

Report No. 7222-IND

# Indonesia

## Adjustment, Growth and Sustainable Development

May 2, 1988

Country Department V  
Asia Regional Office

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CURRENCY EQUIVALENTS

Before November 15, 1978

US\$1.00 - Rp. 415

Annual Average 1979-87

1979  
1980  
1981  
1982  
1983  
1984  
1985  
1986  
1987

US\$1.00 - Rp. 623  
US\$1.00 - Rp. 627  
US\$1.00 - Rp. 632  
US\$1.00 - Rp. 661  
US\$1.00 - Rp. 909  
US\$1.00 - Rp. 1,026 /a  
US\$1.00 - Rp. 1,111  
US\$1.00 - Rp. 1,283 /b  
US\$1.00 - Rp. 1,644

April 30, 1988

US\$1.00 - Rp. 1,669

FISCAL YEAR

Government	-	April 1 to March 31
Bank Indonesia	-	April 1 to March 31
State Banks	-	January 1 to December 31

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/a On March 30, 1983 the Rupiah was devalued from US\$1.00 - Rp. 703 to US\$1.00 - Rp. 970.

/b On September 12, 1986, the Rupiah was devalued from US\$1.00 - Rp. 1,134 to US\$1.00 - Rp. 1,644.

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**ABSTRACT** : This report reviews progress on economic adjustment in Indonesia (Chapter 1) and the prospects for economic recovery and growth over the medium term (Chapter 2). Particular attention is given to selected issues of development strategy: mobilizing foreign exchange and public resources (Chapter 3), policies for structural change (Chapter 4), environment and natural resource management (Chapter 5) and public spending priorities (Chapter 6).

INDONESIA  
COUNTRY ECONOMIC REPORT

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## SUMMARY AND CONCLUSIONS

### Progress on Economic Adjustment

(i) The external environment faced by Indonesia has worsened considerably since the early 1980s. Over the past five years, real oil prices (adjusted for rising import costs) have fallen by more than 50%. Most of this decline has occurred since early 1986. At the same time, Indonesia's external debt burden has been sharply increased by the depreciation of the US Dollar since mid-1985. Without the appropriate policy response, these factors could have easily combined to undermine Indonesia's balance of payments position and cause serious dislocation in the domestic economy.

(ii) The Government's adjustment program. The Government has effectively responded to this challenge with a strong growth-oriented adjustment program. This program was initiated in 1983 and has been intensified since the collapse of oil prices in 1986. There are four key elements:

- (a) The Government has established a very successful record of sound macroeconomic management, based on prudent fiscal and monetary policies. Budget austerity and more careful selection of projects have reduced public investment by about one quarter in real terms over the past five years.
- (b) The objectives of demand restraint and structural change have both been served by appropriate exchange rate management. Major devaluations were implemented in March 1983 and September 1986, and the competitiveness of the exchange rate has been preserved through prudent fiscal and monetary policies.
- (c) To help ease the Government's budgetary position and restore domestic balance, domestic resource mobilization has been strengthened through financial sector (1983) and taxation (1984-86) reforms. Subsequently, time and savings deposits and non-oil tax revenues have both increased rapidly.
- (d) The Government has made substantial progress over the past three years in improving the trade and industrial policy regime. These reforms are aimed at developing a more efficient manufacturing sector, that can make a significant contribution to employment generation and non-oil export development over the medium term.

(iii) Impact on economic performance. The Government's adjustment program succeeded in reducing the current account deficit from US\$7.2 billion (7.7% of GNP) in 1982/83 to US\$1.9 billion (2.4% of GNP) by 1985/86. Domestic

inflation was also brought under control. However, just when Indonesia seemed to have largely overcome its macroeconomic adjustment problems, the oil market collapsed. Crude oil prices fell from US\$28/barrel in January 1986 to below US\$10/barrel in August 1986. Although there has subsequently been some recovery, average oil prices for 1987/88 are estimated to have been only about two thirds of their 1985/86 level. As a result, net oil/LNG earnings fell by US\$2 billion over these two years. At the same time, Indonesia's external debt payments rose by about US\$2 billion; at least US\$1.5 billion of this increase is due to exchange rate changes. The combined impact of lower oil prices and exchange rate changes accounts for all of the increase in the public debt service ratio since 1985. The total debt service ratio rose sharply from 25% in 1985 to 37% in 1986. Because of the strong performance of exports, this ratio is estimated to have declined somewhat to 35% in 1987.

(iv) Indonesia was well placed to handle these severe external shocks because of the series of adjustment measures taken by the Government since 1983. These efforts have been intensified over the past two years. The Rupiah was devalued in September 1986 and government spending has been tightly controlled. Since 1985/86, the real level of capital spending in the Budget has been reduced by about 25%. This fiscal austerity has been supported by a tightening of monetary policy. These macroeconomic policies have helped to contain import demand. More importantly, domestic inflation has been held to about 9% p.a., thus preserving the competitive advantage provided by the devaluation and improving the profitability of export activities. Recent trade and industrial policy reforms have further improved the environment for non-oil export development. In response, non-oil export earnings are estimated to have soared to US\$9.4 billion in 1987/88, an increase of close to 40% in nominal terms and about 24% in real terms over 1986/87. About two thirds of this increment has been contributed by a rapidly expanding and diversifying base of manufactured exports.

(v) Because of the strong growth of non-oil exports and demand restraint on imports, the current account deficit was contained to US\$4.2 billion (6.2% of GNP) in 1986/87 and reduced to an estimated US\$2.0 billion (3.1% of GNP) in 1987/88. The financing of these deficits and higher amortization payments has been considerably eased by the provision of special external assistance, in the form of fast-disbursing program aid and local-cost financing. During 1987/88, disbursements of special assistance totalled about US\$1.4 billion and financed 12% of total non-oil imports. As such, special assistance has played a very valuable role in helping the Government push ahead with its trade deregulation measures and in facilitating the recovery of private investment and growth. Disbursements of project aid have also risen sharply, due in large part to the high-level attention given by the Government to implementation problems. By the end of 1987/88, Bank Indonesia was able to rebuild its net official reserves to US\$5.6 billion, equivalent to 4.4 months of imports. This relatively high level of reserves is considered appropriate, given Indonesia's open capital account and the need to ride out occasional episodes of speculation.

(vi) The Government's balanced adjustment program has also helped to sustain a better-than-expected rate of economic growth, despite the loss of oil revenues. Total GDP grew on average by 3.7% p.a. in 1986 and 1987. Most of this growth came from the non-oil economy. Within the non-oil economy, a decline in the growth rates of the agriculture and mining sectors was more than offset by improvements in the performance of the manufacturing, construction and service sectors. Overall performance was buoyed by the strong growth of non-oil exports, while restraining factors were the drought in 1987 and cuts in government spending. The combination of GDP growth and an improvement in Indonesia's terms of trade helped to support a real increase in national income of 4.2% in 1987, as compared to a decline of 2.5% in 1986. There were also encouraging signs of a recovery in private investment, by both domestic and foreign joint-venture investors, in response to better market conditions and improvements in the regulatory environment. In the manufacturing sector, this revival in investment seems to be broad-based, cutting across all industries and firm-size classes. A noteworthy element is the increase in investment for export activities.

(vii) Impact on employment. Over the past five years, the non-oil economy has grown on average by about 4% p.a. While this is a better performance than originally anticipated, given the adverse impact of low oil prices, it is significantly below the rapid pace of growth achieved in the 1970s. This slowdown in growth has led to legitimate concerns about the impact on employment. Available data show that employment kept pace with labor force growth during the 1980-85 period, due to strong labor absorption in agriculture and the expansion of low wage employment in the rural non-farm and urban informal sectors. As a result, Indonesia did not face a major labor market disequilibrium, in terms of aggregate unemployment. However, there are worrying signs of open unemployment in urban areas (over 5% in 1985), especially among educated youths. The large concentration of the work force in low productivity and low earnings activities, especially in trade and transport, is also a matter of serious concern. There are indications that labor earnings in the informal sector have been adversely affected by the recent slowdown in agricultural growth and the sharp cuts in government spending. These aspects of the employment problem reinforce the importance of improving the quality of education and training programs, and of finding new sources of growth, such as from non-oil exports, over the medium term.

#### A Framework for Economic Recovery and Growth

(viii) Restoring stability. Continued progress on adjustment will be required over the next couple of years. Given the uncertain market prospects for oil and the large overhang of external debt, it is necessary to reduce further the current account deficit and to ensure that future external shocks can be handled without undue disruption to the domestic economy. As in the recent past, part of this adjustment will come from efforts to increase non-oil exports and non-oil taxes. In addition, there is a need for continued caution in macroeconomic management. The key elements of an appropriate macroeconomic

program are: (a) tight expenditure management to reduce the budget deficit; (b) careful scrutiny of the public investment program to maximize returns from limited resources; (c) monetary policies to restrain aggregate demand and curb inflationary pressures; and (d) timely steps to ensure that the competitive gains from the real exchange rate adjustment are preserved. During this period of adjustment, Indonesia will continue to depend upon special external assistance to cover the financing gaps in the balance of payments and the Budget. Requirements for special assistance are projected to total US\$2.4 billion in 1988/89 and US\$1.5 billion in 1989/90. With this support, Indonesia will be able to finance the imports and investments required to boost growth in the non-oil economy to 5% p.a. by the end of the decade.

(ix) The Budget for 1988/89 reflects the Government's commitment to continue with the fiscal restraint and spending priorities followed over the past two years. Recognizing the uncertainties in the oil market, the Budget has assumed an average oil price of US\$16/barrel, US\$1 lower than realized in 1987/88. For the third year in a row, the Government has decided to freeze civil service salaries and real capital spending is projected to fall. Because of this expenditure restraint, and much higher reliance on domestic revenues, net domestic expenditures are expected to fall to about 1% of GDP, compared to 4% of GDP in 1987/88. This trend demonstrates the austere stance of the Budget. If complementary measures are taken to improve the financial position of public enterprises, it should be possible to reduce credit growth to the public sector. This would enable the banking system to support an expansion of private sector activity within an appropriate and conservative monetary policy.

(x) Preparing for medium-term growth. The foremost development challenge facing Indonesia is to provide income and employment opportunities to a rapidly expanding labor force. During the 1990s, an additional 1.7 million workers are expected to enter the labor force every year. In addition to finding productive employment for these new entrants, Indonesia will need to improve the earning prospects for existing workers and address the urban unemployment problem. Employment prospects will crucially depend on the pace and pattern of real economic growth. Overall, the non-oil economy needs to grow by 5-6% p.a. during the 1990s to absorb the labor force at rising levels of productivity and income. Given the flexibility that the labor market has shown in the past, the policies for growth and employment are largely complementary. For example, non-oil export development will support growth and lead to a more labor-intensive pattern of production. Similarly, policies aimed at encouraging an efficient and more diversified growth of agriculture are essential to provide better income opportunities to farmers and support the development of rural off-farm employment. Targetted measures will be needed, however, to improve labor absorption in the services sector, boost employment prospects in the Outer Islands and improve the quality of the labor force. Of particular importance in this regard are the Government's programs for funding O&M, developing rural infrastructure and improving the quality of education, and programs geared to reducing fertility and improving family health. The Government also has to ensure that its policies do not unintentionally discourage employment (e.g., by hindering informal activities or subsidizing farm mechanization).

(xi) A strong investment effort is essential if the Indonesian economy is to sustain the projected growth rates of economic activity and non-oil exports. The average fixed investment rate (at current prices) has weakened in recent years, falling from 24% in the early 1980s to an estimated 20% in 1987. Much of this adjustment has occurred in the public sector. In the short term, some recovery in economic activity can be achieved through improvements in capacity utilization. Longer-term gains in the efficiency of capital use are also possible, especially if more attention is given to proper operations and maintenance. However, sustained development during the 1990s will require a substantial buildup of production capacity in the agriculture and manufacturing sectors (largely through private investment), as well as supporting improvements in the economic infrastructure (e.g., irrigation, power, telecommunications, transport). As a result, it is estimated that the fixed investment rate will need to be maintained around 20% over the next two years, and then raised to 23% by the mid-1990s. An increasing share of this investment will have to come from the private sector, especially to support the export drive. Accordingly, private investment is projected to grow by 8% p.a. during the 1990s, supported by financial policies to mobilize private savings and continued progress toward a "low-cost" business environment. It will also be important to strengthen public resource mobilization, to reduce the Budget's dependence on special external assistance and to support an expansion of public investment (by 7% p.a.) over the medium term.

(xii) A critical constraint on the pace of economic recovery and growth will be the availability of foreign exchange. Import demand will rise with higher production, incomes and investment, as well as in response to the ongoing program of trade policy reforms. At the same time, oil/LNG exports are not going to generate as much foreign exchange as in past years. Hence, the central role of non-oil exports in the Government's development strategy. The balance of payments projections in Chapter 2 suggest that non-oil export earnings will have to more than double over the next seven years, reaching US\$20 billion by 1994/95. This represents a real growth rate of 11% p.a. during the next two years and 6-7% p.a. over the medium term. With this strong non-oil export effort, and continued prudence in macroeconomic management, the current account deficit is projected to be steadily reduced from US\$2.0 billion (3.1% of GNP) in 1987/88 to US\$1.4 billion (1.6% of GNP) by 1990/91. Subsequently, the current account deficit is assumed to stabilize at less than 1% of GNP. This is based on rather conservative medium-term estimates of external borrowing capacity and reserve requirements, to provide flexibility to respond to external shocks without unduly disrupting economic growth.

(xiii) Recovery in economic growth is one of Indonesia's primary development goals for the medium term. Yet, to be sustainable, this growth will have to be achieved with due regard for the environment and the natural resource base of the country. As in the past, the major portion of economic activity in Indonesia will be linked directly to the development and primary processing of natural resources. Indonesia is fortunate to have a vast and diverse natural resource base to support a growth-oriented development strategy. In addition, many of the Government's policies for efficient economic growth and reduced population growth will also have favorable impacts on the environment and

natural resource management. Even so, economic growth will put pressure on the Outer Islands' forest resources and intensify demands for the limited resources, especially water, on Java. Industrial and energy development will also add to water and air pollution, unless appropriate preventive measures are taken. For these reasons, continued improvements in standards of living will depend crucially on sound environmental management. Furthermore, environmental problems are inextricably linked to population pressures and poverty. These interrelationships need to be addressed in an integrated manner. The primary goal becomes sustainable development: i.e., to maximize the net benefits from existing resources (human, natural and produced capital), while maintaining the services and quality of these resources over time. Steps taken now at relatively low expense can reduce environmental problems and their adverse social impact, and provide a sound basis for future development.

### Mobilizing Foreign Exchange and Public Resources

(xiv) The recent decline in oil revenues adversely affected the balance of payments and the Government's Budget. In the short term, the resource shortfalls have been overcome by tight restraint on budget spending and import demand, as well as special external assistance from IGGI members. However, the long-term loss of oil revenues reemphasizes the importance of mobilizing resources from the non-oil economy. For the balance of payments, this is reflected in the high priority now being given to non-oil exports. And, for the Budget, efforts are underway to boost non-oil revenues through better tax administration. These efforts need to be sustained and expanded in the years ahead. In addition, the Government will have to follow an appropriate external borrowing strategy to supplement the availability of development resources, while maintaining a manageable debt burden.

(xv) Non-oil export development. The projected growth of non-oil exports will be supported by returns on the past heavy investment in primary commodities (e.g., palm oil and rubber), as well as the steady expansion of the minerals and metals sector. But, manufactured goods are expected to set the pace. Given the anticipated slowdown in the growth of the two largest manufacturing subsectors -- textiles and plywood -- most of the future growth is expected to derive from a much more diversified set of manufactured products than in the past. As Indonesia's share of the world market for these "other" products is small, it is possible for competitive manufacturers to expand output by capturing a larger share of the global market. In this sense, developments in the international economy are less crucial than domestic policies. In addition, sustained export growth will require substantial investment in new export capacity. Although much of the recent expansion in non-oil exports has come from existing capacity, underutilized due to the depressed levels of domestic demand, there are also encouraging signs that export-oriented investments are on the rise. This trend can be expected to continue, provided: (a) export incentives are maintained; (b) further progress is made on removing trade barriers and simplifying domestic regulations; (c) the financial sector is able to respond to the needs of exporters for credit and equity; (d) appropriate

institutional support is developed to ease access to export markets; and (e) management of resource leases for industries such as plywood is improved to ensure a sustainable supply of raw material. Under these conditions, and given the projected trend in world prices, it should be possible to double non-oil export earnings by the mid-1990s.

(xvi) Public resource mobilization. The capacity of the Government to support investment and economic growth over the medium term will depend on efforts to improve public resource mobilization. Recent tax reforms have helped to increase non-oil taxes from 6.3% of GDP in 1983/84 to 8.6% in 1987/88. However, the non-oil tax effort is still significantly below those in comparable Asian countries. With continued progress in improving tax administration, it should be possible to increase non-oil tax revenues to 12% of GDP by the mid-1990s. There may also be a need to consider selective increases in the tax base and rates over the medium term, especially if there is a further long-term decline in oil prices. These measures to increase non-oil tax revenues should be complemented by a broader effort to improve the finances of public enterprises and achieve greater cost recovery from public services. Greater cost recovery will not only induce more efficient use, but will also improve the quality of service, by helping to finance better O&M practices. To facilitate public acceptance and compliance, it is important that cost recovery be associated with improved services, that account be taken of other fees already paid by beneficiaries, and that provision be made to protect poorer groups in society.

(xvii) External borrowing strategy. The macro-projections presented in Chapter 2 are predicated on the assumption that Indonesia will continue with its adjustment program, to reduce further the current account deficit. Even so, once allowance is made for higher amortization payments and the need to maintain adequate reserves, the annual financing requirement is projected to average US\$7.8 billion p.a. in 1988/89 and 1989/90, 30% larger than over the past three years. For the immediate future, given the limited scope for starting new investment projects, the Government will have to continue to restrict new commitments of import-related credits. Although untied commercial credits provide the Government with more flexibility, their terms make them less attractive than program assistance from official sources. Furthermore, access to commercial markets cannot be taken for granted, especially at a time when banks are consolidating and reducing their exposure in developing countries. For these reasons it is essential that IGGI assistance continue to provide the major share of Indonesia's external financing requirements. This assistance will also provide an important signal to world financial markets that the IGGI members support the Government's adjustment measures and have confidence in Indonesia's economic prospects. It is therefore recommended that the level of IGGI assistance to Indonesia in 1988/89 be US\$3.6 billion, 13% higher than pledged for last year.

(xviii) The current circumstances in Indonesia warrant special assistance -- in the form of untied and concessional fast-disbursing aid -- to support the adjustment in the balance of payments and the Budget to lower oil prices and adverse exchange rate changes. The response to this need has been very

encouraging, with disbursements of special assistance totalling about US\$1.4 billion during 1987/88. The balance of payments projections presented in Chapter 2 indicate that continued special assistance, at a level of US\$2.4 billion, will be required for 1988/89. Program aid and local-cost financing both provide free foreign exchange for the balance of payments and the Budget during the adjustment period. For the Budget, program aid has the added advantage that it can be used flexibly to finance all expenditures related to project implementation (e.g., land acquisition) and project effectiveness (e.g., O&M and tertiary canals for an irrigation system). Without this support, import and investment levels would have to be further restrained, thereby undermining economic growth, the non-oil export effort and medium-term development prospects. At the same time, the provision of special assistance has to be seen as a temporary expedient, matched by the Government's efforts to improve non-oil export performance and public resource mobilization. As the external and domestic gaps are narrowed, special assistance can and should be phased out. During the 1990s, there will be greater scope for commercial borrowing, while the role of external assistance will again focus on financing development projects, in both the public and private sectors.

(xix) With continued progress on adjustment and an appropriate borrowing strategy, Indonesia is in a good position to reduce the burden of external debt, while also mobilizing adequate resources to support economic recovery and development. The growth of Indonesia's external debt is projected to slow considerably over the next few years, with virtually all of the increment being in the form of official assistance. Total MLT debt disbursed and outstanding is projected to rise from US\$47.3 billion in 1987 to US\$53.2 billion in 1990, an increase of only 12%. Debt service payments will rise more rapidly, by an estimated 33%, over this period. But, with the projected growth in non-oil exports, the debt service ratio will peak at close to 40% in 1988 and then decline back to 35% by 1990 and 22% by 1995. The Government remains committed to repay its external debts on schedule, as reiterated in the President's Speech of Accountability in March 1988. Provided the Government can mobilize the projected levels of external financing, especially the short-term requirements for concessional untied assistance, Indonesia's balance of payments position is expected to remain manageable and to strengthen over the medium term.

### Policies for Structural Change

(xx) During the early 1980s, Indonesia's trade regime became increasingly oriented toward protecting producers for the domestic market. This was achieved through a proliferation of non-tariff barriers (NTBs), primarily in the form of import licensing restrictions. Enterprise performance was also affected by a multitude of restrictive domestic regulations, which stifled competition and impeded both foreign and domestic private investment. As oil-related earnings declined, the danger of pursuing an inward-looking development strategy became apparent. Sluggish domestic demand undermined profitability, while protection from foreign and local competition undermined efficiency. The resulting "high-cost economy" was not geared toward generating the expansion of

non-oil exports needed to replace oil earnings or providing the necessary employment opportunities. A fundamental change in the incentive and regulatory framework was required to open up the economy to world markets and sustain domestic growth. The Government has responded to this need by implementing a far-reaching program of trade and industrial policy reforms over the past three years. This reform process needs to be sustained and complemented by efforts to develop the financial sector.

(xxi) Trade policy reforms. The first steps toward improving the trade regime were taken during 1985 and early 1986, including: (a) a comprehensive reform of the tariff schedule in March 1985; (b) reorganization of customs, ports and shipping operations in April 1985; and (c) a package of measures to provide internationally-priced inputs to exporters, announced on May 6, 1986. These steps were followed by more fundamental trade reforms that have focussed on reducing the role of import licensing restrictions and moving toward tariff-only protection. Since October 1986, 539 items have been removed from license control, accounting for 31% of all items and 41% of total import value previously restricted. More importantly, the share of manufacturing production protected by NTBs has been reduced from 49% in mid-1986 to below 35% at end-1987. This reduction in import licensing has been concentrated on those items with the highest effective rates of protection (e.g., textiles, iron and steel, and engineering goods). In some cases, higher tariffs or surcharges have been imposed to compensate for the removal of license restrictions, within the reduced tariff ceilings set in 1985. In other cases, tariffs have been lowered, primarily to reduce the cost of imported inputs not produced domestically. Finally, the December package has removed a number of export restrictions: the need to obtain a special export license was abolished, several export bans and quotas have been removed, and access by exporters to the May 6 scheme has been broadened. These measures will reduce the anti-export bias of the trade regime, thereby increasing the relative profitability of exports and bolstering the export drive.

(xxii) In order to benefit fully from these trade reform measures, the Government needs to ensure that they are implemented properly. Where licenses are still required, it is important that the Ministries of Industry and Trade continue to search for ways to simplify license application procedures and to strengthen their monitoring capacity to assess how efficiently the current system is operating. The criteria by which surcharges are imposed, as well as their time limit, also need to be clearly defined. At the same time, the process of trade reform needs to be extended by: (a) simplifying the range and definition of license categories; (b) limiting the coverage of import/export bans and quotas; and (c) continuing to reduce the number of items subject to restrictive licenses. The strategy of moving away from NTBs inevitably increases the importance of the import tariff structure. While recent ad hoc tariff changes have been justified by the removal of licensing restrictions, domestic producers need to be given a clear signal that both the level and variance of tariff protection will be reduced over the medium term. An important next step, therefore, is to formulate a comprehensive plan for tariff rationalization.

(xxiii) Enterprise deregulation. The Government has taken a series of steps to simplify and relax the regulatory framework over the past three years. A start was made in 1985 when the investment process was streamlined. In 1986, the number of areas open to private foreign and domestic investment was expanded substantially, foreign investment companies were given greater access to domestic capital and financial institutions, and domestic ownership requirements were eased. The Government's drive to revitalize the private sector and encourage foreign investment gained momentum during 1987:

- (a) As a result of measures taken in June, investment and capacity licensing restrictions were eased. Firms are now allowed to increase production by up to 30% of their licensed capacity without requiring new investment approval. More significantly, firms have been permitted to diversify production within much broader production categories, thereby improving their operational flexibility and promoting greater competition. The requirements for investment licenses were also streamlined and additional fields of investment opened to private domestic and foreign investors.
- (b) The December package included a series of measures to relax foreign investment regulations: domestic ownership requirements were eased significantly; restrictions prohibiting joint-venture companies from marketing Indonesian export goods were removed; foreign firms are now allowed to purchase domestic inputs without restriction; and rules regarding the hiring of expatriate personnel were relaxed. Together with the broader regulatory reforms, these measures have improved substantially the climate for foreign investment in Indonesia.
- (c) In February 1987, the local content programs for commercial vehicles, motorcycles and tractors were modified to extend the timetables to 1990 and to allow "multi-sourcing" of all spare parts and components. The December package also removed many of the sole agency restrictions (e.g., on most consumer electronics and machine tools), which protected domestic assemblers from import competition.

(xxiv) Yet, despite this progress, the regulatory framework in Indonesia is still complex and confusing, especially to potential new investors. Follow-up action is therefore required to simplify further regulations and to reduce the scope of industrial licensing. A first step is to ensure that the "broad-banding" measures introduced in 1987 are implemented well. The deregulation drive can be extended by: (a) opening additional areas to domestic and foreign private investment; and (b) streamlining and making license approval and other procedures more automatic. To attract foreign investment, the authorities could strengthen promotional activities further, highlighting the deregulation measures already taken, and ensuring that eligible foreign investments are speedily and consistently approved. In addition, the recent changes in ownership requirements should be modified, to avoid discrimination against

established companies. For the local content programs, the recent trend towards tariff-only protection for domestic assemblers should continue. Concurrent with changes in the trade regime, deletion timetables could be further lengthened, to allow more time for the development of local component manufacturers, before tariff penalties are imposed.

(xxv) Financial sector development. The ability of business enterprises to respond to the ongoing program of trade and industrial policy reforms, and to support the non-oil export drive, will depend critically upon supportive financial sector policies. While recent financial sector reforms have led to rapid deposit growth, they have been less successful in improving the availability and cost of long-term investment funds. This is especially important for the small-scale and export sectors, where the absence of established track records in production and marketing often constrains access to institutional credit. In addition, while there are signs of some recovery in corporate profitability, the sector is undergoing financial distress as a result of cost pressures and the adverse domestic market conditions over the past few years. The ability of manufacturing firms to grow in the future, therefore, will rest not only on physical restructuring to reorient production toward export markets, but also on financial restructuring to generate sufficient funds to undertake the required investment. In turn, the ability of the financial sector to meet these funding needs will be determined by actions to improve the efficiency of the banking system and develop capital markets. The longer-term objective should be the creation of an efficient financial market to provide potentially profitable enterprises access to required risk and debt capital, supported by strong accounting, information and audit systems.

(xxvi) Careful consideration needs to be given to the formulation of a strategy for restructuring potentially viable enterprises facing financial difficulties. Financial institutions will have to play an active role in rescheduling loan terms and providing new assistance. As liquidity problems are often symptomatic of basic problems in an enterprise's business strategy, competitive position and management capabilities, financial restructuring needs to be coupled with more fundamental rehabilitation measures. However, this process will increase the vulnerability of banks to the fortunes of restructuring firms. To protect bank viability, it is therefore important to give banks the operational freedom to assess loan risks and to choose which firms to finance. In addition, it would be necessary to: (a) enhance the capability of banks to make appraisals of projects; (b) strengthen the capital base of state banks by injecting government equity; and (c) review banking regulations to induce banks to increase their reserves and loan risk provisions to realistic levels. Financial restructuring will help in improving the competitiveness and flexibility of banks, but other measures will also be needed to increase the capacity of the financial system to supply investment funds at reasonable cost. In the first instance, this will require a continuation of ongoing efforts to reduce the intermediation costs of banks, through managerial and technical initiatives at the level of individual institutions. Policy actions with regard to the operating environment, specifically to increase competition for deposits and credit, would also assist in lowering spreads. Over the longer term, the capital market will be able to take a more active role

in providing investment funds. Some initiatives to strengthen the capital market were announced in December 1987. These initiatives now need to be implemented and developed into a capital market strategy, including additional steps to attract funds from overseas.

### Environment and Natural Resource Management

(xxvii) Economic activity in Indonesia is closely linked to the country's vast and diverse base of natural resources. In addition to being a major exporter of crude oil and natural gas derivatives, the country enjoys substantial reserves of coal, tin, nickel and other minerals. The world's richest commercial forest is located here, as well as very diverse fishery resources. Although agricultural diversity is also substantial, rice and tree crops dominate production, benefitting greatly from the abundant rainfall and fertile soils in many areas of the country. Together, the primary producing sectors (agriculture, forestry, fishing and mining) account for about 45% of value added, 85% of export earnings and 55% of employment in Indonesia. The inclusion of further stages of downstream processing would raise these proportions considerably. In addition, there is increasing recognition of the environmental services provided by natural resources. For example, the protective role of Indonesia's forests -- in preserving biological species and preventing soil erosion -- represents a significant economic contribution, even though it is not directly measurable.

(xxviii). Despite severe manpower and financial constraints, Indonesia has had a longstanding commitment to the basic concepts of sustainable development and environmental protection. The appointment of the State Minister for Population and the Environment (KLH) in 1983 provided an institutional focus for coordinating environmental efforts and all government agencies have been instructed to develop mechanisms for implementing environmental laws and regulations. The importance of environmental concerns in Indonesian development policy has also been reiterated in the Guidelines of State Policy for REPELITA V. In addition, many of the policies being pursued by the Government for efficient economic growth and reduced population growth will have favorable impacts on the environment and natural resource management. Recent pesticide measures provide an example. Until 1986, heavy subsidies had encouraged the over-use of pesticides, many of which had detrimental effects on ecological balances, including the destruction of natural predators. As a result, the brown planthopper (BHP) became an extremely destructive pest. Once these problems were recognized, the Government introduced a new, sustainable strategy of crop protection, Integrated Pest Management (IPM). The President issued instructions banning 57 different pesticides for rice, and recommending the use of a few narrow spectrum insecticides instead. Steps have subsequently been taken to strengthen crop protection field staff, develop IPM crop technology packages for rice and other crops, and reduce pesticide subsidies. These measures have been dramatically successful. Damage by the BPH declined sharply and the most productive rice varieties can now be grown again, increasing production and farmer incomes.

(xxix) For a country of Indonesia's vast size, diversity of natural resources, large population and impressive economic growth record, there are obviously a number of emerging issues related to the environment and natural resource management. However, tackling these issues is not costless. As the availability of budgetary resources and technical manpower will be constrained for the foreseeable future, issues that are most critical in terms of their contribution to employment, output and incomes will have to be tackled first. Three important issues considered below are: (a) forestry management and land use in the Outer Islands; (b) water quantity and quality management in Java; and (c) pollution issues related to the industry and energy sectors.

(xxx) Indonesia's forest resources cover an estimated 114 million ha., or 60% of the total land area. Increasing demands for land in the Outer Islands have led to progressive encroachment on forest lands and the conversion of unsuitable lands to agriculture. Deforestation -- due to smallholder conversion, development projects, poor logging practices and disasters -- is estimated to occur at a rate of nearly 900,000 ha. per year. An additional 3 million ha. was lost in 1983 due to the Kalimantan fire. These problems can be ameliorated through: (a) an expanded conservation effort (with donor support); (b) better forestry and land management planning; (c) incentives to encourage perennial crop production; and (d) crop intensification schemes, to reduce the need for large-scale projects in forested areas. Logging and wood processing practices could be improved by providing longer tenure to concessionaires, enforcing regulations and improving mechanisms for revenue collection. The Government is also reducing pressures on natural forests by promoting forest plantation development.

(xxxi) Although Java is well endowed with water resources, there are already seasonal water shortages, and the water supply/demand balance in several river basins is becoming critical. In addition, pollution in the downstream areas of all the north coast rivers has seriously reduced the amount of raw water that can be used for municipal and industrial purposes. The relative neglect of upper watershed agriculture is an important cause of downstream problems with river regimes. Not only would agricultural intensification raise incomes in the upper watersheds, they would also mitigate some of the soil erosion problems that occur. However, policies requiring changes in land use management by the numerous upland farmers will only show results after the elapse of several cropping seasons. Therefore, construction of additional dams and storage facilities, especially in areas prone to floods and water shortages, may also be necessary. Given the large investments involved, careful evaluation of costs and benefits is a critical input for decisions in this area. More generally, the Government is taking steps to improve the institutional mechanisms for water management. However, these will have to be extended, especially at the provincial level, to overcome remaining problems arising from the fragmentation of existing agency mandates. Higher cost recovery on water use, especially for irrigation purposes, would reduce waste and provide additional resources for O&M expenditures.

(xxxii) The water and air pollution problems stemming from the industry and energy sector are expected to intensify as these sectors grow more rapidly in the years ahead. For the industrial sector, the legal framework of an

environmental control program is basically in place. However, without an effective monitoring program and adequate data, enforcement of existing laws is proving to be extremely difficult. A strategy to deal with industrial pollution issues would need to: (a) establish pollution monitoring and control agencies, preferably under the provincial governors; (b) enact air and water standards for industrial discharges and solid waste disposal; (c) ensure that future industrial investments are in initial compliance with environmental regulations; and (d) compile an information base on the extent and nature of industrial pollution. In the energy sector, several options exist for the efficient substitution of energy sources: from fuel oil-based power generation to low-sulphur coal, hydropower and gas; from diesel-based power generation in industries and rural areas to grid-supplied electricity; and from fuel oil and kerosene-based gas to natural gas in urban gas distribution networks. These substitutions are expected to have a generally favorable effect on pollution levels. It would also be important to formulate environmental standards and policies for major energy projects. These policies should address issues of siting, design and operation, including allowable discharge of specific pollutants and proper handling of waste materials.

(xxxiii) This review of critical environmental issues provides some broader conclusions on the future direction of environmental efforts in Indonesia. Most of these relate to institutional and human resource development:

- (a) Despite the dominance of particular issues in specific geographical areas, the effects are seldom confined to a single habitat or environmental medium. Therefore, the appropriate approach to environmental issues requires multidisciplinary analysis and close coordination among the agencies responsible for implementing policies.
- (b) Most environmental issues arise from the cumulative effects of many small agricultural, mining and industrial activities. Consequently, environmental management requires broader participation than is presently the case and greater decentralization of decision making and financial responsibility.
- (c) A broad range of instruments is required to handle the environmental effects of numerous economic activities and those resulting from identifiable point-sources. Government regulations, general incentive policies (e.g., prices, subsidies and tariffs) and project location policies all need to be deployed to achieve satisfactory outcomes.
- (d) While attempts to formulate environmental guidelines based on realistic standards should continue, greater emphasis should be placed on improving the institutional capacity for monitoring and implementation. This will have to be done by line-Ministries and provincial agencies, and steps should be taken to strengthen them accordingly.

- (e) Environmental management will also require resources for physical investments (e.g., in waste collection and treatment facilities) and manpower training. Clearly, given the Government's budgetary constraints, this implies a firm commitment from the external donor community and a larger degree of private sector participation.

The donor community can support this process through projects and technical assistance, especially on grant terms. Early involvement is feasible in forest conservation and urban sanitation programs. Each donor-assisted project should be subject to environmental screening, and annual consultations with the Government should include reporting on environmental issues.

### Public Spending Priorities

(xxxiv) Progress on public resource mobilization will have to be matched by a careful review of public expenditure priorities. In this regard, particular attention has to be given to efficient operation and maintenance (O&M) of public infrastructure. Otherwise, the productivity of this infrastructure and the quality of public services would decline. Over the past year, the Government has made significant progress in this area, by providing additional budgetary resources for O&M and developing O&M strategies in selected sectors (e.g., irrigation, urban infrastructure, rural roads). However, the large magnitude and complexity of the O&M problem warrants a continuous effort over an extended period of time. Future initiatives should provide for: (a) substantially larger allocations of budgetary resources for O&M; (b) the design and implementation of sectoral O&M strategies; (c) strengthening the budgetary system for O&M; (d) improving institutional coordination; and (e) introducing O&M considerations into the planning process. Donors can also help by funding O&M on a temporary basis, while developing sector capacity for implementation and cost recovery.

(xxxv) Over the past four years, the decline in oil prices has forced the Government to reduce public investment levels and rephase large capital-intensive projects. The largest cutbacks have occurred in sectors where private sector options can be developed (e.g., industry and mining) or where implementation constraints are severe (e.g., transmigration). Given the projected tightness of budgetary resources and the priority for O&M, the emphasis on consolidation is likely to continue for the next two years. During this period, continued priority should be given to completing ongoing projects. However, over the medium term, as additional resources become available, the public investment effort will need to expand to support Indonesia's development objectives and priorities. As noted above, these include: (a) generating employment and incomes; (b) promoting non-oil exports; (c) developing human resources; and (d) improving environmental management. The recent focus of development spending on agricultural development, electricity and transport infrastructure, and human resource development programs is clearly consistent

with these objectives. However, in all areas, the Government intends to review its role in investment activity, bearing in mind the potential contribution of the private sector and the scope for improving project implementation capacity.

(xxxvi) The objectives of promoting non-oil exports, employment and incomes are closely interlinked. The public investment program can contribute to these objectives in three ways: (a) by investing in export-based and labor-intensive production activities; (b) by developing essential infrastructure to support these activities; and (c) by financing special employment creation programs. Given the strength and capacity of the private sector in direct production activities (especially in agriculture and manufacturing), the role of the public sector will be to create incentives, through appropriate macroeconomic policies and structural reforms, which will allow the private sector to expand output and exports, thereby supporting employment and incomes. The main role of public investment in promoting these objectives will be indirect, through infrastructure development. There will be a substantial need to enhance the availability and efficiency of transport, electricity, water and waste disposal facilities in order to support the expansion of non-oil exports, especially from the manufacturing sector.

(xxxvii) The Government's continued emphasis on the development of human resources is well placed, as a productive labor force is essential to realize Indonesia's long-term growth potential. The past public investment effort focussed on expansion of facilities for education, health, family planning, water supply and sanitation. This effort has paid off, as reflected in large improvements in literacy rates and health standards, as well as lower fertility rates. But there are growing concerns about the poor quality of many essential services. In the 1990s, the main emphasis will need to be on quality improvements, with selective expansion. For example, the key to improving the quality of the labor force is enhanced quality of schooling, starting at the primary level. A strong effort is needed to improve the quality and motivation of teachers. Improvements in the quality of education will also require actions to interpret curricula to stress science and math, to augment the production and distribution of high quality textbooks, and to increase the availability of recurrent funding for schools. As in general education, there is a need to emphasize the quality of vocational training. Over the longer term, the private sector should play a significantly larger role in providing and bearing the cost of high quality training. The Government can assist this process by improving labor market information about employment and training, including costs and benefits of different training schemes. In the short to medium term, it will also be necessary to ensure better utilization and improved efficiency of the existing government training facilities. It is essential to link the use of these facilities with actual employment by entering into cost-sharing arrangements with employers.

(xxxviii) The investment strategy for the 1990s will need to make a special effort to take account of environmental considerations in determining investment allocations. As reviewed above, a broad-based action program will be needed to

address the major environmental concerns adequately. Although there are important implications for public investment, most of these measures relate to pricing policies, improved planning and strengthening of institutions. In general, the public investment strategy would need to focus on: (a) ensuring that environmental and natural resource management concerns are reflected in the selection and design of projects; (b) ensuring that all new projects satisfy established environmental regulations; (c) supporting the development of environment monitoring capacity in relevant agencies; and (d) supporting the expansion of information and research on environmental issues.

(xxxix) The Government has made considerable progress over the past two years in improving project implementation. This is reflected in improved disbursement performance for all of the major donors (e.g., the World Bank, ADB, OECF). These efforts need to be sustained and intensified in the years ahead. Remaining issues include: (a) bidding practices need to be streamlined to avoid procurement delays; (b) land acquisition needs to start earlier in the project cycle, with careful monitoring of equity considerations; (c) land mapping and programs require extensive improvement; (d) agencies need to focus more on multi-year project budgeting and financing; and (e) local consulting services should be improved. To ensure that the quality and pace of implementation meets development goals, greater attention needs to be paid at the various management levels to monitoring the progress of projects. Finally, an efficient construction industry is essential to support Indonesia's overall development effort, but especially to improve project implementation capacity in the public sector. The Government recognizes this priority and is preparing an action program to strengthen financial, technical and organizational aspects of the construction industry.

## CHAPTER 1

### PROGRESS ON ECONOMIC ADJUSTMENT

#### A. Introduction

1.01 The Indonesian economy grew rapidly during the 1970s, buoyed by higher oil prices and public investment. However, since the early 1980s, the external environment faced by Indonesia has worsened considerably. Over the past five years, real oil prices (adjusted for rising import costs) have fallen by more than 50%, with most of the decline occurring since early 1986. At the same time, the burden of Indonesia's external debt has been sharply increased by the depreciation of the US Dollar since mid-1985. Without the appropriate policy response, these factors could have easily combined to undermine Indonesia's balance of payments position. Fortunately, the Government was equal to the challenge, taking decisive action to restrain domestic demand, mobilize additional resources and set in train the structural changes needed to develop the non-oil economy. This strong growth-oriented adjustment effort has succeeded in reducing external and domestic imbalances, while also sustaining a better-than-expected rate of economic growth. For the immediate future, the adverse external environment is likely to persist, necessitating continued prudence in fiscal policies and external debt management. However, provided the Government sustains progress on its policy agenda, and receives appropriate support from the international community, there are encouraging signs that the Indonesian economy will emerge from its recent difficulties in a stronger position to restore growth and development momentum over the medium term.

1.02 This chapter focusses on the key elements of the Government's adjustment program (Section B) and their impact on the performance of the economy (Section C). Particular attention is given to the implications for the employment situation (Section D). Subsequent chapters of the report then look at the development issues and policy priorities that are likely to shape the prospects for growth and sustainable development over the medium term. A more detailed assessment of economic developments over the past year is provided in Annex 1.

#### B. The Government's Adjustment Program

1.03 The Government's adjustment program was initiated in 1983 and has been intensified since the collapse of oil prices in 1986. There are four key elements. First, the Government has established a very successful record of sound macroeconomic management, based on prudent fiscal and monetary policies. A key element in this has been cuts in public investment. A major rephasing

of large capital-intensive projects was initiated in May 1983 and public spending has been restrained in subsequent years. In response to the collapse of oil prices in early 1986, very austere Budgets were implemented in 1986/87 and 1987/88; real capital spending has been cut back sharply and no provision has been made for increases in civil service salaries over these two years. As a result, there has been very little scope for starting new projects and many locally-funded projects have been curtailed. Steps have also been taken to contain investment by public enterprises. Tight control has been kept on the utilization of non-concessional import-related credits since 1984/85 and equity participation in public enterprises funded through the Budget has been reduced to minimal levels. Because of these measures, it is estimated that total public investment has fallen by about one quarter in real terms since 1982/83.

1.04 Second, the objectives of demand restraint and structural change have both been served by appropriate exchange rate management. The Rupiah was devalued by 28% (IMF definition) in March 1983 and the exchange rate was subsequently managed more actively. As domestic inflation was brought under control, the real effective exchange rate remained relatively stable over the next two years and the Rupiah was allowed to depreciate (with the US Dollar) from mid-1985. However, faced with a sharp fall in oil prices and uncertain prospects for the medium term, the Government devalued the Rupiah by another 31% in September 1986. Subsequently, the value of the Rupiah has been allowed to drift down with the US Dollar, while domestic inflation has been controlled through appropriate monetary and fiscal policies. As a result, Indonesia has maintained a competitive exchange rate and provided strong incentives for non-oil export development.

1.05 Third, to help ease the Government's budgetary position and restore domestic balance, domestic resource mobilization has been strengthened through financial sector and taxation reforms. The mid-1983 reforms in the financial sector removed most interest rate controls on state banks and credit ceilings for all banks. In response to the subsequent increase in interest rates, time and savings deposits have tripled over the past four years. Tax reforms introduced in 1984-86 have gone a long way toward broadening the tax base, improving the buoyancy of tax revenues, simplifying the tax system and strengthening tax administration. The reforms have already had a very positive impact on non-oil tax revenues, which rose from 6.3% of GDP in 1983/84 to an estimated 8.6% in 1987/88.<sup>1</sup>

1.06 Finally, the Government has made substantial progress over the past three years to improve the trade and industrial policy regime. In the area of trade policy, some initial steps were taken in 1985 and early 1986, when the Government implemented a tariff reform, reorganized the customs, ports and shipping operations, and introduced a package of measures to provide internationally-priced inputs to exporters. These steps were followed by more

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<sup>1</sup> Including taxes collected by local governments.

fundamental trade reforms that have focussed on reducing the role of import licensing restrictions and moving toward tariff-only protection. Since October 1986, license controls have been removed on 40% of the import value previously restricted. More importantly, the proportion of manufacturing production protected by import licensing restrictions has been reduced by almost 30%. Progress in the area of domestic licensing has also been noteworthy. More sectors have been opened for foreign and domestic private investment, licensing requirements for establishing and operating firms have been reduced, and licensing procedures have been simplified. These measures are all aimed at developing a more competitive and efficient manufacturing sector, that can contribute to employment generation and non-oil export development over the medium term.

### C. Impact on Economic Performance

#### The First Adjustment Period: 1982-85

1.07 During the 1982-85 period, Indonesia had to adjust to the steady weakening of the oil market, the onset of a worldwide recession and the decline in the prices of several important primary exports (e.g., rubber, palm oil and tin). By 1982/83, Indonesia's current account deficit had widened to US\$7.2 billion (7.7% of GNP). In order to reduce this deficit to a manageable level, the Government devalued the Rupiah in March 1983 and cut back budget spending. These measures helped to restrain aggregate demand, especially for imports. The real level of non-oil imports declined on average by 11% p.a. over the next three years. There was also a positive response of non-oil exports, albeit from a small base, to the improved profitability provided by the devaluation (see Table 1.1).

1.08 These trends helped to reduce the current account deficit to US\$1.9 billion (2.4% of GNP) by 1985/86. Domestic inflation was also brought under control. At the same time, these adjustments led to short-term costs in the form of slower growth of output and incomes, reduced levels of public and private investment, low rates of capacity utilization in some subsectors, and the emergence of financial problems among industrial enterprises. Problems in the manufacturing sector were compounded by high and variable levels of protection provided by a proliferation of import licensing restrictions. Nevertheless, prior to the unexpected collapse of oil prices in 1986, Indonesia seemed to have largely overcome its balance of payments and macroeconomic adjustment problems, and was set on a path that potentially would have sustained strong economic growth over the medium term.

**Table 1.1: RECENT ECONOMIC DEVELOPMENTS /a**

	<u>Actuals</u>			<u>Estimate</u>
	1978-82	1982-85	1986	1987
<b><u>Real growth rates (% p.a.)</u></b>				
GDP	5.3	3.8	3.6	3.7
Non-oil GDP	6.9	4.0	3.8	4.3
- Agriculture	5.0	3.7	2.5	2.3
- Mining	9.2	6.5	4.0	3.1
- Manufacturing	9.3	4.4	6.3	6.9
- Construction	11.0	0.7	2.2	5.6
- Other services	9.3	4.6	4.3	4.9
National income	..	2.2	-2.5	4.2
Private consumption	..	2.8	3.1	3.6
Fixed investment	13.5	-4.4	-7.0	0.6
- Public	..	-3.2	-15.6	-3.9
- Private	..	-5.8	3.1	5.0
Non-oil exports	10.5	17.1	2.8	24.2
Non-oil imports	13.8	-10.7	-12.4	0.8
<b><u>Ratios (%) /b</u></b>				
Budget balance/GDP	-4.1	-2.9	-4.6	-2.7
Current account/GNP	-7.7	-2.4	-6.2	-3.1
Debt service/exports	16.4	25.4	36.8	34.7
Fixed investment/GDP	25.9	20.8	20.5	19.7
<b><u>Prices</u></b>				
Oil price (US\$/bbl) /b	32.9	25.0	12.5	17.0
Terms of trade (1983/84=100) /b	109.3	93.3	62.6	69.2
Domestic inflation (% p.a.)	13.9	8.4	9.1	9.3

/a Balance of payments data are for fiscal years (starting April 1). Other indicators are for calendar years.

/b For last year of multi-year periods.

Source: Central Bureau of Statistics and World Bank staff estimates.

**The Second Adjustment Period: 1986-87**

1.09 Crude oil prices fell from US\$28/barrel in January 1986 to below US\$10/barrel in August 1986. Although subsequently there has been some recovery, average oil prices for 1987/88 are estimated to have been only about two thirds of their 1985/86 level. As a result, net oil/LNG earnings fell by US\$2 billion over these two years. At the same time, Indonesia's external debt payments rose by about US\$2 billion. As shown in Table 1.2, at least US\$1.5 billion of this increase is due to exchange rate changes. The combined impact of lower oil prices and exchange rate changes accounts for all of the increase in the public debt service ratio since 1985. The total debt service ratio rose sharply from 25% in 1985 to 37% in 1986. Because of the strong performance of exports, this ratio is estimated to have declined somewhat to 35% in 1987.

1.10 Indonesia was well placed to handle these severe shocks because of the series of adjustment measures taken by the Government since 1983. These efforts have been intensified over the past two years. Although the Government's resource position turned out to be better than budgeted in 1987/88, due to higher oil prices and the provision of special external assistance, expenditures

**Table 1.2: IMPACT OF EXTERNAL SHOCKS ON INDONESIA'S PUBLIC DEBT PAYMENTS, 1985-87**

	1985	1986	1987
<b><u>External shocks /a</u></b>			
Exchange rates (Yen per US\$)	238.5	168.5	144.6
Oil prices (US\$/barrel)	25.0	12.5	17.0
<b><u>Public debt payments (US\$ billion) /b</u></b>			
At current exchange rates	3.6	4.4	5.4
At 1985 exchange rates	3.6	3.7	3.9
<b><u>Exports of goods &amp; services (US\$ billion)</u></b>			
At current oil prices	19.9	15.2	19.4
At 1985 oil prices	19.9	21.1	23.6
<b><u>Public debt service ratio (%)</u></b>			
At current exchange rates & oil prices	18.1	28.9	27.8
At 1985 exchange rates & oil prices	18.1	17.5	16.5

/a Annual averages.

/b Excluding debt service on LPG/LNG expansion credits and prepayments.

Source: World Bank staff estimates.

remained tightly restrained (see Table 1.3). Since 1985/86, there has been no increase in civil service salaries and real capital spending has been reduced by 25%. As a result, the overall budget deficit was reduced to 2.7% of GDP in 1987/88. Net domestic expenditure is estimated at 4.0% of GDP in 1987/88, slightly lower than in the previous year and substantially below the 8-12% recorded in the early 1980s. As regards monetary policy, the growth of rupiah liquidity slowed from 33% in 1985 an average of 22% p.a. over the past two years. Following a speculative outflow of private capital in May and early June 1987, the authorities took a number of effective monetary measures to reduce rupiah liquidity and push up domestic interest rates. These measures helped to attract back funds held overseas, and the level of private capital flows has subsequently returned to normal levels. Interbank interest rates declined rapidly thereafter and, with the gradual easing of the liquidity position of commercial banks, reductions in both deposit and (to a smaller extent) lending rates have also occurred. Even so, the real level of unsubsidized lending rates (7-25%) is still very high.

1.11 This cautious approach to fiscal and monetary policy, together with the initial cost-raising reflects of the September 1986 devaluation, have helped to restrain import demand. Although there has been a recovery over the past year, the real level of non oil imports is still 12% lower than in 1985/86. More importantly, domestic inflation has been held to about 9% p.a., thus preserving the competitive advantage provided by the devaluation and improving the profitability of export activities. Recent trade and industrial policy reforms have further improved the environment for non-oil export development. In response, non-oil export earnings are estimated to have soared to US\$9.4 billion in 1987/88, an increase of close to 40% in nominal terms and about 24% in real terms over 1986/87. About two thirds of this increment is contributed by manufactured goods, despite the slower growth of textiles (which accounted for a third of manufactured exports in 1986/87). Exports of "other" manufactured goods more than doubled in value, from US\$0.7 billion in 1986/87 to almost US\$1.5 billion in 1987/88, representing a real growth rate of about 74%. Furthermore, this growth has been achieved across a wide range of products (e.g., paper products, furniture, shoes, batteries), some of which were exported for the first time.

