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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

INDONESIA:
INVESTMENT AND GROWTH PERSPECTIVES
IN THE 1970's
--
A FIRST REPORT

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CURRENCY EQUIVALENTS

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1 rupiah	=	U.S.\$ 0.003
1 million rupiahs	=	U.S.\$ 2,646

PREFACE

At the IGGI meeting in December 1970 it was noted that the recent rescheduling of the pre-1967 external debts had resolved a major uncertainty concerning Indonesia's future resource requirements, but it had not yet been possible to investigate the longer-term investment needs and external aid requirements. IGGI members expressed their interest in a study on this subject and the Bank undertook to attempt an assessment by early 1972, in cooperation with the Government, of these longer-term perspectives. It was agreed that, if possible, by the time of the next IGGI meeting in April 1971 a preliminary report would be made available.

The following report represents an initial attempt to identify the issues involved in such an assessment of longer-term requirements and suggests an approach. The report therefore includes, in addition to the usual updating of information on recent developments in the economy, a discussion of investment plans and projects already being undertaken or prepared and of alternative growth patterns in the Indonesian economy on varying assumptions, and an indication of the gaps and deficiencies in the available data. The next stage of the investigation will necessarily concentrate on major policy issues and the problems of organization and management which lie behind the projections presented here. The long-term projections of the report are therefore limited in scope and intended to focus attention of IGGI members on the major issues involved and the spectrum of alternative growth patterns.

The report was prepared in Djakarta in February/March 1971 by the following headquarters staff members in association with the Resident Mission in Indonesia:

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TABLE OF CONTENTS

	<u>Page No.</u>
BASIC DATA	
SUMMARY AND CONCLUSIONS.	i - ii
I. Recent Economic Developments.	1
II. Development Perspective: Private Investment in the Medium Term.	10
III. Public Sector Programs.	24
IV. Alternative Patterns of Long-term Growth.	44
 ANNEX 1	
Simulation Model for Medium-term Projections (with two appendices)	
 STATISTICAL APPENDIX	

BASIC DATA

Area: 1,904,639 square kilometers

Land use as percentage of total area:

1. Estate agriculture	1.1
2. Other agriculture	13.1
(a) Food crops	(9.3)
(b) Cash crops	(3.8)

Population (1970): 121.1 million

Density per square kilometer 64
Estimated rate of growth (1965-1970) 2.5 percent

Density per square kilometer in Java 592

Political Status: Unitary Republic, member of the United Nations and the Association of South-East Asia Nations (ASEAN)

Gross Domestic Product (1970): Rp. 3,328 billion

Per Capita GDP (a) Official \$ 73
(b) Estimated \$ 80 - 100

<u>Foreign Exchange Reserves:</u>	<u>December 1969</u>	<u>December 1970</u>	<u>% Change</u>
	(\$ million)	(\$ million)	
Gross	119	157	
Net	-86	-51	
	(Rp. billion)	(Rp. billion)	
Total Money Supply	180.0	243.4	35.2
Time Deposits (State Banks)	33.6	50.4	50.0
Price Index (September 1966 = 100)	575	626	8.9

<u>Public Sector Operations (Rp. billion):</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>
	<u>Actual</u>	<u>Est.Act.</u>	<u>Estimates</u>
Government Current Receipts	243.6	344	416
Government Current Expenditure	216.5	310	364
Current Budget Surplus	27.1	34	52
Counterpart Transfers	69.2	73	90
Project Aid Disbursements	23.0	28	53
Development Expenditures	119.3	135	195

External Public Debt (\$ million):

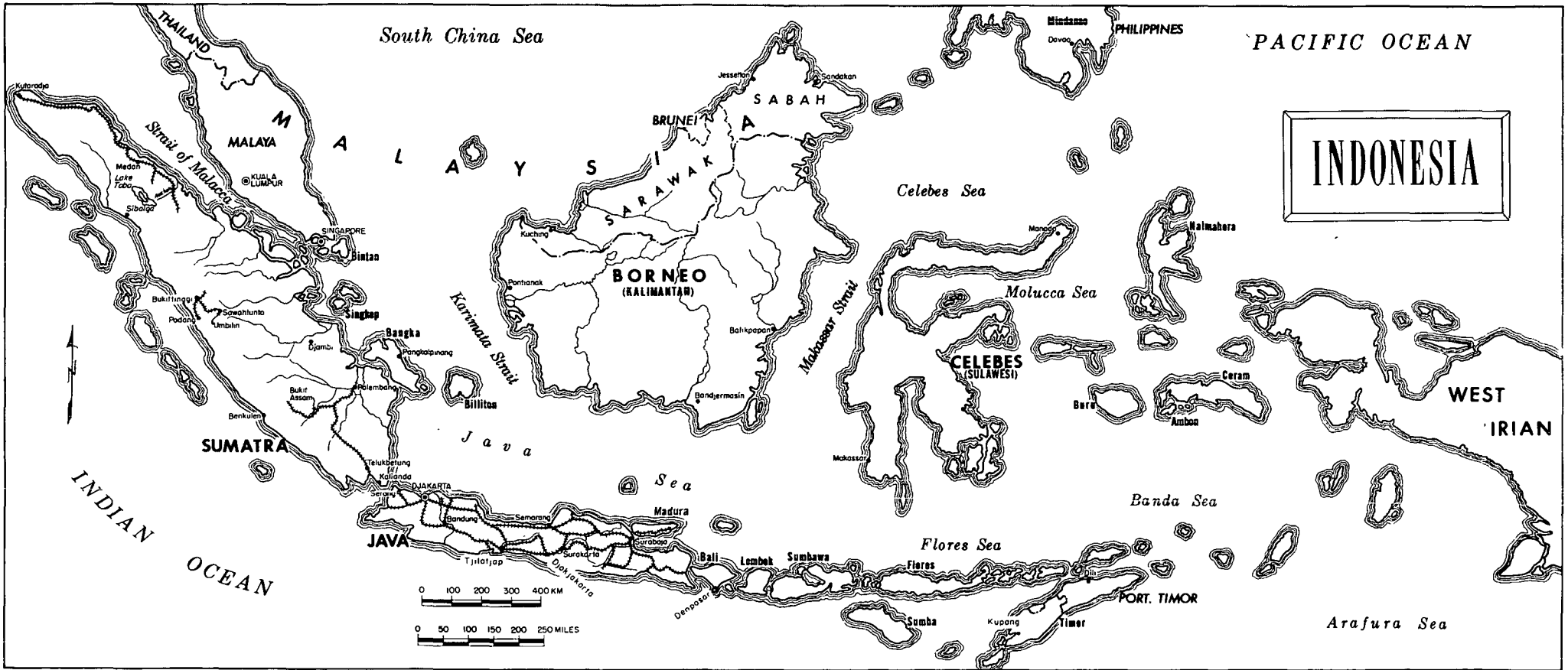
Outstanding as per June 30, 1970	3,516
Debt Service Liability in 1970/71	81
Debt Service as % of Exports	9

Balance of Payments (\$ million):

	<u>1969/70</u> <u>Actual</u>	<u>1970/71</u> <u>Est.Act.</u>	<u>1971/72</u> <u>Estimates</u>
Exports of Goods and Services	1,039	1,196	1,420
Imports of Goods and Services	1,443	1,612	1,926
Current Account Deficit	-404	-416	-506

Commodity Concentration of Exports (1970/71):

Rubber	22 percent
Oil	37 percent



SUMMARY AND CONCLUSIONS

i. The acceleration of economic activity described in the last Bank report (EAP-19a) of November 27, 1970, appears to have continued in recent months. Exports increased more rapidly than expected earlier. The demand for imports towards the end of the year was stronger than had been expected and this, combined with somewhat lower availability of program aid, led to a modest decline in foreign exchange reserves. The strongest force behind the growth of the economy was the rapid increase of fixed investment and development expenditures, in both the public and the private sectors. The substantial rise in production and export earnings has been another major dynamic factor in the growth of the economy.

ii. Revised projections of the balance of payments and of central government revenues and expenditures for fiscal year 1971/72 leave the estimate of aid requirements unchanged as compared to the earlier estimate. In line with lower tax receipts on international trade during 1970/71, the estimates of revenues from this source in 1971/72 may be further reduced, but this should be more than compensated by expected higher budget receipts from the oil sector after the recent international price increase for crude oil. This is expected to permit a larger surplus in the routine budget which would compensate for this shortfall and permit the implementation of the development budget as planned.

iii. Significantly higher estimates of gross and net oil exports as a consequence of the higher international price of crude oil together with a higher forecast of export earnings from other goods and services which has also been revised upwards, suggest a new projection of 1971/72 export earnings 15 percent higher than 1970/71. The higher actual import level in 1970/71 has also necessitated an upward revision of estimated import demand in 1971/72. The loss of foreign exchange reserves, including Indonesia's share of Special Drawing Rights (SDR), of the current year is planned to be compensated by a larger increase in reserves in 1971/72. This leaves a requirement of program aid disbursements of \$370 million in 1971/72 and an equal amount of commitments, perhaps with a somewhat larger component of general program aid than the originally requested \$160 million.

iv. It is becoming possible, on the basis of information now available on developments over the last three years, to draw some conclusions about possible patterns of future investment activity. For the next few years, through the middle of the decade of the 1970's, a large part of prospective investment activities in the public and private sectors has already been determined by project commitments, approvals and activities already begun. In the private sector, foreign investment reached over \$200 million in 1970, including the oil and hard minerals sectors, and present contracts and disbursement schedules indicate that in 1971 an increase by about 25-30 percent can be expected. In the years immediately after 1971 foreign private investment is expected to continue to grow, but at a less rapid rate if investments in mining, which make up more than half of the total, stabilize at about the present level.

v. Private investment under the Domestic Investment Law has not yet reached a high disbursement level in comparison to approvals given to date, and an accurate assessment of the current situation and prospects is hampered by lack of information. Nevertheless, from the data that are available a considerable growth of activity can be projected, largely in the medium-scale manufacturing sector and in agriculture, notably private estates. Investment under both domestic and foreign investment laws is projected to grow at a rate of about 17 percent per annum through 1975.

vi. An increase at the rate of about 12 percent per annum after 1971 for public sector development expenditures appears to be in line with disbursements expected from project aid and the possibilities for the mobilization of domestic budget resources. An increasing proportion of Rupiah development resources is being used for projects financed in part by foreign project aid. About one-third of project aid is being used by production enterprises in the public sector and the remaining two-thirds is directed to infrastructure and service programs. The preparation of new programs for investment and the promotion of productive activity by way of sector studies and pre-investment studies is in hand in many economic fields, and they are already producing a large volume of high priority project proposals. Thus, a much firmer foundation is being laid for the second five-year plan than existed for the first.

vii. Pre-investment studies have not yet reached a stage where their results can be used for long-term planning which relates output and other economic objectives to specific investment programs. Nor at this stage can analysis be made of the implications of such programs for the balance of payments, regional development or employment. As a first step towards the identification of growth trends and possibilities for the Indonesian economy, a model designed for the purpose has been used to test alternative macro-projections of some of the main variables affecting economic growth. The preliminary results of the work suggest that satisfactory rates of growth in the decade ahead are dependent on an inflow of external resources, public and private, substantially larger than at present. But the work is at too early a stage even for this general conclusion to be regarded as firm. It goes without saying that the validity of this conclusion is in any case contingent on a continuation of the progress in the past few years toward rational economic policy and program formulation, and toward effective program execution, continued devotion to the objective of economic growth, and greater concentration on the already pressing problem of employment and the income distribution problems likely to emerge more vividly in the coming years.

CHAPTER 1

RECENT ECONOMIC DEVELOPMENTS

1. The last Bank economic report (EAP-19a) of November 27, 1970, described developments during 1970/71 and prospects for 1971/72 as they appeared in October 1970; in the present report the review of current economic developments is therefore confined to a revision of the earlier estimates and projections wherever actual developments in the past 5 months indicate significant differences. The acceleration of economic activity noted previously continued in the last part of the year 1970; the growth of exports was even more rapid in the last quarter than in the preceding part of the year and imports also increased at a faster rate than before. Some of the indicators of economic change between calendar years 1969 and 1970 are presented in Table 1, below:

Table 1: Main Economic Indicators, Calendar Years 1969 and 1970

	<u>1969</u>	<u>1970</u>	<u>Percentage change</u>
Gross Exports (\$ million)	995	1,204	21
Djakarta Price Index (Sept. 1966 = 100)(annual average)	545	612	12
Gross Aid and Private Capital Inflows (\$ million)	325	487	50
Central Government Internal Revenues (Rp billion)	234	313	34
Bank Credit (increase, Rp billion) ^{/a}	22	60	--
Import of Goods and Services (\$ million)	1,388	1,614	23
Routine Budget Expenditures (Rp billion, in 1970 prices)	225	275 ^{/b}	11
Development Budget Expenditures (Rp billion, in 1970 prices)	66	118	80

/a January - September

/b Excluding ADO transfer

2. These indicators confirm the earlier assessment of 1970 as a year of considerable progress. Strong import demand in the latter part of the year put some modest pressure on foreign exchange reserves. This was somewhat accentuated by the fact that early in December the special exchange rate for program-aid imports was raised to the level of the general exchange rate with the consequence that demand for program-aid ex-

change shifted somewhat to demand for non-aid exchange. Although credit measures designed to offset the relative unattractiveness of program-aid exchange were employed, their effect was limited by the necessity that credit expansion be restrained. The somewhat lower than projected use of program-aid also meant some short-fall in receipts of aid counterpart funds for use in development budget expenditure.

3. Estimates by the Central Bureau of Statistics put the growth of DGP in 1969/70 at approximately 5 percent in constant prices. Incomplete and also not fully reliable production data indicate that the growth of GDP in 1970/71 may have been approximately 8 percent. In 1970/71, the most significant growth of output appears to have been in mining, construction and manufacturing; agricultural output appears to have increased by almost 4 percent. There was also an increase in imports of goods and services, with the result that the total resources available to the economy probably increased by approximately 9 percent. Estimates of the use of the resources available indicate that in real terms fixed investment may have increased by some 27 percent, exports of goods and services by 15 percent, and consumption by about 6 percent, the major part of the increase being in public rather than private consumption.

4. The estimated current account deficit in the balance of payments, excluding factor payments abroad, was only slightly larger than in 1969/70, indicating that the substantial increase in investment expenditures was largely financed by increased domestic savings in both the public and private sectors. Rough estimates suggest that aggregate domestic savings in 1970/71 may have grown to approximately 8 or 9 percent and investment in fixed assets to about 13 percent of GNP at market prices.

Fiscal Performance and Prospects

5. Events in the last quarter of 1970 and current expectations for the first quarter of 1971 indicate some quite minor changes in the earlier estimates of 1970/71 revenues and expenditures, as well as in the budget estimates for 1971/72. Table 2 below details revised estimates of government receipts for 1970/71 and 1971/72.

Table 2: Routine Government Receipts 1970/71 and 1971/72
(in billions of Rupiahs)

	1970/71		1971/72	
	October Estimate	February Estimate	Oct. est.	Budget
Taxes on Income	120.2	121.4	144.0	143.6
Domestic Consumption Taxes	91.4	90.1	110.8	111.2
Taxes on International Trade	132.1	123.2	158.1	156.9
Non-tax Revenues	<u>2.6</u>	<u>9.7</u>	<u>3.0</u>	<u>4.2</u>
TOTAL	<u>346.3</u>	<u>344.4</u>	<u>415.9</u>	<u>415.9</u>

Source: Ministry of Finance

6. As indicated, total receipts in 1970/71 are likely to be less than 1 percent (Rp 2 billion) smaller than estimated earlier. Import duties collected are likely to fall short of the October estimate by about Rp 8 billion despite the increase in total imports recorded in the last quarter of 1970, but this shortfall is expected to be offset by an increase of about Rp 7 billion in non-tax revenues. The shortfall in customs receipts is mainly attributable to a noticeable shift in imports from high duty consumer goods toward lower duty or duty-exempt capital goods. The increases in non-tax revenues consist mainly of profits from state enterprises. Receipts from sales and excise taxes are expected to be slightly lower than had been anticipated earlier, but receipts from taxes on domestic sales of petroleum products slightly higher. Total 1970/71 routine budget expenditures, as indicated in Table 3, are not expected to change from the earlier estimates. The surplus in the 1970/71 routine budget will accordingly be Rp 2 billion less than estimated earlier.

Table 3: Routine Government Expenditures 1970/71 and 1971/72
(in billions of Rupiahs)

	1970/71		1971/72	
	October Estimates	February Estimates	Oct. est.	Budget
Personnel Expenditures	135.1	137.5	163.9	165.9
Material Expenditures	63.7	58.9	72.2	67.2
Subsidies to Autonomous Regions	75.1	76.5	87.6	87.6
Debt Service Payments	26.1	26.1	35.2	37.2
Other Routine Expenditures	<u>10.7</u>	<u>11.7</u>	<u>5.2</u>	<u>6.2</u>
TOTAL	<u>310.7</u>	<u>310.7</u>	<u>364.1</u>	<u>364.1</u>

Source: Ministry of Finance

7. As indicated by Tables 2 and 3 estimates of total routine budget receipts and expenditures for 1971/72 are unchanged from those of October, although there are some minor changes of detail. The new figures are from the budget as presented to Parliament early in January.

8. Revised development budget estimates for 1970/71 and 1971/72 are shown in Table 4. As indicated by the table, total 1970/71 receipts are expected to be Rp 107 billion or Rp 9 billion lower than estimated earlier, reflecting principally lower aid counterpart receipts. Authorized expenditures are unchanged signifying that some of the expenditures will not actually be made in the 1970/71 year and will be assimilated into the 1971/72 budget. The present estimates of development budget receipts and expenditures are unchanged except for minor detail.

9. There is some uncertainty that the Rp 103.1 billion of aid counterpart receipts will materialize given present prices and margins for commodities imported under program aid. However, a shortfall in counterpart funds in 1971/72 may well be offset by a significantly larger surplus in the routine budget than was estimated earlier or is indicated in Tables 2 and 3. The prospect of the larger surplus arises out of the recent increases in crude petroleum prices which will result in an increase in Government revenues representing its share of profits from the production and export of crude petroleum.

Table 4: Development Budget
(in billions of Rupiahs)

	1970/71		1971/72
	October Estimate	February Estimate	Budget
<u>Resources</u>			
1. Routine Revenues	346.3	344.4	415.9
2. Routine Expenditure	310.7	310.7	364.1
3. Surplus on Routine Budget	35.6	33.7	51.8
4. Transfer of Counterpart Funds	<u>80.2</u>	<u>73.2</u>	<u>103.1</u>
5. Total Rupiah Development Resources	<u>115.8</u>	<u>106.9</u>	<u>154.9</u>
<u>Uses</u>			
Economic Sector	81.0	81.0	104.8
Departmental Programs	(61.0)	(61.0)	(75.3)
Regional Development	(15.0)	(15.0)	(18.0)
Government Share, Investment Credit	(5.0)	(5.0)	(11.5)
Social Sector	22.3	22.3	24.6
General Sector	12.5	12.5	10.8
Carry-over of 1970/71 Authorizations	-	-8.9 ^{/a}	2.0 ^{/b}
BGR Program Losses	-	-	<u>12.7</u>
Total Uses	<u>115.8</u>	<u>106.9</u>	<u>154.9</u>

Source: Ministry of Finance

^{/a} In the development budget this carry-over will have to be assimilated into the sectoral allocation for 1971/72.

^{/b} Carry-over of 1970/71 authorizations above originally estimated budget resources.

External Trade and Payments

10. Revised estimates of the balance of payments in 1970/71 and 1971/72 are summarized in Table 5. These revised estimates do not differ widely from those made in October. Although both exports and imports are now expected to be higher than had been estimated in October, the net result is that the current account deficit in 1970/71 is likely to be \$10 million lower than had been estimated earlier and approximately the same as that of 1969/70. Aid disbursements are likely to be significantly lower (by \$93 million) than had been anticipated earlier. Although net capital inflow other than aid is likely to be higher than had been estimated, there is expected to be a minor loss of \$13 million in foreign exchange reserves rather than the gain of \$15 million forecast in October, both excluding Special Drawing Rights.

Table 5: Balance of Payments, 1969/70 and 1970/71
(in millions of US dollars)

	1969/70	1970/71	
	<u>Actual</u>	<u>October Estimate</u>	<u>Revised Estimate</u>
Gross Exports	1,039	1,160	1,196
Imports of Goods and Services ^{/a}	1,443	1,586	1,612
Current Account (deficit = -)	-404	-426	-416
Program Aid Disbursements	307	364	291
Project Aid Disbursements	52	130	110
Net Other Items (including debt service)	-33	-53	2
Changes in Reserves (increase = -) ^{/b}	78	-15	13

^{/a} Including investment income payments (see Table 3.1 of the Statistical Appendix).

^{/b} Excluding SDR.

11. As indicated in Table 5, 1970/71 total exports, which in October were estimated at \$1,160 million, are now expected to reach \$1,196 million, and to be 15 percent rather than 12 percent higher than in 1969/70. Gross oil exports are expected to be \$447 million (\$7 million more than estimated in October) and 18 percent higher than in 1969/70. Non-oil exports, estimated at \$720 million in October, are now expected to reach \$749 million and will thus be almost 14 percent higher than in 1969/70.

12. Imports of goods and services in 1970/71 are also now expected to be higher than had been estimated in October, though by not even 2 percent. Imports, excluding investment income payments, are now expected to be \$1,778 million, or 9 percent higher than in 1969/70.

13. A larger change in the 1970/71 estimates is in aid disbursements which are now expected to be \$401 million rather than the \$494 million forecast in October, principally as a result of lower disbursements of program aid than had been anticipated. These occurred in part because a substantial part of the commitments was made only in March 1971, too late to affect disbursements in the 1970/71 fiscal year.

14. Data on the commodity composition of imports were not available in October but have become available recently for 1969/70 and a substantial part of 1970/71. These data are the basis for the summary estimates presented in Table 6 for 1969/70, 1970/71 and, as projected, 1971/72. They indicate for 1970/71 as compared with 1969/70: (a) a measurable decline in imports of consumer goods, especially foodgrains; (b) no significant change in the general category of production materials, but a decline in fertilizer imports and an increase in production materials for industry; (c) a large increase in imports of investment goods. The decline in imports of foodgrains appears to reflect increased domestic output since demand undoubtedly increased and prices were relatively stable. The decline in imports of fertilizer reflects the availability of sizeable stocks. The 10 percent increase in imports of production materials for industry reflects the increase in manufacturing output and the 47 percent increase in investment imports obviously reflects the sharp increase in construction and other investment activity.

15. The currently projected 1971/72 imports are higher than those projected in October partly because 1970/71 imports have turned out to be higher than then estimated and partly because the newly available data on the composition of imports provide a better basis for projection. Table 7 summarizes the current projections. As it indicates, imports of goods and services in 1971/72 (excluding investment income payments and oil sector debt service) are now expected to total \$1,744 million. This figure is 16 percent higher than the current estimate of 1970/71 imports and 2 percent higher than the 1971/72 figure projected in October.

16. Imports of consumer goods other than foodgrains are projected at rates of growth somewhat below those in the current year; this reflects principally the expansion of domestic textile production and the consequent reduction of imports of finished textiles. Industrial materials are projected at a somewhat more rapid rate of growth than in 1970/71 as domestic industry dependent on imported production materials expands its output. The projected increase in imports of the oil sector is related to the anticipated growth of output in the sector. The category of investment-related imports (other than for the oil sector) reflects principally the

anticipated disbursements of project aid, private capital inflows (other than in the oil sector) and the foreign exchange content of disbursements under the medium-term investment credit program.

Table 6: Imports (c. and f.) by Commodity Groups, 1969/70-1971/72
(in millions of US dollars)

	1969/70 <u>Actual</u>	1970/71 <u>Estimate</u>	1971/72 <u>Projection</u>
<u>Consumer Goods</u>	417	376	405
Foodgrains	212	148	160
Other food	51	56	60
Other consumer goods	154	172	185
<u>Production Materials</u>	470	467	535
Agricultural inputs	55	27	30
Industrial inputs	229	250	285
Materials, oil-producing sector	101	115	145
Services, oil-producing sector ^{/a}	85	75	75
<u>Investment-related Imports</u>	386	567	713
<u>Investment Income Payments</u>	109	134	182
<u>Other Services (non-oil, excl. freight)</u>	106	119	131
Total Imports	1,488	1,663	1,966

/a Including oil sector's debt service payments.

17. As already stated, total 1971/72 import demand thus estimated aggregates \$1,744 million, or an increase of 17 percent over currently estimated 1970/71 imports of goods and services. A substantial part of this increase -- more than two-thirds -- is expected to be financed from additional export earnings. On the basis of actual developments in 1970/71 when non-oil exports increased by some 14 percent it seems likely that they will increase by approximately 12 percent in 1971/72 and thus amount to \$840 million. A major increase is expected in the value of oil exports as a result of the price increases expected to follow upon the recent Teheran agreement between the OPEC and the major oil companies. Prices realized by companies exporting Indonesian crude oil may in 1971 be some 30 percent higher than in 1970. The result, taking into account currently anticipated increases in the volume of output is an estimated increase of more than 30 percent in oil exports to the level in 1971 of \$580 million. This figure is only 16 percent higher than the one projected in October partly because the export volume then estimated was probably somewhat optimistic.

18. Total exports in 1971/72 are thus expected to be \$224 million or approximately 19 percent higher than in 1970/71. The net result of the current projections of exports and import demand is an anticipated current account deficit of \$324 million which is slightly lower than that estimated in October and somewhat higher than that of 1970/71. Taking into account current estimates of debt service and the loss of foreign exchange reserves in the current year which necessitates a higher target for reserve accumulation in 1971/72, the 1971/72 financing gap remains as it was estimated in October (see Table 7).

