy of keeping larger balances in bank accounts. The current ratio of 1.6:1 at the end of 1967, however, was comfortable and the working capital of N.D. 24 million considered adequate.

The long-term debt/own funds ratio which was 1:1 at the end of 1966 has increased to 1.7:1 at the end of 1967 as a consequence of the debt financing mentioned above. The further incurring of debt will aggrevate this ratio but the 30-year term of the N.D. 35 million loan from the Rijeka Banka, the stable earnings pattern and the possibility of a combination of short-term debt and phasing of renewals and replacements, if necessary, indicate the enterprise is capable of assuming the proposed additional long-term debt.

Viktor Lenac's earnings statement for the years 1963 to 1967 is shown in Annex 1. A breakdown of the productive effort in terms of hours worked and paid sales and net earnings for the years 1963 to 1967 is summarized below:

	Productive Effort in Thousand Hours Worked				
	1963	1964	1965	1966	1967
Repair of Yugoslav vessels	714	714	695	384	
Repair of foreign vessels	106	116	255	522	
New construction	21	18	-	-	
Non-ship repair work	55	85	39	20	
Work for enterprise	441	470	539	632	
Total	1,337	1,403	1,528	1,558	N.A.
	Sales and Earnings (N.D. millions)				
Net paid sales	27.9	36.0	55.8	73.6	67.3
Net earnings	1.2	7.8	13.4	14.2	10.0

The hours listed above are only those worked by the enterprise's own employees and not by sub-contractors' men. New construction refers to river barges and sailing boats, a number of which were built by the enterprise in 1963 and 1964. Since 1965 all the productive effort has been concentrated on ship repair. Work performed for the enterprise refers to the hours spent on the expansion program.

Net paid sales in 1967 amounted to N.D. 67.3 million, a decrease of N.D. 6.3 million compared with 1966, while net earnings declined by N.D.4.2 million to N.D. 10.0 million. The reduction in sales, following four years of growth, is almost entirely due to the crisis in the Middle East and the resulting closure of the Suez Canal, the immediate effect of which was to bring about a temporary decrease in shipping traffic in the Mediterranean and consequently in the number of ships needing repairs. The enterprise claims, however, that there are sure signs that shipping traffic is adjusting to the situation and that the demand for its ship repair service will be in line with the forecasts. Despite the drop in sales of N.D. 6.3 million, earnings from operations (before interest, depreciation and taxes) decreased only N.D. 1 million in 1967. Interest and depreciation increased N.D. 1.5 million each in the year as a consequence of the expansion program.

The revenue forecasts for the years 1968 to 1971, shown in Annex 2 take into consideration the fact that the Suez Canal may continue to remain closed for a considerable time and that when it is reopened, the large tankers and cargo vessels which have recently been put into service or are currently under construction will, in view of their size, continue to sail around the Cape of Good Hope on their way to and from the Persian Gulf and Far East. Despite these negative influences, the enterprise estimates that the yard will be operating at capacity. In the absence of unforseen developments affecting the traffic pattern into Rijeka harbor this forecast appears reasonable.

Rijeka Harbor

Rijeka, which includes the ports of Rijeka, Susak and Bakar, is the largest and busiest port in Yugoslavia in terms both of the tonnage of ships arriving and of the goods traffic passing through the port. The port facilities consist of 5,300 m quays, 3 breakwaters, 54 cranes, several tugboats and numerous large warehouses. The port has all public services as well as branch offices of the more important registers of shipping. A section of the harbor space is used by the neighboring landlocked countries of Austria, Czechoslovakia and Hungary and there are good railroad connections linking Rijeka to these countries. The volume of traffic in Rijeka in the years 1961 to 1966 is shown by the following statistics:

	Ships Arriving	Goods Traffic (000's tons)				
Year	(in 000's NRT)	Coastwise	Export	Import	Transit	Total
1961	4,384	350	525	1,886	1,298	4,059
1962	4,547	295	567	2,315	1,468	4,645
1963	4,959	484	625	2,614	2,220	5,943
1964	4,771	479	618	2,560	2,183	5,840
1965	5,235	645	603	2,579	2,376	6,203
1966		1,092	1,145	3,811	2,339	8,387

The new port of Bakar, which is presently being developed, is planned to become Rijeka's bulk and liquid cargo basin. It has iron ore handling facilities with a present capacity of two million tons per annum and an ultimate capacity of three million tons per annum. It is the terminal of an oil pipe line supplying the refineries at Sisak, Pancevo and Hungary, now in course of construction, with an initial capacity of 10 million tons per annum and an ultimate capacity of 15 million tons per annum. Bakar is also the site of an oil refinery with a present capacity of two million tons and an ultimate capacity of three million tons per annum.

Market and Competition

In the ship repair industry the cost of labor is by far the most important element of the total operating cost. The experience of Viktor Lenac shows that the cost of materials lies between 20% and 27%, depending on the number of ship conversions being performed at the time. Thus the cost of labor is the key to the enterprise's competitive position in relation to foreign yards.

The enterprise's assessment of its prospects is based on the following considerations:

(a) The Yugoslav fleet has been growing fast in recent years and now totals 346 ships of 1,079,400 gross tons.

(b) The increase in harbor traffic in Rijeka. There is a direct correlation between harbor traffic and the demand for ship repair and reclassification work.

(c) The increasing bulk cargo and tanker traffic which is expected to use the port of Bakar.

(d) The new fuel oil pipeline from Trieste to Ingolstadt near Munich which has a planned capacity of 52,000,000 tons per annum and is bringing more tankers into the North Adriatic.

(e) The fact that improved facilities would enable the enterprise to carry out repair work more quickly and thus obviate its having to reject requests for repair jobs.

(f) The enterprise's established relations with ship owners of thirty nations which are expected to serve as a solid base on which to develop further trade.

The enterprise's main competitors are Adriatic and Mediterranean yards, the closest ones being the Italian yards at Trieste, Venice and Taranto, the Greek yards at Piraeus and Skaramanga and the Maltese yard at La Valetta. All these yards are located on well frequented merchant navy trade routes and are equipped with good repair facilities. In addition negotiations are currently understood to be going on between the Hellenic shipyard in Greece and Ishikawajima-Harima Heavy Industries of Japan with the view to enlarging the docks to take 160,000 ton ships.

Competition in the ship repairing industry depends largely on the trend in freight rates. In periods of heavy chartering short ship repair times tend to be more important,in view of the high demurrage on large modern ships, than the actual cost of the repair work. In such periods arrangements are made as far as possible to start the work while the vessel is still discharging its cargo and Viktor Lenac is well placed to take advantage of this situation. On the other hand, when chartering of merchant ships is light, the price quoted by the shipyard is decisive. For both sets of circumstances modern facilities afford the best means with which to meet competition.

The enterprise has carried out a survey of prices charged and rates quoted in a number of European yards in the period 1965 through 1967, the results of which are summarized below:

Average Prices per Working Hour in US$

Year	Italy	Netherlands	Britain	Viktor Lenac
1965	3.3	-	-	2.6
1966	4.0	-	-	2.8
1967	4.5	4.8	4.8	3.4

Representative rates for some of the more common items of repair work currently being quoted by Italian and Greek yards and Viktor Lenac are as follows:

	Average Price in US$		
	Italy	Greece	Viktor Lenac
Bottom rust scaling (sg. m)	1.60	1.65	1.45
Bottom cleaning and coating with 3 coasts of paint (sq. m)	0.44	0.50	0.44
Bottom valves overhaul (item)	44.00	58.00	40.00
Renewal of fair plates (kg)	1.00	0.89	0.72
Renewal of keel plates (kg)	1.00	0.94	0.84

The inference to be drawn from these selected statistics is that Viktor Lenac enjoys a strong competitive position vis-a-vis neighboring foreign yards.

Competition from other Yugoslav yards is regarded as slight. At present 50% of Yugoslavia's repair capacity is located in Rijeka, 25% in Trogir near Split and 25% in other small yards. However, most of the other yards carry out ship repair alongside and subordinated to shipbuilding. The "Jozo Lozovina Mosor" yard at Trogir is a party to the recently completed association which should result in a degree of rationalization and specialization of the two yards.

The proportion of export earnings in relation to the enterprise's total income is shown in Annex 3. It will be seen that after a rapid increase in the years 1962 through 1966, aided by the Economic Reform of 1965, the enterprise expects export earnings to stabilize at about 54% of total income, with convertible currency earnings constituting 22% of export earnings or 12% of total earnings.

The reason for the high proportion of clearing currency earnings to total export earnings is twofold. First, the accounts of a certain number of Greek, Spanish and Israeli ship owners are settled in clearing currency.

Second, ships under the flags of Eastern European countries tend to plan their inspection surveys and overhauls farther ahead than ships of Western European countries which request dock facilities as and when they have free periods. Since the enterprise had only one floating dock up to September 1967, the repair facilities were often booked well in advance by Eastern European vessels. Consequently, rejections of requests for dock space mostly were to Western European ships. The enterprise expects that the effect of the second floating dock will be to halve the number of rejections and increase the ratio of convertible to clearing currency earnings.

Description of the Project

The proposed project is for the expansion and improvement of the enterprise's ship reapir facilities in the Bay of Martinscica. It is designed to reduce costs by shortening present repair time and occupancy of the floating dock and thereby permit the enterprise to accept an increased number of vessels for repair.

The main elements of the project are -

(1) A new wharf connecting the western and northern shores of the Bay. This will enable power lines from the main sub-station to supply the west wharf and shore and do away with the existing duplication of equipment. It will also eliminate the expense and inconvenience of maintaining a boat specifically to service the west shore;

(2) Two new prefabricated steel workshops of 4,000 and 1,000 m^2 plan area respectively, complete with overhead travelling cranes, ventilation and mechanical and electrical services. These will house the new mechanics and engineers workshop and platers workshop;

(3) A combination plate roller capable of bending or fairing plates up to 35 mm thickness and a number of ancillary jigs and tools;

(4) A series of larger and more modern lathes than the existing;

(5) A cathodic protection system designed to prevent electrolytic corrosion of the structure of the enterprise's two floating docks;

(6) A doubling of the capacity of the compressed air system and the installation of a boiler plant for steaming out ships fuel oil tanks;

(7) Fire fighting equipment to extinguish fires in the engine rooms of ships.

Future development plans include the completion of the west quay, the construction of a second breakwater, the installation of rubber fenders, pull lifts and additional metal working machines. The enterprise may ultimately construct a graving dock.

Cost of the Project

The cost of the project, excluding additional working capital and interest during construction, is estimated at N.D. 22 million (US$1.76 million). The cost of the civil work is based on the estimate prepared at the time the design was prepared, and equipment prices are based partly on quotations and partly on the enterprise's experience. The cost of imported equipment of US$400,000 for which an IBRD loan is sought represents the upper limit of possible equipment imports and may be reduced with a corresponding increase in the cost of domestic equipment. The estimate contains no contingency provision as such, but the enterprise has made appropriate allowances under each heading. A summary of the project cost is as follows:

	Foreign Exchange US$000's	Local Currency N.D.000's	Total Expressed N.D.000's
Civil engineering and building work	-	8,470	8,470
Steel structure and equipment	400	6,000	11,000
Customs duties	-	1,250	1,250
Transport and insurance	-	250	250
Engineering and other	-	1,030	1,030
Total	400	17,000	22,000

Project Execution Schedule

The enterprise's financial forecasts shown in Annex 2 assume that the project will be complete during the second half of 1969. In view of the fact that the enterprise has already prepared its designs and specifications and that construction is projected to take only 12 months, this appears to be a realistic target.

Project Financing

A summary of estimated financial requirements and sources of funds during the period of construction for this project is given below (in million N.D.):

Uses		Sources	
Project (fixed assets)	22	Net earnings	27
Other assets including renewals and replacements	6	Depreciation	13
Debt repayment	20	Long-term debt	22
Reserves and other allocations	9		
Additional working capital	5		
	62		62

Detailed earnings and cash flow projections for the period 1968-1972 are contained in Annex 2. The original financial plan submitted to the Y.I.B. requested US$1 million from the IBRD loan. During the appraisal it became apparent that only a maximum of US$400,000 would be eligible for Bank financing as the balance would be procured locally or from non-IBRD member countries. Thus, a financial gap remained to be filled. As a result of discussions among the enterprise, the Rijeka Bank and Y.I.B., a new financial plan was devised which included N.D.3.5 million from the Y.I.B. which was not originally requested to provide more than the IBRD funds, N.D. 13.5 million from the Rijeka Bank which earlier had agreed to lend N.D. 9.5 million and N.D. 5 million ($400,000) from IBRD funds. Thus the gap of N.D. 7.5 million was filled between Rijeka Bank (53%) and Y.I.B. (47%).

Of the total funds required during the construction period, 65% is to come from the enterprise's cash generation and the balance from loan funds. As mentioned earlier, the heavy reliance on debt financing is eased by the terms granted by the Rijeka Bank (30 years) on the N.D. 35 million loan. Thus, the debt repayment during the next few years is lower than would be otherwise the case with a 64:36 long-term debt/own funds ratio which existed at the end of 1967. As the amount of new debt is only slightly more than that which will be retired during the construction period, the ratio will not worsen and in fact should improve as the enterprise's own funds will increase during the period.

The additional working capital requirements are not related directly to the project as the overall expansion program, of which the project is only one phase, cannot be separated in regard to working capital. The primary additions to working capital, as in the past, are expected to be raw materials and spares.

Earnings and Debt Service Coverage

Earnings projections (Annex 2) are based on forecasted growth of ship arrivals and the increased capacity to handle repairs as a result of the expansion program. Wage rates are expected to increase from an average of US$93 per worker per month to US$128 per month by 1971. At the same time the work force is expected to grow from an average of 950 to 1,230. Material and overhead figures include maintenance expenses, rents, insurance and payments to cooperating enterprises for material and labor. Increases in depreciation and interest reflect the larger fixed assets and the high debt incurred for their financing.

The maximum debt service requirements during the period 1968-1972 falls in 1971 when the new loan begins repayment. The debt service coverage ranges from 1.3:1 to 2:1 and is lowest in 1968. Future debt service coverage improves in 1969 to 2:1 and stays at this level primarily due to the stable net earnings which are not expected to match the growth in revenue as a consequence of the increased wages. As in other Yugoslav enterprises, wages are related to productivity and to cash available. If necessary, funds which are projected for increased wages will have to be used to meet the enterprise's obligations.