1.12 Because of the strong non-oil export performance and demand restraint on inputs, the Government succeeded in containing the current account deficit to US\$4.2 billion (6.2% of GNP) in 1986/87 and reducing it to an estimated US\$2.0 billion (3.1% of GNP) in 1987/88 (see Table 1.4). The financing of these deficits and higher amortization payments has been eased considerably by the provision of special external assistance, in the form of fast-disbursing program aid and local-cost financing. Disbursements of special assistance totalled about US\$0.5 billion in 1986/87 and US\$1.4 billion in 1987/88. This is a significant amount in the overall balance of payments, financing 12% of total non-oil imports over the past year. As such, special assistance has played a very valuable role in helping the Government push ahead with its trade deregulation measures and in facilitating the recovery of private investment and growth. By the end of 1987/88, Bank Indonesia was able to rebuild its net

**Table 1.3: CENTRAL GOVERNMENT BUDGET, 1982/83-1987/88**  
(Rp. trillion at current prices)

	<u>Actuals</u>			<u>Budget</u>	<u>Estimate</u>
	1982/83	1985/86	1986/87	1987/88	1987/88
<b><u>Revenues and grants</u></b>	<b>12.0</b>	<b>18.6</b>	<b>16.5</b>	<b>17.3</b>	<b>21.7</b>
Oil and LNG taxes	7.6	10.7	6.3	6.9	10.1
Non-oil taxes	3.8	6.3	7.9	9.1	9.5
Non-tax revenues <u>/a</u>	0.4	1.5	2.2	1.2	1.8
Grants	0.1	0.1	0.1	0.1	0.3
<b><u>Current expenditures /b</u></b>	<b>8.2</b>	<b>12.4</b>	<b>13.2</b>	<b>13.0</b>	<b>15.2</b>
External interest	0.7	1.8	2.8	3.4	3.8
Subsidies	1.4	1.1	0.5	0.2	1.2
Other	6.1	9.5	9.9	9.4	10.2
<b><u>Government savings</u></b>	<b>3.7</b>	<b>6.3</b>	<b>3.3</b>	<b>4.3</b>	<b>6.5</b>
<b><u>Capital expenditure</u></b>	<b>6.4</b>	<b>9.0</b>	<b>8.0</b>	<b>6.4</b>	<b>9.7</b>
<b><u>Overall balance</u></b>	<b>-2.7</b>	<b>-2.8</b>	<b>-4.7</b>	<b>-2.0</b>	<b>-3.2</b>
<b>Financed by:</b>					
<b><u>External loans (net)</u></b>	<b>2.1</b>	<b>1.8</b>	<b>3.8</b>	<b>2.0</b>	<b>3.1</b>
Disbursements	2.8	4.4	7.1	5.4	8.0
- Project aid	(2.0)	(3.5)	(4.1)	(4.4)	(5.3)
- Other <u>/c</u>	(0.8)	(0.9)	(3.0)	(1.0)	(2.7)
Amortization	0.7	2.6	3.3	3.4	4.9
<b><u>Asset drawdown /d</u></b>	<b>0.6</b>	<b>0.9</b>	<b>0.9</b>	<b>0.0</b>	<b>0.1</b>
<b>Memo items (% of GDP):</b>					
Revenue and grants	18.3	19.6	16.2	14.7	18.5
Non-oil taxes	5.9	6.6	7.8	7.8	8.1
Government savings	5.7	6.6	3.2	3.7	5.6
Overall balance	-4.1	-2.9	-4.6	-1.7	-2.7
Total expenditure	22.4	22.5	20.8	16.5	21.2
Net domestic expenditure/ <u>e</u>	11.0	8.3	4.1	1.0	4.0

/a Includes domestic oil surplus in 1986/87.

/b Derived from routine expenditure by deducting amortization and adding the fertilizer subsidy, export certificates, defense spending and the recurrent component of development expenditure.

/c Refers to program loans, special local-cost financing and commercial borrowing.

/d Excludes gain from valuation adjustment in 1986/87, estimated at Rp. 1.8 trillion.

/e Defined as the domestic content of expenditure less non-oil revenues.

Source: Ministry of Finance and World Bank staff estimates.

**Table 1.4: BALANCE OF PAYMENTS, 1982/83-1987/88**  
(US\$ billion at current prices)

	<u>Actuals</u>			<u>Estimate</u>
	1982/83	1985/86	1986/87	1987/88
Merchandise exports (fob)	18.6	18.5	13.7	17.9
- Oil & LNG	(14.7)	(12.3)	(7.0)	(8.5)
- Non-oil	(3.9)	(6.2)	(6.7)	(9.4)
Merchandise imports (cif)	-20.6	-14.2	-12.7	-14.1
- Oil & LNG	(-4.8)	(-3.2)	(-2.3)	(-2.5)
- Non-oil	(-15.8)	(11.0)	(-10.4)	(-11.6)
<u>Trade balance</u>	<u>-2.0</u>	<u>4.3</u>	<u>1.0</u>	<u>3.8</u>
Net non-factor services	-1.7	-1.7	-1.5	-1.5
<u>Resource balance</u>	<u>-3.7</u>	<u>2.6</u>	<u>-0.5</u>	<u>2.3</u>
Net factor services & transfers	-3.5	-4.5	-3.7	-4.3
<u>Current account balance</u>	<u>-7.2</u>	<u>-1.9</u>	<u>-4.2</u>	<u>-2.0</u>
of which:				
- Oil & LNG <u>/a</u>	7.2	5.9	2.4	3.7
- Non-oil	-14.4	-7.8	-6.6	-5.7
Net public MLT loans <u>/b</u>	4.0	1.4	2.8	2.4
- Disbursements	(5.1)	(3.9)	(5.4)	(6.3)
- Amortization <u>/c</u>	(-1.1)	(-2.5)	(-2.6)	(-3.9)
Net other capital <u>/d</u>	-0.1	1.4	-1.6	0.8
Use of net foreign assets	3.3	-0.9	3.0	-1.2
<u>Memo items:</u>				
Net official reserves <u>/e</u>	3.0	5.8	5.0	5.6
- Months of imports	(1.7)	(5.5)	(4.3)	(4.4)
Total net foreign assets <u>/f</u>	7.5	12.6	9.6	10.8 <u>/g</u>
Current account/GNP (%)	-7.8	-2.4	-6.2	-3.1

/a Gross earnings from oil/LNG exports less payments for imports and services related to the sector.

/b Includes credits for LNG expansion, LPG and paraxylene projects.

/c Includes prepayments of US\$420 million in 1985/86 and US\$626 million in 1987/88 (to be completed by June 1988).

/d Includes direct foreign investment, oil/LNG exports credits, all private capital flows, valuation adjustments, and errors and omissions.

/e Net of outstanding drawings from IMF's Buffer Stock and Compensatory Financing Facilities.

/f Of the banking system (Bank Indonesia and commercial banks).

/g Excludes US\$326 million of prepayments to be completed by June 1988.

Source: Bank Indonesia and World Bank staff estimates.

official reserves to US\$5.6 billion, equivalent to 4.4 months of imports. This relatively high level of reserves is considered appropriate, given Indonesia's open capital account and the need to ride out occasional episodes of speculation.

1.13 Disbursements of project aid, primarily from the IGGI, rose to an estimated US\$2.2 billion in 1987/88, 21% higher than in 1986/87 and 46% higher than in 1985/86. Disbursement levels have risen for all of the major donors (e.g., the World Bank, ADB, OECF). Part of this increase is due to exchange rate changes. However, there has also been a noticeable improvement in project implementation over the past two years. This positive trend reflects the high-level attention given to implementation problems by the Government of Indonesia. In July 1986, an interdepartmental committee for the monitoring and improvement of implementation was established under the chairmanship of the State Minister for Administrative Reform. Among the contributions of this committee was a drastic overhaul and simplification of procedures for the administration of foreign assistance, which became effective in March 1987. More recently, in March 1988, the Government announced the decentralization of procurement procedures for contracts valued up to Rp. 3 billion (larger contracts will be subject to the approval of the Coordinating Minister for Economic, Financial and Industrial Affairs). This change is intended to speed up and simplify procurement procedures, with supervision provided through post audits by the Government Audit Agency (BPKP). Other steps have been taken to improve land acquisition and budgeting procedures. An all-out effort will be required to sustain and improve implementation performance in the coming year (see Chapter 6). Attention will also have to be given to improving the capacity and efficiency of the local construction industry, to enable it to play a larger role in project implementation. But, the challenges ahead should not distract from what has already been achieved and the positive contribution that these efforts have made to Indonesia's development.

1.14 The Government's balanced adjustment program has also helped to sustain a better-than-expected rate of economic growth, despite the loss of oil revenues. Total GDP grew on average by 3.7% p.a. in 1986 and 1987. Most of this growth came from the non-oil economy. Within the non-oil economy, a decline in the growth rates of the agriculture and mining sectors was more than offset by improvements in the performance of the manufacturing, construction and service sectors. Overall performance was buoyed by the strong growth of non-oil exports, while restraining factors were the drought in 1987 and cuts in government spending. The combination of GDP growth and an improvement in Indonesia's terms of trade helped to support a real increase in national income of 4.2% in 1987, as compared to a decline of 2.5% in 1986. There were also encouraging signs of a recovery in private investment, by both domestic and foreign joint-venture investors, in response to better market conditions and improvements in the regulatory environment. In the manufacturing sector, this revival in investment seems to be broad-based, cutting across all industries and firm-size classes. A noteworthy element is the increase in investment for export activities.

#### D. Impact on Employment

1.15 Over the past five years, the non-oil economy has grown on average by about 4% p.a. While this is a better performance than originally anticipated, given the adverse impact of low oil prices, it is significantly below the rapid pace of growth achieved in the 1970s. This slowdown in growth has led to legitimate concerns about the impact on employment. The analysis presented below shows that employment kept pace with labor force growth during the 1980-85 period, due to strong labor absorption in agriculture and the expansion of low wage employment in the rural non-farm and urban informal sectors. As a result, Indonesia did not face a major labor market disequilibrium, in terms of aggregate unemployment. However, there are worrying signs of open unemployment in urban areas (over 5% in 1985), especially among educated youths. More fundamentally, Indonesia's employment problem is primarily one of low productivity and low labor earnings, rather than excess supply. The large concentration of the work force in low productivity and low earnings activities, especially in trade and transport, is a matter of serious concern. There are indications that labor earnings in the informal sector have been adversely affected by the recent slowdown in agricultural growth and the sharp cuts in government spending. These aspects of the employment problem reinforce the importance of improving the quality of education and training programs, and of finding new sources of growth, such as from non-oil exports, over the medium term.

#### Recent Labor Market Trends

1.16 Labor force growth declined from 3.0% p.a. during 1971-80 to 2.6% p.a. in 1980-85, primarily due to lower population growth rates and the expansion of schooling (outweighing the overall impact of increased female labor force participation rates at prime age).<sup>1</sup> The differential in the rate of growth of labor force between Java and the Outer Islands widened in the first part of the 1980s; transmigration programs, induced labor migration to new settlement areas outside Java, and a general increase in labor mobility as a consequence of improvements in infrastructure, have all contributed to the redistribution of the work force from Java to the Outer Islands. A rapid expansion in the flow and stock of educated manpower has also occurred. The proportion of the labor force that had not completed primary schooling declined from 67% in 1980 to about 50% by 1985, and the most rapid rate of growth in the labor force was registered among upper secondary graduates. The expansion of schooling can be expected to have a positive impact on labor productivity over the longer term, although the weak quality of education and training remains a major concern.

1.17 Trends in employment growth and the employment elasticity of demand are summarized in Tables 1.5 and 1.6. During the 1970s, output and employment expanded rapidly. The subsequent slowdown of economic activity was accompanied

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<sup>1</sup> The SUPAS data show a labor force growth rate of 3.9% p.a. for the 1980-85 period. These data were adjusted for implausibly high labor force participation rates recorded in 1985. Other researchers have derived an adjusted labor force growth rate of 2.9% p.a.

**Table 1.5: EMPLOYMENT GROWTH BY MAJOR SECTOR OF ACTIVITY IN JAVA, OUTER ISLANDS AND INDONESIA, 1971-85 /a**

Sector	Employment growth rate (% p.a.)		Share of employment growth (%)	
	1971-80	1980-85	1971-80	1980-85
<b>Java</b>				
Agriculture	0.69	0.91	14	24
Manufacturing	4.61	2.62	17	15
Trade/transport	4.45	4.76	28	49
Construction	8.91	3.02	9	6
Other services	6.01	0.78	32	6
Total /b	2.76	1.93	100	100
Total ('000) /b			6,521	3,308
<b>Outer Islands</b>				
Agriculture	2.18	3.11	43	61
Manufacturing	5.47	3.30	9	6
Trade/transport	6.59	5.86	19	21
Construction	7.89	3.55	5	3
Other services	7.34	2.42	24	9
Total /b	3.56	3.35	100	100
Total ('000) /b			4,685	3,378
<b>Indonesia</b>				
Agriculture	1.30	1.88	26	43
Manufacturing	4.81	2.78	14	10
Trade/transport	4.97	5.05	24	35
Construction	8.60	3.18	7	4
Other services	8.60	3.18	29	4
Total /b	3.04	2.46	100	100
Total ('000) /b			11,206	6,686

/a Employment data for 1985 were adjusted to reflect the adjustment of the labor force data.

/b Total includes oil, other mining and public utilities. "Not stated" item reallocated on a prorata basis.

Source: Central Bureau of Statistics, SUPAS 1985.

**Table 1.6: IMPLIED EMPLOYMENT ELASTICITIES FOR INDONESIA, 1971-85**

	GDP growth rates (% p.a. at constant prices)		Employment elasticities	
	1971-80	1980-85	1971-80	1980-85
Agriculture	3.76	3.12	0.35	0.60
Manufacturing	13.85	6.38	0.35	0.44
Trade/transport	8.61	4.57	0.58	1.10
Construction	14.65	3.31	0.59	0.96
Government and other personal services	9.39	8.31	0.69	0.15
<u>Total non-oil /a</u>	<u>7.86</u>	<u>5.03</u>	<u>0.38</u>	<u>0.49</u>

/a Includes public utilities and rental incomes.

Source: Central Bureau of Statistics and World Bank staff estimates.

by important changes in the pattern of labor absorption. In contrast to the broad-based pattern of employment growth during the 1970s, the impetus for employment creation during the first half of this decade came more narrowly from agriculture, trade and transport. Real agricultural growth continued to remain strong, with rice and non-food farm activities (excluding forestry) growing relatively faster than other food crops, and with a rapid expansion of tree crops outside Java. This directly improved the labor absorptive capacity of agriculture (despite some tendency towards mechanization in rice) and also supported the growth of off-farm employment (in agro-industries, trade and transport). On the other hand, the reduction in real government expenditure, due to declining oil revenues, contributed to a sharp fall in employment growth in government services and construction. Manufacturing employment growth also decelerated, although not as sharply. These trends were offset by rapid employment growth in the urban and rural informal sectors (trade and transport), albeit at reduced levels of productivity and earnings. On the whole, employment per unit of output grew faster in 1980-85 compared to 1971-80, containing the adverse impact of a slowdown in economic growth on open unemployment.

1.18 The deceleration of economic activity has resulted in slower growth of earnings and real wages, particularly in the construction and trade sectors (see Table 1.7). Real wages in construction would have declined further without active government policies to protect labor-intensive construction activities. The relatively strong growth and changes in product composition allowed a rapid absorption of labor in agriculture without substantially depressing real wages. Only in manufacturing does there appear to have been any significant increase in real wages since 1982.

**Table 1.7: INDICES OF LABOR EARNINGS, 1976-86**

	Real wages (1983=100)			Labor productivity
	Agriculture (hoeing)	Rural construction (carpenter)	Manufacturing	(Rp. '000/worker) /a Trade
1977	100.0	100.0	100.0	..
1980	102.2	118.8	110.0	1,530
1982	123.6	137.6	120.0	..
1984	116.6	129.2	131.0	..
1986	124.5	134.8	..	1,258 /b

/a At 1983 prices.

/b Figure refers to 1985.

Source: Central Bureau of Statistics; Center for Agro Economic Research; and World Bank staff estimates.

### Indonesia's Employment Problem

1.19 Overall, in terms of conventional measures of labor market disequilibrium -- rate of open unemployment and underemployment -- Indonesia does not appear to face a major excess labor supply. Observed open unemployment for the country as a whole has increased only marginally (from 1.7% in 1980 to 2.1% in 1985), although much higher rates are found in the urban formal sector. Judging from data on hours worked alone, underemployment would appear to be a major problem in Indonesia, especially in rural areas. About half of those employed (48% of the rural work force and 55% of agriculture workers) were recorded as working less than 35 hours a week in 1985, as compared with 41% reported as underemployed according to the same criteria in 1980. But these figures considerably overstate the true extent of underemployment in terms of willingness to work longer hours. For example, in the 1982 SUSENAS survey, only 16% of those working less than 35 hours a week in rural areas indicated that they would be available for extra work. This much lower underemployment level is supported by data on the age-sex distribution for hours worked in 1985 which indicate that females in childbearing and rearing ages working relatively few hours (10-24), and young males at school ages (15-19) predominated among the recorded rural underemployment. /1

/1 A detailed analysis of the underemployment issue is contained in Robert L. Rucker, A Preliminary View of Indonesia's Employment Problem and Some Options for Solving It (USAID, Jakarta, October 1985).

1.20 The low observed rates of open unemployment are a reflection of Indonesia's employment structure. The 1985 SUPAS data show that 63% of total employment was located in Java; more than half of all employment is in agriculture and over 70% in rural areas. Employment outside agriculture is concentrated in services, with manufacturing accounting for only 20% of non-agricultural employment. Outside government services, low and unstable earnings in informal sector activities predominate in urban areas. The considerable flexibility of rural labor markets and urban informal labor markets allows a rapid expansion of employment during periods of low economic growth, but at reduced real earnings. A major development challenge for Indonesia is to find high return work for both new entrants to the labor force and those currently employed in low earnings activities. This will require a substantial expansion of employment in the formal sector, especially in manufacturing. Equally important is the need to increase real incomes of those who will continue to be employed in the informal sector.

1.21 Labor markets in the urban formal sector are less flexible. Consequently, measured open unemployment is significant in urban areas, reaching 5% in 1985. Moreover, there are several disquieting signs in the structure of urban unemployment. First, as in the mid-1970s, urban unemployment remains high for younger ages and among secondary school graduates. Second, the incidence of unemployment has increased noticeably for the age group 20-24 (19% in 1985) and among upper secondary school leavers (13% in 1985). Finally, tertiary level unemployment has also begun to emerge as an important concern, especially among females (11% in 1985). These trends appear to have intensified since 1985. The growing urban open unemployment, especially among high school graduates, raises important issues about the quality of the labor force. A strong effort will be needed to improve the quality and work relevance of education and training programs in Indonesia.

## CHAPTER 2

### A FRAMEWORK FOR ECONOMIC RECOVERY AND GROWTH

#### A. Introduction

2.01 As reviewed in Chapter 1, the Government's adjustment program has helped to reduce external and domestic imbalances, while also sustaining a better-than-expected rate of economic growth. Given the severity of the external shocks, it was clear from the start that the adjustment process would take several years to complete. During this transition period, special external assistance has been required to cover the financing gaps in the balance of payments and the Budget. This combination of government policies and external support has prevented economic disruption and laid the foundations for economic recovery and growth over the medium term. The key development issues and policy priorities which are likely to shape the future course of the Indonesian economy are summarized below in Section B. This is followed in Section C by a discussion of medium-term prospects, based on a set of illustrative macroeconomic projections. Subsequent chapters then provide a more detailed review of policy options in the key areas of: (a) mobilizing foreign exchange and public resources; (b) policies for structural change; (c) environment and natural resource management; and (d) public expenditure priorities.

#### B. Development Strategy and Policy Priorities

##### Restoring Stability

2.02 Continued progress on adjustment will be required over the next couple of years. Given the uncertain market prospects for oil and the large overhang of external debt, it is necessary to reduce further the current account deficit and to ensure that future external shocks can be handled without undue disruption to the domestic economy. As in the recent past, part of this adjustment will come from efforts to increase non-oil exports and non-oil taxes. In addition, there will be a need for continued caution in macroeconomic management. The key elements of the macroeconomic program are: (a) tight expenditure management to reduce the budget deficit; (b) careful scrutiny of the public investment program to maximize returns from limited resources; (c) monetary policies to restrain aggregate demand and curb inflationary pressures; and (d) timely steps to ensure that the competitive gains from the real exchange rate adjustment are preserved.

2.03 The Budget for 1988/89, as reviewed in Annex 1, reflects the Government's commitment to continue with the fiscal restraint and spending priorities followed over the past two years. Recognizing the uncertainties in

the oil market, the Budget has assumed an average oil price of US\$16/barrel, US\$1 lower than realized in 1987/88. For the third year in a row, the Government has decided to freeze civil service salaries and real capital spending is projected to fall. Because of this expenditure restraint, and much higher reliance on domestic revenues, net domestic expenditures are expected to fall to about 1% of GDP, compared to 4% of GDP in 1987/88. This trend demonstrates the austere stance of the Budget. If complementary measures are taken to improve the financial position of public enterprises, it should be possible to reduce credit growth to the public sector. This would enable the banking system to support an expansion of private sector activity within an appropriate and conservative monetary policy.

2.04 During this period of adjustment, Indonesia will continue to depend upon special external assistance, in the form of fast-disbursing program aid and local cost-financing, to cover the financing gaps in the balance of payments and the Budget. The projections presented below suggest that the requirements for special assistance will total US\$2.4 billion in 1988/89 and US\$1.5 billion in 1989/90. With this support, Indonesia will be able to finance the imports and investments required to boost growth in the non-oil economy to 5% p.a. by the end of this decade. At the same time, the provision of special assistance has to be seen as a temporary expedient, matched by the Government's own efforts to improve non-oil export performance and public resource mobilization. As the external and domestic financing gaps are narrowed, special assistance can and should be phased out. During the 1990s, there will be greater scope for commercial borrowing, while the role of external assistance will again focus on financing development projects, in both the public and private sectors.

#### Preparing for Medium-term Growth

2.05 For the 1990s, the foremost challenge facing Indonesia is to generate a pattern and pace of economic growth that will provide income and employment opportunities to a rapidly expanding labor force. So far, despite the slowdown in economic growth, the employment situation has not worsened markedly, because of the steady performance of agriculture and the expansion of low wage employment in the rural non-farm and urban informal sectors. But over the medium term, a continuation of the recent growth trend for the non-oil economy (3-4% p.a.) would lead to a severe decline in average labor earnings. Open unemployment could also reach threatening proportions in urban areas, especially among educated youths. Hence the importance of restoring growth of the non-oil economy to 5-6% p.a. during the 1990s. Given the flexibility of the labor market, the policies for growth and employment are largely complementary. For example, non-oil export development will support growth and lead to a more labor-intensive pattern of production. Similarly, policies aimed at encouraging an efficient and more diversified growth of agriculture are essential to provide better income opportunities to farmers and support the development of rural off-farm employment. Targeted measures will be needed, however, to improve labor absorption in the services sector, boost employment prospects in the Outer Islands and improve the quality of the labor force. Of particular importance in this regard are the Government's programs for funding O&M, developing rural

infrastructure and improving the quality of education, and programs geared to reducing fertility and improving family health. The Government also has to ensure that its policies do not unintentionally discourage employment (e.g., by hindering informal activities or subsidizing farm mechanization).

2.06 Recovery in economic growth is one of Indonesia's primary development goals for the medium term. Yet, to be sustainable, this growth will have to be achieved with due regard for the environment and natural resource base of the country. As in the past, the major portion of economic activity in Indonesia will continue to be linked directly to the development and primary processing of natural resources. Indonesia is fortunate to have a vast and diverse natural resource base to support a growth-oriented development strategy. In addition, many of the Government's policies for efficient economic growth and reduced population growth will also have favorable impacts on the environment and natural resource management. Even so, economic growth will put pressure on the Outer Island's forest resources and intensify demands for the limited resources, especially water, on Java. Industrial and energy development will also add to water and air pollution, unless appropriate preventive measures are taken. For these reasons, continued improvements in standards of living will depend crucially on sound environmental management. Furthermore, environmental problems are inextricably linked to population pressures and poverty. These interrelationships need to be addressed in an integrated manner. The primary goal becomes sustainable development: i.e., to maximize the next benefits from existing resources (human, natural and produced capital), while maintaining the services and quality of these resources over time. Steps taken now at relatively low expense can reduce environmental problems and their adverse social impact, and provide a sound basis for future development.

2.07 Another critical constraint on the pace of economic growth is the availability of foreign exchange. Import demand will rise with higher production, incomes and investment, as well as in response to the ongoing program of trade policy reforms. At the same time, oil/LNG exports are not going to generate as much foreign exchange as in past years. Hence, the central role of non-oil exports in the Government's development strategy. There are already encouraging signs that non-oil exports are responding to the devaluation of 1986 and the subsequent trade and industrial policy reforms. Non-oil export growth has been strong over the past year and there is now a much more diversified export base. The projections presented below suggest that non-oil export earnings will have to more than double over the next seven years, reaching US\$20 billion by 1994/95. This represents a real growth rate of 11% p.a. during the next two years and 6-7% p.a. over the medium term. Achievement of these growth rates will require substantial investment in new export capacity. Export-oriented investment rose sharply in 1987 and this trend can be expected to continue, provided: (a) export incentives are maintained; (b) further progress is made on removing trade barriers and simplifying domestic regulations; (c) the financial sector is able to respond to the needs of exporters for credit and equity; (d) appropriate institutional support is developed to ease access to export markets; and (e) management of resource leases for industries such as plywood is improved to ensure a sustainable supply of raw material.

2.08 Given the declining role of oil revenues, major structural changes will be required to generate employment and export earnings from the non-oil economy. Of particular importance is the development of an efficient and dynamic industrial sector. Recent trade and industrial policy reforms have helped to improve incentives for industrial restructuring and new investment in export-oriented activities. The Government is committed to sustain and extend this deregulation drive. For trade policy, this means continuing to reduce the coverage of import licensing restrictions, quotas and bans, and rationalizing the import tariff structure. These measures will provide a clear signal to domestic producers that both the level and variance of protection will be reduced over the medium term. At the same time, follow-up actions are anticipated to simplify domestic regulations further and to reduce the scope of industrial licensing. In the first instance, this will mean proper implementation of recent policy changes (e.g., on broad banding). The deregulation drive can also be extended by: (a) opening additional areas to domestic and foreign private investment; and (b) streamlining and making license approval and other procedures more automatic.

2.09 The ability of business enterprises to respond to the ongoing program of trade and industrial policy reforms, and to support the non-oil export drive, will depend critically upon complementary development of the financial sector. While recent financial sector reforms have led to rapid deposit growth, they have been less successful in improving the availability and cost of long-term investment funds. This is especially important for the small-scale and export sectors, where the absence of established track records in production and marketing often constrains access to institutional credit. In addition, a significant portion of the corporate sector is undergoing financial distress as a result of cost pressures and the adverse domestic market conditions over the past few years. The ability of manufacturing firms to grow in the future, therefore, will rest not only on physical restructuring to reorient production toward export markets, but also on financial restructuring to generate sufficient funds to undertake the required investment. In turn, the ability of the financial sector to meet these funding needs will be determined by actions to improve the efficiency of the banking system and develop capital markets. The longer-term objective should be the creation of an efficient financial market providing potentially profitable enterprises access to required risk and debt capital, supported by strong accounting, information and audit systems.

2.10 Although private investment is already beginning to rise, the Government's program of fiscal austerity will constrain public investment in the near term. The capacity of the Government to support investment and economic growth over the medium term will depend on efforts to improve public resource mobilization. Recent tax reforms have helped to increase non-oil taxes from 6.3% of GDP in 1983/84 to 8.6% in 1987/88. However, the non-oil tax effort is still significantly below those in comparable Asian countries. With continued progress in improving tax administration, it should be possible to increase non-oil tax revenues to 12% of GDP by the mid-1990s. In addition, a broader effort to improve the finances of public enterprises and achieve greater cost recovery from public services is needed. Greater cost recovery will not only induce more efficient use, but will also improve the quality of service, by helping to

finance better O&M practices. Cost recovery can take the form of tariff adjustments (e.g., for electricity and fuels), reduced subsidies (e.g., for pesticides and fertilizer) and user fees (e.g., for irrigation, transport and social services). To facilitate public acceptance and compliance, it is important that cost recovery be associated with improved services, that account be taken of other fees already paid by beneficiaries, and that provision be made to protect poorer groups in society.

2.11 Finally, progress on public resource mobilization will have to be matched by a careful review of public expenditure priorities. Particular attention has to be given to efficient operation and maintenance (O&M) of public infrastructure. Otherwise, the productivity of this infrastructure and the quality of public services would decline. For the public investment program, sectoral strategies will need to reflect Indonesia's broad development objectives and priorities. As noted above, these include: (a) generating employment and incomes; (b) promoting non-oil exports; (c) developing human resources; and (d) improving environmental management. The recent focus of development spending on agricultural development, electricity and transport infrastructure, and human resource development programs in education and health is clearly consistent with these objectives. In the short term, continued priority should be given to completing ongoing projects. As the resource position improves, it will be possible to finance an expanded public investment program. However, in all areas, the Government intends to review its role in investment activity during REPELITA V, bearing in mind the potential contribution of the private sector and the scope for improving project implementation capacity.

### C. Medium-term Prospects

#### The External Environment

2.12 A major objective of the Government's adjustment program has been to improve the economy's capacity to better withstand external shocks. Even so, Indonesia's economic fortunes remain strongly linked to conditions in the world economy, particularly the oil market. The medium-term prospects are also affected by expected trends in other commodity prices, world trade, interest rates and exchange rates. Table 2.1 summarizes the key external assumptions underlying the results of the macroeconomic projections presented in this section.

2.13 The sharp worldwide slump in stock markets in October 1987 was a reflection of the turmoil in the world economy that had been building up for several years. The impact of this on business confidence and the implications for world economic growth will critically depend on appropriate policy responses by governments. In the near term, economic growth in OECD countries is expected to be adversely affected. This would constrain the export prospects of developing countries, worsening their already acute external payments problem. Over the medium term, with concerted efforts by the world's leading economies to

counter the damaging effects of persistently large internal and external imbalances, some revival in real growth (at around 3% p.a.) should be possible. This in turn will support the effort of developing countries to increase their export revenues. With adequate progress on restraining the large fiscal deficits, especially in the United States, a reduction in real interest rates could also be achieved which will help lower the burden of external debt payments.

2.14 Following the 1986 collapse, oil prices rebounded to US\$17-18/barrel in 1987, partly due to OPEC's ability to restrain production to 17.7 mbd (3% below its 1986 average). There are some indications that enforcement of quotas may be difficult in the immediate future, due to the ongoing Gulf War and budgetary difficulties in Saudi Arabia, the world's largest oil exporting country. The average oil price is therefore expected to fall back to US\$16/barrel during 1988 and remain at this level in nominal terms through the end of the decade. With the revival of world economic activity and as non-OPEC oil producing countries

**Table 2.1: SELECTED INDICATORS OF INTERNATIONAL ECONOMIC ACTIVITY, 1987-2000**

	Est. 1987	Projected					Growth rate (% p.a.)		
		1988	1989	1990	1995	2000	1987- 1990	1990- 1995	1995- 2000
<b><u>Economic activity</u></b>									
OECD growth (% p.a.)	2.6	2.4	1.3	1.6	2.7	3.0	1.8	2.7	3.0
<b><u>Price indices (1985=100)</u></b>									
<b>Commodity prices in constant dollars <u>/a</u></b>									
Manufacturing unit values in current dollars <u>/b</u>	77.0	78.6	74.6	77.3	91.7	89.2	0.3	3.3	-0.6
Oil prices (US\$/bbl)	130.8	135.0	139.3	143.7	175.4	214.1	3.2	4.1	4.1
In 1985 dollars	13.2	11.9	11.5	11.1	16.0	18.7	-1.8	5.1	3.2
In current dollars	17.2	16.0	16.0	16.0	28.1	40.0	-2.4	11.9	7.3
<b><u>Interest rates (%)</u></b>									
LIBOR <u>/c</u>	7.2	8.5	8.5	8.1	7.6	8.1			
Real interest rate <u>/d</u>	3.9	3.3	2.8	2.0	2.5	2.5			

/a Nominal price index for 33 commodities (excluding energy) deflated by the World Bank's manufacturing unit value (MUV) index.

/b The trend has been smoothed for the 1987-90 and 1990-2000 periods.

/c Six-month London Interbank Offered Rate.

/d LIBOR deflated by the change in the US GNP deflator.

Source: World Bank staff estimates.

reach their production capacities, the demand for OPEC oil will expand allowing some recovery in oil prices during the 1990-95 period. Even so, the average oil price is projected to reach only US\$28/barrel by 1995; in real terms, this is less than half of the peak levels achieved in the early 1980s. Beyond 1995, the current indications are that oil prices will increase by 3% p.a. in real dollar terms, fueled by growing world demand and a larger dependence on OPEC supply.

2.15 The implications of the projected trends in oil and commodity prices for Indonesia's term of trade are summarized in Table 2.2. The market for rubber is expected to remain flat until 1990, but timber and coffee prices are expected to improve. Overall, the commodity price index will be higher in 1990, as compared with 1987. Indonesian manufactured exports will also benefit from the projected increases in the world prices of manufactured goods. These trends will help offset the impact of low oil prices on Indonesia's terms of trade over the next couple of years. During the 1990s, the prices of both commodity and manufactured goods will revive, aided by a more buoyant world demand. Given the oil price outlook, Indonesia can expect a welcome increase in its terms of trade in the longer term. However, even by the year 2000, the terms of trade will still be lower than the early 1980s.

**Table 2.2: INDONESIA'S TERMS OF TRADE, 1982/83-2000/01 <sup>/a</sup>**  
(1983/84=100)

	1982/83	1987/88	1988/89	1989/90	1990/91	1995/96	2000/01
<b>Export price index</b>							
Total exports	110.0	81.4	82.8	85.3	88.3	136.5	186.7
Non-oil exports	96.8	112.4	117.5	122.1	129.5	171.1	209.5
<b>Import price index</b>							
Total imports	100.6	117.5	121.5	125.4	129.6	159.2	193.4
Non-oil imports	100.3	116.5	120.6	124.5	128.8	158.8	192.9
<b>Terms of trade index</b>							
Total	109.3	69.2	68.1	68.0	68.2	85.8	96.5
Non-oil	96.5	96.5	97.4	98.0	100.5	107.7	108.6

<sup>/a</sup> The terms of trade index is calculated as the ratio between export and import prices for goods and non-factor services.

Source: World Bank staff estimates.

**The Employment Challenge**

2.16 Growth in the labor force is determined by the expansion in the population, changes in the age structure, and participation rates. As noted, population growth in Indonesia has slowed over the past 15 years, reflecting the spread of family planning, growth in incomes and increased education. This trend is expected to continue in the future, with the pace of population expansion declining to 1.8% p.a in the early 1990s and to 1.6% p.a. in 1995-2000 (see Table 2.3). Regarding participation rates, the projections assume an increase in the prime age group in line with past trends, but a decline in participation at young ages (10-19 years) due to expanded schooling. The migration levels have been adjusted downward because of slower expected rates of migration from Java and Bali.

2.17 Based on these assumptions, the total labor force is projected to increase by 2.3% p.a. over the 1990-95 period, falling to 2.2% p.a. in 1995-2000. The labor force in the Outer Islands will grow faster than in Java, reflecting continued net migration, a higher rate of population growth and a younger age structure. Similarly, the work force in the urban areas will expand at a higher pace than in the rural areas, partly due to net migration but also due to an increase in labor participation rates. By far the largest proportional increment in the labor force will consist of young, upper secondary school graduates residing in urban areas.

**Table 2.3: POPULATION AND LABOR FORCE GROWTH RATES, 1985-2000**

	<u>Growth rate (% p.a)</u>			<u>Numbers (million)</u>		
	1985-90	1990-95	1995-2000	1985	1990	2000
<b>A. Overall</b>						
Population	2.0	1.8	1.6	164	181	214
Population 10+	2.5	2.2	1.8	120	136	168
Labor force	2.3	2.3	2.2	60	67	83
<b>B. Labor force by location</b>						
Java	1.8	1.7				
- Rural	(0.7)	(0.6)				
- Urban	(4.5)	(4.1)				
Outer Island	5.9	2.8				
- Rural	(3.0)	(2.2)				
- Urban	(2.4)	(2.8)				

Source: NUDS Project and World Bank staff estimates.

2.18 These projections imply that, during the 1990s, Indonesia will need to find productive employment for an additional 1.7 million workers every year. At the same time, Indonesia will need to improve the earning prospects for existing workers and address the urban unemployment problem. A continuation of the 1982-87 real growth trend would lead to a severe decline in average labor earnings, as too many workers compete with each other to share limited total incomes. Open unemployment could also reach threatening proportions in urban areas, especially among urban educated youths, as the capacity of the organized sector to absorb skilled manpower becomes constrained due to lack of resources.

2.19 All of these factors suggest that employment creation and improvements in the quality of the labor force must be central concerns of Indonesia's development strategy. Future employment prospects are closely tied to the pace and pattern of economic growth. The non-oil economy needs to grow by 5-6% p.a. during the 1990s to absorb the labor force at rising levels of productivity and income. While a strong agricultural sector will be essential to absorb a large proportion of the incremental labor force, the manufacturing sector would need to play a dynamic role in absorbing a much larger proportion of new employment than in the past. This underlines the importance of the expansion of manufactured exports, which would provide the basis for such growth. Within agriculture, food crops can be expected to absorb only limited amounts of additional labor, so that the expansion of non-food activities, especially on the Outer Islands, would be needed to expand agricultural employment and incomes. A higher overall rate of growth of output and investment would also permit a higher rate of employment growth in construction and higher earnings in services employment, especially in the informal sector, than in the 1980s.

2.20 In addition to the expansion of productive employment opportunities, a critical task facing Indonesia is to improve the quality of the labor force. Without such improvements, Indonesia will find it difficult to compete effectively in world markets, and develop a sophisticated and diversified industrial base. Improvements in productivity also provide the best means for sustainable increases in real earnings. A strategy to improve the quality of the labor force, by enhancing the quality of education and training, is discussed in Chapter 6.

### Economic Recovery and Growth

2.21 The non-oil economy needs to grow by 5-6% p.a. during the 1990s to absorb the labor force at rising levels of productivity and income. This target is built into the GDP projections summarized in Table 2.4. However, as already noted, the pace of economic recovery will be constrained in the short term by impact of low oil prices and the burden of external debt on Indonesia's balance of payments and budgetary position. Accordingly, the growth of the non-oil economy is projected to average 4.5% p.a. over the next two years. For the longer term, the contribution of the oil sector will also decline, with falling crude production projected from the early 1990s. These factors reduce the average growth rate of total GDP to 4.1% p.a. in 1987-89 and 4.9% p.a. over the next decade.

**Table 2.4: GROWTH AND COMPOSITION OF GDP, 1987-2000**

	Growth rates (% p.a.)			Share in GDP (%)	
	Estimate 1982-87	Projected 1987-89	Projected 1989-2000	Estimate 1987	Projected 2000
<b>Oil/LNG sectors</b>	<b>2.7</b>	<b>2.2</b>	<b>-0.9</b>	<b>20.2</b>	<b>10.5</b>
Crude oil & gas	1.3	1.7	-1.3	16.4	8.1
LNG & refined oil	11.0	4.7	0.4	3.8	2.4
<b>Non-oil sectors</b>	<b>4.0</b>	<b>4.5</b>	<b>5.9</b>	<b>79.8</b>	<b>89.5</b>
Agriculture	3.1	2.7	3.5	23.7	19.9
Mining	5.3	3.5	7.8	0.9	1.3
Manufacturing	5.3	7.0	8.8	9.1	14.4
Construction	2.0	5.0	6.3	5.7	6.7
Other services	4.6	4.8	6.3	40.4	47.2
<b>Total GDP</b>	<b>3.8</b>	<b>4.1</b>	<b>4.9</b>	<b>100.0</b>	<b>100.0</b>

Source: World Bank staff estimates.

2.22 At the sectoral level, agriculture's contribution to GDP is expected to decline steadily during the 1990s. Yet, because of the importance of the agricultural sector in the Indonesian economy, it will continue to play a central role in sustaining economic growth and absorbing labor over the medium term. Although the food crop subsector, especially rice, will continue to be the main source of output and employment, non-food activities will need to provide the bulk of additional employment in agriculture over the medium term. As shown in Table 2.5, a medium-term agricultural growth rate of 3.5% p.a. will support direct employment creation of over 0.6 million p.a. at higher levels of productivity. As discussed at length in last year's Economic Report, agricultural development needs to be supported by policies that encourage farmers to raise their productivity and diversify their production within an efficient cropping system. This involves bringing the pattern of input and output prices more closely in line with world prices, improving rural infrastructure, providing more responsive research and extension services, and reducing regulatory restrictions.

2.23 The manufacturing sector will need to become an increasingly important source of economic growth and employment generation over the medium term. In the past, the manufacturing sector's employment impact was constrained by the excessive dependence on relatively capital-intensive, import substituting and domestic demand based activities. For the future, the most promising route for employment expansion in the manufacturing sector is to enhance profitability in export industries, since these industries are relatively labor intensive and have the best prospects for market growth. The projected acceleration of the

**Table 2.5: PROJECTED EXPANSION OF EMPLOYMENT, 1990-2000**

	Annual increment (million)	Growth rate (% p.a.)		Share of employment(%)	
		Value added	Employment	1985	2000
<b>Agriculture</b>	0.55	3.5	1.5	55	48
- Food	(0.07)	(2.3)	(0.2)	(44)	(32)
- Others	(0.48)	(5.0)	(4.7)	(11)	(16)
<b>Manufacturing</b>	0.46	9.0	5.4	9	14
- Exports	(0.34)				
- Others	(0.12)				
<b>Construction</b>	0.21	6.3	6.3	4	6
<b>Services</b>	0.44	6.2	1.8	32	32
<b>Total non-agri</b>	<b>1.65</b>	<b>6.0</b>	<b>2.3</b>	<b>100</b>	<b>100</b>

Source: World Bank staff estimates.

sector's real growth to 8-9% p.a. in the 1990s assumes that an appropriate policy framework will be put in place to boost manufactured exports. Key elements of this framework are maintenance of a competitive exchange rate and continued progress on trade and industrial deregulation, designed to reduce the domestic cost of production. As described in Chapter 1, the Government has already demonstrated its commitment to moving in this direction. At the same time, measures will be needed to improve the availability and affordability of industrial finance. This is especially true for small-scale and exporting firms, where the absence of established track records in production and marketing often constrains access to institutional credit. With appropriate support, these firms can make a significant contribution to employment generation over the medium term. Overall, the strong growth projected for the manufacturing sector will create an estimated 0.4-0.5 million jobs p.a. during the 1990s.

2.24 The construction and services sectors are also projected to grow rapidly in the 1990s. Infrastructure based services, such as electricity and transport, will need to expand through appropriate levels of investment, as well as by better O&M practices, pricing and deregulation policies. An adequate supply of these services will be needed to avoid bottlenecks that would stifle the progress of the commodity producing sectors. The efficiency of transport services is also important, to reduce the domestic cost of production of industrial and agricultural products. Construction and other services will benefit from the general revival of investment and real growth in the economy. Tourism is also expected to continue expanding rapidly, in response to recent government deregulation measures. The projected expansion of the services sector will be an important source of labor absorption and improved labor productivity. In conjunction with more specific policies, such as labor-

intensive public expenditure programs and a supportive attitude towards informal sector activities, the services sector can substantially enhance earnings for workers currently engaged in low-wage activities, while providing additional productive employment of 0.5-0.6 million p.a. in the 1990s.

2.25 As already noted, the contribution of the oil sector to the Indonesian economy is projected to gradually decline in the years ahead. The future course of oil production will depend on OPEC policies, the rate at which reserves are added through development of known fields and discoveries of new fields, and the economies of secondary and tertiary recovery, all of which are sensitive to the projected level of oil prices. Given present price expectations, oil output is projected to reach 1.5 mbd in 1990 and then fall by 1.5% p.a. LNG (including LPG) production increased by 10% to around 870 trillion BTU in 1987 and is expected to reach 1,070 trillion BTU by 1990, reflecting the new LPG contracts with Japan, and LNG contracts with Taiwan (Province of China) and Korea. In the absence of additional long-term contracts, LNG output will remain flat thereafter. In view of the projected decline in oil/LNG output and the recovery in other sectors, the share of oil/LNG in total GDP will drop to 11% by 2000, as compared with 20% in 1987.

2.26 The implications of this growth path for national incomes and expenditure are summarized in Table 2.6. Over the next couple of years, national income is projected to grow by 4% p.a., markedly better than in the recent past. This provides scope to achieve significant improvements in

**Table 2.6: GROWTH AND COMPOSITION OF EXPENDITURE ON GDP, 1987-2000  
(at 1983 prices)**

	Growth rates (% p.a.)			Share in GDP (%)	
	Estimate	Projected		Est.	Projected
	1982-87	1987-89	1989-2000	1987	2000
Consumption	2.6	3.5	5.1	69.4	69.9
Fixed investment	-3.9	4.9	7.4	18.3	24.3
- Public	(-5.9)	(-3.5)	(7.0)	(8.5)	(9.1)
- Private	(-2.0)	(11.7)	(7.9)	(9.8)	(15.2)
Exports <u>/a</u>	4.6	6.4	2.6	24.5	20.0
Imports <u>/b</u>	-9.1	3.4	5.9	14.8	16.2
GDP	3.8	4.1	4.9	100.0	100.0
GNP	3.9	4.1	5.0	96.1	97.2
GNY	1.6	4.0	5.8	87.9	96.0

/a Includes goods and non-factor services.

Source: World Bank staff estimates.

consumption and private investment. Subsequently, the growth of national income picks up to 6% p.a., due to the recovery in economic activity and expected improvement in the terms of trade. This allows a sustained rise in per capita consumption, even as real investment expands rapidly (7-8% p.a. during the 1990s) to support economic recovery. By the end of the 1990s, per capita consumption is projected to be 50% higher than its present level in real terms.

### Investment and Savings

2.27 A strong investment effort is essential if the Indonesian economy is to sustain the projected growth rates of economic activity and non-oil exports. The average fixed investment rate (at current prices) has weakened in recent years, falling from 24% in the early 1980s to an estimated 20% in 1987. Much of this adjustment has occurred in the public sector, where lower oil revenues led to a rephrasing of large projects and major cutbacks in other areas of development spending. As a result, public investment is estimated to have fallen by about one quarter over the past five years. The private sector's investment effort has also suffered, due to the direct impact of the deteriorating terms of trade on private incomes and savings, as well as the adverse multiplier effects of a slowdown in aggregate demand. In the short term, some recovery in economic activity can be achieved through improvements in capacity utilization. Longer-term gains in the efficiency of capital use are also possible, especially if more attention is given to proper operations and maintenance (see Chapter 6). However, sustained development during the 1990s will require a substantial buildup of production capacity in the agriculture and manufacturing sectors (largely through private investment), as well as supporting improvements in the economic infrastructure (e.g., irrigation, power, telecommunications, transport). As a result, it is estimated that the fixed investment rate will need to be maintained around 20% over the next two years, and then raised to 23% by the mid-1990s.

2.28 Foreign savings will play an important role in supporting the investment rate during the present adjustment period. However, during the 1990s, the projected expansion of investment will require a strong effort to increase domestic savings and resource mobilization. An indicative financing program for investment is summarized in Table 2.7. This shows that the national savings rate has to be raised from the present level of 19% to 25% by the mid-1990s.<sup>1</sup> Of particular importance is the projected improvement in public savings, to reduce the Budget's dependence on special external assistance, and to support an expansion of public investment (by 7% p.a. in real terms) over the medium term. The underlying assumptions on public finance are set out in Table 2.8. Key assumptions are that: (a) non-oil tax revenues will be raised from 9% of GDP in 1987/88 to 12% by the mid-1990s, through continued improvements in tax administration <sup>2</sup>; (b) domestic prices will be adjusted to

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<sup>1</sup> Indonesia achieved a savings rate of 25% in the early 1980s based on the oil boom.

<sup>2</sup> A further long-term decline in oil prices will necessitate an even stronger non-oil tax effort, requiring selective increases in the tax base and rates.

**Table 2.7: PROJECTED INVESTMENT AND ITS FINANCING, 1987/88-2000/01**  
(% of GDP at current prices)

	Estimate 1987/88	Projections				
		1988/89	1989/90	1990/91	1995/96	2000/01
<b>Total investment</b>	<b>22.2</b>	<b>21.9</b>	<b>21.9</b>	<b>22.3</b>	<b>25.0</b>	<b>26.3</b>
Fixed investment	19.7	19.8	20.2	20.7	23.0	24.3
Changes in stocks	2.5	2.1	1.7	1.6	2.0	2.0
Financed by:						
National savings	19.4	19.4	19.8	20.8	24.7	26.0
Foreign savings <u>/a</u>	2.8	2.5	2.1	1.5	0.3	0.3
<b>Public investment <u>/b</u></b>	<b>9.9</b>	<b>8.5</b>	<b>8.4</b>	<b>8.6</b>	<b>9.1</b>	<b>9.4</b>
Financed by:						
Public savings	6.5	5.7	5.8	6.1	9.1	8.6
Foreign borrowings	2.6	2.1	2.0	1.8	0.5	0.6
Net bank borrowings	0.8	0.7	0.6	0.7	-0.5	0.2
<b>Private investment</b>	<b>12.3</b>	<b>13.4</b>	<b>13.5</b>	<b>13.7</b>	<b>15.9</b>	<b>16.9</b>
Fixed investment	9.8	11.3	11.8	12.1	13.9	14.9
Changes in stocks	2.5	2.1	1.7	1.6	2.0	2.0
Financed by:						
Private savings	12.9	13.7	14.0	14.7	15.6	17.4
Foreign borrowings	1.3	1.5	1.0	0.7	1.0	1.3
Net bank borrowings <u>/b</u>	-1.9	-1.8	-1.5	-1.7	-0.7	-1.8
<b>Memo item:</b>						
Change in net foreign assets	1.1	1.1	0.9	1.0	1.2	1.6

/a Foreign savings is equal to the sum of public and private foreign borrowings less change in net foreign assets.

/b Fixed investment only. Investment in stock changes is assumed to be financed by the private sector.

/c Defined as changes in private credit minus changes in broad money.

Source: World Bank staff estimates.

reduce the budgetary subsidies for petroleum, fertilizer and pesticides; (c) current expenditures will be constrained through improved cost recovery policies for O&M; and (d) public enterprise savings will be increased, through improvements in their financial and operating performance. Public savings also benefit from the reduced budgetary burden of external interest payments during the 1990s. Issues of public resource mobilization are discussed more fully in Chapter 3 below.

**Table 2.8: PROJECTED STRUCTURE OF PUBLIC FINANCE, 1987/88-2000/01**  
(% of GDP at current prices)

	<u>Estimate</u>	<u>Projections</u>				
	1987/88	1988/89	1989/90	1990/91	1995/96	2000/01
<b>A. <u>Central and local governments</u></b>						
<u>Domestic revenues and grants</u>	19.6	18.2	18.1	18.1	21.0	19.6
Oil and LNG	8.6	6.9	6.4	6.1	7.5	6.2
Non-oil taxes	8.6	9.4	9.8	10.1	11.6	11.6
Other	2.4	1.9	1.9	1.9	1.9	1.8
<u>Current expenditures</u>	14.7	14.3	14.1	13.8	13.7	12.9
External interest	3.2	3.5	3.3	3.1	2.0	1.4
Subsidies	1.0	0.7	0.4	0.4	0.2	0.1
Other	10.5	10.1	10.4	10.4	11.5	11.4
<u>Government savings</u>	4.9	3.9	4.0	4.3	7.3	6.7
<u>Capital expenditure</u>	7.9	6.1	6.0	6.2	6.9	7.2
<u>Overall balance</u>	-3.0	-2.2	-2.0	-1.9	0.4	-0.5
<u>Financed by:</u>						
External loans (net)	2.6	2.1	2.0	1.7	0.6	0.6
Asset drawdown	0.4	0.1	0.0	0.2	-1.0	-0.1
<b>B. <u>Public enterprises</u></b>						
Savings	1.6	1.8	1.8	1.8	1.8	1.9
Net foreign borrowing	0.0	0.0	0.0	0.1	-0.1	0.0
Net bank borrowings	0.4	0.6	0.6	0.5	0.5	0.3
<u>Total investible resources</u>	2.0	2.4	2.4	2.4	2.2	2.2
<b>C. <u>Total public investment</u></b>						
	9.9	8.5	8.4	8.6	9.1	9.4

Source: World Bank staff estimates.