Table 7: Balance of Payments Summary, 1970/71-1971/72
(in millions of US dollars)

	1970/71 <u>Estimate</u>	1971/72 <u>Rev. Proj.</u>	Percent <u>Increase</u>
Gross Exports	1,196	1,420	19
Imports of Goods and Services	1,478	1,744	18
Investment Income Payments	-134	-182	
<u>Current Account</u> (deficit = -)	<u>-416</u>	<u>-506</u>	<u>15</u>
Debt Service Payments ^{/a}	-120	-147	
Direct Private Investment	103	135	
Project Aid Disbursements	110	175	
Short-term Credits, Errors, Omissions	19	-	
Changes in Reserves (incl. SDR)	13	-27	
Sub-total	-9	-46	
Remaining Gap, equals Program Aid Disbursement	291	370	

/a Including oil sector debt service payments and liabilities under hire-purchase arrangements.

19. Commitments of program aid during 1970/71 have slightly exceeded the requested amount of \$340 million and are expected to amount to \$341 million. General program assistance reached a total of \$141 million, short of the request by \$9 million. Food aid at \$150 million results in disbursements of \$126 million; the increase of the pipeline by \$24 million hides the fact that during the year some reduction of the pipeline actually occurred, more than compensated by a new commitment close to the end of the fiscal year. As the rice crop was favorable in late 1970, stocks in the hands of the Government have remained larger than was expected earlier, although some stock releases are necessary in the early part of 1971 to maintain a stable price of rice. With regard to the program aid which is used for imports of cotton and cotton yarn, actual commitments at \$49 million are about equal to the requested amount. However, \$27 million of these commitments were received only in March 1971; the disbursements of \$27 million during the year therefore represent full use of all commit-

ments obtained before March, and of the opening pipeline as well. Total disbursements in 1970/71 are expected to amount to \$291 million, considerably below the level projected for this year, but still \$9 million above the level of commitments obtained until March 1971. The pipeline of program aid is expected to amount to \$108 million by the end of the current fiscal year, of which more than half consists of commitments obtained in March 1971. When excluding the latter, there was a decrease of the pipeline over the year of some \$9 million.

20. Disbursements of program aid in 1971/72 are projected at \$370 million; this would meet counterpart fund requirements for the development budget and provide for the projected growth of imports. Commitments of this amount were requested at the December 1970 meeting of the I.G.G.I. and appear still to be appropriate in relation to the disbursement projection and the expected pipeline at the end of the current year. In terms of composition, some changes may need to be made depending on developments during the year.

21. Estimated food aid requirements of \$160 million must be reassessed once estimates of the current wet season crop to be harvested in the spring of 1971 become available; if food aid requirements appear to be less, general program aid commitments should be increased in order to preserve the level of counterpart funds. With regard to cotton and yarn, absorption capacity may be limited to less than the projected level of \$50 million and a similar adjustment as for food aid may be needed.

Table 8: Program Aid Commitments and Disbursements, 1970/71 and 1971/72
(in millions of US dollars)

	<u>General Program Assistance</u>	<u>Food Aid</u>	<u>Cotton, Yarn Aid</u>	<u>Total</u>
Pipeline, 31/3 1970	42.7	7.6	7.7	58.0
Commitments 1970/71	141.1	151.4	48.6	341.1
Disbursements 1970/71	137.8	126.3	27.1	291.2
Pipeline 31/3 1971	46.0	32.7	29.2	107.9
Commitments 1971/72	160.0	160.0	50.0	370.0
Disbursements 1971/72	160.0	160.0	50.0	370.0
Pipeline 31/3 1972	46.0	32.7	29.2	49.3

CHAPTER 2

DEVELOPMENT PERSPECTIVE: PRIVATE INVESTMENT IN THE MEDIUM-TERM

Introduction

22. Development and investment activities have clearly accelerated in the past few years. Central Bureau of Statistics estimates indicate that during the period 1960 to 1966 gross investment expenditures were on the average less than 9 percent of GNP and exceeded 10 percent only in one single year. In 1967 the investment level was probably hardly above 7 percent of GNP; physical and financial evidence demonstrates that in that period existing production and infrastructure facilities and existing production capacity in many sectors were not maintained. The estimates for 1970/71 suggest an investment level around 13 percent of GNP, higher than recorded in any previous year since Independence in 1950, and a further growth of investment is likely in 1971/72.

23. This and the following chapter of this report attempt some assessment of the medium-term outlook for private and public investment.

24. In the private as well as the public sector this growth of investment activity represents the implementation of projects which were planned during the last three years. The large volume of private investment proposals approved under the terms of the Foreign and Domestic Investment Laws is now having an impact on actual investment activity; the availability of medium-term funds under the investment credit program which draws upon program aid has particularly facilitated domestic private investment.

25. The growth of private as well as public investment is clearly reflected in the balance of payments; imports of materials and equipment for investment purposes (including construction materials) are estimated to have increased by about 48 percent in 1970/71 over the previous year. Imports represent approximately 50 percent of total fixed investment expenditures.

26. Actual private investment expenditure is still substantially below the level of the aggregate value of investments approved under the Investment Laws, but is increasing. Only a few of the projects undertaken have reached completion and gone into production. The effect on economic growth therefore remains limited thus far largely to the income generated by the investment process itself. It is not possible, in this report, to project the magnitude of the aggregate future growth of output and income that may be generated by investments now in process or expected to be undertaken in the near future. However, for some sectors it is possible to estimate the order of magnitude of investment expenditure over the next three to five years. For a major part of private investments this can be done on the basis of approved projects and their known or estimated work schedules. These estimates presented here are by nature tentative and subject to significant revision.

Private Investment:

27. Since the enactment of the two investment laws, applying respectively to foreign and domestic private capital, substantial numbers of investment proposals involving large estimated investment expenditure have been submitted and approved. It is known that in some cases the total projected investment will be made only over very long-term periods. In some cases the projected investment is probably overstated and in others underestimated. Nevertheless, the amounts indicated in the investment applications appear to provide a reasonable estimate of aggregate private investment commitments outside the petroleum sector. Although there are some cases where the projects will not be executed, these appear to be only a small number. In addition to the investments governed by the investment laws, there are large expenditures for oil exploration and, increasingly, for exploitation of new discoveries. Forecasts in this area are more difficult.

28. In the following paragraphs some estimates are presented of expected near term future private investment levels. The estimates are based on approvals through the end of 1970 and disbursements known to have been made in the past few years. For a number of the large undertakings specific data on planned expenditures has been obtained; for the majority of smaller enterprises a more generalized approach has been used. It is a major handicap that at present complete data regarding actual expenditures and plans for investments under the Domestic Investment Law are not systematically collected and recorded, but cross-checking with disbursements under the medium-term investment credit program and capital investment imports rate made some estimates possible. Improvements in the flow of information can be expected in the near future.

Private Investment Perspectives:

29. The medium-term projections of private domestic and foreign investments presented here are based on the assumption of a gradually improving investment climate, institutional arrangements and procedures, as well as infrastructure improvements.

30. The following paragraphs give sectoral levels of private investment programs as specified in the contracts approved in 1967-70 and on the basis of estimated approvals after 1970. As pointed out above these estimates must be regarded as general orders of magnitude especially beyond 1972. The statistical base of the projections is detailed in Appendix Table 10.2 which shows sectoral trends in both approvals and disbursements. It must be pointed out that this table records investment expenditures only to the extent that they are registered through the mechanism of Letters of Credit, registration of foreign exchange purchases, and receipts issued for the purpose of obtaining tax concessions. It does not include any allowance for unrecorded or temporary imports, nor for goods or services paid for abroad. An independent calculation of these excluded items, the bulk of which is in mining investments, is made here to reflect a fuller picture of investment levels in the private sector. The table below summarizes these levels.

Table 9: Private Domestic and Foreign Investments

	<u>1968</u> <u>actual</u>	<u>1969</u> <u>actual</u>	<u>1970</u> <u>actual</u>	<u>1971</u> <u>estimate</u>	<u>1975</u> <u>projection</u>
<u>Investment Proposal Approvals under the</u>					
a) Foreign Investment Law (\$ million)	237.6	672.7	243.3	305.0	380.0
b) Domestic Investment Law (Rp. billion)	1.5	47.4	104.0	118.0	140.0
<u>Investment Expenditure under the</u>					
a) Foreign Investment Law (\$ million)	17.5	46.4	95.6	192.0 ^{/a}	285.0 ^{/a}
b) Domestic Investment Law (Rp. billion)	...	11.3	18.6	34.0	130.0

^{/a} Includes estimate of non-registered investment inflow.

SECTORAL PROJECTIONS: PRIVATE FOREIGN INVESTMENT

A. Agriculture: Food and Other Crops

31. Private foreign investment projects in this sector can be classified broadly as rehabilitation projects on returned estates generally export-oriented, specialized crop (e.g. maize and spices) development projects, and expansion of existing rubber plantations. The average project in this category has a relatively long gestation period, and investment expenditure may be spread over a number of years.

32. As of December 1970 a total of 43 projects including 28 involving returned enterprises had been approved with an investment program totalling US\$75.5 million, of which US\$2.3 million had actually been disbursed. Due to the nature of these projects and the apparently limited attractiveness of this field to new investors only a marginal incremental growth in total investment approvals over the next five years is assumed at the level of about US\$2 million per project for a total amount over ten years of US\$87 million.

33. More than 50% of the actual expenditures to date have been in 1970, leaving a large pipeline of US\$73.2 million. On the basis of known construction work and import licenses issued, expenditures in 1971 and 1972 are esti-

mated at US\$3.3 million and US\$5.5 million respectively as compared with the 1970 figure of US\$1.4 million. Expenditures for later years are forecast to keep accelerating to 1973 and then slowly taper off in 1974 and 1975. This assumes that no expansion projects are applied for and approved in those years, which is appropriate at the present time.

B. Forestry

34. Of a total intended private foreign capital investment of US\$1.3 billion approved to date, more than a third or US\$340.0 million is in forestry. Included is a single integrated forest industry project involving projected investment of US\$235.0 million over a period of 15-20 years; the figure in this case is inflated relative to others because it does include project investment over a long future period, much of it out of the reinvestment of anticipated earnings.

35. Applications for forest area concessions continue to be made and 4 to 5 million hectares are currently being negotiated. According to the forest authorities half of these areas are likely to be leased out in the period 1971-73; they will involve estimated investment over time totalling approximately US\$69 million. This figure is net of re-invested earnings and depreciation allowances which are also included in the intended capital investment provision of the forest contracts. For 1974-75 it is assumed that new approvals involving US\$25.0 million per year will occur. Actual investment expenditure is assumed likely to follow the trend line of the past four years and to accelerate rapidly to 1973, and then level off thereafter. The acceleration of investment expenditure projected in the 1971 to 1973 period is based largely on known expansion programs of the seven largest firms from France, Japan, Korea, Malaysia, Philippines and Singapore. These programs include sawmilling and small-scale harbor facilities as provided for in the contracts. A factor which might lead to the acceleration of investment expenditure after 1973 is the contract provision obligating concessioners to conduct feasibility studies of wood processing at the end of the fifth year of operation. The calculation of investment levels is presented in the following table:

Table 10: Projection of Forestry Investments
(in millions of US dollars)

	Actual				Projections				
	1967	1968	1969	1970	1971	1972	1973	1974	1975
Forestry projects approved	7.0	75.6	275.0	32.3	25.0	25.0	25.0	25.0	25.0
Expenditures on approved projects	0.7	2.9	10.9	28.8	31.0	33.0	35.0	35.0	35.0
Undisbursed approvals	6.3	79.0	343.1	346.6	340.6	332.6	322.6	312.6	302.6

C. Fishery

36. Fishery operations involving shore-based facilities have not to date proven to be very attractive to foreign investors, although a considerable amount of fishing by foreign vessels is going on in the seas adjacent to Indonesia. Indonesian waters are rich in highly exportable shipjack tuna, shrimps and other crustaceans. Only a small proportion of the known potential in these export products is being caught and shipped overseas from Indonesia and foreign exchange receipts from marine exports are negligible. The domestic market is not very promising as fish catch outlet, since there are considerable obstacles arising from poor interisland transport, inadequate storage and freezing as well as salting/drying facilities.

37. To overcome these bottlenecks would require investment of considerable amounts of capital spread over many years. Although it is a stated policy of the Directorate of Fishery to encourage entry of foreign capital into the sector, only 9 foreign-financed projects have so far been approved, with 2-3 more scheduled for approval in the next year or two.

38. These approved projects have an aggregate intended capital investment of \$11.6 million, representing less than one percent of total approvals under The Foreign Investment Law. Actual expenditure, mainly on imports of fishing gear, fish finders, and other specialized equipment amounted to \$7.3 million or 63 percent of total proposed capital investment in the sector. In view of the problems facing the sector, future projects are likely to be small-scale and of short gestation and the level of approved investment in 1971-75 would probably not much exceed the 1967-70 level. It is therefore estimated that total disbursements for five years would amount to \$12.0 million including the pipeline on 1967-70 projects of \$4.3 million.

Mining and Quarrying

39. Official estimates of approvals and disbursements in this sector cover only those projects that have been registered under the 1967 Foreign Investment Law and exclude investment data on 38 oil companies that are in various phases of exploration, exploitation and production under production-sharing contracts. In addition, two oil-producing companies under so-called "contracts of work" with the state mining company P.N. Pertamina, are not required to report their investment programs to the Foreign Investment Board. Moreover, since many of these companies finance a majority of their investment imports requirements from abroad, most of these imports enter the country unrecorded. Thus the figures given in the Statistical Appendix Table 10.2 grossly understate the real levels of private foreign investment. Taking all these excluded items into account, the difference in aggregate levels is substantial as the table below indicates:

Table 11: Private Foreign Investment in November, 1967-1970
(in millions of US dollars)

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>Total</u>
1. Approvals/Agreements:					
a) Hard minerals (For. Inv. Law)	76.5	82.0	304.7	0.3	463.5
b) Oil - production sharing	2.5	5.9	21.0	38.0	67.4 ^{/a}
c) Oil - contract of work	n.a.	n.a.	n.a.	n.a.	60.0 ^{/a}
Total	79.0	87.9	325.7	38.3	590.9
2. Disbursements:					
a) Hard minerals - registered	-	0.9	3.2	7.7	11.8
b) Hard minerals - non-registered ^{/a}	-	0.6	2.0	40.4	43.0
c) Oil - production sharing	0.8	2.8	9.4	21.6	34.6
d) Oil - contract of work	15.3	21.3	28.7	34.0	99.3
Total	16.1	25.6	43.3	103.7	188.7

^{/a} Mission's estimates

40. The official figures recorded on mining, which cover only mining of hard minerals, show investment to date has been mainly in exploration activities. In fact large-scale investments in construction are being undertaken by one enterprise, Freeport Sulphur, on copper deposits in West Irian, and a major nickel project is reaching the advanced design stage. Of total approvals of US\$463.5 million, an estimated US\$55 million has already been expended, in the form of preinvestment and construction expenditures. Expenditure could increase very rapidly within the next few years if projected investments are realized, and thus exceed the total approvals figure; the average annual contracted amount of exploration expenditure by the nine hard mineral companies is estimated only at about US\$15 million for the six years ending in 1975.

Table 12: Hard Mineral Mining Investment Forecast
(in millions of US dollars)

	<u>1970^{/a}</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Total</u> <u>1971-75</u>
Estimated exploration expenditure required under contracts	7.7	10.5	12.0	14.0	14.5	15.0	66.0
Assumed project implementation expenditure	40.4	75.0	85.0	50.0	50.0	50.0	310.0
Total	48.1	85.5	97.0	64.0	64.5	65.0	376.0

^{/a} Estimated Actuals

Oil Mining: Production-Sharing and Contracts of Work

41. A comparison of Table 11 above and Table 10.2 of the Statistical Appendix shows that actual investment taking place in the oil sector are quite substantial. For the period 1967/70, approved investments in the oil sector are estimated at US\$127.4 million and actual disbursements at US\$133.9 million indicating disbursements in excess by US\$6.5 million over approved investment. This is mainly because of the Caltex oil company investments in exploration and operation for which approvals were given for an amount of US\$30 million over the period 1963-71, but up to the end of 1969 actual expenditures were close to US\$49 million. The higher investment in Caltex fields, much of it on intensified exploration and expansion of operational facilities over the last two years, is partly offset by shortfalls in other production-sharing contracts.

42. In projecting investments in the oil sector for the next five years, it is assumed that exploration activities will proceed at least at the same pace as experienced during the previous four years. This experience suggests that exploratory surveys which include sonic surveys and sample drillings take, on the average, three years to complete. If such surveys prove to be positive, the next three years in a six-year exploration phase will be spent in intensified engineering and feasibility studies. This pattern is confirmed by the Directorate of Mining as also applicable to hard mineral exploration. On this basis, the following table sets out a five year projection of investment in this sector.

Table 13: Projection of Private Foreign Investment Expenditure in the Oil Sector

(in millions of US dollars)

	<u>1970</u> ^{/a}	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Total</u> <u>1971-75</u>
Production-Sharing contracts	21.6	20.0	38.0	55.0	64.0	63.0	240.0
Contracts of Work	<u>34.0</u>	<u>35.0</u>	<u>37.0</u>	<u>39.0</u>	<u>30.0</u>	<u>23.0</u>	<u>164.0</u>
Total:	55.6	55.0	75.0	94.0	94.0	86.0	404.0

/a Estimated Actuals

Manufacturing Sector

43. Output of the manufacturing sector has, in the past five years, grown at less than 7 percent a year as compared with the growth of mining and forestry at 25 percent and 9 percent respectively. In 1970/71 this sector could contribute an estimated 10 percent of the GDP, but this includes a sizable component of small-scale industrial operations.

44. The Five-Year Plan (1969-74) puts primary emphasis on agricultural development and for this period assigns the industrial sector only a supporting role. This is specifically the case with respect to industry in the public sector, for which the Plan emphasized the rehabilitation of existing production capacity, if profitability could be expected. Expansion of industrial capacity and output was envisaged only for the end of the Plan. The emphasis through 1970/71 is to be on the rehabilitation and promotion of efficient industrial production, whereas in the last two years of the Plan more funds were to be allocated for expansion and development. This supporting role is further underlined by the preferential treatment to be accorded among others, to private sector industries that are designed to complement agricultural sector development, i.e., industries that manufacture farm inputs or process agricultural outputs. Priority is also to be given to industries that produce import-substitutes, labor-intensive industries, and industries that produce intermediate goods. Industries which contribute to development in outlying regions are also given preferences during the current Plan.

45. These objectives are to be taken as indicative only, and actual developments in the recent past indicate already a larger emphasis on new industrial investment than the Plan originally contemplated. Also, the rehabilitation of existing public sector industries, although proceeding, has not as yet generated the desired improvement of manufacturing efficiency.

46. The growing confidence in the Indonesian economy was reflected in 1969 and 1970 by an influx of capital for both new and expanding manufacturing firms financed from domestic as well as foreign sources. Of 335 approved foreign investments, 184 are in manufacturing industries, mainly food, beverages, tobacco, chemicals and rubber, and metal products. An estimated US\$79.5 million was actually invested as compared with US\$286 million approved capital. These investments were made for the most part in construction materials, capital equipment, and raw material imports, most of which were purchased in 1970. A number of these projects are now fully operational with many more nearing completion this year. Those in full production are medium- to large-scale in size, employing 50 and more local laborers, and operating at close to rated capacity. Particularly in the food processing industries which presently produce import substitutes and have a potential for export, industrial efficiency is quite high. In the metal products industries, especially galvanized iron sheets, small electrical appliances assembly, and electronic assembly, present output is limited by market constraints, but in general a high rate of use of equipment and labor is achieved. As compared with the performance of public enterprises these new and expanded firms in the private sector utilize their capacity more efficiently and more profitably. In the long run there will be benefits from these privately-owned firms as industrial wages in the private sector are generally based at least partly on productivity; management-labor relations have on the whole been rationalized.

47. The following projection of industrial investments in 1971-75 relates to registered capital inflows in the foreign private sector, and to the approved investment projects in the domestic private sector. The situation and outlook for each of the sectors are discussed below.

Food, Beverages and Tobacco Industry

48. The earliest projects approved for foreign financing are in this sector. Mostly located in the Djakarta metropolitan area, these firms produce mainly for domestic consumption, although one or two could be considered export-oriented. Investments are of the quick-yielding variety, generally small- to medium-scale, moderately capital-intensive and utilizing for the most part imported raw materials. As such, their main economic impact is in the absorption of a portion of the city's excess labor force, and in the marginal saving of foreign exchange through import substitution. While on the whole there is still excess capacity in this sector due to the limited demand for processed food and beverages, the tobacco and beer plants are operating at close to installed capacity. Despite the prospective growth of domestic demand for some of the commodities produced it is possible that this demand can be met over the next half decade by raising the rate of utilization in existing plants and adding limited new capacity. It is assumed that project disbursements over the period 1971-72 will be principally the investment of already approved projects which at the end of 1970 had a pipeline of committed investment totalling US\$25.0 million. A stream of slowly growing disbursements corresponding to new estimated approvals is assumed thereafter.

Textile, Paper, Fertilizer, and Cement

49. As indicated in Chapter 3, a substantial proportion of these industries is in the public sector.

50. The bulk of approvals of private investment in the textile industry are for spinning and weaving plants using imported synthetic fibers and filaments in the first few years and manufacturing the same inputs from local materials at a later stage. This development reflects the stated policy of the Ministry of Basic and Light Industries to stimulate textile investments using synthetics, since there is a potential for a domestic petro-chemical industry. In addition, these new plants are of the integrated type or designed for eventual integration. Approvals of foreign private investments in this sector totalled US\$58.6 million of which US\$12.2 million was spent until the end of 1970 in plant construction and imported capital equipment. 1971 approvals so far consist of three projects all using synthetic inputs and having an intended capital investment of US\$64.6 million. 1972-1975 approvals seem likely to be mainly for expansion projects or re-tooling investments in existing cotton-oriented plants towards equipment suited for use of synthetic-cum-cotton raw materials.

51. In Paper and Paper Products manufacturing none of the project approvals over the period 1967-70 are for pulp or paper production. All six projects approved are paper-using industries designed to produce a variety

of packaging materials such as corrugated paperboards, cardboard boxes, and cigarette packages. One is committed to do offset printing using apparently the higher-priced lower quality domestic newsprint. In view of difficulties facing the pulp and paper industry (discussed in Chapter 3), it is assumed that the increase in the total level of investment between 1971 and 1974 as compared with the investment levels in 1967-70 will be small, consisting mainly of related paper industries as noted above. Disbursements are assumed to rise from US\$1.1 in 1970 to US\$1.5 and US\$2.5 in 1971-72 as the pipeline of already approved projects gets disbursed. Since the average size of these firms is small, disbursements are further assumed to be completed at the end of three years after approval. This makes allowance for any delays in locating suitable plant sites and obtaining the required operating licenses.

Chemicals, Rubber, and Plastic Products Manufacturing

52. Under this classification various industrial chemicals and chemical products are grouped together, including pharmaceuticals and plastic products, fertilizers, cement, crumb rubber, and tires for light and heavy transport vehicles. This category therefore covers a whole range of basic industrial products where foreign capital has been invested and continues to come forth. There are 62 of these projects approved as of the end of 1970 with an intended capital of US\$66.6 million, of which almost 22 percent or US\$14.6 million has been actually spent during the same period. This excludes the major public sector fertilizer and cement plants financed by project aid, with a combined total foreign exchange cost of US\$77 million.

53. The industries concerned are generally medium-scale by international standards, using fairly simple capital equipment, and requiring only semi-skilled labor. The construction phase, as indicated by experience in the 1967-70 period varies from one to four years at the extreme, including delays involved in land acquisition and difficulties over licensing procedures. Over the next five years these problems should become less significant, reducing the pre-operational period to a maximum of three years. Pharmaceutical and crumb rubber factories normally take only about a year and a half to prepare for the trial run stage under existing investment conditions.

54. A large pipeline of applications in this field not yet processed at the end of 1970 leads to an estimate of US\$35 million to be spent in 1971 as compared with US\$26 million in 1970, and another US\$35 million for 1972, as a result of 20 or more joint and direct ventures being negotiated presently and expected to be approved in these years. An assumed acceleration in new approvals in 1973-74 to US\$40 million and US\$45 million respectively is based on several factors including the assumed development of petro-chemical production catering especially to the synthetic textile mills scheduled to operate in those years, and the forecast higher demand for better quality dye-stuff and other printing materials.

55. In view of these developments and of the relative profitability and known domestic demand for these products, the level of actual investments and rates of growth over the next five years are substantially higher than in the previous four-year period. This projection is as follows:

Table 14: Projection of Chemical, Plastics and Rubber Investments
(in millions of US dollars)

	<u>1967-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Total</u> <u>1971-75</u>
Approvals	66.6	35.0	35.0	40.0	45.0	45.0	200.0
Expenditures	14.6	20.0	22.0	26.0	27.0	27.0	122.0

Metal Products

56. There are 52 projects approved in this sector covering about 45 different items which range from zippers to sewing machines, motor scooters to trucks, light bulbs to electrical transformers. About the only common characteristic of these various products is that they are destined for the domestic market, except for a few specialized items such as electronic components, some air conditioners and refrigerators, and fully assembled radios.

57. The possibilities for further investment in this area are enhanced by the largely untapped supply of trainable and low cost manpower. It is believed that labor costs in Indonesia will at least for a number of years continue to be lower than in Taiwan, Korea, Hongkong and Singapore and this factor constitutes one of the main attractions for setting up these relatively low-cost investment projects which normally yield high returns quickly.