Conclusions

The expansion of needed ship repair facilities in Rijeka with its experienced labor force and competitive cost structure is based on Yugoslavia's natural economic advantages - geographical location and labor costs. Port development is of high economic priority in Yugoslavia and Rijeka's volume of business should not be unduly affected by other Adriatic port developments. As the natural outlet for Austria, Czechoslovakia and Hungary as well as Croatia, the long-term effect of the expected growth of other ports such as Bar (as a consequence of the IBRD financed Belgrade-Bar Railroad) and Ploce (also financed by the Bank) should only relieve the congestion and overcrowding in Rijeka. Competition from other Mediterranean and Adriatic ports may affect Rijeka in the long run but the established relations with its clients and its productive labor should enable Viktor Lenac to maintain its utilization of capacity and to make maximum use of its economic advantages.

IFC/LAEA
July 26, 1968

VIKTOR LENAC

Comparative Balance Sheet
(In millions of New Dinars)

	1964	1965	1966	1967
ASSETS				
Current Assets				
Cash, banks and near cash	3.0	10.0	20.4	18.6
Trade receivables	5.6	9.2	11.6	12.0
Inventories				
Raw materials and supplies	5.9	9.4	12.1	12.0
Work in process	1.6	2.4	1.4	4.2
Total inventories	7.5	11.8	13.5	16.2
Other current assets 1/	9.7	12.0	14.1	16.5
Total Current Assets	25.8	43.0	59.6	63.3
Gross Fixed Assets				
Land 2/	-	-	-	-
Buildings (quays, wharfs)	4.3	4.3	30.1	38.0
Machinery and equipment	26.9	27.5	33.6	80.8
Fixed assets under construction	13.9	24.4	28.3	40.1
Collective consumption assets	4.4	7.0	3.7	7.6
Total Gross Fixed Assets 3/	49.5	63.2	95.7	166.5
Less depreciation	19.4	20.2	24.9	26.9
Net Fixed Assets	30.1	43.0	70.8	139.5
Total Assets	55.9	86.0	130.4	202.8
LIABILITIES				
Current Liabilities				
Short-term debt to banks	-	-	1.5	7.5
Trade Payables	1.0	1.9	2.1	3.6
Other current liabilities 4/	17.6	20.3	23.3	27.5
Total Current Liabilities	18.6	22.2	26.9	38.6
Long-term debt	19.0	27.4	49.8	104.3
Funds of the Enterprise				
Business fund	14.5	30.5	49.9	55.6
Reserve funds	.7	.7	.9	1.4
Collective consumption funds	3.1	5.2	2.9	2.9
	18.3	36.4	53.7	59.9
Total Liabilities	55.9	86.0	130.4	202.8
Current Assets/Current Liabilities	1.4:1	1.9:1	2.2:1	1.6:1
Long-term Debt/Own Funds	51:49	43:57	48:52	64:36

IFC/LAEA
May 22, 1968

VIKTOR LENAC

Notes to Comparative Balance Sheet

1/ Includes wages, materials, etc., relating to invoiced but unpaid sales, prepaid expenses and other current liabilities.

2/ Land was valued on the balance sheet at N.D. 108,000 at the end of 1967.

3/ Increase in fixed assets reflects the expansion program described in the appraisal report. Little revaluation was taken in 1966.

4/ Includes contra accounts for items included in current liabilities relating to unpaid sales, accrued expenses and obligations incurred in connection with workers' housing.

IFC/LAEA
May 22, 1968

VIKTOR LENAC

Earnings Statement
(In millions New Dinars)

	1964	1965	1966	1967
Sales Revenue[1/]	36.0	55.8	73.6	67.3
Operating Costs				
Materials and overheads[2/]	15.5	25.3	35.6	30.9
Net wages	5.9	8.9	12.5	12.2
Related social payments	2.4	3.1	3.7	3.6
Taxes and contributions	3.6	4.4	5.0	5.6
Total Operating Costs	27.4	41.7	56.8	52.3
Depreciation	0.7	0.7	0.9	2.3
Interest	0.3	0.3	1.6	3.2
Net Earnings from Operations	7.6	13.1	14.3	9.5
Non-operating earnings	0.3	0.4	0.5	0.8
Non-operating expenses	0.1	0.1	0.6	0.3
Net Earnings	7.8	13.4	14.2	10.0

1/ On basis of paid sales.
2/ Includes all maintenance expenses, rents, insurance premiums and payments to cooperating enterprises for materials and labor.

IFC/LAEA
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VIKTOR LENAC
Financial Forecast
(In million New Dinars)

	1968	1969	1970	1971	1972
Earnings Statement					
Sales Revenue 1/	94	105	115	119	122
Operating Costs					
Materials & Overhead	40	43	45	46	47
Net Wages 2/	13	16	21	24	25
Related Social Payments	4	5	7	7	7
Taxes & Contributions	8	9	10	10	10
Total Operating Costs	65	73	83	87	89
Depreciation	6	7	7	7	7
Interest	6	6	6	7	6
Net Earnings from Operations	17	19	19	18	20
Sources & Application of Funds					
Sources					
Net Earnings (previous year)	10	17	19	19	18
Interest	6	6	6	7	5
Depreciation	6	7	7	7	7
Increase in Long-term Debt					
IBRD	-	5	-	-	-
Y.I.B. and Rijeka Bank	6	11	-	-	-
Total Sources	28	46	32	33	30
Application					
New Investment					
Fixed Assets (foreign)	-	5	-	-	-
Fixed Assets (domestic)	6	11	-	-	-
Total Project	6	16	-	-	-
Renewals & Replacements 3/	-	3	6	6	5
Other Fixed Assets 4/	-	2	1	2	1
Interest:					
Existing Long-term Debt	6	6	5	5	4
IBRD	-	-*	-*	-*	-*
Other banks	-	-	1	2	2
Total Interest	6	6	6	7	6
Principal Repayments:					
Other banks	11	9	9	10	10
IBRD	-	-	-	-*	-*
Total Repayment	11	9	9	10	10
Allocated to Reserve Fund 5/	1	3	3	2	2
Collective Consumption Fund 6/	2	3	3	3	3
Sub-total	3	6	6	5	5
Net Increase in Working Capital 7/	2	4	4	3	3
Total Application	28	46	32	33	30
Long-term Debt Service Coverage 8/	1.2	2	2	1.9	1.9

* Less than ND 1 million.

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VIKTOR LENAC

Notes to Financial Forecast

1/ On basis of manhours.

2/ On basis of per capita monthly wages of N.D. 1,166 in 1968, N.D. 1,270 in 1969, N.D. 1,500 in 1970 and N.D. 1,600 in 1971.

3/ Old and deteriorating equipment will be replaced as earnings permit.

4/ Completion of facilities (second breakwater and civil works) at the Bay of Martinscica.

5/ Allocation to reserve fund designed to provide an amount 50% higher than average monthly gross wages.

6/ Collective consumption fund to be used to continue contracting apartments for labor force.

7/ Working capital to improve credit facilities for longer repairs.

8/ A long-term agreement was signed on November 4, 1967 with Shipping Co. Jugoslavenska Linizski Plovidba, Rijeka, according to which Viktor Lenac can buy US$560,000 each year to cover foreign exchange requirements.

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VIKTOR LENAC

Foreign Currency Revenue in Relation to Total Revenue

Year	Total Revenue (ND millions)	Foreign Currency Revenue (ND millions)	Foreign Currency Revenue (% of Total)	Convertible Currency Revenue (ND millions)	Convertible Currency Revenue (% of F.C.)	Clearing Currency Revenue (ND millions)	Clearing Currency Revenue (% of F.C.)
Actual							
1963	27.9	3.6	12.9	1.5	41.7	2.1	58.3
1964	36.0	5.2	14.4	1.1	21.2	4.1	78.8
1965	55.8	20.0	35.8	1.7	8.5	18.3	91.5
1966	73.6	49.7	67.5	8.7	17.5	41.0	82.5
1967	67.3	42.9	63.7	4.3	10.0	38.6	90.0
Projected							
1968	94.0	56.4	60.0	8.5	15.1	47.9	84.9
1969	104.7	59.7	57.0	11.3	18.9	48.4	81.1
1970	115.4	62.4	54.1	13.7	22.0	48.7	78.0
1971	118.9	62.9	52.9	13.8	22.0	49.1	78.0

IFC/LAEA
May 22, 1968

NOVOLES - LESNI KOMBINAT, NOVO MESTO

The Borrower

The prospective borrower NOVOLES LESNI KOMBINAT is an enterprise which operates two saw mills, a plywood and veneer manufacturing plant, and manufactures chairs and other wooden products such as veneer packing cases and parquet flooring. Except for one saw mill at Soteska, the main production facilities are located at Straza near Novo Mesto approximately 75 km from Ljubljana just off the Ljubljana - Zagreb highway. Soteska is approximately 6 km from Straza. The main plant has a railway siding connecting it to the Ljubljana-Karlovac main railway line. Raw materials, primarily beechwood logs, are available in abundance from the surrounding forests; the average hauling distance to the saw mills being about 30 km.

The enterprise was established in 1954 by the merger of three wood working enterprises, one of which, a saw mill, has been in operation since 1870.

In 1967, Novoles produced about 21,800 cubic meters of sawn timber, 6,400 sq. meters of plywood and blockboard, 1,650 cubic meter of veneer, 106,000 chairs, 89,000 sq. meters of parquet flooring and other miscellaneous wooden products. Total sales amounted to N.D. 36.0 million ($2.88 million) of which N.D. 21.3 million or 59% was export sales primarily to convertible currency areas. Of local sales, plywood and veneer amounted for about 29.5%, sawn timber about 24% and chairs about 22.6%. Novoles has 912 employees.

The project under consideration has three principal aims: (a) modernization of saw milling operation closing down the old saw mills at Soteska and Straza and installing new facilities at Straza in the vicinity of the main plant; (b) doubling of the plywood plant capacity: (c) rationalization of the chair manufacturing capacity by addition of balancing plant and equipment. The project also envisages expansion of the boiler house and power station to meet the increased demand of process steam and power.

Total project costs are estimated at N.D. 20.9 million ($1.67 million) excluding interest during construction. IBRD has been requested to finance the foreign exchange component of this cost which is estimated at $ 852,000.

History of the Borrower

Novoles was constituted in its present form in 1954 by the merger of three enterprises, a saw mill at Soteska, a saw mill at Straza, and a small wood working enterprise at Novo Mesto.

Prepared by A. Bandy and M. V. Dehejia.

The Soteska saw mill was established by Italian interests in 1870 to exploit the forest reserves of the surrounding regions. The mill produced annually about 3,000 cubic meters of sawn lumber primarily for the Trieste market. Operations were suspended during the last war. Subsequently, the mill was taken over and operated by the State Forest Administration for 3 years during which time the buildings were reconstructed. From 1949 till the merger with Novoles in 1954, the mill operated under the names LIP STRAZA and LIP NOVO MESTO. Current saw mill capacity is about 16,500 m^3 of lumber per annum. In 1958 Novoles installed veneer production facilities at the mill; it currently produces about 1,000 m^3 of veneer.

The Straza saw mill was established in 1923 and has a current capacity of about 10,000 cubic meters of sawn lumber per annum. Production of parquet flooring and veneer boxes was started at this mill in 1935 with an initial capacity of about 3,600 m^3 per annum. After the merger with Novoles in 1954, the parquet and box production facilities were transferred to new premises nearby and the capacities considerably expanded. Currently the enterprise produces about 89,000 m^3 parquet flooring and about 530,000 m^3 of boxes per annum.

The third unit which merged into Novoles was a manufacturer of toys, clothes hangers and sundry small wooden articles. It was established in 1947 and operated in a disused textile mill building in Novo Mesto.

At the time of its formation, Novoles was primarily a producer of sawn lumber. During the first few years, the production facilities were reorganized and production of parquet flooring and veneer boxes was considerably expanded by installation of new equipment. Production of light furniture was also commenced on a small scale. In 1959 Novoles constructed a new wood panel manufacturing plant at Straza with an initial capacity of 4,800 m^3/year of plywood. By 1966 the installed annual capacity was increased to 5,200 m^3 plywood, 2,200 m^3 veneer and 600 m^3 of blockboard.

In 1964 Novoles commenced construction of a new plant for the production of solid wood furniture such as rocking chairs, colonial chairs and coffee tables. The plant located adjacent to the wood panels plant commenced production in 1966.

The enterprise is continuing its program of modernizing and expansion of its production facilities. Currently it is constructing a new log storage yard with modern material handling facilities in the vicinity of the plywood and furniture plants and close to the location of the proposed new saw mill.

The enterprise is a member of POSLOVNO ZDRUZENJE LES, Ljubljana, a business association of Slovenian woodworking industries. Novoles works in close cooperation with STOL, Kamnik, particularly in regard to production of chairs.

Management

Mr. Joze Knez, the present General Manager, has over 26 years of experience in the timber business and has been General Manager of the enterprise since its inception except for a brief period when he was a full-time President of the Business Association Les. He continues to be President of the Association. Mr. Knez is assisted by an able team of technical, commercial and financial managers. The Chief Engineer is Mr. Mirko Pecar who has about 20 years of experience in his field and has been with Novoles for about nine years. The Sales Manager, Mr. Michael Sustar, has been in the enterprise since 1946 while the Finance Manager, Mr. Stane Sulm, joined Novoles in 1963.

Market and Sales

By value of sales, sawn timber, plywood and chairs are Novoles' important products accounting for roughly 62% and 67% of total invoiced sales in 1966 and 1967, respectively. During the coming years, direct sales of sawn timber are expected to diminish as increasing quantities will be required for the enterprise's own operations. Detailed sales projections of the main product groups are shown in Annex II. The important products in the future will be plywood and chairs which together are expected to account for approximately 60% of total invoiced sales from 1970.

Market for Plywood and Veneer (See also Appendix11,page 3)

The major end-uses for plywood are in the building and furniture industry, while veneer is almost exclusively consumed by the furniture industry. A small percentage of veneer is used in the light packaging industry to make such products as matchboxes, fruit boxes, cheese boxes and baskets.

The following table gives an analysis of domestic end-users for plywood in 1965 and a projection for 1970 made by the Economic Chamber for the Forestry and Woodworking Industry, Belgrade.