2.29 Along with a concerted effort to improve public resource mobilization, greater emphasis will have to be given to private investment, especially to support the export drive. There are already signs of a recovery in private investment, in response to the improved profitability of export activities and reductions in licensing restrictions on both domestic and foreign investors. But, to achieve the projected expansion of economic activity and non-oil exports, the real growth rate of private investment will have to be sustained at 8% p.a. during the 1990s, raising the private sector's share of total investment

from 54% at present to 63% by the year 2000. This expansion of private investment will require efforts to mobilize private savings (to grow from 13% of GDP now to 16% of GDP by 1995/96) and continued progress towards a "low-cost" business environment. Domestic interest rates will play a key role in this regard. The long-term nominal lending rates will need to be reduced to stimulate private investment and, yet, real deposit rates will have to be maintained sufficiently positive to mobilize financial savings. Appropriate macroeconomic policy and complementary steps to enhance the efficiency of the financial system will assist in achieving these objectives. The related needs for developing the financial system, and improving its efficiency, are discussed in Chapter 4.

2.30 The monetary program underlying these projections is summarized in Table 2.9. Domestic inflation is projected around 5% p.a., slightly above international rates. With real income growing by about 5% p.a. and providing for a gradual financial deepening of the economy, the total demand for money is projected to rise by around 12-13% p.a. during the 1990s. The expansion of domestic credit will have to be slightly slower, to allow for the projected increase in net foreign assets. As regards the allocation of credit, it will be important to sustain the real growth of private sector credit at 7-8% p.a., while also providing scope for public enterprises to shift part of their financing from the Budget to the banking system. The Government will therefore need to use some of the increase in oil/LNG revenues during the 1990s to build up its domestic assets. The levels of government investment indicated in Table 2.8 are based on this credit allocation strategy.

**Table 2.9: ILLUSTRATIVE MONETARY PROJECTIONS, 1990/91-2000/01**  
(% p.a.)

	<u>Actual</u> 1985/86-1987/88	<u>Projected</u> 1990/91-2000/01
<b><u>Inflation and interest rate</u></b>		
International inflation (MUV)	7	4
Domestic inflation (CPI)	9	5
International interest rate (LIBOR)	7-9	6-8
Domestic interest rate (6 month deposit)	14-16	10-12
<b><u>Money and credit growth rates</u></b>		
Nominal money (M2)	17	12-13
Real money	8	7-8
Domestic credit	21	11-12
Real public enterprise credit	1	3-4
Real private sector credit	7	7-8

Source: Bank Indonesia and World Bank staff estimates.

2.31 As already noted, international interest rates (represented by LIBOR) are projected to be in the range of 6-8% over the medium term. Given Indonesia's open capital account, domestic interest rates will follow international interest rates, with a "premium" for perceived exchange risk. The Government's primary objective of monetary policy is to control inflation, so as to maintain the competitiveness of the exchange rate. This in turn will support the projected adjustment in the balance of payments and improve the market perception of the value of the Rupiah. As a result, it should be possible to reduce domestic interest rates over the medium term. Nevertheless, real interest rates will remain significantly positive to promote financial deepening and resource mobilization.

### The Balance of Payments

2.32 Indonesia's medium-term prospects are closely tied to developments in the balance of payments (see Table 2.10) Some recovery in oil prices, a remarkable surge in non-oil export earnings, and continued prudent macroeconomic management have allowed Indonesia to cut back the current account deficit from US\$4.2 billion (6.2% of GNP) in 1986/87 to about US\$2.0 billion (3.1% of GNP) in 1987/88. Further efforts will be required to reduce the current account deficit over the next two to three years, in response to uncertainties in world oil and currency markets, and the large overhang of external debt. Accordingly, in Table 2.10, the current account deficit is projected to decline to US\$1.9 billion (2.7% of GNP) in 1988/89, US\$1.7 billion (2.2% of GNP) in 1989/90 and US\$1.4 billion (1.6% of GNP) in 1990/91. At the same time, rising non-oil export earnings are projected to finance a steady increase in imports, adequate to support the 4.5% p.a. growth rate in non-oil GDP over the next two years. During the 1990s, the balance of payments constraint is expected to ease, based on a sustained non-oil export effort and the expected improvement in the terms of trade. As a result, it should be possible to maintain the current account deficit at a manageable level (less than 1% of GNP), while restoring growth in non-oil GDP to an average of 5-6% p.a.

2.33 Thus, with regard to the balance of payments, Indonesia's main challenge is to sustain a real growth of non-oil exports of at least 6% p.a. To achieve this growth rate, given the likelihood of market constraints on many traditional exports (e.g., textiles, some primary products), Indonesia will have to be competitive over a wide range of industries in order to diversify its export base. As argued in Chapter 3, the prospects for non-oil exports are promising. Although there is a danger of growing protectionism in developed countries, Indonesia is starting from a low market share for many products and has ample scope to penetrate the large export market. Elements such as low labor costs, abundant natural resources, and a maturing industrial sector give Indonesia a potential competitive edge in many internationally traded commodities. The recent policy measures -- active exchange rate management and the series of trade and industrial reforms -- have further strengthened Indonesia's international competitiveness, as reflected in the strong performance of non-oil exports in recent months. This momentum must be sustained during the coming years. A key policy ingredient will be a competitive exchange rate, requiring flexibility in nominal exchange rates and

**Table 2.10: BALANCE OF PAYMENTS, 1987/88-2000/01**  
(US\$ billion at current prices)

	<u>Estimate</u>	<u>Projections</u>				
	1987/88	1988/89	1989/90	1990/91	1995/96	2000/01
Merchandise exports (fob)	17.9	19.3	21.1	23.1	38.7	60.1
- Oil & LNG	(8.5)	(8.2)	(8.6)	(9.1)	(14.3)	(17.2)
- Non-oil	(9.4)	(11.1)	(12.5)	(14.0)	(24.4)	(42.9)
Merchandise imports (cif)	-14.1	-15.1	-16.3	-17.7	-29.8	-49.1
- Oil & LNG	(-2.5)	(-2.5)	(-2.7)	(-2.8)	(-3.6)	(-6.4)
- Non-oil	(-11.6)	(-12.6)	(-13.6)	(-14.9)	(-26.2)	(-42.7)
<u>Trade balance</u>	<u>3.8</u>	<u>4.2</u>	<u>4.8</u>	<u>5.4</u>	<u>8.9</u>	<u>11.0</u>
Net non-factor services	-1.5	-1.5	-1.6	-1.6	-2.2	-2.3
<u>Resource balance</u>	<u>2.3</u>	<u>2.7</u>	<u>3.2</u>	<u>3.8</u>	<u>6.7</u>	<u>8.7</u>
Net factor services & transfers	-4.3	-4.6	-4.9	-5.2	-7.3	-9.4
<u>Current account balance</u>	<u>-2.0</u>	<u>-1.9</u>	<u>-1.7</u>	<u>-1.4</u>	<u>-0.6</u>	<u>-0.7</u>
of which:						
- Oil & LNG	3.7	3.5	3.4	3.7	6.4	5.2
- Non-oil	-5.7	-5.4	-5.1	-5.1	-7.0	-5.9
Net public MLT loans <u>/a</u>	2.4	1.9	1.6	1.4	0.8	1.2
- Disbursements <u>/b</u>	(6.3)	(6.4)	(6.3)	(6.0)	(5.6)	(6.6)
- Amortization	(-3.9)	(-4.5)	(-4.7)	(-4.6)	(-4.8)	(-5.4)
Net other capital <u>/c</u>	0.8	0.7	0.7	0.7	1.2	2.6
Use of net foreign assets	-1.2	-0.7	-0.6	-0.7	-1.4	-3.1
<u>Memo items:</u>						
Special assistance	1.4	2.4	1.5	0.7	-	-
Net official reserves <u>/d</u>	5.6	6.7	7.3	8.2	13.7	22.9
- Months of imports	4.4	5.0	5.0	5.0	5.0	5.0
Total net foreign assets <u>/e</u>	10.8	11.4	12.0	12.7	16.7	27.5
Current account/GNP (%)	-3.1	-2.7	-2.2	-1.6	-0.4	-0.3

/a Includes credits for LNG expansion, LPG and paraxylene projects.

/b Includes special assistance, in the form of fast-disbursing program aid and local-cost financing (see memo item).

/c Includes direct foreign investment, oil/LNG exports credits, all private capita flows, valuation adjustments, and errors and omissions.

/d Net of outstanding drawings from IMF's Buffer Stock and Compensatory Financing Facilities.

/e Of the banking system (Bank Indonesia and commercial banks).

Source: World Bank staff estimates.

appropriate fiscal and monetary policies to control domestic inflation. Furthermore, the effort to the reduce costs of production through appropriate deregulation measures will also have to be maintained. The various policy issues in this area are discussed in Chapter 4.

2.34 The growth of imports will be restrained over the next few years, reflecting the effect of continued cutbacks in budget-financed capital expenditures (see Table 2.11). However, private demand for imports is expected to increase steadily, in response to the recent trade reforms and to support investment in export-oriented activities. Over the medium term, both intermediate and capital imports will pick up as economic growth and domestic investment (including public investment) gain momentum. The growth of real capital imports will initially surge to 7% p.a. during the first half of the next decade, responding to the need for a recovery in investment activity from the depressed levels of the late 1980s. In the second half of the 1990s, the expansion of capital imports is projected to slow down, as investment growth returns to a trend level and improvements are achieved in the productivity of capital. But intermediate imports will need to continue growing at 6-7% p.a. throughout the decade, to provide the necessary inputs for sustained economic growth and expansion of non-oil exports.

**Table 2.11: MERCHANDISE IMPORTS, 1987/88-2000/01**

	Value at current prices (US\$ billion)				Real growth rates (% p.a.)		
	Estimate	Projected			1987/88-	1989/90-	1995/96-
	1987/88	1989/90	1995/96	2000/01	1989/90	1995/96	2000/01
<b>OIL/LNG</b>	<b>2.5</b>	<b>2.7</b>	<b>3.6</b>	<b>6.4</b>	<b>0.1</b>	<b>1.3</b>	<b>7.7</b>
<b>Non-oil</b>	<b>11.6</b>	<b>13.6</b>	<b>26.2</b>	<b>42.7</b>	<b>4.9</b>	<b>7.1</b>	<b>6.0</b>
Consumer goods	1.2	1.4	3.2	4.5	2.1	8.3	3.0
Intermediate goods	4.7	5.6	10.4	18.0	5.9	6.8	7.2
Capital goods	5.7	6.6	12.6	20.2	4.8	7.2	5.8
<b>Total</b>	<b>14.1</b>	<b>16.3</b>	<b>29.8</b>	<b>49.1</b>	<b>4.1</b>	<b>6.3</b>	<b>6.2</b>

Source: World Bank staff estimates.

2.35 The implications of these balance of payments projections for external financing requirements and external debt management are discussed in Chapter 3 below. In brief, Indonesia will continue to require untied concessional assistance in order to finance the current account deficits for the next two years. For the medium term, rather conservative estimates are used of external borrowing capacity and reserve requirements, to provide flexibility to respond

to external shocks without unduly disrupting economic growth. As a result, given the projected growth in non-oil exports, the total debt service ratio declines from a peak of nearly 40% in 1988 to 22% in 1995 and to 15% by the end of the 1990s. Similarly, net official reserves are held at five months of imports throughout the projection period. In response to short-term pressures on the balance of payments, somewhat higher levels of external borrowing and reserve use could be envisaged. But with a prolonged and severe deterioration in the external environment, additional measures would also be required to improve incentives for non-oil export development and domestic resource mobilization.

## CHAPTER 3

### MOBILIZING FOREIGN EXCHANGE AND PUBLIC RESOURCES

#### A. Introduction

3.01 The recent decline in oil revenues adversely affected the balance of payments and the Government's Budget. In the short term, the resource shortfalls have been overcome by tight restraint on budget spending and import demand, as well as special external assistance from IGGI members. However, the long-term loss of oil revenues reemphasizes the importance of mobilizing resources from the non-oil economy. For the balance of payments, this is reflected in the high priority now being given to non-oil exports. And, for the Budget, efforts are underway to boost non-oil revenues through better tax administration. Future prospects and policy priorities for non-oil export development are reviewed in Section B and for public resource mobilization in Section C. Section D then outlines an appropriate external borrowing strategy, to supplement the availability of development resources, while maintaining a manageable debt burden.

#### B. Non-oil Export Development

3.02 Recognizing that oil prices are unlikely to increase in the near term, the Government has placed particular emphasis on the promotion of non-oil exports. As reviewed in Chapter 1, this has resulted in a number of timely and substantive policy adjustments that have created a more supportive environment for exports. Of particular importance has been the maintenance of an appropriate real exchange rate and the series of regulatory reforms begun in 1986. As a result, it is anticipated that an average real growth rate of about 11% p.a. for non-oil exports should be attainable over the next two years. While agriculture and minerals/metals exports are expected to continue to expand, most of the increment (about 70%) in earnings derives from manufactured goods. Consequently, by this year, manufactured goods should for the first time account for more than 50% of total non-oil exports.<sup>/1</sup>

3.03 Over the longer term, given further improvements in the domestic policy environment, total non-oil exports should settle at a strong average growth rate of 6-7% p.a. This growth will be supported by returns on the past heavy investment in primary commodities (e.g., palm oil and rubber) as well as the steady expansion of the minerals and metals sector (e.g., aluminum, copper and bauxite). But manufactured goods are anticipated to continue to set the pace. Given the anticipated slowdown in the growth of the two largest manufacturing

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<sup>/1</sup> To put this in perspective, manufactured goods accounted for only 22% of non-oil exports in 1982/83, and total non-oil exports have grown at an average rate of over 15% p.a. between 1982/83 and 1987/88.

subsectors -- textiles and plywood -- the future growth of manufactured exports will depend on a more diversified set of products than in the past. Indonesia's share of the world market for these "other" products is small, hence it is possible for manufacturers that are competitive to expand output by capturing a larger share of the global market. In this sense, developments in the international economy are not crucial. As the estimated 40% real growth in manufactured exports in 1987/88 illustrates /1, it is domestic policies that are the key to export performance. In addition, sustained export growth will

**Table 3.1: NON-OIL MERCHANDISE EXPORTS, 1987/88-2000/01**

	Value at current prices (US\$ million)				Real growth rates (% p.a.)	
	Estimate	Projected			1987/87-	1989/90-
	1987/88	1989/90	1995/96	2000/01	1989/90	2000/01
<b>Agricultural commodities</b>	<b>3.883</b>	<b>4.675</b>	<b>9.360</b>	<b>14.865</b>	<b>4.4</b>	<b>5.3</b>
Timber products	562	650	1,060	1,495	3.5	2.7
Rubber	935	1,030	2,010	2,990	3.5	4.0
Coffee	533	670	1,335	1,885	3.0	3.0
Palm oil	172	260	875	1,720	9.0	10.0
Tea	105	140	350	575	5.5	6.0
Shrimp	422	505	900	1,470	6.0	6.0
Rattan	158	220	625	1,125	6.0	6.0
Others	997	1,200	2,205	3,605	3.8	6.1
<b>Minerals &amp; metals</b>	<b>1.003</b>	<b>1.125</b>	<b>2.185</b>	<b>3.255</b>	<b>6.8</b>	<b>4.5</b>
Tin	166	225	480	695	9.7	3.7
Gold	226	275	420	510	6.7	1.8
Aluminum	307	305	635	1,035	2.0	5.7
Copper	205	200	440	720	5.6	6.0
Nickel (total)	64	80	130	150	16.2	5.0
Others	35	40	80	145	11.6	7.1
<b>Manufactured goods</b>	<b>4.486</b>	<b>6.710</b>	<b>12.835</b>	<b>24.740</b>	<b>17.9</b>	<b>7.8</b>
Textiles	1,107	1,320	2,100	3,120	5.7	4.0
Plywood/panel products	1,885	2,250	3,775	5,730	5.0	2.6
Others	1,493	3,140	6,960	14,555	37.2	11.2
<b>Total non-oil exports</b>	<b>9.371</b>	<b>12.510</b>	<b>24.380</b>	<b>42.860</b>	<b>10.9</b>	<b>6.5</b>

Source: World Bank staff estimates.

/1 Excluding textiles and plywood, "other" manufactured goods are estimated to have grown by 74% in real terms in 1987/88 (see Annex 1).

require substantial investment in new export capacity. Although much of the recent expansion in non-oil exports has come from existing capacity, underutilized due to the depressed levels of domestic demand, there are encouraging signs that export-oriented investments are on the rise. This trend can be expected to continue, provided: (a) export incentives are maintained; (b) further progress is made on removing trade barriers and simplifying domestic regulations; (c) the financial sector is able to respond to the needs of exporters for credit and equity; (d) appropriate institutional support is developed to ease access to export markets; and (e) management of resource leases for industries such as plywood is improved to ensure a sustainable supply of raw material. Under these conditions, and given the projected trend in world prices, it should be possible to double non-oil export earnings by the mid-1990s.

### Agricultural Commodities

3.04 To attain the targeted growth in non-oil exports, Indonesia will have to continue to exploit the clear comparative advantage it has in many agricultural commodities. Although their share of total non-oil exports is expected to decline (from about 41% in 1987/88 to 35% in 2000/01), strong growth is crucial not only for generating foreign exchange but, more importantly, for providing employment and income earning opportunities for the large and relatively poor rural workforce. Many agricultural commodity exports are relatively labor and land intensive (e.g., smallholder rubber or tea) which, given the low cost of labor and availability of land (off-Java), provides Indonesia with its potential comparative advantage. To take full advantage of this opportunity, in addition to an appropriate macroeconomic environment, specific policy measures -- such as institutional/incentive reforms for tree crops -- will be required. Such policies will attract private investment into the sector and increase returns from existing public sector investment. In particular, it is important that the drive to increase the value added of Indonesia's exports by encouraging domestic processing does not lead policymakers to discriminate excessively against raw material producers (e.g., raw rattan, rubber and hide producers). Provided the policy environment is adjusted to support the growing diversity and maturity of the agriculture sector, total agricultural exports should grow at an average annual rate of about 5% over the medium term.

3.05 Due to the large investments made over the last decade, Indonesia's production and exports of tree crops are expected to expand at an average rate of about 5% p.a. In the case of rubber, the 5% p.a. output growth achieved over the period 1982-87 is expected to slow to 3-4% p.a., slightly above the growth in world demand. Although Indonesia is already the second largest producer and exporter of rubber, accounting for close to a third of world trade, relatively low domestic production costs should enable it to capture a growing share of the world market. However, this will require that export restrictions are kept to a minimum (e.g., free of quotas or taxes) and that a sustained effort is made to raise yields, reduce processing losses, and improve quality. Rubber prices are expected to remain at or below their current levels until 1990, when they should begin to recover as oil prices (and hence synthetic rubber prices) rise. Accordingly, export earnings will increase modestly in the short run but more

rapidly in the longer run as both volumes and prices increase. For palm oil, Indonesia's large planting program should support an annual growth rate of 9-10% over the next decade, making it one of the main primary commodity exports. As in the case of rubber, Indonesia is a relatively low cost producer and therefore could capture a growing market share. To achieve this goal, efficiency improvements need to be made in the large public estates, and the private sector should be allowed to expand, unimpeded by export taxes and domestic quota restrictions. In addition, pressure should be brought to bear in appropriate international fora to persuade consuming countries to keep their markets open to palm oil exports. Coffee exports should also register a steady 3% p.a. average growth over the next decade. Although volume growth in the near term will continue to be constrained by the International Coffee Agreement (ICA), over half of Indonesia's coffee is now sold in non-ICA quota markets. Given that Indonesia is a competitive producer and its small share in world trade of coffee (approximately 4-5%), growth will depend primarily on improving quality and securing new market outlets. The anticipated strengthening in coffee prices should translate this volume growth into a substantial value increase, as shown in Table 3.1.

3.06 Shrimp and, with less certainty, processed and semi-processed rattan should also become important exports during the next decade. Production of shrimp stagnated in the early part of the 1980s as the industry restructured. However, as the estimated 25% increase in output for 1987/88 indicates, prospects for the future are good. Indonesia is close to many large consumer markets (particularly Japan), and the more open policy towards foreign investors/advisors should make it possible to achieve the quality and reliability improvements required. The future prospects of semi-processed rattan is less certain. Although world demand is strong and Indonesia supplies over 70% of the international market, domestic policies designed to increase the domestic processing of rattan exports could reduce export earnings in the near future. While a move towards more processed rattan products (e.g., furniture) may be desirable, government policy should not force the pace through export bans or quota arrangements. Transport costs coupled with the current scarcity of skilled manpower and marketing contacts, suggest that it will take time to penetrate the finished product market. Indonesia's large share of the world market and resource depletion concerns may provide a rationale for an export tax. However, export bans and/or licensing restrictions are inflexible policy instruments with which to achieve these objectives, and are likely to impose significant short-term economic costs, particularly on rattan growers and harvestors in the rural areas.

3.07 The production of other agricultural commodities has expanded rapidly (up an estimated 34% in 1987/88). Growth of some of these products, such as tapioca, is expected to slow. However, marine products (excluding shrimp) show strong promise, as do cocoa, pepper, vanilla, and cassia vera. This reflects the growing diversity of Indonesia's agricultural sector and the benefits to be derived from creating stronger links with world markets. To build upon this success, policymakers need to reduce the crop specific bias in the incentive structure (including subsidies and output targets), and focus public investments on research and development to improve crop quality/variety, and infrastructure to bring produce quickly and cheaply to market.

## Metals and Minerals

3.08 Metals and minerals will continue to provide a small but significant share of total non-oil exports. Indonesia has substantial reserves of mineral resources, and is generally a low cost producer. However, global over-capacity and large stocks are likely to continue to hold international prices at current relatively low levels in the near term. For example, following the restructuring of the state-owned tin producer, costs have been cut dramatically and the company is able to export profitably even at today's low prices. However, full capacity utilization of the plant is constrained by the international agreement to restrain output so as to reduce the overhang of tin stocks. In the case of nickel, output should grow in the short term once repairs to the large ferro-nickel plant have been completed. Indonesia's cost competitiveness will allow for future volume growth, particularly as the Japanese phase out their costly energy-intensive nickel ingot industry.

3.09 The aluminum industry has strong potential for growth. A restructuring of the industry's capital base has reduced costs, allowing it to take full advantage of the recent price rise. Even if swing producers reenter the market, the current low level of world stocks may support prices over the next couple of years. In the longer term, the planned expansion in plant capacity (to be completed in 1992) will result in significant volume gains. Gold exports are projected to continue to expand rapidly over the next year or two, but then level off once a sustainable level of domestic supply is reached. Exports jumped to 14.5 tons in 1987 (1.3 tons in 1986) following the removal of the export ban in late 1986. It is anticipated that the industry will attain a level of about 20-25 tons by the mid-1990s. Lastly, both bauxite and steel exports should also continue to bolster the growth of the sector. The steel industry is competitive in some product lines, and the planned plant expansion over the next few years will provide the necessary capacity for increased volumes. However, further measures will need to be taken to lower costs and increase competitiveness.

## Manufactured Goods

3.10 As mentioned above, about 70% of the increment in non-oil exports over the next two years is anticipated to derive from manufactured goods. The devaluation in September 1986 and the series of trade and industrial policy reforms have greatly improved incentives for manufactured exports. As the recent growth performance illustrates, Indonesian manufactures can compete across a wide range of products in the world market. But to do so they need access to competitively priced inputs -- including domestically produced goods -- and a supportive and transparent regulatory framework. In the longer term, as the phenomenal growth in textiles and plywoods begins to slow, the driving force of manufactured exports will need to come from a range of non-traditional manufactures, aggregated together in Table 3.1 as "other" manufactured goods. The diversity of products in this group, coupled with rapidly changing market demands, suggest that the Government's approach of broad policy deregulation is appropriate. As the manufacturing sector matures further, the challenge for policymakers will be to identify those areas where they can play a useful supportive role and where more responsibility can be devolved to the private sector.

3.11 Textiles/clothing and plywood/panel products are estimated to account for about 24% and 42% respectively of total manufactured exports in 1987/88. Plywood exports have increased dramatically since 1980, with Indonesia now supplying 80% of world demand. Many of the higher cost producers in Asia have ceased production. Future international demand, particularly from Japan, is likely to be strong, which will support higher prices. Output and export growth is expected to come from increased efficiency in existing logging sites/plywood factories, and some product diversification toward other panel products. To ensure that the higher level of exports is sustainable, it will be necessary to improve management of Indonesia's forests and reduce output growth over the longer term. Textile/garment exports should also continue to expand, albeit at a slower pace of 5-6% p.a. The renegotiation of the U.S. textile agreement with Indonesia limits overall volume growth to 6% p.a. While this is a lower rate of increase than in the past, the ceiling will still allow Indonesia to expand its exports to this important market through volume increases and a larger share of higher value-added items. Other markets (including non-quota markets) are also becoming increasingly important, and Indonesia is well placed to take advantage of these. The appreciation of other countries' currencies (e.g., Republic of Korea), make Indonesia a low cost producer and the more open policy towards foreign investment should attract foreign companies. However, to exploit this opportunity, existing producers will have to upgrade their production lines. In addition, the Government can play a useful supportive role by improving the mechanism by which export quotas are allocated, expediting export documentation, and providing information on international markets.

3.12 "Other" manufactured goods are anticipated to continue to be the strongest performing non-oil export group, growing by about 35% p.a. over the next two years before slowing to a longer term average growth rate of around 10% p.a. Near-term growth will be supported by both increased capacity utilization and new investment. As the data on private investment and capital goods imports for 1987/88 indicate, manufacturers have already begun to take advantage of the more attractive investment climate within Indonesia. And, as much of this new investment is in short-gestation export oriented activities, continued strong growth over the next two years should be attainable. In the longer term, much will depend on taking the domestic policy actions required to build upon this success. Appropriate macroeconomic policy will continue to be essential if the basic conditions for export growth are to be maintained. These policies will be particularly important in maintaining the competitive advantage Indonesia enjoys due to its comparatively low wage rates within the region. But macroeconomic policies by themselves will not be enough to attain the projected growth rate. As discussed in Chapter 4, supportive trade and industry reforms will be necessary to promote efficiency and encourage the process of structural change. At the same time, public sector investment will be necessary to provide the required physical infrastructure and development of human resources to support a more competitive industrial structure. Finally, the longer term expansion of manufactured exports will require a substantial level of new investment by the private sector. This will entail taking steps to increase the efficiency and responsiveness of the domestic financial sector.

### C. Public Resource Mobilization

3.13 The decline in oil prices since 1982 has severely limited the availability of budgetary revenues. The Government has responded to this situation by implementing a major tax reform, aimed at improving the efficiency of the tax system and boosting revenues. Thus, non-oil taxes have surged from 6.3% of GDP in 1983/84 to 8.6% in 1987/88.<sup>/1</sup> However, the non-oil tax effort is still significantly below those in comparable Asian countries <sup>/2</sup>. With a strong drive to improve tax administration, it should be possible to increase non-oil tax revenues to 12% of GDP by the mid-1990s. While better revenue performance of non-oil taxes will remain a central element of the public resource mobilization strategy, a broader effort aimed at improving the finances of state enterprises and achieving greater cost recovery from public services will have to be implemented. Greater cost recovery will induce more efficient use and will improve the quality of service, by helping finance more adequate levels of O&M.

#### Non-Oil Tax Effort

3.14 Although the tax laws provide ample flexibility to increase tax rates and/or broaden the tax base, the Government has recognised that the immediate priority is to improve tax administration. Accordingly, the tax strategy has focussed on implementing policies to increase tax compliance. One aspect of this has been the effort to expand the number of registered taxpayers. Following the lapse in the tax amnesty, designed to induce people to register voluntarily, a tax-registration checking campaign was launched in August 1986. The campaign sought to identify non-registered and non-filing income taxpayers by collecting information from alternative sources (e.g., telephone directories, business permits), and then initiating the tax registration/filing process. Some progress was also made in the area of tax audits. These efforts have led to an increase in tax compliance, as reflected in the expansion of the number of registered taxpayers and improvements in tax filing ratios (see Table 3.2). Nevertheless, the number of taxpayers is still substantially below potential and overall filing ratios could be improved. Moreover, tax compliance for the VAT varies widely among sectors, with filing ratios of 67% for the industrial sector compared to only 32% for the construction sector.<sup>/3</sup>

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<sup>/1</sup> Including local government tax revenues.

<sup>/2</sup> For example, non-oil taxes in the early 1980s were between 10-19% of GDP for a sample of countries including India, Pakistan, Philippines, Thailand, Korea and Malaysia.

<sup>/3</sup> Low tax compliance for the construction sector reflects the administrative difficulties of extending the tax coverage to a large number of small contractors.

**Table 3.2: TAX COMPLIANCE INDICATORS, 1984-1987 /a**

	<u>Number of registered taxpayers ('000)</u>				<u>Filing ratios /b</u>	
	1983	1985	1986	1987	1986	1987
Personal income tax /c	327.5	554.3	643.0	672.4	60.0	64.0
Corporate income tax	83.6	133.4	157.6	176.1	41.2	43.8
Value-added tax (VAT)		25.1	69.9	79.4	41.6	45.3

**/a** End of year figures except for VAT. For 1987, only September figures were available.

**/b** Ratio of filed returns to number of registered taxpayers.

**/c** Excludes personal income taxpayers on whose behalf personal income tax was withheld and the withholding represented the final tax liability.

Source: Ministry of Finance.

3.15 The Government also took steps to improve the institutional capacity to undertake systematic and efficient audits. The effort focussed on training specialized auditors and developing a comprehensive audit selection system. Through local training in district offices, the number of income tax auditors increased from 1,268 in 1986 to 2,850 in 1987. Furthermore, 600 income tax and 200 VAT auditors received upgraded training during 1987. An additional 750 auditors (600 for the income tax and 150 for VAT) will receive higher level training during 1988. To further strengthen the audit process, a comprehensive audit selection system was developed recently.<sup>/1</sup> The new audit selection system would ensure complete objectivity in the selection process while also indicating the revenue potential of specific audits (thus allowing even better selectivity). For 1988, some 13,000, 25,000 and 34,000 audits for corporate, VAT and personal income taxes respectively are planned based on this new audit selection process. The program is expected to generate around Rp. 400 billion in additional revenues during 1988/89.

3.16 In the area of property taxation, there is an ongoing effort to improve the property valuation system. Although the new property tax (PBB) stipulated that assessment was to be based on market values of land and buildings, valuation has continued to be determined as under the old system (IFEDA). On average, these assessed values have been found to be about one fourth of market values, with a wide dispersion of effective tax rates. As a first step towards improved valuation, a program has been initiated to revalue urban properties as well as improve the mass appraisal index system. The first stage of the program, covering a three-year period (1987-89), comprises about 10,000

**/1** With the help of IRS experts from the United States.

individual valuations in Jakarta, Bandung and Medan, semi-individual valuation for another 50,000 properties in Jakarta, and the upgrading of the index assessment covering urban properties throughout Indonesia. This valuation effort will be carried out by foreign firms in conjunction with counterpart local firms, as well as individual expatriate and local valuers. The program also includes a wide range of training activities, including in-house block courses, in-service training and overseas training.

3.17 The Government is also trying to tackle weaknesses in the tax collection and payments control system. Except for a few district offices, an effective collection program does not exist currently. For example, no effective action has been taken to reduce the large number of tax arrears, there are long delays between the issuance of an audit report and the mailing of an assessment notice, and collection ratios are very low (only 60% of current assessment) with high average collection costs (20% of revenue collection). To redress these problems, a new payment control system (NPCS) has been devised.<sup>/1</sup> All incoming transaction documents of a district office (tax returns, assessment notices, payment documents, etc.) will be computerized on a daily basis. The system will then maintain up-to-date individual taxpayer accounts which will provide the basis for active collection measures. The system has already been implemented on a pilot basis in the Jakarta Selatan II district office and will be extended to several other Jakarta district offices during 1988. This will be followed, in 1989, by a gradual centralization of payment control activities for all of Jakarta at a special office (NPCS).

3.18 Undoubtedly, the initiatives taken so far, if implemented well, can be expected to substantially boost non-oil taxes over the next few years. A special effort will be needed to improve the implementation of the various programs. A general problem seems to be that administrative resources are not effectively used, causing wastage of financial and manpower resources. One solution would be to consider taxpayers who have failed to file tax returns with positive liability during two consecutive years as non-effective and suspend their accounts from the local masterfiles, allowing district offices to focus their attention more closely on the active taxpayers. Another source of inefficiency is the lack of follow-up on the "checking" program. Adequate administrative controls over the national "checking" program will need to be established and actively pursued by headquarter and regional offices to ensure effective implementation of the program.

3.19 The revenue potential of tax audits is apparent even from the limited experience so far, and the Government's emphasis on increasing the institutional capacity to undertake systematic and efficient audits is appropriate. To implement the proposed program, it is essential to ensure that adequate budgetary support is provided, especially to finance training on a long-term basis. Furthermore, it is important to ensure that trained auditors are fully

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<sup>/1</sup> With the assistance of technical experts from the Federal Republic of Germany.

utilized. Currently, as a result of the rotation policy, about 20% of the existing income tax auditors are assigned to non-audit jobs. There is a need to avoid this inefficient use of skills by ensuring that the mandatory 3-4 year rotation policy is limited to tax officials engaged in similar functional duties.

3.20 The success of the payment control system and efforts to retrieve tax arrears hinge upon an effective application of the enforcement measures provided in the tax laws for non-compliance (e.g., administrative fines, penalties, seizure of taxpayers' property and sealing of premises). So far, only administrative fines have been assessed on a routine basis and even this has been done inefficiently. For example, a significant part of estimated tax arrears can be attributed to non-effective taxpayers; the administrative burden of assessing the fine and sending collection notices and distress warrants would seem to outweigh the remote possibility of retrieving these arrears. The proposal to remove the non-effective taxpayers from the local masterfiles will help resolve this problem. The Government may also need to make more use of the other legal sanctions, to discourage non-compliance.

3.21 Two other issues which merit serious attention are: the reorganization of the Directorate General of Taxation along functional lines, and the improvement of the Management Reporting System. By separating operations, support and evaluation functions, the proposed functional reorganization would clearly define areas of management responsibility, enhance the expertise of both the employees and their managers in their trained areas, and greatly simplify communications. The reorganization has been under consideration for some time, and specific proposals have been submitted. The Government will need to implement this soon, as it will have a significant long-term effect on the efficiency of tax administration. A study of the information and reporting system in the Directorate General of Taxation has recently been completed by the IRS tax team. The findings strongly indicate the need for an integrated management information reporting system. The IRS study outlines specific recommendations to improve the existing reporting system: streamline and reduce duplication, eliminate unnecessary reporting requirements, clarify data needs, identify key performance indicators for each activity, and automate reporting processes. Effective implementation of such proposals would greatly enhance overall tax administration.

3.22 While improvements in tax administration will be of central importance for mobilizing non-oil tax revenues, there may also be a need to consider selective increases in the tax base and rates over the medium term. This will be especially important to counter a further long-term decline in oil prices. The Government is already considering some actions to enhance the tax base, such as the taxation of interest income and extending the VAT to selected services. Although the revenue impact of these measures will be relatively small, they are designed to make minimum additional demand on tax administration. Following satisfactory progress in improving tax administration, the Government may then consider more comprehensive steps such as extending the VAT base to the retail level. This measure, if implemented in 1990/91, is estimated to generate additional revenues of 1% of GDP by 1995/96. Another option is to increase the effective tax rate for PBB. Currently, the tax is a flat rate of 0.5% on 20% of

the officially assessed value of the property, implying an effective rate of only 0.1%. Even with proper valuation and improved tax administration, the revenue yield of property taxes will be much below potential. For example, by increasing the effective tax rate from 0.1% now to only 0.5% in 1990/91, additional revenues of 1% of GDP could be obtained by 1995/96.

### Cost Recovery

3.23 Over the last decade, the Government has embarked upon a large expansion of publicly provided services, notably in agriculture (irrigation and fertilizer distribution), utilities (electricity and water), transport (railways, roads and highways) and social services (education and health). These programs have brought important benefits to a large section of the population. However, most services were largely financed from budgetary revenues with beneficiaries paying a relatively small share of the cost, raising concerns about efficiency of use. More importantly, the provision and efficiency of many of these services is now threatened by scarcity of resources, indicating the need to review options for greater cost recovery, and better prioritization of services. The appropriate level of user charges in a sector will be influenced by a number of factors, including the extent of informal user fees already levied, the "public goods" character of the particular services, the ease with which collection can be implemented, the revenue potential, and the income profile of users. It is important that user fees are associated with improved services to beneficiaries, to facilitate public acceptance and compliance.

3.24 Electricity pricing. Appropriate electricity pricing is essential to finance the required expansion of electricity services and to promote efficient electricity use through conservation and substitution. Power tariffs in Indonesia were last adjusted in March 1984. Since then, the financial performance of the electricity authority (PLN) has been adversely affected by higher import costs, general inflation and the increased use of oil-fired generation. As a result, PLN's rate of return on revalued assets in 1987/88 is estimated to be only 2% on Java and negative off Java. Average power tariffs in Indonesia are now lower than for other countries in the Region <sup>1</sup> and also below the long-run marginal cost (LRMC) of electricity supply.<sup>2</sup> Therefore, there is a strong case for considering an increase in power tariffs.

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<sup>1</sup> The average electricity rate for PLN is about 5.7 US cents/kWh compared to 7-8 US cents/kWh in Singapore (PUB), the Philippines (MERALLO), Thailand (MEA/PEA), Malaysia (NEB), Taiwan (TAIPOLER) and Korea (KEPCO). The long-run marginal cost for PLN is estimated to be about 6.5 US cents/kWh in economic terms (and higher in financial terms).

<sup>2</sup> The current level of electricity tariff is close to or above LRMC for commercial and large industrial consumers but below LRMC for small residential and small industrial consumers.

3.25 In setting power tariffs, a number of factors have to be taken into account. First, in order to promote efficient use and ensure that PLN operates as a commercial entity, the average tariff will need to be set at a level which covers LRM<sup>2</sup> of supply and also allows PLN to earn an adequate rate of return on assets. Second, to avoid uneconomic increases in tariffs, it will be important to take appropriate actions to improve PLN's operating efficiency. Third, if social considerations (e.g., rural electrification) require substantial departure from marginal-cost pricing, then PLN will need to be compensated (through budgetary subsidies) to protect its financial viability and to make explicit the financial cost of such programs. Finally, tariff increases have often been resisted because of a presumed adverse impact on consumers, particularly in poorer income groups. But, in practice, most households spend only a small proportion of their total outlay on electricity. Moreover, since only 15% of households have access to electricity, even the smallest consumer is unlikely to belong to the poorest socio-economic group in society. For industrial users, the competitiveness of exporters can be better maintained through appropriate macroeconomic and structural policies rather than by subsidizing electricity use. Even if affordability remains a major concern, this can be built into the tariff structure by providing smaller increases for low income and high priority consumers and larger increases for other users. In this regard, care has to be taken to ensure that differential tariffs do not excessively distort the pattern of electricity consumption.

3.26 Fertilizer and pesticide subsidies. During the last two decades, Indonesia has encouraged the development of its agricultural sector by providing a broad program of support for most agricultural inputs, including subsidized fertilizer and pesticides. This has entailed providing fertilizer and pesticides at below world prices, maintaining a pan-territorial pricing system, and enforcing a uniform price for all fertilizer types. Despite recent domestic price increases, the budgetary costs of the fertilizer and pesticide subsidies are estimated to be about Rp. 0.6 billion and Rp. 0.2 billion respectively in 1987/88.<sup>/1</sup>

3.27 In the case of fertilizers, approximately one third of the subsidy is accounted for by the high production cost of domestic plants (with the remaining two thirds used to offset distribution costs and subsidize farmers).<sup>/2</sup> At the plant level, only 15% of the subsidy is attributable to the domestic production of urea, whereas triple superphosphate (TSP) and ammonium sulphate (AS) account for 54% and 30% of the subsidy respectively. This reflects the relatively efficient domestic production of urea, which accounts for about 60% of the total fertilizer tonnage used by farmers. If the two high cost urea plants underwent a capital restructuring and implemented cost saving investments, domestically

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<sup>/1</sup> In October 1987, the official retail price of fertilizer was raised by 8% (from Rp.125/kg to Rp.135/kg) and of pesticides by an average of 80%. The budgetary cost in 1987/88 excludes Rp. 0.4 billion of arrears accumulation.

<sup>/2</sup> Based on calculations for 1986/87.

produced urea could be sold profitably on the domestic market at export parity levels without a subsidy. In the case of TSP and AS, average domestic production costs exceed international prices. Indeed, during the first half of 1987, the cost of imported raw materials used by domestic manufacturers was higher than the cost of the imported finished product. While the recent rise in the world TSP price has brought the landed price close to Gresik's production costs, it is unlikely that the same will occur for AS. The Government is aware of this problem and is considering restructuring investments designed to lower domestic production costs of these fertilizers. To contain the subsidy and minimize price distortions, it is recommended that TSP and AS be sold ex-factory at the prevailing import parity price, allowing manufacturers to decide when it is less costly to manufacture domestically as opposed to importing the finished product.

3.28 Fertilizer distribution costs are high by international standards, even after adjustments for Indonesia's unique topography, thereby contributing substantially to the fertilizer subsidy bill. Significant savings can be achieved by optimizing the system of local supply and export allocations to take advantage of locational advantages. It would also be possible to reduce this component of the subsidy further by divesting PUSRI of its responsibility for distribution beyond the wholesale level, thereby allowing some flexibility in retail prices to reflect transport costs.

3.29 At the farm level, there is a strong case for increasing the overall price of fertilizer, and an even stronger case for moving away from a uniform price for all fertilizer types. Average fertilizer application rates in Indonesia, estimated at 75 kg of nutrients per hectare in 1984, are above those in other comparable countries which indicates that farmers are well aware of the beneficial effects of using fertilizers. Also other purchased inputs, in particular labor, now account for a much larger proportion of production costs than fertilizer. As a result, an increase in the fertilizer price (i.e., urea price) is unlikely to result in a significant decline in output. Moreover, the recent 15-20% increase in the retail price of rice, from Rp. 380/kg to around Rp. 450/kg, has created an opportunity to increase the fertilizer price without adversely affecting farmers net income.<sup>1</sup> The case for moving away from a uniform fertilizer price is even stronger. The farmgate subsidy on TSP is almost double that of urea, and yet the impact on crop yields -- particularly in the short term -- is probably less. While farmers may have to be encouraged to use a balanced mix of fertilizers, this does not justify current pricing policy. The maximum fiscal benefit could be achieved with the minimum impact on food production if TSP prices were increased by more than urea prices.

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<sup>1</sup> For the uplands, the availability of subsidies also encourages farmers to apply relatively cheap fertilizers to increase yields rather than consider more expensive but environmentally sound methods such as green manuring, mulching, and using compost to maintain soil fertility and stability. Fertilizer subsidies therefore often serve as a disincentive for upland farmers to face the full economic costs of soil erosion and to respond to sound land conservation measures.

3.30 The economic returns to pesticide use, at current application levels, are approaching zero, with farmers paying less than 60% of the economic price. If environmental costs are also taken into account, the returns to the economy are probably negative. The recent ban on broad-spectrum pesticides -- which eradicated natural pest predators -- coupled with the campaign to provide integrated pest management (IPM) is an important step towards correcting the situation. However, maintenance of the pesticide subsidy at the current high rate will discourage traditional methods of eradicating pests and make the IPM program relatively less attractive. A complete withdrawal of the pesticide subsidy is likely to have negligible output effects, while having a positive impact on the environment, and saving US\$20 million for other more productive agricultural support programs, such as research and extension.

3.31 Cost recovery in other sectors. In the roads sector, a significant increase in user charges paid by truckers is warranted, given the high wear and tear imposed by trucks on the road network, and the limited maintenance and rehabilitation costs borne by trucking firms through road user taxation. An essential component of any package aimed at achieving full cost recovery over time would be an increase in the price of fuel (diesel in particular) or the imposition of a special fuel levy. A second important component could consist of an increase in the annual license fee for trucks. Increase' O&M funding from such taxes must be combined with policies to raise the Government's capacity to carry out road maintenance, particularly in the regions.

3.32 In the irrigation sector, farmers are currently responsible for O&M on tertiary canals. Cost recovery for main and secondary canal maintenance has been indirect, through the levy of a land tax (formerly the IPEDA, now the PBB), which attempted to differentiate between farmers in irrigated and non-irrigated areas. However, the property tax is largely a general purpose tax and there is a need to have an irrigation service fee directly linked to O&M services. Recently, such a fee was successfully introduced in South Sulawesi, Bali and North Sumatra. Based on this experience, the Government has launched a pilot project to determine appropriate fee levels, the organizational arrangements needed for collection, and the criteria for such charges. As institutional arrangements for effective implementation are developed, the fee could be targetted to cover 100% of efficient O&M costs.

3.33 In higher education, although tuition charges have been significantly increased in recent years at public universities, fees remain low (at approximately Rp. 240,000 p.a.) in absolute terms and cover only 20-30% of educational operating costs. There is, therefore, considerable scope for fee increases, particularly if the quality of education is to be improved. It is important, however, that any review of the present tuition policies leading to a fee increase include a careful assessment of the various special purpose fees currently levied, and explore the possibility of increased student access to government subsidized or guaranteed loans. Universities could also raise additional revenue through the leasing of underutilized classroom space, particularly if such revenues were retained by the universities and allocated in part to O&M on physical plants.

3.34 Cost recovery in the health sector is very limited, with only 10% of total recurrent expenditure recovered through user charges. Although cost recovery ratios are higher for hospitals, averaging about 20%, even these are low compared to the performance of some other developing countries. In Thailand cost recovery in hospitals averages 40%; in China it averages about 80%. These figures suggest that there may be substantial scope for mobilizing additional resources by raising fees. However, caution needs to be exercised before any increase in charges is adopted. Presently, there is only limited availability of health insurance, and informal payments may substantially raise the real cost of government services to patients. Development of carefully designed risk-sharing schemes is an essential complement to the imposition of higher levels of patient fees. Furthermore, fees should largely be restricted to curative care, and graduated to reflect the higher cost of secondary and tertiary care institutions. In urban areas, the Government might usefully explore the option of running some hospitals on a self-financing basis, perhaps as parastatal enterprises.

3.35 The family planning program has so far had very small elements of cost recovery. However, given the seriousness of the problem of rapid population growth and the successful changes that the program has brought about in lowering fertility and increasing contraceptive use (a high level of 46% of eligible couples) the program costs have been demonstrated to be a good investment. For future years, however, services will need to be expanded considerably (by 1 million couples per year, to reach 25 million acceptors in 2000). These heavy requirements, plus anticipated declines in grant funding, make cost considerations an important matter. The Government is rightly planning on a strategy to shift part of the program to the private sector (perhaps 50%), while still supporting a partly subsidized program with NGOs and through the public health services.

3.36 In the urban infrastructure sector, there is indirect cost recovery through local government and assigned revenues, such as PBB. In addition charges are commonly levied for piped water and solid waste disposal. Prevailing tariff structures and levels for most water supply enterprises (WEs) do not ensure full financial viability. Some WEs have adopted a national tariff structure which aims at full recovery of operations and maintenance costs and depreciation; it is expected that this structure will be implemented in all WEs by December 1988. The ultimate objective should be to recover an increasing proportion of capital costs, especially in the larger cities. This should be accompanied by improvements in the financial and operational management of the enterprises so as to ensure that the higher user charges are reflected in the provision of the associated services. Public and private sector bus services generally recover costs adequately in light of recent fare increases. A possible exception is the Jakarta bus company (PPD) which, despite the fare increase, suffers losses due to severe operational inefficiencies. PPD will have to be restructured in the near future to reduce costs and improve revenues. In general, it is essential that local government departments and enterprises be allowed to raise sufficient revenue to cover the costs of providing services by reviewing and revising user charges regularly.

#### D. External Borrowing Strategy

3.37 Despite the Government's cautious approach to external borrowing, the debt service ratio has risen from 17% in 1983 to an estimated 35% in 1987. As noted in Chapter 1, most of this increase has been caused by external factors, especially the decline in oil prices and the depreciation of the US Dollar. Debt payments on past debts are projected to remain high through the end of the 1980s. This heavy debt burden, coupled with the prospect of low oil prices for the foreseeable future, means that Indonesia will have to continue managing its external borrowing very carefully. This will entail keeping a strict limit on borrowing requirements and raising as large a share as possible of its financing on concessional terms. In the short term, there is also a strong case for continued special assistance from IGGI members, in the form of fast-disbursing program aid and local-cost financing. This special assistance will play a vital role in supporting the adjustment in the balance of payments and the Budget over the next couple of years.

#### Financing Requirements

3.38 The macro-projections presented in Chapter 2 are predicated on the assumption that Indonesia will continue with its adjustment program. Accordingly, the current account deficit is projected to decline from an annual average of US\$2.7 billion over the past three years to US\$1.8 billion in 1988/89 and 1989/90 (see Table 3.3). However, once allowance is made for higher amortization payments and the need to maintain adequate external reserves, the annual financing requirement is projected to average US\$7.8 billion, 30% larger than over the past three years. The financing requirement subsequently stabilizes in the early 1990s, as lower current account deficits offset higher amortization payments and reserve accumulation, before rising again toward the end of the decade. An increasing share of this financing requirement is projected to be met by direct foreign investment, in response to the ongoing program of regulatory reform and the strong growth of the economy in the 1990s. Private and short-term capital flows are also expected to strengthen, in contrast to the bouts of speculative pressure against the Rupiah in recent years. Even so, for the next two years, as much as 80% of Indonesia's external financing will have to come from public MLT loans. As the importance of direct foreign investment increases, this ratio falls to about 70% during the 1990s.

3.39 For the next two years, about half of the required disbursements are expected to come from existing commitments. The outstanding balance of undisbursed commitments totalled about US\$20 billion at the end of 1987. This amount includes US\$2.7 billion of undrawn commercial credits; allowing for expiring credit lines, the Government will have to borrow US\$0.7 billion during 1987/88 to keep this balance at around US\$2 billion (as a contingency against unexpected external shocks). The remaining undisbursed balance is largely tied to the implementation of ongoing projects. As noted in Chapter 1, there has been a recent improvement in implementation performance and this trend is expected to continue. Therefore, pipeline disbursements are projected to average

**Table 3.3: EXTERNAL CAPITAL REQUIREMENTS AND SOURCES, 1985/86-2000/01**  
(annual averages, US\$ billion)

	Actual	Projected		
	1985/86- 1987/88	1988/89- 1989/90	1990/91- 1995/96	1996/97- 2000/01
<b>Requirements</b>	<u>6.0</u>	<u>7.8</u>	<u>7.7</u>	<u>9.3</u>
Current account deficit	2.7	1.8	0.9	0.8
of which: interest payments	(3.0)	(3.9)	(3.8)	(4.0)
Amortization payments	3.6	5.4	6.0	6.4
Change in net foreign assets	-0.3	0.6	0.8	2.1
<b>Sources</b>	<u>6.0</u>	<u>7.8</u>	<u>7.7</u>	<u>9.3</u>
Direct foreign investment	0.3	0.5	1.0	2.1
Short-term and other capital (net) <u>/a</u>	0.5	1.0	1.1	1.0
Disbursements of public MLT loans	5.2	6.3	5.6	6.2
Of which:				
Project aid	1.8	2.6	3.5	4.0
Special assistance <u>/b</u>	0.6	2.0	0.1	-
Import-related credits	1.3	0.9	0.9	0.7
Commercial credits	1.1	0.3	1.1	1.5
Other <u>/c</u>	0.4	0.5	-	-

/a Includes errors and omissions and valuation adjustments.