58. The average cost of these projects is estimated at US\$1.25 million each, and they do not require complex investments. Total approvals of US\$65.2 million have led to US\$24.4 million of actual disbursements. This latter amount is over 37 percent of approvals which is relatively high on account of the short gestation period involved after sites are determined and acquired. In the next five years this gap between expenditures and approvals is likely to be narrowed down further as land acquisition difficulties are reduced and utility services improved. Approvals in 1971 are assumed to proceed at about the same level as in 1970, then slowly accelerate to 1975 when they will reach US\$50.0 million. Disbursements on the other hand will be large in 1971 because a large number of projects are now in the construction stage, and this momentum will continue into 1972, maintaining an absolute level of about US\$425.0 million of expenditures in those years. The magnitudes are detailed in Table 10.1 of the Statistical Appendix.

59. Projections for other industrial products which have so far attracted less attention are also detailed in that table. These are mainly manufactures of basic metal products, non-metallic minerals, wood products and other miscellaneous items.

Other Sectors

60. Private foreign investment in Construction has been confined principally to land and housing development, hotel construction work, and architectural consulting work. Total approvals at the end of 1970 amounted to \$32.7 million and disbursements, mainly in the form of wages and salaries, totalled \$6.7 million. Approvals over the next five years are estimated to increase at 16% a year and disbursements are assumed to follow a corresponding expansion path determined by an increasing ratio of disbursements to approvals. This is due to forecasted accelerating demand for housing and hotel space that meet international standards.

61. Approvals and disbursements for new Hotels are small at \$5.5 million and \$0.7 million respectively. These new hotels coming under the Foreign Investment Law do not seem to include the several new large hotels currently under construction and scheduled for completion in 1971-74, which have been officially estimated to have an aggregate cost of approximately \$50 million. It can be assumed that much of the invested capital is from foreign private sources. For these reasons, the figures that appear in the Statistical Appendix for Hotels appear understated. To what extent they are understated may be calculated by multiplying the present plans for 7,500 additional rooms by 1974 by an average cost per room of US\$20,000. This gives a more realistic figure of US\$150 million as compared with the approximately \$50 million official estimate.

62. In Transport investments, there is likely to be no major increase in either approvals or disbursements over the next five years as compared with the 1967-70 period. These investments are mainly ferrying services by airplanes and helicopters that have capitalized on the service needs of oil and mineral prospectors. As mining explorations are increasingly being carried out by company-owned aircraft, and as the number of major additional prospectors is small, demand for ferrying services may in fact begin to decline after 1973 when it is assumed that the undisbursed balance of 1967-70 approvals will be spent.

63. Other investments in Services include wholesale trade and distribution, real estate development, consulting work, and recreational facilities. Since these services are highly income elastic and since investment in these sectors depends on the general economic climate, it is difficult to make even a medium-term forecast. For these reasons, expenditures are assumed to be at about the same level as in the previous four years and slowly accelerating to 1975.

Private Domestic Investment Projections

64. The approach used in projecting private foreign investment in the foregoing paragraphs cannot be applied to the same extent for private domestic investments. The Domestic Investment Law (Presidential Decision Number 286, 1968) became operative only in late 1968, and data on approvals are the first collated reliable set of figures on these projects. Statistics on implementation are far from satisfactory, consisting of a collection of untested, incomplete figures which can hardly be used for a projection exercise. It is understood, however, that a clearer and more reliable set of project disbursement data will be made available by June 1971, when teams from the Domestic Investment Board now in the field compile their reports in accordance with the terms of a recent Presidential decree requiring more up-to-date reporting on project implementation. Therefore, the projections attempted here should be regarded as highly tentative and be considered only as general orders of magnitude.

65. In the absence of complete direct evidence of actual investment expenditures in this sector, the mission examined import data relating to private domestic investment for 1969 and 1970, and by combining those with the available approval and disbursement data, determined the possible import content of investments by economic sector for these years. Assuming that the local currency expenditures were the same proportion of total actual expenditures as indicated in the investment application (this proportion varied from 19 - 25 percent on approved intended capital investment), total annual disbursements by sector were derived accordingly. Using this rough method of calculation the mission estimated a total investment expenditure of Rp 11.0 billion for 1969 and Rp 19 billion for 1970.

66. The magnitudes of expenditure for 1971 and 1972 were then calculated for the same projects in each sector by subtracting estimated investments made up to the end of 1970, and assuming a certain amount of expenditure on projects that are now in the preparatory stage. This process was repeated for the later years, and the results are detailed in the Statistical Appendix Table 10.3.

67. The projected expenditures, even after allowing for varying time lags between approval and implementation, follow the same general pattern as the approvals. For example, industrial projects among the approvals in 1968-70 constitute 63.1 percent of domestic investments and in terms of expenditures these same projects account for 61 percent of total investment expenditure of Rp. 34.3 billion estimated for 1971. The rapid increase in investments from a level of Rp. 34 billion in 1971 to Rp. 131 billion in 1975 is due to the fact that almost 80 percent of total approved investments are for small-scale, short-gestation (one year or less) projects, about 20 percent are medium-term (one to five years), and less than one percent are long-term (five years and above). Moreover, the fact that about one-third of these approved projects are expansion-type investments and therefore do not face the delays encountered by new projects, also accounts for this rapid acceleration.

68. The levels of investment projected above indicate growth of private investment, foreign and domestic together, between 1971 and 1975 at a rate of about 17 percent per year (see Table 15), or from approximately \$358 million in 1971 to \$679 million in 1975. Foreign private investment expenditure, which was already fairly large in 1970, especially in mining and petroleum, is projected to grow at a lower rate, 7.5 percent, or from \$230 million in 1970 to \$331 million in 1975. Domestic private investment is, however, projected to grow more rapidly, from \$50 million in 1970 to \$348 million in 1975, when it, according to these projections, will exceed foreign private investment. In sectoral terms, investment in manufacturing is projected to grow very rapidly and to represent somewhat over half of total private investment outlays in 1975. As is evident from the description of projection methodology above these projections must be regarded as very tentative.

69. This projected growth of investments under promotion arrangements in the private sector would be about equal to the projection of public investment growth as presented in Chapter 3. It would be realistic to expect other investment expenditures, i.e. outside the public sector development program and the area of promoted private investment, to grow more slowly as this remainder consists partly though not entirely of fixed assets formation in the unorganized sector. The investment projections made more globally in Chapter 4 do indeed indicate a rate of growth of total investment expenditures which is somewhat less, at 13-14 percent, which reconciles well with the projections of private promoted investment described above.

Table 15: GROWTH OF PRIVATE INVESTMENT BY MAJOR ECONOMIC SECTORS

	(\$ million)			(%)	
	1970 <u>Est.</u>	1971 <u>Actuals</u>	1975 <u>Estimates</u>	1975 <u>Projection</u>	Average annual rate of growth 1971-75
<u>Agriculture, Forestry,</u>					
<u>Fisheries</u>	<u>42.3</u>	<u>56.0</u>	<u>126.6</u>		<u>22.0</u>
domestic	8.0	18.7	85.8		
foreign	34.3	37.3	40.8		
<u>Mining, quarrying</u>	<u>142.7</u>	<u>142.5</u>	<u>153.6</u>		<u>1.9</u>
domestic	0.7	2.0	2.6		
foreign	142.0	140.5	151.0		
<u>Manufacturing</u>	<u>73.7</u>	<u>132.6</u>	<u>348.5</u>		<u>27.0</u>
domestic	28.2	55.6	238.1		
foreign	44.5	77.0	110.4		
<u>Other sectors</u>	<u>21.3</u>	<u>26.8</u>	<u>49.8</u>		<u>16.8</u>
domestic	13.1	14.6	21.2		
foreign	8.2	12.2	28.6		
<u>Total</u>	<u>280.0</u>	<u>357.9</u>	<u>678.5</u>		<u>17.3</u>
domestic	50.0	90.9	347.7		
foreign	230.0	267.0	330.8		

CHAPTER 3

PUBLIC SECTOR PROGRAMS

70. In accordance with the Presidential decree governing the First Five-Year development Plan, 1969/70 - 1973/74 ^{1/} the public sector development program and the policies for economic growth as a whole are being implemented in a series of annual programs, each within the general framework of the Plan but reflecting also the knowledge and experience accumulated since the formulation of the basic Plan document and the actual circumstances of each year. The development budgets of 1969/70, 1970/71 and now for 1971/72 also indicate changes in the resource pattern envisaged in the Plan, particularly in relation to project aid which was disbursed less rapidly than was originally envisaged. The trends in public sector development operations, present and future, can thus be more readily determined by reference to the annual programs than to the 5-year Plan.

Resources for the Development Budget

71. The size of the annual development programs is determined by the level of disbursements of project aid, the availability of counterpart funds and the degree to which routine budget expenditures can be held below domestic revenues as both expand. The surplus of routine revenues over expenditures represents the Government's contribution of domestic resources to the national development effort. As recently as 1968, no surplus over routine expenditures could be obtained and the small development program was wholly financed with external resources. In the first year of the Plan, 1969/70, a surplus of Rp 27 billion (US\$88 million) was generated. This should increase to Rp 34 billion in 1970/71, supplying 23 percent of development program resources. The State budget for 1971/72 projects a surplus of Rp 52 billion.

72. Internal government revenues can be expected to continue to increase, although not as rapidly as in the past several years. Revenues from the payment of corporate tax by the oil enterprise sector are expected to grow at a more than average rate. It is estimated that the average increase in internal revenues over period of 1971/72 to 1974/75 would be in the order of 15 percent per year. At their 1971/72 level of Rp 344 billion internal revenues amount to approximately 10 percent of estimated gross national product; if the average annual increase in GNP for the four-year period would be approximately 6 percent, then an average increase of 15 percent in internal revenues would raise their share to approximately 13-14 percent of GNP in 1975/76. This appears to be the maximum that can be obtained without adverse effects on the growth of savings and investment in the enterprise sector.

^{1/} No. 319 of 30 December 1968, Articles 2 and 3.

73. It is difficult to estimate the required growth of routine budget expenditure. On the one hand, the routine budget expenditures at present do not provide adequately for maintenance of existing facilities or for future facilities now being established in the highways and irrigation sectors and in the field of, for example, health and education. These provisions are neither adequate in quantity or quality. The routine budget must also provide for the current costs of development projects being completed at present and these allocations need to be properly integrated with the progress of the development budget. On the other hand, there is little doubt that the work performed and services provided through routine budget allocations are inadequate and that civil as well as military agencies are seriously overstaffed. In addition, the entire structure of salaries and remunerations is irrational and needs to be completely overhauled. This task is now beginning to be taken in hand. For the purpose of the projections presented here it is assumed that in the period 1970/71 to 1974/75 routine expenditures would increase at an average annual rate of 9-10 percent.

74. Table 16 shows actual revenues in 1970/71, the budget proposal for 1971/72 and budget proposal projections of revenues and expenditures through 1974/75. This indicates that the routine budget surplus may be tripling over those years from an actual Rp 34 billion in 1970/71 to about Rp 110 billion in 1974/75; taking this surplus as representing government savings, the marginal rate of those savings would range between 30-35 percent in the period.

External Resources

75. Specific project commitments in the I.G.G.I. framework are expected to amount to approximately US\$400 million by 1970/71 and most, if not all, will be disbursed within the period through 1973/74. A further US\$75-80 million of pre-1967 aid will also be disbursed during this period. In addition, the 1971/72 project list presented to the I.G.G.I. contains projects (including C category projects still subject to feasibility study) with a foreign exchange and other aid component of almost US\$500 million. Many of the projects in this list will also obtain commitments which will disburse at least partly during the Plan period. Table 16 presents an estimate of the disbursement pattern following from commitments already made and from assumed new specific commitments of US\$275-300 million in each year to 1974/75.

76. A figure of Rp 90 billion is assumed for counterpart generation in each year from 1971/72. The actual level will depend on the amount of program aid Indonesia receives in future years, in each category, and this in turn will depend on a number of factors, some of which, such as domestic foodgrains production or export price levels, are subject to short-term variations. It will also depend on the relationship between commodity aid valuations and domestic prices for those commodities. Counterpart generation can be maximized only within a domestic price constraint, with aid

Table 16: Projected Revenues and Expenditures, 1968-1974/75

(in billions of rupiahs)

	<u>1968</u> <u>actual</u>	<u>1969/70</u> <u>actual</u>	<u>1970/71</u> <u>estimate</u>	<u>1971/72</u> <u>estimate</u>	<u>1972/73</u> <u>projected</u>	<u>1973/74</u> <u>projected</u>	<u>1974/75</u> <u>projected</u>
Routine revenues	150	244	344	416	470	525	590
Routine expenditures	150	217	310	364	400	435	480
Routine surplus	-	27	34	52	70	90	110
Counterpart funds	36	69	73	90	90	90	90
Project aid disbursements ^{a/}	7	23	28	53	72	88	105
<u>Total external resources</u>	<u>43</u>	<u>92</u>	<u>101</u>	<u>143</u>	<u>162</u>	<u>178</u>	<u>195</u>
<u>Total development budget</u>	<u>43</u>	<u>111</u>	<u>135</u>	<u>195</u>	<u>232</u>	<u>268</u>	<u>305</u>
External aid as % of total	(100)	(77)	(75)	(73)	(70)	(66)	(64)
<u>Total rupiah resources</u>	<u>36</u>	<u>96</u>	<u>107</u>	<u>144</u>	<u>160</u>	<u>180</u>	<u>200</u>
Increase in:							
Revenues				21	13	12	12
Expenditures				17	10	9	10
Surplus				53	35	29	22
Development budget (Rp.)				33	13	12	11
Development budget (total)				44	19	16	14

^{a/} Estimated.

valuations establishing debt obligations (except for grant aid) and not real benefits for the budget. This level of counterpart budgetary support would be consistent with a pattern of resource growth in which the share of domestic resources will continue, as it has done in the last two years, to increase. As shown in the table, on this formulation the proportion of domestic resources in total development expenditure would increase each year from 23 percent in 1969/70 to 33 percent in 1973/74 with a further increase in the following year. If larger surpluses can be secured, the level of counterpart funds could rise without affecting this trend.

77. Table 17 compares the resource projections of the mission with those in the First Five-Year Plan, adjusted to 1970/71 prices for all years. The projections of public savings (Government domestic revenues less routine expenditures) correspond quite closely for individual years and, in total, almost coincide. The estimates of counterpart generation, which are subject in both cases to wide margins of error, are not dissimilar. The major difference is in projections of project aid disbursements. Our figures are in each year around half those in the Plan and, although rising in the same way, amount in total to only 50 percent of the Plan projection.

78. The net effect is that the mission estimate of combined resources, Rp 1,026 billion or about US\$2,700 million, is lower by about 18 percent than the Plan figure, a shortfall caused mainly by a slower build-up of project aid disbursements than was envisaged by the architects of the Plan. This has happened for several reasons: the difficulties of project identification and projection in the initial stages of rehabilitation; the unfamiliarity of both recipient and aid-givers with each others' procedures and requirements; organizational problems in some agencies of the Government; and some delays on the part of aid givers; all contributed to initially low annual totals, for specific commitments, especially in 1968. Implementation problems have slowed disbursements from commitments already made. These have now in many cases been overcome, but the combination of slow project commitment and disbursement rates as the development program gathered momentum has established a time-lag which will not be made up for several years.

Table 17: Resources for the Five-Year Plan
(in billions of rupiahs at 1970/71 prices)

<u>Plan Projections</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>Total</u>
Budget surplus	26	39	51	65	84	265
Counterpart	68	89	101	101	101	460
Project aid	39	53	113	147	166	518
Total	133	181	265	313	351	1,243
<u>Mission Projections</u> ^{/a}						
Budget surplus	24	34	52	70	90	270
Counterpart	66	73	103	110	115	467
Project Aid	21	42	66	72	88	289
Total	111	149	221	252	293	1,026

/a Actuals for 1969/70, estimated actual for 1970/71.

Development Expenditures

79. The probable pattern of public sector development expenditures through 1974/75 emerges quite clearly when the broad resource projections are related to policies and programs already being implemented and commitments of project aid already made or requested. The fact that most aided projects are multi-year projects determines, to an increasing extent, the uses to be made of rupiah resources. Each specific project aid commitment establishes a set of expenditures in both foreign and local currency, at rates and in proportions depending on the character of the project. Unless project implementation is to be delayed by shortages of rupiah funds, a situation which has occurred in the past and which the present Government is determined not to allow again, disbursements of project aid must be matched by appropriate and timely expenditures within the rupiah development budget.

80. Table 18 shows the distribution of project aid by sectors, both for I.G.G.I. commitments to date and for projects in the 1971/72 list. In both past commitments and the new requests power, transport and telecommunications comprise about 50 percent of the total. Economic and social infrastructure programs altogether amount to about two-thirds of the total. The main difference between the two lists is that some infrastructure sectors, especially agriculture and health are somewhat more adequately represented in the 1971/72 list than in the commitments already obtained. The failure of these sectors and of education to secure more than nominal commitments so far is in part indicative of difficulties in project prepara-

Table 18: Project Aid Distribution by Sector, 1968-1971/72

	IGGI Commitments ^{a/} 1968-1970/71		1971/72 List	
	<u>\$ million</u>	<u>%</u>	<u>\$ million</u>	<u>%</u>
<u>Central Government Programs</u>				
a. <u>Economic</u>	<u>257.0</u>	(62)	<u>311.1</u>	(62)
Agriculture	4.7		19.0	
Irrigation	62.8		32.9	
Power	82.2		104.1	
Transport	72.2		136.2	
Telecommunications	35.1		11.9	
Tourism	-		7.0	
b. <u>Social</u>	<u>13.1</u>	(3)	<u>25.8</u>	(5)
Water Supply	7.7		9.8	
Health & Family Planning	0.6		11.0	
Education	4.8		5.0	
<u>Production Sectors</u>	<u>143.6</u>	(35)	<u>161.0</u>	(32)
Agriculture	48.9		75.4	
Industry & Mining	94.7		52.6	
Sea Transport	-		33.0	
Total	413.7		497.9	

^{a/} Excludes UNICEF supplies for health and education programs, and the FUNDWI program.

tion which are now beginning to be overcome. In part also, the imbalance in allocations between the economic and social sector results from a necessary emphasis on physical rehabilitation projects which would produce earlier economic benefits. More attention can now be given to high priority social sector projects, but it could be several years before they are receiving an appropriate proportion of total external aid.

81. Although most project aid has been given, and is being requested, for the rehabilitation and expansion of the economic infrastructure, commitments amounting to one-third of the total have been made to production enterprises in the public sector. Agricultural estates (US\$37.4 million) and the Pusri fertilizer project (US\$68 million) have been the main beneficiaries. The proportion is maintained in the 1971/72 list, with more emphasis on lending through Indonesian development finance institutions for both public and private enterprises in the industrial and transport sectors. The bulk of project aid is more directly related to central government departmental expenditures.

82. The proportion of local costs varies with each project, from about 25 percent for new highway construction and some communications projects to 75 percent or more in those sectors in which personnel and local material costs make up a large proportion of the total. For projects in the 1971/72 list the average is about 42 percent with power and telecommunications projects having a relatively high foreign exchange component, an average for all transport sectors of around 50 percent and proportionately higher local costs for irrigation, water supply and social sector projects. Allowing for maintenance of completed projects, it would be unwise to assume less than an average 1:1 ratio between project aid disbursements for infrastructure projects and associated local costs until more specific information is available.

83. The rupiah resources not tied to project aid are available for other priority uses. Regional development programs, for West Irian and for district and local development, will account for about 12 percent of rupiah expenditures in 1971/72 and, in view particularly of the favorable response to the district (Kabupaten) Program and its contribution to infrastructure rehabilitation, this proportion appears likely to be maintained or increased. The West Irian program is supplemented by the FUNDWI operations described in earlier reports, which could involve capital and technical aid of up to US\$35 million during 1969-74. The budget also provides credit through the banking system mainly to public enterprises. The rest of the funds are allocated to departments for approximately 2,000 projects, many very small, submitted each year for budget approval.

84. Table 19 indicates in broad outline the developmental programs which could result from the continuation of established trends over the period to 1974/75.

Table 19: Development Program by Sectors, 1969/70 to 1973/74 and 1974/75

(in millions of dollars)

	1969/70 to 1973/74				1974/75		
	<u>Project Aid</u>	<u>Associated Local Costs</u>	<u>National Programs</u>	<u>Total</u>	<u>Project Aid</u>	<u>Rupiah Budget</u>	<u>Total</u>
<u>Central Government Infra- structure Programs</u>	<u>500</u>	<u>500</u>	<u>950</u>	<u>1,950</u>	<u>200</u>	<u>375</u>	<u>575</u>
<u>Economic</u>	<u>450</u>	<u>400</u>	<u>550</u>	<u>1,400</u>	<u>180</u>	<u>240</u>	<u>420</u>
Power	175	75	50	300			
Transportation	150	150	150	450			
Telecommunication	40	20	20	80			
Irrigation	70	140	140	350			
Other	15	15	190	230			
<u>Social</u>	<u>50</u>	<u>100</u>	<u>250</u>	<u>400</u>	<u>20</u>	<u>100</u>	<u>120</u>
<u>General</u>	-	-	<u>150</u>	<u>150</u>	-	<u>35</u>	<u>35</u>
<u>Regional Programs</u>	-	-	<u>225</u>	<u>225</u>	-	<u>75</u>	<u>75</u>
<u>Aid to Production Sectors</u> ^{a/}	<u>200</u>	<u>100</u>	<u>50</u>	<u>350</u>	<u>100</u>	<u>50</u>	<u>150</u>
<u>Total</u>	<u>700</u>	<u>600</u>	<u>1,225</u>	<u>2,525</u>	<u>300</u>	<u>500</u>	<u>800</u>

^{a/} Agriculture, industry, mining and transport enterprises.

Project aid as % of total:	28	38
External as % of total:	70	64

85. The total five-year program of about US\$2,500 million would be small in relation to the needs and would amount only to 5-6 percent of the cumulative GNP over the period. It would nevertheless represent a major effort to marshal resources for projects in the public sector. Project aid would supply less than 30 percent of total resources, but the proportion would increase each year and approach 40 percent in 1974/75 as disbursements reach some US\$300 million a year. The local costs associated with aid projects would also grow more rapidly than total annual expenditures. Total expenditures on aided projects could exceed half of all development spending. There are, however, a number of programs which, as described above, are being financed purely with domestic resources and cannot readily be financed by project aid. Thus even with rising aid inflows the pressures on rupiah resources would continue to exist.

86. This indicates that care in project selection, especially in new areas or for major projects, needs to be exercised to husband scarce budgetary resources. It implies also that the dependency of public sector enterprises on support through the government budget should be reduced, notably in those activities where private enterprise performs equally or more efficiently. Public enterprises should either be transferred to private management or required to be financially independent. A number of actions have been and are being undertaken already, as in the case of the state corporations for electricity and telecommunications, to improve efficiency in enterprises which will remain in the public sector. Efforts are also being made in other sectors like irrigation to transfer at least part of operation and maintenance costs to the beneficiaries of such facilities. Such actions will result in the release of budgetary resources for other programs and projects.

87. The required local currency resources for the development budget can only be obtained if the increase in routine budget expenditures is kept lower than that of recent years. This will require that public sector resources in the routine budget are used efficiently to provide essential government administration and services at the lowest possible cost.

88. There is also a need for improved design appraisal and evaluation of development projects in the departmental budgets. Also in this area actions have been or are being taken to improve methods of project preparation and appraisal, and simultaneously further steps are taken which substantially improve present methods of evaluation and progress reporting.

89. The following sections describe the development of the public investment programs for the main sectors, the role of project aid and, to the extent now possible, the developments likely to occur through 1975. More comprehensive information on the present position in most sectors is contained in Volume III of the last Bank economic report.

Agriculture and Irrigation

90. The development of the agriculture sector is crucial to the growth of the economy and to the maintenance of a viable balance of payments. At present, agriculture contributes about half of the national product and income and more than 70 percent of total employment; although these shares will decline over time, it will be years before the growth performance of agriculture ceases to be the major determinant of general economic development.

91. The agricultural sector is different from most other sectors of the economy in the sense that the growth of output depends not so much on new investment alone as on an interplay between several types of recurrent and investment expenditures. Although investments in the rehabilitation and extension of irrigation works, feeder roads, storage, research and training facilities and agricultural tools and equipment are a major part of any agricultural development program, the supply and distribution of seeds, fertilizers and pesticides, extension services and credit need to be integrated with the investment program. Studies undertaken for the future development of the agricultural sector are therefore partly in the nature of pre-investment studies, but must also consider the required level and arrangements for distribution of current inputs and the marketing of products. While all these studies are a Government responsibility, the financial implications extend beyond the budget to the use of private resources and the credit facilities of the banking system.

92. Rice being the staple diet, the major crop and the largest component of food imports, several of the current studies are related to programs and projects aiming at increased rice production, in line with the Plan target of food self-sufficiency by 1975. The studies concern the rehabilitation of irrigation works, fertilizer production and distribution, the development of groundwater, seeds production and distribution and rice milling, marketing and storage. In addition, an evaluation of past and present schemes for intensification of rice production now being made should lead to recommendations for the future organization of such programs.