Consumption of Plywood by Yugoslav Industries

	1965 (m3)	1970 (m3)
Furniture (including doors & panelling)	59,030	97,900
Construction/Building	7,000	61,000
Handicrafts	7,520	12,840
Agriculture	1,300	7,150
Shipbuilding	4,340	6,250
Railway Wagons	810	4,860
Total Domestic Consumption	80,000	190,000

As regards veneer, the Economic Chamber has estimated, based on the growth of demand for plywood, that the demand for veneers will increase to approximately 400,000 cu. meters by 1970 of which 10% or 40,000 cu. meters will be for decorative veneers.

In order to meet the increased demand of about 80,000 cu. meters of plywood and 200,000 cu.meters of veneer (of which, approximately 12,000 cu.meters will be decorative veneer) several companies including Novoles have planned for expansion of capacity. As far as is known at the moment, there are firm plans for installing an additional 59,000 cu.meters of plywood capacity and 10,900 cu.meters of decorative veneer capacity.

In addition to local demand, there is expected to be an increased demand in the export market particularly in Europe and the Mediterranean countries. According to a report published in January 1966 by the GATT International Trade Center, European consumption of both plywood and veneer is expected to more than double between 1960 and 1975, to reach 6.1 million cu.meters for plywood and 2.6 million cu.meters for veneer. Though increasing sharply, European production has not been able to meet the growing demand and Europe as a whole is a net importer of plywood and veneer.

Although in recent years plywood has had to face severe competition from other wood based panels such as fiber board and particle board and from plastic substitutes, it is forecast that only the thicker types of plywood (especially blockboard and thick multiply plywood of thicknesses over 2 cm.) will suffer from this competition, while thinner plywoods such as those manufactured by Novoles will retain their major outlets.

While veneer used in the packaging industry faces competition from paper and plastic substitutes, there is no real threat to the decorative veneer market.

The major importers of Yugoslav plywood and veneer are:

U.A.R.	33.1% (of total Yugoslav exports)
Greece	19.7%
Italy	16.4%
Swizerland	12.4%
Hungary	7.2%
U.K.	5.1%
Others	16.1%

Novoles, after the proposed expansion, will account for less than about 5% of the total plywood and veneer production in Yugoslavia. Because of its high quality product and excellent reputation in the market, the Company should have no difficulty in marketing its total production either in the domestic or export markets.

In 1967, Novoles exported approximately 2000 cu. meters of plywood, 75 cu. meters of blockboard and 1600 cu. meters of veneer mainly to Italy and small quantities to Tunisia, Egypt and Libya. Exports to Italy are competitive because of the enterprise's proximity to the Italian border.

Chairs

Novoles produces rocking chairs and colonial type chairs mainly for the export markets. Approximately 68% of exports in 1967 were to the U.S. Other importers are West Germany, the U.K., Italy, Switzerland and Holland.

The enterprise's main buyer in the U.S.A. is Carlson Furniture Inc. in Los Angeles, who in 1967, imported approximately 36,000 chairs worth approximately $266,000 from Novoles. For 1968, Carlson have increased the order to approximately 60,000 chairs worth $450,000. Negotiations are currently in progress with four new U.S. buyers and the enterprise expects to secure important contracts from these companies in addition to repeat orders from Carlson and other existing customers.

The enterprise has been receiving inquiries from North Africa, the Near East and Australia, but has not seriously investigated those marketing possibilities because of its inability to meet the demand from U.S. and European customers.

Sawn Timber

Europe is and will continue to be a net importer of sawn timber. Novoles, with the double advantage of proximity to the importing countries and also to large forest reserves, expects to continue to supply a part of the European demand. In 1967 Novoles exported approximately 6,000 cu. meters of sawn timber, mainly to Italy. Small quantities were exported to Libya, Egypt, the U.K. and West Germany.

Recent Financial and Earnings Record

Balance sheets for 1963-67 are shown in Annex 1, page 1. Novoles' balance sheet as at December 31, 1967 is summarized below: (in million N.Ds)

Assets		Liabilities	
Cash & equivalent	4.0	Banks	3.6
Trade Receivables	5.5	Trade Payables	2.2
Inventories	11.3	Other Current Liabilities	11.4
Other Current Assets	10.2	Total Current Liabilities	17.2
Total Current Assets	31.0	Long-term debt	7.7
Net Fixed Assets	14.0	Own funds	20.1
Total Assets	45.0	Total Liabilities	45.0

Since 1959 the investment program of the enterprise has had two prime objectives· the construction of the plywood plant and the reconstruction of the small furniture plant. These two projects have cost approximately N.Ds 14 million. N.Ds 8.5 million of this amount was covered by long-term debt and N.Ds 5.5 million was derived from the enterprise's internal resources.

Forty percent of Novoles' outstanding debt has been used for fixed assets and the remainder for permanent working capital. Long-term debt service coverage was relatively low (only 1½ times) in 1963 and 1964, but has been adequate since (2 times and over).

Novoles' current ratio has steadily weakened since 1963 (dropping from 2.4 to 1.8). The company has found it necessary to increase its short-term debt substantially in recent years to cover higher receivables and inventories. In the case of receivables, there has been a noticeable slowing down in payments in Yugoslavia recently because of the tight credit situation. Inventories are particularly high in the case of Novoles due to its large saw-mill operations and the necessity to keep raw timber on hand for at least three months to allow air drying.

Earnings statements for the past 5 years are shown in Annex 1. page 2. Production by major groups of products, sales and earnings in those years are summarized below.

"NOVOLES" - Past Production, Sales and Earnings

Physical Production		1963	1964	1965	1966	1967
Sawn Timber	m^3	17,252	18,140	15,239	19,083	21,752
Plywood	"	3,758	4,541	5,231	5,074	5,250
Block board	"	694	867	605	606	1,145
Veneer	"	1,197	1,159	1,463	1,644	1,653
Parquet flooring	000 m^2	106	76	79	82	89
Veneer Boxes	"	211	249	338	448	532
Chairs	000 nos.	-	-	-	72	106
Other Articles		-	-	-	96	67
Sales						
Invoiced Sales	million N.D.	19.09	22.88	28.76	33.78	38.68
Paid Sales	"	17.28	21.39	26.93	31.00	36.00
Breakdown of Invoiced Sales						
Domestic	million N.D.	9.3	11.9	14.4	16.4	16.8
Exports	"	9.8	11.0	14.4	17.4	21.9
	Total:	19.1	22.9	28.8	33.8	38.7

Note: Exports to clearing currency areas negligible amounting to about 5% of total exports.

		1963	1964	1965	1966	1967
Net Earnings	million N.D.	0.69	1.86	1.98	1.48	1.97

Total sales of Novoles increased steadily between 1963 and 1967 from N.Ds 17.3 million to N.Ds 36 million. Exports to convertible currency areas also doubled over the same period from N.D 19 million to N.D. 39 million. The manufacture of chairs primarily for export began in 1966 and is expected to increase whereas the production of solid-wood parquet flooring will be phased out. This will increase Novoles already strong position in the export market.

Description of Project

The project comprises the modernization or expansion of sawn timber, wood panel and chair production facilities.

Saw Mill

The Soteska saw mill which is almost 100 years old has outlived its useful economic life. The existing Straza mill has been in operation for about 46 years. Both mills are high cost units and are located at sites which are not suitable for expansion. The enterprise proposes to shut down the old mills and install modern facilities at a new level site at Straza, close to the railway siding and other facilities. The new mill which will have 3 band saws and a circular saw, with a total capacity of about 40,000 cu. meters per year, will result in higher labor productivity and improve on the current average yield of about 69% sawn timber from logs. About 87 persons are currently employed at Soteska and about 55 at Straza. The mill will require only about 30 persons for an equivalent output. The enterprise plans to absorb the surplus labor from the Straza mill in the furniture factory. The future of the 87 persons at Soteska has not yet been resolved; the enterprise is considering shifting some of the parquet or veneer box manufacturing facilities to Soteska.

With the implementation of the project, all sawing facilities will be located at the main Straza plant.

Wood Panel Plant

The existing plant has an annual capacity on a two-shift basis of about 5,200 cu. meters plywood, 600 cu. meters block board and 2,200 cu. meters veneer.

In order to meet the increasing demand for wood panels the enterprise proposes to double capacity by replacing some of the existing equipment by higher capacity machines and installing a few additional machines. Two new veneer lathes and auxiliary equipment will be installed; one of the two existing lathes will be moved to Soteska. The veneer drying equipment which has a drying capacity of 0.8 cu. meter/hour will be replaced by a faster modern equipment with a capacity of about 4.0 cu. meters/hour. An additional hydraulic press similar to the existing one will be installed thereby doubling the press shop capacity. In addition, various ancillary items such as material handling, cutting, trimming, glueing and sanding equipment will be installed. Civil engineering work required will comprise construction of three additional steam pits and extension of the plant building to cover an additional area of about 500 sq. meters. After expansion, plant capacity will be about 10,000 cu. meters per year of plywood and 2,000 cu. meters of block board.

Small Furniture Plant

The plant was designed in 1962/65 on the assumption that the product mix would be chairs 50% and other small wooden products 50%. However, because of the market demand the plant is now almost exclusively producing chairs. The change in the product mix has created imbalances in certain sections of the plant: the capacities of the drying kilns, the cutting section, sanding and lacquering lines limit the operation of the rest of the plant to 1 shift operation.

The enterprise proposes to remove these bottlenecks by installing additional equipment to balance the capacities in various sections of the plant.

Boiler House & Power Plant

The enterprise's main boiler house at Straza has 3 waste wood fired boilers with a total steam raising capacity of approximately 54,000 tons of steam per annum. In addition, the saw mill at Soteska has a small, packaged steam generator to meet the heating and process steam requirements of that plant. The enterprise also generates annually about 0.5 million kwh of electrical energy at Straza - the balance of 2.5 million kwh is purchased from the grid.

No expansion of the Soteska boiler house is planned. At Straza, two of the existing three boilers are old uneconomic units and are to be replaced by a modern high pressure boiler with a rated capacity of 10 tons/hour of steam at 42 atm, 480°C. The third boiler will be reconstructed to increase its capacity from about 4.5 tons/hour to 7 tons/hour. It is also proposed to install a 1,280 kw steam turbo generator at Straza which together with the existing generator will be able to supply all the power required by the enterprise; any excess power generated, particularly in summer when the heating load is lower, will be fed to the grid. Calculations made by the enterprise's engineers show that generated power will cost approximately 0.105 N.D./kwh against N.D. 0.25/kwh for purchased power.

Cost of Project

The project is estimated to cost N.D. 20.9 million (US$1.67 million) excluding interest during construction. Foreign exchange expenditures are estimated at US$852,000 which IBRD has been requested to finance. A summary of the project cost estimate is given below:

	N.D. Million	US$ Million	Total N.D. Million
Buildings & Civil Work	2.939 1/	-	2.939
Plant & Equipment	1.161 2/	0.830 3/	11.536
Import Duties (25-34%)	2.947	-	2.947
Freight, Insurance & Handling	0.539	-	0.539
Erection	0.184	0.022 4/	0.460
Additional Working Capital	2.470	-	2.470
	10.240	0.852	20.891

1/ Includes Architects Fees (3.5%)
2/ Delivered at site
3/ Free Yugoslav border
4/ Payments to foreign erectors for saw mills and turbo generator

Capital costs have been conservatively estimated on the basis of recent quotations from prospective suppliers. Novoles plan to complete the major building and civil works during 1968 and expect to place orders for equipment to be financed by IBRD by January 1969. Delivery periods indicated vary from 2 to 9 months from the date of order. The sales forecasts are based on the assumption that the new equipment comes into operation towards the end of 1969.

Project Financing

A summary of Novoles' estimated financial requirements and sources of funds during project construction (1968-69) is given below (in millions N.D.)

Uses		Sources	
Project	18.6	Net earnings	4.1
Maintenance & Replacement	1.5		
Debt Repayment	3.8	Depreciation	3.8
Reserves	0.4		
Net Addition to working capital	2.2	Long-term debt	18.6
	26.5		26.5

Detailed earnings and cash flow projections for the construction period and the following three years together with the major assumptions and further explanations are given in Annex 2. Forecasts in Annex 2 assume that the project would be completely operational from the beginning of 1971.

Approximately 30% of the financing requirements during the two years 1969-70 would be covered by the enterprise's own funds and the remaining 70% by long-term borrowing. Of the required N.D. 18.6 million in long-term debt resulting from the project it is proposed that IBRD assume N.D. 10.6 million ($0.852 million), the 'Kreditna Banka in Hranilnice', Ljubljana N.Ds 5.5 million and the remainder will be covered by the Dolenjska Banka in Novo Mesto.

Earnings and Debt Service Forecasts

Earnings forecasts (Annex 2) are based on the assumption that sales would equal production.

Total paid sales are not expected to increase substantially in 1968 and 1969 and during the same years net earnings are expected to remain around the N.D. 2 million mark. The impact of the investment is not reflected in total sales until 1970 when sales increase from N.D. 36.7 million to N.D. 50.3 million, an increase of 37%. Earnings by that year will have trebled over the 1968/9 level. By 1972 total sales are expected to exceed a yearly level of over N.Ds 60 million and profits stabilized,at that level of production around N.D. 8 million.

Due to the levelling off of sales and thus earnings in 1968 and 1969 and the heavy impact of the new debt load in 1970, debt service coverage during those years is 1.8, 1.9 and 1.7 respectively. By 1971, however, the steady growth in earnings and declining debt obligations result in adequate coverage.

Conclusions

The projects of Novoles, Brest and Stol have substantially the same basis. All three are medium size, woodworking enterprises situated in a triangle around Ljubljana, depending on surrounding timber, drawing upon a labor force with traditional woodworking skills and geared for at least half of their production to export markets.

The demonstrable success of all three enterprises in export markets for many years, their capacity to expand steadily both their export and domestic business and the expressed satisfaction of their foreign clients (in the U.S. for example) indicate that this is an industry in which Yugoslavia has certain natural advantages.

All three enterprises are sound financially, have adequate resources to cover their debt and show a good return as a result of these investments.

IFC/LAEA
July 26, 1968

NOVOLES
Comparative Balance Sheet
(in millions of N.Ds.)