/b Fast-disbursing program aid and local-cost financing.

/c Credits for LNG expansion, LPG and paraxylene projects.

Source: World Bank staff estimates.

US\$3.6 billion p.a. over the next two years. Assuming continued support in the form of fast-disbursing special assistance, the balance of public loan disbursements could be met with annual commitments of around US\$5.5 billion, as compared to US\$4.9 billion in 1987/88. The commitment levels are projected to rise on average by 4-5% p.a. in nominal terms in subsequent years. The projected requirements by source are summarized in Table 3.4.

3.40 Indonesia has made less use of import-related credits in recent years. This trend reflects the Government's decision to reduce public investment in large capital-intensive projects and to place strict limits on the use of non-concessional credits under Presidential Instruction No. 8 of 1984. Consistent with the provisions of this instruction, a number of donors and export credit agencies (e.g., France, Federal Republic of Germany, the United Kingdom and the US Exim Bank) have recently agreed to provide mixed credits on concessional terms. However, given the limited scope for starting major new projects, the

**Table 3.4: PROJECTED COMMITMENTS OF EXTERNAL PUBLIC LOANS AND GRANTS,  
1987/88-2000/01  
(US\$ million)**

	<u>Estimate</u> 1987/88	<u>Projected</u>			<u>Growth rate (% p.a.)</u>	
		1988/89	1989/90	1990/91	1990/91- 1995/96	1995/96- 2000/01
Project aid	2,440	2,400	2,600	3,000	6.8	4.2
Special assistance <u>/a</u>	750 <u>/b</u>	2,400	1,500	700	<u>/c</u>	-
Import-related credits	300	300	400	500	5.0	5.0
Commercial credits	890	700	700	1,000	5.0	5.0
Other <u>/d</u>	520	-	-	-	-	-
<b>Total</b>	<b><u>4.900</u></b>	<b><u>5.800</u></b>	<b><u>5.200</u></b>	<b><u>5.200</u></b>	<b><u>3.2</u></b>	<b><u>4.5</u></b>

/a Fast-disbursing program aid and local-cost financing.

/b Excludes the local-cost financing loan from Japan Exim Bank (US\$905 million) and the Trade Policy Adjustment Loan from the World Bank (US\$300 million) signed in the first quarter of 1987.

/c Special assistance is projected to fall to zero from 1991/92.

/d Credit for the paraxylene project.

Source: World Bank staff estimates.

Government will have to continue to restrict new commitments of import-related credits over the next couple of years. Accordingly, the projections assume that only US\$0.3-0.4 billion p.a. will be available from this source in 1988/89 and 1989/90. In subsequent years, commitments of import-related credits are projected to rise on average by about 5% p.a. in nominal terms.

3.41 Untied commercial credits provide the Government with more flexibility than import-related credits. However, because of their non-concessional terms, they are still less attractive than program aid from official sources. Furthermore, access to commercial credit cannot be taken for granted, especially at a time when many banks are consolidating and reducing their exposure in developing countries. During 1987/88, Indonesia signed agreements for US\$0.9 billion in syndicated loans and will have to borrow another US\$0.7 billion during 1988/89 to maintain the undrawn balance of commercial credits at about US\$2 billion. The projections assume that new commitments of commercial credits remain at this level in 1989/90. Given the amortization payments due in these years, this implies a reduction in commercial bank exposure to Indonesia. However, once the adjustment in the balance of payments is completed, and Indonesia's external debt burden eases, there will be greater scope for increased commitments of commercial credits.

3.42 As in the past, the major source of external finance will be project aid, primarily from members of the Inter-Governmental Group on Indonesia (IGGI). Given the limited scope for starting new projects, and the scarcity of counterpart funds in the Budget, the level of project aid commitments has levelled off in recent years and is projected to remain around US\$2.4 billion in 1988/89. There has also been a shift in the composition of project aid towards rehabilitation and sector-based operations. The World Bank, for example, approved two sector loans for the urban and irrigation sectors in 1987/88, with a total commitment amount of US\$504 million. These loans will finance a time slice of expenditures (including operations and maintenance) over the next two to three years, improve cost recovery and local resource mobilization, and strengthen sector institutions for planning and implementation. This type of assistance will continue to have a high priority. However, as economic activity and investment levels pick up, there will also be more scope for projects to expand capacity. Given the increasing role projected for private investment, especially in support of the export effort, it will be important to find mechanisms to channel aid-financed funds to the private sector, either through direct lending or financial sector operations.

3.43 As discussed at length in last year's Economic Report, the current circumstances in Indonesia warrant special assistance -- in the form of untied and concessional fast-disbursing aid -- to support the adjustment in the balance of payments and the Budget to lower oil prices and adverse exchange rate changes. The response to this need has been very encouraging, with disbursements of special assistance totalling about US\$1.4 billion during 1987/88. The balance of payments projections presented in Chapter 2 indicate that continued special assistance, at a level of US\$2.4 billion, will be required for 1988/89. Program aid and local-cost financing both provide free foreign exchange for the balance of payments during the adjustment period. For the Budget, program aid has the added advantage that it can be used flexibly to finance all expenditures related to project implementation (e.g., land acquisition) as well as complementary measures to improve project effectiveness (e.g., O&M or tertiary canals for an irrigation system). Without this support, import and investment levels would have to be further constrained, thereby adversely affecting economic growth, the non-oil export effort and medium-term development prospects. This assistance will also provide an important signal to world financial markets that the IGGI members support the Government's adjustment program and have confidence in Indonesia's economic prospects. At the same time, the provision of special assistance has to be seen as a temporary expedient, matched by the Government's efforts to improve non-oil export performance and public resource mobilization. As the external and domestic financing gaps are narrowed, special assistance can and should be phased out. Accordingly, the balance of payments projections assume a steady reduction in special assistance to US\$1.5 billion in 1989/90 and US\$0.7 billion in 1990/91, with no new commitments in subsequent years.

3.44 As in the past, a portion of the projected requirements for project aid and special assistance is expected to be provided outside the IGGI. Allowing for these amounts, it is recommended that the level of IGGI assistance to

Indonesia in 1988/89 be US\$3.6 billion, 13% higher than pledged for last year. To the extent possible, donors are urged to provide their commitments in the form of special assistance.

### Debt and Debt Servicing

3.45 As discussed in Chapter 1, Indonesia's external debt has grown rapidly over the past three years and the debt service ratio is now at a high level (35%). However, in gauging the significance of Indonesia's debt position, it is important to take note of several factors: (a) the recent increase in the debt service ratio is largely due to external factors, especially the decline in oil prices and the depreciation of the US Dollar; (b) because of the relative importance of concessional assistance in Indonesia's debt, the ratio of interest payments to exports (the "interest cover") is significantly lower (15%) than in most highly-indebted countries; (c) the Indonesian Government is implementing a successful adjustment program, including restraint on non-concessional credits and policies to develop non-oil exports; and (d) as a result, all of the key debt ratios are projected to decline steadily after 1988. With continued progress on adjustment and an appropriate borrowing strategy, Indonesia is in a good position to reduce the burden of its external debt, while also mobilizing adequate resources to support economic recovery and development.

3.46 With the borrowing strategy outlined above, the growth of Indonesia's external debt will slow considerably over the next few years, with virtually all of the increment in the form of official assistance. As shown in Table 3.5, total MLT debt disbursed and outstanding (DOD) is projected to rise from US\$47.3 billion in 1987 to US\$53.2 billion in 1990, an increase of only 12%. Debt service payments will rise more rapidly, by an estimated 33%, over this period. But, with the projected growth in non-oil exports, the debt service ratio will peak at close to 40% in 1988 and then decline in subsequent years, falling back to 35% by 1990. Similar trends are evident in the debt service/GNP and interest/exports ratios. The DOD/exports ratio falls more rapidly from the peak level of 251% in 1986. Once the adjustment process is complete, and the external debt burden eases, there would be some scope for a more rapid expansion of external borrowing during the 1990s. Under the proposed borrowing strategy, new commitments of external loans are projected to rise on average by 4-5% p.a. over the medium term. Even so, the debt service ratio continues to fall, reaching 22% in 1995 and 15% by the year 2000.

3.47 The debt service ratio would be adversely affected if the external environment were less favorable than projected or if Indonesia were unable to mobilize the projected levels of official assistance, thereby forcing increased dependence on more expensive forms of commercial borrowing. However, as noted in Chapter 2, the projections already include a contingency of reserves to protect against an unexpected external shock, and the Government's long-standing record of sound economic management provides confidence that the required adjustment measures will be taken. Therefore, provided the Government can mobilize the projected levels of external financing, especially the short-term requirements for concessional untied assistance, Indonesia's balance of payments position is expected to remain manageable and to strengthen over the medium

**Table 3.5: MEDIUM- AND LONG-TERM DEBT, 1985-2000 /a**  
(US\$ billion)

	Actuals			Projections				
	1985	1986	1987	1988	1989	1990	1995	2000
<b>Disbursed &amp; outstanding/b</b>	<b>32.1</b>	<b>38.1</b>	<b>47.3</b>	<b>50.0</b>	<b>51.8</b>	<b>53.2</b>	<b>56.7</b>	<b>61.4</b>
Public debt /c	28.3	34.3	43.2	45.7	47.3	48.7	52.5	57.2
Private debt	3.8	3.8	4.1	4.3	4.5	4.5	4.2	4.2
<b>Amortization payments</b>	<b>3.3</b>	<b>3.1</b>	<b>3.9</b>	<b>5.8</b>	<b>5.5</b>	<b>5.6</b>	<b>6.0</b>	<b>6.6</b>
Public debt /c	2.5	2.6	3.3	5.2	4.7	4.6	4.8	5.4
Private debt	0.8	0.5	0.6	0.6	0.8	1.0	1.2	1.2
<b>Interest payments</b>	<b>2.2</b>	<b>2.5</b>	<b>2.8</b>	<b>3.2</b>	<b>3.3</b>	<b>3.3</b>	<b>3.2</b>	<b>3.4</b>
Public debt /c	1.8	2.2	2.5	2.8	2.9	2.9	2.9	3.0
Private debt	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4
<b>Total debt service</b>	<b>5.5</b>	<b>5.6</b>	<b>6.7</b>	<b>9.0</b>	<b>8.8</b>	<b>8.9</b>	<b>9.2</b>	<b>10.0</b>
Public debt /c	4.3	4.8	5.8	8.0	7.6	7.5	7.7	8.4
Private debt	1.2	0.8	0.9	1.0	1.2	1.4	1.5	1.6
<b>Debt ratios (%)</b>								
Debt service/exports /d/e	25.4	36.8	34.7	39.9	38.2	35.4	22.0	15.3
Debt service/GNP /e	6.3	7.8	10.3	12.0	11.7	10.9	7.1	4.9
Interest/exports /d	11.0	16.3	14.5	15.3	14.3	13.1	7.7	5.2
DOD/exports /d	161.5	250.6	243.5	236.6	224.4	211.3	136.2	93.3
DOD/GNP	40.0	52.8	72.1	71.0	68.5	64.9	43.7	29.5

/a Projections are based on exchange rates as of December 31, 1987.

/b At end of period.

/c Including credits for LNG expansion, LPG and paraxylene projects.

/d Denominator is gross exports of goods and services.

/e Debt service excludes prepayments.

Source: Bank Indonesia and World Bank staff estimates.

term. Accordingly, the Government remains committed to repay its external debts on schedule, as reiterated in the President's Speech of Accountability in March 1988.

3.48 The Government has made considerable progress over the past two years in strengthening its capacity to monitor and administer external public debt./1 As a result, debt payments are handled in an efficient manner, with no errors

/1 Because of the open capital account, there are no formal reporting requirements on private capital flows.

or delays. As a follow-up, it would now be useful to extend this capacity into the areas of debt analysis and management. This should include, inter alia, analyzing changes in Indonesia's debt structure (e.g., sources, terms, currencies), matching the composition of foreign assets and liabilities, monitoring trends in world currencies and interest rates, and gaining familiarity with the full range of financial instruments available. In the short term, the scope for major gains through more active debt management may be limited, due to the uncertainties in world financial markets. But, over the medium term, a stronger debt management capability could provide the Government with added protection against unexpected external shocks.

## CHAPTER 4

### POLICIES FOR STRUCTURAL CHANGE

#### A. Introduction

4.01 During the early 1980s, Indonesia's trade regime became increasingly oriented towards protecting producers for the domestic market. Backed by public investment from the oil boom, the Government's industrial strategy leaned towards encouraging "upstream" industries, such as cement, fertilizer, synthetic fibers and iron/steel. Some of these activities required a higher level of protection than that provided by tariffs, particularly when the slowdown in the domestic economy after 1982 left many carrying excess capacity. Due to these pressures, the Government issued several decrees in late 1982 and early 1983 which dramatically increased the number of products requiring an "approved importer" license.<sup>/1</sup> It is estimated that by mid-1986 over 1,700 CCCN items (about a third of the total) were covered by some form of restrictive license.<sup>/2</sup> These items accounted for about 40% of both total import value and domestic production. In addition, 24 products were under import ban (including automobiles, motorcycles, televisions and radios in CBU condition). The increased importance of non-tariff barriers (NTBs), coupled with the existing import tariff structure, provided high and disparate rates of protection to domestic producers which fostered the development of many high-cost and inefficient industries.

4.02 Enterprise performance was also affected by the proliferation of domestic regulations and licensing procedures. Investment and capacity licensing increased, and control over foreign investment tightened. It became increasingly more difficult to enter an activity where a domestic producer was already operating (albeit inefficiently) and expansion of an existing plant or diversification into new product lines was subject to a cumbersome number of administration decisions. In some cases the protection provided against international competition by NTBs was compounded by protection from domestic competition by restrictive domestic licensing arrangements. In other cases, a complex combination of trade and domestic regulation was used to shape the development of a particular subsector (e.g., the "deletion program" which attempted to increase the local content of engineering products).

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<sup>/1</sup> This restricted the right to import such a good to designated producers or traders. The actual degree of restriction varied according to the type of license category the good was classified under (i.e., there was more than one type of import license) and on whether a formal quota or ban was in effect.

<sup>/2</sup> About 20% of these items were listed as eligible for quotas, 7 of which were effectively banned (i.e., had a zero quota), 149 have had value or volume quotas, and 140 have no fixed quotas (but require administrative approval from the Ministry of Trade at the time of import).

4.03 As oil-related export earnings and tax revenues declined in the early 1980s, the danger of pursuing an inward-looking development strategy became apparent. Sluggish domestic demand undermined profitability, while protection from foreign and local competition undermined efficiency. In addition, implementing the complex regulations required increased administrative discretion which created opportunities for abuse. The resulting "high-cost economy" was not geared towards generating the expansion in non-oil exports needed to replace oil earnings or provide the necessary employment opportunities. A fundamental change in the incentive and regulatory framework was required to open up the economy to world markets so as to sustain domestic growth. The Government has responded to this need by implementing a series of far-reaching trade and industrial policy reforms over the past three years. Recent progress in these areas, as well as priorities for follow-up action, are discussed in Sections B and C below.

4.04 The ability of business enterprises to respond to the ongoing program of trade and industrial policy reforms, and to support the non-oil export drive, will depend critically upon complementary development of the financial sector. It is apparent that the next stage of industrial development will require a substantially higher private investment effort. However, while recent financial sector reforms have led to rapid deposit growth, they have been less successful in improving the availability and cost of long-term investment funds. In addition, a significant portion of the corporate sector is undergoing financial distress as a result of cost pressures and adverse domestic market conditions. The ability of manufacturing firms to grow in the future, therefore, will rest not only on physical restructuring to reorient production toward export markets, but also on financial restructuring to generate sufficient funds to undertake the required investment. In turn, the ability of the financial sector to meet these funding needs will be determined by actions to improve the efficiency of the banking system and develop capital markets. Related issues of financial sector development are discussed in Section D.

## **B. Trade Policy Reforms**

### **Some Initial Steps**

4.05 The first steps towards improving the trade regime were taken during 1985 and 1986. First, in March 1985 the Government implemented a comprehensive reform of the tariff schedule. The tariff ceiling was lowered from 225% to 60%, and the number of tariff positions was reduced from 25 to 11 (see Table 4.1). The reform also raised the percentage of items with tariffs below 30% from about 59% to 82%. Although this resulted in an unequivocal improvement in the trade regime, its effect was mitigated by the proliferation of import licenses. Second, in April 1985, the Government completely reorganized the customs, ports and shipping operations. It placed the sensitive job of certifying imports in the hands of private surveyors (SGS). This has reduced both the numbers of customs officials required and the discretion used at the port of entry. As a result, the average time spent on customs procedures has been cut by several weeks, and the cost of freight forwarding both for exports and imports has

**Table 4.1: RECENT CHANGES IN THE TARIFF SCHEDULE /a**

Tariff rates	1980 schedule		1985 schedule		Present schedule /b	
	No. of tariff categories	% of CCCN items covered	No. of tariff categories	% of CCCN items covered	No. of tariff categories	% of CCCN items covered
0%	1	6.5	1	6.3	1	9.1
Up to 5%	4	29.2	2	32.0	2	35.4
Up to 10%	6	39.5	3	44.9	3	47.8
Up to 15%	7	41.9	4	50.3	4	52.5
Up to 20%	8	47.8	5	64.0	5	62.5
Up to 30%	10	58.7	6	81.8	6	80.5
Up to 40%	12	70.6	7	91.5	7	90.2
Up to 50%	14	77.9	8	96.2	8	95.4
Up to 60%	15	90.1	9	99.6	9	99.5
Up to 80%	17	95.1	9	99.6	9	99.5
Up to 100%	19	99.6	10	99.9	10	99.9
Up to 200%	24	99.9	11	100.0	11	100.0
Up to 225%	25	100.0				

/a Table shows cumulative number of tariff categories and percent of CCCN items covered at various tariff rates. Specific tariffs are excluded.

/b As of December 24, 1987.

Source: Ministry of Finance and World Bank staff estimates.

declined enormously. Third, on May 6, 1986, the Government announced a package of measures designed to provide internationally-priced inputs to exporters. Indonesia's accession to the GATT Code on Subsidies and Countervailing Duties in 1985 required withdrawal of the Export Certificate Scheme.<sup>/1</sup> As a result, it became necessary to find an alternative method to protect the competitiveness of Indonesian exporters from the "high-cost" local economy and import license restrictions. The May 6 program was designed to do this by allowing "producer-exporters" the option of importing their inputs free of restrictions and exempt from import duties. The significance of the program goes beyond allowing

<sup>/1</sup> As a scheme for rebating exports, the Export Certificate Scheme suffered a number of drawbacks. The level of payment often did not relate to actual duty cost and was often viewed in importing countries as a direct subsidy. In addition treatment was uneven, in some cases actual payment was less than the duties borne: usually for the more competitive exporters able to compete without subsidy. A final difficulty was that, even if import duties were fully rebated, the scheme did not provide a method of bypassing the approved traders, and therefore did not compensate exporters for the costs imposed on them by the restrictive import license system.

imports to be brought in duty-free as it also allows producer-exporters to bypass the approved traders. In addition, a duty drawback facility was created to enable indirect exporters to reclaim import duties.

4.06 Initially there were doubts whether the complex regulations and the creation of a new government body would assist exporters effectively. However, the executing agency (P4BM)/1 has worked smoothly, with "arms length" administration and minimal delays in processing applications. P4BM has been able to reduce and standardize the information required to grant producer-exporter status (basically an export order verified by the exporter's bank and detailed information on input-output coefficients). As shown in Table 4.2, the scheme has provided exporters with almost US\$1 billion of imports during the 18 months through December 1987, accounting for about 6% of total non-oil imports over this period. These imports were allowed to bypass the approved-trader restrictions and were exempted from US\$430 million in taxes. It is also encouraging to note that access to the May 6 scheme has been broadened from the initial focus on textiles to include significant numbers of exporters in the processed food, chemical and wood product sectors.

**Table 4.2: IMPLEMENTATION OF MAY 6 SCHEME /a**  
(US\$ million)

Activity	Value of imports approved	Value of exemptions	
		Import duty	VAT
<b>Exporters</b>	<b>989.4</b>	<b>310.0</b>	<b>122.0</b>
Textiles and garments	315.5	148.5	46.3
Processed foods	329.3	104.9	37.0
Chemicals	73.6	17.3	8.3
Wood products	105.5	13.5	11.8
Other	165.5	25.8	19.1
<b>Government projects /b</b>	<b>168.6</b>	<b>31.8</b>	<b>-</b>
<b>Total</b>	<b>1,158.0</b>	<b>341.8</b>	<b>122.5</b>

/a From July 1, 1986 to December 31, 1987.

/b The May 6 scheme also applies to contractors for foreign-assisted government projects. However, the text discussion focusses on exporters only.

Source: Ministry of Finance.

/1 The Pusat Pengelolaan Pembebasan dan Pengembalian Bea Masuk of the Ministry of Finance.

4.07 However, while these initial steps were welcome, they did not directly address the distortions created by the proliferation of import licences. Indeed the rationalization of the tariff schedule and the improvement in customs procedures increased the relative importance of NTBs. And while the May 6 scheme is a useful mechanism by which to overcome the cost raising effects of NTBs and high tariffs, it does not directly reduce the anti-export bias of the trade regime. For example, smaller exporters may be deterred from applying due to administrative costs or because they are reluctant to break established relationships with large domestic trading companies. Furthermore, the scheme can only indirectly encourage domestic import-substitution activities to increase efficiency. Hence, the need for more fundamental reforms to reduce the role of NTBs and move towards a tariff-only system of protection.

**Recent Trade Reform Measures**

4.08 Three major trade reform packages were announced in October 1986, January 1987, and December 1987. These packages have focussed on three priority areas: (a) removing import licensing restrictions; (b) adjusting tariffs and surcharges; and (c) directly reducing the anti-export bias.

4.09 Import licensing. These three packages marked significant progress towards the Government's primary objective at this stage of trade reform, i.e., to move away from a trade regime dependent on NTBs to one based on tariffs. As shown in Table 4.3, the total effect of the reforms has been the removal of 539 items from license control, accounting for 31% of all items, and 41% of total

**Table 4.3: IMPACT OF REFORM PACKAGES ON IMPORT LICENSING COVERAGE SINCE 1986**

Coverage	Before reforms mid-1986	Post Oct. 1986	Post Jan.1987	Post Dec. 1987
% of CCCN items/ <sup>a</sup>	31.4	27.9	25.7	21.7
% of import value/ <sup>b</sup>	42.9	34.9	31.5	25.2
% of total domestic production/ <sup>c</sup>	43.5	41.5	40.6	39.5
<b>Memo item:</b>				
% of domestic production in:				
Manufacturing	49.1	42.4	38.8	34.8
Agriculture	66.4	65.7	65.6	65.4
Mining and minerals	0.2	0.2	0.2	0.2

<sup>a</sup> Based on 1985 Tariff Schedule. Total number of CCCN items estimated as 5,500.

<sup>b</sup> Based on CBS 1986 import data at seven digit CCCN level.

<sup>c</sup> Estimated as the 1985 value of domestic production minus exports protected by restrictive import licenses as a share of total domestic production, all at unassisted prices.

Source: World Bank staff estimates.

import value.<sup>/1</sup> More importantly, the share of total domestic production covered by import licensing has declined from 43.5% in mid-1986 to 39.5% at the end of 1987. The reduction in manufacturing production -- where the reforms have focussed -- has been more significant, declining from 49.1% in mid-1986 to 34.8% by end 1987. Moreover as explained below, the reduction in import licensing has concentrated on those items with the highest effective rates of protection.

4.10 The reform effort has had less of an impact on domestic production than on either import value or the number of CCCN items for two reasons. First, the reforms have not tackled license restrictions in the agricultural sector, which accounts for 47% of total production but only about 10% of total import value.<sup>/2</sup> A number of agricultural commodities are under import license (e.g., rice, wheat and many food and beverage products) which account for a large share of domestic production. However, as the effective rate of protection estimates provided in Table 4.4 indicate, most of these commodities (with the notable exception of food and beverages) do not derive high levels of protection from the license restriction, and hence are not priority areas for reform.<sup>/3</sup> Second, within manufacturing, relatively more progress has been made in removing license restrictions on imported items than on domestically produced items. It may be desirable to lower restrictions on imported inputs during the initial stages of reform as it provides exporters with access to their inputs at international prices and reduces the domestic resistance to change. Nevertheless, the further the reforms proceed, the more difficult it will be to avoid this challenge. During the process of structural change some sub-sectors will inevitably contract, but -- as the rapid increase in manufactured exports since 1986 illustrates -- others will expand. And, over the medium term, the resulting shift in resources will create a more competitive manufacturing sector capable of supporting a higher level of employment and non-oil exports.

4.11 It is important to note that the foregoing analysis is based on a very strict definition of licensing restrictions, i.e., all licenses (other than for general imports) are assumed to be restrictive. In practice, however, the degree of protection provided by the different import licenses varies significantly. The least restrictive of these licenses (IP) allows imports by all producers who require these items as inputs into their production process. The reform packages have placed many of the restricted items in the textile and engineering goods sectors under the IP license. As a result, virtually all production in textiles now falls under the unrestricted or IP license category. Furthermore, as many textile producers export a large

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<sup>/1</sup> A further 5 items (i.e., CBU radios and TVs) were removed from license control but remained banned under an earlier decree. The analysis does not, therefore, treat these items as having been moved off license.

<sup>/2</sup> Under the definition used here, manufacturing accounts for 25% and minerals/metals 28% of domestic production.

<sup>/3</sup> This partly reflects domestic competition and partly the fact that some of the more important license restrictions are imposed to achieve procurement, domestic distribution, and food security objectives and not, necessarily, to protect domestic producers.

**Table 4.4: STRUCTURE OF NOMINAL AND EFFECTIVE PROTECTION**

Sector	Output (Rp trillion)	Nominal protection on output (%)	Effective rate of protection (%)
<b><u>Agriculture and agroprocessing</u></b>			
Food crops	16.5	15	19
Estate and other crops	6.9	6	11
Livestock	4.9	23	23
Forestry	1.6	-17	-25
Fishing	2.1	25	22
Food, beverages and tobacco	18.0	23	37
<b><u>Manufacturing</u></b>			
Textiles, clothing and footwear	3.8	35	49
Wood products	3.9	3	14
Paper products	1.1	22	14
Chemicals	2.9	21	45
Non-metallic products	4.3	29	43
Basic metals	1.9	8	31
Engineering	6.4	37	48
Other manufacturing	0.5	38	40
<b><u>Mining and petroleum</u></b>			
Mining and quarrying	1.2	6	4
Oil and gas	24.2	0	-1

Source: George Fane and Chris Philipps, "Effective Protection in Indonesia" (December 1987).

proportion of their total output, they also have access to the May 6 scheme which bypasses all import restrictions. In the engineering goods subsector, most unassembled kits can now be imported with an IP license, and most imports of components are free of license restrictions.<sup>1</sup> This has put more competitive pressure on domestic component manufacturers. However, many final goods in the engineering good sectors continue to remain under restrictive license or import bans.

4.12 In addition to reducing the share of manufacturing production covered by restrictive import licensing, an important measure of the significance of the reforms is the extent to which import licenses have been removed for the most highly protected manufacturing activities. Table 4.5 shows how the share of

<sup>1</sup> A very important part of the December 1987 reform package was the reduction in the number of items in the machinery and heavy plant subsectors under the AT (sole agent) license from 278 to 70.

domestic production protected by import licensing has changed for individual subsectors, and Table 4.4 presents estimates of the level of nominal and effective protection for the same subsectors prior to the most recent reforms. It is clear from comparing the two tables that the most rapid declines in the share of domestic production protected by import licensing have occurred in the textile, clothing and footwear, basic metals, and engineering subsectors, all of which were afforded high levels of protection under the previous trade regime.

**Table 4.5: EFFECT OF REFORM PACKAGES ON MANUFACTURING SECTOR SINCE 1986**  
(% of domestic production covered by import licenses) /a

Coverage	Before reforms mid-1986	Post Oct. 1986	Post Jan. 1987	Post Dec. 1987
Textiles, clothing and footwear	64.0	61.3	38.2	38.2
Wood products	0.0	0.0	0.0	0.0
Paper and printing	69.6	50.4	50.4	50.4
Chemical products	59.9	52.1	51.1	51.1
Non-metallic products	28.2	21.7	21.7	21.7
Basic metals	45.5	44.6	38.6	29.2
Engineering products	86.7	73.5	73.5	60.3
Other manufacturing products	28.9	25.2	25.2	24.6
<b>Manufacturing sector /b</b>	<b>49.1</b>	<b>42.4</b>	<b>38.8</b>	<b>34.8</b>

/a Estimated as in Table 4.3.

/b Defined as in Table 4.4.

Source: World Bank staff estimates.

4.13 Import tariffs and surcharges. In addition to reducing import license restrictions, all of the recent trade reform packages have included decrees which changed import tariff rates. The changing pattern of Indonesia's overall tariff structure is illustrated by the frequency distribution of tariff rates in Table 4.1. As shown, the major corrective tariff reform occurred in 1985, and the net impact of the subsequent trade reform packages has been small.

4.14 Recent changes were of two types. First, tariffs were increased on 154 items in October 1986 and on 121 items in December 1987. The primary objective of these increases was to compensate for the removal of license restrictions, within the reduced tariff ceilings set in 1985.<sup>1</sup> Second, tariffs were lowered

<sup>1</sup> In only three instances were tariffs raised above the 60% ceilings set in the comprehensive 1985 tariff reform, and these three items have subsequently been reduced to below the ceiling.

on 152 items in October 1986, on 55 items in January 1987 and 124 items in December 1987. In the first two packages, the reductions were focussed on imported inputs which are not produced locally, so as to offset the cost-raising effects of the September 1986 devaluation.<sup>/1</sup> The December reductions went beyond this limited objective in that some focussed on domestically produced items that were removed from license protection under an earlier decree but provided a high tariff (e.g., paper products). This is an important next step in the reform process of reducing the level and disparity of protection through tariff rationalization.

4.15 The October and December packages also specified 143 items as potentially surchargeable. Only 54 of these had surcharges imposed, with the remaining 89 items having surcharges set at zero.<sup>/2</sup> Most of the surcharges are on locally produced steel products for which license protection was removed. The Government's rationale is to use the surcharge as a temporary measure to allow domestic producers time to adjust and as a mechanism to offset predatory dumping. The Government intends to impose a surcharge on a temporary and highly selective basis. These surcharges will be reviewed on a regular basis and extended only if still justified.

4.16 The strategy of moving away from NTBs and toward tariff-only protection inevitably increases the importance of the tariff structure. In those subsectors where license restrictions have been removed and tariffs left unchanged or lowered (e.g., textiles, aluminum products and selected steel products) there has been a reduction in protection. But in those subsectors where license restrictions have been replaced by higher tariffs (or surcharges), or where only the tariff on the imported inputs have been lowered, the level of protection has probably increased. While some ad hoc adjustments in tariffs may be a price worth paying in moving away from NTBs, domestic investors should not anticipate that high tariffs on outputs and low tariffs on inputs will continue. If non-oil exports are not to be discouraged relative to import substitution activities, the Government will have to build upon the limited steps that it took in the December package to reduce tariffs on domestically produced items.

4.17 Export policy. The December 1987 package goes beyond the previous two packages in that it addressed some of the restrictions and internal licensing requirements that directly affect exports. The December package abolishes the need to have an APE (Exporter Identification Number) or APES (Provisional Exporter Identification Number) or an APET (Limited Exporter Identification Number). Under the new regulations, both domestic and joint ventures will only

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<sup>/1</sup> For those items that are inputs into export or lightly protected import substitution activities and for highly protected end-products, the reduced tariffs have improved the structure of assistance. But for those items that are inputs into license-protected import substituting activities, the reduced cost of imported inputs will increase protection in already highly protected activities.

<sup>/2</sup> 38 items have been set at 30%, 9 items at 10%, and 4 items at 20%, 17.5%, 12.5% and 2.5% respectively.

have to present their business permit to prove their identity./1 This is a significant step in reducing the redundant rules and regulations that restrict exports. It is anticipated that it will particularly assist small exporters and help encourage the diversification of exported items. For example, smaller handicraft producers no longer have to channel their export trade through holders of an APE. In addition, it is no longer necessary to obtain an export license for textile exports to non-quota countries. The December package also reduced the items covered by export bans or domestically imposed export quotas. Export bans on 10 items (primarily processed wood products) and export quotas on 24 items (processed meats, refined coconut and palm oil, copra, sugar, asphalt, tires, jewelry and basic iron) have been abolished, and the export of tobacco is no longer restricted to a list of approved exporters. However, the Ministries of Trade and Agriculture have indicated that exports of certain food products (e.g., crude palm oil) will still require a "letter of approval".

4.18 Finally, the May 6 scheme, which successfully provided exporters with access to their required imported inputs, has been broadened in a number of ways. First, the December package has increased access to the import duty/VAT exemption scheme of P4BM by lowering the proportion of a firm's total output that has to be exported to qualify. Henceforth, a firm will only have to export 65% (previously 85%) of total production to be granted an exemption from import license restrictions and duties/VAT payments on 100% of the firm's required imported inputs. For the portion sold domestically, firms pay duties and VAT retroactively based upon a reconciliation report filed every semester. Second, P4BM can now provide the same exemptions to the imported machinery that non-PMA/PMDN companies need to expand production for exports. It is anticipated that this will reduce the time taken for approval from, in some cases, one year to a month or less. Third, P4BM can now provide exemptions on the raw materials and machinery used by contractors that undertake government projects./2 Lastly, the drawback system for VAT on domestic raw materials used by exporters has been transferred from the Domestic Tax Inspection Office to P4BM. This consolidates the drawback facility (i.e., including import duty) in one department and should speed up processing.

#### Agenda for Follow-up

4.19 Ensure proper implementation. To fully benefit from the trade reform effort, the Government needs to strengthen its implementation and monitoring capacity. As shown in Table 4.6, a significant number of the products covered by the reforms have become classified under either the IP (actual user) or IT (trading companies) license category. To be granted an IP license, the Ministry of Trade has announced that the producer should submit a business permit, the producer or limited identification number, the company registration certificate

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- /1 Except those products governed by international trading agreements or where Indonesia is a major world supplier.
- /2 Previously, the exemptions were limited to those items of machinery and goods that were on the tender masterlist that would be transferred to the Government when the project was complete.

**Table 4.6: LICENSE STATUS OF ITEMS COVERED BY DECREES SINCE OCTOBER 1986**

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	IU	IP	AT	IT	Other	Total
Number	544	192	70	361	62	1,229
Percentage	44.3	15.6	5.7	29.4	5.0	100.0

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Source: Ministry of Trade.

and, where applicable, a letter of recommendation from the Ministry of Industry. Since October 1986 about 250 IP licenses have been issued, and the value of imports entering Indonesia under the IP license has more than doubled. The Ministry of Trade estimates that less than 10% of applicants have been rejected (due to inadequate documentation) and that the processing time is 3 to 4 days. It is important that the Ministries of Industry and Trade both continue to search for ways to simplify and make more transparent license application procedures. It may also be useful for both Ministries to strengthen their monitoring capacity (e.g., number of applicants, number of approvals, processing time) and to use this information to assess or demonstrate how efficiently the current system is operating. For those items classified as IT the potential applicants are clearly known i.e., the six trading companies specified as IT license holders.<sup>/1</sup> However, it will be important to encourage the nominated trading companies to compete, particularly by discouraging collusion and by not imposing any informal or formal quota restrictions.

4.20 Lastly the criteria by which surcharges are imposed needs to be clearly defined. For example, the December package specified 110 items as potentially surchargable but set the surcharge for 59 of these items at zero. This creates a need to establish an analytical capacity to assess whether an appeal for a surcharge is valid and, if so, what the rate should be. In addition, as the Government intends to use surcharges as a temporary anti-dumping measure, the time limit on existing surcharges and the procedures for review needs to be determined.

4.21 Simplify the license categories. The subdivision of products into different, and in some cases very restrictive, license categories makes the system complex and could result in unintended restrictions. The approach taken to this problem in the trade reforms to date has been to classify a particular product under more than one license category. For example under the January 15 decree practically all the items that were classified as IP were also classified as IT. This makes sense as it allows smaller producers, who do not find it profitable to import directly, to obtain their import needs through domestic

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<sup>/1</sup> These are P.T. Pantja Niaga, P.T. Dharma Niaga, P.T. Tjipta Niaga, P.T. Kerta Niaga, P.T. Mega Eltra and P.T. Sarinah.

trading companies. Alternatively, under the December decree, the 70 items classified as AT were also classified as IU. However, in this case, the potential IU importer requires a letter of no objection from the AT holder.

4.22 The need to place an item in more than one license category suggests that the license categories may be too narrowly defined. One solution would be to simplify the license system by reducing the number of license categories. For example the IP and IT licenses could be merged, supported by a clear statement that all potential applicants have equal access to the items so classified. This type of reform would reduce the complexities of the system and reduce the significance of the restriction. This would be similar to the change in the domestic regulatory environment which allowed firms to diversify production into much broader product categories. The objective would be to broaden the license coverage to ensure that domestic producers, particularly for the export market, can obtain their inputs at the most competitive prices.

4.23 Limit coverage of import/export bans and quotas. As these forms of NTBs provide the highest form of protection (in the most extreme cases encouraging smuggling), it would be advisable to limit their coverage to a few strategic or health-related items. Currently, there is a great deal of administrative discretion and lack of transparency. Many items that are under quota -- both on the import and export side -- have no fixed formal quota and others appear to be subject to informal restraints. For example, despite the removal of the formal quota on palm oil exports in the December 24 package, exporters must still obtain a letter of approval from the Ministry of Trade. This lack of clarity increases uncertainty and undermines private sector investment. It would be useful for the Government to take stock of the items under quota or ban and publish a definitive list of these items with the quota ceiling or the agency responsible for fixing/allocating the quota clearly defined. Before an item is placed under either a quota or ban, a strong case should be made as to why an import tariff or an export tax is inappropriate. In general an import tariff/export tax is preferable to the use of bans or quotas. In the case of exports, however, even the use of an export tax needs to be considered carefully. This is because no country can have the same degree of influence over the global export market as it has over its domestic market. Thus, the dangers of losing market share (either by encouraging other producers or product substitution) and the costs imposed on the producer of the taxed export commodity (mostly raw materials) should be weighed against the potential benefits provided to domestic users of the taxed commodity.

4.24 Reduce license coverage. The Government is committed to continue reducing the number of items subject to restrictive licenses. This should include those sectors which have not been dealt with so far as well as a reconsideration of those already covered by past decrees. The prime objective is to move the maximum number of items off license and under a tariff. For example, while the reduction in the number of items classified as AT from 278 to 70 under the December 24 package was a significant achievement, only 111 of these items were moved to IU status.<sup>1</sup> Many of the items that remain under

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<sup>1</sup> The remaining 97 items have become subject to IP (36), IP/IT (6), IT (24), and IT/PI (27) licenses, or merged into other CCCN categories (4).

license control (e.g., some textiles and most steel products) could comfortably compete against imports with relatively low tariff protection. In most cases, such a change would not cause a sudden jump in imports, but rather a restructuring of the domestic industry in favor of the most efficient producers. This would strengthen competitiveness, lower costs to downstream users or consumers, and provide more secure, high productivity, jobs. In those activities where all producers would be significantly hurt by the removal of license control, a temporary surcharge (or adjustment in the tariff within the ceiling) could be considered. However increased tariff protection must be used, and be seen to be used, only as a temporary measure. As restructuring production activities to increase competitiveness is the objective of the reform, ad hoc adjustments in tariffs or surcharges should not be used to undermine this process.

4.25 Rationalize the tariff schedule. As stated earlier, the strategy of moving away from NTBs toward tariff-only protection inevitably increases the importance of the tariff structure. The trade reform packages to date have focussed on establishing tariff equivalent rates for domestically produced products and lower tariffs for non-locally produced imported inputs that have been removed from license control. While this may be appropriate in the initial phases of reform, it is important that domestic producers do not perceive the resulting high levels of protection to be permanent. Thus having moved items off license and lowered tariffs on inputs, the Government should consider moving on to the next step and lower tariffs on outputs.

4.26 It would be appropriate to undertake this next step in the context of a comprehensive rationalization of the existing tariff schedule, not necessarily connected to the phased withdrawal of NTBs. To start the process, an across-the-board change in the tariff schedule is desirable to clarify some of the ambiguities that have arisen due to the reform process (e.g., the splitting of some CCCN positions) and to consolidate the ad hoc changes already made. This could be accompanied by a phased timetable of future tariff changes designed to reduce the range of tariffs to within a much narrower band. The objective of publishing such a timetable is to send a strong signal to private investors that the Government is committed to providing equal incentives to export and import substitution activities. This will enable the private sector to make investment decisions which will reflect less distorted relative prices. The ongoing conversion of the 1985 tariff schedule to the harmonized system of classification provides an opportunity to start preparation of a systematic medium-term plan for tariff reform.

### C. Enterprise Deregulation

4.27 External trade policy is just one aspect of the regulatory framework that conditions the business environment in Indonesia. The performance of the economy has also been hindered by a multitude of domestic regulations and procedures. Enterprises are required to obtain approval for investment, are

issued an operating license which may state explicitly the specific item to be produced as well as the output capacity, and are subject to further restrictions regarding their domestic trading activities and labor practices. Regulations affecting enterprise performance are promulgated and implemented by many different agencies with generally weak coordination. As a result, a significant number of regulations are redundant and the regulatory system is overburdened with numerous and contradictory objectives. This complex and restrictive set of regulations has acted to stifle competition, inhibit flexibility in resource use and retard productivity improvements, all of which have served to raise production costs. The dense system of regulations, and the uncertainty it creates, partly because of discretion in the interpretation and implementation of rules, acts as an impediment both to private investment and operating efficiency. The Government has recognized the constraints imposed by the regulatory system and has initiated a series of reforms focussing on three priority areas: (a) investment and capacity licensing; (b) foreign investment regulations; and (c) local content programs. These are analyzed below.

### Recent Deregulation Measures

4.28 Investment and capacity licensing. Industrial investment for new or expanded capacity is regulated by two agencies, the Investment Coordinating Board (BKPM) and the Ministry of Industry (MOI). All firms with any degree of foreign investment (PMA firms) must apply through BKPM, as must domestic firms seeking limited fiscal incentives (PMDN firms).<sup>/1</sup> A central element of the investment licensing system is BKPM's annual Investment Priority List (DSP), which specifies the areas of investment that are: open to foreign investment; open to domestic firms seeking incentives; open to small scale enterprises and non-PMA/PMDN investment; and, closed to further investment. After an investment application is approved and an investment license is issued, a number of other licenses are required: land rights; location permit; nuisance license (including pollution control approval); building permit; tax registration; domestic trade license; and safety permit. While these licenses may serve legitimate regulatory concerns, obtaining them tends to be cumbersome, and adds to the costs and time of the investment process. Finally, the permanent operating license is issued prior to commencement of production, which specifies in detail the operating conditions for the factory, including the type of activity and approved plant capacity.

4.29 Since 1985, a number of steps have been taken by the Government to streamline the investment approval process and relax investment licensing. First, under the May 1986 package, investment licensing procedures were streamlined. The maximum number of requirements for an investment application was reduced to 15, compared with 25 in 1984 and 35 in 1977. Moreover, BKPM's role as a "one-stop" service for foreign and domestic investors was strengthened by giving it executive authority to issue most of the major licenses required in addition to the investment license. Second, the 1986 DSP list was intended

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<sup>/1</sup> The only incentives provided to investors are exemptions from import duties on capital equipment as well as on two-years' supply of raw materials.

to play more of a promotional role, clearly identifying areas which were open or closed to PMA and PMDN investment. Previously, the DSP list was narrowly specified and, in some areas, listed the number of projects for which licenses would be given as well as the permitted capacity. Under the 1986 list, no restrictions were placed on the number of applications that would be approved in open areas; in most cases, investment applications in open areas are being approved. And third, beginning in 1986, all fields of investment, whether declared open or closed in the DSP, were considered open for investment if production was intended for export (defined as at least 85% of production for export).

4.30 During 1987, the Government took a series of further steps to simplify the investment licensing system. First, using the improved format introduced in 1986, the 1987 DSP list expanded the number of areas open to foreign and domestic private investment; 42 industrial sectors previously closed to foreign investment (e.g., the manufacture of truck tires and several metal, chemical, food and paper products) were opened. Domestic investors were also permitted to invest in several sectors that were previously closed due to capacity and other considerations (e.g., chemical products). As a result, of a total of 670 branches of manufacturing (other than those reserved for small-scale firms), 542 are now open to foreign investment and 620 are open to domestic investment. Second, the requirements for investment licenses were further streamlined. Under the old system, industrial licenses were required for establishing new firms, restarting unproductive enterprises, expanding existing capacities and for changing the ownership or location of firms. Moreover, the permanent operating license (IUT) had to be renewed every five years. As a result of the June 13, 1987 Presidential Decree, only two licenses are required: the IUT, that is now valid for the entire life of the plant; and an expansion license for increases in authorized capacity of more than 30%. Also under the June decree, firms are allowed to expand investments and operations up to 30% of their licensed capacity without any investment approval.

4.31 The most significant element of the June 1987 Decree was to "broad-band" product categories for the purposes of investment licensing. A first step in this direction had already been taken in February 1987, when electrical and non-electrical machinery plants were allowed to carry out product diversification in relatively broad categories and outside the narrow specification of their licenses, without requiring approval of the investment authorities. Under the June decree, this principle was extended to all sectors. Consequently, the number of product categories has been reduced from 2,490 to 387, and firms are now free to change product lines within these broader categories (as long as the DSP is open). For this purpose, the license will be given automatically after six months of production. This measure, in combination with the automatic approval of capacity expansion by 30%, will not only improve the operational flexibility of firms, but will increase considerably the amount of domestic competition by allowing firms to compete within broader product categories.

4.32 Foreign investment regulations. In addition to the investment and capacity licensing requirements for all firms, there were several important aspects in which PMA companies were treated differently from domestic companies,

prior to 1986. First, PMA companies were subject to specific regulations governing minimum initial local ownership and the eventual transfer of the company from foreign ownership to domestic ownership. Before 1986, PMA companies had to be established with a minimum of 20% domestic equity, and by the end of the tenth year of commercial operation, domestic ownership had to be raised to 51%. Second, specific restraints were applied to the business activities of PMA companies: they were not allowed to engage in domestic trading (this could be undertaken only through authorized dealers); and companies were issued "limited" trading licenses that restricted the domestic inputs that they could purchase. Third, their access to domestic capital was regulated: they were not allowed access to export credit schemes and foreign exchange swap facilities; and they were prohibited from borrowing from state banks, which are the primary source of long-term rupiah credit. The Government has taken a series of steps to address these impediments to foreign investment. Measures were introduced in May 1986, October 1986, and more recently, December 1987.

4.33 Under the May 1986 package, a number of steps were taken: (a) in priority subsectors, the initial domestic ownership requirement was reduced to a minimum of 5%, with a transition to 20% by the beginning of the sixth year of commercial operations. Priority subsectors were defined as companies located in specific regional locations, with 85% export orientation, in high technology fields, or with a project cost exceeding US\$10 million; (b) the validity of investment licenses was extended to 30 years; and (c) PMA firms were accorded PMDN status, if ownership was 75% Indonesian, or 51% Indonesian with 20% of the shares traded on the Jakarta Stock Exchange. Further changes were introduced in October 1986, that continued to equalize treatment between foreign investors and domestic investors: (a) in priority sectors (as identified in (a) above), foreign investors were allowed to purchase local companies, as long as 20% of the equity remained under domestic ownership; (b) PMA firms were accorded access to the export credit finance scheme on the same terms as domestic investors; (c) ceilings on the swap facility for foreign exchange coverage were removed, thereby removing an obstacle to providing PMA firms with access to the swap facilities; and (d) PMA firms were allowed to obtain a license to act as a marketing channel for export products.

4.34 Additional measures were taken in the December 1987 package to ease foreign investment regulations. First, ownership requirements were further relaxed. The conversion period for majority ownership by domestic investors was lengthened from 10 to 15 years, with the possibility of an extension for an additional five years. A new ownership category was also established: 95% foreign ownership is allowed with no further divestiture, if the firm's production is 100% for export and it is located in a bonded zone. Second, PMA firms are given PMDN status, if they have 51% domestic ownership (a reduction from 75% in the October 1986 decree), or 45% domestic ownership (a reduction from 51% in the October 1986 decree) with 20% of their shares listed on the stock exchange. Third, PMA firms are automatically allowed to market export goods; this represents a relaxation of the October 1986 decree, which required PMA firms to acquire a license. Foreign investors are also allowed to form joint ventures for export marketing with Indonesian partners. Fourth, the limited purchase license has been eliminated so that PMA firms can purchase

domestic inputs without restriction. This is a significant step since it allows PMA firms to take greater advantage of the "broad-banding" measures discussed earlier. And finally, the procedures and regulations regarding the hiring of expatriate personnel for export-oriented activities have been eased.<sup>/1</sup>

4.35 These measures have responded to the major concerns expressed by foreign investors and significantly reduced the differences in treatment between PMA and non-PMA firms. By relaxing ownership requirements, allowing improved access to domestic financial markets, dropping the limited purchase license and permitting PMA companies to market Indonesian exports, these measures have significantly improved the operational flexibility of PMA firms, expanded the scope of their activities and enhanced the attractiveness of Indonesia to foreign investors.

4.36 Local content programs. Starting in the late 1970s, the Government instituted a number of local content or deletion programs across a range of products, mostly in the metal and engineering subsectors. Currently, the following product categories are subject to local content programs: (a) motor vehicles;<sup>/2</sup> (b) heavy equipment; (c) mini-tractors; (d) engines; (e) consumer electronics; (f) agricultural machinery; (g) professional electronic equipment; (h) machine tools; and (i) pumps. These local content programs are supported through a range of trade restrictions: (a) bans on completely built-up units (CBUs); (b) restrictions on the import of CBUs and components to a particular importer category; and (c) differential tariffs on components (mostly zero-rated tariffs on parts not subject to local content requirements and higher tariffs on parts subject to restrictions). CBU bans have been employed sparingly, and are currently in effect only for commercial vehicles, motorcycles, some pumps and a few consumer electronics (TVs and radios). Moreover, the Government has not instituted bans on the importation of components targeted for deletion; only tariff penalties have been applied. The differential tariffs on components are implemented through timetables for the deletion of specific components; when a specific component is "deleted", the tariff is raised from 0% to a higher level, usually 20-30%. The process works in the following manner: a regulation is issued by the MOI which sets a timetable detailing the specific components to be deleted; and, a decree is concurrently issued by the Ministry of Finance or Trade, specifying the supporting trade restrictions.

4.37 In the last several years, the Government has begun to modify its approach towards deletion programs in several ways. First, fewer new deletion programs have been established. Only two new programs were introduced in 1986; no new programs were established in 1987. Second, the timetables for achieving local content targets were lengthened for several products, i.e., diesel and gasoline engines, commercial vehicles, motorcycles and tractors. Third, local content programs for commercial vehicles, motorcycles and tractors were made

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<sup>/1</sup> Rules governing the hiring of expatriate personnel applied to both PMA and domestic firms, and procedures have been eased for both. PMA firms perceived the past rules to be particularly burdensome, as they have the greatest demand for expatriate services.

<sup>/2</sup> Deletion for passenger vehicles is voluntary.

more flexible by allowing "multi-sourcing" of parts. As a result of changes introduced in February 1987, producers can now import components from any source, and still be eligible for the reduced tariffs for items not yet subject to deletion, without such items having to be part of completely knocked down (CKD) kits. Fourth, a more flexible method of implementing local content timetables was introduced for the small and medium diesel engine program in 1986. While specific components are identified for deletion under the program, and all of these components must be deleted (i.e., subject to a higher tariff) at the end of the program (1989), producers are given flexibility in the intervening years on which local components they substitute in production, as long as they meet specified local value-added targets.