93. Irrigation: A first IDA credit for irrigation rehabilitation in October 1968 provided for a series of feasibility studies to determine needs for further rehabilitation of technical irrigation areas and their order of priority. These studies have assessed the feasibility of irrigation rehabilitation projects in an area of about 600,000 hectares; in addition the rehabilitation of the Djatiluhur irrigation area which comprises 180,000 hectares of irrigable land was appraised. These studies have now covered all areas where rehabilitation projects suitable for external financing can be quickly identified. Loans have been obtained for works covering about 600,000 hectares and in the course of the next fiscal year additional aid for further projects, covering more than 200,000 hectares, is expected. The total area covered would correspond closely to the

target for irrigation rehabilitation of 850,000 hectares set in the Five-Year Plan. By the end of the Plan in 1973/74, however, only limited areas may be served by improved irrigation because the average time for the completion of these projects is usually four to five years. Delays in actual implementation could extend the gestation period, and completion of improved facilities in the area of 800,000 hectares to be undertaken during the current Plan period might then fall within the latter part of the Second Five-Year Plan period.

94. Investment expenditures for irrigation rehabilitation range around \$130 per hectare; if each year a new project covering 200,000 hectares is undertaken and the average time for completion is five years, this would involve annual expenditures in the order of \$26 million or Rp 10 billion. The budget for 1972/72 reflects this with an allocation of Rp 9 billion in local currency, and the equivalent of Rp 2.6 billion of expected project aid and technical assistance disbursements. Both figures may overstate actual rehabilitation activity because the projects included in the departmental program also include an element of new works and because disbursements of project aid may not reach this level.

95. It is estimated that small and scattered irrigation areas, comprising some 1.0 million hectares, are in need of rehabilitation as well, but no studies have so far been undertaken to assess their costs and phasing or the best way of organizing the rehabilitation work. For the time being it appears that the magnitude of rehabilitation works presently ongoing and to be undertaken in the next few years requires the full use of available staff and existing organizations for this program.

96. Outside the rehabilitation effort, most of the budget for irrigation is used for the completion of projects started in earlier years, and for explorations, emergency control measures and equipment rehabilitation. Some of the large extension programs in Java and South Kalimantan, financed by Japanese aid, are to be completed in two to three years' time; many of the small and scattered projects which presently cause a drain on scarce technical manpower, should be assigned priorities, so that some would be temporarily halted and other implemented more rapidly with the extra resources made available. The technical assistance list for 1971/72 includes a request for engineering and design assistance to speed completion of appropriate projects.

97. The size of investment needs for new irrigation works is not known at present. Regional studies, like the one proposed for 1971/72 in the Lampung area, South Sumatra, may identify economically attractive irrigation extension projects. The exploration of groundwater resources has hardly begun but in some promising areas a program of pilot projects has been recommended on the basis of preliminary investigations. One of those areas may be included in an irrigation rehabilitation project presently being prepared. New studies are required on swamp land reclamation and coastal irrigation in connection with the preparation of new settlement

programs. Substantial investments for the development of new large-scale irrigation systems cannot be expected to occur within the next three to four years until such studies are completed. The size of the public sector irrigation program could therefore remain at about present levels, to increase at a later stage when new projects reach the stage of implementation.

98. Other Crops: The dominance of the rice program is indicated by the relatively small attention, in the form of studies and surveys, which has been given to other crops outside the estate sector. A project preparation study was made in 1969 for maize cultivation on new lands in South Sumatra and a project is being implemented which will, by 1975, comprise an area of 4,000 hectares. A feeder road study for the same area has recently been completed.

99. In late 1968 the results of a survey of selected export agricultural commodities was submitted to the Government, addressed largely to the establishment of priorities for processing industries of smallholder export crops. The survey covers rubber, coffee, tea, copra, sugar, spices and essential oils, but recommendations are of a general nature only and a number of more specific studies is suggested. For some of these the Government has requested technical assistance in the aid request for 1971/72; studies on sugar and copra are expected to be completed by the middle of 1972, whereas a study on smallholder rubber is scheduled for completion before the middle of 1971. The latter is addressed only to one particular region of smallholder rubber cultivation in North Sumatra.

100. Estates Rehabilitation: Since the first project for estate rehabilitation was prepared in 1968/69, a number of project studies have been completed or are in train for the rehabilitation of Government-owned estates. It is expected that projects for most estates which still can promise good returns on the costs of rehabilitation will be committed in the next year or so.

101. Livestock: In August 1969 a project identification mission concluded that livestock development prospects were promising in the Eastern Islands (Bali, Lombok, Timor) and a detailed study is now being made to formulate a project. Technical assistance has been requested for studies of livestock development around main consuming centers. Improved slaughterhouse facilities are under negotiation for Djakarta and Surabaya.

102. Fisheries: No comprehensive studies of the fisheries sector have been made or initiated. There is a large potential for marine fishing in the Indonesian seas which has only partly been tapped, but development is constrained by shore and marketing facilities which are at present inadequate or non-existent. The IDA project in Aer Tembaga (North Sulawesi) is a first attempt to establish such facilities and to improve the quality of the fleet and its equipment. The sector could be supplying additional

protein in the national diet, and also has considerable export possibilities, notably for tuna and shrimp. The Government has requested technical assistance to help determine the possibilities of increasing shrimp cultivation. Projects for skipjack and shrimp fisheries along the lines of the Aer Tembaga scheme are proposed for financing in 1971/72, in seven more locations throughout the archipelago.

103. Investment: The irrigation program described in paras. 93 to 97 will absorb about 10 percent of all project aid disbursements during 1969-74 and about 15 percent of aid for infrastructure rehabilitation. The aided projects have relatively high local costs, only part of which can be met from the element of local currency financing possible with some IDA credits. In addition, there are small-scale rehabilitation works covering perhaps one million hectares, and a number of small new projects, which are entirely rupiah-financed. The equivalent of \$56 million in rupiah funds is budgeted for the 1971/72 program and total expenditures in 1969-74 would approach \$350 million, including perhaps \$70 million in aid disbursements.

104. Most aid for other agricultural projects is being directed to public enterprises, especially rubber and palm oil estates producing for export. The foreign aid component of departmental programs has been minimal and the allocation of resources is therefore substantially unaffected by project aid.

Industry and Mining

105. The policy of the previous Government of establishing new industries mainly in the public sector, and the nationalization over the same period of major industrial and mining enterprises formerly under private foreign ownership, have resulted in a large degree of public control in these sectors.

106. In mining, foreign interest in hard minerals extraction has led to the substantial investments described in Chapter 2, but all present production is under the control of two state enterprises, PN Timah and PN Aneka Tembang. Nearly 90 percent of Indonesia's crude oil is produced by foreign oil companies under "contracts of work" and, for new companies, production-sharing arrangements, but the state oil enterprise PN Pertamina is responsible to the Government for all production and refining. The investment programs of these state enterprises are carried out mainly from own earnings supplemented, in the case of Pertamina, by extensive foreign borrowing on its own account. None contributes significantly to the routine budget from operating profits. None receives support from the development budget. PN Timah has been the recipient of project aid for the rehabilitation of tin dredgers and a power plant but finances rupiah costs from its own cash flow.

107. The situation in the state industrial sector is more complex. In several industries, notably sugar, fertilizer, cement, soda oxygen, paper and spinning (where 80 percent of capacity is Government-owned), state enterprises dominate production; in some such as salt, rubber, matches, other textiles and metal working they make an important contribution to total production. While their share of industrial employment or value added probably does not exceed 15 percent of the total, they include some of the largest and most capital-intensive plants in the present industrial structure. With some notable exceptions, the sector is characterized by technological obsolescence, inefficient scale and managerial and financial problems. Its contribution to the budget is probably negative, with profits made by some firms more than offset by the losses of others. Subsidy benefits accrue mainly to this group of industries, and their needs for credit are large and continuing. The Government has arranged or requested a number of industry and project feasibility studies to help in planning and policy-making for greater efficiency and output, but no general examination of the state enterprise activities and their costs and benefits to the economy has yet been made.

108. It is clear, however, that there is little scope for inefficient industrial operations or, particularly, for a drain on scarce budgetary resources to finance them. Under the new economic policies introduced since 1966 the role of market forces has been emphasized, and the criterion of market efficiency for public as well as private enterprise is now becoming established. Several state enterprises have been transformed from P.N.'s (perusahaan negara) to P.T.'s (perseroan terbatas), the main distinction being the independence of enterprise management from the responsible ministries or departments. Recently requests for this change in status have been made for 25 of the 27 enterprises under the Ministry of Industries. Plans for the transformation and possible integration of three main metal working and machinery plants are in an advanced stage.

109. Project aid made available to several major public sectors, industrial enterprises, mainly for fertilizer, cement, paper and caustic soda production, for metal foundries and agricultural equipment manufacturing, should make a significant contribution over the next few years to the volume of efficient output of the state industrial sector. A substantial part of program aid is also being used for the support of the enterprise sector through the medium-term credit program of the state banks. Further supplies of capital and skills will be necessary but in some cases joint ventures with foreign investors may be the best means of injecting new capital, management and technology into such enterprises.

110. There is nevertheless a growing need for official aid for productive enterprise in industry and other sectors. The requests for development loan finance to be channelled through BAPINDO, the state development Bank, and other financial institutions, for agricultural credit programs and rice processing facilities, and for inter-island fleet rehabilita-

tion and replacement, are to assist both public and private enterprise. This form of aid will channel resources to the enterprise sector and is relevant to Government plans for increased food production, export growth, industrial expansion and improved transport services, all fields in which the private sector must take the main initiatives for development. The tourism sector is another in which direct Government investment is likely to remain small at least during 1969-74, when only one sizable infrastructure project, for Bali, is planned.

Power

111. Over the period 1969-74 it is estimated that the power sector program will involve budgetary expenditures in the order of \$300 million, over half of this in the form of project aid. This would amount to over 10 percent of all service development expenditures and 10-25 percent of the investment in economic infrastructure.

112. This level of investment may be low in relation to the growth of demand for power. The present supply amounts to only about 7 watts per capita compared, for example, to 30 watts in India, and the annual consumption in Java of about 25 kwh per capita is among the lowest in the world. Little investment was undertaken from 1939 to 1954-57, when the private companies were nationalized, and only modest additions to generating capacity were made after 1957. The system continued to deteriorate and a comprehensive program of rehabilitation and improvement of distribution systems, expansion of high voltage transmission facilities and increased generation capacity is now getting under way to meet existing and projected needs for electric power.

113. The Government recognizes as one of the pre-requisites for efficiency in power generation and distribution the need to improve the management and operations of the state electricity authority, PLN, and to restore a rate structure which was distorted in the inflationary period of the 1960's. Management consultant services have been arranged in the context of an IDA credit for the Djakarta distribution system. It has been agreed that PLN will be re-organized as an autonomous Government-owned corporation to be responsible for the generation, transmission and distribution of all public electricity services, with full responsibility and authority for the management of physical and financial operations, modern systems of financial control and a new and viable rate structure.

114. On this firmer institutional base, a power development program adequate for Indonesia's still modest electricity needs should be feasible. A preliminary evaluation with French technical assistance assessed power demand on a regional and national basis and estimated power generation requirements to 1978 on the assumption of 5 percent GNP growth. The proposed increase of production of 10 percent per annum (11.5 percent load growth because of improvements in consumption flows and the quality of service and a decrease in power losses) may prove conservative if economic,

and particularly industrial, growth exceeds the base estimate. The program, defined wherever possible in terms of current regional power systems and development projects already being undertaken, involves expenditures estimated at \$330 million in 1969-73 and \$430 million in 1974-78, with a foreign exchange component of approximately 70 percent. Generous allowance is made, especially in the first period, for investment in distribution facilities, where rehabilitation is urgent and expansion also needed even to balance existing generation capacity.

115. Substantial aid, about 25 percent of the IGGI total, has already been committed to the sector for rehabilitation and power generation. The power sector also makes up 20 percent of total 1971/72 project aid requests and nearly 25 percent of those for which feasibility studies are complete or in progress. The pre-investment work for power development is proceeding in line with the possibilities of financing and within the framework of a general strategy for the sector. Project implementation is only now accelerating, however, and it is unlikely that project aid will be disbursed rapidly enough for the full 1969-74 program to be completed within the period. Project aid disbursements could reach \$175 million during the Plan period in a program involving, with associated costs and national expenditures not directly related to aid, about \$300 million for the five years.

116. The main burden of power investment would in these circumstances fall in the 1974-78 period, when any lags in investments would have to be made up, possibly higher rates of national growth and therefore of power demand catered for, and probably investments such as the Asahan power project made for major industrial and mineral projects still in the planning stage.

Telecommunications

117. The Government corporation, PERUMTEL, responsible for telephone, telegraph and telex services is rehabilitating and expanding the telecommunications system under a five-year program (1969-74) prepared with Australian technical assistance. The main components are a greatly expanded microwave/scatter network which will connect centers throughout Java and Sumatra and establish links with Bali and Kalimantan; improved telex services; and a modest increase in telephone connections. ^{1/} Total costs are estimated at \$82 million including a foreign exchange component of about \$50 million. Pre-investment requirements have been met and management consultant services for PERUMTEL arranged under an IDA credit which will finance part of the program in association with bilateral aid.

^{1/} The emphasis in local communications is on the replacement and conversion of obsolete exchanges; the increase of 65,000 in telephone connections will mean a growth rate of only 5 percent per annum, less than the historical growth rate of 9 percent.

118. Commitments of project aid for telecommunications services now exceed US\$35 million, and a further \$12 million is requested in the 1971/72 project lists. This excludes aid for communications services related to marine, railway and air transport which are independently operated by their respective agencies. Allowing for time lags in the disbursement of project aid and some expenditures not directly within the program, total budget expenditures of around \$90 million equivalent, including \$40 million of project aid, seem likely to be incurred during 1969-73 for telecommunications and postal services, supplemented by some resources from the organizations themselves.

Transportation

119. In this major sector public investment activity is being concentrated initially not on capacity increases but on reducing transport costs by rehabilitating highways, railways and ports replacing communications equipment and facilities for improved efficiency and safety and replacing some obsolete railway rolling stock and aircraft for the public enterprises operating in these sectors. Indonesia inherited a sound transportation system but was able in the period after independence to finance few major additions to capacity or, in more recent years, to maintain the existing structure or services adequately. The existing system nevertheless appears to be capable of responding to demand for transport services and could, if efficiently operated and maintained, serve most present needs. The resumption of economic progress and the need to open up new areas will, however, call for additional capacity, especially in highways and airfields in the near future.

120. Highways rehabilitation and construction are the largest elements of current and prospective development programs in the transport sector. The rehabilitation and upgrading program has so far been mainly a domestic effort, involving 15 percent or more of rupiah funds available for infrastructure operations and most of the funds now available under the Kabupaten program for district rehabilitation projects. Much of this work is in the nature of routine maintenance work but is necessary to arrest further deterioration of the highway system. Operational equipment is in short supply.

121. The investment requirements in the highway sector have been under study by a UNDP team, "1968-70 Highway Services," responsible for a survey of the whole system to evaluate priorities and for assistance in planning, project preparation and implementation.

122. The UNDP team recommended an investment program for the rehabilitation of about 12,000 km of the total 82,000 km in the highway network, and a maintenance program for a further 29,000 km. An IDA credit to help rehabilitate about 3,000 km of these roads in five provinces, improve maintenance and workshops in these five and a further 15 provinces and provide training and technical assistance in all phases of highway work, is now supplementing rupiah financing. Aid from Japan will rehabilitate roads in two

more provinces, and further commitments for road and bridge rehabilitation are being sought on the basis of feasibility studies completed or nearing completion.

123. In addition to road improvements there are several major construction projects, including the Djakarta-Bogor Highway, the Sidjungdjung-Lubuklinggau Highway in Sumatra, Balikpapan-Samarinda Highway in Kalimantan and the new road-ferry link between Java and Sumatra, for which aid is currently being planned. A second important series of projects involves development roads for agricultural areas of high potential in Sumatra.

124. An investment program involving some \$72 million in foreign exchange (65 percent of the total cost) has been identified to date, not including aid of \$30 million already committed. Further studies are in progress but are not likely to lead to new projects which will be implemented during the period through 1973/74. Some of the present projects will also extend beyond this period. Total project aid to the highway sector in the order of \$50-\$60 million should be disbursed over the period 1969-73, the bulk of it for rehabilitation programs with the main expenditures on new construction projects (with a higher foreign exchange component) occurring in the next Plan period. The related needs for replacement of the road transport fleet, which will require 12-15,000 new units annually, are being met in part by program and (for urban bus services) project aid.

Railways

125. The basic railways program for the next five years has been defined in terms of requirements for normal maintenance and replacement, including track and equipment rehabilitation which will contribute to more efficient and less costly operation of the present system. With technical assistance from Germany all main and branch lines have been surveyed and rolling stock and equipment checked. The modest program of rehabilitation justified under present operating conditions is already being undertaken. Some \$7 million of aid commitments has been made for track rehabilitation, signalling equipment and diesel locomotives to replace obsolete steam engines. Aid requirements for maintenance and minimum replacement needs are estimated at about \$2.5 million per annum in a program of \$7-8 million, a total of \$35-40 million for the five-year period.

126. The potential investment program is much larger, but their justification depends in part on improvements in management and personnel administration as well as the demand for rail services on particular routes. While uncertainties exist regarding the volume and composition of traffic which the railways can attract and carry economically, annual increases of about 14 percent over the next five years, from present low levels, appear to be feasible if operating methods and standards improve. As they do, a first-stage program of modernization would be appropriate both to raise operating standards and speed and to improve the financial position of the state railways. The project list for 1971/72 includes the first elements

of this wider program, projects for the modernization of 2,000 freight cars to increase maximum speed for 45 to 80 kph and for 12 rail buses for feeder services. The estimate for the costs of completing the first stage over 5 years is \$103 million with a further \$93 million for full modernization in the following five-year period. For the present, a cautious approach is being made to investments of this type until the appropriate economic role of railways in total passenger and freight movements can be more clearly defined.

127. In South Sumatra, in particular, decisions on railway investments depend on studies of the movement of goods along the whole Java-Sumatra corridor by road, rail, ferry and coastal shipping. The stage has been reached at which an inter-modal study is essential. The results will have a major bearing on the future pattern of railways development, as will the urban transport study, also inter-modal in character, to be undertaken in Djakarta this year.

The Maritime Sector

128. Infrastructure investment in this sector involves port operation and ship servicing facilities, the dredging program necessary for efficient port operation and the rehabilitation or replacement of sea communications and navigation equipment and official vessels. A total of \$14 million had been committed in aid for such programs by the end of 1970/71 and the 1971/72 project list contains a further \$36 million in similar aid requirements.

129. Port rehabilitation works have been delayed because feasibility studies except for Tandjung Priok and Surabaya, the two most important projects, have yet to be completed with Dutch technical assistance. Studies for other eight ports in a program for rehabilitating the ten major ports, handling 85 percent of total traffic, should be completed by the consultant team during 1971. Further programs connected with ship repair facilities, navigational aids and dredges also appear to be economically justified and are under study. A survey financed by the Netherlands is being undertaken to establish a capital dredging program and assist in the rehabilitation and operation of the dredging fleet. By the end of 1971 the requirements for rupiah and external financing of all the above programs should be known. Some of the improvements required are in organization and management rather than in equipment or facilities. In the short-term the total investment needs may be relatively small.

130. Investigations are also being made to determine the specifics of a rehabilitation and replacement program for inter-island shipping. While surplus capacity exists, many of the ships are obsolete and there is also a shortage of some types of vessel. The order of investment needs for rehabilitation, some replacement and certain new specialized ships for the inter-island passenger and freight trade should also become clear during this year.

Aviation Infrastructure

131. Technical assistance has been arranged in this sector for the preparation of an investment program. This program will include the identification and preparation of high priority projects including runway improvements, and new equipment including telecommunication and navigational aids, electrical and meteorological equipment and ground facilities. Some of the more urgent requirements have been identified and some aid already committed. Feasibility studies in progress or about to be undertaken should be completed and carefully reviewed before any major investment decisions are taken.

132. The intensive pre-investment activity of the past two to three years should have produced, by the end of 1971, a set of rehabilitation programs covering much of the transport sector and together defining a major part of the investment requirements for several years to come. Especially in the roads program, a number of new investments has been prepared and are reaching the commitment stage. Each must be treated on its own merits, rather than as an element of a coordinated transport development program, until the base is established for a general approach covering all transport modes. Among the first priorities for inter-modal planning appear to be the study of alternatives or combinations of transport services for the Java-Sumatra corridor and the urban transport study of Djakarta already arranged.

133. The main elements of the transport investment program to 1975 have been determined by decisions on the allocation of budgetary resources over the first three years of the development plan, by IGGI commitments of project aid amounting to some \$75 million and by the requests for further project and technical assistance for 1971/72. These requests could lead to aid commitments amounting to approximately \$200 million, within total costs of approaching \$300 million, over the next four to five years. On the basis of past and likely future commitments, disbursements could be of the order of \$150 million over the period 1969-74.

The Social Sectors

134. In projecting the allocation of resources for the remainder of the period it is assumed that the share of the social programs (including water supply projects) in total expenditures postulated in the Five-Year Plan, about 16 percent of the total, will be maintained. Resources of this order have been provided in each rupiah development budget but, because the project aid has been limited, the share of total development spending on social programs, from all sources, could be closer to 10 or 12 percent unless extra rupiah allocations are made in subsequent budgets. The project aid already extended for education and family planning will be supplemented by substantial technical assistance for health and education programs, family planning, and community development. Family planning programs will receive support from a number of external sources.

135. Fuller attention is now being given to the social sectors in the context of national development program. Particularly in education, however, pre-investment activity which will lead to the identification of further projects is still in its early stages, although considerable progress has been made in the past year following the establishment of an Office of Educational Development (BPP) assisted by a UNESCO planning team, the preparation and adoption of a "Program for Educational Assistance to the Five-Year Development Plan" and the beginning of informal consultations with groups of countries and organizations interested in Indonesia's educational development. The Ford Foundation has continued its national assessment of the education system and preliminary findings are now being discussed.

136. Developments in the health sector are following the pattern established by the Master Plan for Health. One of the main programs, for the development of referral hospitals, is included in the IGGI project list for 1971/72. Further projects, some of an urgent nature like the request for supplies and equipment for a malaria eradication project also in this list, will be prepared during this year. A much enlarged family planning program has now been planned along with the organization arrangements for its implementation. A number of governments and the Ford Foundation are assisting the family planning agency preparing to do so by providing technical assistance and other support. In this, as in most social fields, local currency costs, mainly recurrent, tend to form a large proportion of total project costs. Assistance in meeting local currency recurrent costs may be necessary at least in this field to lessen the budgetary impact of the major programs which will be necessary to reduce population growth rates.

137. In the other main field classified in the social sectors, water supply, rupiah expenditures of 2 - 2.5 billion per annum on systems rehabilitation and extension have been supplemented by project aid for Djakarta, Bogor, Denpasar and Makassar. Technical assistance is required for the planning of major municipal system expansion to the point at which further project aid can be committed, and for management, training and research for new water sources. The priorities include Surabaya, Bandung, Solo and Palembang.

138. Attention is now beginning to be directed to the identification of urban projects other than those municipal water supply and flood control projects already receiving support from Australia, France, Japan and the Netherlands. Even before the completion of studies needed for a comprehensive approach to urbanization problems in Djakarta and other major cities, some projects in urban transport, water supply development and other infrastructure areas will be necessary to ameliorate existing problems without prejudging longer-term development requirements. This was the approach adopted for rehabilitation programs at the national level and it appears to have been sound. Given the complexities of project preparation in urban centers, however, it may be some years before any major structural improvement can be implemented.

The Impact of the Public Sector Programs

139. The development program specified in three successive annual budgets from 1969/70, and projected in general terms to 1973/74, will have its major impact in terms not of completed projects but of the direction of Government planning and resource allocation along lines which must be followed if the development effort is to succeed. The core of the program is formed by the projects which attract foreign aid. These are the projects which are individually large enough to make an impact in a particular sector, are justified by feasibility studies and implemented, where necessary, with technical assistance to supply experience and technical knowledge not readily available in Indonesia. Because the pace of commitments was initially slow--as shown in Appendix Table 3.6, specific loan and grant commitments amounted only to \$25 million in 1968 and \$130 million in 1969--and because project implementation may spread over a period of years, the results of the cumulatively large disbursements in 1969-74 will show mainly in the following years. In irrigation rehabilitation, for example, only part of the 800,000 hectares to be covered by the IDA program will have regular water supplies by the end of the first Plan period.

140. The aid being channeled through the budget to the production sector, which may amount to 30 percent or more of total disbursements, will also have a positive effect on economic growth which will show mainly in the second Plan period. Because much of this aid will lead to institutional change and more rapid management and financial improvements than could otherwise be obtained, its ultimate effects on economic organization and productivity could be widespread.

141. The analysis and evaluation of the domestic programs which absorb nearly half of all development budget resources is still in its early stages. Some activities, such as the recently started district and village development programs, appear from first inspection to be providing useful results; notably with respect to local road and irrigation improvements. Insufficient analysis has been done of these and other programs which absorb substantial amounts of rupiah resources. The steps being taken to obtain fuller information and understanding of such programs include a request for assistance with an inventory of irrigation programs in 1971/72. The progress by BAPPENAS towards establishing better systems of program reporting should make it possible to achieve improved project designs as well as more effective program implementation.

142. The results of development planning will show primarily through the pre-investment activities undertaken in almost all economic and social sectors. They are already producing a large volume of high priority project proposals, increasingly well-prepared and ready for specific aid commitments, in addition to the US\$400 million already obtained. The Government's report on the status of technical assistance during 1967-70 shows that about 160 separate foreign aid teams and individuals are currently assisting state departments and agencies and that nearly 150 other team an individual assignments have been completed since 1967. Those still in the field are con-

centrated mainly in the agriculture, health and education sectors. Many assignments are not directly related to project aid, but over 50 involve pre-investment and feasibility studies which have led or will lead to project aid requests, mainly for agriculture and the economic infrastructure. The 1971/72 technical assistance lists contain 135 requests for pre-investment and feasibility studies, some for the continuation of services already being supplied, others relating to projects for which commitments are sought for the same year, and many which will lead to detailed investment analysis in areas not yet studied in depth.