As at December 31	1963	1964	1965	1966	1967
ASSETS					
Current Assets					
Cash, Banks and near Cash	3.6	2.7	2.9	3.6	4.0
Trade Receivables	1.8	1.5	1.8	2.8	5.5
Inventories					
Raw materials and supplies	1.3	1.8	3.2	3.8	4.1
Semi-finished products	1.2	1.6	1.3	2.3	2.1
Finished goods	1.0	1.2	2.8	4.3	5.1
Total Inventories	3.5	4.6	7.3	10.2	11.3
Other Current Assets 1/	2.8	2.8	3.4	5.7	10.2
Total Current Assets	11.7	11.6	15.4	22.5	31.0
GROSS FIXED ASSETS					
Land	.1	.1	.1	.1	.2 2/
Buildings	5.3	7.0	7.2	9.9 3/	9.6
Machinery & Equipment	5.8	7.7	8.2	12.1	12.2
Fixed Assets under construction	1.3	.2	-	.1	1.1
Collective Consumption Assets	.4	1.0	1.1	.6	.6
Other Fixed Assets 5/	1.3	.2		.1	1.1
Total Gross Fixed Assets	14.2	16.2	16.6	22.9	24.8
Less depreciation 6/	5.5	4.8	5.5	7.9	9.8
Net Fixed Assets	8.7	11.4	11.1	14.0	14.0
TOTAL ASSETS	20.4	23.0	26.5	36.5	45.0
LIABILITIES					
Current Liabilities					
Short term debt to Banks	.3	.2	.9	3.1	3.6
Trade Payables	.5	.8	0.9	1.7	2.2
Other Current Liabilities 7/	4.0	4.1	4.9	6.9	11.4
Total Current Liabilities	4.8	5.1	6.7	11.7	17.2
Long-term Debt	7.3	8.0	7.2	7.7	7.7
Funds of the Enterprise					
Business Fund	7.1	8.4	11.0	15.7	17.7
Reserve Funds	.6	1.0	1.0	1.0	1.5
Collective Consumption Funds	.6	.5	0.6	.4	.9
Total Own Funds	8.3	9.9	12.6	17.1	20.1
TOTAL LIABILITIES	20.4	23.0	26.5	36.5	45.0
Current Assets/Current Liabilities	2.4	2.3	2.3	1.9	1.8
Long-term Debt/Own Funds	47:53	45:55	36:64	31:69	28:72

1/ Includes cost of goods sold for sales invoiced, but not paid, prepaid expenses and other current assets.
2/ In 1967, 2 additional hectares of land were purchased.
3/ Increase in value of buildings 1966 over 1967 is all due to revaluation.
4/ Includes N.Ds. 2.6 million revaluation increment.
5/ Patents, licenses and preliminary expenses.
6/ Depreciation on equipment was, on the average 5-6% in 1966, increased to 13% in 1967 and will go back to 6.5% in 1970.
7/ Sales value of goods invoiced but not paid, customer prepayments, accrued charges and other current liabilities.

NOVOLES

Earnings Statements

(in millions N.Ds.)

	1963	1964	1965	1966	1967
Sales 1/	17.3	21.4	26.9	31.0	36.0
Operating costs					
Materials & overhead	10.0	12.0	15.0	17.5	20.0
Net wages	2.6	3.8	4.5	5.8	7.0
Related social payments	0.9	1.3	1.6	1.8	2.0
Taxes & contributions	1.8	2.1	2.6	2.6	2.8
TOTAL OPERATING COSTS	15.3	19.2	23.7	27.7	31.8
Depreciation	0.7	0.4	0.9	1.4	1.8
Interest	0.4	0.4	0.5	0.3	0.5
NET EARNINGS FROM OPERATIONS	0.9	1.4	1.8	1.6	1.9
Other earnings 2/	(0.2)	0.4	0.2	(0.1)	0.1
NET EARNINGS	0.7	1.8	2.0	1.5	2.0

1/ On the basis of paid sales.
2/ Discounts, premiums, penalties, etc.

IFC - LAEA
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NOVOLES
Financial Forecasts
(in millions of N.Ds.)

Year ending December 31	1968	1969 (Period of Construction)	1970 (Period of Construction)	1971	1972
I. EARNINGS STATEMENT					
Sales Revenue 1/	36.1	36.7	50.3	55.5	63.2
Operating Costs					
Materials and Overhead	19.2	19.3	25.1	27.0	31.0
Wages and Salaries	7.5	7.6	9.1	10.1	11.5
Related Social Payments	2.1	2.1	2.6	2.9	3.3
Taxes and Contributions	3.0	3.3	4.8	5.3	6.0
Total Operating Costs	31.8	32.3	41.6	45.3	51.8
Depreciation	1.8	1.8	2.0	2.0	2.0
Interest	.5	.7	0.9	1.6	1.2
Earnings from Operations	2.0	1.9	5.8	6.6	8.2
Other Earnings	-	-	-	-	-
Net Income	2.0	1.9	5.8	6.6	8.2
II. SOURCES & APPLICATION OF FUNDS					
Sources					
Net Earnings (previous year) 2/	2.0	2.0	1.9	5.8	6.6
Interest	.5	.7	0.9	1.6	1.2
Depreciation	1.8	1.8	2.0	2.0	2.0
Increase in Long-term Debt:					
I B R D		5.3	5.3		
Domestic Banks		3.5	4.5		
TOTAL SOURCES	4.3	13.3	14.6	9.4	9.8
Applications					
Project - Fixed Assets (foreign)		5.3	5.3		
" " (local)		3.5	4.5		
Total Investment		8.8	9.8		
Maintenance and Replacement	1.2	0.8	0.7	2.2	2.2
Interest					
Existing Long-term Debt	.5	.5	.4	.4	.1
I B R D		.2	.5	.7	.7
Domestic Banks 3/				.5	.4
	.5	.7	.9	1.6	1.2
Principal Repayments					
Existing Long-term Debt	1.9	1.8	1.2	.8	.6
I B R D				.6	.6
Domestic Banks 3/			.8	.9	1.0
Total Repayments	1.9	1.8	2.0	2.3	2.2
Allocations to Reserve Fund 4/	.3	.2	.2	.4	.5
Allocations for Collective Consumption 5/	.3			1.2	1.6
Net Additions to Working Capital	.1	1.0	1.0	1.7	2.1
TOTAL APPLICATIONS	4.3	13.3	14.6	9.4	9.8
Long-term Debt Service Coverage	1.8	1.8	1.6	2.4	2.9

1/ Based on assumption that sales equal production.
2/ Earned funds are released for use only in the following year.
3/ Terms not expected to be significantly different than those offered by IBRD.
4/ Required cash retention unavailable for any other use.
5/ For investment in collective consumption assets.

IFC-LAEA
May 22, 1968

"NOVOLES" : Sales Projections

(in million N.Ds.)

		1968		1969		1970		1971		1972	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Sawn Timber	m^3	17,800	8.62	17,500	8.39	14,300	6.91	14,300	6.91	14,300	6.91
Plywood	"	5,200	8.97	5,500	9.49	8,000	13.80	8,000	13.80	9,000	15.52
Block board	"	920	1.23	1,000	1.34	1,000	1.40	2,000	2.80	2,000	2.80
Veneer	"	1,610	1.36	1,700	1.49	1,200	0.98	1,800	1.48	2,400	1.97
Parquet flooring	000 m^2	100	2.71	100	2.50	100	2.50	100	2.50	100	2.50
Veneer boxes	"	520	3.16	650	3.95	700	4.27	900	5.49	1,200	7.32
Chairs	000 nos.	87	6.99	90	6.78	187	16.59	211	18.57	247	22.20
Other Articles	"	123	2.68	150	2.31	90	3.38	90	3.38	90	3.38
Other Sales		-	0.40	-	0.40	-	0.50	-	0.55	-	0.60
Total Sales			36.12		36.65		50.33		55.48		63.20
Domestic Sales			14.50		14.50		16.50		18.60		21.50
Export Sales 1/			21.62		22.15		33.83		36.88		41.70
			36.12		36.65		50.33		55.48		63.20

1/ Exports to clearing currency areas are negligible; for projection purposes the figures given indicate exports to convertible currency areas.

IFC-LAEA
May 22, 1968

BREST

The Borrower

The prospective borrower Lesnoindustrijski Kombinat "Brest" is primarily a manufacturer of veneered and solid wood household furniture. The enterprise also operates a saw mill and a particle board plant. The main production facilities are located at Cerknica approximately 56 kms. south-southwest of Ljubljana, just off Ljubljana-Trieste highway. The main railway line passes through Rakek, 5 kms. from Cerknica. Cerknica is close to the source of primary raw materials and is well-connected with the ports of Rijeka and Koper. The enterprise was established in 1947 and currently employs about 1,385 persons. The total covered area of the plant is about 120,000 m^2.

In 1967 the enterprise produced about 266,000 chairs of various types and 95,000 pieces of veneered furniture such as hi-fi cabinets, credenzas, bookcases and dining tables. Total invoiced sales in that year amounted to N.D.69.5 million of which N.D.32.8 million or 47.2% were export sales. 85% of the exports are to convertible currency areas, the major importing country being the U.S.A.

The enterprise proposes to modernize some of the manufacturing facilities with particular emphasis on quality improvements and mechanization of some operations which are currently performed manually. The project is estimated to cost N.D.19.9 million (US$1.59 million) excluding interest during construction. IBRD has been requested to finance the foreign exchange cost of the project estimated at $0.68 million.

History of Borrower

The Government of the Slovenian Republic founded the enterprise in 1947 by merging four small sawmills operating at Cerknica and at two neighboring villages Martinjak and Marof, 3 km. and 20 km. respectively from Cerknica. During the early years of its operation the enterprise carried on the existing saw milling operations and in addition undertook manufacture of prefabricated wooden houses. By the early 50's it became apparent to the management that the future of wooden prefabricated home business was not promising and it decided to diversify into other wooden products.

By 1953 the old saw mill at Martinjak was closed down and facilities were installed for production of small wooden articles which by 1956 grew into the manufacture of chairs and other items of solid wood furniture. The plant, which has a covered area of about 15,000 m^2, currently employs 357 persons and produces about 20 models of chairs in 8 basic types. The plant works two shifts with some equipment on 3-shift operation.

The Marof plant was extended in 1954 to process sawn timber into packing cases and grooved clapboards and now has a total covered area of 48,000 m^3 and employs 120 persons. The plant has 3 old saw mills with a total capacity of about 30,000 m^3 per year on 2-shift working. Packing

Prepared by A. Bandy and Mr. M. V. Dehejia.

case manufacture is mainly manual with the help of some small machines. The clapboard unit has 5 pre-war machines which can turn out approximately 4,000 m^3 per year on 2 shifts.

Manufacture of veneered furniture was started at Cerknica in 1956 with the production of items such as school and office furniture, radio cabinets, bookcases and wardrobes. Currently the plant turns out 22 models of products in about 8 to 10 basic lines. A modern particle board plant with a capacity of 9,000 m^3 per year on 3 shifts was installed at Cerknica in 1962 and a new 12,000 m^3 per year saw mill was added in 1963. The total covered area at Cerknica is about 5,700 m^3 and the plant employs about 915 persons.

The prime raw material, broad leaved and coniferous logs, come mainly from the forests of Javornik and Sneznic, which are within a radius of about 10 kms. of the enterprise's saw mills. A small proportion of logs are brought from Bosnia and Croatia by rail or truck. Brest is the only large enterprise in the Cerknica region. Its work force comes primarily from Cerknica and the surrounding villages. There is no shortage of labor in the area.

Brest is a member of Poslovno Zdruzenje Les, Ljubljana, a business association of Slovenian wood-working industries and works in close cooperation with the other members of the association particularly Stol-Kamnik, Melob-Nova Garica and Marles-Maribor.

Management

The enterprise is managed by a competent team headed by Mr. Joze Lesar, General Manager. Mr. Lesar, who is about 55, has over 30 years of experience in the woodworking industry and has been General Manager of Brest for the last 18 years and primarily responsible for building the enterprise into a well organized furniture plant run on modern lines.

Mr. Lesar is assisted by Mr. Joze Hren, Deputy General Manager, who has been with Brest for about 13 years in various capacities. Mr. Ivo Jurkovic, Technical Manager, who is about 35 is a university trained engineer and has been with Brest for about four years. He has been responsible for the introduction of modern assembly-line methods in the furniture plants at Cernica and Martinjak. The Finance Manager, Mr. Danilo Mlinar, 33, has about 8 years of experience and has been with Brest for about five years. The Sales Manager, Mr. Dusan Trotvsek, is a contemporary of Mr. Lesar and has been with Brest since 1950.

Recent Financial and Earnings Record

Balance sheets for 1963-67 are shown in Annex 1, page 1. Brest's balance sheet as at December 31, 1967 is summarized below (in N.D. millions):

Assets		Liabilities	
Cash & equivalent	10.2	Banks	3.7
Trade receivables	9.3	Trade payables	3.8
Inventories	18.1	Other current liabilities	18.4
Other current assets	17.7	Total current liabilities	25.9
Total current assets	55.3	Long-term debt	12.9
Net fixed assets	23.1	Own funds	39.6
Total assets	78.4	Total liabilities	78.4

The enterprise's investments in fixed assets since 1960 have mainly been used in the construction of a particle board factory, a new drying house, saw mill and miscellaneous equipment. Of N.D. 19.9 million invested N.D. 15.6 million came from the company's own resources and N.D. 4.3 million was mobilized through new long-term debt. Brest has not taken on any new long-term debt for fixed assets since 1964 and of the initial N.D. 4.3 million more than half has been paid off. Long-term debt for working capital purposes constitutes the remainder of outstanding long-term obligations.

Brest's current position since 1963 has fluctuated in the range of 1.8/1 to 2.5/1. The increase in inventories has been approximately proportionate to the increase in sales although the level of receivables has increased by considerably more. Payments by customers, particularly domestic, have been noticeably slower during the last year or so primarily due to the tight credit situation in Yugoslavia.

Earnings statements for the past four years are shown in Annex 1, page 2. Production by major groups of products, sales and earnings from operations during the past five years are summarized below: (in million of N.D.)

"BREST": Past Production, Sales & Earnings

Physical production		1964	1965	1966	1967
Veneered furniture	000 nos	85.8	85.9	85.9	95.1
Chairs	"	207.1	264.1	261.1	266.1
Sawn timber	m^3	18380	13880	16445	9948
Particle board	"	5877	5742	6501	8600
Other products - million N.D.		5.68	6.25	6.64	5.74
Value of production - million N.D.		43.12	55.22	57.97	68.60
Sales					
Invoiced sales		41.37	53.22	61.26	69.52
Paid sales		41.01	49.45	61.26	66.80
Breakdown of invoiced sales					
Exports:					
- Convertible currency areas		19.0	19.6	24.4	27.7
- Clearing currency areas		2.1	4.3	4.3	5.1
Total exports		21.1	23.9	28.7	32.8
Domestic sales		20.3	29.3	32.6	36.7
Total invoiced sales		41.4	53.2	61.3	69.5
Earnings		4.2	5.6	4.6	5.4

Since 1963 the emphasis in the product mix of Brest has moved away somewhat from saw mill operations and much more into semi-finished and finished wood products. The production of sawn timber has been reduced by about 50% whereas the production of chairs has increased by 56%, veneered furniture by 46% and particle board by 36%.