4.38 Finally, recent deregulation measures have supported the relaxation of local content programs by easing the complementary import restrictions. This process was begun in the October 1986 package. Under this package, many of the products subject to deletion programs, including some heavy equipment, electric generators, tractors and electronic household appliances were accorded the importer status of IF. That is, assemblers can directly import the product and avoid the circuitous route of importing through approved importers (IT) or sole agents (AT). The December 24 package has also changed the import status of the CBUs of products subject to local content programs: (a) the majority of consumer electronics and machine tools have been reclassified into the general importer (IU) category; (b) additional heavy equipment products -- crawlers, bulldozers, and hydraulic excavators -- and forklifts have been reclassified into the producer-importer category (IP), allowing companies utilizing these products to directly import the items; and (c) centrifugal and rotary pumps were reclassified into the approved traders/producer importers category (IT/PI).

#### Agenda for Follow-up

4.39 Despite these improvements in relaxing regulations, the regulatory environment in Indonesia remains complex and often daunting to existing enterprises and new investors. In the area of investment and capacity licensing, the Government first needs to ensure that the recent reforms are implemented satisfactorily. While the sectors open to domestic and foreign investors have been clearly identified and expanded, BKPM and the MOI must ensure that investment applications in these areas are approved in an automatic and non-discretionary manner. In addition, the Government needs to ensure that firms can benefit fully from the "broad-banding" measures adopted in 1987. An important step in this regard, will be to harmonize the DSP list with the new "broadly-defined" product categories. This will allow both existing producers and new investors to be more clearly aware of the opportunities for product diversification, and hence improve their operational flexibility and cost competitiveness. Additional measures will be needed, however, to reduce the scope of investment licensing. The key elements to achieve this will be to open further areas to domestic and foreign private investment, and to introduce greater automaticity in the investment approval process. Over the longer term, the DSP list could be transformed into a short negative, rather than a long positive, list with only a few sectors where investment would be regulated due to national security or social concerns. Parallel to this, the roles of BKPM and MOI should be transformed to support a shift from investment regulation to

investment promotion. This has already occurred to a large extent at BKPM, but greater efforts could be made in promoting investment opportunities and assisting potential investors in establishing operations in Indonesia.

4.40 While the relaxation of regulations governing foreign investment have provided a fillip to private investment, the basic question is whether the changes in foreign investment policies, including ownership requirements, are sufficient to generate the level of direct foreign investment which Indonesia desires. To attract foreign investment, the authorities could strengthen promotional activities further, highlighting the deregulation measures already taken and ensuring that eligible foreign investments in open fields are speedily and consistently approved. Despite the substantial measures taken, foreign investment policies in Indonesia remain more restrictive in many respects than neighboring countries. The Government, therefore, needs to monitor foreign investment trends in the region carefully, and consider additional measures to relax foreign investment policies to attract the requisite levels of foreign investment. The remaining areas of concern that the Government needs to review include: (a) ownership restrictions, which may still hinder new investment and the expansion of existing firms; (b) restrictions on export-oriented firms, which are still greater than neighboring countries; (c) land usage and other restrictions which impede foreign investment in export-oriented agricultural products; and (d) restrictions on domestic marketing by PMA firms, particularly in areas where after-sales service and technological transfer may be important.

4.41 The steps taken over the past couple of years also signal a more flexible approach in the implementation of local content programs. Three aspects of these programs, however, warrant continued relaxation to achieve sustained improvement in Indonesia's international competitiveness: (a) the large number of items still subject to deletion; (b) the high local content targets, especially given the rapid development of technology in several areas affected by deletion programs; and (c) the limited time periods currently set for realization of the local content targets. In most areas, tariff-only protection is provided to local manufacturers. But within the wider context of trade and industrial deregulation, the use of import bans and import restrictions (mostly in the form of sole agencies) for protecting the final output of domestic assemblers should be reduced. Moreover, relaxation of importer restrictions on spare parts and components, as has begun under the October and December packages, needs to be continued. Concurrent with changes in the trade regime, deletion timetables could be further lengthened, which would allow more time for the development of local component manufacturers, before tariff penalties are imposed. International experience with local content programs indicates that the more successful programs have been characterized by relatively long timetables for achievement of domestic value added, with sufficient flexibility to prevent costly and inefficient substitution with inferior local components. The process of consultation between domestic producers and the Government on the implementation of local content targets, which has been established for heavy equipment, commercial vehicles, and some professional electronic products, has reduced the occurrence of costly substitution of inferior local components. This practice could be expanded into other products subject to local content restrictions.

#### D. Financial Sector Development

4.42 The objective of the trade and industrial policy reforms currently underway in the Indonesian economy is the promotion of economically efficient and financially profitable productive enterprises. Substantial progress has been made over the past few years in moving towards this objective, and the success of the non-oil export performance testifies to the favorable impact of an appropriate incentives framework on industrial efficiency and economic growth. With the added advantage of sufficient in situ excess capacities, several industries in Indonesia have been able to expand production at lower costs than if the export drive had required the creation of new industrial capacities and other physical infrastructure.

4.43 Nevertheless, the next stage of industrial development will require a substantially higher investment effort. This is particularly true of the private sector, which will need to lead the export drive. It was shown earlier that a sustainable growth path for the Indonesian economy would require that non-oil export earnings more than double by the mid-1990s, implying an average real growth rate of about 11% p.a. during the next two years and 6-7% p.a. over the medium term. Much of this growth will be generated by investment in new export capacities in the private sector, both for the expansion of existing activities and diversification into new product lines; further, much of the capacity will have to be in place over the next five years if the benefits of the new investment are to accrue by the mid-1990s. Conservatively estimated, this expansion of non-oil exports will require additional privately-financed investment (both debt and equity) on the order of US\$4 billion p.a. This represents nearly one quarter of the investment requirements for the economy as a whole, as identified in Chapter 2. The nature of the financing challenge is best illustrated by noting that total credit (i.e., working capital and investment finance) to the private sector and public enterprises rose by an average of US\$3.7 billion p.a. in the period 1985-87; investment credits increased at an average rate of US\$0.9 billion p.a. over the same period. As adverse market conditions and the existence of excess capacity generally depressed investment over this period, the availability of finance did not emerge as a serious constraint. For the future, however, further financial sector development will be required to cope with the expected investment requirements of the non-oil export drive.

4.44 The financial sector, therefore, has an important bearing on structural adjustment and industrial growth. Access to credit, especially for long-term investment funds, will critically determine the ability of business enterprises to take advantage of the trade and industrial reforms. This is especially true of the small-scale and export sectors, where the absence of established track records in production and marketing often constrains access to institutional credit. While there are signs of a slight recovery in corporate profitability, the sector is facing considerable financial distress as a result of cost pressures and the adverse domestic market conditions of the past few years. The ability of manufacturing firms to grow in the future will, therefore, rest not only on physical restructuring to reorient production towards export markets, but also on financial restructuring to enable firms to generate sufficient funds

to undertake the required investment. In turn, the ability of the financial sector to meet these funding needs will be determined by actions to improve the efficiency of the banking system and develop capital markets. This section discusses the major issues in financial sector development, and identifies several areas for early policy action to enable financial institutions to support economic growth in the coming years.

#### Recent Financial Sector Developments

4.45 Until 1983, the Indonesian financial system was tightly controlled. The Government channeled earnings from oil revenues into the banking system through low-interest liquidity credits to achieve a variety of development objectives. The deposit and lending rates of state banks were set by Bank Indonesia (BI), and tended to be negative in real terms. In addition, the liquidity credit system became associated with credit ceilings, initially in an attempt to control the aggregate growth of credit, but later to direct credit towards particular sectors. Cumulatively, sector policies weakened the incentives for greater resource mobilization by financial institutions and distorted signals for the allocation of credit. As Indonesia's external position deteriorated and government savings fell, it became apparent that the existing system would limit the expansion of credit, thereby curbing the growth of investment. In addition, the level of domestic interest rates proved to be inadequate for supporting the capital account of the balance of payments in 1982 and 1983.

4.46 The financial sector reforms initiated in June 1983 set in motion a number of sharp changes in the asset preferences of domestic savers and the lending practices of financial institutions. The main objectives of the reform were: (a) to reduce the dependence of the banking system on BI liquidity credits; (b) to stimulate private financial savings; (c) to improve the allocation of financial resources; and (d) over the longer term, to improve bank performance through increased competition, and assist in meeting the needs of the economy for more sophisticated financial services. Consequently, banking institutions were allowed to set their own deposit rates (except for selected savings schemes) and lending rates (except for loans refinanced through liquidity credits), credit ceilings were abolished for all banks, and the number of programs qualifying for new BI liquidity credits was substantially reduced. Subsequent developments in 1984 and 1985 saw the introduction of money market instruments (SBI and SBPU) and rediscount windows to assist in BI's management of overall liquidity. The most recent reforms, contained in the December 24, 1987 package, included steps to simplify the operation of the stock exchange, introduce an over-the-counter market to assist small companies with the issue of equity, and strengthen the demand for securities by allowing investment by foreign entities.

4.47 As a result of the 1983 reforms, there has been some improvement in the regulatory environment and a noticeable effect on overall financial savings and the decentralization of financial decision-making. As shown in Table 4.7, the gross assets of the organized financial sector have tripled since 1982, a growth rate of nearly 23% p.a. in nominal terms. In addition, the range of non-credit financial services has widened with the establishment of several new insurance and leasing institutions. The results with respect to resource mobilization

**Table 4.7: STRUCTURE AND GROWTH OF ORGANIZED FINANCIAL SECTOR**

	<u>Number</u>		<u>Gross assets (Rp. tril.)</u>		<u>Share of assets (%)</u>		<u>Asset growth (% p.a.)</u>
	1982	1987	1982	1987/a	1982	1987/a	1982-87
Bank Indonesia	1	1	13.7	34.5	43.1	38.4	20.3
<u>Deposit money banks</u>	<u>115</u>	<u>110</u>	<u>15.9</u>	<u>46.6</u>	<u>50.0</u>	<u>51.8</u>	<u>24.0</u>
- National FX banks	15	15	12.7	36.8	39.9	40.9	23.7
- Foreign banks	11	11	1.2	2.7	3.8	3.0	17.6
- Other commercial banks	61	56	0.7	3.6	2.2	4.0	38.8
- Development banks /b	28	28	1.3	3.5	4.1	3.9	21.9
Non-bank interme- diaries /c	14	14	0.8	2.1	2.5	2.3	21.3
Savings banks	3	3	0.5	1.9	1.6	2.1	30.6
Insurance companies	83	100	0.7	3.0/e	2.2	3.3	33.8
Leasing companies	34	83	0.1	1.4/e	0.3	1.6	69.5
Other credit institutions /d	5,809	5,789	0.1	0.4	0.3	0.5	32.0
<u>All institutions</u>	<u>6.059</u>	<u>6.100</u>	<u>31.8</u>	<u>89.9</u>	<u>100.0</u>	<u>100.0</u>	<u>23.1</u>

/a Preliminary estimates.

/b Including 27 regional development banks.

/c Investment and development finance, and general finance companies.

/d Village, rural paddy, petty traders' and employees banks, and state pawn shops. Excludes credit extended by foundations and informal sources, for which estimates are unavailable.

/e End-December 1986.

Source: Bank Indonesia and Indonesian Insurance Council.

have also been dramatic. Financial savings have responded vigorously to positive real interest rates, as banking institutions raised the level of their interest rates. The growth of rupiah time deposits has averaged above 40% per year, thereby substantially expanding the capacity of financial institutions to lend out of their own resources. Further progress in this direction has been made in recent months as a result of BI's actions to reduce the reliance of commercial banks on money market funds to support general credit activities.

## Current Issues in the Financial Sector

4.48 Although the mobilization of deposits accelerated after 1983, success in other areas is less evident and several issues remain. First, as a result of the financial difficulties of business enterprises and problem loans, there is a marked weakness in the average quality of loan portfolios at financial institutions. The loss in income resulting from loan arrears has reduced profitability, a problem that has been exacerbated by rapid deposit growth that has not been matched (at least at the state banks) by an equally rapid growth in credit.<sup>/1</sup> Second, while the 1983 reforms have helped to increase competition, the financial market continues to be dominated by the state banks, which account for over 70% of all loans and have preferential access to ("captive") deposits from public enterprises and liquidity credits from BI. This had led to the deterioration of resource mobilization at these institutions while giving them excessive market power. In addition, following years of involvement in priority credit programs, where banks essentially administered the programs, the credit practices of these banks are weak and need strengthening. On the other hand, the remainder of the commercial bank market is characterized by intense competition for funds (accounting partly for high nominal interest rates) and by a small average size of banking institutions (which reduces the efficiency of banking operations).<sup>/2</sup> Further, fragmentation in access to loans and funding costs in the credit market is also caused by a high proportion of subsidized credits being channeled through BI's liquidity credit system.<sup>/3</sup>

4.49 A third important issue is the relative paucity of long-term credit, combined with the underdevelopment of equity markets.<sup>/4</sup> Several factors account for the reluctance of banks to extend credits for terms which cover the entire

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- <sup>/1</sup> At end-1987, the return on the assets of banks ranged from 0.2% to 4.3%, with larger (mainly state) banks at the lower end of the range.
  - <sup>/2</sup> The 56 national private (non-foreign exchange) banks held average assets of US\$38 million in 1987. Many exist to finance the non-bank operations of their owners, and contribute little to competition for credit in the financial system.
  - <sup>/3</sup> The 1983 reforms succeeded in greatly reducing the number of such programs. Also, the growth of new credits has slowed. Nevertheless, at end-1987 liquidity credits constituted nearly 29.7% of total outstanding credits to the private and public enterprise sectors, compared to 30.2% in March 1983. Although a detailed breakdown of loan arrears is unavailable, it is believed that a large proportion of the bad loans in state bank portfolios falls under programs supported by BI liquidity credits.
  - <sup>/4</sup> Statistics on the maturity structure of banking credits are unsatisfactory as they misclassify short-term credits which have been carried on the books for more than 12 months as long-term credits. While the rollover of short-term credits meets some of the demand for investment funds, it does not alleviate investment planning uncertainties and weakens the bargaining position of borrowers. Even by the flawed statistics, however, loans of maturity above 12 months have declined from 41.2% of total rupiah credits in 1983 to 39.8% in 1987.

gestation period of investments, chief among which is the volatility of interest rates and the mismatch of maturities between liabilities (mainly short-term deposits) and assets which would occur from such lending. However, inadequate credit appraisal capabilities and poor collateral practices and mechanisms for loan recovery are also important factors. With respect to equity markets, the demand for securities has been depressed by the favorable tax treatment, therefore the attractiveness, of alternative financial instruments; poor auditing, accounting and public disclosure standards have also had an adverse impact on the confidence of potential investors in individual firms. The proper implementation of recent measures to simplify listing requirements and procedures, and improve the functioning of capital market institutions, will assist in strengthening and deepening the market for equities.

4.50 Finally, the existence of a high and rigid real interest rate structure may have an adverse effect on both the allocation of credit and the total volume of investment. For borrowers with no access to BI liquidity credit programs, the real lending rate on working capital credit is currently 12%, and on investment credit it is 9%. It is unlikely that existing real interest rates will support investment in a large number of sectors. Consequently, credit flows to activities which offer quick financial paybacks, and are often of a speculative nature, and not necessarily to economically remunerative longer-term investments. Moreover, the interest rate structure tends to be rigid, and does not accurately reflect changes in liquidity conditions. While it is necessary to provide depositors with high positive interest rates to assist in financial resource mobilization and provide support for capital inflows, intermediation costs at Indonesian banks, which are among the highest in the Asia region, contribute greatly to the present level of lending rates.

4.51 Progress in the area of financial sector development will be measured by the ability to tackle some of these issues. At a general level, close coordination of macroeconomic policy instruments, including the growth of money and credit, will be required to cope with a period of reduced resource availability and structural adjustment. As discussed in Chapter 2, conservative monetary policies are required to ensure price stability (and thereby preserve export competitiveness), a strong capital account, and the orderly growth of credit for the private sector. Complementary ingredients in the policy mix are: continued flexibility in use of the exchange rate, and efforts to lower the rupiah deficit in the fiscal accounts (traditionally financed through a surplus in the Government's foreign exchange account). The experience of other countries shows that structural reforms introduce additional issues of financial sector management. Foremost among these is the creation of new credit demands from outward-oriented enterprises, and the need for restructuring assistance for firms which encounter financial difficulties as a result of trade and industrial policy reform. Both types of demand for finance will require accommodation in financial programming exercises.

4.52 Therefore, aside from changes in the trade and industrial policy framework, a key element of Indonesia's structural adjustment strategy is a set of supportive financial policies. The longer-term objective should be the creation of an efficient financial market providing potentially profitable

enterprises access to required risk and debt capital, supported by strong accounting, information and auditing systems. A number of notable steps in this direction were achieved by the 1983 reforms. Besides measures to improve the competitive and regulatory structure of the financial sector, priority areas for follow-up policy action include: the provision of restructuring assistance to potentially viable firms facing financial difficulties; reductions in the cost of long-term debt finance; and an increase in the volume of equity in total finance. It will be necessary to give special attention to the funding needs of nascent exporters, including smaller-scale firms, especially as trade and industrial sector reforms increase the outward-orientation of manufactured goods production (e.g., through early implementation of the pre-shipment export financing scheme that is currently under consideration). Specific measures in each of the priority areas are discussed below.

### Restructuring Assistance

4.53 A review of business enterprises reveals a wide range of problems (inappropriate capacity, sluggish demand, poor financial performance, etc.) afflicting firms across a number of subsectors, particularly in the pulp and paper, textiles, electronics, metal products, and electrical apparatus industries. Outside the manufacturing sector, the maritime, transportation, restaurant and hotel industries have been similarly affected. Although the majority of firms continue to function profitably, the number of small, medium and large enterprises facing financial difficulties is sufficiently large to warrant concerted policy action. In part, the problems are of a structural nature and are the result of establishing uncompetitive firms, essentially producing for the domestic market behind high protective barriers. These high cost firms prospered until the sharp slowdown in economic growth exposed their weaknesses. In some industries, production capacity continued to expand as new investments (based on optimistic demand forecasts made earlier) came on stream, and unit costs rose as capacity utilization declined.

4.54 The high real lending rates that have prevailed since the financial sector reform exacerbated the squeeze on corporate profitability. Although comprehensive data on firm-level problems are unavailable, information gathered from subsector and portfolio reviews suggest that the most seriously affected firms are beset by additional handicaps: inadequacies in management, unsatisfactory marketing capabilities, and low technical and operator skills. On the financial side, high debt-equity ratios constitute a serious problem. These are often as high as 9:1, and sometimes higher since what is regarded as "equity" is also borrowed. Such firms have been particularly vulnerable to the effects of rupiah devaluation and the high cost of borrowing. Although, a number of state banks have been adopting a policy of greater accommodation to enterprises facing financial problems, this is a course which is not generally open to the smaller private banks (because of low levels of capitalization). In most cases, foreclosure has been excluded as an immediate solution to the loan arrears problem, since bank loan exposures are substantially higher than the amounts that could potentially be recovered through asset transfers or sales. Moreover, it appears that legal recourse for loan recovery is quite inefficient.

4.55 Careful consideration needs to be given to the formulation of a strategy for the restructuring of potentially viable enterprises facing financial difficulties. As liquidity problems are often symptomatic of basic problems in an enterprise's business strategy, competitive position and management capabilities, financial restructuring needs to be coupled with more fundamental rehabilitation measures. The longer-term viability of refinancing investments and arrangements will depend crucially on preceding or parallel physical (e.g., engineering, marketing, management) restructuring. Improvements in the financial structure of firms, by easing debt service constraints and generating larger cash flows, could be attempted in a number of ways: through loan reschedulings, conversion of short-term loans into long-term loans, and capping debt service payments due to financial institutions; through the injection of new equity in order to reduce debt-equity ratios and the debt service burden; and through the extension of new restructuring assistance. Financing institutions will need to play an active role in rescheduling loan terms and providing new assistance. However, this process will increase the vulnerability of banks to the fortunes of restructuring firms. Therefore, steps need to be taken to ensure that the banks themselves remain viable. Besides giving banks the operational freedom to assess loan risks and to choose which firms to finance, it would be necessary to: (a) enhance the capability of banks to appraise investment projects; (b) strengthen the capital base of state banks by injections of government equity; and (c) review present banking regulations to induce banks to increase their reserves and provisions for loan risks to a realistic level.

#### Cost of Bank Intermediation

4.56 Domestic deposit rates are likely to remain high to assist in further resource mobilization and restrain outflows of private capital. Under these circumstances, in the absence of reductions in bank intermediation costs, it is unlikely that real lending rates will reflect levels that would support investment in a large number of sectors. Financial data regarding the gross margin at banks show that typical spreads (consisting of administrative overheads, loan loss and other provisions, and gross profit margins) approximate 6-7 percentage points of the total cost of loans. Such large spreads depress the volume of finance in the economy. They also partly reflect the extent of non-performing loans in financial institution portfolios. Therefore, financial restructuring efforts that reduce the number of potential loan defaults, will assist in containing, if not reducing, the size of the spread. In addition, however, there is substantial scope for reductions in bank intermediation costs through managerial and technical initiatives at the level of individual institutions.

4.57 At the most general level, specific policy actions with regard to the operating environment, particularly the competitive environment for deposits and credit, would assist in lowering spreads. The reform measures of 1983, in freeing interest rates, removing credit ceilings and progressively reducing the role of BI in credit allocation, have contributed to increased competition in a small part of the loan market. More could be done in modifying the mandate of financial intermediaries to reduce market segmentation. For example, private

banks could receive deposits from public enterprises; or, several non-bank financial intermediaries may be allowed to receive deposits. Further, a general improvement in the legal framework and procedures regarding the recovery of bad debts would also assist by sharply reducing the risk premia currently factored into lending rates.

4.58 In the initial stages, significant gains could be achieved through restructuring of the state banks. To some extent this has already started. Since 1983, all banks have engaged in efforts of varying intensity to review their organizational setup and internal efficiency. In some cases, these efforts are being conducted with the assistance of internationally reputable banking consultancy firms. However, there is substantial room for further improvement. Undoubtedly, many of their administrative overheads are related to the Government's development objectives. Nevertheless, institutional deficiencies persist, particularly in the areas of asset-liability management, credit initiation and management, monitoring of profitability, and lack of functional organization and overstaffing. Of these, regulations regarding asset-liability management (e.g., management of liquidity, capital adequacy, relationship between the cost of funds and returns on assets) could be modified relatively easily to guide the banks towards improved financial management practices. Similarly, changing the focus of management from overall profitability to the profitability of individual product lines (so as to identify activities which need special attention) is a step that would initiate a rationalization of bank operations. The distinction between line and staff functions, particularly at head offices, is essential to improve accountability, partly decentralize (and thereby accelerate) decision-making, and reduce the extreme duplication of functions that currently exists.

#### Capital Market Development

4.59 Since the financial sector reforms of 1983, both the primary and secondary markets for equity have been moribund.<sup>1</sup> The renewed interest in strengthening the securities market, evidenced by reforms included in the December 24 package, is justified in view of the potential benefits during both the process of structural adjustment and future growth: to mobilize savings to purchase the divested assets or newly-issued securities of enterprises; to enhance opportunities for all savers to participate in the higher returns usually available from sharing in the equity of successful business enterprises; to further diversify the ownership of productive resources; to improve the capital structure of firms by making them less dependent on short-term sources of funds and improve the efficiency of capital allocation through a competitive pricing mechanism; and, to expand opportunities for a wider range of enterprises to obtain capital, which can contribute to an increased overall rate of growth of the economy.

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<sup>1</sup> In fact, no new company has entered the stock market since 1984, and the overall stock price index is currently below its 1982 level. However, bond issues by Jasa Marga, BAPINDO and P.T. Papan Sejahtera have been made, and further issues are expected in the near future.

4.60 A number of initiatives are underway which are oriented towards re-assessing the role of securities markets. The institutional frameworks for strengthening the primary and secondary markets are currently in a process of evolution. The most urgent priorities in this area relate to the correction of discrimination in the fiscal treatment of capital market assets (so as to cultivate the interest of potential investors), to increase the number of companies listed on the securities exchange, and to modify the institutional framework so that the pricing of securities accurately reflects market valuations of the underlying assets. Clearly, there is an important conflict between fiscal policies for the mobilization of bank deposits and those for increasing the flow of funds for the purchase of equities; these will have to be resolved carefully. However, there is a degree of complementarity between the other financial measures mentioned above and the objective of securities market development. This is especially true of schemes for restructuring assistance to firms facing financial difficulties, which may involve the divestiture of corporate assets and the creation of equity funds to support primary and secondary trading of the divested assets.

4.61 Following from the December 24 measures, a detailed review of the capital market is required to articulate a specific strategy for development, including additional steps for attracting funds from overseas. It is also necessary to evaluate at this stage the degree of complementarity between equity finance and long-term credit from the commercial and development banks, and the role of pension funds, insurance companies and non-bank financial intermediaries in the markets for debt and equity. This latter investigation is critical to determine the effect of promoting securities markets on the competition for funds in the financial sector and the eventual impact on interest rates and financial intermediation costs.

## CHAPTER 5

### ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT

#### A. Introduction

5.01 Indonesia's record of economic growth has been impressive over the past two decades. Although there has been a short-term slowdown as the economy adjusts to lower oil prices, the prospects for economic recovery during the 1990s are encouraging (see Chapter 2). This growth is essential to provide employment opportunities for the expanding labor force. However, given the limited capacity of the agricultural sector on Java to absorb additional labor, a growing number of workers will seek employment in agriculture on the Outer Islands or in the manufacturing and service sectors concentrated along Java's north coast. This in turn will put pressure on the Outer Islands' forest resources and intensify demands for the limited resources, especially water, on Java. Industrial and energy development will also add to water and air pollution, unless appropriate preventive measures are taken. Indonesia is fortunate to have a vast resource base, as well as a strong government commitment to sound economic and environmental management. Because of these favorable initial conditions, it is possible to pursue a growth-oriented strategy consistent with a sustainable level and pattern of natural resource use. Steps taken now at relatively low expense can reduce environmental problems and their adverse social impact, and provide a sound basis for future development.

5.02 Attitudes towards environmental matters have changed greatly over the past two decades in both developed and developing countries. Early concerns focussed on the air and water pollution that accompanied the achievement of higher material standards of living in the developed countries. However, more recently, recognition of environmental problems such as deforestation, soil erosion, climatic change, destruction of biological species and other forms of resource degradation has become more widespread. It is now accepted that continued improvements in standards of living depend crucially on sound environmental management. This is particularly true in developing countries like Indonesia, which are heavily dependent on their natural resource base for employment generation and export growth. Further, the realization that environmental problems are inextricably linked to population pressures (e.g., additional demands for agricultural lands or increased waste management requirements) and poverty (e.g., deforestation by marginalized poor farmers) is leading development policy towards a more integrated approach to ecological, cultural and economic issues.

5.03 Economic growth is essential to alleviate poverty and improve the welfare of the population. However, if growth is pursued without due regard to the environment and the natural resource base, it could jeopardize the prospects for longer-term development. Policymaking should therefore be based on the goal of sustainable development: i.e., to maximize the net benefits from existing

resources (human, natural and produced capital), subject to maintaining the services and quality of these resources over time. More concretely, the concept of sustainable development means:

- (a) a transition away from economic growth based mainly on the depletion of exhaustible resource stocks, towards greater reliance on renewable resources;
- (b) a rate of utilization of renewable resources that does not consistently exceed their natural or managed rate of regeneration;
- (c) a pattern of resource use that does not foreclose too many options for the future through irreversible resource degradation; and,
- (d) continued attention to allocative and technical efficiency, so that growth can proceed while aggregate natural resource consumption is stabilized.

5.04 Despite severe manpower and financial constraints, Indonesia has had a longstanding commitment to the basic concepts of sustainable development and environmental protection. In 1972, environmental and natural resource concerns were embodied in the REPELITA II document and BAPPENAS created the special unit on natural resources and environmental management. This was followed by the appointment of the State Minister for Development Supervision and Environment in 1978, a position which evolved into the present State Minister for Population and the Environment (KLH) in 1983. KLH established an institutional focus for coordinating efforts to introduce environment and natural resource management concerns into the development planning process. A recent and noteworthy contribution to the report of the World Commission on Environment and Development (the Brundtland Commission) reflects Indonesia's leadership role in putting forward workable means for meeting the goals of sustainable economic development.<sup>/1</sup> The importance of environmental concerns in Indonesian development policy was reiterated in the speech of the President on the occasion of World Environment Day on June 20, 1987, in the Jakarta Resolution on Sustainable Development announced by ASEAN ministers on October 30, 1987, and in the recently approved Guidelines of State Policy for REPELITA V. All government agencies have recently been instructed to develop mechanisms for implementing environmental laws and regulations.

5.05 It should be noted that, besides specific actions oriented towards the environment, many of the policies being pursued by the Government for efficient economic growth and reduced population growth will also have favorable impacts on the environment and on natural resource management. Recent pesticide measures provide an example. Until 1986, heavy subsidies had encouraged the over-use of pesticides, many of which had detrimental effects on ecological balances, including the destruction of natural predators. As a result, a previously harmless plant feeding insect, the brown planthopper (BPH) became

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<sup>/1</sup> See World Commission on Environment and Development, Our Common Future (Oxford University Press, 1987).

an extremely destructive pest. For a limited period of time, the rapid spread of BPH was countered by breeding varieties resistant to the insect. However, host plant resistance soon broke down and, by 1986, the situation was unmanageable. Once these problems were recognized, the Government introduced a new, sustainable strategy of crop protection, Integrated Pest Management (IPM). Emergency measures were taken to protect "natural enemies" from destruction by insecticides. The President issued instructions banning 57 different pesticides for rice, and recommending the use of a few narrow spectrum insecticides instead. Steps have subsequently been taken to strengthen crop protection field staff, develop IPM crop technology packages for rice and other crops, and reduce pesticide subsidies (retail prices were raised by 80% in October 1987). These measures were dramatically successful. Damage by the BPH declined sharply, reversing a destructive outbreak in the 1986/87 wet season. As natural enemy control becomes reestablished, the most productive rice varieties that had been threatened by the BPH can now be safely grown again, increasing production and farmer incomes through more efficient resource use. The effectiveness of insecticides is also prolonged under the IPM system.

5.06 This chapter discusses emerging issues related to the environment and natural resource management in Indonesia. Section B provides a brief description of the contribution of natural resources to sustainable development. This is followed in Section C by a review of the most critical issues in this area and possible remedies. The chapter concludes with a discussion of institutional issues and the role of donors. This analysis represents the first major initiative by the World Bank in a very difficult area. As such, many of the conclusions are still preliminary, and some of the issues require further study and review. However, it is hoped that this work will help increase awareness of the importance of environmental issues, and encourage the Government of Indonesia and donors to continue their efforts in support of sustainable development.

#### B. Natural Resources and Sustainable Development

5.07 The 13,677 islands comprising Indonesia are richly endowed with a diverse stock of human and natural resources. However, of the population of 172 million, about 107 million people (62%) are located in the Inner Islands (of Java, Madura, Bali and Lombok), which together have about 8% of the total land area. The resulting population density of 788 people per square kilometer is among the highest in the world. The predominant form of employment in Indonesia is agriculture; three quarters of employment in manufacturing, construction, transport and communications, and trade is concentrated in Java. Agricultural practices in Indonesia range from shifting cultivation, to settled irrigated rice cultivation, to modern fruit and tree crop plantations. Manufacturing activity too shows great diversity, ranging from simple handicraft production, through agro-processing, to sophisticated petrochemical, plastics and aircraft production. Economic activity is underpinned by a vast base of natural resources. In addition to Indonesia's role as a major exporter of crude oil and natural gas derivatives, the country enjoys substantial reserves of coal, tin,

nickel and other minerals. The world's richest commercial forest is located here, as well as very diverse fishery resources. Although agricultural diversity is also substantial, rice and tree crops (rubber, palm oil, coconut, etc.) dominate total production, benefitting greatly from the abundant water resources and fertile soil in many areas of the country.

5.08 The direct contribution of renewable and exhaustible resources to economic development in Indonesia can be approximated by the share of primary producing sectors (agriculture, forestry, fishing and mining) in total value added, merchandise exports and employment. Table 5.1 presents this information and shows, first, that nearly 44% of value added (i.e., GDP) is contributed by the direct exploitation and primary processing of natural resources. The inclusion of further stages of downstream processing (e.g., furniture from timber, or kerosene from crude oil) would raise this proportion substantially. In recent years, despite the rapid diversification of merchandise exports, the foreign exchange contribution of the primary sectors has represented more than

**Table 5.1: DIRECT CONTRIBUTION OF PRIMARY PRODUCTION (%)**

	1983-87		Share of merchandise exports, 1987/88	Share of employment, 1985
	Share of GDP	Growth rate		
<b><u>Renewable resources</u></b>	<b><u>24.2</u></b>	<b><u>3.2</u></b>	<b><u>30.4</u></b>	<b><u>54.6</u></b>
Agriculture	21.3	3.5	13.7	
- Food crops	(14.8)	(2.2)	(0.6)	
- Other crops	(4.0)	(6.4)	(12.3)	
- Livestock	(2.5)	(6.6)	(0.8)	
Fishing	1.7	0.6	2.3	
Forestry <u>/a</u>	1.2	2.5	14.4	
<b><u>Exhaustible resources</u></b>	<b><u>19.7</u></b>	<b><u>3.0</u></b>	<b><u>53.3</u></b>	<b><u>0.8</u></b>
Oil & natural gas <u>/b</u>	18.5	2.9	47.7	
Other mining	0.8	5.6	5.6	
<b><u>Total primary sectors</u></b>	<b><u>43.9</u></b>	<b><u>3.1</u></b>	<b><u>83.7</u></b>	<b><u>55.4</u></b>

/a Logs, sawn timber and plywood.

/b Includes crude oil and condensates, natural gas, LNG and LPG, but excludes other oil products.

Source: Central Bureau of Statistics and Bank Indonesia.

80% of total earnings.<sup>1</sup> Sawn timber and plywood exports alone accounted for over 14% of exports in 1987/88. In 1985, over 55% of the workforce was employed in the primary sectors.

5.09 In addition, there is increasing recognition of the environmental services provided by natural resources (see Table 5.2). For example, the protective role of Indonesia's forests (e.g., in preserving biological species, in preventing soil erosion) represents a significant economic contribution. This link between ecology and economics is important, but is often difficult to quantify. Until a more complete natural resource inventory is completed, it is difficult to assess the true contribution of the environment to economic growth and the quality of life.

**Table 5.2: THE MULTIPLE FUNCTIONS OF INDONESIA'S RENEWABLE RESOURCE SYSTEM**

	Functions			
	Primary	Minor Secondary	Environmental Protection	Socio-cultural Support
Soil	Staple crops Export crops Livestock	Minor crops Bricks/tiles Minerals	Landslide prevention Flood prevention Water holding	Cultural identification with land
Freshwater	Irrigation Power Domestic use Industrial use Transport	Fish ponds Recreation	Saline intrusion prevention Waste assimilation	Religious uses
Forests/ trees	Timber Fuelwood Ecosystem Value	Minor forest products Wildlife	Soil/water conservation Windbreaks	Minority forest communities
Coastal zones	Fish/shrimp Rice Ports/industry	Mangroves	Waste assimilation	Fishing communities
Native plants and animals	Drugs/pharmaceuticals Tourism Genetic information	New crops	Pest/disease control	Indigenous hunter gatherers Education Science

Source: World Bank staff estimates.

<sup>1</sup> In addition, inflows in the capital account from foreign investment in the primary sector have averaged US\$113 million p.a. since 1983, or 28% of total foreign investment during the period.

5.10 Analysis of natural resource issues is further complicated by inadequacies in standard national accounting methodologies. Although capital assets are valued as productive assets, and are written off against the value of production as they depreciate, natural resource assets are not so valued. Thus, on the one hand, national accounts recognize that a consumption level maintained by depleting the national capital stock exceeds the level that is sustainable over the long term. On the other hand, the depletion or degradation of natural resources does not currently require in the national accounts a charge against current income that would reflect the decrease in potential future production. Consequently, the depletion of forest, fishery and wildlife resources, the erosion of productive soils, the exhaustion of mineral resources, and the pollution of water and air resources are not reflected in estimates of national income. As natural resources are used to support the financing of investments in industrial capacity, infrastructure and social programs, the economy is merely exchanging one kind of asset for another potentially higher-yielding one; over time, the ability to continue such a transformation process depends critically on the level and quality of the resource base. The Government is aware of the shortcomings of traditional national accounting systems, and the new Guidelines of State Policy make reference to the need for a more appropriate methodology. Studies on the design of such a new system for possible future implementation are currently in progress.

5.11 Maintaining the productivity of the natural resource base in Indonesia is closely linked to several economic planning concerns. A major thrust of the current industrial and trade policy reforms is to restructure the economy towards reduced dependence on the oil/LNG sector. Partly, this recognizes the finite nature of these resources.<sup>/1</sup> In addition, it reduces the vulnerability of the economy through diversification of the production base, and increases direct employment absorption through an expansion of other, more labor-intensive activities. Similarly, although the time horizon is considerably longer, the exploitation of other exhaustible resources -- tin, coal, nickel, bauxite, copper, gold, and other metallic and non-metallic minerals -- also has finite limits. Use of these resources will depend on downstream demands from the domestic industrial sector and on direct export possibilities. The main issues for national economic policy regarding such exhaustible resources relate to the appropriate rate of depletion, incentives for efficiency in resource use (e.g., appropriate pricing to encourage conservation, mechanisms for recycling), and meeting the costs of managing the environmental consequences of mining and mineral processing activities (e.g., land erosion, air emissions, liquid effluents, solid wastes and, especially, hazardous wastes).

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<sup>/1</sup> The proven recoverable crude oil reserves of Indonesia have been estimated at 20.1 billion barrels, of which about 11.1 billion barrels had been produced by end-1987, leaving 9 billion barrels (or 20 years at current production levels) of proven remaining reserves. Natural gas reserves have been estimated at 78 trillion cubic feet (tcf), or 44 years at current extraction levels; in addition, there is an estimated 29 tcf of undiscovered reserves.

5.12 As discussed in earlier chapters, Indonesia's natural resource endowments will be critical elements in the success of its non-oil export drive and, therefore, in the improvement of overall income and employment levels as well as the alleviation of poverty. Much of the impetus for growth is predicated on the enhancement of productivity and total production in the agriculture, fisheries and forestry sectors, all of which are based on renewable resources like soil, water and trees, and on the development of industries based on such resources (e.g., plywood, processed foods, aluminum). If these resources are used less than effectively, there will be an unnecessary sacrifice of income and wealth. Experience with natural resource management in developed countries suggests that the costs of policies to improve efficiency in resource use are relatively low: stronger institutions, better use of the general incentive system, improved monitoring of environmental variables and adequate provision of technical manpower. Consequently, the rate of return to improved efficiency is potentially very high. Further, given the limited set of options regarding policies for exhaustible resources, the main resource management issues relate to the pattern of use and future contribution of renewable resources. Therefore, by focussing on the sustainability of resource use as well as on efficiency, longer-term growth prospects can be significantly raised and fewer development options are foreclosed for the future.

### C. Critical Issues in Environmental Management

5.13 For a country of Indonesia's vast size, diversity of natural resources, large population and impressive economic growth record, there are obviously a number of emerging issues related to the environment and natural resource management. However, tackling these issues is not costless. At a minimum, it requires an upgrading of technical capacities and institutional functions. In addition, appropriate environmental management would require ameliorative or preventive infrastructure investments and, on the part of the private sector, expenditures to ensure compliance with environmental norms and regulations. As the availability of budgetary resources and technical manpower will be constrained in the future, issues that are most critical in terms of their contribution to employment, output and incomes will have to be tackled first. The purpose of this section is to highlight specific areas where early actions are a high priority. Three critical issues are considered: (a) forestry management and land use in the Outer Islands; (b) water quantity and quality management in Java; and (c) pollution issues related to the industry and energy sectors.

#### Forestry Management and Land Use in the Outer Islands

5.14 The issue. Indonesia's forest resources are estimated to cover 114 million hectares (ha.) of a total land area of 191 million ha., and the Outer Islands account for nearly 97% of the forested area.<sup>/1</sup> The land under the

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<sup>/1</sup> Since 1981, the Ministry has used an estimate of forestry cover of 144 million ha. However, this estimate includes large areas of "conversion" forest, and many areas which have already been deforested.

Ministry of Forestry's national boundaries is demarcated into five categories: conservation and national parks; watershed protection; limited production; regular production; and conversion. This demarcation recognizes that besides their two dominant uses -- provision of timber and land for clearance and conversion to agriculture -- the forests serve many additional functions: production of non-timber products, habitats for indigenous people, watershed protection, stabilization of microclimates, and as repositories of plants and animals with scientific and touristic value. Once these other functions are recognized, the issue of how best to use forest land becomes more complex. At the same time, the returns to Indonesia from making the correct choices become very much greater than those yielded by focussing on only a few forest functions.

5.15 Economic conditions and development patterns, both on Java and off, have combined to create increasing demands for land in the Outer Islands. The Outer Islands are more dependent on the primary sector for employment, and only 20% of medium and large-scale industries are located outside Java. Government-sponsored programs (transmigration and tree crop development programs) have resulted in 614,000 families being moved to the Outer Islands since 1969. In addition, spontaneous migration is estimated to have resulted in the movement of many more families. Land productivity is also lower, so Outer Island farmers require more land per family to earn the same income as in Java. Consequently, dryland production in the Outer Islands increased by more than 50%, and expanded by at least 3.4 million ha., between 1973 and 1983.

5.16 The most important consequence of this pressure on land is the progressive encroachment of forest lands and the conversion of unsuitable lands to agriculture. Of an estimated rate of deforestation of nearly 900,000 ha./year, smallholder conversion accounts for more than half, while development projects account for a quarter, and the remainder is due to poor logging practices and natural and man-made disasters (see Table 5.3). An additional 3 million ha. was lost due to the 1983 Kalimantan fire. These estimates are very rough, because the baseline estimates are either incomplete or unavailable, and additional manpower is required for monitoring forest use. Nevertheless, they do provide a broad indication of the range of pressures on forestry resources.

5.17 Shifting cultivation systems are a rational adaptation to low fertility soils. In such systems, vegetation is cut and burned to release nutrients to the soil; plots are cultivated for a year or two before fertility declines and land is opened in a new area. These production systems tend to be sound and sustainable until population expands, which requires either the opening of new land or a reduction in rotation periods. The former results in direct deforestation, while the latter retards forest regeneration while lowering soil fertility. It is estimated that more than 2 million families engage in shifting cultivation in Indonesia. In some provinces, a higher proportion of land within forest boundaries is under shifting cultivation than is found outside such boundaries.

**Table 5.3: RATE OF DEFORESTATION IN INDONESIA, 1980-86 /a**  
( '000 ha.)

	1980-1986	Annual rate
<b><u>Smallholder conversion</u></b>	<b><u>3,000</u></b>	<b><u>500</u></b>
Kalimantan	2,100	350
Irian Jaya	300	50
Other	600	100
<b><u>Development projects</u></b>	<b><u>1,280</u></b>	<b><u>213</u></b>
Sponsored transmigration	600	100
Spontaneous migration	600	100
Estate crops	80	13
<b><u>Other</u></b>	<b><u>840</u></b>	<b><u>140</u></b>
Logging damage	480	80
Normal fire loss	360	60
<b><u>Total</u></b>	<b><u>5,120</u></b>	<b><u>860</u></b>
East Kalimantan fire	3,000	
Memo: Total logging	960	160

/a The figures represent approximations, within a reasonable range of 700,000 to 1,200,000 ha. per year. Certain estimates of deforestation (e.g., smallholder conversion or logging) are subject to greater uncertainty than others.

Source: World Bank staff estimates.

5.18 If adequate areas have been set aside for conservation and watershed protection, the decision whether land should remain under timber, shifting cultivation or sedentary cultivation depends in part on the economic returns to alternative land use systems. An analysis of farm budgets from World Bank project documents showed that if returns to family labor are the concern, shifting cultivation under optimal conditions provides a higher return to family labor than sedentary food-crop systems. However, if returns to land, not household production, are considered, the net present value per hectare under shifting cultivation is lower than under either sedentary cultivation or timber production. Tree crop production has a higher net present value per hectare than food crops or logging, but sustainable timber production is more attractive from the point of view of the economy than food crop production on low fertility soils. This implies that, although shifting cultivation is a productive system from the point of view of the farmer, it may not be so from the point of view of the economy. These analyses suggest that it would be generally preferable to intensify existing land use and to develop land allocation mechanisms which

would make optimal use of marginal land for tree crops and timber production. They also suggest that the opportunity cost of forgone timber production should be taken into account in the economic analysis of development projects.

5.19 With regard to Indonesia's production forests, actual exploitation levels are believed to be substantially above reported levels, and overlogging and damage to existing stock is widespread. The relatively short length of existing concession agreements implies that, beyond meeting necessary regulations, forestry firms have little corporate interest in providing conditions to encourage regeneration, or even in minimizing fire hazards and encroachment. In this light, the Government is promoting plantation forests to compensate for deforestation. Such forests can have a positive impact by supplying low quality timber to the domestic market and reduce pressures on the natural forest. However, as concessionaires have little financial stake in the plantations, establishment and maintenance standards are low, and there is a likelihood that tracts have been planted which could have little or no economic value.

5.20 The utilization of Indonesia's forest resources has brought many benefits, including a major contribution to non-oil export earnings. At the same time, the rapid rate of deforestation imposes substantial costs and has important implications for the future supply of wood raw material. Kalimantan may be used as an example. Although there are 45 million ha. within Ministry of Forestry boundaries in Kalimantan, and 26 million ha. in permanent production forests, only an estimated 15 million ha. are under 45% slope (i.e., suitable for regular production) and forested. If other islands are subject to the same slope and forest cover limitations, Indonesia's economically harvestable forest area would be on the order of 35-40 million ha. It is important that the area under permanent production forest is maintained, to ensure that current and even small increases in timber production can be sustained.

5.21 The response. There are several key areas where the Government is taking measures to address existing conditions. First, as Indonesia is the most biologically diverse country in the region, the Government has decided to set aside sizeable areas for wildlife parks and for the preservation of biological species. That decision will, in the future, cost Indonesia the income that could have been realized through the exploitation of these areas. Since Indonesia's biological resources are of global value, and since funds, technical support and manpower development are required to protect them, an effort should be made to mobilize grants from donor countries with a strong interest in conservation. Adequate organizational arrangements will need to be made to attract these funds, and donors need to work with the Ministry of Forestry to develop conservation strategies for each of Indonesia's seven major biogeographic regions.

5.22 Second, in the area of land allocation and management, steps are needed to improve the basic tools for land classification (e.g., geodetic reference systems, base maps, and forest resource inventories). The problem of smallholder conversion also needs to be addressed. In this area, it is important to proceed slowly and ensure that the mechanisms devised to limit encroachment and upgrade smallholder production are culturally and technically appropriate and sensitive to equity considerations. One approach would be to permit individual smallholders to acquire land through improved land registration, security of tenure and credit networks. If local people are not

encouraged to establish perennial crops on low productivity soils, shifting cultivation is the only alternative. Areas that are currently used for subsistence production (whether cultivated or not) may be excluded from forestry lands, and programs should be developed to stabilize forest boundaries and limit encroachment (e.g., creation of buffer zones in which economic activities not detrimental to the forest are permitted). To meet production and equity objectives, but reduce the need for large-scale development projects in forested areas, preference should be given to crop intensification schemes where possible. Where new land development is proposed, projects need to be located as close as possible to existing infrastructure. New settlements may be located away from reserves, protection forests and the most valuable production forest. A possible option would be to discourage settlement in East Kalimantan, which has 25% of Indonesia's commercially valuable trees.

5.23 Finally, measures are needed to improve current logging and wood processing practices. Clearly, while longer tenure for concessionaires and improved enforcement of regulations might improve forest management, financial incentives for sustainable management will require modification. Further economic analysis is required on optimal rates of extraction from the natural forest, assuming that forests are not a fully renewable resource and that their future value is uncertain. Until adequate steps are taken, it would be beneficial if mechanisms for revenue collection were improved to slow the exploitation of the existing forests, and to emphasize the value rather than volume of exports (this is possible as Indonesia is the world's largest producer of hardwood). Actions with respect to forest plantation development could include an extension of lease tenures (say, to 30 years) and a reorganization of concessionaires into formal project entities (like the existing PTPs for tree crop development). Incentives for planting could include exceptions to the log export ban for plantation species.

#### Water Resource Management in Java

5.24 The issue. Severe constraints on the availability and quality of water resources pose a major challenge to the further urban and industrial development of Java. The island is well endowed with rainfall (average of 2,650 mm. per year, with a range 500-8,000 mm.) and surface water, and groundwater appears generally sufficient to meet the needs of agriculture, industry and household use.<sup>/1</sup> However, shallow watersheds, which cause rapid runoff in the rainy

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<sup>/1</sup> There are about 100 rivers in Java, most under 50 km. long; these collect into about 21 major river basins. Although there is a relatively high level of rainfall, there is significant variability from year to year and place to place, and these variations contribute to seasonal and locational shortages. The usable water resources are mainly surface water resources (352 billion cu.m.), with about 50% flowing through the river system as surface flows. However, since rainfall is very intense over a period of 6-8 months, it is difficult to use most of the water during this period. Hence, despite the 175 billion cu.m. that flows through rivers, on average only about 126 billion cu.m. is usable. The balance appears as floods and is generally not "divertible" or usable unless expensive structures are constructed to store the water. In a dry year, surface water could be reduced to less than 45% of average flows, causing great variability: the dry season flow could fall to only 10% of the wet season flow.

season, mean that Java already experiences seasonal water shortages, and the evidence suggests that the water supply/demand balance in several river basins is becoming critical. In addition, pollution in the downstream areas of almost all the north coast rivers has seriously reduced the amount of raw water that can be used for municipal and industrial purposes. Hence, the development of several large cities and industrial centers is now dependent on their ability to find alternative sources of water, such as groundwater or water piped over long distances.

5.25 There are several issues related to the quantity of water that is available to satisfy the multiple demands that exist on Java: agriculture, municipal use, industry, aquaculture, inland navigation, flushing and low flow maintenance, hydropower, and recreation. Table 5.4 shows the present and estimated future (year 2010) structure of demand for water. Clearly, irrigation and aquaculture will account for 95% of future water needs. However, an analysis of water balances in 13 of the 21 major river basins shows that, during dry seasons, water becomes more scarce in moving from the western towards the eastern part of Java. Marginal (5%) to severe (10-20%) shortages are expected to occur in 9 of the 13 river basins analyzed <sup>1</sup>, mainly in the east and on the north coast. The shortfall would amount to 10 billion cu.m. in a dry year. Improved efficiency in the use of agricultural water would reduce this amount by two thirds, while the construction of dams would result in a further 10% reduction.<sup>2</sup> In addition to this function, dams can reduce flooding, which currently affects nearly 5% of the land area of Java.

5.26 Although the non-agricultural uses of water are relatively small, they play a critical role in supporting the growth of urban centers and industrial activity. Water demand for municipal and industrial uses is projected to show a four-fold increase by the year 2010; even so, service levels may not increase greatly because of rapid growth rates in urban areas. Present levels of unaccounted water range from 20-65% in municipal areas; on average, 40% of water that is treated and supplied is lost. Much of the water is lost to non-paying users who make illegal connections. In addition, there is substantial wastage. Weaknesses in the monitoring of piped water supplies and an inappropriate pricing structure are partly to blame for this condition. Constraints on

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<sup>1</sup> The analysis assumed that existing cropping patterns (2 rice crops and 1 other food crop per year) would continue, and that 20-30% of upstream water would be reused downstream.

<sup>2</sup> The efficiency of an irrigation system is composed of: inflow efficiency (resulting from regulation of inflows through monitoring and control); system efficiency (physical efficiency of the irrigation canal system and operational efficiency); and farm level efficiency (wastage and recycling). In Java, upper watershed problems are important in causing fluctuations in water flows and lowering levels of inflow efficiency. System efficiency is mainly determined by operational and institutional weaknesses; Indonesia has one of the most sophisticated irrigation infrastructures in the region, but O&M is hampered by inadequate cost recovery. Farm level efficiency is low, due in part to existing water pricing policies which do not discourage waste.