143. The attention directed initially to urgent and obvious rehabilitation needs is now giving way to more general sectoral studies and the identification of sectoral programs in which the investment policies and priorities can be determined for each sector as a whole and for the national program. A much firmer foundation is being laid for the second development plan that existed for the first. In addition, progress is being made towards rebuilding existing institutions which must operate efficiently if the development process is to accelerate, and in establishing and consolidating new ones including the Investment Board and the high level National Council for Family Planning. From these planning and organization efforts alone, leaving aside the substantial investments in infrastructure and production which will be undertaken and in some cases completed through 1974, the effects of the public sector program on future national development will clearly be positive and large.

CHAPTER 4

ALTERNATIVE PATTERNS OF LONG-TERM GROWTH

144. In the preceding chapter some elements of the sectoral investment programs and their stages of preparation have been reviewed, and a cursory estimate was made of resources which may be available to the public and private sectors. It is not possible at the present moment to integrate these findings and expectations into a comprehensive economic forecast for the next four to five years, as information is lacking with regard to the growth of incomes and output to be generated by current and newly identified investment activities. Import projections are equally difficult for similar reasons, given the incompleteness of investment and output projections.

145. Planning activities for medium- and long-term development usually take place at different levels at the same time: macro-projections of investment, savings, growth and the balance of payments are conceived simultaneously with detailed sector studies and the preparation of projects and development programs. Their integration and consistency is usually a major task of the agency in charge of economic and social planning.

146. The lack of information on the structure of the economy both at the sectoral and at the overall level has in the recent past hampered the formulation of coherent medium-term programs. The need to start the reconstruction of the economy after 1966 in areas of obvious high priority has at least initially tended to emphasize the project and sector approach. A large number of studies was started since that time and are described in Chapter 3. Many of these studies are now adding to the flow of information on the economy and provide a better basis for planning work at the macro-level.

147. The First Five-Year Plan (1969-1974) was formulated towards the end of 1968 without the guidance of the necessary pre-investment surveys; the Government does presently recognize the lack of a sufficient basis of the Plan in terms of programs and projects which at that time had reached a stage of preparation providing adequate insight into their economic returns; therefore also the need is felt to reexamine the Plan projections and to incorporate the new programs which are now identified as part of completed and current studies. Also, the experience from the past two years and the prospects for 1971/72 indicate the need for revisions. Once this is done, the stage will be set for the preparation of the Second Five-Year Plan which is to become operational in early 1974. The Government is presently preparing time schedules and organizational proposals for that purpose, and intends to draw up a revised program for the remainder of the current Plan period during 1971.

148. Pre-investment studies and other activities, which have the identification of investment programs as their objective, cannot be undertaken

to the best benefit without a notion of the potentials, priorities and capabilities of the economy as a whole. For this reason, there is merit in attempting projections of macro-economic growth, even if insufficient knowledge of sectors or particular problem areas would leave such projections rather tenuous and uncertain. The detailed studies of sectors and projects will, at a further stage, provide the evidence which either supports the macro-economic projections, or refutes those. In the latter case the macro framework will need to be recast in order to reflect the findings at the project level, and this may in turn lead to changes in the targets and objectives set for other sectors and for the economy.

149. As an aid to planning for the future by both the Government of Indonesia and the aid-givers, work on longer range macro-economic projections of the possible growth of the Indonesian economy has been started. These projections are intended to illuminate the requirements for the growth of output and income, the constraints on such growth, the resources which may be available, and other related matters. For this purpose a growth model of the Indonesian economy has been constructed. This model is of necessity highly tentative and needs considerable improvement. The basic data with respect to present output, income, savings and investment are deficient; quantitative knowledge of the critical relationships between investment and output, income and savings, input and output generally, and imports and output is limited; knowledge of the way these relationships may change is virtually non-existent. To a considerable degree therefore assumptions based on experience in other countries or fragmentary observations rather than on reliable measurement of Indonesian circumstances are used.

150. The particular results which emerge from use of the model to forecast a number of key variables such as the resources required for various levels of growth of output, the growth of imports, the balance of payments, capital inflow requirements, etc. are sensitive in varying and often high degree to the assumptions made. First computer runs of the model have been made to see what outcomes emerge from particular combinations of assumptions about economic facts and their interrelationships and to test the sensitivity of these results to what are assumed to be a reasonable range of variations in the basic assumptions. Considerable time will be required before the model can be improved sufficiently and its sensitivity tested sufficiently to place any confidence in the forecasts it provides. This chapter merely indicates therefore the nature of the work in progress.

151. The projections of the model are partly based on the estimates of GNP for the years 1968/69-1970/71 presented in Table 20. The official national accounts estimates and the most recent balance of payments and government budgets have been used to make this set of data; gross domestic product estimates and the investment data are taken from the national accounts and all other estimates of resources and expenditures are taken from other sources; private consumption appears as a residual. It is treated in the same way in the model.

Table 20: GNP, By Type of Expenditures
(in billions of rupiahs, 1970/71 prices and exchange rate)

	<u>1968/69</u>	<u>1969/70</u>	<u>1970/71/a</u>
GDP, factor cost	2,934	3,085	3,328
Net factor income to abroad	-38	-39	-52
GNP, factor cost	2,896	3,046	3,276
Indirect taxes	142	167	213
Subsidies	-52	-39	-37
GNP, at market prices	2,986	3,174	3,452
<u>Imports</u>	<u>391</u>	<u>522</u>	<u>576</u>
Oil sector goods and services	47	70	70
Non-oil, goods	312	412	461
Non-oil, services	32	40	45
Total national resources	3,377	3,696	4,028
Consumption - Private	2,600	2,759	2,868
- Government	196	198	265
Investment	250	346	440
<u>Exports</u>	<u>330</u>	<u>393</u>	<u>450</u>
Oil	115	144	167
Non-oil	215	249	283
of which: Agriculture	(186)	(215)	(242)
Mineral	(22)	(26)	(30)
Manufactures	(7)	(8)	(11)
National saving	190	217	316

/a As the model makes a conditional forecast for 1970/71, data in the tables presenting projections show deviating estimates for this year.

152. The major predetermined variables and the values used for them were obtained as follows. The agricultural foodcrops sector, which in the past has about kept up with population growth, is assumed to develop more rapidly in future years. As compared to 2.5-3.0 percent per annum in the past, a rate of growth of 4.0 percent per year has been projected through 1975, gradually rising after that year to 4.5 percent in 1980. As an alternative to this growth pattern the higher rate of 4.5 percent is assumed

to be attained by 1975 through gradual increases in growth rates over the five years from 1970, and this rate is then maintained through 1980. 1/ As a rough approximation of the order of magnitude of the program, these rates of growth would imply a combination of one million hectares of irrigation rehabilitation, full use of pesticides and fertilizers on all irrigated rice lands in accordance with past BIMAS recommendations, amounting to about 1.0 million tons of nitrogen fertilizer use (urea) by 1980, and half a million or even one million hectares of additional irrigated rice land. Although such targets cannot be considered unrealistic for a period stretching as far as ten years, they would nevertheless constitute a major challenge to agricultural policy and management, and to the provision of adequate infrastructure.

153. Exports are estimated separately for mining products and for other export commodities. For the non-mineral exports -- largely estate crops and forestry products -- the assumptions are comparable to those made by the IMF 2/ in 1968, be it from a higher figure in the base year, 1970; the rate of growth is estimated at about 5 percent per year. For crude oil and minerals considerably higher rates are assumed, especially for the years 1970-1975 when presently known reserves will add to export growth. A doubling of the gross value of these exports over the next five years is postulated, with a levelling off after that year to an average rate of 7 percent per year through 1980. Together these projections for the two main export components constitute a rate of growth of exports of 10.4 percent per year between 1970 and 1975, still somewhat below recent actual rates, and just over 5 percent thereafter. As an alternative, a lower growth has been assumed for oil exports through 1975, at a rate of 10 percent per annum, which reduces overall export growth in those years to slightly less than 8 percent per year.

154. It would be unrealistic to project population growth without taking account of the preparations now being made for a family planning program of significant dimensions. Alternative assumptions are used. The first is that the rate of population growth will rise first, from 2.7 percent per year in 1970 to 3.0 percent in 1975, and then gradually declining after that year to 2.5 percent in 1980. As a second, more optimistic variant the rate of growth is assumed stable at 2.7 percent through 1973, then declining to 2.0 percent in 1980. The difference in population size in 1980 would amount to 4.7 percent of the 1970 population.

1/ A higher alternative than the latter is used also at a further stage.

2/ "Debt Profiles and Export Projections for Indonesia," Staff Paper of July 1968.

155. Private capital inflows -- defined as net of the servicing of private debt, but before investment income transfers -- are assumed to triple over the decade of the 1970's, from actual inflows of \$105 million in 1970/71 to \$310 million in 1980; a higher alternative puts the inflow in 1980 at \$370 million. It is assumed that only half of this will be in the form of private borrowing the rest in direct investments. The latter are related to expected investment income transfers. Oil sector investments are excluded both from the import data and the investment and financing side. A small but increasing inflow of suppliers' credits with government guarantees has been assumed, rising from around \$10 million in 1970 to \$60 million in 1980, probably constituting the upper limit of medium-term credits which the Government would deem appropriate for projects which promise substantial foreign exchange earnings.

156. Data on the existing debt service liabilities as at the beginning of 1970, and including the estimated liabilities under the 1970 re-scheduling arrangements, are entered into the data set. Indirect tax rates on domestic and imported goods are both assumed to increase by 2 percent per year and, in addition, customs tariffs have been assumed to rise slightly in the years between 1970 and 1975. An alternative is formulated which raises rates of both these tax categories by an additional one percent (of base year rates) in each year. Table 21 summarizes the main values of predetermined variables.

Behavior of the Model

157. A detailed description of the system of equations, the parameters used and the computing procedure is given in Annex I, and is summarized here. Starting with the data established for 1968 and 1969, the set of equations produces a complete forecast for 1970, which must coincide with the estimated actual data for that year. ^{1/} Some of the values found for 1970 influence developments in 1971, and in addition the growth performance in 1970 gives rise to growth expectations which in turn help to define investment expenditures in 1971. The projections for 1971 are thus determined by influences from previous years and expectations for future years, combined with whatever values are set for 1971 for variables, e.g. exports, population and agricultural growth, which are projected independently. Thus, the model produces a complete forecast for 1970 and each subsequent year, and each of those annual projections is a function of events in past years as well as of expectations of future years.

158. The main variables for which values are set outside of the model are the growth of exports and of agricultural food production. The first

^{1/} With different values of exogenous variables, the "projections" for 1970 are not identical for different alternatives, but deviations are not significant.

Table 21: Values of Main Pre-determined Variables, 1970-1980

	<u>1971</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
<u>Growth rate of agriculture (%)</u>											
Foodcrops: a) low	3.9	4.0	4.0	4.0	4.0	4.0	4.1	4.2	4.3	4.4	4.5
b) high	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.5	4.5	4.5	4.5
<u>Population growth (%)</u>											
a) low	2.7	2.7	2.7	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.0
b) high	2.7	2.8	2.8	2.9	3.0	3.0	2.9	2.8	2.7	2.6	2.5
<u>Exports (gross, \$ mln)</u>											
a) high	1,170	1,310	1,450	1,600	1,765	1,925	2,060	2,170	2,270	2,370	2,480
b) low	1,170	1,290	1,405	1,520	1,635	1,750	1,830	1,910	1,990	2,070	2,150
<u>Private capital imports (\$ mln)</u>											
a) high	105	145	170	195	220	245	270	295	320	345	370
b) low	105	145	165	190	210	225	235	250	270	290	310
<u>Suppliers' credits (\$ mln)</u>	45 ^{a/}	15	20	25	30	35	40	45	50	55	60
<u>Debt service (\$ mln)</u>											
a) rescheduled	35	35	36	37	37	44	45	45	63	63	63
b) 1967-1969 loans	46	60	75	75	75	75	75	70	65	65	65
c) other debts	37	48	40	30	20	10	-	-	-	-	-

a/ Including net receipts under so-called merchants' L/C's.

is separately specified because export values are more closely related to international demand and supply situations, especially for the main agricultural exports, or to autonomous supply factors as for crude oil, petroleum products, hard minerals and forestry products, than to domestic economic developments. With regard to foodcrops, it is considered unlikely that output growth would adjust itself automatically to the growth of demand, and for this reason it is more logical to set a specific growth target for this sector which can be supported by known techniques and feasible programs.

159. Alternative assumptions can be made for either variables and the model can then be used to test the effects of different assumptions. A comparison, for example, between alternative growth patterns which differ only with respect to the agricultural growth target can demonstrate the consequences of these differences for overall economic growth, resource requirements and the balance of payments. The analysis of trade-offs implicit in such assumptions can help to elucidate the relative importance or priorities of policies affecting different parts of the economy.

160. Several more variables are specified in the model to enable an analysis of more alternatives. Population growth is specified to permit an assessment of the consequences of family planning programs; tax rates are specified so that the effects on rates of growth and the balance of payments can be analyzed; private capital inflows are independently projected to make possible an assessment of the effects of various assumptions on public official capital inflow requirements and on official debt and debt service payments.

161. In the model, the growth of agricultural production and of exports determines to a large extent the demand for non-agricultural goods and services. The mutual relationships between sectors of the economy establishes the pattern and the rates of growth of output, and of imports. The difference between the import level derived in this way and the export level as projected provides a conditional estimate of the current account deficit in the balance of payments.

162. Investment in any given year relates to growth in the same year in the sectors where gestation periods are deemed relatively brief, but in most sectors investment levels reflect expectations of future demand and production growth which in turn are based on the current performance of the economy. In turn, investment generates growth of output and income in current and future years. The model uses the concept of sectoral capital-output ratios to represent those relationships; as no such ratios can be determined for Indonesia from past or current data, coefficients are used for other Asian countries which are deemed reasonably representative. This introduces an element of uncertainty into the model which could have significant effect on the projections as presented here. Investment has in itself a major impact on import demand, and this is reflected in the import estimate.

163. The determination of the domestic resource gap, which is the difference between investment expenditures and domestic resource mobilization, requires a separate estimate of savings. The marginal savings rate is treated in the model as a function of the growth of per capita income in the previous year and postulates -- in line with a cross-section of relationships estimated for other Asian countries -- that the marginal savings rate will be higher with accelerated growth rates.

164. The model centers on the resource gap. The basic assumption is that the estimated rates of growth and levels of investment are in accordance with the objectives of Indonesia's economic development and also that the domestic resource mobilization which is projected constitutes a realistic target. The amount by which resources fall short of investment requirements therefore represents the need for inflows of net external capital.

165. In the model the resource and the balance of payments gaps are estimated independently and there is no a priori reason why they should be equal. In order to obtain the necessary ex post equality of the two gaps -- which basically are only two different aspects of the same flow of external resources -- there must be adjustment mechanisms. The model contains several.

166. The situation may occur in any year that the resource gap is larger than the balance of payments gap, for example because exceptionally heavy investment outlays without equal growth of savings takes place in a year of buoyant export earnings or lagging import demand, making it difficult to absorb, in the form of additional imports, all the foreign capital needed for the investment program. The model adjusts for this case by assuming full utilization of the foreign capital inflow for investment purposes and the simultaneous addition of part of the country's own foreign exchange earnings to its reserves. Of course when in other years the situation reverses, reserves can be used to meet part of the balance of payments gap, but in trial runs the calculated additions to reserves have been small and intermittent. Therefore, the model only provides for reserve increases and not for drawdowns. This also seems appropriate in view of the extremely small foreign exchange reserve base at the beginning of the period which in any case needs to be improved, probably more rapidly than the model tends to allow. In this sense, there may be some underestimation of the need for external capital inflows.

167. In circumstances where the balance of payments gap is larger than the domestic resource gap, the latter is again taken as the basic indicator of external resources requirements and the balance of payments gap therefore is adjusted downward. This process can take place in one or in two stages, depending on the magnitude of the required adjustment. First, an attempt is made to reduce the demand for imports by shifting investment resources to sectors of the economy which can produce import

substitutes efficiently. There are, however, limits to this course of action and for that reason the model includes the assumption that capital costs per unit of output will be raised by this shift, thus increasing the size of the investment program -- and thus the resource gap -- for the same rate of growth. The model also postulates definite upper bounds to import substituting production, put arbitrarily at about 20 percent of added output in the manufacturing sector in each year.

168. After the introduction of import substitution in the investment and output projections, the domestic resource gap and the balance of payments gap can in most cases be equalized without exhausting the full amount of permissible import substitution. In those cases, however, where a residual balance of payments gap still remains after full recourse to import substitution, the only alternative course is to adjust the exchange rate downwards, both to stimulate exports and at the same time to reduce the demand for imports and increase that for domestically produced goods and services, until the two gaps are reconciled.

169. Once a specific pattern of external capital flows is determined, the total of these inflows is calculated in gross terms by adding debt service liabilities; first, this total is distributed between private and public capital, and for the latter an assumption is made with regard to the composition of loan terms and maturities. The future flow of estimated debt service liabilities arising from new borrowing is then added to the liabilities already in existence at the beginning of each year.

Effects of Alternative Assumptions

170. The influence of specific variables on economic growth can best be assessed in a comparison between alternatives which differ only with respect to the assumptions made for one single variable, or for a parameter which may represent policy choices. The alternative assumptions regarding exports, agricultural growth, the increase of population, tax rates and private capital inflows are used in succession for this purpose.

Population Growth

171. Differences in population growth rates have their main effect in the model through the demand for food. With a given rate of income growth and an income elasticity for food of well below unity, a higher population growth rate implies a lower growth of per capita income and a larger increase in the demand for food. If the supply of food, and especially of foodgrain is not elastic from domestic sources (such as the model assumes by setting fixed output growth rates) the only recourse is to additional imports from abroad which creates a burden on the balance of payments.

172. A lower rate of population growth under ceteris paribus condition generates in the first place a slightly higher rate of growth of the nation product. This follows from the fact that income elasticities for manufac-

tured goods and services are well above unity and a higher growth rate of per capita income results in higher levels of demand and output of those goods and services. As agricultural growth is assumed to be the same in both alternatives, the national product increases slightly faster when population growth is reduced. This additional GNP growth in itself increases the demand for foodgrains slightly, also compensating to some extent for the reduction of foodgrains demand which is the direct consequence of the lesser growth of population. The net effect which the model estimates for the demand for foodgrains is a reduction of consumption in 1980 by 0.73 percent of the base year (1970) level for each reduction of population growth of 1.0 percent over the full decade or by 0.1 percent in each year.

173. This lower demand has implications for the balance of payments on the import side by reducing the need for foodgrain imports by the same amount as the reduction of domestic demand. The model indicates that foodgrain import requirements would be reduced by about \$30 million for each 1.0 percent reduction of population size in 1980. It is also found that aid requirements will be less by the same amount under those conditions, but the reason for this is somewhat more complicated as aid requirements are a function primarily of the domestic resource gap.

174. Lower population growth and consequent higher growth rates for per capita income have a significant impact on the marginal savings, as the latter are defined as a function of per capita income growth. Thus, the model shows savings to increase faster when population growth is reduced, and as overall economic growth is only slightly different for the two alternatives, the investment levels are about equal. Therefore the domestic resource gap is smaller with lower population growth, and the net inflow requirements of foreign capital are equally reduced.

175. The reduction in foreign aid requirements as a result of lower growth of population would put this particular benefit, cumulated over the years of the decade covered, at more than \$100 million for each percent less population in 1980. To this the discounted value of future savings, in terms of reduced external borrowing, would have to be added to approach the full value of these benefits. The family planning program which could lead to the target reduction of population growth as used in the alternative runs with the model would cost on current estimates some \$50 million for each one percent less population in 1980. Even if this amount had to be fully borrowed on the same terms as apply for present aided foodgrain imports, the benefit/cost ratio on this account alone would already equal a value 2.0. To this would add discounted future foreign exchange savings and the lower levels of education and health investments which could be planned as a consequence. Rates of return far higher than for most other programs could therefore easily be demonstrated; with discounted future foreign exchange savings alone added, the benefit/cost ratio already rises to around 6:1.

Agricultural Growth

176. The alternatives for agricultural growth are chosen in a manner which restricts the difference mainly to the phasing; the higher alternative is only 3 percent above the lower one in the final year, but the acceleration of growth in the higher alternative takes place in the first, rather than in the second half of the decade. The consequences are more straightforward than in the case of alternative projections of population growth, as in the present case the only major effect is on the demand for imported foodgrains. The calculations indicate that for every additional percent growth in this sector of agriculture, foodgrain imports can be reduced by about \$30 million, which roughly tallies with implied volumes and import prices applicable in Indonesia.

177. The growth rates for agriculture as postulated here are insufficient under the conditions applying for the model projections to reach food self-sufficiency even over the full decade. This is explained to some extent by the rapid growth of output in sectors where foreign investment is now taking place and the resulting growth of exports which stimulate growth in the economy outside those particular sectors. The model projects an average rate of growth of 6-6.5 percent per year in alternative runs, rising to about 8 percent by the end of the decade and as a consequence the low alternative for foodgrains production would double import requirements of foodgrains over the decade; the higher alternative for agricultural growth would just maintain the import level. In order to obtain food self-sufficiency by 1980, the average annual growth of agricultural foodcrops would have to be sustained at almost 5 percent per year; to reach this target by 1975 would require a rate somewhat above 5 percent from 1970 onwards.

Indirect Tax Rates

178. Changes in the tax rates, by their nature, change relative prices between different kinds of domestic goods and services and in relation to import prices. As the model specifies in appropriate cases the tax rates as part of the demand-price equations, it is possible to compare cases with different movements of indirect tax rates and to analyze their impact on the economy.

179. On one assumption, indirect taxes on imports are projected to be increased by a total of 5 percent of present rates, i.e. from an actual (1970) incidence of 23 percent on dutiable imports, to slightly over 24 percent in 1980. At the same time taxes on domestic products are projected to rise from the present 3 percent incidence as compared to the GDP, to 3.6 percent, or by 20 percent of the rates, by 1980. The higher alternative maintains the same relative burden on imports and domestic products, but with more substantial rate increases over time: import tax rates are increased by 15 percent to an incidence of 26.5 percent and indirect taxes on domestic output are raised by 30 percent, to almost 4 percent of GDP.

180. Between the two alternatives, imports are reduced by \$22 million in 1980 for a rate differential of 10 percent on the basic rate. Taken in relation to dutiable imports alone, this amounts to an import reduction of 1.1 percent; the rate of tax increases between 24.2 and 26.5 percent, or by 2.3 percent points between alternatives, which implies an elasticity of demand slightly below 0.5. However, this approach is not proper as it does not reflect the substantial changes in import composition between dutiable and non-dutiable imports. The alternative projections show that dutiable imports are reduced between alternatives by \$47 million, but non-dutiable imports increase by \$25 million, leading to the net effect analyzed above. Thus, the duty elasticity appears to be much closer to unity, and it is the increase of non-dutiable items in total import payments which needs to be explained further.

181. The model specifies that the consumption of foodgrains is not taxed, neither from domestic output nor from import sources. All other goods and services becoming more expensive, there is a shift in demand towards foodgrains and as domestic production is pre-determined in the model, this additional demand results in added import requirements.

182. The net reduction of imports, combined with a small addition to exports of manufactured goods, improves the balance of payments and reduces the net inflow of capital. Domestic price increases raise the nominal value of the GDP and of investment, but also of savings. In addition there is a small real addition to savings, reducing the resource gap and thus the net capital inflow requirements.

183. Alternative Patterns of Growth: For each alternative chosen with respect to the values of pre-determined variables, difficult rates and patterns of growth emerge. A number of cases is presented in what follows, with different assumptions with respect to agricultural growth, exports and domestic savings. As the first one to be presented, the case is chosen where the most optimistic assumptions have been combined, i.e. where the low rate of population growth applies, exports grow at the faster of the two alternative rates, foodcrop production increases at the higher rate and indirect taxes are increased according to the higher alternative.

184. Under those conditions the gross national product at factor cost increases at an average rate of 7 percent per year during the first half of the decade, and by 8 percent during the next five years. As foodcrops, the major component of agricultural output, grow at a substantially slower rate, the share of agriculture declines continuously in the national product. The mining, manufacturing and construction sectors increase their shares most rapidly. The main elements of the projection alternative are presented in Table 25 (Alternative I).

Table 22: Changes in the Structure of GNP, 1970-1980
(in percent)

	1970	1975	1980	Rate of Growth	
				1970/75	1975/80
Agriculture	51	45	38	4.6	4.6
Mining, manufacturing	15	18	22	11.9	12.0
Construction	3	4	5	13.9	10.6
Transport, power	3	4	5	11.2	12.8
Services	<u>28</u>	<u>29</u>	<u>30</u>	<u>7.4</u>	<u>9.4</u>
GNP at factor cost	100	100	100	7.2	8.1

185. The differences in sectoral growth rates are reflected in the composition of investment expenditures. Between 1970 and 1975 the investment level rises from about 14 percent of GNP to 19 percent; in the next five years until 1980 a slower increase to 22 percent of GNP in the last year is projected. Agricultural investment which is estimated around 30 percent of total investment expenditures in 1970, gradually falls to 15 percent in 1980, notwithstanding a significant increase in absolute terms over the period. Investments in manufacturing and transport are leading the increase of investment activity.

186. When the assumption is made that the public sector maintains its share of investment activities in each of the sectors as estimated for 1970 -- which includes all investment in power and a major part of transport investment -- the derived level and composition of public sector investment expenditures is not significantly different from the estimates presented in Chapter 3 which are largely based on known investment programs and projected project aid disbursements.