Total paid sales have almost doubled since 1963 (from N.D. 35.7 million to N.D. 66.8 million) and net earnings have trebled during the same period. The growth in exports have kept pace with the increase in total sales particularly because of the increasing emphasis on finished wood products.

Market & Sales (See also Appendix 11

An analysis of invoiced sales during the past five years shows that veneered furniture is the most important product line for the company accounting for over 50% of the total invoiced sales in 1967. Sales of veneered furniture as a percentage of total invoiced sales grew from approximately 34% in 1963 to about 52% in 1967. In value, sales of veneered furniture have tripled during the five years 1963 through 1967, from N.D. 12.09 million to N.D. 36.11 million.

The next most important product group is the chair division whose share of the total invoiced sales has been relatively constant at about 20% during the past five-year period.

The balance was shared roughly in equal proportions by sales of sawn timber, particle board and miscellaneous products averaging 10% for each group in 1967. Sales of sawn timber have shown a decreasing trend as a percentage of total sales (although in terms of value they have remained relatively stable at an average of around N.D. 6.5 million per year) as the enterprise expands and diversifies into other more sophisticated product lines.

Details of sales projections for the next five years are shown in Annex II. They are based on the assumption that increased production and sales of veneered furniture and chairs as a result of the implementation of the project under review, will be effective from January 1970. Sales of sawn timber, particle board and miscellaneous products are conservatively assumed to remain at or slightly below 1967 levels.

Particle board and miscellaneous products such as clapboards and packing cases are sold exclusively in the domestic market. Approximately half the quantity of sawn timber sold is exported. The chief export items are veneered furniture and chairs, roughly 80% of their sales being to the export market.

As reviewed elsewhere, sales to the domestic market are unlikely to present any difficulties in the coming years owing to the large unsatisfied demand in Yugoslavia. Also, the current level of import duties (18% on furniture) is unlikely to make imports at competitive prices possible. The current import duty on particle board is 5% but is expected to be raised to 10% sometime during 1968.

Sales to export markets are more difficult to forecast especially for furniture. Brest, who have been exporting since 1956, have based their forecasts primarily on indications received from established importers and Brest's main export agent, Slovenijales. Brest exports primarily to the United States market which has accounted for about 80% of Brest's total exports, the main customer being E. W. Morse of New York. For 1968, Brest have already booked export orders worth N.D. 31.8 million (US$2.55 million) against the total projected exports of N.D. 35.6 million in this year.

Based on the enterprise's past performance, the sales projections appear reasonable and can be attained.

Description of Project

The project consists of several relatively minor individual investments in various departments of the enterprise to replace obsolete items of equipment and to secure general improvements in operations.

Just over half the investment in new fixed assets is intended for the veneered furniture department at Cerknica. About 46 new items of equipment are proposed to be installed in this department including a multicolor veneer printing machine and a high temperature lacquering and finishing line. The new equipment will help to improve the surface quality of components and finished products and reduce manual operations.

The investment in the particle board plant at Cerknica is primarily for new equipment to improve the surface finish of the boards. With the installation of the double deck contact sander, tolerances of ± 0.1 mm. will be attainable. Such accuracy is required for successful operation of the veneer printing machine.

A new steam-bending section for chair components will be added to the chair manufacturing department at Martinjak. In addition, the program calls for the installation of about 25 items of machinery and equipment for mechanizing certain operations in order to ensure consistent quality and interchangeability of components.

A new saw mill, 10.8 m^3/hour, will be installed at Marof to replace two of the three existing pre-war mills.

Cost of Project

The project is estimated to cost N.D. 19.93 million (US$1.59 million) excluding interest during construction. Foreign exchange expenditures are estimated at US$677,000 which IBRD has been requested to finance. A summary of the project cost estimate is given below:

	N.D. Million	$ Million	Total N.D. Million
Buildings & civil works	1.46	-	1.4
Plant & equipment	0.25 1/	0.677 2/	3.6
Import duties (@33%)	2.63	-	2.6
Freight, insurance & handling	0.43	-	.4
Erection	0.51	-	.5
Total fixed assets	5.28	0.677	13.5
Additional working capital	6.40		6.4
Total	11.68	0.677	12.2

1/ Delivered at site.
2/ Free Yugoslav border.

Costs have been estimated on the basis of recent quotations from prospective suppliers. Building work is planned to be completed during 1968. Brest hopes to be able to place orders for imported equipment by January 1969; delivery periods indicated range from 4 to 8 months from date of order. Sales projections are based on the assumption that the new equipment comes into operation towards the end of 1969.

Project Financing

A summary of Brest's estimated financial requirements and sources of funds during project construction 1969/70 is given below (in millions of N.Ds.):

Uses		Sources	
Project	19.9	Net earnings	11.5
Other investment in fixed assets and related working capital	2.0	Depreciation	5.4
Replacement investment	2.4		
Debt repayment	3.7		
Reserves & other allocations	2.6	Long-term debt	13.7
	30.6		30.6

Detailed earnings and cash flow projections for the construction period and the following two years together with the major assumptions and further explanations are given in Annex 2. The forecasts in Annex 2 are based on the assumption that the new equipment mainly comes into operation towards the end of 1969 but the project will not be totally complete before 1970.

Of the total project cost of N.Ds. 19.9 million N.Ds. 13.7 million or 69% will be covered by long-term debt and the remainder from the company's own resources. Apart from the N.Ds. 8.5 million to cover foreign exchange costs the enterprise will be given a loan of N.Ds. 5.2 million by the Kreditna Banka Ljubljana.

Earnings and Debt Service Coverage

Earnings forecast (Annex 2) are based on the assumption that sales would equal production. Sales and earnings for the years 1968 and 1969 although increasing modestly should not differ substantially from the levels achieved in 1967. In 1970 the new investment begins to have a sizeable influence on total production and sales and further improvements are predicted for 1971 and 1972. By the latter year sales are expected to reach N.D. 115 million, an increase of 72%, and earnings about N.D. 11.5 million, which is over double the 1967/1968 level.

Long-term debt service coverage is adequate.

IFC/LAEA
July 26, 1968

'BREST' Cerknica
Comparative Balance Sheet
(in millions of N.Ds.)

As at December 31	1963	1964	1965	1966	1967
ASSETS					
Current Assets					
Cash, Banks and near cash	2.7	3.2	3.5	8.3	10.2
Trade Receivables	2.5	2.9	6.7	6.6	9.3
Inventories					
Raw materials and supplies	4.8	4.7	6.3	6.6	7.0
Semi-finished products	3.3	4.1	5.4	5.6	6.9
Finished products	2.4	3.5	5.4	4.4	4.2
TOTAL INVENTORIES	10.5	12.3	17.1	16.6	18.1
Other Current Assets 1/	4.9	5.8	10.6	11.2	17.7
TOTAL CURRENT ASSETS	20.6	24.2	37.9	42.7	55.3
Gross Fixed Assets					
Land	.1	.1	.1	.1	.1
Buildings	6.6	6.3	7.4	11.5 2/	11.6
Machinery & Equipment	10.6	10.9	11.7	15.6 3/	17.4
Fixed Assets under construction	1.1	.9	.1	.8	.4
Collective Consumption Assets 4/	2.1	2.5	2.8	3.0	3.6
Other fixed assets 5/	.2	.2	.2	.5	.7
TOTAL GROSS FIXED ASSETS	20.7	20.9	22.3	31.5	33.8
Less depreciation	(4.1)	(4.9)	(6.0)	(9.1) 6/	(10.7)
NET FIXED ASSETS	16.6	16.0	16.3	22.4	23.1
TOTAL ASSETS	37.2	40.2	54.2	65.1	78.4
LIABILITIES					
Current Liabilities					
Short term debt to banks	3.2	2.1	3.4	2.5	3.7
Trade Payables	1.4	1.9	1.6	2.2	3.8
Other Current Liabilities 7/	6.6	7.0	12.8	12.2	18.4
TOTAL CURRENT LIABILITIES	11.2	11.0	17.8	16.9	25.9
Long-term Debt	11.2	10.6	9.9	11.1	12.9
Funds of the enterprise					
Business Fund	12.6	14.7	20.3	29.7	33.3
Reserve Funds	.8	1.0	1.2	1.6	2.0
Collective Consumption Funds 4/	1.4	2.9	5.0	5.8	4.3
TOTAL OWN FUNDS	14.8	18.6	26.5	37.1	39.6
TOTAL LIABILITIES	37.2	40.2	54.2	65.1	78.4
Current Assets : Current Liabilities	1.83:1	2.2:1	2.12:1	2.53:1	2.13:1
Long-term Debt : Own Funds	43:57	36:64	27:73	23:77	24:76

1/ Includes cost of goods sold for sales invoiced but not paid, prepaid expenses and other current assets.
2/ Includes revaluation increment of approximately 3.8 million N.Ds.
3/ Includes revaluation increment of approximately 2.9 million.
4/ Hostels, residential hotels, etc.
5/ Patents, licenses and preliminary expenses.
6/ Reflects revaluation of assets.
7/ Includes customer prepayments, sales value of goods invoiced but not paid, accrued charges and other current liabilities.

IFC-LAEA
May 22, 1968

'BREST' - Cerknica

Earnings Statement

(in millions of N.Ds.)

	1963	1964	1965	1966	1967
Sales 1/	35.7	41.0	49.4	61.3	66.8
Operating costs					
Materials and overhead	23.0	23.4	28.1	36.2	38.9
Net wages	4.8	6.1	8.0	10.8	11.7
Related social payments	2.0	2.4	3.0	3.6	3.1
Taxes & contributions	2.6	3.2	3.7	4.1	5.0
Total operating costs	32.4	35.1	42.8	54.7	58.7
Depreciation	.8	1.1	1.1	1.6	2.1
Interest	.9	.7	.5	.7	.7
Net earnings from operations	1.6	4.1	5.0	4.2	5.1
Other income 2/	.1	.1	.6	.4	.3
Net earnings	1.7	4.2	5.6	4.6	5.4

1/ On the basis of paid sales.
2/ Derived from penalties, premiums, discounts, etc.

IFC-LAEA
May 22, 1968

'BREST' Cerknica
Financial Forecasts
(in millions of N.Ds.)

Year ending December 31	1968	1969	1970	1971	1972
I. EARNINGS STATEMENT					
Sales Revenue 1/	73.0	77.4	95.4	109.6	114.7
Operating Costs					
Materials and Overhead	42.0	44.3	53.5	60.5	63.8
Net Wages	13.1	13.9	16.1	18.9	19.8
Related social payments	3.9	4.2	4.8	5.6	5.9
Taxes and Contributions	6.0	6.4	7.6	8.8	9.2
Total Operating Costs	65.0	68.8	82.0	93.8	98.7
Depreciation	2.2	2.3	3.1	3.2	3.4
Interest	.8	.9	1.7	1.7	1.5
Net Earnings from Operations	5.0	5.4	8.6	10.9	11.1
Other Earnings	.4	.4	.4	.4	.4
NET EARNINGS	5.4	5.8	9.0	11.3	11.5
II. SOURCES & APPLICATION OF FUNDS					
Sources					
Net Earnings (previous year) 2/	5.4	5.4	5.8	9.0	11.3
Interest	.8	.9	1.7	1.7	1.5
Depreciation	2.2	2.3	3.1	3.2	3.4
Increase in Long-term Debt					
IBRD		8.5			
Kreditna Banka		5.2			
Total increase in debt		13.7			
TOTAL SOURCES	8.4	22.3	10.6	13.9	16.2
Applications					
Project - fixed assets foreign		8.5			
Project - fixed assets domestic		5.2			
Additional Working Capital		5.6	.6		
TOTAL INVESTMENT		19.3	.6		
Renewals and Replacements	2.2		2.4	3.2	3.4
Other Fixed Assets			2.0	2.2	3.0
Interest					
Existing long-term debt	.6	.4	.9	.8	.6
I B R D		.3	.6	.6	.6
Other	.2	.2	.2	.3	.3
Total Interest	.8	.9	1.7	1.7	1.5
Principal Repayments					
Existing long-term debt	2.2	1.7	1.5	0.9	0.5
I B R D				.4	.5
Domestic Banks			.5	.5	.6
TOTAL REPAYMENTS	2.2	1.7	2.0	1.8	1.6
Allocation to Reserve Funds	.4	.4	.7	.8	.9
Allocations for Collective Consumption	.7		1.2	2.8	2.7
Net Additions to Working Capital	2.1	-	-	1.4	3.1
TOTAL APPLICATIONS	8.4	22.3	10.6	13.9	16.2
Long-term debt service coverage	2.8	3.3	2.9	4.0	5.2

1/ Based on the assumption that sales equal production.
2/ Earned funds are released for use only in the following year.

'BREST' : Sales Projections

(Value in Million N.Ds.)

		1968		1969		1970		1971		1972	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Veneered Furniture	000 nos	101.8	40.60	103.8	44.42	119.0	52.90	144.9	65.00	157.9	69.40
Chairs	"	316.3	14.00	322.5	14.56	288.9	24.00	301.8	26.00	320.9	27.00
Sawn Timber	m^3	9340	4.60	9340	4.60	9340	4.60	9340	4.60	9340	4.60
Particle Board	"	8758	7.30	8758	7.30	8758	7.30	8758	7.30	8758	7.30
Other Products & Services		-	6.50	-	6.50	-	6.60	-	6.70	-	6.40
TOTAL SALES			73.00		77.38		95.40		109.60		114.70
Export Sales											
- Convertible Currency			35.6		38.2		43.6		50.9		55.8
- Clearing Currency			4.0		4.3		4.8		5.7		6.2
Total Export Sales			39.6		42.5		48.4		56.6		62.0
Domestic Sales			33.4		34.9		47.0		53.0		52.7
TOTAL SALES			73.0		77.4		95.4		109.6		114.7

IFC-LAEA
May 22, 1968

STOL-INDUSTRIJA POHISTVA, KAMNIK

The Borrower

The prospective borrower is INDUSTRIJA POHISTVA STOL, a manufacturer of chairs, seats and office furniture established in 1904. The plant is located at Kamnik, Slovenia approximately 21 km from Ljubljana. Kamnik has good highway connections and is close to the supply of raw materials - lumber, plywood and veneer. The plant has a total covered area of about 30,200 sq. meters and employs 1,160 persons.