**Table 5.4: PRESENT AND PROJECTED SURFACE WATER USE IN JAVA  
(billion cubic meters)**

Province	Agriculture /a		Urban /b		Rural /c		Total	
	1986	2010	1986	2010	1986	2010	1986	2010
West	22.4	21.5	0.2	0.6	0.2	0.3	22.8	22.4
Central	18.3	20.1	0.1	0.3	0.2	0.3	18.6	20.7
East	18.6	22.1	0.2	0.4	0.2	0.2	19.0	22.7
Jakarta regional	0.1	-	0.2	1.3	0.1	-	0.4	1.3
<b>Total</b>	<b>59.4</b>	<b>63.7</b>	<b>0.7</b>	<b>2.6</b>	<b>0.7</b>	<b>0.8</b>	<b>60.8</b>	<b>67.1</b>
Proportion of total	98%	95%	1%	4%	1%	1%	100%	100%

**/a** Includes aquaculture. Projection assumes 200% cropping intensity and 50% efficiency in irrigation water use.

**/b** Includes municipal and industrial uses.

**/c** Mainly water for human use and rural industry.

Source: Ministry of Public Works and World Bank staff estimates.

supplies also arise out of the present practice of compensating for the inadequacy of waste water treatment facilities by using scarce supplies to flush city waterways to get rid of pollutants.

5.27 Groundwater is a major source of municipal water supply in the larger cities of Java. Available data suggest that groundwater use is 2.5 times higher than recorded piped water consumption in Jakarta. Pollution and rapid depletion of this source are becoming widespread, especially in large urban centers. Irreversible processes (salinization of coastal areas and land subsidence in dense urban areas) can be observed as a result of non-sustainable exploitation practices. Increasing numbers of consumers compete for the same resource, and low income households are the losers. High abstraction densities in the shallow aquifer zone and intensive abstraction from the deeper aquifer beds render shallow wells more vulnerable to seasonal water table variations.

5.28 Besides managing the supply of water, improvements in water quality are a pressing issue in Java. The objectives of water quality and pollution control are: (a) to furnish an adequate quantity and quality of community water supply (especially for drinking); and (b) to collect and treat (either on-site or communally) human excreta and domestic waste water, before discharging them into the nearest drainage channel or waterway. In Java, severe problems exist with regard to organic pollution from the disposal of human waste and garbage caused by the concentration of population and industry. In addition, water quality and flows are affected by silt runoff from erosion in the watersheds. This results in increased turbidity, thereby jamming aquatic life; increases water treatment

costs and ultimately renders treatment impossible; results in flooding and navigational hazards from higher siltation; and requires more frequent dredging of harbors and riverways. There is only limited awareness of water quality and pollution control requirements, and this too is limited to the Jakarta/Jabotabek and Surabaya areas. In these areas, urbanization and industrialization have reached levels where the damage to beneficial uses of the rivers, estuaries and nearshore marine waterways has become serious enough to impede community development. Significant pollution (BOD levels of 3-6 ppm) exists in eight river basins, and serious pollution (6 ppm and above) exists in Citarum, Jabotabek, Surabaya and Solo.<sup>/1</sup> The most common solution that is applied -- flushing waterways that pass cities -- is only a temporary solution to the problem of water pollution in urban areas; in the Jabotabek region it merely moves pollutants to other locations (e.g., Jakarta Bay) which overtaxes the near-shore assimilative capacities of the marine environment.

5.29 The problem of silt runoff in Java's waterways reflects the need for an integrated approach to water resource management, as the problem originates mainly in soil degradation in the uplands. The upper watershed areas of Java, which cover 15% of the land area and contain 12% of Java's population, have been subjected to population pressures. This, in turn, has resulted in rapid deforestation, including encroachment on state lands which serve as water catchments for the lowlands, and in the use of more marginal lands for raising crops. Applying conventional criteria, most of Java's watersheds are classified as "critical" as they are subject to actual or potential degradation due to soil erosion.<sup>/2</sup> The relative neglect of upland agriculture relative to lowland rice, despite the much greater diversification that exists due to varying elevations, slopes, soils, vegetation and moisture regimes, has led to a marked deterioration in agricultural practices (e.g., inadequate terracing or crop rotation). There are signs that the upland areas are close to their agricultural potential under the technologies that are currently applied.

5.30 Soil erosion has both on-site and off-site effects. The principal on-site effects include: loss of fertile top soil; reduction in soil depth; and loss of rainwater required for crop growth, therefore loss of capacity to produce more profitable crops. Recent estimates suggest that soil loss has reached an annual level of nearly 61 tons/hectare.<sup>/3</sup> The on-site economic

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- <sup>/1</sup> BOD, or biochemical oxygen demand, is a measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. Large amounts of organic waste use up large amounts of dissolved oxygen, thus the greater the degree of pollution, the higher the BOD.
  - <sup>/2</sup> There is no precise definition of "critical". According to some definitions, any land with slope greater than 50% is considered critical (about 16% of the upper watershed area in Java). Other criteria involve yield potential, ability to regulate waterflow, and ability to serve protective functions. Indications are that the agencies responsible for making these determinations have considerable latitude, and that the actual condition of land designated as critical varies widely.
  - <sup>/3</sup> W.B. McGrath and P. Arens, The Costs of Soil Erosion on Java - A Natural Resource Accounting Approach (World Resources Institute, November 1987).

effects have been estimated at US\$300 million per year. The main off-site effects are: the siltation of irrigation schemes; dredging of harbors and waterways; and losses of hydroelectric and irrigation capacity due to the sedimentation of reservoirs. Some off-site consequences -- e.g., the increased irregularity of river flows; flood damage due to sedimentation and raising of streambeds; loss of infrastructure (bridges, roads, dikes, etc.), human life, livestock and crops due to flooding; and disruption of domestic and industrial water supplies due to reduced dry season water flows -- cannot be quantified with precision due to a lack of data or substantial variability in effects over time. A partial accounting of currently measurable off-site costs shows, however, that they range between US\$25 and US\$90 million per year (including flooding damage and flood mitigation works, this would rise to US\$200-300 million per year).

5.31 Water pollution has an adverse effect on industrial growth and the welfare of the population. These problems are exacerbated by the concentration of industries along Java's north coast, and by the fact that some of the poorest people live in large cities in the coastal areas most affected by pollution and by saline water intrusion into aquifers. The most excessive pollutant in Indonesian rivers is fecal coliform from human waste, which in key cities exceeds recommended standards by a factor of one thousand or more. BOD and COD levels also exceed safe standards in all provinces in Java.<sup>/1</sup> The effects on mortality, morbidity and workforce productivity are judged to be substantial. For instance, in areas like Surabaya the pace of industrialization is constrained partly by a shortage of usable raw water supplies, and in dry years many industries are forced to operate below capacity because of these shortages. In Jakarta, excessive leakage in the distribution system causes pressure fluctuations and contamination of even the piped water supply, through the intrusion of sewage and other wastes. This is worrisome because industries will need to increase their reliance on such supplies of piped water, as population increases, pollution levels in riverways accelerate, and groundwater is increasingly depleted or contaminated.

5.32 The response. The Government's water resource management policies for Java are addressed to five major problems: deterioration in the water regimes of the principal rivers, causing floods and shortages; water allocation conflicts across sectors; inefficiency in water use and physical operation of the irrigation system; depletion and contamination of ground water; and increasing pollution in waterways, particularly from municipal and industrial wastes.

5.33 The Government is taking steps to improve the institutional mechanisms for water management. However, these will have to be extended, especially at the provincial level, to overcome remaining problems arising from the fragmentation of existing agency mandates. Proposals include strengthening of Provincial Irrigation Offices and upgrading of Irrigation Committees to Water Resource Boards. Consideration might also be given to establishing river basin enterprises for those basins in which water shortages are emerging.

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<sup>/1</sup> COD, or chemical oxygen demand, refers to the amount of oxygen consumed in the chemical processes that break down organic matter in water.

5.34 The relative neglect of upper watershed agriculture is an important cause of downstream problems with river regimes. Not only would agricultural intensification -- through the introduction of more flexible farming systems, physical infrastructure, integration of livestock (to encourage the use of organic fertilizer while aiding in the diversification of incomes), better agricultural and forestry extension services, and greater attention to credit, marketing and producer prices -- raise incomes in the upper watersheds, over time they will also mitigate some of the soil erosion problems that occur. However, policies requiring changes in land use management by the numerous upland farmers will show results only after the elapse of several cropping seasons. Therefore, construction of additional dams and storage facilities, in areas which are especially prone to floods and shortages, may be necessary. Given the large investments involved, careful evaluation of costs and benefits is a critical input for decisions in this area.

5.35 Although municipalities use only a small amount of water when compared to agriculture, these uses are extremely important, and will put pressure on the "historical" rights of irrigated agriculture. Initially, both pricing and monitoring policies need to be reviewed to reduce waste and illegal offtake from municipal distribution systems. Where dams and other storage facilities are proposed, it will be necessary to give greater attention to optimal real time control of reservoirs, with special attention to the management of multipurpose uses. Currently, reservoirs are either used primarily for power generation or for irrigation and drinking water supply: true multipurpose operation could provide significant operational efficiencies.

5.36 Given the importance of agricultural uses in the overall demand for water, much of the water supply management problem in Java will depend on success in raising system and farm level efficiencies in the irrigation systems. An upward adjustment in the present level of cost recovery is central to this effort, not only to encourage economies in the use of water resources at the farm level, but also to provide resources for improved O&M on the main and secondary systems. Towards this end, the Government is experimenting with the introduction of an irrigation service fee which can be geared to the actual financial requirements for O&M in specific irrigation schemes, and implemented in such a way that there is a direct connection between payment of the fee and provision of O&M services. In addition, it will be necessary to strengthen water management institutions at the local level (e.g., water users' associations) to support the implementation of such measures.

5.37 There is an urgent need to develop an appropriate groundwater management strategy. Groundwater abstraction above a certain density has an inherent negative externality: by lowering the water table, every consumer increases the cost of abstraction for the others. This situation can only be addressed through proper economic regulation, monitoring and control. However, this is difficult at present because of the substantial shortage of information and an apparent fragmentation of institutional responsibilities. A stronger effort is needed for basic data collection, for monitoring abstraction levels,

pollution and potential land subsidence, and for further definition and clarification of the institutional setting in such a way as to promote a permanently operational groundwater management system.

5.38 The remedies for pollution problems that stem from industrial wastes are discussed in the next section. With respect to organic wastes, the Government plans to give greater attention to urban sanitation problems during REPELITA V. The funds available for sanitation are currently declining. The construction of conventional sewerage and waste disposal systems would require vast increases in expenditures, which in most cases would not be justified in the current economic environment. The increase in expenditures could, however, be kept modest by adopting appropriate technologies for on-site management of wastes and disposal of municipal residues. Such technologies are not only much less expensive to implement, they also provide much better opportunities for cost recovery from the ultimate users. The budgetary cost of particular low-cost sanitation projects can therefore be quite low. Experience to date suggests that strong community participation, private sector contributions and NGO involvement are necessary to deliver successful programs. IGGI donors could play an important role in providing technical assistance for low-cost sanitation projects to the Government and suitable NGOs, and provide the initial grants to establish revolving funds for financing private, on-site facilities.

#### Pollution Issues Related to the Industry and Energy Sectors

5.39 The issue. The industry and energy sectors are two of the fastest growing segments of the Indonesian economy. There is sufficient, although still fragmentary, evidence to suggest that the water and air pollution problems stemming from these sectors are a growing concern. In some cases the effects have been severe, and have resulted in a loss in beneficial uses from these media. Given the importance of industrial growth in Indonesia's development strategy, the environmental hazards stemming from these sectors are expected to multiply, unless appropriate measures are taken. Fortunately, many of the concerns are amenable to fairly straightforward and standardized interventions, both in terms of economic policy instruments and physical investments. In particular, evidence from other countries suggests that preventive measures are significantly cheaper over the longer term than repair or rehabilitative measures. Therefore, the Government's program to evaluate the environmental impact of projects and to incorporate environmental controls in the design of new projects can yield significant benefits.

5.40 The environmental consequences of energy production, consumption and transportation (e.g., health hazards; damage to forests, vegetation and marine resources; air pollution) depend critically on the mix of energy resources employed in the economy. The large share of oil in total energy consumption (88%) has led to the pollution of delicate estuarine areas (in Riau and South Sumatra) and mangrove swamps (Cilacap in Central Java) through spillage, blowouts, disposal of brines, venting of hydrogen sulphide, and disposal of the mercury which is removed from natural gas. In addition, the transportation of oil in tankers is a major source of pollution of the marine environment, especially as a result of the heavy traffic in the Straits of Malacca and the associated need for deballasting, as well as uncontrolled cleaning of tankers, spillage during loading and unloading, and shipping accidents. The impact on fish, fish food organisms and corals is reported to be significant. Further,

the use of gasoline and diesel in transportation causes significant air pollution, particularly in Jakarta, Surabaya and Bandung, through emission of sulphur and nitrogen oxides, carbon monoxide, hydrocarbons and other organic compounds, particulate matter containing lead, other metals and sulphates, and emission of odor and noise. The use of alternative fuels like LPG (liquefied petroleum gas) and CNG (compressed natural gas), both of which tend to produce fewer pollutants than gasoline and diesel fuels, needs further research to determine their economic viability. This and other options (e.g., reducing the lead content of gasoline, the use of catalytic converters, and improved pricing policies for diesel fuels) will be considered by the Government.

5.41 While domestic coal consumption is still at very low levels (about 1 million tons/year), it is projected that consumption could rise thirty-fold by the year 2000. Experience with mining projects in Indonesia suggests that the environmental impacts of exploiting coal reserves are potentially large -- loss of usable land, erosion resulting in turbidity and sedimentation, solid waste generation -- and will increase with higher coal consumption unless appropriate attention is given to mitigating the environmental effects. Another major source of environmental management problems in the energy sector arises from hydropower projects, and revolves principally around the need to compensate and resettle the population affected by reservoir construction. An example is provided by the World Bank-financed Cirata Hydroelectric Project, which affected 7,000 ha. of land and involved the resettlement of about 6,000 households. Considerable government efforts have been mounted to enable the affected population to avail themselves of the new potential (e.g., fish culture) offered by the impounded water.

5.42 It is worth noting that for each of the problems mentioned above in the context of energy sector development, it is possible to identify clearly the specific causal factors and point sources which create environmental hazards. This, in turn, simplifies the task of environmental management and mitigation of adverse effects. Industrial sector environmental issues share a similar characteristic. In general, such problems arise because industrial activity is usually spatially concentrated to benefit from agglomeration economies, but inadequate attention is given to effluent control and discharge on the part of industrial firms, and weaknesses exist in the monitoring and implementation of existing regulations on the part of official agencies. The most alarming trend is the presence of heavy metals and toxic materials in waterways close to industrial areas. Many of these pollutants are suspected carcinogens (e.g., chromium, cadmium, and selenium). This type of pollution is particularly dangerous, since even small amounts can enter the food chain and may lead to serious health problems. Furthermore, this type of pollutant is not removed from the water in the standard municipal water treatment facilities currently available in most industrial areas. The Government intends to improve upon these conditions in designated industrial zones. The possible options consist of wastewater processing or disposal facilities, cooperatively constructed and maintained. Pilot projects are being planned and are currently under discussion with potential donors.

5.43 Table 5.5 illustrates some of the pollution loads that are found in the major rivers. Surabaya's problems further illustrate the environmental effect of rapid and concentrated industrial growth, combined with uncontrolled industrial waste discharges. The Surabaya River supplies treated drinking water

for this city of 3 million people, and untreated water for a growing population residing on its banks. It also meets needs for water from industrial firms, for irrigation, and for sanitation. The river flow was found to be insufficient to satisfy demand, so that a moratorium has been in effect since 1977 which has stopped further development of industries using water or discharging wastes into the river. Surabaya has been designated as one of Indonesia's five National Industrial Centers, so water demand is expected to grow rapidly, further aggravating existing shortages. In addition, pollution of the river had reached in the early-1980s such a level as to render the river virtually anoxic and untreatable by the existing municipal facility for the provision of potable water. It has been estimated that of the 400,000 cu.m./day river flow into the municipal water treatment plant, nearly one quarter consists of industrial waste containing heavy metal pollution. Despite the extensive use of the river for domestic waste, 80% of the effluents were caused by industries located along the Lower Brantas and Surabaya rivers. A beginning, and possibly a landmark case, is seen in the recent actions of a number of firms along the river which, under the threat of legal prosecution, met a government-imposed deadline to process the hazardous wastes they produced.

**Table 5.5: TYPES OF POLLUTION LOADS ON JAVA**

River	Point	Industrial ---- (COD tons/day) ---	Municipal	Industrial waste (% of total waste)
<b>West Java</b>				
Cisadane	Tangerang	75.00	62.00	55
Banjir C	Pejompongan	4.00	8.70	31
Sunter	Pologadung	1.95	4.60	30
Bekasi	Cileungsi	3.40	11.20	23
Citarum	Jatiluhur	42.00	68.00	38
Cimanuk	Tomo	14.00	7.00	67
Citanduy	Cikawung	29.00	40.00	42
<b>Central Java</b>				
Serayu	Banyumas	21.00	41.00	34
Progo	Sentolo	5.00	31.00	14
<b>East Java</b>				
Solo	Babat	79.00	44.00	64
Surabaya	Tawang Sari	7.00	18.00	28
Brantas	Mojokerto	12.00	4.00	75
<b>Total</b>		<b>293.35</b>	<b>339.50</b>	<b>46</b>

Source: World Bank staff estimates.

5.44 Another set of environmental management issues arises from the operation of industries which may not necessarily locate in areas which are characterized by high population density or proximity to urban settlements, but

whose pollution potential would still require careful supervision and control. The palm oil industry is a case in point. Such mills have been recognized in Southeast Asia, particularly Malaysia, as major dischargers of organic pollution loads into water bodies. Effluents typically have a BOD content of 25,000 milligrams/litre (nearly 100 times that of raw sewage) and have COD, solid waste, oil and grease, ammonial and total nitrogen, and pH levels which are generally greatly in excess of safe standards. Several other industries -- such as rubber processing, tapioca, wood processing, pulp and paper -- are in a similar position. Despite widespread acknowledgement of the pollution potential of these operations, and relatively cheap and easy availability of pollution control and mitigation facilities, pollution control mechanisms in such industries are relatively underdeveloped. As a first step to improve this situation, the Government is focussing on training manpower with the appropriate skills.

5.45 The response. The supporting legal structure for the establishment of an environmental control program for industry is basically in place and existing regulations and decrees are sufficient to begin to redress the current situation. However, monitoring and enforcement are currently the weakest components of pollution management. Institutional capabilities in monitoring are hindered by a lack of trained manpower and laboratory facilities. Without an effective monitoring program and adequate data, enforcement of existing laws is proving to be extremely difficult. Steps to deal with industrial pollution issues include the following:

- (a) to reduce water pollution, pollution monitoring and control agencies (PMCAs) are needed, preferably under the provincial governors. This could be done initially in those 8-10 provinces with the most serious pollution problems. 1 Eventually, PMCAs should cover water and air pollution and toxic wastes, and levy pollution charges. As there are several cases where gross pollution problems have been traced to individual firms, there may be substantial gains from early and well-publicized enforcement of the existing regulations;
- (b) KLH should accelerate the enactment of standards, currently only in draft form, for air and water, for industrial discharges as well as for solid waste disposal;
- (c) it is necessary to institute a strict policy of ensuring that future industrial investments are in initial compliance with environmental regulations and that the EIA procedures are implemented by all official agencies; and
- (d) KLH, provincial governments and line agencies need to compile an information base on the extent and nature of industrial pollution.

5.46 With regard to the energy sector, several options exist for the efficient substitution of energy sources: from fuel oil-based power generation to low-sulphur coal, hydropower and gas; from diesel-based power generation in industries and rural areas to grid-supplied electricity; and from fuel oil and

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1 The Institute of Hydraulic Engineering in Bandung could provide technical support for setting up the needed facilities.

kerosene-based gas to natural gas in urban gas distribution networks.<sup>/1</sup> These substitutions are expected to have generally favorable effects on pollution levels. A second policy direction which should continue to be pursued is the formulation of environmental standards and policies for major energy projects, such as coal-fired and nuclear power plants, coal mines, oil refineries, onshore and offshore oil production facilities and LNG/LPG plants. These policies should address issues of siting and environmentally sound design and operation, including allowable discharge of specific pollutants and proper handling of waste materials. An example of successful use of such policies is seen in the case of Suralaya Steam Power Station (4x400 MW). Environmental considerations had considerable influence on both site selection and plant design. The choice of the site on a remote corner of the West Java coast was strongly favored because of its excellent circulating water dispersion capability, thereby minimizing the impact on the marine environment. Air quality impacts were minimized through the incorporation of an electrostatic precipitator (99.5% removal efficiency), construction of a 200 metre high stack, and the use of low sulphur coal. The cost of these mitigation measures was estimated at US\$26 million, out of a total project cost of US\$600 million.

### Conclusion

5.47 This section's analysis of the critical environment issues in Indonesia provides some broader conclusions on environment and natural resource management issues and policies:

- (a) Despite the dominance of particular issues in specific geographical areas, there is a close interrelationship among the different components of the environment, so that the effects of degradation of one natural resource are seldom confined to a single habitat or environmental medium. Therefore, the appropriate approach to environmental issues requires multidisciplinary analysis and close coordination among the agencies responsible for implementing policies.
- (b) Most environmental issues arise more from the cumulative effects of many small agricultural, mining and industrial activities than from large capital projects. Consequently, environmental management requires broader participation than is presently the case. A primary instrument for achieving improved environmental control is, therefore, the decentralization of decisionmaking and financial responsibility. The Government is making progress in this direction, and plans to intensify its efforts, supported by complementary improvements in human resource development.
- (c) The instruments required to achieve the objectives of sustainable development should be able to handle the effects of numerous atomistic economic activities and those resulting from specific, identifiable point-sources. Government regulations, general incentive policies (e.g., price/subsidy and tariff policies) and project siting and

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<sup>/1</sup> See World Bank, Energy Options Review (Report No. 6583-IND, August 25, 1987).

industrial location policies all need to be deployed to achieve satisfactory outcomes. It is also important to introduce and adhere to certain robust principles of environmental policy (e.g., the "polluter pays" principle) which have been successfully implemented in other countries.

- (d) While continued formulation of environmental guidelines based on realistic standards is appropriate, greater emphasis should be placed on improving the institutional capacity for monitoring and implementation. This is particularly true for those cases where the "demonstration effect" may be sufficient to ensure more widespread compliance with the desired norms. Implementation will have to be done by line-Ministries and provincial agencies, and steps should be taken to strengthen them accordingly.
- (e) Repairing existing environmental degradation and ensuring a sustained increase in natural resource productivity in Indonesia will also require resources for physical investments (e.g., in conveyance structures, wastewater collection and treatment facilities, industrial and toxic waste management systems) and manpower training. Clearly, given the Government's budgetary constraints, this implies a firm commitment from the external donor community and a larger degree of private sector participation.

#### D. Institutional Issues and The Role of Donors

5.48 A large number of agencies, at both the national and provincial levels, are involved in functions that have a bearing on environment and natural resource management. At the center of the present institutional framework is KLH, whose mandate includes the following: coordination of the formulation of policies on environment and population; development of regulations for implementation by national and local government institutions; provision of technical advice and assistance; monitoring the environmental programs of public institutions; and coordinating the development of environmental awareness and participation. Although KLH is not an executing agency for natural resource and environmental management investment projects, it coordinates a network of efforts and information flows in this area. Besides overseeing, or coordinating with, a network of institutions and technical units -- provincial government environment and population offices /1, several non-government organizations,

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/1 According to the Basic Provisions, provincial Governors are given wide ranging responsibilities: to set standards, to license and check new projects, to monitor adherence to environmental laws, and to enforce the laws. To assist in the exercise of this authority, a bureau to deal with environmental matters was established. These offices (BKLH, or Biro Bina KLH) are located within the Governor's offices in each province, and under the nominal jurisdiction of the Ministry of Home Affairs. Their role is essentially advisory and informational. The effectiveness of BKLH is further limited because, besides limited technical capacities, unit chiefs are at lower levels administratively than the provincial government agencies they are supposed to coordinate.

environmental studies centers located at Indonesia's universities /1, and technical personnel in line agencies and research institutions -- KLH is actively involved in inter-ministerial committees and technical working groups. It has also designed and promoted the passage of several important laws and government regulations in its areas of responsibility. /2

5.49 Coordination of environment-related tasks is clearly a high priority, given the numerous agencies involved and the multisectoral nature of most environmental issues. There have been several instances of collaboration on large multisectoral projects (e.g., transmigration programs, greening and reforestation programs, river basin management, large infrastructural projects like the Jatiluhur dam) by a group of official agencies. However, difficulties have arisen because of non-standardized procedures, regulations and objectives, and inadequate exchange of information. Some of the main institutions involved are simultaneously functioning as promoters of investment projects and this can cause occasional ambivalence towards environmental issues. Further, the planning and implementation timetables adopted by individual Ministries are not always appropriately synchronized, causing bottlenecks and raising the costs of environmental programs.

5.50 Coming to grips with these problems and proposing approaches towards their solution will constitute the main task of KLH. Another mechanism for both vertical and cross-sectoral coordination is the environmental assessment commissions being established in all line-Ministries and provincial governments under PP 29/1986. Provisions exist under this regulation for representatives from all Ministries and provincial governments affected by a specific problem to sit on the commissions of particular line Ministries dealing with the problem.

5.51 The coordination problems of Ministries are reinforced by a severe shortage of technical skills in the areas of environment and natural resource management. For example, staff recruited from the national forestry service for conservation work are inadequately trained in forest conservation strategies, and entire specializations (e.g., marine conservation) are sometimes lacking.

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/1 The environmental studies centers (PSL, or Pusat Studi Lingkungan), over 40 in number, have been under development since 1978 and carry out multi-disciplinary research, education and public service in the areas of environmental management, generally in support of KLH policy formulation and provincial government planning. A number of PSL have developed a solid research capability, but most are still developing and will require additional technical and financial assistance.

/2 Landmark legislation in the area of environmental management consist of Law No. 4 of 1982, entitled Basic Provisions for the Management of the Living Environment, which forms the cornerstone of all subsequent regulations, and PP No. 29 of 1986, entitled Analysis of Impacts upon the Environment which, acting on provisions of Law 4/1982, introduced the requirement for Environmental Impact Analysis (EIA) of new and existing projects. Implementation guidelines have been issued subsequently, providing guidance to line-Ministries and provincial governments which have the responsibility for implementing EIA procedures under the provisions of PP 29/1986.

Consequently, although the Ministry of Forestry is charged with the responsibility for Indonesia's 317 gazetted conservation areas, it is not yet able to perform this function in a manner designed to achieve the objectives of the National Conservation Plan (1981). Clearly therefore, while cross-sectoral coordination at both the national and provincial levels is needed, the role of line-Ministries in implementing environmental regulations and fostering the adoption of sound environmental and natural resource management practices, which depends critically on their technical resources, should not be forgotten. Technical assistance and training opportunities for staff in these agencies should be directed towards incorporating environmental concerns into their specific mandates.

5.52 Significant progress has been made by the Government to establish a broad framework within which implementation guidelines may be elaborated and the needs for institutional cooperation identified. In setting specific development targets, resource use and environmental considerations are beginning to be taken into account, so as to ensure sustainability over the longer term. Environmental concerns also need to be addressed at the level of planning for individual projects. A large number of formal methodologies exist for this purpose which reflect extensions of the standard cost-benefit calculations currently applied to the appraisal of projects. Usually, many environmental protection components of development projects are readily justified on conventional economic grounds.<sup>1</sup> In addition, the "safe minimum standard" methodology -- which specifies the minimum environmental, social, or other criteria which a project must meet in all cases -- is widely utilized in many countries to assess projects for conformity with sustainable development objectives, irrespective of the results of the standard analysis. Application of this concept in the Indonesian context would require an early completion of current efforts to draw up environmental standards which are realistic (reflecting local conditions and not simply borrowed from guidelines established in more developed countries) and easily implemented.

5.53 The discussion of the preceding sections clearly indicates the importance of mobilizing resources for sustainable development. Many of the objectives of environmental and natural resource management can be met at little cost -- e.g., through a reorientation of existing technical functions, strengthening of institutional mandates, better enforcement of current

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<sup>1</sup> An example would be the World Bank-assisted irrigated rice project in Sulawesi, which also provided funds for establishing and maintaining the Dumoga National Park. Standard economic analysis suggested that the protective role of forests in the area would lead to a significant reduction in sedimentation in the irrigation works, thereby reducing O&M costs and helping to prevent irregularities in water supply. In this project, the additional environment benefits of the forested area (e.g., preservation of endangered species) were not included in the project's economic analysis, and were not required to justify the inclusion of the environmental component.

regulations, and improved inter-agency coordination. In addition, use of the general incentives framework -- e.g., price/tax/subsidy policies to encourage agricultural diversification in the upper watersheds, or to discourage deforestation, or to encourage economies in the use of water resources -- would assist in improving compliance by the private sector. Nevertheless, appropriate management of the environment and natural resources will also require larger allocations of financial resources for the upgrading of technical capacities, for preventive or ameliorative investments, and even for investments in the repair or rehabilitation of environmental damage.

5.54 Generally speaking, it would be unrealistic for NGOs and political groups in countries with per capita incomes of US\$10,000-15,000/year (mainly in Europe and North America) to expect Indonesians, with per capita incomes of around US\$500/year, to bear the full burden of protecting natural resources that are perceived to be of global value. This is particularly true when the economy faces several other pressing social and economic issues. Further, the Government's budgetary resources are expected to remain constrained over the next several years. There is, therefore, an easily identifiable role for IGGI donors in assisting Indonesia to achieve the goal of sustainable development.

5.55 Current IGGI donor activity in this field is extremely limited in scope, although in some cases programs by external agencies have contributed significantly to localized environmental upgrading and the mitigation of resource degradation.<sup>/1</sup> Donor support, in the form of investments and technical assistance, could be usefully absorbed in many of the areas discussed in this chapter. The preceding sections identified two areas -- forest conservation and urban sanitation programs -- where early involvement is feasible. Specific efforts with respect to institutional strengthening could also be made in the following areas:

- (a) technical assistance, including advisory work, provision of environmental control technology, training and local funds, to help develop the capabilities of sectoral agencies and provincial government agencies, where donors have current or prospective programs or projects; and
- (b) assistance to Central Government agencies in policy development for environment and natural resource management.

5.56 Assistance from external donors with respect to specific investment projects is contingent upon the Government's own investment program. In general, however, donors should consider the following:

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<sup>/1</sup> The UNDP's annual Report on Development Cooperation to Indonesia provides a useful summary of donor activities. In order to assist GOI in identifying inputs for environmental management, it would be useful for future reports to introduce "environment" as a sector in the statistical tables that are presented.

- (a) increase the grant component of financial assistance, not only in order to make a significant contribution to upgrading human resource and institutional capabilities, as mentioned above, but also to encourage the Government to more actively seek out donor participation in environment and natural resource management programs and projects;
- (b) subject each donor-assisted project to preinvestment screening, both with the objective of evaluating environmental impacts and the maintenance of safe minimum standards, and the identification of environmental components to be included in the projects; and
- (c) include environmental reporting in annual consultations with the Government on bilateral and multilateral assistance programs.

## CHAPTER 6

### PUBLIC SPENDING PRIORITIES

#### A. Introduction

6.01 Chapter 2 argued that a strong investment effort will be essential to sustain economic recovery over the medium term. Both public and private sectors will need to play important roles in this investment effort. Indeed without a strong supportive public investment effort, the recovery of economic growth and private investment will both be jeopardized. Yet, overall resource availability and the need to finance the private sector's investment will limit the size of the public investment program. Therefore, it will be extremely important to undertake a careful review of public expenditure priorities.

6.02 In reviewing expenditure priorities, particular attention has to be given to efficient operation and maintenance (O&M) of current and future public infrastructure. Without this effort to resolve the O&M problem, it will be impossible to earn an adequate rate of return on public investment. The Government has recognized this and has initiated several measures to address the O&M problem. Section B reviews these measures and identifies further actions in this area. At the sectoral level, expenditure strategies will need to reflect Indonesia's broad development objectives and priorities, and should aim at allocating resources to programs which will maximize economic and social rates of return. The priorities for public investment, and related issues of sector strategies, are discussed in Section C.

#### B. The O&M Problem

6.03 The need to address the O&M problem was highlighted in last year's Economic Report. Since then, Indonesia has made significant progress in this area. The Government's effort has focussed both on improving budgetary resources for O&M and on enhancing institutional capacity (on a selective basis) to design and implement better O&M practices. This effort is an important first step. The magnitude and complexity of the O&M problem warrants a continuous effort over an extended period of time. Substantially larger additional financial resources will need to be provided, accompanied by steps to increase the "absorptive" capacity of all government institutions for the planning and implementation of higher levels of O&M.

#### Recent Policy Actions

6.04 In his 1988/89 Budget Speech, the President of Indonesia emphasized the need to provide adequate funds for O&M, attaching particular importance to the maintenance of roads and bridges, clean water supply and irrigation networks, and elementary school buildings. Some of the additional funding for O&M at the

regional level will be met by greater INPRES transfers from the Central Government. For example, in the 1988/89 Budget, INPRES grants were increased from Rp. 10 billion to Rp. 12 billion for the smaller provinces and per capita INPRES grants to the districts and cities were raised from Rp. 1,250 to Rp. 1,450. The INPRES for roads was increased from Rp. 130 billion to Rp. 180 billion, with the additional funds largely oriented to road rehabilitation and maintenance. In both the irrigation and road sectors, the share of DIPs<sup>1</sup> allocated to maintenance and rehabilitation appears to have risen sharply, relative to outlays for new or ongoing investments. For example, as of 1987/88, approximately half of the INPRES for primary schools was providing "seed money" for O&M, through flat grants of Rp. 310,000 per school. In the health sector, most of the DIPs are oriented to training, as well as rehabilitation of structures and O&M activities at the health centers. The routine budget has also emphasized O&M, and procedures have been modified to permit greater flexibility for agency and program heads to shift funding across routine budget categories.

6.05 With the support of several donor agencies, the Government has formulated action plans in the irrigation, urban infrastructure, and rural road sectors to address the multiple sources of the O&M problem, with emphasis on strengthening the O&M absorptive capacity of the provincial and local governments. These action plans seek to: (a) rehabilitate deteriorated infrastructure; (b) increase O&M funding; (c) clarify institutional responsibilities for O&M implementation; (d) strengthen the technical capacity for planning and implementing O&M; (e) develop related cost recovery mechanisms; (f) privatize some O&M responsibilities; and (g) improve personnel incentives. In the urban sector, with the issuance of Policy Regulation PP14/1987, the Government has begun to clarify institutional responsibilities for O&M and strengthen accountability at the local government level. Over time, this should lead to further decentralization of technical functions from line agencies in the Central Government to regional governments. Also, a special working group on O&M was recently formed. This group is developing an action plan to strengthen urban O&M, based on the results of a recent study of O&M management practices in four cities and other studies by Cipta Karya, Bina Marga, and DKI. In the health sector, a pilot project in two provinces is being developed to serve as a model for the decentralization of planning, budgeting, management and financing in provincial health care.

#### The Future Policy Agenda

6.06 The steps taken so far reflect the Government's strong commitment to resolve the O&M problem. These initiatives should be consolidated by taking additional measures along the following lines: (a) substantially increasing budgetary resources; (b) designing and implementing sectoral strategies for O&M; (c) strengthening the budgetary system for O&M; (d) strengthening institutional coordination; and (e) introducing O&M considerations into the planning process.

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<sup>1</sup> Daftar Isian Proyek, the basic project document for departmental budget allocations.

6.07 O&M funding needs. The additional financial requirements for efficient O&M are quite large. Rough estimates indicate that more than Rp. 1 trillion (at 1986/87 prices) would be additionally required each year for adequate funding of road and irrigation maintenance, health and higher education O&M, and building maintenance. Moreover, a large volume of infrastructure in the roads and irrigation sectors will need to be rehabilitated.<sup>1</sup> These rehabilitated facilities would then require an additional Rp. 1 trillion (at 1986/87 prices) for adequate O&M. An increasingly large proportion of these funds will need to come from cost recovery policies directly linked to O&M services. It is also important that the President's emphasis on O&M should continue to be reflected in budgetary allocations, both in the routine and development budgets. In the latter, this will require an increase in the share of DIPs oriented to O&M, and serious examination of all new investment projects. Additional funds for O&M could also be provided through higher allocations from INPRES programs.

6.08 Sectoral O&M strategies. There is a strong need to formulate explicit O&M strategies for all public sector activities, to serve as the framework within which annual sectoral program targets would be developed. As noted, some sectors have already begun to develop O&M strategies. Other sectors now need to focus attention to this work. BAPPENAS could help by providing guidelines and specifying a timetable. Such a strategy would: (a) indicate the role played by operations, routine and periodic maintenance, and rehabilitation in addressing sectoral policy objectives, and would examine the returns to new investment in this light; (b) evaluate the adequacy of current O&M funding levels, the amount of funds necessary to rehabilitate deteriorated infrastructure, and the additional implications for O&M of both new and rehabilitation investments; (c) examine the O&M implications of non-investment related policy targets (e.g., higher coverage rates for vaccinations within a community, lower student/teacher ratios); (d) address the institutional policies needed to increase the implementation capacity for O&M, particularly at regional levels of government; and (e) provide estimates of the cost of O&M for different sectoral programs.

6.09 It may also be necessary to reexamine the Government's involvement in some sectoral programs. Especially, the feasibility of privatizing some O&M responsibilities needs to be examined, either through contracting out or explicit withdrawal from the provision of some services. For example, in education, there may be a need to reevaluate the number of public universities, and to consider an increased role for the private sector. Similar issues arise in the provision of tertiary medical care. Cost recovery strategies can also be explored within this framework. Given limited budgetary resources, emphasis should be placed on programs where the "public good" and externality arguments for public sector involvement are particularly strong.

6.10 Strengthening budgetary system for O&M. The present budget process and information system are not well-adapted for a rational consideration of budget priorities between O&M and investment. It is difficult to focus on the adequacy of resources for O&M when funding remains fragmented across different

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<sup>1</sup> An estimated Rp. 6 trillion (in 1986/87 prices) will be needed to rehabilitate these infrastructure.

areas of the Budget and the classification of accounts obscures the different program purposes for which disbursements are intended within a sector. Identifying the O&M component of outlays is often impossible under the current system. Coordinated budgetary planning is further complicated by the separate classifications used in the routine and development budgets (with differences in the number of sectoral programs and budget categories). A significant part of O&M is presently funded from the development budget, through the DIPs and the INPRES programs. In addition to the problems posed for budget coordination, there is a risk that significant cutbacks in the development budget may also have serious adverse consequences for O&M financing. It is important that the essentially "recurrent" nature of O&M funding be maintained, regardless of whether it is included in the routine or development budgets.

6.11 A fundamental reform of the basis for classifying budgetary disbursements is a long-term objective. There are many possible ways to restructure the Budget, including a shifting of O&M elements to the routine budget or a unified budget framework, and such changes might be considered in the course of the next five-year plan. In the interim, efforts should be made to identify the program focus of different outlays, both on the basis of a functional and economic classification. This could yield a partially integrated picture of the magnitude and sources of O&M funding by sector, subsector, program, and level of government.

6.12 Budgeting for O&M is further complicated by the fact that much of the responsibility for O&M implementation resides in the regions. The fragmented structure of the Budget and the criteria presently used for determining Central Government transfers leads to a situation where financial resources do not correspond to O&M responsibilities. The unpredictability of the present grant system also precludes effective planning of O&M activities and makes it difficult to implement adequately periodic maintenance and rehabilitation efforts within the budget year. To deal with this, there is a need to enhance local resource mobilization and reform the present grant system. This will help limit the burden of regional O&M financing on the Central Government and increase the decentralization of O&M responsibilities. The property tax may well turn out to be the cornerstone of local government finances in years to come, though this will require further efforts to strengthen tax administration and valuation procedures. There is also an urgent need to reconsider the magnitude and criteria for budgetary transfers (INPRES, DIPs, and SDO) from the Central Government to the regions, using O&M as a key factor. Furthermore, a well designed and effectively managed regional loan fund will play a useful role in mobilizing O&M resources at the regional level.

6.13 Agency coordination. Better coordination of agencies involved in the planning and budgeting of O&M resources will be essential to ensure efficient O&M. Under the present system, responsibility for decisions on the routine and development budgets are vested in the Ministry of Finance and BAPPENAS, respectively. Allocations of new posts across sectors is determined by the Ministry of Administrative Reforms (MENPAN), while INPRES allocations are supervised by the Ministry of Home Affairs. There is a need to coordinate these decisions, to ensure consistency of O&M resource allocations to a program,

because provision of additional staffing without the requisite materials and supplies, or vice versa, may significantly diminish the productivity of resources allocated to a sectoral program. To further achieve this objective, the planning of the routine budget will need to be integrated with the preparation of the development budget, with suitable coordination within and across Ministries. This will also necessitate greater integration of efforts by the routine and development budget sections of the Ministry of Finance.

6.14 Integrating O&M considerations in the planning process. The preparation of sectoral O&M strategies needs to be accompanied by changes in the planning process so that the high priority accorded to O&M needs is directly addressed in the formulation of sector strategies, and reflected in budgetary resource allocation decisions. As an initial step, there is a need to establish an information system that ensures that sector strategies developed by line agencies are consistently organized to provide basic information on the investment and O&M implications of projects. Second, there is a need to develop a framework within which priorities can be determined, given resource availabilities. This involves a medium-term planning framework, enabling policy makers to explicitly take account of the O&M implications of current investment outlays, strengthen the Government's ability to assess the appropriate pace of investment, and ensure a balanced growth of investment and O&M funding. Although the framework would have a five-year horizon, it should be disaggregated on an annual basis, enabling planners to revise and extend it every year (i.e., a "rolling" expenditure plan). It could also be used as an input to the budget decision-making process.

6.15 Strengthening of the institutional capacity for implementing O&M has been clearly recognized as a prerequisite for any meaningful expansion in efficient O&M funding, as illustrated by the sectoral action plans discussed above. However, there are some problems which are more systemic in nature, limiting the productivity of government outlays in all sectors. In particular, the inadequacy of salaries for middle and upper level managers and skilled professionals has led to alternative systems of salary supplementation which have distorted the implementation of government policies, adversely affecting O&M, and reducing the potential productivity of budget outlays. There is a need to reexamine the system of financial compensation and incentives of civil servants, especially to correct the disincentives to undertaking O&M relative to expansion programs.

6.16 Role of donors. Finally, donors could also facilitate better O&M practices. In the past, donor policies have unintentionally contributed to the O&M problem. In supporting a significant share of Indonesia's development efforts, their funding has almost uniformly been directed toward investment projects, and not toward the subsequent O&M that emerged from their efforts. Often, donor project analyses have failed to provide data on O&M implications. Even when donors have included loan covenants relating to O&M, these have often proven ineffective in securing increased O&M funding. The tying of procurement to donor country sources has led to some O&M problems, reflecting limited availability of spare parts, lack of standardization and inadequately trained technical manpower. Fortunately, donor concern for the O&M problem has

increased substantially in recent years, as reflected in higher allocations for temporary local-cost financing of O&M, assistance to develop sectoral O&M capacities, provision of sectoral program loans, and initial funding of O&M costs upon completion of projects. Further efforts are needed, including increased emphasis on estimating the implied recurrent costs of projects, and greater post-project performance auditing so as to signal the priority attached by donors to adequate O&M.

### C. Public Investment Strategy

6.17 During the 1970s, Indonesia used its increased oil revenues to embark upon an extended program of public investment. Many of these investments have paid off, as reflected in significant improvements in infrastructure (electricity, transport, telecommunication), human resources (education, health and family planning) and a rapid growth in agriculture, especially rice. But over the past four years, the deteriorating external environment has forced the Government to reduce public investment levels and rephase large capital-intensive projects. The largest cutbacks have occurred in sectors where private sector options can be developed (e.g., industry and mining) or where implementation constraints are severe (e.g., transmigration). Given the projected tightness of budgetary resources and the priority for O&M noted above, the emphasis on consolidation is likely to continue for the next two years. Over the medium term, as additional resources become available, the public investment effort will need to expand to support economic growth, non-oil exports and employment. A careful review of priorities will be essential to ensure that the medium-term public investment program effectively reflects Indonesia's major development objectives and resources are allocated so as to maximize economic and social rates of return.

6.18 The Government's recent investment priorities are illustrated in Table 6.1. During 1979/80-1986/87, a quarter of the Government's development spending focussed on creating income and employment opportunities in the rural areas (e.g., expenditure for agriculture and regional development). Another quarter was spent on developing infrastructure (electricity and transport) to support the growth of agriculture and manufacturing and boost non-oil exports. Another 18-20% of development spending was aimed at building human resources, by improving schooling, health, housing and clean water facilities. These priorities have been sharpened even further in recent years, as reflected in the development budget allocations for 1987/88 and this year. Thus, the share of development spending for promoting agriculture, infrastructure and human resources has been enhanced substantially at the expense of manufacturing, mining and general purpose expenditures.

6.19 A number of key development objectives will help shape public investment priorities during the 1990s. These include: (a) generating employment and incomes; (b) promoting non-oil exports; (c) developing human resources; and (d) improving environmental management. Clearly, the recent focus on agriculture, infrastructure and human resources is consistent with

these objectives. However, in other areas, such as natural resource management, new initiatives will be required. More generally, the Government needs to review its role in investment activity, bearing in mind the potential contribution of the private sector and the scope to improve project implementation capacity. The implications of these issues for public investment strategy are discussed below.

**Table 6.1: SECTORAL DISTRIBUTION OF DEVELOPMENT EXPENDITURE, 1979/80-1988/89**  
(% of total)

	<u>Actual</u> 1979/80-1983/84	<u>Actual</u> 1984/85-1986/87	<u>Budget /a</u> 1987/88-1988/89
<b><u>Agriculture</u></b>	<b><u>17.1</u></b>	<b><u>15.0</u></b>	<b><u>17.2</u></b>
Agriculture /b	3.9	3.3	8.5
Irrigation	5.1	4.6	5.1
Transmigration	5.3	4.6	1.2
Resources and environment	2.8	2.5	2.4
<b><u>Infrastructure</u></b>	<b><u>23.4</u></b>	<b><u>28.5</u></b>	<b><u>37.3</u></b>
Electricity	9.0	12.9	14.1
Transport and communications	14.4	15.6	23.2
<b><u>Industry and mining</u></b>	<b><u>21.7</u></b>	<b><u>13.4</u></b>	<b><u>8.4</u></b>
Industry	7.8	7.9	4.7
Mining	8.2	2.7	1.4
Business development	5.7	2.8	2.3
<b><u>Regional development</u></b>	<b><u>9.6</u></b>	<b><u>10.1</u></b>	<b><u>11.4</u></b>
<b><u>Human resource development</u></b>	<b><u>18.9</u></b>	<b><u>21.7</u></b>	<b><u>21.1</u></b>
Education and manpower	11.9	14.2	13.0
Health and population	3.9	4.1	3.5
Housing and water supply	3.1	3.4	4.6
<b><u>General services /c</u></b>	<b><u>9.3</u></b>	<b><u>11.3</u></b>	<b><u>4.6</u></b>
<b><u>Total</u></b>	<b><u>100.0</u></b>	<b><u>100.0</u></b>	<b><u>100.0</u></b>

/a Revised budget figures for 1987/88.

/b Excludes fertilizer subsidy.

/c Excludes defense.

Source: Ministry of Finance.

### Promoting Non-oil Exports, Employment and Incomes

6.20 As noted earlier, the objectives of promoting non-oil exports, employment and incomes are strongly interlinked. The public investment program can contribute to these objectives in three ways: (a) by investing in export-based and labor-intensive production activities; (b) by developing essential infrastructure to support the production activities; and (c) by financing special employment creation programs. Given the strong presence of the private sector in direct production activities (especially in agriculture and manufacturing), the role of new public investment in direct production will need to be relatively limited. Instead, the Government's fundamental contribution will be to create incentives, through appropriate macroeconomic policies and structural reforms, which will allow the private sector to expand output and exports, thereby supporting employment and incomes. The main role of public investment in promoting these objectives will be indirect: by developing the infrastructure. Indeed, a principal function that public investment will need to play is to enhance the availability and efficiency of transport, electricity, water and waste disposal facilities in order to support the expansion of non-oil exports, especially in the manufacturing sector.

6.21 Public investment in direct production activities. In the past, public investment played a major role in providing production capacity in industry and, to a less important extent, in agriculture. The public investment effort in manufacturing focussed on creating large, capital-intensive projects aimed at substituting imports for a wide range of manufactured goods. This emphasis on focussing public investment in direct production activities is now shifting, as evidenced by significant cutbacks in development budget allocations for industry and mining in recent years. This is an appropriate development which should be continued. Moreover, the public sector's involvement in the industrial sector could be reduced through privatization. For enterprises which will remain under public control, it is essential to ensure that they function as commercial entities and are fully responsible for financing their investments. The Government can assist the financing of selective technical restructuring of important enterprises (e.g., steel, fertilizer) with the aim of improving their technical and economic efficiency. But such investments can only be justified as a part of a broad strategy to enhance the financial and economic efficiency of public enterprises. In agriculture, public enterprises dominate in export-oriented tree crop activities. Here again, there is considerable scope to increase the involvement of the private sector over the medium term. In the interim, public investment could focus on improving the efficiency of existing plantings and processing facilities, and supporting expansion programs (for both processing and planting) in the private sector.

6.22 The main emphasis of past public expenditure in agriculture was to develop irrigation facilities and provide subsidized fertilizer and pesticides, to support a rapidly growing rice sector. In the 1990s, non-food agricultural activities will need to grow much faster to contribute to the expansion of non-oil exports, employment and incomes. Moreover, a larger share of the incremental non-food agricultural output would obtain from outside Java than in the past. To support this change in the composition and location of production,

the public investment strategy for agriculture will need to place greater emphasis on agricultural research, extension and rural roads, especially in the Outer Islands. Of course, rice will continue to be the main source of employment and incomes in agriculture. Consequently, investment requirements for irrigation will remain sizeable. But the focus of the irrigation program will need to be to rehabilitate deteriorated systems and to maintain existing systems more efficiently, rather than to build new systems. It will also be important to enhance the role of the private sector in providing more efficient O&M for irrigation facilities.

6.23 Development of infrastructure. The efficient development of transport is crucial for the growth and efficiency of all economic activities but especially for agriculture and industry. Because of the interdependence between transport infrastructure (in general in the public sector) and transport operations (mostly in the private sector), public expenditure policies would have to be carefully formulated to minimize total costs in the sector. This aspect has been neglected in the past and as a result transport costs are higher than they should be. Given the rapid growth of aggregate transport demand, its changing composition and the budgetary constraint, the efficient allocation of budgetary resources will be essential to enhance the efficiency and adequacy of the transport network. It will also be important to improve the flexibility and responsiveness of the transport system by: (a) increasing competition through relaxation of restrictions on permitted activities of transport operators; (b) simplifying procedures and documentation, especially when international movements are involved; and (c) greater consultation between the various operators, the shippers and the Government.

6.24 Regarding public investment in transport, a key priority in the roads subsector is the need to clear the substantial rehabilitation/improvement backlog and to bring the entire network to a maintainable condition. Over the medium term, there will be a need to expand selectively road capacity in a number of heavily used corridors. These expansion requirements will have to be addressed on time to avoid creating production bottlenecks. A strong effort will be required to improve the condition of roads in the rural areas. In the maritime subsector, total traffic is expected to grow somewhat faster than GDP, mainly on account of export growth. In the larger ports, ongoing major investments, combined with the trend in containerization and the effect of productivity increases, should result in capacity which is adequate to cope with expected traffic growth. There is, however, a continued need for improved maintenance, for selective modernization, improvement in layout and strengthening of quays to cope with shifts in the level and composition of traffic in individual ports. For railways, the main priority is to improve the efficiency of operations. Although the facilities of three out of the four railway systems are very deteriorated, a major rehabilitation effort cannot be justified until there is clear evidence of improved services at reduced costs. In the interim, selective and modest investments to enable the railway to improve operational efficiency and service and/or to expand profitable operations could proceed. In the aviation subsector, traffic is expected to grow faster than GDP but subsector expenditures need not grow at the same pace, since major airport modernization/extension investments have been made in recent

years (some are still ongoing). Maintenance expenditures and outlays for support facilities (i.e., navigation aids, communications, traffic control) will need to be stepped up. Airport corporations and other related entities should be encouraged to finance current operations through cost recovery from users. Investments in aircrafts should also be financed from the airlines' own resources. Finally, in the area of urban transport, there is a need to place more emphasis on low cost road traffic management projects and to carefully scrutinize capital-intensive solutions (e.g., urban rail, toll roads).