187 The growth of savings is, in percentage terms, more rapid than the growth of investment, but beginning from a lower base. Therefore the resource gap increases from 1970 to 1975 and only after that year a slow decline of net external financing requirements begins. The marginal rate of savings amounts in the first five years to about 22 percent, rising to 26 percent in the second half of the decade.

188. The pattern of net external capital inflows over time, rising through 1975 and slowly declining thereafter, combines with an export projection which combines high growth -- mainly from oil and forestry products -- in the first five years with a reduced rate of growth thereafter. As a consequence imports can rise rapidly in the first five years (there is even some accumulation of reserves) and import substitution needs

are small. In 1975 the estimates indicate the need to reduce the demand for imports by 6 percent in order to keep their level within the availability of foreign exchange resources. However, after 1975 import demand maintains a fast rise whereas foreign exchange resources do not; as a consequence the need for larger volumes of import substitution arises, and in the last year of the projection period the total requirement exceeds the limit set on the production of import substitutes, which therefore, causes the introduction of the foreign exchange rate as the last resort adjustment mechanism; a devaluation of 6 percent in 1980 is estimated to be required for maintenance of the balance of payments equilibrium.

190. To some extent these unfavorable developments towards the end of the projection period can be traced to particular segments of import demand. The growth of domestic output of foodcrops, as postulated at the beginning of this exercise, is not sufficient to keep pace with the growth of food demand, caused by the rapid growth of per capita income. As a consequence, the projections show increasing dependence on food imports, rising from 1970 to 1975 and stabilizing at a high level thereafter.

191. Imports of goods and services for investment use are assumed to be an almost constant proportion of investment expenditures and this may be overstating import requirements. The changing composition of investment expenditures over time may in itself lead to a reduction of the foreign exchange component of investment, and the same may be the case with regard to the foreign exchange costs of current industrial inputs.

Table 23: Balance of Payments Projection, 1970-1980

(in millions of US dollars)

	<u>1970</u>	<u>1975</u>	<u>1980</u>
Exports of goods and services	<u>1,202</u>	<u>1,992</u>	<u>2,742</u>
Imports of goods and services	<u>1,674</u>	<u>2,698</u>	<u>3,319</u>
of which: a) foodgrains	152	235	235
b) investment income	138	270	380
Current account (deficit = -)	<u>472</u>	<u>706</u>	<u>577</u>
Debt service payments	81	203	363
Gross capital inflow	<u>553</u>	<u>909</u>	<u>940</u>
of which: private investment	105	225	310
suppliers' credits	45	35	60
gross public capital	403	649	570

192. Although the current account deficit is declining after 1975, gross capital inflow requirements maintain a slight increase after that year on account of the increase of debt service payments. The latter amount in 1980 to 13.2 percent of gross exports; if the net export definition is used, which excludes the investment income payments and debt service costs of the oil sector from export earnings, the debt service ratio in 1980 amounts to 16 percent of exports, and the level is rising rapidly. In the last three years the amounts added each year to debt service payments equal about 25-30 percent of annual increases of gross exports, and the debt service ratio is therefore bound to rise further.

193. With the assumptions made regarding private capital inflows -- which through 1975 are identical to the projections made in Chapter 2 -- and some minor reliance on net inflows of suppliers' credits, there remains an increasing need for public gross capital inflows (disbursements) through 1975. Total inflows for the five years 1971 through 1975 are estimated at US\$2,780 million or an average of US\$556 million per year, rising to US\$650 million in 1975. The estimates of future resources for the public sector development program in Chapter 3 indicate a continued need for program aid counterpart funds at about the same level as projected for the budget year 1971/72 and the projections of imports presented above indicate under the conditions of the present alternative a continued need for food imports. Program aid could therefore well remain at a level of about US\$350 million per year, which then would imply project aid disbursements of about US\$300 million in 1975. Commitments at that level or somewhat higher in thyyears before 1975 would then be needed. The gradual reduction of gross public capital inflows after 1975 could either be the result of lower total aid commitments, or be obtained by a shift in favor of project aid while maintaining the overall commitment level.

194. In one sense, the alternative projection discussed in the preceding paragraphs represents optimistic assumptions as it postulates a high savings rate throughout the period, which may be difficult to obtain and to sustain over a full decade. However, the strains which develop with respect to the balance of payments especially in the second part of the period, are leading not only to a high rate of production of import substitutes, but in 1980 even to a currency rate adjustment. The severity of the balance of payments problems results mianly from assumed high domestic savings rates, aggravated by the existence of continuing large import requirements of foodgrains.

195. As a second alternative, calculations have therefore been made which reflect the consequences of a somewhat lower marginal rate of savings -- set 10 percent below the one of the previous alternative -- and of a slightly higher rate of growth of foodcrops production. For the latter an average of 4.9 percent per year is now assumed, compared to 4.6 percent in the preceding alternative. The results are shown in Table 26 (Alternative II).

196. These changes in basic assumptions appear not to be very significant, but the effects on some major variables are of substantial import. Overall economic growth is only marginally affected, and only after 1975. However, the need for devaluation in 1980 does disappear and import substitution is also somewhat reduced. These two results are directly related to the considerably lower import needs of foodgrains, saving about US\$35 million of foreign exchange in 1975 and US\$160 million in 1980.

197. The lower savings rate widens the resource gap in all years. Instead of the increase to about US\$700 million in 1975, followed by a decline to less than US\$600 million in 1980, the gap now widens to almost US\$800 million in 1975 and further to over US\$1.0 billion in 1980. As debt service payments also rise more rapidly as a consequence, the gross capital inflow requirements in 1980 are about US\$500 million larger in this than in the preceding alternative. With the same assumptions regarding private capital inflows and suppliers' credits, public sector capital requirements are almost twice as large in this alternative as compared to the preceding one, at close to US\$1,100 million in 1980.

198. It is interesting to note that these larger aid requirements do not reflect a higher rate of development, and only slightly higher rates of investment. It is mainly the more conservative assumption regarding the capacity of the economy to generate additional savings, which leads to such widely different estimates of aid requirements. The present lack of knowledge about the factors which stimulate private savings in Indonesia, and the fact that the identification of investment opportunities and the creation of a favorable investment climate are still at an early stage, make it impossible to judge the realism of a 25 percent marginal savings rate as assumed initially, or even the rate of 22.5 percent implied in the second alternative. Equally, an underestimate of capital costs per unit of output would induce a larger requirement of external resources.

199. If public capital disbursements in 1975 are to reach the higher level needed according to the second alternative, of US\$744 million, commitments would have to reach that level already some years before. With a view to the further rise of disbursement requirements after 1975, a level of commitments around US\$800-850 million would be appropriate in 1975, rising to some US\$1,200 million by the end of the decade, but to some extent depending on the share of program aid in total commitments in those years.

201. A third alternative is presented here which maintains the assumptions on agriculture and on savings as in the preceding one, but in addition postulates a lower rate of export growth (see Table 27). Instead of the previous rate of slightly above 9 percent per annum, a rate of 7 percent is now used. As export growth is one of the main dynamic factors responsible for the growth of the economy, the first impact is felt on the increase of the national product, and even more significantly on the rate of investment. Savings are also somewhat lower, and together this

results in a lower resource gap and a reduction of external public capital requirements, to US\$670 million in 1975 and about US\$1.0 billion in 1980. Lower capital inflows combined with lower exports would result in larger strains on the balance of payments if all import demands were reduced slightly, in accordance with the slight reduction of overall economic growth. This is the case indeed, with the exception, however, of food-grains where the reduced growth of demand leads to a situation of food self-sufficiency in 1980.

202. Debt Service Costs and Private Capital Inflows: In the last two alternatives with substantially higher capital inflows, debt service payments rise faster (see Table 24).

Table 24: Alternative Debt Service Ratios, 1970-1980
(in percent of gross exports)

	<u>1970</u>	<u>1975</u>	<u>1980</u>
Alternative I (high savings, high exports)	6.7	10.1	13.0
Alternative II (low savings, high exports)	6.7	10.5	14.8
Alternative III (low savings, low exports)	6.7	11.1	16.3

203. These estimates are based on the assumption that public capital will be supplied on average DAC-term or IDA-terms and their equivalents, in proportions as provided at present. They are also based on one set of assumptions regarding the inflow of private capital. A larger share of private capital in total inflows would reduce the debt service liabilities on public borrowings; for 1980 the difference for alternative assumptions works out as a decrease of US\$1.0 million of debt service payments per year for each additional stream of private capital of US\$5 million in the preceding five years. Thus, the debt service ratios in 1980 would be overestimated by one percentage point if private capital inflows in the period 1975-1980 were underestimated by some US\$125 million per year, or by about 50 percent as compared to the assumptions used for the present projections.

204. The findings which emerge from the use of the model to test alternative projections of some of the main economic variables affecting economic growth in Indonesia must be considered highly tentative. The data base is in many respects far from satisfactory and in some very weak. More information is needed as a basis for the assumptions made with regard to the possible rate of growth of exports, agricultural production or any of the independent variables in the model. There is also uncertainty in regard to the relationship assumed between various elements of the model and the value of the coefficients used in the first runs of the model, for example with regard to the relationship between investment and the growth of output in various sectors. These have had to be selected in some cases

on the basis of what is known of other developing, particularly Asian, economies rather than information on Indonesia. The results are especially sensitive to some of these values.

205. The results of the first runs of the model as now structured suggest that under assumptions of favorable trends in agricultural output, exports and savings, and assuming the implementation of a major family planning program, a satisfactory rate of economic growth is possible in Indonesia over the next decade provided that in the period the inflow of external resources, public and private, is substantially in excess of present inflows. Even this generalized conclusion, let alone any more precise determination of external resource requirements, is subject to modification on the bases of what may be reasonable alterations in the structure of the model and in the values assumed for some of its parameters. Furthermore, the implications with respect to aid commitments requirements depend on the level of inflow of private capital. It is for this reason that this chapter must be regarded solely as a description of work in progress rather than as a statement of conclusions. The work to date, however, including the results of several runs on somewhat different assumptions are a guide to the main determinants of the resource gap confronting the Indonesian development effort.

206. Underlying all forecasts of longer term possibilities and alternatives is a short but impressive record of Government action in implementing rational monetary and financial policies, mobilizing domestic resources and planning for their effective use, and limiting the inflow of external resources except on terms consistent with the need to maintain external balance. The size and scope of current aid to Indonesia is at least in part an international response to these achievements. The rapidly accelerating inflow of private foreign capital is also an expression of confidence in recent performance and future potential. No projection of sustained growth of the economy would be tenable, however, without the maintenance of sound economic policies and the consolidation of present efforts to use efficiently the domestic and external resources available for economic development.

Table 25: Projections 1970-1980. - Alternative I

(in billions of rupiahs)

Population : low growth assumption
 Foodcrops : high growth assumption
 Exports : high growth assumption
 Marginal Savings: high alternative

	1970	1975	1980	Percent Rates of Growth	
				1970-1975	1975-1980
<u>Gross Domestic Product at</u>					
<u>factor cost</u>	3,310	4,675	6,880	7.2	8.1
Agriculture	1,684	2,110	2,640	4.6	4.6
Mining, quarrying	161	305	460	13.6	8.5
Manufacturing	334	565	1,070	11.0	13.7
Construction	116	220	367	13.9	10.6
Transport, communication	66	112	203	11.2	12.6
Power	15	26	49	11.6	13.5
Services	934	1,337	2,093	7.4	9.4
Net factor income payments	-52	-102	-152		
<u>Gross National Product, factor</u>					
<u>cost</u>	2,258	4,573	6,728	7.0	8.0
Indirect taxes net of subsidies	181	362	522	14.8	7.7
<u>Gross National Product,</u>					
<u>market prices</u>	2,439	4,935	7,250	7.5	8.0
Imports of Goods, Services	633	1,020	1,330	10.0	5.5
<u>Total National Resources</u>	4,072	5,955	8,580	7.9	7.6
Expenditures on National Resources:					
Exports	455	753	1,100	10.6	7.9
Fixed Investment	462	887	1,467	13.9	10.6
Consumption	3,155	4,315	6,013	6.5	6.9
Gross National Savings	284	620	1,236	16.9	14.8
Consumption <u>per capita</u> (\$)	69	83	97	3.7	3.3
				(five-year totals)	
<u>Resource Gap</u> (\$ million)	472	706	577	3,035	2,635
Debt Service Payments	81	203	363	805	1,440
Gross Capital Inflow	553	909	940	3,840	4,075
Private investment	105	225	310	935	1,355
Suppliers' credits	45	35	60	125	245
Public capital	403	649	570	2,780	2,475
Percent of GNP, factor cost:					
Investment	14.2	19.4	21.8		
Savings	8.2	12.6	17.0		
Resource Gap	6.0	6.8	4.8		

Table 26: Projections 1970-1980 - Alternative II

(in billions of rupiahs)

Population : low growth assumption
 Foodcrops : new upward revised assumption
 Exports : high growth assumption
 Marginal Savings: low alternative

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>Percent Rates of Growth</u>	
				<u>1970-1975</u>	<u>1975-1980</u>
<u>Gross Domestic Product at factor cost</u>	<u>3,306</u>	<u>4,672</u>	<u>6,947</u>	<u>7.2</u>	<u>8.3</u>
Agriculture	1,684	2,127	2,727	4.8	5.1
Mining, quarrying	161	305	460	13.6	8.5
Manufacturing	331	545	1,028	10.5	13.5
Construction	115	217	385	13.5	12.1
Transport, communication	66	112	203	11.2	12.6
Power	15	26	49	11.6	13.5
Services	934	1,340	2,095	7.5	9.4
Net factor income payments	-52	-102	-152		
<u>Gross National Product at factor cost</u>	<u>3,254</u>	<u>4,570</u>	<u>6,795</u>	<u>7.0</u>	<u>8.3</u>
Indirect taxes net of subsidies	182	356	541	14.4	8.7
<u>Gross National Product at market prices</u>	<u>3,436</u>	<u>4,926</u>	<u>7,336</u>	<u>7.5</u>	<u>8.3</u>
Imports of Goods, Services	635	1,052	1,424	10.6	6.2
<u>Total National Resources</u>	<u>4,071</u>	<u>5,978</u>	<u>8,760</u>	<u>8.0</u>	<u>7.9</u>
Expenditures on National Resources:					
Exports	455	753	1,100	10.6	7.9
Fixed Investment	458	869	1,540	13.7	12.1
Consumption	3,158	4,356	6,120	6.6	7.0
Gross National Savings	278	569	1,141	15.4	14.9
Consumption per capita (\$)	69	84	105	4.0	4.6
				(five-year totals)	
<u>Resource Gap (\$ million)</u>	<u>477</u>	<u>796</u>	<u>1,055</u>	<u>3,346</u>	<u>4,139</u>
<u>Debt Service Payments</u>	<u>81</u>	<u>208</u>	<u>402</u>	<u>818</u>	<u>1,546</u>
<u>Gross Capital Inflow</u>	<u>558</u>	<u>1,004</u>	<u>1,457</u>	<u>4,164</u>	<u>5,685</u>
Private investment	105	225	310	935	1,355
Suppliers' credits	45	35	60	125	245
Public capital	408	744	1,087	3,104	4,085
Percent of GNP, factor cost:					
Investment	14.1	19.0	22.7		
Savings	8.1	11.5	15.6		
Resource Gap	6.0	7.5	7.1		

Table 27: Projections 1970-1980 - Alternative III

(in billions of rupiahs)

Population : low growth assumption
 Foodcrops : new upward revised assumption
 Exports : low growth assumption
 Marginal Savings : low alternative

	1970	1975	1980	Percent Rates of Growth	
				1970-1975	1975-1980
<u>Gross Domestic Product at factor cost</u>	<u>3,301</u>	<u>4,602</u>	<u>6,748</u>	<u>6.9</u>	<u>7.9</u>
Agriculture	1,684	2,116	2,715	4.7	5.1
Mining, quarrying	161	272	380	11.1	6.9
Manufacturing	331	546	1,002	10.5	12.9
Construction	110	204	359	13.1	12.0
Transport, communication	66	111	197	11.0	12.1
Power	15	25	48	10.7	13.9
Services	934	1,328	2,047	7.3	9.0
Net factor income payments	-52	-102	-152		
<u>Gross National Product at factor cost</u>	<u>3,249</u>	<u>4,500</u>	<u>6,596</u>	<u>6.7</u>	<u>8.0</u>
Indirect taxes net of subsidies	179	333	499	13.2	8.4
<u>Gross National Product at market prices</u>	<u>3,428</u>	<u>4,833</u>	<u>7,095</u>	<u>7.1</u>	<u>8.0</u>
Imports of Goods, Services	619	960	1,263	9.2	5.6
<u>Total National Resources</u>	<u>4,047</u>	<u>5,793</u>	<u>8,358</u>	<u>7.4</u>	<u>7.6</u>
Expenditures on National Resources:					
Exports	455	686	886	8.6	5.3
Fixed Investment	441	816	1,435	13.1	11.9
Consumption	3,151	4,291	6,037	6.4	7.1
Gross National Savings	277	542	1,058	14.4	14.3
Consumption per capita (\$)	69	82	104	3.5	4.9
				(five-year totals)	
<u>Resource Gap (\$ million)</u>	<u>436</u>	<u>726</u>	<u>996</u>	<u>3,066</u>	<u>3,957</u>
Debt Service Payments	81	202	382	796	1,476
Gross Capital Inflow	517	928	1,378	3,862	5,433
Private investment	105	225	310	935	1,355
Suppliers' credits	45	35	60	125	245
Public capital	367	668	1,008	2,802	3,833
Percent of GNP, factor cost					
Investment	13.6	18.1	21.8		
Savings	8.1	11.2	14.9		
Resource Gap	5.5	6.9	6.9		

INDONESIA - SIMULATION MODEL FOR MEDIUM-TERM PROJECTIONS

1. The model considers agricultural growth and exports as the prime dynamic forces of the economy. The externally determined demand for Indonesia's exports -- or, as the case may be, supply limitation of export products -- generates directly the growth of output in the export-oriented agricultural and mining sectors. The output of agriculture, other than for exports, is determined outside the model as the many factors responsible for agricultural growth do not lend themselves easily to accurate quantitative presentation. The output of manufactures, on the other hand, depends mainly on domestic consumption and investment expenditures, including opportunities for import substitution. Output of the transport, power and other services sectors are determined by overall economic growth.

2. Thus export growth and agricultural development, through their impact on income and demand, generate increases of the output of other sectors which, in interaction, result in some particular rate of growth of GNP. Investment requirements are then determined as a function of economic growth; simultaneously, domestic savings are obtained in relation to the growth of income. The domestic resource gap is thus established. External resources are needed to finance investment and growth in the absence of adequate domestic savings. The net capital inflow requirement is obtained directly as a function of the resource gap; the required gross inflow of public capital is derived by the subtraction of independently projected private capital inflows and the addition of debt service liabilities on public borrowing.

3. The sum of export earnings and net capital inflows constitutes the available foreign exchange resources for the financing of imports. As import demand is determined as a function of sectoral and overall growth of output and income, however, there is no a priori guarantee that import demand will remain within the limits of available foreign exchange resources. In the event that import demand exceeds available foreign exchange, the only short-run adjustment mechanism short of direct import controls would be through changes in relative prices of imported goods and services. This can take the form of an increase of import tariffs -- unlikely to be effective under Indonesian conditions -- tightening of import credit or, in persistent and difficult cases, a change of the exchange rate.

4. On the other hand, if adequate foresight is assumed and development programs for the longer term have been soundly made, the country may be able to avoid the need for short-term adjustments through timely investments for the production of exportable goods and import substitutes. Through import substitution, the demand for imports can be reduced and brought in line with the availability of foreign exchange. It is specified in the model that import substitution would be utilized, whenever possible, to meet the excess of the balance of payments gap over the resource gap.

5. However, it would be imprudent to assume that import substitutes can always be produced in sufficient quantities to meet this requirement. Not only must import substitutes be produced in accordance with the dictum of comparative advantages, but must also make full use of economies of scale, and of possible advantages of linkage to other industries. Higher capital costs per unit of output are assumed for import substituting investment, as the composition of import demand itself directs these investments towards capital intensive sectors and the use of modern technology. The model also specifies an upper limit to the growth of import substituting production.

6. If a residual balance of payments gap remains even after maximum feasible import substitution is effected, the model prescribes currency devaluation as the instrument of last resort for adjusting the balance of payments gap. In the model, devaluation of the exchange rate decreases the import demand for goods and services through price effects, decreases the share of manufactures in total consumption expenditures by inducing a general increase in the price of manufactures, and increases exports of manufactured products. The extent of the devaluation depends on the magnitude of the residual balance of payments gap after maximum feasible import substitution.

7. In the early years it may happen that the rapid rise of aid disbursements leads to a situation where the availability of foreign exchange outstrips the slower rising demand for imports. In this situation, the model is made to transfer this "excess" foreign exchange to the foreign exchange reserves. As base-year reserves are negative and the additions are modest in most cases, no effort is made to include a mechanism which would result in reserve draw-downs during subsequent years.

8. Another important variable, although of a non-economic character, is population growth. Through its impact on the composition of demand and indirectly on the balance of payments, its influence on the pattern of growth is assessed as completely as possible. Therefore, the model lends itself to an evaluation of the consequences of a family planning program in economic terms.

9. For the estimation of debt service liabilities, the gross capital inflow in the public sector is assumed to consist of three components. A share of 85 percent is to be provided on DAC terms (2.5 percent interest, 8 years of grace and a total maturity of 30 years), 12 percent on IDA terms and the remaining 3 percent on IBRD terms. This corresponds closely to the present aid composition, with the exception of Bank-type lending. The pre-1967 debt is treated in accordance with the Paris Minute of April 24, 1970, assuming full use of the deferral clause in the first six years. Small but increasing amounts of suppliers' credits are added to the inflows, as was suggested by Dr. Abs in his report to the Paris Club of July 1969.

10. Detailed description of the system of equation are as follows: 1/

I. Exports

Exports of oil (E_o^1) and agricultural products (E_e^1) are predetermined, while the growth of manufactured exports (E_m^1) is determined by the growth rate of total manufactures output in the previous year and changes in the exchange rate (ΔX):

$$(1) E_o^1 = \text{given}$$

$$(2) E_e^1 = \text{given}$$

$$(3) E_m^1 = E_m^1_{t-1} / \bar{1} + 2 \left\{ (Y_{sm}_{t-1} + Y_{dm}_{t-1}) / (Y_{sm}_{t-2} + Y_{dm}_{t-2}) - 1 \right\} \bar{1} + \Delta X / \bar{1}$$

II. Investment

11. Investments in each of the sectors are related to output by incremental capital-output ratios. Investment expenditures on food crops (I_a) export-oriented agriculture (I_e) and other agriculture (I_o) are determined by the projected increase in output, with an assumed gestation period of one year. In export-oriented agriculture and mining, output depends on both the quantity of exports and the domestic use of the sector's products.

$$(4) I_a = 1.8(Y_{a_{t+1}} - Y_a)$$

$$(5) I_e = 2.3 \left\{ 0.7(E_{e_{t+1}} - E_e + D_e - D_{e_{t-1}}) \right\}$$

$$(6) I_o = 1.5(Y_{o_{t+1}} - Y_o)$$

$$(7) I_{mn} = 2.5 \left\{ 0.6(E_{e_{t+1}} - E_o + D_o - D_{o_{t-1}}) \right\}$$

The Y's represent value added in the respective sectors, the E's exports, and the D's, domestic demand.

12. Investment in domestic-type manufacturing industries (I_{dm}), import substituting industries (I_{sm}), and construction (I_c) are determined by the increases in value added in the respective sectors without any assumed period of gestation.