STOL's share of the Yugoslav market amounts to roughly 8% of total chair sales, about 17% for office furniture and approximately 36% of seats and furniture for hotels and theaters. In 1967 the enterprise produced approximately 500,000 chairs and seats of various types and about 19,400 desks, cabinets and other pieces of office furniture. Total sales in that year amounted to N.D. 45.9 million ($3.67 million) of which N.D. 18.9 million ($1.5 million) or 41.2% were export sales, primarily to convertible currency areas.

The project under consideration aims to rationalize production by removing bottlenecks particularly in the finishing lines in the chairs and seat department and in the metal products department. The project which has been engineered by the enterprise's own staff, is estimated to cost N.D. 8.13 million ($0.675 million) approximately. The foreign exchanges component of the project cost is estimated at $0.315 million which IBRD has been requested to finance.

History of the Borrower

The enterprise commenced operations in 1904 as a small scale business under the name IVAN BAHOVEC employing about 100 persons and producing mainly bentwood chairs and parquet flooring. From the early days the enterprise established a reputation for the quality of its products even in the export markets and was awarded medals at international fairs. Annual production in the early years amounted to approximately 15,000 chairs, 60,000 bonded chair seats and 8,000 sq. meters of parquet flooring and sawn timber. The enterprise steadily increased its scale of operations over the years and by 1940/41, it was employing about 400 persons and producing annually about 120,000 chairs, 225,000 seats, and 20,000 sq. meters of parquet flooring.

The plant was destroyed by a fire in 1941. During the war years a part of the plant was reconstructed but operations were at a low level, with an average of only about 45 employees on the rolls during

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Prepared by A. Bandy and M.V. Dehejia.

this period. Large scale reconstruction and re-organization was undertaken after 1946 when chairs and seat production was re-established and the manufacture of school and office furniture was undertaken for the first time. During this period the enterprise introduced modern production methods by installing universal woodworking machines.

In the late 1950's the enterprise gradually phased out production of parquet flooring and sundry wooden articles and decided to concentrate on the production of chairs and seats of various types and office furniture. Production and auxiliary facilities have been expanded and modernized over the past few years. In 1967 lacquering equipment and a new boiler were installed, in addition to various small items of machinery. Total employment increased from 845 persons in 1956 to 1,160 persons in 1967.

The enterprise today has a total covered plant area of about 30,200 sq. meters of which over 20% is accounted for by the chair production department and about 16% by the office furniture department. The enterprise operates its own saw mills and necessary drying kilns and has a small veneer department for producing laminations for bonded seat production. The process steam required is generated by boilers fixed with wastewood and the enterprise also generates its own power. Raw materials, mainly beechwood logs, are purchased from the forests surrounding Kamnik, Slovenia; a small proportion of logs are also obtained from Croatia. The enterprise has its own design and sales department. The design of office furniture has been standardized to one coordinated group. Owing to market requirements the enterprise has to produce approximately 150 models of chairs, however by standardization of components the number of basic designs of chairs has been reduced to 5.

For one half a century, STOL products have been well known in foreign markets. STOL first penetrated the American market in 1938 and now sells about 37% of its exports in the U.S. Other main foreign markets are England (28%), France (9%), Holland, Italy and W. Germany (about 6% each).

The enterprise is a member of POSLOVNO ZDRUZENJE LES, Ljubljana, a business association of Slovenian woodworking industries, and works in close cooperation with other furniture manufacturers particularly BREST and NOVOLES in order to avoid duplication of production programs.

Although for historical reasons the overall layout of the plant is not modern, the management has been successful in gradually streamlining the production facilities within the departments ensuring a more even and rational flow of materials and components, resulting in higher labor productivity. While the total labor force has remained relatively constant over the last five years, total value of production has doubled from about N.D. 24 million in 1963 to N.D. 50 million in 1967. During this period overall productivity, measured as value added in new dinars per man-hour increased at about 23% per annum from 5.72 N.D./hour in 1963 to 12.89 N.D./hour in 1967.

Management

Mr. Rudi Kremesec, General Manager, has been with the enterprise for over 11 years. He is assisted by Mr. Petar Skusek, Technical Manager, Mr. Franc Vogrinec, Financial Manager, and Mr. Anton Koritvik, Sales Manager, all well qualified and experienced persons in their respective fields of activity. Mr. Kresemec's term as General Manager expires this year but it is expected that he will be re-elected for another 4 year term.

Recent Financial and Earnings Record

Balance sheets for the past five years (1963-67) are shown in Annex 1. A summary of the balance sheet as at December 31, 1967, is given below (in million N.Ds.).

Assets		Liabilities	
Cash and Equivalent	5.9	Short-term Bank Debt	2.5
Receivables	8.7	Trade Payables	1.8
Inventories	13.4	Other Current Liabilities	16.3
Other Current Assets	13.7	Total Current Liabilities	20.6
Total Current Assets	41.7	Long-term Debt	7.5
Net Fixed Assets	16.4	Business Fund & Reserves	30.0
Total Assets	58.1		58.1

In the period 1961-67, STOL put N.Ds. 9.9 million into the expansion of its fixed assets. Apart from the financing of a multiple blade saw which cost N.Ds. 100,000, no long-term debt was incurred. N.Ds. 7.2 million was derived from the company's own funds and the remainder was covered by short-term debt, most of which has been paid off. Expansion during this period consisted of the construction of three new buildings for the raw cutting of wood, a veneer department and a new storage building, the purchase of a boiler and various pieces of woodworking and finishing equipment.

Of present outstanding long-term debt of N.Ds. 7.5 million, N.Ds. 4.3 million represent long-term loans for working capital purposes. The enterprise has relied predominantly in the past on covering new investment by short-term borrowing which can be rapidly eliminated through the internal generation of funds. Long-term debt service coverage is, therefore, more than adequate.

Earnings statement for the past five years are shown in Annex 1, page 2. Production by major groups of products, sales, and earnings are summarized below (in million N.D.)

	1963	1964	1965	1966	1967
Physical Production (in 000 units)					
Bentwood Chairs	122.3	79.1	70.7	69.6	57.1
Other Chairs	476.7	513.0	481.4	417.3	449.8
Office Furniture (pieces)	3.2	9.1	11.7	12.9	19.4
Sales (in million N.Ds.)					
Invoiced Sales	23.58	29.06	32.40	40.33	49.45
Paid Sales	22.61	29.27	27.51	38.93	45.85
Breakdown of Invoiced Sales (in millions of N.Ds.)					
Domestic Sales	9.8	12.7	15.0	22.9	30.6
Exports (Convertible)	13.8	16.4	17.4	17.4	18.9

Note: No exports to clearing areas.

	1963	1964	1965	1966	1967
Net Earnings (in millions of N.Ds.)					
Net Earnings from Operations	1.61	3.08	1.70	3.01	4.66
Other Earnings	.07	.11	.27	.32	.24
Total	1.68	3.19	1.97	3.33	4.90

In the period 1963 to 1967, total paid sales of STOL have doubled and net earnings have trebled. Exports to convertible currency areas have increased from N.Ds 13.8 million to N.Ds 18.9 million whereas domestic sales have trebled during the same period. The enterprise turns away some export orders every year if they are from a new source that is not likely to repeat the order. The reason for this is that at present production levels, the enterprise has only the capacity to fill orders from regular foreign and domestic customers. Filling a 'one-shot' export order would therefore involve disappointing regular domestic client which they do not consider to be in their long-term interest. In some measure, nevertheless the domestic market is a residual one insofar as export orders from regular clients are given top priority.

Market & Sales

The enterprise's two main product lines are chairs and seats of various types, and office furniture. The following table shows the relative importance of the two product lines during the past five years:

Invoiced Sales
(Qty. in thousand; Value in Million NDin)

	1963		1964		1965		1966		1967	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
Chairs & Seats	593	20.15	600	24.00	563	26.63	487	32.36	501	38.64
Office Furniture	3	0.89	9	2.28	11	3.07	13	4.09	19	6.88
Other	-	2.54	-	2.78	-	2.70	-	3.88	-	3.93
		23.58		29.06		32.40		40.33		49.45

In the past, sales have been limited by production capacity rather than market demand. As stated in the note on the Yugoslav Furniture Industry, there is a large unsatisfied demand for furniture in the domestic market. Office furniture sales have grown noticeably during the period and it is expected that this line will continue to grow in the future. Sales are almost exclusively to the domestic market.

Export sales, which have averaged 34% of total invoiced sales over the past five years, are made up predominantly of chairs, the major importers being the U.K. and the U.S.A. which together account for roughly 65% of Stol's exports. The types of chairs sold in the export and domestic markets are quite different and no meaningful comparison of export and domestic prices can be made. Moreover, the enterprise also exports a considerable quantity of chair components and chairs in CKD packs.

Approximately 65% of STOL's sales in the domestic market are contract sales. For example, STOL has in recent times equipped several Yugoslav cinema houses and restaurants with chairs and seats. The balance is sold through about 18 different sales agents, the major ones being Slovenijales, Lesnina and Exportdrvo who maintain showrooms in major Yugoslav towns.

Exports are channeled mainly through Slovenijales who maintain offices in major European and American cities like London, Paris, Munich and New York.

STOL has developed a number of important foreign buyers who have been regular customers for the past several years. The main customer in the UK is Bentchairs Ltd. In the U.S., Empire State Chair Co. of New York, Mason & Parker Manufacturing Co., Winehendon Mass and David Lebensfeld New York are some of the important buyers of long standing.

Exports to UK are expected to decline while the share of the U.S. in STOL's exports is increasing and by 1970 the enterprise expects that the breakdown of exports by countries is likely to be as under. Exports to clearing currency areas have been negligible and the situation is not expected to change materially in the future.

USA	60%
Switzerland	15%
Italy	15%
France	10%
	100%

In the USA, STOL's exports are charged a reduced import duty (17% as against 40%) on a most favored nation basis.

The only serious competition STOL faces is from Polish manufacturers who have recently been exporting bentwood chairs at prices 20% below STOL's prices. STOL plans to meet such competition by changing over to more sophisticated types of chairs.

Sales projections for the next five years (Annex 2,p.1) are based on the assumption that increased production capacity will be available from 1970.

Description of the Project

As stated earlier the project under consideration is mainly the balancing of plant capacity by removing existing bottlenecks, replacing certain old equipment, and reinforcing internal transportation and material handling facilities.

The project which has been engineered by the enterprise's own staff will involve the extension of the existing chair production department building to provide an additional area of about 1550 sq. meters for housing a new chair finishing line. The metal products workshop which produces legs and frames for chair and office furniture is to be extended by about 1900 sq. meters for installing a new painting and stove enamelling line. The capacity of the bonded seat production section is also to be extended by the addition of a new hydraulic press and auxiliaries. Reference has already been made to installation of a new boiler in 1967. During this project the enterprise will add a 700 kw. turbogenerator to its power station.

The enterprise has estimated that implementation of the project will result in a overall increase of plant capacity by about 35%.

Cost of Project

The project is estimated to cost N.D. 8.43 million ($0.675 million) excluding interest during construction. Foreign exchange expenditures are estimated at $315,000 which IBRD has been requested to provide. A summary of the project cost estimate is given below:

	N. D. Million	$ Million	Total N. D. Million
Buildings & Civil Works	1.65	-	1.65
Plant & Equipment	0.25	0.311	4.14
Import Duties (20 to 36%)	1.21	-	1.21
Freight & Handling	0.14	-	0.14
Erection	0.03	0.004	0.08
Engineering & Misc.	0.06	-	0.06
Additional Working Capital	1.15	-	1.15
	4.49	0.315	8.43

Capital costs have been estimated on the basis of budget quotations received from prospective suppliers during the past six months. Erection costs are comparatively low as the items of equipment intended to be installed are small and light, with the exception of the turbogenerator. The engineering and miscellaneous expenses relate mainly to architects' fees for designing the building extension.

It is expected that the extension to the buildings will be completed by the end of 1968. Delivery periods on equipment are short ranging from 2 to 6 months. Except for the turbogenerator, installation of equipment can be completed in less than 2 months. Assuming that orders for imported equipment can be placed by January 1969, it is estimated that the project can be completed by the last quarter of 1969. Sales projections are based on the assumption that the new equipment comes into operation by the end of 1969.

Project Financing

A summary of STOL's estimated financial requirements and sources of funds during project construction is given below: (in million N.D.)

	Uses	Sources	
Project	7.2	Net Earnings	10.5
Other Investment in Fixed Assets	1.3	Depreciation	3.1
Renewals & Replacements	3.1		
Debt Repayment	2.4	Long-term Debt (IBRD)	3.9
Reserves & Other Allocations	2.5		
Additional Working Capital	1.0		
	17.5		17.5

Detailed earnings and cash flow projections for the construction period (1968-9) and the following 3 years together with the major assumptions and further explanations are given in Annex 2.

It will be noted that apart from a long-term loan of N.Ds 3.9 million to cover the purchase of equipment from foreign sources, the company does not intend to take on additional long-term debt from domestic sources. Internal generation of funds is more than adequate to cover all projected needs.

Earnings and Debt Service Forecasts

Earnings forecasts (Annex 2) are based on the assumption that sales would equal production. As a result of this project, sales are expected to increase from about N.Ds 45 million in 1967 to N.Ds 64 million by 1972 or by approximately 43%. Net earnings are expected to increase steadily over the period from N.Ds 4.9 million in 1967 to approximately N.Ds 8.3 million in 1972, an increase of 70%. The main increase in sales will be in the domestic market although export sales will increase from about N.Ds 19 million in 1967 to N.Ds 21 million by 1972. The non-discounted average rate of return from this investment is approximately 40%.

Long-term debt service coverage is ample.