6.25 There is an important need to encourage the growth of private investment in transport, especially in the areas of road transport and shipping. Investment in road vehicles and other facilities has traditionally been largely in the hands of the private sector and should be even more so in the future. New policies on road user charges and vehicle weights and dimensions, however, should be implemented to induce private operators to procure vehicles which are more appropriate from the point of view of lowering resource costs in the road transport system. Furthermore, to promote private investments in ancillary facilities (e.g., terminals), prevailing regulatory and bureaucratic hurdles will need to be removed. In shipping, there is scope for a major upgrading and modernization of the fleet over the next ten years to adjust to new technologies. For these modernization investments to take place, the private shipping companies will need to be assured of the Government's commitment to stable policies in the sector with minimal interference in investment decisions.

6.26 Modern, efficient and adequate telecommunication facilities are essential for Indonesia's economic development, especially in view of the size and archipelagic geography of the country. Despite rapid investment in the past, there is still a large potential demand for increased telecommunication services, as demonstrated by the low levels of development compared to other ASEAN countries and the long waiting list for connections. The key issues are availability of adequate financial resources and project implementation constraints. Given the importance of telecommunication services and large potential demand, it will be important to allocate adequate resources to allow the required expansion of telecommunication facilities. At the same time steps have to be taken to improve the project implementation capacity of Perumtel.<sup>/1</sup> In general, the investment program would need to give good overall balance between switching/network expansion, local/long-distance facilities and urban/rural services. Perumtel's first priority should be to concentrate on the completion of ongoing projects which are in an advanced stage of implementation. These projects include telephone and telex exchanges, microwave links, satellite links, rural radio channel systems and projects for full capacity utilization as well as rehabilitation. In addition, a program of technical assistance designed to assist Perumtel to improve and strengthen its organizational capabilities will be essential for satisfactory completion of the ongoing program and for any further investments by Perumtel. Depending on the outcome of a study currently underway, certain additional investments could be initiated in the

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<sup>/1</sup> Perumtel is a state owned corporation responsible for all domestic telecommunications services.

later half of the 1990s. These would include projects to improve common control and terminal equipment, thus addressing Perumtel's major technical bottlenecks to improving utilization of existing exchange equipment and trunk transmission capacity.

6.27 The expansion of non-oil exports and enhanced income opportunities in the rural areas will demand significant increases in the electrification ratios in urban and rural areas, requiring substantial additional investments in the power sector. Equally important will be to ensure efficient and reliable supply of electricity to users. To reduce consumer costs and to conserve energy resources, it will be essential to ensure that the supply of electricity is based on the least cost expansion option. A comparison of economic costs of baseload generation points to a substantial competitive edge for natural gas (to the extent that it is available) and coal, as compared with oil, nuclear and geothermal. For intermediate loads, the competitive advantage of gas-fired combined cycle plants is increased, and oil-fired power may become advantageous over coal. At present, electricity generation is based largely on fuel oil. To achieve the substitution of natural gas and coal for fuel oil in electricity generation, the Government will need to ensure an appropriate pricing policy for energy resources (based on economic cost of supply). The determination of electricity tariffs, along the lines reviewed in Chapter 3, will also be important to promote efficient use of electricity and to allow the financing of required expansion programs.

6.28 The key to boost rural incomes and employment is a carefully planned and well implemented program of infrastructure development. However, specific public expenditure programs can also provide useful support. The INPRES programs are a good example of how public expenditures can promote rural employment and incomes. The Government's strategy to emphasize these programs is appropriate and should be maintained. The Government's transmigration programs have also fostered rural employment expansion. Yet, the high resource cost of transmigration programs, serious implementation constraints, and the environmental implications will limit their future role. The immediate priority is to consolidate the existing programs through second stage development efforts designed to improve income opportunities of the transmigrants. There is also a need to strengthen coordination and linkages between these special schemes (INPRES, transmigration programs) and other expenditure programs (through DIPs, direct public enterprise investments), especially in the context of O&M. Finally, the transmigration programs will need to be integrated into the provincial administrative and budgetary framework, especially with respect to transport, health and education.

#### Human Resource Development

6.29 The Government's continued emphasis on the development of human resources is well placed, as a productive labor force is essential to realize Indonesia's long-term growth potential. The past public investment effort focussed on expansion of facilities (concerning education, health, family planning, water supply, sanitation). This effort has paid off as reflected in large improvements in literacy rates and health standards, as well as lower

fertility rates. But there are growing concerns about the poor quality of many essential services. In the 1990s, the main emphasis will need to be on quality improvements, with selective expansion.

6.30 Education and training. Improvements in labor skills are essential to ensure higher earnings capacity and to enhance labor productivity. In recognition of this, the Government embarked upon a major education expansion program during the 1970s. At the primary level, enrollments have almost doubled since 1974, raising the enrollment ratio to 97%. Steps were also taken to develop other levels of schooling, including secondary education, non-formal education for out-of-school youth and adults, and higher education. The supply of vocational schools and skills training programs was expanded. Yet, the proportion of trained workers in the labor force remains quite low and the poor quality of those trained is of serious concern. The immediate priority is to address this latter problem, because the returns to training will remain weak without a substantial improvement in the quality of training. Over the medium term, there is also a need to enhance the availability of trained manpower to cope with the skill demands of a growing formal sector and to augment the productivity and earnings capacity of those remaining in the informal sector. Public expenditure policy for education and training will need to strike a proper balance between quality and quantity, and among different levels of schooling, in order to maximize the economic and social returns to education.

6.31 A strategy to improve labor quality. The key to improving the quality of the labor force is enhanced quality of schooling, starting from the primary level. A strong effort is needed to improve the quality and motivation of teachers. At present, primary teachers are trained only at the secondary level, with over 80% trained through ad-hoc courses. Moreover, the training lays emphasis on the mastery of subject matter at the expense of methods of teaching skills to young children. There are similar problems with training programs for secondary school teachers. A basic factor underlying the poor quality of teachers is the low earnings from teaching. Better incentives will be needed to attract bright and dynamic persons to teaching. At the same time, the quality of teacher training has to be enhanced by instituting well-designed courses aimed at augmenting teacher skills in: (a) investigative and problem solving approaches; (b) responding to the special needs of teaching children; and (c) the areas of science and mathematics. Improvements in the quality of education will also require actions to interpret curricula to stress science and math, and to augment the production and distribution of high quality textbooks.

6.32 At the lower secondary level, where significant expansion is needed, a crucial requirement for maintaining and improving educational quality is a phased implementation of expansion so that the recurrent costs do not outstrip the available resources. In particular, investments in new schools should not be undertaken until adequate numbers of fully qualified teachers are available, and until budgetary resources for the necessary teachers, headmasters and educational materials are assured. In higher education, no major new capital investments are foreseen in the medium term. The investment effort should be focussed on completing projects currently underway and to developing high-priority faculties in some universities. Investment in equipment for

engineering and science laboratories and in libraries at several universities will also have to be undertaken in the near future. In addition, greater priority will need to be assigned to maintenance of existing facilities, including appointment and training of technical staff in the upkeep of laboratory and computing equipment.

6.33 As in general education, there is a need to emphasize the quality of vocational training. Over the years, training centers have proliferated but use of these facilities has fallen due to systemic rigidities, lack of adequate information and poor linkage with earnings. Available evidence suggests that vocational skills are best acquired under arrangements where training and employment are closely linked. At present, well structured schemes of industrial training are available in only a few, generally large firms. There is a need to encourage and assist the private sector in the longer term to take a significantly larger share in providing and bearing the cost of high quality training. There is also a need to improve labor market information systems and ensure adequate dissemination of information about employment and training, including costs and benefits of different training schemes. In the short to medium term, it will also be necessary to ensure better utilization and improved efficiency of the existing government training facilities. To do this, the facilities will need to be managed on a decentralized basis, allowing flexibility in determining course contents, selecting candidates and charging fees. It is essential to link the use of these facilities with actual employment, by entering into cost-sharing arrangements with employers.

6.34 The strategy for improving skills of agricultural and informal sector workers (in both urban and rural areas) should largely be based on enhancing the quality of primary and secondary education, and on expanding lower secondary education. Given resource constraints, an option to be considered would be to expand existing non-formal education programs (DIKMAS). Among the advantages of this approach are: (a) the DIKMAS service infrastructure is well developed in many areas; (b) non-formal education will be less costly than formal schooling; and (c) the income earnings activities program which DIKMAS is now introducing in selected primary schools could be useful in overcoming the widespread dropout problem. An effective agricultural extension program will also be essential to improve farm productivity and incomes. In general, a careful evaluation of all existing training programs is needed to improve their effectiveness and to guide future policy in this area.

6.35 The measures to improve quality of education will have to be supported by policies to enhance the availability of recurrent resources. In the short term, the bulk of recurrent cost financing at all levels of education will continue to be funded from budgetary sources. Over the medium term, a greater reliance on cost recovery, along the lines reviewed in Chapter 3, could be envisaged.<sup>1</sup> The efficiency of use of budgetary resources will also need to be

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<sup>1</sup> Indeed, a major shift in the financing of public higher education is already underway. Student fees have become an increasingly important source of finance, after they were doubled in September 1986 for all incoming students.

improved, especially in view of the growing revenue constraint. Another option is to allocate more funds for operating existing facilities at the expense of new programs. There is evidence that some shift in expenditure policy along this line has already taken place. For the future, the expansion of public education programs will have to be based on a careful evaluation of the availability of recurrent resources for efficient operation of such programs. It will also be important to allocate resources for expansion based on a careful review of priorities.

6.36 Health. Indonesia's past effort to enhance the health standards of its population is impressive, as reflected by the reduction in infant and childhood mortality rate from 175 per 1,000 live births in 1961 to 70 in the early 1980s. Yet, Indonesia's performance lags far behind that of neighboring ASEAN countries <sup>1</sup> and there are significant regional disparities. The relatively high mortality rates in Indonesia are associated with low rates of utilization of health services. Moreover, there are significant differences in the use of modern treatment facilities between income classes, with poorer income groups relying more on lower cost informal and traditional medical assistance. These problems reflect the low quality of services due to inadequate availability of resources (both medical manpower and materials), poor quality of service personnel, and unbalanced regional distribution of available resources. A chief difficulty is the shortage of finances on a recurrent basis, reflecting the lack of an appropriate O&M strategy in the health sector.

6.37 The main objective of health sector investment strategy should be to sustain the momentum of past gains in infant and childhood mortality reduction in order to ensure even better health standards. This will require a consolidation of emphasis on cost effective public health programs, particularly immunization, diarrheal disease control, family planning, water supply and sanitation. At the same time, the sector should aim to increase the relatively low rates of utilization of curative health services by improving the quality of public services. In allocating public expenditures, overriding priority should be given to recurrent expenditure in order to achieve an adequate level of funding for O&M of existing facilities. At the same time, steps should be taken to improve cost recovery to mobilize additional resources for O&M (as reviewed in Chapter 3).

6.38 Urban services. Urban sector investment programs are weighted towards water resources, while the more poverty focussed Kampung Improvement Program (KIP) and public health related sanitation expenditures have declined. In the sanitation subsector, efforts to address the problem of human waste disposal (liquid and solid) are lagging behind, contributing to serious water pollution and negating health benefits of improved water supply. Moreover, due to its relatively high unit cost, sewerage has only limited applicability in Indonesia at this time. Lower cost, on-site disposal approaches have greater promise but

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<sup>1</sup> Infant mortality rates for comparator countries are: 48 in the Philippines, 43 in Thailand, 28 in Malaysia and 10 in Singapore.

public expenditures on these options are currently negligible. There are serious inefficiencies in the provision and use of clean water supply, reflecting inadequate maintenance of water facilities and inappropriate water charges.

6.39 Urban sector investment strategy for the 1990s needs to reflect a change in priority towards low-cost sanitation, waste management, improved water distribution and environmental control. The share of expenditures for these programs will have to be increased at the expense of capital-intensive expansion projects in urban transport and water supply. It is also important to improve the efficiency of investments by avoiding imbalances (for instance between bulk water/water treatment investments and water distribution) previously occurring in many cities (e.g., Jakarta). Flood protection and drainage would need to maintain its share to cope with the serious environmental problems resulting from flooding and deficient drainage systems. At the same time, efforts should be made to increase the share of the population with access to proper on-site sanitation and proper waste disposal facilities.

6.40 The distortions in past expenditure patterns can be traced in large part to programs that were overly dominated by national priorities supported by significant direct grants. Recent policy changes have been introduced that have increased the operational and fiscal role of local governments in urban infrastructure expenditure programs. By addressing local priorities in such programs together with strengthening of the local governments, it is expected that more efficient targetting of expenditures and commitment to effective O&M and enhanced cost recovery will result over the medium term.

6.41 Role of the private sector in human resource development. As elsewhere, there is significant scope to enhance the contribution of the private sector to the development of human resources. The private sector already has a major presence in education and the main challenge is to stimulate the growth of private education institutions while assuring the provision of a quality education, relevant to the development needs of the country. In this regard, the following policy actions are recommended: (a) provision of seed money for capital expansion and staff development at private institutions; (b) provision of regional growth centers with centralized educational facilities (e.g., libraries and laboratories) which could be utilized by private institutions in the region; (c) simplification of procedures for accreditation of private education institutions; and (d) extension of the scholarship and student loan programs to students in private institutions. In health, the private sector's role is largely concentrated in the supply of modern curative services and traditional medical assistance (especially in the rural areas). The Government can stimulate private health-related activities by encouraging health insurance (to make private, modern facilities affordable) and by providing training to traditional health practitioners. Private provision of health services will also benefit from an expansion in the supply of well-trained medical manpower. As already noted in Chapter 3, the Government is also planning a partial shift to the private sector for family planning services.

6.42 The urban infrastructure program (excluding housing) is entirely funded and operated by the public sector. The potential exists for transfer of some responsibilities to the private sector, particularly for operations and

maintenance (e.g., solid waste disposal, contract maintenance of water systems). To the extent that the private sector could perform such services more efficiently with higher quality and/or lower cost, such transfer should be considered. In some cases, it might also be possible to transfer the responsibility for funding and construction as well as operation to the private sector by forming, for instance, privately-owned water enterprises and other arrangements enabling the private sector to recover costs and make a profit.

### Environmental Concerns

6.43 The investment strategy for the 1990s will need to make a special effort to take account of environmental considerations in determining investment allocations. As reviewed in Chapter 5, a broad-based action program will be needed to address major environmental concerns. Although there are important implications for public investment, most of these measures relate to pricing policies, improved planning and strengthening of institutions. In general, the public investment strategy would need to focus on the following: (a) ensuring that environmental and natural resource management concerns are reflected in the selection and design of projects; (b) ensuring that all new projects satisfy established environmental regulations; (c) supporting the development of environmental monitoring capacity of concerned agencies; and (d) supporting the expansion of information and research on environmental issues.

6.44 Both transmigration and forest development programs have important consequences for the environment. There is a need to reduce large-scale development projects in forested areas. To enhance income opportunities of transmigrants, an effort should be made to develop mechanisms to permit individual smallholders to acquire and upgrade underutilized land. Furthermore, it may be necessary to exclude from forestry lands areas that are currently used for subsistence production, with programs developed to stabilize forest boundaries around them. Where new land development is proposed, locating projects as close as possible to existing infrastructure, and away from reserves and protected areas, would assist in better forestry management. The basic tools for land use planning and allocation need to be developed, and the system of land classification improved. The reforestry effort needs strengthening, by allocating much higher resources than in the past. It will also be important to protect forests from destructive logging practices, by adjusting the arrangements for concessionaires (including longer tenures) and improved enforcement of regulations.

6.45 Water quality and quantity issues also require early policy action. There is an urgent need to improve the management of Indonesia's water resources and the efficiency of water use to protect the environment, thereby avoiding the immediate need for making major capital-intensive investments in water projects for irrigation, drinking water and industrial uses. The main emphasis of the investment program for water resources should be to improve the efficiency of the present irrigation network through rehabilitation and better O&M practices, to improve the efficiency of use of the urban industrial and municipal water network, and to expand services in rural areas. Another investment priority which has strong environmental implications concerns the management of urban

sanitation. The Government will need to substantially improve sanitation facilities by focussing expenditures on low-cost sanitation programs. Similarly, investments in flood control and industrial waste management are a high priority. As noted earlier, these investments are also essential to protect the health of Indonesia's population.

6.46 Appropriate management of the environment will entail a significant effort to build the necessary institutional capacity to develop and monitor environmental standards. Adequate financial resources will be needed to achieve this objective. Expenditures will need to focus on: (a) developing a data base on the nature and extent of pollution from different sources (especially from industrial enterprises); (b) financing research aimed at improving techniques to measure environment degradation, and to monitor compliance with environment standards; and (c) developing the requisite manpower skills. Furthermore, it will be important to introduce environmental concerns as an element in the evaluation of future investment projects, to ensure that projects are in initial compliance with environmental regulations.

#### Project Implementation Capacity

6.47 In some instances, implementation constraints are a manifestation of fundamental institutional factors. They include: (a) the general shortage of trained manpower and weak quality of those trained; (b) civil service policies, including the fragmented compensation system, which does not promote a high level of competence or full-time job commitment; (c) the high premium on avoiding conflict and seeking consensus, that can lead to drawn out, and sometimes inconclusive decision making; and (d) the emphasis on management by control that overburdens higher level officials, while more junior staff have limited opportunities to develop skills and responsibility. While actions to improve the quality and quantity of trained manpower (as discussed earlier in this chapter) and better civil service incentives will help to ease some of these constraints, the sensitive and complex nature of these issues will continue to impinge on the capacity of the public sector to plan and implement projects efficiently. In other cases, implementation constraints reflect specific sector bottlenecks where timely action would improve implementation performance. More importantly, there are a range of regulatory and procedural bottlenecks, cutting across sectors, where continuous and concerted efforts can lead to significant improvements in project implementation capacity. Finally, the development of an efficient construction sector will be essential to improve project implementation capacity in both public and private sectors.

6.48 Many of the problems impeding project implementation are related to the functioning of the government apparatus, including the agencies involved. These concern especially: procurement, land acquisition, budgeting and finance procedures, consulting and construction services, and institutional and managerial issues. As discussed in Chapter 1, the Government has already made a strong effort to address these issues, and significant improvements have been observed over the past two years. Even so, there is still considerable room for further progress: (a) bidding practices result in procurement delays in some instances; (b) land acquisition needs to start earlier in the project cycle and

monitoring for equity in such acquisition requires attention; (c) land mapping and programs require extensive improvement; (d) agencies need to focus on multi-year project budgeting and finance; and (e) consulting services improvement needs a strong effort on a long-term basis. To assure that the quality and pace of implementation meet development goals, greater attention needs to be paid at various management levels to monitoring the progress of projects. Agency monitoring systems need to be firmly established and institutionalized in an effective manner.

6.49 The Government's program to reduce regulations is designed in part to encourage improved efficiency during the implementation process. There is need to assure that such efficiency gains accrue to the nation rather than to individuals involved in the process as the costs of delays and poor quality are high. Involvement of senior officials in monitoring ongoing projects, referred to above, can be a crucial element in this respect. Setting time limits for key stages of the implementation process, particularly in bidding and contracting, has proven to be a useful tool elsewhere. Furthermore, reconciling national policies designed to promote domestic industry with policies to procure goods and services from the most efficient suppliers is an important step.

6.50 Internal institutional limitations have also contributed to project implementation difficulties in many sectors, including agriculture (tree crops, transmigration programs), urban, transport and telecommunications. A good example is the case of Perumtel. During REPELITA III, project implementation constraints limited Perumtel's ability to spend its budget or meet its modest expansion targets. Many of the factors contributing to this problem reflected Perumtel's internal institutional bottlenecks. While some progress has been made, fundamental changes are needed in Perumtel's project implementation, contracting and management systems. The main actions needed in this regard include: (a) inducing a substantial degree of support from local and foreign contractors in supplying materials and equipment, by using price and terms competitive bidding; (b) using program management consultants to plan, prepare basic designs, and invite and evaluate bids (on a turnkey basis) for the entire network expansion program as well as to develop computerized techniques to improve planning, engineering, management and utilization of the local network; and (c) employing program management consultants to strengthen coordination of executive arrangements between the various contractors and consultants. Similar efforts to develop internal project implementation capacities of other public sector activities will be crucial to maximize the returns to investments.

6.51 Finally, an efficient construction industry is essential to support Indonesia's overall development effort, but especially to improve project implementation capacity in the public sector. The Government recognizes this and has outlined several of the problem areas of the industry which need attention. These include the low capabilities and poor financial situation of construction firms, shortage of technical skills, inadequate contracting and contract administration facilities, adverse business environment, and weaknesses of support institutions. A program to address these issues is now being formulated by the Government. This program would need to emphasize six principal elements which are critical to the development of an efficient

construction sector. These are: (a) improving the efficiency of contracting and contract administration practices by developing efficient prequalification procedures, equitable contract documents, procedures for expeditious award of contracts, contract administration and settlement of disputes; (b) developing a network of support institutions through the creation of an agency within the Government with defined objectives, responsibilities and accountability for promoting the industry, and by strengthening contractors, consultants and professional associations; (c) improving the business environment for contractors by developing the insurance market and the guarantee system, improving the relationships between contractors and financial intermediaries, improving the market for construction equipment, and developing national standards and codes of practice; (d) enhancing the capacity and efficiency of contractors and consultants by developing appropriate licensing and performance monitoring systems, promoting the use of sub-contractors, encouraging technology transfers and providing direct technical assistance to contractors; (e) developing manpower resources by strengthening training institutions, vastly expanding training programs, setting up a simple certification system for all construction manpower, and improving health, safety and other labor and employment regulations; and (f) supporting research and development by bringing together worldwide experiences and thinking on construction industry issues, and developing the capabilities for analyzing and monitoring the performance of the construction sector and improving the knowledge and use of local materials.

RECENT ECONOMIC DEVELOPMENTSEconomic Activity

1. Total Gross Domestic Product (GDP) rose by an estimated 3.7% in 1987. Most of this expansion came from the non-oil economy, which grew by 4.3%, compared to 3.8% in 1986 (see Table 1).<sup>/1</sup> Within the non-oil economy, a decline in the growth rates of the agriculture and mining sectors was more than offset by improvements in the performance of manufacturing, construction and services. Overall performance was buoyed by the strong growth in non-oil exports, while restraining factors were the drought and cuts in government spending.

Table 1: GROWTH IN SECTORAL VALUE ADDED, 1982-87  
(% p.a. at 1983 prices)

	<u>Average</u>		1986	1987/ <sup>a</sup>	Sectoral shares in 1987 (% of GDP)
	1978-82	1982-85			
<u>Oil/LNG sectors</u>	<u>-2.5</u>	<u>3.1</u>	<u>3.0</u>	<u>1.3</u>	<u>20.2</u>
Oil & gas	-4.5	0.9	3.0	0.8	16.4
LNG & refined oil	21.8	16.6	2.6	3.7	3.8
<u>Non-oil sectors</u>	<u>6.9</u>	<u>4.0</u>	<u>3.8</u>	<u>4.3</u>	<u>79.8</u>
Agriculture	5.0	3.7	2.5	2.3	23.7
Mining	9.2	6.5	4.0	3.1	0.9
Manufacturing	9.3	4.4	6.3	6.9	9.1
Construction	11.0	0.7	2.2	5.6	5.7
Other services	9.3	4.6	4.3	4.9	40.4
<u>Gross Domestic Product (GDP)</u>	<u>5.3</u>	<u>3.8</u>	<u>3.6</u>	<u>3.7</u>	<u>100.0</u>

<sup>/a</sup> Preliminary.

Source: Central Bureau of Statistics (CBS) and World Bank staff estimates.

2. The oil/LNG sector grew by 1.3% in 1987, down from 3.0% in 1986. Because of OPEC restrictions, crude oil output (including condensates) remained around 1.4 million barrels per day (mbd), the same level as in 1986. Refinery

<sup>/1</sup> The non-oil economy excludes crude oil, natural gas, refined petroleum products and LNG.

and product output also remained flat due to continuing operating problems at the Dumai, Sungai Pakning and Musi complexes and at the methanol plant at Bunyu Island. These trends were partly offset by higher LNG production, which expanded by 4.2% to 827 trillion btu. This increase was due to increased exports to the Republic of Korea and, from the second-half of 1987, to fulfill a new short-term contract with Japanese buyers. The production of natural gas also increased, reflecting in part increasing demands from the power and household sectors.

3. The adverse conditions caused by the delayed rainfall and drought, that were experienced by many Asian countries, also affected Indonesia. As a result, despite the Government's renewed emphasis on food crop production and the incentives from higher prices for export crops, the growth rate of the agriculture sector in 1987 declined to 2.3% (compared to 2.5% in 1986 and 4.9% in 1985). This result was largely due to a decline in food crop production. The prolonged drought conditions and late monsoon rains on Java reduced output from the second and third rice crop, and delayed planting of the main wet season crop.<sup>/1</sup> The negative influence of climatic factors on rice output was reinforced by continuing problems with agricultural pests and the conversion of paddy lands to other uses. The output of corn, soybeans, sweet potatoes, peanuts and several other minor foodcrops is also estimated to have fallen due partly to the drought and partly to a shift towards crops with higher returns, such as cassava and spice (especially pepper).

4. Non-food agricultural subsectors performed better, particularly those geared towards supplying the export market. Strong increases in output were shown by forestry, livestock, smallholder tree crops and fisheries. Improved profitability from the devaluation and higher international prices induced supply increases for a number of export commodities, including rubber, palm oil, shrimp and rattan.

5. Growth of the manufacturing (excluding LNG and oil refining) sector in 1987 rose to an estimated 6.9%, compared to 6.3% in 1986 and 3.5% in 1985. Among medium- and large-scale firms, the largest increases in output occurred in the textiles, metals and metal products industries. This strong growth reflects a diversification and deepening of the industrial base which has occurred in response to recent government policies. Several characteristics are worth noting. First, it is clear that much of the dynamism in the sector stemmed from the export sector; manufactured exports are estimated to have risen by about 40% in real terms. In addition to traditional manufactured exports (e.g., plywood and textiles), an increasing proportion of the output of many industries is directed to export markets (e.g., footwear, furniture, electrical components,

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<sup>/1</sup> In an attempt to maintain supply, BULOG is estimated to have drawn down stocks by a net 1.1 million tons. As a result, by early 1988, BULOG had about 0.75 million tons in stock. The main wet season crop, which accounts for between 60-70% of the annual crop, is usually harvested between late February and early May. It is still unclear what the net effect of the drought will be on the 1988 harvest.

glass products, paper). Second, the participation of the small-scale production sector in the general increase in manufacturing output has been strong; output from this sector is estimated to have grown by 7-8%. This increase in output has been achieved through direct exports and linkages with medium- and large-scale enterprises producing for the domestic and export markets. Finally, the level of capacity utilization rose in several industries and there has been a revival of private investment in the manufacturing sector during 1987.<sup>/1</sup> This revival in investment is estimated to be broad-based, cutting across all industries and firm-size classes. A noteworthy element is the increase in investment for export activities.

6. In the construction sector, divergent trends were recorded by public works activity on the one hand and residential/commercial building activity (almost 70% of total value added in the sector) on the other. With regard to the former, the tight budget situation continued to depress the construction of physical infrastructure. However, increased private sector activity and higher incomes during 1987 had a favorable impact on commercial and residential construction. Overall, the sector is estimated to have expanded by 5.6%. In the services sector, which grew by an estimated 4.9%, the most rapid increases were recorded by transport and communications, utilities, and financial services. Aside from the general rise in incomes, the service (and construction) sector gained from the significant expansion in tourism. The Ministry of Tourism, Post and Telecommunications reported that tourist arrivals and revenues were up by 27% and 34% respectively over last year. With total receipts estimated at around US\$800 million, tourism is now one of Indonesia's major earners of foreign exchange.

7. The improvement in Indonesia's overall terms of trade boosted the growth of gross national income (GNY) to 4.2% in 1987 (see Table 2). This contrasts sharply with the 2.5% decline in GNY during 1986, when incomes were adversely affected by the collapse of oil prices early in the year. However, despite the increase in incomes during 1987, domestic expenditure was still constrained by the increase in net exports required to reduce the deficit in the balance of payments. As in 1986, the brunt of the expenditure adjustment was borne by the public sector. Budget austerity affected public consumption and investment, which declined by 6.5% and 3.9% respectively during 1987. This adjustment allowed the growth of private consumption to be sustained (3.6%), while private investment recovered strongly (5.0%) from the low levels of recent years. Both domestic and foreign joint-venture investment activity picked up in 1987, responding to better market conditions as well as to significant improvements in the regulatory environment. Within the aggregate private investment category, the sectors which expanded especially rapidly were: food processing (e.g., shrimp, canned fruit), textiles and garments, machinery (e.g., mechanical fixtures), rattan processing, chemicals, paper and paper products, and some service-related subsectors (e.g., hotels, transport, retail trade).

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<sup>/1</sup> For example, BKPM approvals for domestic and foreign investment rose by 125% and 75% respectively in 1987. Most of these approvals were for export-oriented projects.

**Table 2: INCOME AND EXPENDITURE, 1978-1987**  
(at 1983 prices)

	<u>Growth rates (% p.a.)</u>				<u>Share in GDP (%)</u> 1987
	Average 1978-82	Average 1982-85	1986	1987/ <u>a</u>	
Consumption	9.6	2.8	2.7	2.1	69.4
Public	..	2.7	0.1	-6.5	9.8
Private	..	2.8	3.1	3.6	59.6
Fixed investment	13.5	-4.4	-7.0	0.6	18.3
Public	..	-3.2	-15.6	-3.9	8.5
Private	..	-5.8	3.1	5.0	9.8
Exports <u>b</u>	-5.3	4.9	-2.7	5.7	24.5
Imports <u>b</u>	13.5	-8.7	-14.2	-4.7	14.8
<b>GDP</b>	<b>5.3</b>	<b>3.8</b>	<b>3.6</b>	<b>3.7</b>	<b>100.0</b>
GNP	6.5	3.5	4.9	4.1	96.1
GNY	..	2.2	-2.5	4.2	87.9

/a Preliminary.

/b Includes goods and non-factor services.

Source: CBS and World Bank staff estimates.

While expenditures for plant expansion are believed to have dominated the investment pattern in 1987, there are encouraging signs of investment in new product lines, especially where foreign investors have been involved.

#### The Balance of Payments

8. Because of the decline in world oil prices, Indonesia's net earnings from oil and LNG fell from US\$5.9 billion in 1985/86 to US\$2.4 billion in 1986/87 (see Table 3). Although there has been some recovery in oil prices over the past year, estimated net oil/LNG earnings for 1987/88, at US\$3.7 billion, are still only 62% of their 1985/86 level. Debt service payments have also risen sharply over this period, due in large part to the depreciation of the US Dollar. Despite these external shocks, the Government's adjustment program has led to a steady reduction in the non-oil current account deficit. This was achieved initially through fiscal restraint, which contained domestic demand and reduced the real level of non-oil imports. More recently, the September 1986 devaluation and subsequent deregulation measures have led to a very strong growth of non-oil exports (about 24% in real terms during 1987/88). As a result

**Table 3: BALANCE OF PAYMENTS, 1983/84-1987/88**  
(US\$ billion at current prices)

	<u>Actuals</u>				<u>Estimate</u>
	1983/84	1984/85	1985/86	1986/87	1987/88
Merchandise exports (fob)	19.9	20.3	18.5	13.7	17.9
- Oil & LNG	(14.5)	(14.4)	(12.3)	(7.0)	(8.5)
- Non-oil	(5.4)	(5.9)	(6.2)	(6.7)	(9.4)
Merchandise imports (cif)	-18.1	-15.7	-14.2	-12.7	-14.1
- Oil & LNG	(-3.8)	(-2.9)	(-3.2)	(-2.3)	(-2.5)
- Non-oil	(-14.3)	(-12.8)	(-11.0)	(-10.4)	(-11.6)
<u>Trade balance</u>	<u>1.8</u>	<u>4.6</u>	<u>4.3</u>	<u>1.0</u>	<u>3.8</u>
Net non-factor services	-1.5	-1.6	-1.7	-1.5	-1.5
<u>Resource balance</u>	<u>0.3</u>	<u>3.0</u>	<u>2.6</u>	<u>-0.5</u>	<u>2.3</u>
Net factor services & transfers	-4.5	-5.0	-4.5	-3.7	-4.3
<u>Current account balance</u>	<u>-4.2</u>	<u>-2.0</u>	<u>-1.9</u>	<u>-4.2</u>	<u>-2.0</u>
of which:					
- Oil & LNG <u>/a</u>	7.5	7.9	5.9	2.4	3.7
- Non-oil	-11.7	-9.9	-7.8	-6.6	-5.7
Net public MLT loans <u>/b</u>	3.9	2.2	1.4	2.8	2.4
- Disbursements	(5.2)	(3.8)	(3.9)	(5.4)	(6.3)
- Amortization <u>/c</u>	(-1.3)	(-1.6)	(-2.5)	(-2.6)	(-3.9)
Net other capital <u>/d</u>	2.8	1.4	1.4	-1.6	0.8
Use of net foreign assets	-2.5	-1.7	-0.9	3.0	-1.2
<u>Memo items:</u>					
Net official reserves <u>/e</u>	4.7	5.5	5.8	5.0	5.6
- Months of imports	(3.6)	(4.7)	(5.5)	(4.3)	(4.4)
Total net foreign assets <u>/f</u>	10.0	11.7	12.6	9.6	10.8/ <u>g</u>
Current account/GNP (%)	-5.7	-2.5	-2.4	-6.2	-3.1

/a Gross earnings from oil/LNG exports less payments for imports and services related to the sector.

/b Includes credits for LNG expansion, LPG and paraxylene projects.

/c Includes prepayments of US\$420 million in 1985/86 and US\$626 million in 1987/88 (to be completed by June 1988).

/d Includes direct foreign investment, oil/LNG exports credits, all private capital flows, valuation adjustments, and errors and omissions.

/e Net of outstanding drawings from IMF's Buffer Stock and Compensatory Financing Facilities.

/f Of the banking system (Bank Indonesia and commercial banks).

/g Excludes US\$326 million of prepayments to be completed by June 1988.

Source: Bank Indonesia and World Bank staff estimates.

of these measures, the current account deficit was held to US\$4.2 billion (6.2% of GNP) in 1986/87 and reduced to an estimated US\$2.0 billion (3.1% of GNP) in 1987/88. In the capital account, the adjustment has been eased by the availability of special assistance, in the form of fast-disbursing program aid and local-cost financing. Without this support, import and investment levels would have had to be cut even further, thereby adversely affecting economic growth, the non-oil export effort and medium-term development prospects.

9. **Exports.** International oil prices rebounded in 1987/88 from the depressed levels of the year before, supporting a significant improvement in export revenues from oil. With an average oil price of US\$17/barrel, gross earnings from crude exports rose to US\$5.0 billion in 1987/88, from US\$4.1 billion in the previous year. Similarly, product exports climbed to US\$1.1 billion, from US\$0.6 billion. The LNG export volume grew by 10%, mainly reflecting the impact of regular shipments to the Republic of Korea.<sup>/1</sup> However, the average LNG price did not increase, because the 1986/87 price was artificially inflated due to the time lag in negotiating new LNG prices (following the collapse of oil prices). A final agreement was reached in which Indonesia agreed to refund some US\$562 million to LNG purchasers (Japanese buyers) over a four year period, starting in 1987/88.<sup>/2</sup> As a result of this repayment, LNG export earnings grew only marginally to US\$2.4 billion. Total oil/LNG earnings reached US\$8.5 billion, up 21% from the previous year's earnings, but still substantially below the 1985/86 level.

10. Despite the relatively slow growth of the world economy during 1987/88, the performance of Indonesia's non-oil exports was remarkably strong. Compared with an average rate of growth of 13% p.a. for the last four years, non-oil exports grew by about 24% in 1987/88 (see Table 4). Most of this increase derives from the growth in manufactured goods, which was due to the continued expansion in plywood and very strong growth of the diversified group of products aggregated together under "other" manufacturing. This primarily reflects the timely and substantive domestic policy adjustments that have been taken to create a more encouraging environment for exports. Of particular importance has been the maintenance of a competitive exchange rate and the series of deregulation reforms begun in 1986. These measures have been instrumental in raising the level of non-oil exports from US\$6.7 billion in 1986/87 to an estimated US\$9.4 billion in 1987/88. It should also be noted that this performance has been achieved despite adverse developments in some of Indonesia's key export commodities, including coffee and nickel, as well as slower growth in textiles.

11. Agricultural commodity exports performed well in 1987/88, with strong volume and price gains in a range of commodities more than compensating for the large price decline in coffee. The value of timber products increased for the

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<sup>/1</sup> The inaugural shipment to the Republic of Korea took place in November 1986. Regular shipments began in March 1987.  
<sup>/2</sup> The refund amount includes interest payments.

**Table 4: NON-OIL MERCHANDISE EXPORTS, 1982/88-1987/88**

	Value at current prices (US\$ million)			Real growth rates (% p.a.)	
	Actual		Estimate	1982/83- 1986/87	1986/87- 1987/88
	1982/83	1986/87	1987/88		
<b><u>Agricultural commodities</u></b>	<b><u>2.391</u></b>	<b><u>3.287</u></b>	<b><u>3.883</u></b>	<b><u>7.4</u></b>	<b><u>13.6</u></b>
Timber products	574	444	562	-5.1	4.9
Rubber	615	730	935	4.9	11.7
Coffee	363	803	533	6.8	-3.5
Palm oil	103	115	172	16.2	11.3
Tea	116	107	105	8.4	0.0
Shrimp	204	305	422	6.2	25.0
Rattan	75	93	158	8.2	12.5
Others	340	690	997	10.6	34.2
<b><u>Minerals &amp; metals</u></b>	<b><u>679</u></b>	<b><u>692</u></b>	<b><u>1.003</u></b>	<b><u>8.7</u></b>	<b><u>18.7</u></b>
Tin	352	156	166	-3.1	2.1
Gold	0	25	226	..	705.6
Aluminum	48	214	307	56.1	13.8
Copper	115	155	205	8.3	5.6
Nickel (total)	139	120	64	0.1	-57.7
Others	25	22	35	2.8	30.3
<b><u>Manufactured goods</u></b>	<b><u>858</u></b>	<b><u>2.752</u></b>	<b><u>4.486</u></b>	<b><u>33.6</u></b>	<b><u>40.1</u></b>
Textiles	180	902	1,107	47.0	11.0
Plywood/panel products	324	1,139	1,885	35.1	38.0
Others	354	710	1,493	22.8	74.3
<b><u>Total non-oil exports</u></b>	<b><u>3.928</u></b>	<b><u>6.731</u></b>	<b><u>9.371</u></b>	<b><u>13.4</u></b>	<b><u>24.2</u></b>

Source: World Bank staff estimates.

second consecutive year, buoyed by the continued strong growth in sawntimber exports. In addition, both rubber and palm oil are estimated to have grown by over 11%, taking full advantage of the recent strengthening in world prices. By contrast, coffee and tea exports stagnated due to the disincentive effects of weak international prices, the effects of the prolonged dry season (particularly for tea), and the international agreement for coffee which constrained export volumes. Increased domestic and foreign investment in shrimp production, designed to improve quality as well as increase capacity, has supported the

estimated 25% volume increase in 1987/88. The jump in the value of rattan exports (up about 70%), reflects the effect that the export ban on Indonesian raw rattan has had on world prices and increased domestic capacity to produce semi-finished rattan.<sup>/1</sup> Of particular note, however, is the strong (34%) growth estimated for "other" agricultural commodities. The competitive edge derived from the devaluation and higher international prices have encouraged farmers to increase output across a range of commodities, the most important of which were tapioca, spices, copra cake, and essence. Marine exports have also showed strong growth, with tuna fish exports to Japan leading a more diversified expansion of fish products.

12. Metals and minerals export earnings increased markedly in 1987/88, primarily due to the rapid expansion in gold exports and continued growth in aluminum output. On the negative side, both tin and nickel exports performed poorly. In the case of tin, export volumes remain well below domestic capacity because of the quota imposed by the Association of Tin Producing Countries (ATPC). This is despite the fact that a recent restructuring of the industry, coupled with the price effects of the devaluation, has enabled Indonesia to profitably export even at today's low tin price. In the case of nickel, the value of exports declined significantly due to the closure of the ferronickel plant for repairs. Output of this high value nickel product is estimated to have declined from 4.4 million tons in 1986/87 to about 1.6 million tons in 1987/88. However, the rapid increase in gold exports, following the lifting of the export ban in October 1986, has more than offset the temporary decline in nickel earnings. While much of this year's increase probably reflects sales of accumulated gold stocks and production in the informal sector, the rush of foreign and domestic investment into the sector is expected to increase domestic production capacity rapidly.

13. Undoubtedly the most impressive growth in 1987/88 has been in manufactured goods. They contributed about two thirds of the estimated increment in non-oil export earnings, reflecting the continued expansion of plywood and very strong growth across the wide range of products grouped together under "other" manufacturing. This is all the more noteworthy given the slower rate of growth in textiles. Compared with an average 47% p.a. growth rate over the previous four years, textiles expanded by a more moderate 11% in 1987/88 due to a combination of external and internal factors. Quota ceilings under the Multifibre Agreement have constrained external demand. On the supply side, overshipment (8% over quota) in the early part of the year disrupted sales throughout the remainder of the year and the domestic distribution of quotas to exporters has been slow. These negative factors were offset partially by a continued increase in sales to the more competitive non-quota textile market.<sup>/2</sup>

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<sup>/1</sup> Indonesia supplies 70-80% of the world's raw and semi-finished rattan.

<sup>/2</sup> In 1987/88, the proportion of Indonesia's textile and garment exports that were sold in the non-quota market approached 50% for the first time.

**Table 5: MAJOR ITEMS WITHIN "OTHER" MANUFACTURED EXPORTS**  
(US\$ million at current prices)

Product	Actual April-November 1986	Estimate April-November 1987
Non-ferrous metal products	229.0	294.8
Food and animal products	190.4	243.9
Industrial products from raw material	153.2	233.1
Iron and steel	39.7	145.5
Chemical products	80.1	110.9
Paper products	24.0	74.4
Fertilizer	97.0	73.1
Other appliances	32.5	45.4
Vegetable and animal oil products	26.3	41.4
Cement	28.7	39.1
Electrical appliances	9.5	17.1
Tires	7.6	17.0
Tobacco products	4.3	10.4
<b>Total</b>	<b>922.3</b>	<b>1,346.1</b>

Source: Central Bureau of Statistics.

14. Having started from a small base, Indonesia is now a leading world exporter of plywood. In 1987/88, exports continued to grow at a rapid rate (38%), reflecting strong investment in capacity following increased world prices and Indonesia's ban on log exports. As many Asian competitors have ceased production, Indonesian plywood exporters have been able to capture an increasing share of a steadily growing world market. The limited availability of logs or suitable substitutes for plywood has also led to plywood prices increasing by more than 20% during 1987/88.

15. Export earnings from the diverse group of commodities that comprise "other" manufacturing are estimated to have increased from US\$0.7 billion in 1986/87 to US\$1.5 billion in 1987/88, a real growth rate of about 74%. Moreover, as shown in Table 5, this growth has been achieved across a wide range of products. While the Government must be careful not to push exports at any cost <sup>1</sup>, this type of broad-based growth demonstrates the growing maturity of

<sup>1</sup> A small part of the increase in non-oil exports derives from products that do not pay the full economic cost for all their inputs (e.g., fertilizer, steel, and cement).

the industrial sector. A more diversified non-oil manufacturing base has helped reduce the exposure of the economy, and hence employment and income levels, to unexpected downturns in particular commodity markets (e.g., oil or coffee). The very strong growth in "other" manufactured goods illustrates the value of adopting broad policy reforms that reduce costs and enhance efficiency across a wide range of activities.

16. Imports. Since oil prices began to decline in the early 1980s, reduced import levels have been an important part of the Government's policy for stabilizing the balance of payments. Although there was a proliferation of NTBs on imports during this period, most of the reduction was rightly achieved by macro-policy instruments. An appropriate exchange rate policy has held the general level of imports down, while successive real cuts in development expenditures have reduced capital goods imports even further (see Table 6). As a result, the overall level of nominal non-oil imports in 1986/87 was only two thirds that of 1982/83, reflecting an average real decline of 11% p.a. over the period. However, this trend was reversed in 1987/88, with non-oil imports estimated to have risen slightly in real terms.

17. Consumer goods imports are estimated to have declined marginally, with increased food imports offset by the continued decline in non-food imports. The decline in non-food imports may reflect the lagged effect of the September 1986 devaluation on private consumption. The increase in food imports (corn, soybeans, and wheat) was due to the drought-induced reduction in the domestic production of food crops and, in the case of soybean, the expansion of the domestic processing industry.

Table 6: NON-OIL MERCHANDISE IMPORTS, 1982/88-1987/88

	Value at current prices (US\$ million)			Real growth rates (% p.a.)	
	Actual		Estimate	1982/83- 1986/87	1986/87- 1987/88
	1982/83	1986/87	1987/88		
Consumer goods	1,824	1,132	1,220	-9.4	-1.1
- Food	(1,270)	(711)	(840)	(-9.8)	(6.6)
- Non food	(554)	(421)	(380)	(-8.2)	(-19.5)
Intermediate goods	4,861	4,246	4,700	-5.0	0.1
Capital goods	9,139	5,008	5,650	-15.4	2.0
<u>Total</u>	<u>15,824</u>	<u>10,386</u>	<u>11,570</u>	<u>-11.1</u>	<u>0.8</u>

Source: World Bank staff estimates based on CBS data.

18. Imports of intermediate and capital good imports rose slightly in 1987/88, reversing the declining trend of recent years. This was primarily due to stronger private sector growth, particularly those activities oriented towards the export market. Although there was an improvement in the implementation of foreign-assisted projects, the public sector's demand for intermediate and capital goods imports was restrained by a decline in the use of import-related credits. Most of the increase in import demand therefore came from the private sector. This reflects a number of factors. First, stronger private investment during 1987/88 directly bolstered the demand for capital goods.<sup>/1</sup> Second, the surge in non-oil exports has inevitably increased private sector import demand for both intermediate and capital good imports. Lastly it would appear that the series of trade and industrial measures taken since 1986 has had an impact. As discussed in Chapter 4, these measures have focussed on reducing the cost, and widening access to, intermediate and capital goods imports. Hence part of the increase in non-oil imports may represent an efficiency-enhancing adjustment to less distorted prices.

19. Capital flows and debt. Disbursements of public MLT loans totalled an estimated US\$6.3 billion in 1987/88, higher than in 1986/87 (US\$5.4 billion) and the average for the previous three years (US\$4.3 billion). There was a noticeable shift in the structure of disbursements during 1987/88, away from import-related and untied commercial credits toward official assistance. Within official assistance, there was also an increasing emphasis on untied program aid and local-cost financing.

20. There has been a steady decline in the use of import-related credits in recent years, with disbursements falling from US\$2.1 billion in 1983/84 to an estimated US\$1.1 billion p.a. in 1986/87 and 1987/88. This trend reflects the Government's decision to reduce public investment in large capital-intensive projects and to place strict limits on the use of non-concessional credits under Presidential Instruction No. 8 of 1984. Disbursements of untied commercial credits totalled almost US\$1.0 billion in 1987/88; however, the net impact on the balance of payments was less, due to US\$0.6 billion of prepayments on revolving lines of credits.<sup>/2</sup> With new commitments during the year of US\$0.9 billion, the pipeline of undisbursed commercial credits has been maintained around US\$2.6 billion.

21. Disbursements of project aid, primarily from the IGGI, rose to US\$2.2 billion in 1987/88, 21% higher than in the previous year. Disbursement levels have risen for all of the major donors (e.g., the World Bank, ADB, OECF). Part of this increase is due to exchange rate changes. However, there has also been a noticeable improvement in project implementation over the past year.

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<sup>/1</sup> If transport equipment (which accounts for 15% of capital goods and is estimated to have declined in 1987/88) is excluded, the demand for machinery and other capital goods increased by an estimated 38% in nominal terms for the April-November period in 1987/88 over the same period of the previous year.

<sup>/2</sup> These prepayments will be completed in June 1988.

This positive trend reflects the high-level attention given to implementation problems by the Government of Indonesia. In July 1986, an interdepartmental committee for the monitoring and improvement of implementation was established under the chairmanship of the State Minister for Administrative Reform. Among the contributions of this committee was a drastic overhaul and simplification of procedures for the administration of foreign assistance, which became effective in March 1987. More recently, in March 1988, the Government announced the decentralization of procurement procedures for contracts valued up to Rp. 3 billion (larger contracts will be subject to the approval of the Coordinating Minister for Economic, Financial and Industrial Affairs). This change is intended to speed up and simplify procurement procedures, with supervision provided through post audits by the Government Audit Agency (BPKP). Other steps have been taken to improve land acquisition and budgeting procedures. An all-out effort will be required to sustain and improve implementation performance in the coming year (see Chapter 6). Attention will also have to be given to improving the capacity and efficiency of the local construction industry, to enable it to play a larger role in project implementation. But, the challenges ahead should not distract from what has already been achieved and the positive contribution that these efforts have made to Indonesia's development.

22. The provision of special assistance has made a major contribution to financing the current account deficit during 1987/88. Since early 1987, commitments of special assistance have totalled about US\$2 billion, including: (a) an untied loan from Japan Exim Bank to finance the local costs of 21 World Bank projects (US\$905 million); (b) the Trade Policy Adjustment Loan from the World Bank to finance general imports (US\$300 million); (c) a loan to finance imports related to non-oil export promotion from ADB (US\$150 million); (d) program aid and local-cost financing from OECF (US\$300 million); and (e) other special assistance from bilateral sources (US\$300 million). From these commitments, US\$0.5 billion was disbursed in 1986/87 and US\$1.4 billion in 1987/88. This is a significant amount in the overall balance of payments, financing 12% of total non-oil imports over the past year. As such, special assistance played a very valuable role in helping the Government push ahead with its trade deregulation measures and in facilitating the recovery of private investment and growth during the year. It has also provided an important signal that the IGGI members support the Government's adjustment program and have confidence in Indonesia's economic prospects.

23. Management of the capital account over the past year has been complicated by large private and short-term capital flows. There was a spurt of capital outflows in May-June 1987, in response to unfounded rumors of a further devaluation or the imposition of exchange controls. Net sales of foreign exchange by Bank Indonesia on the bourse rose from US\$153 million in April to US\$576 million in May and US\$674 million during the first 20 days of June. Although a significant portion of the bourse sales came back to Indonesia through the reswap facility,<sup>1</sup> the rising level of reswap liabilities and the

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<sup>1</sup> Under the reswap facility, Bank Indonesia agrees to sell foreign exchange forward at a guaranteed exchange rate for a premium (currently 9%).

underlying pressures against the Rupiah were a cause for concern. The Government responded to this situation with a series of effective monetary measures (see below). The resultant increase in interest rates helped to attract back funds held overseas and the level of bourse transactions has subsequently returned to normal levels. For the year as a whole, there was a net inflow of private capital, reversing the large outflow in 1986/87. As a result, total net foreign assets of the banking system rose by US\$1.2 billion and Bank Indonesia was able to rebuild its net official reserves to US\$5.6 billion, equivalent to 4.4 months of imports. This relatively high level of reserves is considered appropriate, given Indonesia's open capital account and the need to ride out occasional episodes of speculation.

24. Indonesia's total MLT debt outstanding and disbursed reached an estimated US\$47.3 billion at the end of 1987. Of this amount, US\$43.2 billion was public, including US\$22.9 billion of official assistance. Debt service payments have risen by US\$1.7 billion (33%) over the past two years, reaching US\$6.7 billion in 1987. However, at least US\$1.5 billion of this increase is due to exchange rate changes, especially the appreciation of the Japanese Yen.<sup>/1</sup> At the same time, Indonesia's export earnings have been adversely affected by the decline in oil prices. These two external factors account for all of the increase in the public debt service ratio since 1985. The total debt service ratio is estimated to be 35% in 1987. Although this is a high level, it is lower than in 1986 (37%) and the projection presented in last year's Economic Report (41%). This improvement reflects the better-than-expected oil prices and strong non-oil export performance over the past year, which more than offset the continued weakening of the US Dollar. The structure of debt has also improved because of the reduced use of import-related and commercial borrowing. This trend will help to reduce the future burden of external debt payments.