1/ All variables refer to year t except where otherwise indicated. Values of the parameters given are tentative and for illustrative purposes only. All variables are in constant Rupiahs except for variables with superscript which are expressed in U.S.\$\$. A complete definition of all variables is attached as Appendix 1.

$$(8) \quad I_{dm} = 2.5 (Y_{dm} - Y_{dm_{t-1}})$$

$$(9) \quad I_{sm} = 3(Y_{sm} - Y_{sm_{t-1}})$$

$$(10) \quad I_c = Y_c - Y_{c_{t-1}}$$

The determination of investments in transport (I_{tc}), power (I_p) and other services (I_s) is relatively more complex. Investment decisions in these sectors are assumed to be based on the expected future growth of output which, in turn, is assumed to be a function of the GNP growth rate in the previous year (g_{t-1}):

$$(11) \quad I_{tc} = 5 \{ 2.5(g_{t-1} - 1)Y_{tc_{t-1}} \}$$

$$(12) \quad I_p = 8 \{ 2.8(g_{t-1} - 1)Y_{p_{t-1}} \}$$

$$(13) \quad I_s = 2.0 \{ 1.5(g_{t-1} - 1)Y_{s_{t-1}} \}$$

Total investment (I) equals the sum of investments in each of the sectors:

$$(14) \quad I = I_a + I_e + I_o + I_{mn} + I_{dm} + I_{sm} + I_c + I_{tc} + I_p + I_s$$

III. Consumption

13. Total consumption expenditures (C) is defined as the difference between total income (Y , national income at factor cost, plus T , indirect taxes) and total savings (S). Food consumption (C_a) is composed of two components, one depending on population growth (gp) and another which is determined by the growth rate of per capita consumption expenditures ($C/C_{t-1} - gp$) multiplied by a constant elasticity of demand. Consumption demand for manufactured goods is also determined by population growth and the growth rate of per capita income in the previous year multiplied by a constant elasticity of demand. In addition, changes in the exchanges rate affect the level of consumer demand for manufactures through induced changes in the general price level of manufactured goods. Consumption of other goods and services (C_n) is defined as the residual item.

$$(15) \quad C = Y + T - S$$

$$(16) \quad C_a = \{ 0.45(C/C_{t-1} - gp) + gp \} C_{a_{t-1}}$$

$$(17) C_m = \{1.65(g_{t-1} - gp_{t-1}) + gp\} \{1 - 0.25 \Delta X\} C_{m_{t-1}}$$

$$(18) C_n = C - C_a - C_m$$

IV. Intermediate Demand

14. Domestic demand for export-oriented agricultural products (De) is determined by the growth of domestic manufacturing ($Y_{dm} - Y_{dm_{t-1}}$), while demand for agricultural inputs (Df) and oil products (Do) are multiplier relationships of the agricultural growth rate ($Y_a/Y_{a_{t-1}}$) and the growth rate of GNP, respectively.

$$(19) De = De_{t-1} + 0.10(Y_{dm} - Y_{dm_{t-1}})$$

$$(20) Df = Df_{t-1} + 4(Y_a/Y_{a_{t-1}} - 1)Df_{t-1}$$

$$(21) Do = Do_{t-1} \{1.5(g - 1) + 1\}$$

V. Import Demand

15. Demand for each type of imports relates to the level of the activities using these goods and services, and to changes in the exchange rate, except for food imports which are assumed to be not influenced by price changes. Food imports (Ma) equal the previous year's imports, plus the increase in food consumption less the increase in domestic output of food crops.

$$(22) Ma = Ma_{t-1} + Ca - Ca_{t-1} - 1.15(Y_a - Y_{a_{t-1}})$$

16. Import demands for manufactured goods as a proportion of total consumer demand for manufactured goods is assumed to increase as the level of per capita income increases (but an increasingly larger proportion of this demand is met by import substitution). Import demand for manufactured goods is further assumed to be dependent on the change in exchange rate (ΔX) and import tariffs (\bar{t}_m).

$$(23) M_{cm} = 0.09 \{1 + 0.5(g_{t-1} - gp_{t-1})\} C_m \left\{1 - 2\left(\frac{X-X_0}{X_0}\right) - 2(\bar{t}_m - 1)\right\}$$

$$(24) M_r = 0.30 \{Y_{dm} + Y_{sm}\} \left\{1 - 0.5\left(\frac{X-X_0}{X_0}\right)\right\}$$

17. Import demands for investment goods (M_i), services (M_s) and agricultural inputs (M_f) are determined respectively by the levels of investment (I), the GNP growth rate (g) and the difference between total demand and domestic output of agricultural inputs ($D_f - S_f$), as well as by changes in the exchange rate.

$$(25) M_i = \{M_{i,t-1} + 0.44(I - I_{t-1})\}(1 - 0.5 \Delta X)$$

$$(26) M_s = M_{s,t-1} \{1 + 1.2(g - 1)\} \{1 - 0.5 \Delta X\}$$

$$(27) M_f = (M_{f,t-1} + D_f - D_{f,t-1} - S_f + S_{f,t-1})(1 - \Delta X)$$

18. All the following variables with superscript refer to the values of import demand in US\$ terms. International prices of imports are assumed to be constant, so that the base year exchange rate, and not the current rate, is used to convert values in constant domestic prices to values in US\$.

$$(28) M_a^1 = M_a/X_0$$

$$(29) M_{cm}^1 = M_{cm}/X_0$$

$$(30) M_r^1 = M_r/X_0$$

$$(31) M_i^1 = M_i/X_0$$

$$(32) M_s^1 = M_s/X_0$$

$$(33) M_f^1 = M_f/X_0$$

VI. Income

19. Value added in food crops, (Y_a), and other agriculture, (Y_o), are pre-determined, while value added in mining, (Y_{mn}), export-oriented agriculture, (Y_e), and manufacturing industries, (Y_{dm}), are constant ratios of total output. Value added in construction (Y_c) is assumed to be a constant fraction of total investment expenditures (I).

$$(34) Y_a = \text{given}$$

$$(35) Y_o = \text{given}$$

$$(36) Y_{mn} = 0.6(E_o + D_o)$$

$$(37) Y_e = 0.73(E_e + D_e)$$

$$(38) Y_{dm} = 0.3 \{ (C_m - M_{cm}) + (0.70I - M_i) + S_f + E_m \}$$

$$(39) Y_c = 0.25I$$

20. Value added in transport and communication (Y_{tc}), power (Y_p), and services (Y_s), are equal to last year's value plus increase attributable to previous year's investment expenditures (allowing for the long gestation period of capital investments in these sectors).

$$(40) Y_{tc} = Y_{tc}_{t-1} + (I_{tc}_{t-3}/5.0)$$

$$(41) Y_p = Y_p_{t-1} + (I_p_{t-3}/8.0)$$

$$(42) Y_s = Y_s_{t-1} + (I_s_{t-2}/2.0)$$

21. The excess of the balance of payments gap over the resource gap is equal to the difference between total import demand and total foreign exchange available for imports (m^1) which includes both export earnings and foreign capital inflow. Value added in import substituting production is initially assumed to be a constant fraction of this difference, thus implying that this difference is completely filled by import substitution. Subsequent sections of the model will determine whether this tentative value is feasible.

$$(43) Y_{sm} = 0.25(M_a^1 + M_{cm}^1 + M_r^1 + M_i^1 + M_s^1 + M_f^1 + M_y^1 + M_o^1 - M^1)X_o$$

Thus, total income (Y) is determined as

$$(44) Y = Y_a + Y_e + Y_o + Y_{mn} + Y_{dm} + Y_{sm} + Y_c + Y_{tc} + Y_p + Y_s$$

VII. Indirect Taxes

22. Indirect taxes (T) are the sum of import duties and other indirect taxes less subsidies (U)

$$(45) T = 0.26\bar{t}_m(M_{cm} + M_r + M_i + M_o) + 0.03\bar{t}_dY - U$$

Where \bar{t}_m is the import duties rate and \bar{t}_d the indirect tax rate.

VIII. Savings

23. The marginal propensity to save is assumed to be a multiplier relationship of the increase in per capita income in the private sector and constant for the public sector; so that total savings is defined as:

$$(46) S = S_{t-1} + \{3.2(g_{t-1} - g_{p,t-1}) + 0.08\}\{Y - Y_{t-1}\} + 0.32(T - T_{t-1})$$

IX. Limitations on Import Substitution

24. In the model, import substitution is first assumed to be exactly equal to the residual balance of payments gap. If this value turns out to be less than the previous level of import substituting production, the excess foreign exchange is allocated to reserve and import substitution assumed to be equal to last year's level. On the other hand, if the initial value exceeds the predetermined level of maximum import substitution, import substitution is reduced to a level below the maximum. The remaining balance of payments gap is then remedied by devaluation of the currency.

25. The following equations are self-explanatory:

GNP Growth Rate

$$(47) g = Y/Y_{t-1}$$

Resource Gap

$$(48) B = I - S$$

$$(49) B' = B/X$$

Available Foreign Exchange for Imports

$$(50) M' = E' + B'$$

Exchange Rate

$$(51) X = X_{t-1}(1 + \Delta X)$$

Actual Imports of Goods and Non-factor Services

$$(52) AM^1 = M_a^1 + M_{cm}^1 + M_r^1 + M_i^1 + M_s^1 + M_f^1 + M_o^1 - (Y_{sm}/0.25X_o)$$

Increase in Reserve

$$(53) My^1 = \text{given (investment income abroad)}$$

$$(54) DR^1 = M^1 - AM^1 - My^1$$

Debt Service Payments

$$(55) P = P_a^1 + P_o^1 + P_h^1 + P_d^1 + P_s^1 + P_b^1$$

Gross Capital Inflow

$$(56) G^1 = B^1 + p^1$$

Aid Requirements

$$(57) K^1 = \text{given (private capital inflow)}$$

$$(58) Q^1 = \text{given (suppliers' credits)}$$

$$(59) A^1 = G^1 - K^1 - Q^1$$

$$(60) A_d^1 = 0.85A^1 \text{ (DAC terms)}$$

$$(61) A_s^1 = 0.12A^1 \text{ (IDA terms)}$$

$$(62) A_b^1 = 0.03A^1 \text{ (Bank terms)}$$

$$(63) A_{pj}^1 = 0.65(M_i^1 - K^1 - Q^1) \text{ (Maximum absorption of project aid)}$$

$$(64) A_{pm}^1 = A^1 - A_{pj}^1 \text{ (Minimum requirement of program aid)}$$

26. The programming system for the model is summarized in Appendix 2.

List of Variables

	<u>Endogenous Variables</u>	<u>Exogenous Variables</u>
1. Gross value added in agriculture, foodcrops		Ya
2. <u>Ibid.</u> , Livestock, forestry, fishing		Yo
3. Population growth (index base = 1.00)		Sp
4. Export of crop products (\$)		E ¹ _c
5. Export of mineral products		E ¹ _o
6. Tariff rates (per unit)		t ⁻ _m
7. Exchange rate (Rp per \$) in base year		Xo
8. Goods imports for minerals operations (\$)		M ¹ _o
9. Investment income payments (\$)		M ¹ _y
10. Private capital inflow (\$)		K ¹
11. Suppliers' credits (\$)		Q ¹
12. Domestic production of agricultural input		Sf
13. Domestic indirect tax incidence (per unit)		t ⁻ _d
14. Maximum limit of import substitution		MXsm
15. Subsidy payments		U
16. Debt service, Abs arrangement (\$)		P ¹ _a
17. Debt service, other pre-1967		P ¹ _o
18. Debt service, suppliers' credits		P ¹ _h / ¹
19. Debt service, new aid, DAC		P ¹ _d / ¹
20. Debt service, new aid, IDA		P ¹ _s / ¹
21. Debt service, new aid, IBRD		P ¹ _b / ¹
22. Export of manufactures (\$)	E ¹ _m	
23. Total exports (\$)	E ¹	

/1 Sub-routines representing aid terms and service payments.

	<u>Endogenous Variables</u>	<u>Exogenous Variables</u>
24. Investment, foodcrops	Ia	
25. Investment, other agriculture	Io	
26. Investment, mining	Imm	
27. Investment, exports crops	Ie	
28. Investment, domestic-type manufacturing	Idm	
29. Investment, import substituting manufacturing	Ism	
30. Investment, construction	Ic	
31. Investment, transport, communication	Itc	
32. Investment, public utilities	Ip	
33. Investment, other services	Is	
34. Total fixed investment	I	
35. Total consumption expenditures	C	
36. Consumption expenditures, food	Ca	
37. Consumption of manufactures	Cm	
38. Other consumption expenditures	Cn	
39. Domestic use of export crops	De	
40. Intermediate demand of agricultural inputs	Df	
41. Domestic use of oil products	Do	
42. Food imports (Rp)	Ma	
43. Manufactures import for consumption (Rp)	Mcm	
44. Imports of industrial raw materials (Rp)	Mr	
45. Imports of investment-related goods (Rp)	Mi	
46. Imports of ("non-oil") services (Rp)	Ms	
47. Imports of agricultural inputs (Rp)	Mf	
48. Food imports (\$)	Ma	

	<u>Endogenous Variables</u>	<u>Exogenous Variables</u>
49. Manufactures imports for consumption (\$)	M_m^1	
50. Imports of industrial raw materials (\$)	M_r^1	
51. Imports of investment-related goods (\$)	M_i^1	
52. Imports of ("non-oil") services (\$)	M_s^1	
53. Imports of agricultural inputs (\$)	M_f^1	
54. Gross value added, mining	Y_{mn}	
55. <u>Ibid.</u> , export crops	Y_e	
56. <u>Ibid.</u> , construction	Y_c	
57. <u>Ibid.</u> , domestic-type manufacturing	Y_{dm}	
58. <u>Ibid.</u> , import substituting manufacturing	Y_{sm}	
59. <u>Ibid.</u> , transport, communications	Y_{tc}	
60. <u>Ibid.</u> , public utilities	Y_p	
61. <u>Ibid.</u> , other services	Y_s	
62. Gross National Product at factor cost	Y	
63. Indirect tax receipts (net of subsidies)	T	
64. Gross national savings	S	
65. Current account deficit (= +) (Rp)	B	
66. Current account deficit (= +) (\$)	B^1	
67. Foreign exchange available for imports (\$)	M^1	
68. Growth of GNP	g	
69. Change of exchange rate (percentage)	ΔX	
70. Exchange rate (Rp per \$)	X	
71. Actual imports of goods and non-factor services (\$)	AM^1	
72. Increase in foreign exchange reserves (\$)	DR^1	
73. Total debt service payments (\$)	P^1	

APPENDIX 1

Page 4

	<u>Endogenous Variables</u>	<u>Exogenous Variables</u>
74. Gross capital inflow (\$)	G ¹	
75. Public capital inflow (gross, \$)	A ¹	
76. Aid on DAC terms	Ad ¹	
77. Aid on IDA terms	As ¹	
78. Aid on IBRD terms	Ab ¹	
79. Maximum absorption of project aid (\$)	Apj ¹	
80. Minimum requirement of program aid (\$)	Ap _m ¹	

Main Program

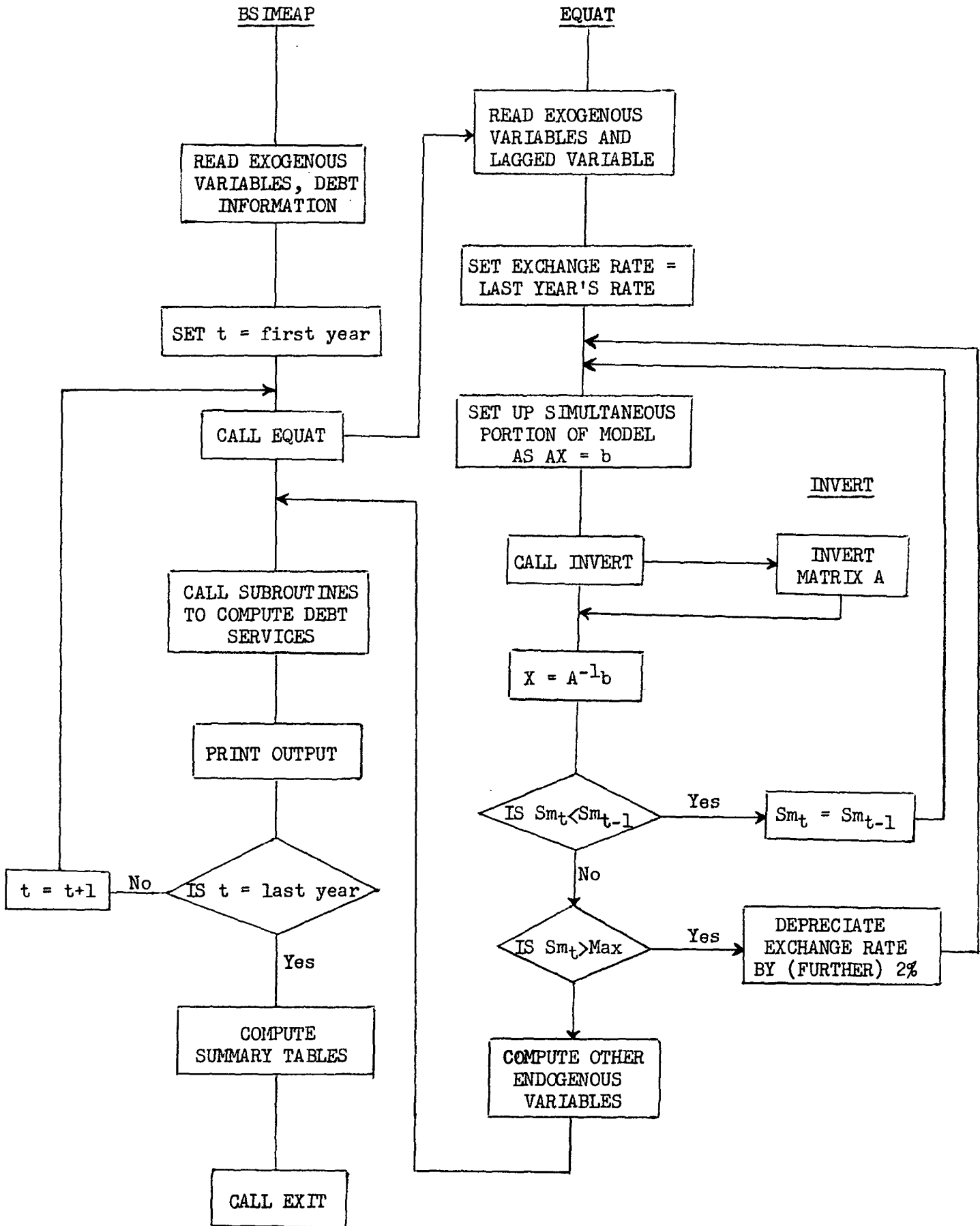
1. The main program, BSIMEAP, is a modified version of the Economics Department's BSIMLXO. This program reads the exogenous variables, then calls subroutine EQUAT which contains the model's system of equation. Unlike BSMLXO, however, the new program does not include an iterative routine and assumed that the endogenous variables are computed once control is returned to the main program. The main program will call EQUAT once only for each year.

2. After the endogenous variables are determined, BSIMEAP will call a series of subroutines which calculate debt service requirements and print output data and summary tables. Then the endogenous variables for year t are read in as lagged variables for t+1 and the program proceeds to repeat the entire process described above for year t=1, until t+1 equals end year.

EQUAT

3. Subroutine EQUAT solves the model's system of equations as follows: First, the exogenous and lagged variables are read in from the main program. Then the exchange rate is set to the previous year's level. With a given exchange rate, it is possible to express the simultaneous portion of the model as a linear set of equation in the form $AX - b$, where A is the set of structural coefficients, X, the endogenous variables and b, the parameters and exogenous variables. This set of equation is solved by calling another subroutine, INVERT, which inverts the matrix A. The vector X is thus computed by the equation $X = A^{-1}b$.

4. The subroutine then proceeds to the tests concerning import substitution requirements. If the computed import substitution requirement is less than previous year's, the requirement equation is eliminated, import substituting production assumed to be equal to last year's level, and the excess foreign exchange allocated to reserve. The new set of equation is again solved by the same procedure discussed above. Similarly, if the import substitution requirement is greater than the predetermined maximum, then the domestic currency is devalued by steps of 2 percent until the requirement is below the maximum. In addition, these are subroutines to insure the non-negativity of the variables.



STATISTICAL APPENDIX

<u>Table Number</u>	<u>Title</u>
2.1	Gross Domestic Product by Sector of Origin, 1968-1970
3.1	Balance of Payments Estimates, 1969-1971/72
3.2	Imports by Commodity Group and Type of Financing, 1969/70
3.3	Imports by Commodity Group and Type of Financing, 1970/71
3.4	Aid Commitments and Disbursements, 1968-1970/71, by Years of Commitment
3.5	General and Specific Project Commitments, 1968-1970/71
3.6	Specific Commitments and Disbursements of Project Aid (L/C's opened), 1968-1970/71
3.7	Commitments and Disbursements of Program Aid, 1968-1970/71
5.1	Routine Government Receipts, 1970/71 and 1971/72
5.2	Routine Government Expenditures, 1970/71 and 1971/72
5.3	Rupiah Expenditures of the Development Budget, 1970/71
6.1	Medium-Term Credits, 1969-70
10.1	Projection of Private Foreign Investments
10.2	Approvals and Disbursements of Private Foreign Investment
10.3	Projection of Private Domestic Investments
10.4	Approvals of Private Domestic Investments

Table 2.1: Gross Domestic Product by Sector of Origin, 1968-1970

(at factor cost, in billions of Rp., 1970/71 prices
and exchange rate)

	<u>1968</u> ^{a/}	<u>1969</u> ^{a/}	<u>1970</u> ^{b/}
Agriculture	1,604	1,617	1,678
Food Crops	1,264	1,271	1,320
Export	175	178	183
Other	165	168	175
Mining	100	139	160
Manufactures	262	296	340
Construction	62	80	120
Public Utilities	13	14	15
Transport	57	60	67
Other Services	836	879	948
GDP Factor Cost	2,934	3,085	3,328

a/ Official estimates, Central Bureau of Statistics

b/ Estimated by the Mission

Table 3.1: Balance of Payments Estimates, 1969/70-1971/72

(in millions of US dollars)

	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>
<u>Exports of Goods and Services</u>			
Gross oil exports	380	447	580
Non-oil exports	<u>659</u>	<u>749</u>	<u>840</u>
Total Exports	1,039	1,196	1,420
<u>Imports of Goods and Services</u>			
Foodgrains	212	149	143
Other food	53	53	60
Non-food consumer goods	<u>158</u>	<u>185</u>	<u>210</u>
Total Consumer Goods	423	387	413
Agricultural inputs	56	26	30
Industrial inputs	234	247	270
Investment related goods (excl. oil)	394	560	733
Oil sector goods & services	121	139	175
Investment income payments	109	134	182
Non-factor services (excl. oil)	<u>106</u>	<u>119</u>	<u>123</u>
Total Imports	1,443	1,612	1,926
<u>Current Account Deficit</u>	<u>404</u>	<u>416</u>	<u>506</u>
<u>Financing:</u>			
Project aid <u>b/</u>	52	110	175
Program aid <u>c/</u>	307	291	370
Direct private investment	51	103	135
Suppliers' credits	-17	-30	-
Short-term credits	<u>-</u>	<u>37</u>	<u>-</u>
Total	393	511	680
Debt service payments ^{a/}	-85	-120	-147
Monetary movements (excl. SDR)	78	13	-27
Total capital and monetary movements	382	404	506
Net errors and omissions	22	12	-

^{a/} Including debt service and hire-purchase payments of the oil sector.

^{b/} Based on L/C's opened for commitments since 1967 and arrivals for pre-1967 project aid.

^{c/} Based on L/C's opened.

Source: Bank Indonesia

Table 3.2: Imports by Commodity Group and Type of Financing 1969/70
(in millions of US dollars)

	<u>Food- grains</u>	<u>Other Food</u>	<u>Non- food Consumer</u>	<u>Invest- ment Related</u>	<u>Agri- cultural Inputs</u>	<u>Other Inputs</u>	<u>Total</u>
Program Aid	135	4	16	68	27	57	307
General f.x. and ADO	73	38	84	200	25	146	566
DP & Free	4	10	54	44	4	29	145
Project Aid	-	-	4	47	-	1	52
Entrepot	-	-	-	1	-	-	1
Foreign Capital & Investment	-	-	-	29	-	-	29
Custom Declaration	-	1	-	5	-	1	7
<u>Sub-total</u>	<u>212</u>	<u>53</u>	<u>158</u>	<u>394</u>	<u>56</u>	<u>234</u>	<u>1,107</u>
Oil Sector, Goods	-	-	-	-	-	-	101
Oil Sector, Services <u>a/</u>	-	-	-	-	-	-	65
Other Non-factor Services	-	-	-	-	-	-	106
Investment Income	-	-	-	-	-	-	109
<u>TOTAL</u>	-	-	-	-	-	-	<u>1,488</u>

a/ Including oil sector debt service payments.
Source: Bank Indonesia

Table 3.3 : Imports by Commodity Group and Type of Financing 1970/71

(in millions of US dollars)

	<u>Food- grains</u>	<u>Other Food</u>	<u>Non- food Consumer</u>	<u>Invest- ment Related</u>	<u>Agricul- tural Inputs</u>	<u>Other Inputs</u>	<u>Total</u>
Program Aid	125	4	19	85	9	49	291
General f.x. and ADO	21	45	96	249	15	155	581
DP & Free	2	-	20	10	-	8	40
Project Aid	-	-	8	100	-	2	110
Entrepot	-	1	2	4	-	11	18
Foreign Capital & Investment	-	-	2	66	-	4	72
Custom Declaration	1	-	-	4	-	2	7
Merchant I/C	-	3	38	42	2	16	101
<u>Sub-total</u>	<u>149</u>	<u>53</u>	<u>185</u>	<u>560</u>	<u>26</u>	<u>247</u>	<u>1,220</u>
Oil Sector, Goods	-	-	-	-	-	-	115
Oil Sector, Services <u>a/</u>	-	-	-	-	-	-	75
Other Non-factor Services	-	-	-	-	-	-	119
Investment Income	-	-	-	-	-	-	134
<u>TOTAL</u>							<u>1,663</u>

a/ Including oil sector debt service payments.

Source: Bank Indonesia

Table 3.4: Aid Commitments and Disbursements (L/C's opened), 1968-1970/71 by Years of Commitment

(In Millions of US Dollars)

	BE Grants/ Loans	Program Aid				Total Program Aid	Specific Project Aid Commitments				Total Project Aid	Total Aid
		PL-480 Non-Food	PL-480 Rice	PL-480 Wheat	Other Food Aid		Pre-1967	Commitment 1968	Commitment 1969	Commitment 1970/71		
<u>1968</u>												
Opening Pipeline	23.5	-	-	-	-	23.5	113.1	-	-	-	113.1	136.6
Commitments	140.5	43.4	64.3	35.7	10.8	294.7	-	67.4	-	-	67.4	362.1
Disbursements	114.2	36.2	63.7	25.3	2.4	241.8	20.1	-	-	-	20.1	261.9
<u>1969/70 (15 months)</u>												
Opening Pipeline	49.8	7.2	0.6	10.4	8.4	76.4	93.0	67.4	-	-	160.4	236.8
Commitments	148.8	46.4	74.2	26.5	24.5	320.4	-	-	129.7	-	129.7	450.1
Disbursements	155.9	45.9	74.8	30.3	31.9	338.8	18.6	41.9	19.4	-	79.9	418.7
<u>1970/71 (12 months)</u>												
Opening Pipeline	42.7	7.7	-	6.6	1.0	58.0	74.4	25.5	110.3	-	210.2	268.2
Commitments	141.1	48.6	58.6	50.1	42.7	41.1	-	-	-	255.5	255.5	596.6
Disbursements	137.8	27.1	58.6	27.3	40.4	291.2	10.1	20.1	63.6	16.2	110.0	401.2
<u>1972</u>												
Opening Pipeline	46.0	29.2	-	29.4	3.3	107.9	64.3	5.4	46.7	239.3	355.7	463.6

Source: Bank Indonesia and Information from Donor Countries.