"STOL" KAMNIK
Comparative Balance Sheet
(In millions N.Ds)

	1963	1964	1965	1966	1967
ASSETS					
Current Assets					
Cash, Banks & Near Cash	2.4	2.7	2.2	4.0	5.9
Trade Receivables	2.7	2.9	4.9	6.0	8.7
Inventories					
Raw Materials & Supplies	1.7	2.6	2.9	3.9	3.1
Semi-finished Products	4.4	4.9	5.0	7.3	7.1
Finished Goods	1.0	1.7	3.9	2.7	3.3
Total Inventories	7.1	9.2	11.8	13.9	13.5
Other Current Assets 1/	3.8	5.0	10.1	11.0	13.8
Total Current Assets	16.0	19.8	29.0	34.9	41.9
Gross Fixed Assets					
Land	0.1	0.1	0.1	0.1	0.1
Buildings	6.8	6.9	7.5	11.6 2/	12.6
Machinery & Equipment	7.0	7.7	7.6	10.8 3/	12.0
Fixed Assets under Construction	.7	1.1	.6	.5	1.4
Preliminary Exp. Patents, etc.	.2	.2	.2	.2	.2
Collective Consumption Assets	4.2	4.3	4.5	1.0 4/	1.0
Total Gross Fixed Assets	19.0	20.3	20.5	24.2	27.3
Less: Depreciation	(7.1)	(7.8)	(7.8)	(10.4)	(11.2)
Net Fixed Assets	11.9	12.5	12.7	13.8	16.1
TOTAL ASSETS	27.9	32.3	41.7	48.7	58.0
LIABILITIES					
Current Liabilities					
Short-term Debt to Banks	2.0	3.5	4.2	3.2	2.5
Trade Payables	.7	1.1	.7	1.1	1.8
Other Current Liabilities 5/	5.5	5.4	11.3	14.1	16.2
Total Current Liabilities	8.2	10.0	16.2	18.4	20.5
Long-term Debt	5.8	5.2	4.6	6.0	7.5
Funds of the Enterprise					
Business Fund	10.6	13.3	16.6	22.8	27.1
Reserve Funds	.7	.9	.7	1.1	1.6
Collective Cons. Funds	2.6	2.9	3.6	.4	1.3
Total Own Funds	13.9	17.1	20.9	24.3	30.0
TOTAL LIABILITIES	27.9	32.3	41.7	48.7	58.0
CURRENT ASSETS/CURRENT LIABILITIES	1.95:1	1.98:1	1.79:1	1.90:1	2.04:1
LONG-TERM DEBT/OWN FUNDS	29:71	23:77	18:82	20:80	20:80

1/ Includes cost of goods sold, for sales invoiced but not paid, other transitory items and prepaid expenses.
2/ Re-valuation of assets.
Increment - N.Ds 4.5 million.
3/ Re-valuation of assets.
Increment - N.Ds 2.2 million
4/ Large majority of Collective Consumption Assets transferred to separate enterprise.
5/ Includes sales value of goods invoiced but not paid, other transitory items, and accrued charges.

IFC/LAEA
May 22, 1968

"STOL" KAMNIK
Earnings Statement
(in millions N.Ds)

	1963	1964	1965	1966	1967
Sales Revenue	22.61	29.27	27.51	38.93	45.85
Operating Costs					
Materials & Overhead	11.82	14.52	13.36	19.43	21.84
Net Wages	4.01	5.58	5.89	8.53	11.16
Related Social Payments	1.55	2.31	2.19	2.84	3.13
Taxes & Contributions	2.71	2.74	3.36	3.58	3.84
Total Operating Costs	20.09	25.15	24.80	34.38	39.97
Depreciation	.53	.64	.56	1.05	.89
Interest	.38	.40	.45	.49	.33
Net Earnings from Operations	1.61	3.08	1.70	3.01	4.66
Other Income	.07	.11	.27	.32	.24
Net Earnings	1.68	3.19	1.97	3.33	4.90

IFC/LAEA
May 22, 1968

"STOL" KAMNIK
Financial Forecast
(In millions N.Ds)

	1968	1969	1970	1971	1972
I. Earnings Statement					
Sales Revenue	52.60	53.99	60.37	62.89	63.77
Operating Costs					
Materials & Overhead	26.13	26.78	29.03	29.78	29.98
Net Wages	11.09	11.38	12.42	12.87	13.01
Related Social Payments	3.35	3.44	3.76	3.88	3.93
Taxes & Contributions	4.55	4.67	5.08	5.26	5.32
Total Operating Costs	45.12	46.27	50.29	51.79	52.24
Depreciation	1.50	1.55	1.90	2.30	2.50
Interest	.52	.55	.90	.90	.90
Net Earnings from Operations	5.46	5.62	7.28	7.90	8.13
Other Earnings	.15	.15	.15	.15	.15
Total Earnings	5.61	5.77	7.43	8.05	8.28
II. Sources & Application of Funds					
Sources					
Net Earnings (previous year)	4.9	5.6	5.8	7.4	8.1
Interest	.5	.6	.9	.9	.9
Depreciation	1.5	1.6	1.9	2.3	2.5
Increase in Long-term Debt					
IBRD	-	3.9	-	-	-
Other Banks (Kreditna Banka)	-	-	-	-	-
Total Sources	6.9	11.7	8.6	10.6	11.5
Application					
New Investment:					
Fixed Assets (foreign)	-	3.9	-	-	-
Fixed Assets (domestic)	1.9	1.4	-	-	-
Working Capital	-	-	1.2	-	-
Total Project	1.9	5.3	1.2	-	-
Renewals & Replacements	1.5	1.6	1.8	2.3	2.5
Other Fixed Assets	.6	.7	2.5	1.5	2.0
Interest:					
Existing Long-term Debt	.4	.3	.2	.2	.1
IBRD	-	.2	.3	.3	.3
Short-term Credits	.1	.1	.4	.4	.5
Total Interest	0.5	0.6	0.9	0.9	0.9
Principal Repayments:					
Existing Long-Term Debt	1.2	1.2	1.0	0.6	0.4
IBRD	-	-	-	.2	.2
Total Repayment	1.2	1.2	1.0	0.8	0.6
Allocated to Reserve Fund	.6	.7	.6	.6	.6
Collective Consumption Fund	.6	.6	.6	.6	.7
Sub-total	1.2	1.3	1.2	1.2	1.3
Net Increase in Working Capital	-	1.0	-	3.9	4.2
Total Application	6.9	11.7	8.6	10.6	11.5
Long-term Debt Service Coverage	4.2	4.5	5.5	7.8	11.0

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May 22, 1968

"STOL" : Sales Projections

(Value in Million N. Ds)

(000 nos)	1968 Quantity	1968 Value	1969 Quantity	1969 Value	1970 Quantity	1970 Value	1971 Quantity	1971 Value	1972 Quantity	1972 Value
Bentwood Chairs	58.6	3.50	60.0	3.58	65.1	3.89	67.0	4.01	67.5	4.04
Other Chairs	465.0	35.44	470.0	35.82	490.0	37.35	500.0	38.10	505.0	38.48
Office Furniture	24.0	8.90	26.0	9.64	36.0	13.35	39.5	14.65	40.5	15.02
Miscellaneous Sales	-	4.76	-	4.95	-	5.78	-	6.13	-	6.23
		52.60		53.99		60.37		62.89		63.77
Domestic Sales		33.6		34.6		40.9		42.0		42.3
Export Sales 1/		19.0		19.4		19.5		20.9		21.5
TOTAL		52.6		54.0		60.4		62.9		63.8

1/ STOL does not intend to export to clearing currency areas.

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May 22, 1968

The Yugoslav Woodworking Industry

Saw Milling

With nearly 30% of the country's area covered with forests, saw milling is one of the oldest established industries in Yugoslavia According to the latest published statistics, forests cover approximately 8.8 million hectares and in 1965 the cut timber gross stock was estimated at 17.5 million cu. m. The total volume of timber felled annually and the quantity of sawn timber produced is shown below. The difference is accounted for by other uses such as pulpwood, fuelwood, roundwood, veneer logs, skis, etc.

Year	Timber Felled 000 cu m	Sawn Timber 000 cu m
1946	4117	1922
1963	9473	2721
1964	9809	2720
1965	10133	2677
1966	10312	2888
1967	9605	2904

Yugoslavia is a net exporter of sawn timber.

Furniture Industry

Prior to World War II, furniture making was mainly a handicraft business with only a few large scale producers. Beginning in the early fifties, individual craftsmen and small businesses have been gradually merged into industrial enterprises. Today there are some 226 furniture making enterprises in Yugoslavia employing in all about 40,000 workers. In 1967 these enterprises produced goods worth approximately NDin 1,100 million about 30% of which were exported. Seventy-six (76) of these enterprises are located in Serbia, 46 in Croatia, 45 in Slovenia and 37 in Bosnia and Herzegovina. Serbia accounts for roughly 30% of total Yugoslav production, while Slovenia and Croatia account for about 25% each.

Of the 226 enterprises, about 40 are large units (employing more than 400 workers each) and account for over 60% of total production and 70% of export sales. The largest furniture manufacturing enterprise is at Novo Gorica in Slovenia, established in 1949, employing about 1,100 workers. Stol, Brest and Novoles, which are requesting IBRD assistance, are among the top ten in the industry.

The Yugoslav furniture industry has been expanding rapidly over the past few years. In 1952 furniture production represented roughly 3% of the total value of wood products produced in the country. The percentage increased to 14% by 1956, 20% by 1959 and was approximately 30% in 1967.

Prepared by M. V. Dehejia and A. Bandy.

A study made in May 1967 by the Zavod Za Trzisna Istra Zivanja indicates a substantial unsatisfied demand for furniture in Yugoslavia despite significant production increases as shown below:

Growth of Furniture Production

(in '000 nos.)

	1939	1952	1959	1962	1967
Office Furniture	250	615	1255	1143	1086
Bentwood Furniture	29	42	133	288	339
Other Furniture	48	365	3609	5543	7311

Current domestic sales meet only about 64% of the demand for bedroom furniture, 59% for kitchen furniture, 27% for living room furniture and 6% of dining room furniture.

Per capita sales of furniture in Yugoslavia are currently at levels 25 to 50% below those in other European countries. At present, expenditure on furniture accounts for roughly 1.9% of the Yugoslav family's total annual expenditures. With the expected rise in per capita national income in the coming years and the large unsatisfied local demand for furniture, domestic sales are not likely to present any problems to the furniture producers. Domestic sales prices were decontrolled at the time of the Economic Reform and have reached stable levels. The study considers that no significant changes in these prices are likely during the next few years.

Yugoslavia has firmly established itself as an exporter of furniture to the European and U.S. markets. Exports are handled mainly by four big export houses - Slovenijales, Ljubljana; Exportdrvo, Zagreb; Sipad, Sarajevo and Jugodrvo, Belgrade. Slovenijales is the principal export agent for the three enterprises under review -- Brest, Novoles and Stol.

Exports to the United States have doubled in the last four years, growing at the rate of about 30% per annum. This rate is expected to continue although the way in which products are exported is expected to change. For instance, whereas in the past most business was done with import houses in the U.S., now sales are mainly to manufacturers who purchase furniture parts from Yugoslavia and assemble them in the U.S. Recently, Slovenijales established a new company in New Jersey for assembling furniture for its smaller U.S. customers. Slovenijales has also started to supply complete furniture for hotels in the U.S.; several Sheraton hotels have been so furnished. Exports to Europe have been growing at a steady rate, the fastest growing market being France.

Plywood & Veneer

Manufacture of plywood and veneer was first established immediately after World War I with factories at Rijeka and Sremska Mitrovica. Production went up twelvefold in the years following World War II and in 1967 the country produced about 90,000 cu. m. of plywood and 180,000 cu. m. of veneer (both decorative and core veneers). Figures for production and sales during the past six years are given in Annex I.

By volume of production, Yugoslavia ranks fifth in Europe after West Germany, Finland, France and Italy (in that order). As an exporter of plywoods, Yugoslavia ranks seventh after Finland, Rumania, France, West Germany, Belgium and Italy. For veneer exports, Yugoslavia is the sixth largest after West Germany, France, Rumania, Denmark and Italy. Yugoslavia does not import any plywood or veneer.

Over 80% of the Yugoslav production is accounted for by 17 different enterprises. The balance is accounted for by small scale operations with individual capacities less than 1000 cu.m./year.

The major manufacturers of plywood are:

Bosanka, Blazuj (11,500 cu.m.)
Rade Supic, Rijeka (8,000 cu.m.)
Drvni Kombinat, Sremska Mitrovica (6,500 cu.m.), and
Jadar, Zvornik (6,000 cu.m.)
Lignosper, Bosanski Novi (5,800 cu.m.)1/

who together account for approximately 30% of the country's production. In addition to manufacturing plywood and veneer these enterprises also make finished goods such as doors and furniture.

The major manufacturers of decorative veneers are:

Dip, Slavonski Brod (4,400 cu. m.)
Topol, Ilirska Ristrica (3,790 cu.m.)
Dip, Sisak (3,000 cu.m.)
Dip, Nova Gradiska (2,000 cu.m.)
Lip, Seutjur (2,000 cu.m.)
Lip, Savinja (2,000 cu.m.)

who account for approximately 38% of the country's total decorative veneer manufacturing capacity.

Each enterprise has its own assured supply of timber from forest enterprises in the surrounding regions. Yugoslavia's forest reserves are under-utilized at present - the plywood and veneer industry consumes an estimated 600,000 cu. m. of timber annually compared to the minimum average annual felling of 22,000,000 cu. m. - and there is considerable scope for future expansion.

1/ Lignosper is increasing its capacity to 10,000 cu. m. with a $360,000 loan from IBRD Loan 504-YU.

Development of the Yugoslav plywood and veneer industry is coordinated by Savet za Sumarstvo i Drvhu Industriju, Beograd, the Economic Chamber for Forestry and Woodworking Industries. Based on an analysis of past consumption patterns the Chamber estimates that by 1975 plywood requirements will reach 200,000 cu. m. and veneer requirements will be about 320,000 cu. m.

Particle Board

There are reported to be 18 manufacturers of particle board in Yugoslavia, Brest at Cerknica being the largest and Meblo in Nova Gorica the second largest. Production and sale of particle board have increased over the years as shown below:

Particle Board

Production & Sales
(in 000 cubic meters)

	1961	1962	1963	1964	1965	1966	1967
Production	8.1	35.2	75.2	116.5	154.6	150.0	142.0
Sales	6.1	24.6	70.9	111.2	142.4	130.8	115.4
Exports:							
Convertible	-	-	-	-	0.33	1.2	1.45
Clearing	-	-	-	-	0.35	0.4	0.25
Total	-	-	-	-	0.68	1.6	1.70

As can be observed from the table, particle board is consumed mainly in the domestic market. The main uses are for furniture and cabinet making and as wall panels in housing. Exports are mainly of special types of asbestos lined particle board. Italy is the largest importer of Yugoslav particle board.

During the last five years construction of housing has increased at an annual rate of 5%. Approximately 130,000 houses and apartments were constructed in 1967. Based on the projected growth in construction and the estimated additional requirements of the furniture industry, the Economic Chamber for Yugoslav Woodworking Industries estimates that approximately 200,000 cu. m. of particle board will be required by 1970 and about 300,000 cu. m. by 1975.

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July 26, 1968

Annex I

TOTAL YUGOSLAV PRODUCTION AND SALES

(in cubic meters)

	1961	1962	1963	1964	1965	1966	1967
I Plywood							
i. Production	65586	68876	74991	96947	110810	107477	90205
ii. Total Sales (Domestic & Export)	53388	63099	79360	94921	95463	86278	79563
iii. Exports							
a) Soft currency Area	1550	461	26	1347	1755	389	509
b) Hard currency Area	6065	10494	15670	18425	22483	25918	22837
Total Exports:	7615	10955	15696	19772	24238	26307	23346
II Veneer							
i. Production	74385	108605	96148	110304	203370	198818	181704
ii. Total Sales (Domestic & Export)	38144	92137	83186	98459	190427	177528	156802
iii. Exports:							
a) Soft currency Area	5406	4919	4178	5596	4824	6742	5306
b) Hard currency Area	8558	7973	8438	5108	6171	9775	5355
Total Exports:	13964	12892	12616	10704	10995	16517	10661

Source: Savet za Sumarstvo i Drvnu Industriju Belgrade

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YUGOSLAV INVESTMENT BANK

Background

The Yugoslav Investment Bank (YIB) was established in 1956, replacing the long-term credit department of the National Bank of Yugoslavia as the principal instrument of the Federal Government for providing investment funds from domestic resources and foreign loans. In 1964, the Investment Bank was given some measure of autonomy through the transfer to it of part of the Government's General Investment Fund which consisted of the proceeds of taxation used for investment. YIB besides its principal activity in investment financing, lends for permanent working capital, provides short-term foreign exchange credits and manages grants provided by the Federal Government for specific purposes. A large part of the Bank's resources, which totalled about N.D. 23.9 billion at the end of 1967, were funds made available by the Federal Government (67%), followed by foreign loans (16%) and deposits of enterprises and other organizations (6%). Up to the early 1960's the Bank's lending accounted for about one-third of all economic investments in Yugoslavia and was primarily for industry, power, transport and tourism. The breakdown of lending since then is shown in Annex 1.

As the Government's main channel for foreign loans, the Investment Bank has been the borrower of the eight IBRD loans totalling $270.5 million made to Yugoslavia since 1961. Two of these loans (277-YU and 318-YU of 1961 and 1962) totalling $60 million were for power, two (344-YU and 485-YU of 1963 and 1967) totalling $45 million for roads, three (361-YU, 395-YU and 531-YU of 1964 and 1968) totalling $155 million for railways. The Investment Bank, while passing these loans on to other organizations which carried out the projects, played a substantial role in their preparation, negotiation and administration. In addition the Investment Bank was the borrower of the $10.5 million loan (504-YU in 1967) which it relent to seven industrial enterprises to help finance their modernization programs.

Organization

The banking reform of March 1965, which was part of the comprehensive reform measures aiming, inter alia, at decentralizing the economic system, has changed the organizational and financial structure of the Yugoslav Investment Bank. Through the reforms, all Yugoslav investment banks became autonomous, were permitted to operate throughout the country and, subject to meeting certain financial requirements, were put into an equal

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Prepared by Mr. J. A. Simmons.

position regarding borrowing abroad and the possibility to administer governmental investment resources. The Investment Bank is now largely autonomous from the Federal Government and has to compete with other credit institutions.

The Investment Bank's higher organ is the Assembly, consisting of representatives of enterprises, other economic organizations and governmental bodies contributing to the Bank's credit fund. Contributions to the credit fund, which is similar to share capital, cannot be repaid but are transferable and entitled to payment of interest depending on the results of the Bank's operations. In 1967 N.D. 8.6 million was paid in interest on contributions. The Assembly had on January 31, 1968, 54 members with total subscriptions of N.D. 232.8 million of which N.D. 190.3 million had been paid. The Federal Government's subscription was about N.D. 75 million but its voting power is limited to 10% as is that of any other member of the Bank's Assembly. The Assembly decides on YIB's policies, organization and distribution of revenues, including interest on the credit fund. The Assembly's decisions are, with considerable degree of delegation of powers, carried out by an Executive Board appointed by the Assembly, and by a General Manager, appointed by the Federal Assembly as in the case of all banks in which the Federal Government participates. The General Manager implements decisions and policies laid down by the Bank's organs within the framework of the social plans of Yugoslavia. He can appeal decisions of the Bank's organs finally to the Federal Government.

Financial Position

The banking reform has particularly affected YIB's financial structure. Whereas until the reform the Bank administered most of its funds on an agency basis, they have now become liabilities and assets.

Resources of YIB (In N.D. billions)	As at Dec. 31, 1964	1966	1967
Federal funds administered by YIB	17.26	0.17	0.01
Foreign loans with federal repayment obligations	0.33	1.69	1.59
Domestic loans and deposits under YIB's liability	1.79	18.39	18.80
Foreign loans and deposits under YIB's liability	1.70	2.11	2.68
Own funds	0.22	0.66	0.82
	21.30	23.02	23.90

Annex 2 shows YIB's comparative balance sheet for the years ending December 31, 1963 to 1967.

Two-thirds of the liabilities at the end of 1967 consisted of a credit of N.D. 15.94 billion from the Federal Government, which was created by converting the funds of the former General Investment Fund, administered by YIB on a revolving basis, into a credit at 2-1/2% repayable over 30 years, with the full risk resting on YIB. Since the average duration of YIB loans is close to 25 years, the Federal Government credit leaves small room for revolving of funds. YIB expects that it will continue to receive funds from the Government to lend for specific purposes. YIB has now to compete for these funds with other banks but has found that it has an advantage because of its experience in investment financing. If the Government makes funds available as loans, terms are negotiated between it and the banks which relend under their own risk. If the Government wants to channel funds through banks at subsidized terms or as grants, the chosen bank acts as agency only.

About 16% of YIB's resources come from foreign loans. The Federal Government has undertaken repayment obligations for foreign loans representing about 40% of the total. In these cases the loan proceeds were passed on by YIB as grants for infrastructure projects. YIB no longer has a privileged position as the channel of foreign loans but it expects to obtain in the future a substantial share of foreign funds.

In addition to funds from the Federal Government and foreign lenders, an increasing share of YIB's resources will have to come in the long run from domestic sources, particularly in the form of deposits, contributions to the Bank's credit fund and possibly bond issues. From 1963 to 1967 time deposits increased from N.D. 500 to 1,343 million. The potential importance of domestic bond issues is difficult to forecast since this form of financing has been seldom used in Yugoslavia since 1945. The internal investment loan shown in the Bank's balance sheet was originally issued by the Federal Government and subsequently transferred to the Investment Bank. Finally, the Bank will have available retained earnings allocated to the credit fund. These increased in recent years and by the end of 1967 were three times the original subscriptions.

Operations

There will probably be some shift of emphasis in YIB's operations. Whereas in the past, as the Government's principal investment institution, YIB concentrated on investments in basic industries, power and transport, it expects to extend its activity to all sectors with the exception of direct lending for agriculture. Emphasis will be given to financing industrial modernization. Other activities likely to gain importance are financing exports and imports, which are services of interest to the Bank's major members and depositors.

Borrowing Capacity

Any assessment of YIB's borrowing capacity has to take into account that until the recent reorganization it was primarily an institution for channeling Government funds to investment projects and had no repayment obligations. With the banking reform, YIB assumed the liability for most of these resources, but its transformation into a banking institution operating under the usual financial concepts regarding the relationship of debt to equity has barely started.

The ratio of debt to "equity" funds for YIB if calculated on a conventional basis (and excluding from debt federal resources for investment grants and an amount equivalent to the Federal Government's obligations in respect of foreign loans) would be 26:1 on December 31, 1967. This is a considerable change compared to December 31, 1964, i.e. before the banking reform, when the ratio was 81:1. The ratio will probably gradually decrease since YIB, to provide funds for future operations, intends to retain a higher share of earnings and to attract further investments for its credit fund. This was apparent in the income allocation during the past three years. However, YIB will probably not attain nor has to attain in the foreseeable future a conventional debt/equity ratio since resources it owes to the Federal Government can be considered to some extent as subordinated debt and guarantees for its liabilities are more comprehensive than is usual for development banks.

An important consideration for YIB's capacity to incur debt is that all members of its Assembly, including the Federal Government, have an obligation to make available to the Bank additional resources to the extent required to meet the Bank's obligations. The Federal Government also guarantees all obligations undertaken by YIB before January 25, 1966, i.e. the date when its operations were brought into conformity with the new banking legislation. A further aspect is the exchange risk undertaken by YIB on foreign borrowings. YIB's liabilities in foreign exchange are covered in part (presently about 40%) by repayment obligations undertaken by the Federal Government for certain foreign loans. For other foreign exchange liabilities it is YIB's practice, under the present foreign exchange system, that enterprises when borrowing in foreign exchange have to undertake to repay in foreign exchange. Furthermore, the right of YIB to exchange dinars for the currencies required for loan repayments is provided generally in legislation for all loans made before December 31, 1966.

Prospects

The Yugoslav Investment Bank will continue to play a major role in investment financing because of its long experience, volume of resources and close relations with many enterprises. It is difficult to forecast, however, how in the long run YIB's level of operations will compare to previous levels and to the future lending of other investment banks, since the banking system is still adjusting itself to the situation created by the new banking legislation. YIB's short-term financial forecasts envisage an increase in deposits due in inflow of new funds, particularly from the Federal Government. This seems justified since the new funds are largely for payments on account of commitments made previously to projects financed through YIB. Forecasts beyond 1968 are difficult to make since due to the banking reforms, a number of new factors will increasingly affect YIB. In the long run the scale of operations will depend to an increasing extent on YIB's ability to compete with other banks.

IFC/LAEA
July 26, 1968

ANNEX 1

YUGOSLAV INVESTMENT BANK

Long-Term Credits for Fixed Assets 1961-1967
(Million New Dinars)

Branch	Domestic Goods and Services	Imported Goods and Services	Total
INDUSTRY AND MINING			
Coal and coke	501	472	973
Petroleum	263	307	570
Ferrous metallurgy	2,185	1,812	3,997
Non-ferrous metallurgy	1,284	684	1,968
Building materials and misc.	42	62	104
Metal working	165	242	407
Electrical equipment	28	46	74
Chemicals	961	1,122	2,083
Paper	49	166	215
Textiles	12	25	37
Food processing	91	22	113
Other industries	9	16	25
Total Industry and Mining	5,590	4,976	10,566
ELECTRICITY	6,208	1,797	8,005
TRANSPORT	4,974	826	5,800
TOURISM	516	9	525
DWELLINGS	69	-	69
FORESTRY	31	2	33
OTHERS	23	54	77
Total	17,414	7,664	25,078

IFC/LAEA
July 22, 1968

YUGOSLAV INVESTMENT BANK

Balance Sheet
(In million New Dinars)

As at December 31,	1963	1964	1965	1966	1967
ASSETS					
Investment credits:					
Investment credits to economic enterprises1/	14,295	15,790	14,942	15,237	14,720
Investment credits to banks for granting investment credits to economic enterprises1/	2,079	1,849	3,770	4,323	5,965
Total investment credits	16,374	17,639	18,712	19,560	20,685
Short-term credits:					
Credits to economic organizations for working assets	1	67	8	532	502
Credits to banks for granting short-term credits	-	80	80	270	300
Total short-term credits	1	147	88	802	802
Investment grants out of federal resources	-	2,230	63	170	4
Obligations of the Federal Government in respect of foreign loans	-	334	794	1,692	1,587
Foreign exchange credits and current accounts:					
Deposits with National Bank	-	-	-	-	46
Foreign exchange credits to banks	-	28	8	8	1
Foreign exchange credits to economic organizations	63	96	188	224	268
Current accounts in foreign banks	14	15	13	24	10
Total foreign exchange credits	77	139	209	256	325
Giro account:					
Giro account for investments	510	358	128	2	20
Giro account for short-term credits	248	182	142	113	33
Giro account in foreign exchange	32	46	78	-	-
Legal reserve requirements with the Social Accounting Service	-	-	113	274	244
Total Giro account	790	586	462	389	297
Financial resources of the Bank as the user of social property	29	28	25	11	6
Reserve funds of the Bank	44	45	46	87	130
Fixed assets	9	9	11	33	41
Collective consumption fund	12	19	21	16	18
Miscellaneous assets	79	123	222	3	1
TOTAL ASSETS	17,415	21,299	20,653	23,019	23,896

	1963	1964	1965	1966	1967
LIABILITIES					
Sources for investment credits:					
Credit from the Federal Government (earlier General Investment Fund)	14,805	14,995	13,915	15,042	15,943
Foreign investment loans and credits	1,185	1,883	3,179	3,518	3,790
Internal investment loan	-	624	640	587	547
Credit fund	8	110	207	459	577
Time deposits of clients	500	662	906	1,173	1,343
Credit with the National Bank	102	39	712	691	225
Total sources for investment credits	16,600	18,313	19,559	21,470	22,425
Sources for short-term credits:					
Short-term deposits	464	306	424	834	653
Federal sources for investment grants and other funds:					
Sources for investment grants	-	2,018	18	175	8
Sources for granting credits for special purposes	-	250	64	-	-
Total sources for grants	-	2,268	82	175	8
Sources of funds available for foreign exchange operations:					
Foreign exchange deposits of economic organizations	80	99	132	142	199
Foreign exchange credits with the National Bank of Yugoslavia	-	-	38	45	139
Credits with foreign banks	5	46	63	95	145
Total foreign exchange operations funds	85	145	233	282	483
Reserve funds	45	46	87	131	165
Business fund	32	41	44	50	53
Sources of collective consumption sources	20	23	27	19	20
Miscellaneous liabilities	169	157	197	58	89
TOTAL LIABILITIES	17,415	21,299	20,653	23,019	23,896

1/ For fixed assets and permanent working capital

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