Table 3.5: General and Specific Project Commitments, 1968 - 1970/71

(in millions of US dollars)

	<u>General Commit- ments 1968</u>	<u>Specific Project Commit'ts 1968</u>	<u>Carry-over of General Commit'ts per 31/12/68</u>	<u>General Commit- ments 1969</u>	<u>Specific Project Commit'ts 1969</u>	<u>Carry-over of General Commit'ts per 31/12/69</u>	<u>General Commit- ments 1970/71</u>	<u>Specific Project Commit'ts 1970/71</u>	<u>Carry-over of General Commit'ts per 31/3/71</u>
A.D.B.	-	-	-	3.4	3.4	-	20.2	20.2	-
Australia	2.5	2.5	-	5.1	5.1	-	16.4	11.4	5.0
Belgium	-	-	-	0.8	0.8	-	1.7	1.7	-
Canada	-	-	-	0.8	0.2	0.6	0.7	1.3	-
Denmark	-	-	-	4.0	4.0	-	-	-	-
France	4.3	4.3	-	6.3	-	6.3	7.2	6.3	7.2
Germany	10.5	-	10.5	16.4	7.9	19.0	18.8	14.6	23.2
I.D.A.	7.0	7.0	-	59.0	59.0	-	104.9	104.9	-
Japan	40.0	4.6	35.4	55.0	16.8	73.6	60.6	39.3	94.9
Netherlands	5.6	5.6	-	41.3	25.2	16.1	12.0	7.6	20.5
United Kingdom	0.9	0.9	-	1.0	1.0	-	1.8	1.8	-
United States	-	-	-	29.1	6.3	22.8	75.6	51.4	47.0
<u>Total</u>	<u>70.8</u>	24.9	45.9	<u>222.2</u>	129.7	138.4	<u>319.9</u>	260.5	197.8

Specific Commitments
(cumulative)

24.9

154.6

415.1

Table 3.6: Specific Project Commitments and Disbursements of Project Aid (L/C's opened), 1968-1970/71

(in Millions of US Dollars)

	<u>Pipeline Dec. 31, '68</u>	<u>Commitments in 1969</u>	<u>Disbursements in 1969</u>	<u>Disbursements 1st quarter '70</u>	<u>Pipeline 3/31/70</u>	<u>Commitments in 1970/71</u>	<u>Disbursements in 1970/71^{2/}</u>	<u>Pipeline 3/31/71^{2/}</u>
Pre-1967 Commitments ^{1/}	93.0	--	15.3	3.3	74.4	--	10.1	64.3
Australia	2.5	5.1	3.9	1.0	2.7	11.4	3.9	10.2
Belgium	--	0.8	--	0.8	--	1.7	--	1.7
Canada	--	0.2	--	--	0.2	1.3	0.6	0.9
Denmark	--	4.0	0.6	--	3.4	--	3.3	0.1
France	4.3	--	4.3	--	--	6.3	6.0	0.3
Germany	10.5	7.9	7.5	--	10.9	14.6	3.1	22.4
Japan	36.4	16.8	16.2	2.4	34.6	39.3	31.4	42.5
Netherlands	5.6	25.2	20.1	0.2	10.5	7.6	7.1	11.0
United Kingdom	0.9	1.0	0.9	1.0	--	1.8	1.8	--
United States	--	6.3	--	--	6.3	46.4	6.1	46.6
I.D.A.	7.0	59.0	2.3	--	63.7	104.9	35.6	133.0
A.D.B.	<u>--</u>	<u>3.4</u>	<u>0.2</u>	<u>--</u>	<u>3.2</u>	<u>20.2</u>	<u>1.0</u>	<u>22.4</u>
Total	160.2	129.7	71.3	8.7	209.9	255.5	110.0	355.4

^{1/} Disbursements are in arrival terms

^{2/} Estimates.

Source: BAPPENAS

Table 3.7: Commitments and Disbursements of Program Aid, 1968-1970/71

(In Billions of US Dollars)

	Pipeline 31 Dec.'67	Commitments 1968	Disbursements 1968	Pipeline 31 Dec.'68	Commitments 1969/ March '70	Disbursements '69/March '70	Pipeline 31 March '70	Commitments 1970/71	Disbursements 1970/71 ^{a/}	Pipeline 31 Mar. '71
1. BE grants and loans										
Australia	0.3	8.2	2.2	6.3	6.1	6.7	5.7	7.3		
Belgium	-	0.4	0.3	0.1	1.2	1.4	-0.1	1.7		
Canada	-	-	-	-	-	-	-	2.0	-	-
France	1.5	6.9	1.5	6.9	6.3	7.9	5.3	6.1		
Germany	3.6	12.5	15.1	1.0	13.7	11.2	3.5	15.0		
India	0.5	-	0.2	0.3	-	0.1	0.2	-		
Japan	7.8	65.0	61.1	11.7	55.0	64.8	1.9	55.0		
Netherlands	0.2	19.4	17.1	2.5	18.1	19.3	1.3	16.2		
New Zealand	-	-	-	-	-	-	-	0.6		
United Kingdom	1.2	3.1	2.2	2.1	4.4	6.4	0.1	7.2		
United States	8.4	25.0	14.5	18.9	44.0	38.1	24.8	30.0		
Total	23.5	140.5	114.2	49.8	148.8	155.9	42.7	141.1	137.8	46.0
2. PL 480 loans										
Non-food	-	43.4	36.2	7.2	46.4	45.9	7.7	48.6 ^{b/}	27.1	29.2
Rice	-	64.3	63.7	0.6	74.2	74.8	-	58.6	58.6	-
Wheat/bulgur	-	35.7	25.3	10.4	26.5	30.3	6.6	50.1 ^{b/}	27.3	29.4
Total	-	143.4	125.2	18.2	147.1	151.0	14.3	157.3	113.0	58.6
3. Other food aid										
Australia	-	3.8	2.3	1.5	6.6	7.7	0.4	6.5		
Belgium	-	-	-	-	0.9	0.9	-	1.1		
Canada	-	0.8	0.1	0.7	1.9	2.6	-	3.0		
France	-	-	-	-	1.6	1.6	-	2.0		
Germany	-	-	-	-	1.9	1.8	0.1	1.7		
Italy	-	-	-	-	0.4	0.4	-	0.9		
Japan	-	5.0	-	5.0	10.0	15.0	-	24.4		
Netherlands	-	-	-	-	1.2	1.9	-0.7	1.7		
United Kingdom	-	1.2	-	1.2	-	-	1.2	1.4		
Total	-	10.8	2.4	8.4	24.5	31.9	1.0	42.7	40.4	3.3
Grand Total	23.5	294.7	241.8	76.4	320.4	338.8	58.0	341.1	291.2	107.9

a/ Estimates

b/ Commitments of US\$29.2 million for non-food and US\$29.4 million for wheat/bulgur, expected to be signed by the end of March, are included in these figures

Source: Bank Indonesia

Table 5.1: Routine Government Receipts 1970/71 and 1971/72

(in billions of rupiahs)

	1970/71		1971/72
	November (Estimate)	February (Estimate)	Budget
<u>Taxes on Income</u>	<u>120.2</u>	<u>121.4</u>	<u>143.6</u>
Income Tax	13.7	13.3	15.7
Corporate Tax (Non-Oil)	18.8	20.6	21.6 ^{a/}
Withholding Tax	17.6	18.8	19.1 ^{a/}
Corporate Tax (Oil)	69.9	68.5	87.2
Other	0.2	0.2	--
<u>Domestic Consumption Taxes</u>	<u>91.4</u>	<u>90.1</u>	<u>111.2</u>
Sales Tax	18.0	16.9	20.7
Excises	40.1	37.6	45.6 ^{a/}
Other Oil Revenues	28.8	31.5	39.1 ^{a/}
Miscellaneous	4.5	4.1	5.8
<u>Taxes on International Trade</u>	<u>132.1</u>	<u>123.2</u>	<u>156.9</u>
Import Duties	83.1	75.0	98.6
Sales Tax on Imports	25.0	22.9	29.6
Export Tax	24.0	25.3	28.7
<u>Non-tax Revenues</u>	<u>2.6</u>	<u>9.7</u>	<u>4.2</u>
TOTAL	<u>346.3</u>	<u>344.4</u>	<u>415.9</u>

^{a/} These items are likely to realize more revenues than are indicated by the budgeted amounts.

Source: Ministry of Finance.

Table 5.2: Routine Government Expenditures
1970/71 and 1971/72

(in billions of rupiahs)

	<u>1970/71</u>		<u>1971/72</u> <u>Budget</u>
	<u>November</u> <u>(Estimate)</u>	<u>February</u> <u>(Estimate)</u>	
<u>Personnel Expenditures</u>	<u>135.1</u>	<u>137.5</u>	<u>165.9</u>
Wages and Salaries	71.4	71.4	101.6
Rice Allowances	32.3	32.2	33.0
Other Allowances	13.0	13.0	12.1
Other Personnel Expenditures	13.6	16.1	14.2
External Personnel Expenditures	4.8	4.8	5.0
<u>Material Expenditures</u>	<u>63.7</u>	<u>58.9</u>	<u>67.2</u>
Domestic	53.4	50.7	59.0
Internal	10.3	8.2	8.2
<u>Subsidies to Autonomous Regions</u>	<u>75.1</u>	<u>76.5</u>	<u>87.6</u>
West Iran	10.0	10.1	10.6
Other Regions	45.1	46.1	56.2
Former ADO Tax	20.0	20.3	20.8
<u>Debt Service Payments</u>	<u>26.1</u>	<u>26.1</u>	<u>37.2</u>
Internal	2.5	2.5	8.4
External	23.6	23.6	28.8
<u>Other Routine Expenditures</u>	<u>10.7</u>	<u>11.7</u>	<u>6.2</u>
General Election	10.0	11.2	4.7
Previous Year's Expenditures	0.7	0.5	1.5
<u>Total Routine Expenditures</u>	<u>310.7</u>	<u>310.7</u>	<u>364.1</u>

Source: Ministry of Finance

Table 5.3: Rupiah Expenditures of the
Development Budget 1970/1971

(in millions of rupiahs)

	Original Budget	Expenditure April-Feb.	Balance	Alloca- tions 1971/72
1. Consultative Assembly	133	38	95	133
2. Gotong Rojong House	667	436	231	667
3. Supreme Advisory Council	27	11	16	27
4. State Comptrolling Body	67	50	17	86
5. Supreme Court	55	39	16	35
6. Office of Attorney General	266	187	79	266
7. Office of the President	54	33	21	54
8. Cabinet Secretariat	721	319	402	548
9. Non departmental Agencies	744	463	281	744
10. Department of Home Affairs	1,494	961	533	1,344
11. Department of Foreign Affairs	378	301	77	260
12. Department of Justice	941	508	433	1,041
13. Department of Information	1,006	582	424	1,006
14. Department of Finance	1,600	978	622	1,680
15. Department of Trade	522	161	361	572
16. Department of Agriculture	7,945	5,478	2,467	16,858
17. Department of Industry	2,073	1,424	649	2,073
18. Department of Mining	1,002	626	376	1,102
19. Department of Public Works	46,000	36,326	9,674	52,754
20. Department of Communication	11,043	7,015	4,028	14,255
21. Department of Education	5,850	3,629	2,221	6,650
22. Department of Health	4,400	3,239	1,161	4,700
23. Department of Religion	1,100	710	390	1,100
24. Department of Manpower	422	348	74	572
25. Department of Social Affairs	320	255	65	370
26. Department of Transmigration	1,360	1,184	176	1,660
27. Department of Defence	4,500	n.a.	n.a.	5,000
28. Department of Accounting Division	22,638	13,786	8,852	39,360
- Financing through Banks	(5,000)			
- District and Village Program	(11,290)			
- Reallocation of Personnel	(100)			
- West Irian Development	(3,500)			
- Others	(2,748)			
T O T A L	117,328	79,087 ^{a/}	33,741 ^{a/}	154,917

a/ Excludes Defence expenditure

Source: Ministry of Finance

Table 6.1: Medium-Term Credits, 1969-70

(in billions of rupiahs)

	<u>Approved</u>	<u>Disbursements by Sector</u>			<u>Disbursements by Share of financing</u>		
		<u>Public Sector</u>	<u>Private Sector</u>	<u>Total Disbursement</u>	<u>Bank Ind.</u>	<u>Government</u>	<u>State Banks</u>
1969 April	4.6	1.3	1.5	2.8	2.8	-	-
May	5.1	1.3	2.2	3.5	3.5	-	-
June	5.4	1.3	2.3	3.6	3.6	-	-
July	7.6	1.4	2.4	3.8	3.6	0.2	-
August	9.6	1.6	2.6	4.2	3.9	0.3	-
September	11.3	2.1	2.5	4.6	4.3	0.3	-
October	13.6	3.2	3.0	6.2	4.9	0.8	0.5
November	21.6	4.4	3.6	8.0	5.4	2.1	0.5
December	27.2	4.3	4.9	9.2	5.9	2.6	0.7
1970 January	27.3	4.8	6.5	11.3	6.7	3.6	1.0
February	28.9	5.1	8.0	13.1	7.6	4.3	1.2
March	31.6	5.5	11.1	16.6	9.1	5.5	2.0
April	34.8	7.1	13.2	20.3	10.6	7.2	2.5
May	37.7	7.1	14.9	22.0	10.8	7.4	3.8
June	41.8	7.0	17.3	24.3	13.5	7.7	3.1
July	43.7	7.1	21.3	28.4	14.7	8.4	5.3
August	46.2	7.7	22.7	30.3	15.8	8.7	5.8
September	50.2	7.8	25.3	33.1	17.4	8.5	7.2
October	54.8	8.1	26.8	34.9	19.2	8.3	7.4
November	58.7	8.8	27.9	36.7	22.4	6.3	8.0

Source: Bank Indonesia

Table 10.1 : Projection of Private Foreign Investments ^{a/}

(in millions of US dollars)

<u>Sector</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Total</u>
Agriculture	3.3	5.5	7.2	5.2	3.8	25.0
Forestry	31.0	33.0	35.0	35.0	35.0	169.0
Fishery	3.0	3.2	2.5	2.0	2.0	12.7
<u>Sub-total</u>	<u>37.3</u>	<u>41.7</u>	<u>44.7</u>	<u>42.2</u>	<u>40.8</u>	<u>206.7</u>
Mining and quarrying	<u>140.5</u>	<u>172.0</u>	<u>158.0</u>	<u>158.5</u>	<u>151.0</u>	<u>780.0</u>
a) Hard minerals ^{b/}	<u>85.5</u>	<u>97.0</u>	<u>64.0</u>	<u>64.5</u>	<u>65.0</u>	<u>376.0</u>
b) Oil ^{c/} - Production-sharing	20.0	38.0	55.0	64.0	63.0	240.0
- Contracts of work	35.0	37.0	39.0	30.0	23.0	164.0
Manufacturing	<u>77.0</u>	<u>92.7</u>	<u>98.7</u>	<u>103.9</u>	<u>110.4</u>	<u>482.7</u>
a) Food, beverages, tobacco	15.0	9.0	12.0	14.0	15.0	65.0
b) Textile, wearing apparel, leather	18.5	27.0	18.0	20.0	22.0	105.5
c) Wood & wood products	0.1	0.3	0.4	0.4	-	1.2
d) Paper & paper products	1.5	2.5	2.5	1.0	0.5	8.0
e) Chemicals, rubber & plastic products	20.0	22.0	26.0	27.0	27.0	122.0
f) Non-metallic mineral products	3.5	4.5	10.0	7.0	7.0	32.0
g) Basic metals	0.2	0.4	0.8	1.5	0.9	3.8
h) Fabricated metal products, machinery, & equipment	17.0	25.0	25.0	27.0	30.0	124.0
i) Other	1.2	2.0	4.0	6.0	8.0	21.2
Construction	5.0	11.0	14.0	17.0	18.0	65.0
Trade and hotels	1.6	2.5	3.5	3.1	2.7	13.4
Transport & communications	2.6	3.3	3.2	2.5	2.9	14.5
Social and other services	3.0	3.5	4.0	4.5	5.0	20.0
<u>Total</u>	<u>267.0</u>	<u>326.7</u>	<u>326.1</u>	<u>331.7</u>	<u>330.8</u>	<u>1,582.3</u>
	*****	*****	*****	*****	*****	*****

^{a/} Disbursements.

^{b/} Includes investment expenditures not registered with the Foreign Investment Board and Bank Indonesia.

^{c/} Calculated by the mission on the basis of commitments specified in the contracts and on the basis of known planned investment programs.

Source: Data supplied by Bank Indonesia, Foreign Investment Board, and Department of Mining.

Table 10.2: Approvals and Disbursements of Private Foreign Investment Projects, 1967-1970

(in thousands of US dollars)

Field of Activity ^{a/}	Number of Projects	Approval					Disbursement				
		1967	1968	1969	1970	Total	1967	1968	1969	1970	Total ^{b/}
<u>Agriculture, Forestry & Fishing</u>	<u>101</u>	<u>12,000</u>	<u>95,395</u>	<u>277,500</u>	<u>88,704</u>	<u>473,599</u>	<u>661.60</u>	<u>2,890.62</u>	<u>14,931.69</u>	<u>34,292.27</u>	<u>52,785.18</u>
- Agriculture	43	-	16,790	2,000	53,354	72,144	-	28.95	849.61	1,413.03	2,291.59
- Forestry	49	7,000	75,605	275,000	32,300	389,905	661.60	2,870.67	10,922.34	28,779.08	43,233.69
- Fishing	9	5,000	3,000	500	3,050	11,550	-	-	3,159.74	4,100.10	7,259.90
<u>Mining & Quarrying</u>	<u>2</u>	<u>76,500</u>	<u>82,000</u>	<u>304,707</u>	<u>300</u>	<u>463,507</u>	<u>2.50</u>	<u>904.29</u>	<u>3,229.20</u>	<u>7,692.98</u>	<u>11,828.97</u>
- Metal Ore	7	76,500	82,000	304,527	-	463,027	2.50	904.29	3,229.20	7,691.67	11,827.66
- Other	2	-	-	180	300	480	-	-	-	1.31	1.31
<u>Manufacturing</u>	<u>184</u>	<u>27,969</u>	<u>49,613</u>	<u>74,620</u>	<u>133,260</u>	<u>285,462</u>	<u>814.17</u>	<u>10,076.49</u>	<u>23,098.44</u>	<u>45,504.34</u>	<u>79,493.44</u>
- Food	29	10,619	9,647	16,878	10,156	47,300	-	3,400.69	4,304.36	14,602.26	22,307.31
- Textile & Leather	19	-	841	33,550	24,250	58,641	-	387.83	2,241.19	9,552.86	12,181.88
- Wood & Wood Product	1	-	-	-	500	500	-	-	-	-	-
- Paper & Paper Product	6	-	-	750	3,400	4,150	-	-	249.76	1,143.50	1,393.26
- Chemical & Rubber	62	15,700	11,189	14,098	25,574	66,561	640.81	1,782.27	4,888.25	7,324.94	14,636.27
- Non-metallic Mineral	6	-	2,778	900	31,500	35,178	-	260.36	576.20	897.46	1,734.02
- Basic Metal	4	-	-	-	4,500	4,500	-	-	-	52.34	52.34
- Metal Product	52	1,400	22,278	8,444	33,080	65,202	117.40	3,679.71	10,126.75	10,509.37	24,433.23
- Other	5	250	2,880	-	300	3,430	55.96	565.63	711.93	1,421.61	2,755.13
<u>Construction</u>	<u>19</u>	<u>2,000</u>	<u>6,700</u>	<u>6,390</u>	<u>17,593</u>	<u>32,683</u>	<u>-</u>	<u>1,158.62</u>	<u>2,172.83</u>	<u>3,535.17</u>	<u>6,688.62</u>
<u>Trade & Hotels</u>	<u>6</u>	<u>-</u>	<u>2,730</u>	<u>2,797</u>	<u>1,500</u>	<u>7,027</u>	<u>-</u>	<u>-</u>	<u>281.62</u>	<u>665.22</u>	<u>946.84</u>
- Wholesale Trade	1	-	-	-	1,500	1,500	-	-	-	267.66	267.66
- Hotels	5	-	2,730	2,797	-	5,527	-	-	281.62	397.56	679.18
<u>Transport & Communication</u>	<u>6</u>	<u>6,100</u>	<u>162</u>	<u>1,050</u>	<u>500</u>	<u>7,812</u>	<u>61.00</u>	<u>2,248.27</u>	<u>2,114.10</u>	<u>1,562.32</u>	<u>5,985.69</u>
- Transport	5	-	162	1,050	500	1,712	-	44.19	191.53	1,216.49	1,452.21
- Communication	1	6,100	-	-	-	6,100	61.00	2,204.08	1,922.57	345.83	4,533.48
<u>Community, Social & Personal Services</u>	<u>10</u>	<u>-</u>	<u>1,024</u>	<u>5,650</u>	<u>1,430</u>	<u>8,104</u>	<u>-</u>	<u>180.98</u>	<u>549.58</u>	<u>2,308.12</u>	<u>3,038.68</u>
- Social & Related Community	5	-	24	-	230	254	-	-	-	41.40	41.46
- Recreational & Cultural	5	-	1,000	5,650	1,200	7,850	-	180.98	549.58	2,266.66	2,997.22
<u>TOTAL</u>	<u>335</u>	<u>124,569</u>	<u>237,624</u>	<u>672,714</u>	<u>243,287</u>	<u>1,278,194</u>	<u>1,539.27</u>	<u>17,468.27</u>	<u>46,377.46</u>	<u>95,560.42</u>	<u>160,945.42</u>

^{a/} Classification according to: "International Standard Industrial Classification of All Economic Activities"
(Statistical Office of the United Nations, Statistical-Papers, Series M, No. 4).

^{b/} Intended capital included Indonesian share in the joint enterprises.

Source: Foreign Investment Board
Bank Indonesia, Foreign Department
Nostro Administration
Customs Administration

Table 10.3: Projection of Private Domestic Investments ^{a/}
(in billions of rupiahs)

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Total</u>
Agriculture	0.70	1.40	1.45	2.00	2.30	7.85
Estates	3.00	7.50	12.00	14.00	14.00	50.50
Forestry	3.00	10.50	18.00	18.00	15.00	64.50
Fishery	0.30	0.40	0.85	0.87	1.00	3.42
Livestock	0.07	0.10	0.15	0.14	0.13	0.59
<u>Sub-total</u>	<u>7.07</u>	<u>19.90</u>	<u>32.45</u>	<u>35.01</u>	<u>32.43</u>	<u>126.86</u>
Mining & quarrying	0.75	1.30	1.45	1.00	1.00	5.50
Manufacturing	21.00	32.00	65.00	75.00	90.00	283.00
Transport, tourism and other services	5.50	6.50	7.50	8.00	8.00	35.50
<u>Total</u>	<u>34.32</u>	<u>59.70</u>	<u>106.40</u>	<u>119.01</u>	<u>131.43</u>	<u>450.86</u>

a/ Disbursements

Source: Calculated from basic data supplied by the Domestic Investment Board, BAPINDO and Bank Indonesia.

Table 10.4: APPROVALS ^{a/} OF PRIVATE DOMESTIC INVESTMENTS

Sectors	1968 (Nov-Dec)				1969				1970			
	Number of Projects	Foreign Exchange Cost (\$ million)	Total Cost (Rp.million)	Manpower Required	Number	Foreign Exchange	Total Cost	Manpower	Number	Foreign Exchange	Total Cost	Manpower
Agriculture	—	—	—	—	3	0.20,	143.00	291	13	2.46	2,128.95	3,162
Estates	2	0.89	703.95	—	26	8.10	4,997.39	—	28	18.09	13,411.12	3,657
Forestry	—	—	—	—	9	10.97	5,078.85	5,360	32	29.23	12,651.55	26,503
Fishery	1	0.60	730.00	—	3	1.22	414.06	—	2	0.53	204.84	10
Livestock	—	—	—	—	1	0.04	50.00	15	2	0.04	110.50	40
Sub-total	<u>3</u>	<u>1.49</u>	<u>1,433.95</u>	—	<u>42</u>	<u>20.52</u>	<u>10,683.30</u>	<u>5,666</u>	<u>77</u>	<u>50.35</u>	<u>17,116.96</u>	<u>33,372</u>
Mining	—	—	—	—	—	—	—	—	2	2.01	1,394.67	676
Industry	4	1.46	567.72	—	95	64.49	26,151.07	—	209	113.69	59,757.30	29,064
Transportation	—	—	—	—	11	11.47	5,226.51	7,301	14	16.97	7,480.34	5,384
Real Estate	—	—	—	—	1	0.01	30.00	—	1	0.01	30.00	—
Tourism	—	—	—	—	8	5.56	3,302.29	5,824	19	11.86	7,367.50	4,873
Infrastructure	—	—	—	—	3	2.01	1,347.51	—	3	2.01	1,347.56	156
Other	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	<u>7</u>	<u>2.95</u>	<u>2,001.67</u>	—	<u>160</u>	<u>104.08</u>	<u>46,740.73</u>	<u>18,791</u>	<u>325</u>	<u>196.89</u>	<u>105,984.32</u>	<u>73,625</u>

^{a/} Relates to projects recommended for approval by the Sub-committee on Domestic Investment Board to the Ministry of Finance.

Source: Domestic Investment Board.