#### Budgetary Developments

25. The Central Government's Budget for 1987/88 assumed an average oil price of US\$15/barrel, higher than the average price for 1986/87 (US\$13.1/barrel). Non-oil taxes were also assumed to rise by 15%. As shown in Table 7, the combination of higher revenues from these sources and strong expenditure restraint was projected to bring about a sharp reduction in the overall deficit in 1987/88 (from 4.6% of GDP in 1986/87 to 1.7%). Actual oil prices in 1987/88, were higher than expected (an average of US\$17/barrel) while the non-oil tax target was exceeded. Together with larger aid disbursements, these additional revenues allowed the Government to boost expenditures from their underbudgeted levels. Even so, the overall deficit was reduced to 2.7% of GDP. Net domestic expenditure is estimated at 4.0% of GDP in 1987/88, slightly lower than the previous year and substantially below the 8-12% recorded in the early 1980s.

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<sup>/1</sup> The currency composition of Indonesia's public debt (excluding the LPG/LNG expansion credits) at the end of 1987 was: Japanese Yen (40%), US Dollar (19%), German Mark (6%), French Franc (3%), Netherlands Guilder (3%) and British Pound (2%). Debt denominated in multiple or other single currencies amounted to 27% of the total.

**Table 7: CENTRAL GOVERNMENT BUDGET, 1985/86-1987/88**  
(Rp. trillion at current prices)

	<u>Actuals</u>		<u>Budget</u>	<u>Estimate</u>	<u>Budget</u>	<u>Projected</u>
	1985/86	1986/87	1987/88	1987/88	1988/89	1988/89
<b>Revenues and grants</b>	<b>18.6</b>	<b>16.5</b>	<b>17.3</b>	<b>21.7</b>	<b>22.0</b>	<b>21.8</b>
Oil and LNG taxes	10.7	6.3	6.9	10.1	8.9	8.8
Non-oil taxes	6.3	7.9	9.1	9.5	11.7	11.3
Non-tax revenues /a	1.5	2.2	1.2	1.8	1.2	1.3
Grants	0.1	0.1	0.1	0.3	0.2	0.4
<b>Current expenditures /b</b>	<b>12.4</b>	<b>13.2</b>	<b>13.0</b>	<b>15.2</b>	<b>15.4</b>	<b>16.1</b>
External interest	1.8	2.8	3.4	3.8	4.4	4.5
Subsidies	1.1	0.5	0.2	1.2	0.5	0.9
Other	9.5	9.9	9.4	10.2	10.5	10.8
<b>Government savings</b>	<b>6.3</b>	<b>3.3</b>	<b>4.3</b>	<b>6.5</b>	<b>6.6</b>	<b>5.7</b>
<b>Capital expenditure</b>	<b>9.0</b>	<b>8.0</b>	<b>6.4</b>	<b>9.7</b>	<b>7.4</b>	<b>8.4</b>
<b>Overall balance</b>	<b>-2.8</b>	<b>-4.7</b>	<b>-2.0</b>	<b>-3.2</b>	<b>-0.8</b>	<b>-2.7</b>
<b>Financed by:</b>						
<b>External loans (net)</b>	<b>1.8</b>	<b>3.8</b>	<b>2.0</b>	<b>3.1</b>	<b>0.8</b>	<b>2.7</b>
Disbursements	4.4	7.1	5.4	8.0	7.0	9.8
- Project aid	(3.5)	(4.1)	(4.4)	(5.3)	(6.0)	(5.8)
- Other /c	(0.9)	(3.0)	(1.0)	(2.7)	(1.0)	(4.0)
Amortization	2.6	3.3	3.4	4.9	6.2	7.1
<b>Asset drawdown /d</b>	<b>0.9</b>	<b>0.9</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>
<b>Memo items (% of GDP):</b>						
Revenue and grants	19.6	16.2	14.7	18.5	17.2	17.1
Non-oil taxes	6.6	7.8	7.8	8.1	9.1	8.8
Government savings	6.6	3.2	3.7	5.6	5.2	4.5
Overall balance	-2.9	-4.6	-1.7	-2.7	-0.6	-2.1
Total expenditure	22.5	20.8	16.5	21.1	17.8	19.2
Net domestic expenditure/e	8.3	4.1	1.0	4.0	-0.9	1.1

/a Includes domestic oil surplus in 1986/87.

/b Derived from routine expenditure by deducting amortization and adding the fertilizer subsidy, export certificates, defense spending and the recurrent component of development expenditure.

/c Refers to program loans, special local-cost financing and commercial borrowing.

/d Excludes gain from valuation adjustment in 1986/87, estimated at Rp. 1.8 trillion.

/e Defined as the domestic content of expenditure less non-oil revenues.

Source: Ministry of Finance and World Bank staff estimates.

26. Revenues. During 1987/88, oil/LNG tax revenues grew by 60% from the previous year's level, reflecting the impact of the turnaround in international oil prices. Non-oil tax revenues exceeded the budget target, partly due to improved tax administration but also reflecting the favorable impact of recent trade liberalization measures on custom duties and excise taxes. Revenues from export taxes also rose due to higher export earnings. The unexpected increases in receipts from these sources more than compensated for shortfalls in income tax. Although revenues from this latter source was somewhat lower than budgeted, significant progress was achieved in preparing the groundwork for improved tax administration over the next few years. The objective of the ongoing effort has been to improve income and value-added tax compliance, by increasing the number of taxpayers and by enhancing tax filing ratios for those registered. The budget target for property tax receipts was realized, although revenues remain considerably below potential. Recognizing this, the Government initiated some steps in 1987/88 to boost property tax receipts over the medium term. A detailed review of the various measures initiated in 1987/88 to improve tax administration and related issues is contained in Chapter 3.

27. Expenditures. Current expenditures in 1987/88 are estimated to have grown by 15% from the previous year's level, reflecting the higher interest payments on external debt, more realistic O&M expenditures, reappearance of the domestic fuel subsidy, and larger payments for the fertilizer subsidy. The budgetary burden of external interest payments surged from Rp. 2.8 trillion in 1986/87 to an estimated Rp. 3.8 trillion in 1987/88 due to three factors: (a) the bunching of debt service payments; (b) the depreciation of the US Dollar vis-a-vis other foreign currencies; (c) and the devaluation of the Rupiah in September 1986. Because of a perceived rupiah shortage, the Government had originally underbudgeted for O&M expenditures. With the availability of higher oil/LNG revenues, higher allocations for O&M became possible during the year. This was clearly appropriate to protect the productivity of existing infrastructure and improve the quality of public services. A worrisome source of higher spending, however, has been budgetary subsidies on fertilizer and fuel (growing from Rp. 0.5 trillion in 1986/87 to Rp. 1.2 trillion in 1987/88). In the first half of 1986/87, the Government obtained a large surplus from domestic fuel oil consumption by allowing domestic fuel prices to remain above the collapsing international oil prices. However, the Government did not subsequently adjust domestic prices to reflect the devaluation in September 1986 and the recovery in world oil prices, which therefore resulted in budgetary subsidies of Rp. 0.4 trillion in 1987/88 (to finance Pertamina's purchases of higher priced crude oil). Similarly, the prices of publicly-distributed fertilizer and pesticides have remained substantially below cost, resulting in a continued large budgetary subsidy.

28. The level of capital expenditures in 1987/88 was much higher than budgeted, due to improved rupiah availability based on higher oil/LNG revenues and special assistance (program aid and local-cost financing) from the IGGI, as well as progress on removing other constraints on project implementation. Even so, in real terms, this represents only a small increase and capital spending remains substantially below the levels of the early 1980s. The overall budget deficit was financed mainly by net disbursements from external aid (project aid

and program loans) and the rupiah counterpart of commercial borrowings undertaken for balance of payments support. The net use of government bank deposits was minimal (Rp. 0.1 trillion).

29. The Budget for 1988/89. In January, the Government announced its Budget for 1988/89 (see Table 7). This Budget reflects the Government's intention to continue with the fiscal restraint and spending priorities followed over the past two years. Recognizing the uncertainties in the international oil market, the Budget has assumed an average oil price of US\$16/barrel, US\$1 lower than realized in 1987/88. To offset the loss of oil/LNG revenues, the Budget projects a big increase in non-oil taxes (by over 23%). Nevertheless, expenditures are to remain tightly controlled. For the third year in a row, the Government has decided to freeze civil service salaries, and real capital spending is projected to fall. Based on these assumptions, the overall deficit is expected to decline to Rp.0.8 trillion (0.6% of GDP).

30. The World Bank staff projections of the fiscal accounts for 1988/89 are also shown in Table 7. These use the Budget numbers on oil/LNG prices and outputs, but assume a smaller reduction in the cost of oil production. Non-oil tax revenues, which are lower than projected by the Government, reflect the estimated impact of new tax measures and ongoing efforts to improve tax administration. On the expenditure side, the projections allow for some increases in other current expenditures (chiefly for O&M). The financing estimates include an adjusted level of foreign assistance, in line with the balance of payments projections in Chapter 2. This yields a higher level of program aid and commercial loans than budgeted. As a result of these assumptions, total revenue increases less rapidly than budgeted, while total expenditure grows faster in nominal terms. Even so, the overall fiscal deficit still falls to 2.7% of GDP and capital expenditures are cut substantially in real terms. More importantly, as a result of much higher reliance on domestic revenues, net domestic expenditures are expected to fall to only 1.1% of GDP during 1988/89, compared to 4.0% in the previous year, demonstrating the austere stance of the Budget.

### Money and Prices

31. Monetary policy. Monetary management in 1987 was complicated by speculative pressures on the Rupiah. These pressures were met by a firm policy response, particularly since June 1987, as the authorities countered the loss of foreign exchange by curbing domestic credit, allowing domestic interest rates to rise and providing more flexibility in monetary management. These measures succeeded in reversing capital outflows, allowing foreign exchange reserves to rise to more adequate levels and permitting the authorities to ease monetary policy gradually to relieve some of the pressure on domestic interest rates.

32. Speculative pressures on the Rupiah emerged towards the end of 1986 and intensified during May-June 1987. Initially, Bank Indonesia (BI) adopted an accommodative monetary stance because of concerns of an economic slowdown, and the interbank call money rate declined from the January average of 16.5% to 13.6% in April. Nevertheless, the steady reduction in net foreign assets of the

banking system resulted in a gradual tightening of the liquidity position of commercial banks. Beginning in May, BI also attempted to stem capital outflows through increases in interest rates on money market securities and discount window transactions, and by raising the premium it charged on foreign exchange swaps.<sup>1</sup> Although by June both deposit and lending rates at banks had risen in response to BI's monetary actions and the impact of strong credit demand on bank liquidity, it was clear that stronger action on interest rates would be required to support the balance of payments.

33. In June, the Government adopted a series of stronger monetary measures to stem capital outflows. Interest rates on money market instruments were raised in mid-June. Subsequently, four public enterprises were instructed to withdraw some Rp.1.0 trillion in deposits from the state banks, and to use these funds to purchase SBIs. In addition, all banks were required to reduce their SBPU positions to zero within a relatively short time, withdrawing another Rp. 0.9 billion of liquidity. These measures had an immediate effect on inter-bank interest rates, which reached a high of 47% in July. Simultaneously, BI introduced an auction system for transactions in SBPUs and SBIs, and shortened their maturities, thereby making money market rates more responsive to changes in liquidity conditions as well as depriving financial institutions of access to short-term funds for supporting credit activity.

34. The combination of measures introduced in June succeeded in arresting further capital outflows as tighter liquidity prevented banks from financing foreign exchange speculation. Eventually, the direction of capital flows was reversed as investors responded to the higher level of domestic deposit rates. With the abatement of speculative pressures, interbank interest rates declined rapidly to below 13% by end-November, and net foreign assets of the banking system rose to US\$11.1 billion at end-1987 from US\$9.3 billion at end-June.

35. Credit and interest rates. Because of the successful reversal of capital flows, net foreign assets of the banking system recorded a substantial increase in 1987, in contrast to the previous year. Although the expansionary effect of this increase was partly neutralized by BI's sales of SBIs, the banking system was able to meet the strong credit demand resulting from the unexpected strength of economic activity. Working capital credits from banks rose by 28%, while investment credits rose by 17%. Overall, credit to the private sector rose by 28% (see Table 8) in 1987, compared to 19% in the previous year. Public enterprise borrowing also rose -- 12% in 1987 compared to 7% in the previous year -- reflecting the Government's policy of reducing the dependence of such enterprises on budgetary support and encouraging greater reliance on the banking system. As a result of the improved budgetary position,

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<sup>1</sup> On May 8, 1987, BI raised its refinance rate on private sector promissory notes (SBPUs) from 17% to 19%, the interest rate on Bank Indonesia Certificates (SBIs) was raised from 14-15% to 16-17%, and on the discount window facility from 18.5% to 20%. At the same time, BI raised the premium for the swap refinancing facility from 8% to 9%.

the Government's own balance with the banking system rose by a little over 2%, in contrast to the 25% decline recorded in 1986. The year-on-year growth of the stock of domestic liquidity (M2) rose from 15.0% in 1986 to 22.5% in 1987. The growth of rupiah liquidity rose to 25.5% in 1987, from 18.9% in the previous year; this was due to the factors explained below.

**Table 8: CHANGES IN FACTORS AFFECTING MONEY SUPPLY AND LIQUIDITY, 1984-87**  
(Rp. billion)

Changes in	1984	1985	1986/ <u>a</u>	1987	Annual growth (%) / <u>b</u>		
					1985	1986/ <u>c</u>	1987/ <u>d</u>
Net foreign assets	3,553	2,182	1,850	2,452	18.3	-29.8	15.3
Use of government deposits	-3,255	-626	470	1,529	-7.1	24.9	-2.2
Credit to public enterprises	189	421	227	729	9.8	6.8	12.2
Credit to private sector	3,646	3,333	4,547	6,245	23.2	19.3	28.1
Net other assets	-859	-94	-2,586	-4,731	3.9	-30.1	-39.7
Domestic liquidity (M2)	3,274	5,216	4,508	6,224	29.1	15.0	22.5
Money supply (M1)	1,012	1,523	1,573	1,008	17.7	17.5	8.6
Currency	(379)	(728)	(898)	(444)	(19.6)	(20.2)	(8.3)
Demand deposits	(633)	(795)	(675)	(564)	(16.3)	(15.3)	(8.9)
Time & savings deposits (QM) <u>e</u>	2,262	3,693	2,935	5,216	39.5	13.0	32.6
Rupiah liquidity	2,619	4,883	3,180	5,883	32.6	18.9	25.5
Reserve money	563	1,020	1,373	858	17.9	24.2	11.0
<b>Memo items:</b>							
M2/GDP ratio	21.0	24.5	28.7	29.9			
QM/GDP ratio	10.9	13.8	16.6	18.7			

/a Includes effect of the exchange rate changes on September 12, 1986.

/b Year-end growth rates in monetary aggregates.

/c Excludes valuation changes resulting from the September 12 devaluation.

/d Excludes recording adjustment on unused commercial loans amounting to Rp. 1,725 billion, which were previously shown as "net government deposits", but since September 1987 shown as Bank Indonesia assets and moved to "net other assets".

/e Includes foreign currency deposits.

Source: Bank Indonesia.

36. The rapid expansion of monetary aggregates during 1987 appears to reflect a further deepening of the financial system. There was a surge in time and savings deposits (i.e., quasi-money) which grew by 32.6%, or more than twice

the rate of the previous year, while currency and demand deposits (i.e., M1) grew by only 8.6% during 1987. This impressive turnaround on financial resource mobilization was due to the increase in domestic interest rates, which were higher in real terms than their end-1986 levels (see Table 9). Moreover, the spread between domestic and international interest rates widened over the 1986 level; the nominal interest rate differential rose from 7-8% to 8-10%, making rupiah deposits more attractive. The successful containment of speculative pressures has allowed interest rates to be eased gradually in recent months.

37. Bank Indonesia has continued to make available liquidity credits to commercial banks, which rose by 18.3% during 1987, compared to 13.6% in 1986. A large part of this increase is accounted for by lending to priority sectors, especially for export credits (which rose by 27.3%), but refinancing facilities

**Table 9: INTEREST RATES OF COMMERCIAL BANKS, 1984-87 /a**

	December 1984	December 1985	December 1986	June 1987	October 1987
<b>Nominal deposit rates /b</b>					
State banks	17.1	14.6	14.2	15.1	14.9
Private banks	20.7	15.9	15.5	17.5	17.4
<b>Real deposit rates /c</b>					
State banks	7.3	9.8	4.6	6.9	5.1
Private banks	10.6	11.0	5.8	9.2	7.5
<b>Nominal lending rates /d</b>					
State banks	17-24	17-24	16-24	17-23	17-23
Private banks	24-30	18-27	16-33	17-36	18-36
<b>Real lending rates /c</b>					
State banks	8-14	12-17	6-14	9-14	7-13
Private banks	14-19	13-22	6-22	9-26	8-25
<b>Memo items:</b>					
Libor /e	1984 10.9	1985 8.4	1986 6.9	1987 7.2	
Inflation differential between Indonesia & USA	6.1	1.3	7.2	4.1	

/a For rupiah transactions, excluding liquidity credit programs.

/b Nominal rates on three-month time deposits.

/c Deflated by the rise in the Consumer Price Index for the relevant period.

/d Nominal rates on working capital and term loans; the amount of lending undertaken by banks at the maximum interest rates is generally quite small.

/e London Interbank Offer Rate on three-month US dollar deposits.

Source: Bank Indonesia and World Bank staff estimates.

extended to local development banks and private national banks also recorded significant increases. Such credits support the general expansion of liquidity and enable banks to channel funds at preferential interest rates to priority sectors. Although the subsidization of loans through the liquidity credit programs is sometimes justified on the grounds that real lending rates, which range between 7-25%, are too high to support the required levels of investment, the strong growth in private sector credit outside this program would suggest that the interest sensitivity of investment demand may be low.

38. Domestic inflation. The continuation of conservative fiscal and monetary policies during 1987 played a significant role in restraining the inflation rate. Despite the large devaluation, the annual inflation rate, as measured by the consumer price index, was contained to 9.3% (see Table 10). Inflation reached an annualized rate of 17.5% in the September-December period of 1986 -- as a result of the cost-push and mark-up effects of the devaluation of September 12 -- but declined to below 5% by April 1987. For the year as a whole, substantial price increases for rice and other food items (+12.2%) have put upward pressure on the overall index. These items also accounted for the increase in the rural cost-of-living index (+20.7%), which covers price changes in nine essential commodities prominent in the consumption basket of the rural poor.<sup>1</sup> While the higher price of rice primarily reflects the drought-induced

Table 10: RATES OF INFLATION, 1984-87 /a  
(% p.a.)

	CPI /b		WPI /c			Rural /d	
	Jakarta	17 cities	Agri-culture	Manufac-turing	General, excluding exports	Java & Madura	Outer Islands
1984	11.8	9.1	8.6	8.9	7.9	4.2	6.9
1985	4.0	4.4	3.6	6.7	5.0	7.1	0.7
1986	8.4	9.1	14.0	14.5	19.3	17.1	14.4
1987	9.4	9.3	10.1/e	11.9/e	8.5/e	20.7/e	7.5/f

/a Calculated on a year-end basis.

/b Consumer price index.

/c Wholesale price index.

/d Combined index of nine essential commodities.

/e January-November (to be updated).

/f January-October (to be updated).

Source: Central Bureau of Statistics.

<sup>1</sup> These are: rice, salted fish, coconut oil, sugar, salt, kerosene, washing soap, batik and other textiles.

shortfall in domestic supply, the reluctance to increase BULOG stocks by allowing timely imports was also a factor. The higher than average increase in the price of food staples has probably caused a decline in real consumption among the low income urban poor and the landless rural poor.

39. The anti-inflationary impact of the Government's economic policies (e.g., deregulation of imports, monetary/fiscal restraint) is more visible in movements in the wholesale price index (WPI). Although the spillover effects from the 1986 devaluation continued to affect the WPI during 1987, the increase in the general index (excluding exports), which is believed to be a better measure of price pressures in the economy than the CPI, was restricted to 8.5%. The imported goods component of this index rose by a mere 6%, despite large increases in the exchange rates of currencies which are important in Indonesia's import basket. The agriculture and manufacturing components of the WPI rose by 10.1% and 11.9% respectively, compared to 14.4% and 14.5% in 1986. In general, therefore, by moderating price increases, the authorities have been successful in preserving the competitive gains that resulted from the devaluation of 1986.

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/a These tables have been prepared according to standardized World Bank concepts and definitions to facilitate cross-country comparisons and aggregations. The data in the Standard Tables may not always agree with similar data in the preceding tables.

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## Population And Growth Rates by Province, 1930-1985

Region	Population ('000)					Average growth rate (% p.a.)			
	1930	1961 /a	1971 /a	1980	1985	1930-61	1961-71	1971-80	1980-85
Java	41,718	63,059	76,086	91,270	99,853	1.3	1.9	2.0	1.8
DKI Jakarta	811	2,973	4,579	6,503	7,886	4.3	4.4	4.0	3.9
West Java	10,586	17,615	21,624	27,454	30,830	1.7	2.1	2.7	2.3
Central Java	13,706	18,407	21,877	25,373	26,945	1.0	1.7	1.7	1.2
DI Yogyakarta	1,559	2,241	2,489	2,751	2,930	1.2	1.1	1.1	1.3
East Java	15,056	21,823	25,517	29,189	31,262	1.2	1.6	1.5	1.4
Sumatra	8,255	15,739	20,809	28,017	32,604	2.1	2.8	3.4	3.1
Lampung	361	1,668	2,777	4,625	5,906	5.1	5.2	5.8	5.0
Bengkulu	323	406	519	768	943	0.7	2.5	4.5	4.2
South Sumatra	1,378	2,773	3,441	4,630	5,370	2.3	2.2	3.4	3.0
Riau	493	1,235	1,642	2,169	2,548	3.0	2.9	3.1	3.3
Jambi	245	744	1,006	1,446	1,745	3.6	3.1	4.1	3.8
West Sumatra	1,910	2,319	2,793	3,407	3,698	0.6	1.9	2.2	1.7
North Sumatra	2,542	4,965	6,622	8,361	9,422	2.2	2.9	2.6	2.4
Aceh	1,003	1,629	2,009	2,611	2,972	1.6	2.1	3.0	2.6
Kalimantan	2,170	4,102	5,155	6,723	7,722	2.1	2.3	3.0	2.8
West Kalimantan	802	1,581	2,020	2,486	2,819	2.2	2.5	2.3	2.5
Central Kalimantan	203	497	702	954	1,118	2.9	3.5	3.5	3.2
South Kalimantan	836	1,473	1,699	2,065	2,273	1.8	1.4	2.2	1.9
East Kalimantan	329	551	734	1,218	1,512	1.7	2.9	5.8	4.4
Sulawesi	4,231	7,079	8,528	10,409	11,554	1.7	1.9	2.2	2.1
Central Sulawesi	390	693	914	1,290	1,511	1.9	2.8	3.9	3.2
North Sulawesi	748	1,310	1,719	2,115	2,313	1.8	2.8	2.3	1.8
South Sulawesi	2,657	4,517	5,181	6,062	6,610	1.7	1.4	1.8	1.7
Southeast Sulawesi	436	559	714	942	1,120	0.8	2.5	3.1	3.5
Other Islands	4,219	7,106	8,630	11,071	12,316	1.7	2.0	2.8	2.2
Bali	1,101	1,783	2,120	2,470	2,649	1.6	1.7	1.7	1.4
West Nusa Tenggara	1,016	1,808	2,203	2,725	2,995	1.9	2.0	2.4	1.9
East Nusa Tenggara	1,344	1,967	2,295	2,737	3,061	1.2	1.6	2.0	2.3
Maluku	579	790	1,089	1,410	1,609	1.0	3.3	2.9	2.7
Irian Jaya	179	758	923	1,174	1,371	4.8	2.0	2.7	3.2
East Timor	n.a	n.a	n.a	555	631	n.a	n.a	n.a	2.6
Total Indonesia	60,593	97,085	119,208	147,490	164,049	1.5	2.1	2.4	2.2

/a Includes adjustment for the exclusion of rural Irian Jaya.

Sources: Central Bureau of Statistics, Population Census Reports, 1961, 1971, and 1980;  
Statistical Yearbook Of Indonesia, 1984; and SUPAS 1985.

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## Distribution of Population by Age Group and Sex, 1961-1985

('000)

Age Group	1961			1971			1980			1985		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
0-4	8,529	8,649	17,178	9,675	9,560	19,235	10,872	10,422	21,294	11,008	10,543	21,551
5-9	7,744	7,701	15,445	9,593	9,302	18,895	10,889	10,446	21,335	11,378	10,739	22,117
10-14	4,353	3,892	8,245	7,406	6,875	14,281	9,179	8,525	17,704	10,783	10,113	20,896
15-19	3,865	3,905	7,770	5,627	5,779	11,406	7,552	7,806	15,358	8,335	8,232	16,567
20-24	3,480	4,373	7,853	3,627	4,461	8,088	6,010	7,055	13,065	6,385	7,903	14,288
25-34	7,392	8,610	16,002	7,722	9,226	16,948	9,685	9,920	19,605	12,026	12,442	24,468
35-44	5,765	5,406	11,171	7,062	7,119	14,181	7,876	8,172	16,048	8,538	8,485	17,023
45-54	3,587	3,511	7,098	4,360	4,213	8,573	5,761	5,856	11,617	6,418	6,514	12,932
55-64	1,913	1,865	3,778	2,224	2,373	4,597	3,297	3,354	6,651	4,150	4,474	8,624
65+	1,183	1,245	2,428	1,450	1,539	2,989	2,200	2,593	4,793	2,619	2,954	5,573
-----	60	57	117	7	8	15	11	9	20	4	3	7
<b>Total</b>	<b>47,871</b>	<b>49,214</b>	<b>97,085</b>	<b>58,753</b>	<b>60,455</b>	<b>119,208</b>	<b>73,332</b>	<b>74,158</b>	<b>147,490</b>	<b>81,644</b>	<b>82,402</b>	<b>164,046</b>
----- Percentage distribution -----												
0-4	17.8	17.6	17.7	16.5	15.8	16.1	14.8	14.1	14.4	13.5	12.8	13.1
5-9	16.2	15.6	15.9	16.3	15.4	15.9	14.8	14.1	14.5	13.9	13.0	13.5
10-14	9.1	7.9	8.5	12.6	11.4	12.0	12.5	11.5	12.0	13.2	12.3	12.7
15-19	8.1	7.9	8.0	9.6	9.6	9.6	10.3	10.5	10.4	10.2	10.0	10.1
20-24	7.3	8.9	8.1	6.2	7.4	6.8	8.2	9.5	8.9	7.8	9.6	8.7
25-34	15.4	17.5	16.5	13.1	15.3	14.2	13.2	13.4	13.3	14.7	15.1	14.9
35-44	12.0	11.0	11.5	12.0	11.8	11.9	10.7	11.0	10.9	10.5	10.3	10.4
45-54	7.5	7.1	7.3	7.4	7.0	7.2	7.9	7.9	7.9	7.9	7.9	7.9
55-64	4.0	3.8	3.9	3.8	3.9	3.9	4.5	4.5	4.5	5.1	5.4	5.3
65+	2.5	2.5	2.5	2.5	2.5	2.5	3.0	3.5	3.2	3.2	3.6	3.4
Unknown	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : Central Bureau of Statistics, Census Reports, 1961, 1971, 1980 and 1985; Intercensal Population Survey, 1985.

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Employment by Main Industry, 1971-1985 /a

Main Industry	1971		1980		1982		1985	
	million	%	million	%	million	%	million	%
Agriculture, forestry, hunting & fishery	26.47	64.15	28.04	54.79	31.59	54.66	34.14	54.64
Mining and quarrying	0.09	0.22	0.37	0.72	0.39	0.67	0.42	0.67
Manufacturing	2.68	6.50	4.36	8.52	6.02	10.42	5.80	9.28
Electricity, gas & water	0.04	0.10	0.08	0.16	0.06	0.10	0.07	0.11
Construction	0.68	1.65	1.57	3.07	2.15	3.72	2.10	3.36
Wholesale and retail trade & restaurants	4.26	10.32	6.61	12.92	8.55	14.79	9.35	14.96
Transportation, storage & communications	0.95	2.30	1.47	2.87	1.79	3.10	1.96	3.14
Finance, insurance, real estate & business services	0.09	0.22	0.23	0.45	0.11	0.19	0.25	0.40
Public services	4.12	9.99	7.74	15.12	7.13	12.34	8.32	13.32
Others	1.88	4.56	0.71	1.39	0.00	0.00	0.07	0.11
<b>Total</b>	<b>41.26</b>	<b>100.00</b>	<b>51.18</b>	<b>100.00</b>	<b>57.79</b>	<b>100.00</b>	<b>62.48</b>	<b>100.00</b>

/a Refers to population 10 years of age and above who worked during the week previous to the census.

Source: Central Bureau of Statistics, Statistical Yearbook of Indonesia, 1975, 1982, 1985.

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## COUNTRY ECONOMIC REPORT

## Gross Domestic Product by Industrial Origin at Current Market Prices, 1978-1986 /a

(Rp. billion)

	1978	1979	1980	1981	1982	1983	1984	1985	1986/b
<b>Agriculture</b>	6,744.7	9,374.0	11,725.5	13,648.9	15,000.5	17,696.2	20,333.9	22,413.2	24,921.6
Farm food crops	3,892.3	4,774.0	6,102.5	7,823.6	9,162.0	11,057.4	12,606.0	13,740.8	15,197.5
Farm non-food crops	985.6	1,506.6	1,924.2	1,909.1	1,703.4	2,294.9	2,738.7	2,978.5	3,503.8
Estate crops	229.5	350.2	303.1	430.8	448.7	375.3	593.0	714.6	801.9
Livestock products	560.9	836.7	1,191.0	1,465.2	1,598.9	1,754.3	2,084.1	2,427.0	2,667.3
Forestry	620.0	1,283.9	1,412.1	1,041.8	973.5	994.2	939.0	938.0	972.5
Fishery	456.4	622.6	792.6	976.4	1,114.0	1,220.1	1,373.1	1,594.3	1,778.6
<b>Mining and quarrying</b>	4,262.7	6,865.8	11,238.3	13,217.5	12,153.0	13,967.9	15,985.8	15,403.6	10,740.9
Oil & natural gas	4,081.1	6,541.4	10,610.2	12,673.4	11,648.1	13,346.2	15,409.2	14,740.9	10,006.9
Other	181.6	324.4	628.1	544.1	504.9	621.7	576.6	662.7	734.0
<b>Manufacturing</b>	2,816.3	4,002.9	6,353.4	7,066.8	7,482.3	8,211.3	11,081.6	12,676.1	13,899.9
Refinery oil	115.4	97.3	94.0	180.0	155.3	129.4	625.7	1,635.2	1,857.8
LNG	199.8	581.6	1,198.4	1,282.0	1,615.4	1,871.2	2,706.7	2,423.7	2,322.8
Other	2,501.1	3,324.0	5,061.0	5,604.8	5,711.6	6,210.7	7,749.2	8,617.2	9,719.3
<b>Electricity, gas &amp; water</b>	128.0	129.6	230.6	291.9	340.5	524.3	655.2	781.3	858.0
<b>Construction</b>	1,370.7	1,945.4	2,582.4	3,500.1	3,769.1	4,597.2	4,756.8	5,301.8	5,242.6
<b>Trade</b>	3,321.9	5,029.5	7,332.8	8,955.5	10,179.4	12,009.4	13,973.5	14,697.5	16,081.2
Retail & wholesale trade	2,685.2	4,220.9	6,314.1	7,761.1	8,799.1	10,411.7	12,063.5	12,666.0	13,877.7
Hotels & restaurants	636.7	808.6	1,008.7	1,194.4	1,380.3	1,597.7	1,910.0	2,031.5	2,203.5
<b>Transport &amp; communications</b>	1,233.7	1,680.7	2,210.7	2,370.4	3,163.5	3,978.0	5,112.5	6,050.5	6,392.0
Transport	1,166.5	1,567.6	2,060.4	2,182.3	2,941.9	3,693.7	4,611.3	5,538.5	5,722.0
Communications	67.2	113.1	150.3	188.1	221.6	284.3	501.2	512.0	670.0
<b>Banking, etc.</b>	470.0	773.1	924.4	1,574.2	1,782.8	2,039.2	2,691.8	2,802.4	3,279.5
<b>Ownership of dwellings</b>	703.1	959.7	1,227.9	1,494.1	1,731.1	1,961.8	2,275.9	2,443.0	2,631.5
<b>Public administration &amp; Defence</b>	1,765.6	2,098.5	3,225.4	4,203.3	4,705.5	5,711.5	6,469.9	7,925.1	8,307.3
<b>Other services</b>	1,185.8	1,485.5	1,872.1	2,098.6	2,338.8	3,000.8	3,717.9	3,990.6	4,134.8
<b>Gross Domestic Product</b>	24,002.5	34,344.7	48,913.5	58,421.3	62,646.5	73,697.6	87,054.8	94,493.1	96,489.3

/a The new national account series is based upon a frame which is consistent with the 1980 Input-Output table, updated to 1983 through the incorporation of new information from surveys.

/b Preliminary figures.

Source : Central Bureau of Statistics.

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## Gross Domestic Product by Industrial Origin at Constant 1983 Market Prices, 1978-1986

(Rp. billion)

	1978	1979	1980	1981	1982	1983	1984	1985	1986 /a
<b>Agriculture</b>	14,381.2	15,338.1	16,399.2	17,187.0	17,370.9	17,696.2	18,431.1	19,209.0	19,687.0
Farm food crops	8,399.8	8,855.9	9,661.1	10,639.1	10,736.0	11,057.4	11,598.7	11,894.6	12,116.5
Farm non-food crops	1,442.5	1,659.2	1,837.1	2,010.0	2,033.3	2,294.9	2,349.3	2,575.7	2,722.2
Estate crops	437.6	469.7	497.9	517.6	592.4	375.3	445.5	510.8	511.8
Livestock products	1,247.6	1,440.3	1,585.9	1,620.6	1,695.8	1,754.3	1,890.1	2,036.5	2,097.0
Forestry	1,871.2	1,867.2	1,700.9	1,260.6	1,146.4	994.2	894.4	850.7	841.6
Fishery	982.5	1,045.8	1,116.3	1,139.1	1,167.0	1,220.1	1,253.1	1,340.7	1,397.9
<b>Mining &amp; quarrying</b>	16,363.8	16,092.6	16,077.8	16,340.1	13,876.2	13,967.9	14,788.7	13,980.5	14,572.0
Oil & natural gas	15,923.0	15,590.2	15,524.7	15,767.2	13,249.0	13,346.2	14,203.4	13,368.7	13,936.4
Other	440.8	502.4	553.1	572.9	627.2	621.7	585.3	611.8	635.6
<b>Manufacturing</b>	5,107.5	5,952.0	7,304.4	7,878.4	7,973.1	8,211.3	9,770.3	10,589.6	11,161.5
Refinery oil	147.8	172.7	185.8	169.8	142.3	129.4	386.5	670.4	897.9
LNG	725.1	1,230.0	1,671.9	1,711.6	1,781.7	1,871.2	2,790.2	2,918.5	2,922.8
Other	4,234.6	4,549.3	5,446.7	5,997.0	6,049.1	6,210.7	6,593.6	7,000.7	7,340.8
<b>Electricity, gas and water</b>	243.7	265.2	312.1	360.8	421.6	524.3	550.3	594.9	633.7
<b>Construction</b>	2,904.1	3,265.5	3,849.8	4,367.9	4,408.5	4,597.2	4,393.8	4,508.0	4,497.6
<b>Trade</b>	8,231.6	8,933.7	10,112.4	10,949.5	11,756.5	12,009.4	12,159.7	12,456.1	12,730.3
Retail & wholesale trade	6,887.3	7,547.1	8,628.1	9,417.5	10,210.1	10,411.7	10,451.5	10,712.9	10,963.2
Hotels & restaurants	1,344.3	1,386.6	1,484.3	1,532.0	1,546.4	1,597.7	1,708.2	1,743.2	1,767.1
<b>Transport &amp; communications</b>	2,505.8	2,670.0	2,910.5	3,309.3	3,539.6	3,978.0	4,442.4	4,481.8	4,541.6
Transport	2,366.3	2,513.4	2,722.1	3,083.1	3,276.4	3,693.7	4,008.1	4,031.8	4,074.1
Communications	139.5	156.6	188.4	226.2	263.2	284.3	434.3	450.0	467.5
<b>Banking, etc.</b>	1,121.5	1,343.7	1,234.0	1,940.7	2,034.9	2,039.2	2,422.3	2,430.6	2,558.5
<b>Ownership of dwellings</b>	1,461.7	1,573.1	1,683.0	1,822.7	1,878.9	1,961.8	2,072.3	2,145.2	2,220.7
<b>Public administration &amp; defence</b>	3,385.2	3,762.2	4,128.3	4,664.6	5,266.0	5,711.5	5,996.7	6,438.5	6,601.4
<b>Other services</b>	2,483.8	2,580.9	2,663.3	2,792.1	2,851.0	3,000.8	3,116.8	3,180.2	3,270.2
<b>Gross Domestic Product</b>	<b>58,189.9</b>	<b>61,777.0</b>	<b>66,674.8</b>	<b>71,613.1</b>	<b>71,377.2</b>	<b>73,697.6</b>	<b>78,144.4</b>	<b>80,014.4</b>	<b>82,474.5</b>

/a Preliminary figures.

Source : Central Bureau of Statistics.

**INDONESIA**

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**COUNTRY ECONOMIC REPORT**

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**Expenditure on GDP at Current Market Prices, 1978-1986**

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(Rp. billion)

	1978	1979	1980	1981	1982	1983	1984	1985	1986 /b
Private consumption	15,125.5	19,516.3	25,594.9	32,293.0	37,923.7	44,739.3	51,398.9	56,857.9	61,682.4
Government consumption	2,556.5	3,277.4	5,147.7	6,452.0	7,228.7	8,077.3	9,121.5	10,893.1	11,328.7
Gross fixed investment	7,494.1	7,667.8	10,549.8	14,134.5	15,822.4	18,973.8	19,625.2	19,618.3	20,042.8
Changes in stock /a	3,239.6	1,481.7	1,344.7	3,174.7	1,418.6	2,694.7	2,551.5	5,290.2	5,250.5
Exports of goods and nonfactor services	5,316.7	10,147.5	16,162.2	16,401.5	15,324.5	20,447.7	22,984.9	21,671.1	20,041.7
Less: Imports of goods and nonfactor services	4,729.9	7,746.0	9,885.6	14,034.4	15,071.4	21,235.1	18,627.2	19,837.5	21,856.8
<b>Gross Domestic Product</b>	<b>24,002.5</b>	<b>34,344.7</b>	<b>48,913.5</b>	<b>58,421.3</b>	<b>62,646.5</b>	<b>73,697.6</b>	<b>87,054.8</b>	<b>94,493.1</b>	<b>96,489.3</b>

/a Residual.

/b Preliminary figures.

Source : Central Bureau of Statistics.

INDONESIA  
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COUNTRY ECONOMIC REPORT  
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Expenditure on GDP at Constant 1963 Market Prices, 1978-1986  
-----

(Rp. billion)

	1978	1979	1980	1981	1982	1983	1984	1985	1986 /b
Private consumption	29,848.1	32,491.4	36,037.0	39,698.9	42,171.5	44,739.3	46,898.3	48,040.9	49,637.8
Government consumption	5,128.0	5,743.3	6,874.0	7,550.7	8,230.3	8,077.3	8,353.0	8,975.1	8,988.4
Gross fixed investment	11,289.1	12,381.8	15,646.0	17,658.7	18,740.3	18,973.8	17,847.5	16,768.1	16,933.0
Changes in stock /a	(136.6)	(103.3)	(3,198.6)	5,138.2	2,881.6	2,694.7	1,027.3	4,311.0	2,420.6
Exports of goods and nonfactor services	24,254.9	24,810.4	26,182.0	21,456.7	19,524.1	20,447.7	20,562.6	18,915.1	21,503.9
Less: Imports of goods and nonfactor services	12,193.6	13,546.6	14,865.6	19,890.1	20,170.6	21,235.1	16,544.3	16,995.8	17,009.2
Gross Domestic Product	58,189.9	61,777.0	66,674.8	71,613.1	71,377.2	73,697.6	78,144.4	80,014.4	82,474.5

/a Residual.

/b Preliminary figures.

Source: Central Bureau of Statistics.

**INDONESIA**  
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**COUNTRY ECONOMIC REPORT**  
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**Distribution of GDP at Current Market Prices, 1978-1986**  
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(%)

	1978	1979	1980	1981	1982	1983	1984	1985	1986 /a
<b>Economic sectors</b> -----									
Agriculture, forestry, fishery and livestock	26.1	27.3	24.0	23.4	23.9	24.0	23.4	23.7	25.8
Mining	17.8	20.0	23.0	22.6	19.4	19.0	18.4	16.3	11.1
Manufacturing	11.7	11.7	13.0	12.1	11.9	11.1	12.7	13.4	14.4
Electricity, gas and water	0.5	0.4	0.5	0.5	0.5	0.7	0.8	0.8	0.9
Construction	5.7	5.7	5.3	6.0	6.0	6.2	5.5	5.6	5.4
Transport & communications	5.1	4.9	4.5	4.1	5.0	5.4	5.9	6.4	6.6
Other services	31.0	30.1	29.8	31.4	33.1	33.5	33.5	33.7	35.7
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Expenditure categories</b> -----									
Private consumption	63.0	56.8	52.3	55.3	60.5	60.7	59.0	60.2	63.9
Government consumption	10.7	9.5	10.5	11.0	11.5	11.0	10.5	11.5	11.7
Gross domestic investment	23.9	26.6	24.3	29.6	27.5	29.4	25.5	26.4	26.2
Net exports	2.4	7.0	12.8	4.1	0.4	-1.1	5.0	1.9	-1.9
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

/a Preliminary figures.

Source: Tables 2.1 and 2.3.

INDONESIA  
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COUNTRY ECONOMIC REPORT  
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Distribution of GDP at Constant 1983 Market Prices, 1978-1986  
.....

(%)

	1978	1979	1980	1981	1982	1983	1984	1985	1986 /a
<b>Economic Sectors</b>									
Agriculture, forestry, fishery and livestock	24.7	24.8	24.6	24.0	24.3	24.0	23.6	24.0	23.9
Mining	28.1	26.0	24.1	22.8	19.4	19.0	18.9	17.5	17.7
Manufacturing	8.8	9.6	11.0	11.0	11.2	11.1	12.5	13.2	13.5
Electricity, gas and water	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.8
Construction	5.0	5.3	5.8	6.1	6.2	6.2	5.6	5.6	5.5
Transport & communications	4.3	4.3	4.4	4.6	5.0	5.4	5.7	5.6	5.5
Other services	28.7	29.5	29.7	31.0	33.3	33.5	33.0	33.3	33.2
<b>Gross Domestic Product</b>	<b>100.0</b>								
<b>Expenditure categories</b>									
Private consumption	51.3	52.6	54.0	55.4	59.1	60.7	60.0	60.0	60.2
Government consumption	8.8	9.3	10.3	10.5	11.5	11.0	10.7	11.2	10.9
Gross domestic investment	19.2	19.9	18.7	31.8	30.3	29.4	24.2	26.3	23.5
Net exports	20.7	18.2	17.0	2.2	-0.9	-1.1	5.1	2.4	5.4
<b>Gross Domestic Product</b>	<b>100.0</b>								

/a Preliminary figures.

Source: Tables 2.2 and 2.4.

**INDONESIA**  
**COUNTRY ECONOMIC REPORT**  
**Balance of Payments, 1974/75 - 1987/88**  
**(US\$ million)**

	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 /c
1. Net oil exports /a	2,638	3,138	3,710	4,352	3,785	6,308	9,345	8,379	5,788	6,016	5,845	4,004	1,426	2,215
2. Net LNG exports /a	0	0	0	93	225	667	1,256	1,382	1,378	1,355	1,971	2,119	1,158	1,290
3. Non-oil exports (net)	-2776	-3972	-4512	-5135	-5165	-4777	-8470	-12551	-14205	-11522	-9784	-7955	-6635	-5190
Exports, fob	2,033	1,873	2,863	3,507	3,979	6,171	5,587	4,170	3,928	5,367	5,907	6,175	6,731	9,054
Imports, cif	-4341	-5090	-6167	-7241	-7543	-9028	-11837	-14561	-15824	-14346	-12921	-11186	-10385	-11267
Services (nonfreight)	-468	-755	-1208	-1401	-1601	-1920	-2220	-2160	-2309	-2543	-2770	-2944	-2981	-2977
4. Current account (1+2+3)	-138	-834	-802	-690	-1155	2,198	2,131	-2790	-7039	-4151	-1968	-1832	-4051	-1685
5. SDRs														
6. Official capital disbursements	660	1,995	1,823	2,106	2,101	2,690	2,684	3,521	5,011	5,793	3,519	3,432	5,472	4,060
IGGI	513	945	1,596	1,694	1,567	2,237	2,406	2,415	2,905	4,255	3,189	2,751	3,475	3,368
Program aid	180	74	147	157	94	239	118	50	21	84	52	38	48	40
Project aid	333	871	1,449	1,537	1,473	1,998	2,288	2,365	2,884	4,171	3,137	2,713	3,427	3,328
ODA	333	482	513	661	814	1,106	1,299	996	1,356	1,902	1,442	1,332	1,932	2,264
Non-ODA	0	389	936	876	659	892	989	1,369	1,528	2,269	1,695	1,381	1,495	1,064
Non-IGGI	147	1	227	412	534	453	278	1,106	2,106	1,538	330	681	1,997	692
Cash loan	0	1,049	0	0	0	0	0	0	0	0	0	0	0	0
7. Amortization	-89	-77	-166	-761	-632	-692	-615	-809	-926	-1010	-1292	-1644	-2129	-2692
8. Other capital (net)	-131	-1075	36	176	542	-1312	-361	1,140	1,795	1,191	499	572	1,232	1,179
Direct investment	538	454	287	285	271	217	140	142	311	193	245	299	252	327
Oil sector	13	14	-32	-50	75	-1237	-685	791	1,322	n.a	n.a	n.a	n.a	n.a
Others	-482	-1543	-217	-59	196	-292	184	207	162	998	254	273	980	852
9. Total (4 through 8)	302	9	893	831	856	2,884	3,839	1,062	-1159	1,823	758	528	524	862
10. Errors and omissions	-311	-353	108	-180	-62	-1256	-1165	-2050	-2121	247	-91	-498	-1262	499
11. Monetary movements /b	9	344	-1001	-651	-794	-1628	-2674	988	3,280	-2070	-667	-30	758	-1361

/a Gross exports less imports of goods and services of the oil and LNG sector respectively.

/b A negative amount refers to an accumulation of assets.

/c Preliminary figures.

Source: Bank Indonesia.

INDONESIA  
COUNTRY ECONOMIC REPORT

Non-oil Exports, 1981/82 - 1987/88

	Value (US \$ million)						Volume ('000 tons)							
	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 /a	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 /a
<b>Agricultural</b>	2,930	2,722	3,662	3,663	3,780	4,428	5,292							
Timber	952	899	1,161	1,167	1,217	1,585	2,186	5,978	5,101	5,843	5,201	4,670	5,387	5,825
a. Log	2,082	1,950	2,520	2,520	2,520	3,110	3,820	11,100	9,500	10,500	9,500	8,500	9,500	10,500
b. Plywood	240	240	300	300	300	300	300	1,000	1,000	1,000	1,000	1,000	1,000	1,000
c. Sawn timber	240	240	300	300	300	300	300	1,000	1,000	1,000	1,000	1,000	1,000	1,000
d. Other	77	69	91	87	83	75	67	200	200	200	200	200	200	200
Rubber	77	69	91	87	83	75	67	200	200	200	200	200	200	200
Palm oil	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Coffee	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Tea	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Tobacco	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Cocoa	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Cocoa cake	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Cocoa	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Latex	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Hides	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Other foodstuff	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Animal products	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
of which shrimps	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
Others	1,100	1,000	1,300	1,300	1,300	1,600	1,900	3,000	2,500	2,800	2,500	2,000	2,500	3,000
<b>Mineral</b>	756	676	800	775	800	692	817							
Tin	437	416	300	283	288	156	151	231	27	22	22	22	22	22
Copper	123	116	100	93	93	56	52	77	9	7	7	7	7	7
Nickel	123	116	100	93	93	56	52	77	9	7	7	7	7	7
Aluminum	123	116	100	93	93	56	52	77	9	7	7	7	7	7
Granite	123	116	100	93	93	56	52	77	9	7	7	7	7	7
Others	36	20	50	53	49	38	217	93	67	65	65	65	65	65
<b>Manufactured</b>	333	530	905	1,469	1,595	1,611	2,945							
Textiles	129	158	280	418	477	470	828	n.a.						
Aircraft	129	158	280	418	477	470	828	n.a.						
Electrical app.	129	158	280	418	477	470	828	n.a.						
Fertilizer	129	158	280	418	477	470	828	n.a.						
Others	80	207	340	757	655	540	1,729	n.a.						
<b>Unclassified</b>	151	0	0	0	0	0	0	n.a.	0	0	0	0	0	0
<b>Total Non-oil Exports</b>	<b>4,170</b>	<b>3,928</b>	<b>5,367</b>	<b>5,907</b>	<b>6,175</b>	<b>6,731</b>	<b>9,054</b>							

/a Preliminary figures.

Source: Bank Indonesia (based on PEB Export Declaration Form).

INDONESIA

COUNTRY ECONOMIC REPORT

Value of Exports by Principal Country of Destination, 1974-1987  
(US\$ million)

Countries	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987 /a
Ascan	644.9	732.1	758.2	1,154.9	1,477.9	2,232.5	3,053.6	3,414.8	3,499.1	3,476.3	2,487.3	1,982.2	1,514.9	1,378.3
Malaysia	73.9	64.4	22.5	20.8	21.0	66.2	66.8	74.9	59.4	58.0	88.2	76.6	82.3	75.3
Thailand	8.2	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Philippines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Singapore	558.8	631.7	640.0	1,089.0	1,241.0	1,863.0	2,181.0	2,610.0	3,120.0	3,120.0	2,120.0	1,280.0	1,080.0	1,160.0
Brunei	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hongkong	24.2	26.0	27.9	27.6	43.0	89.1	151.9	174.7	145.0	181.7	261.3	348.4	345.2	352.0
Japan	3,062.4	3,331.8	3,527.9	4,350.8	4,523.0	7,181.9	12,021.2	11,820.2	11,145.0	9,800.9	10,281.3	8,200.4	6,777.1	5,880.1
Other Asia	239.2	278.8	321.7	200.8	291.0	608.7	801.2	683.4	970.3	800.9	1,254.0	1,272.8	1,170.3	1,281.3
Africa	23.7	2.5	20.1	30.1	37.0	32.1	56.1	36.8	56.8	78.8	139.6	160.4	179.3	129.3
USA	1,580.3	1,865.5	2,452.0	3,011.4	2,962.2	3,170.7	4,801.4	4,852.2	3,546.0	4,266.7	4,506.7	4,040.2	2,901.3	2,838.0
Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other America	442.9	380.0	630.5	559.2	785.9	430.5	956.3	1,960.4	928.9	1,014.9	1,030.9	328.2	182.1	48.4
Australia	23.8	20.6	31.2	60.5	107.0	190.0	338.1	411.3	674.2	209.4	275.2	180.5	158.6	228.7
Other Oceania	1.0	1.1	1.2	1.8	6.5	51.0	108.3	211.3	278.6	268.4	235.4	80.5	83.6	39.6
EEC	390.6	404.8	619.8	919.4	873.9	1,173.0	1,387.7	1,062.7	893.7	952.7	1,036.1	1,113.0	1,339.7	1,195.0
United Kingdom	21.9	31.4	44.6	61.7	53.6	88.9	141.7	131.0	126.4	199.0	167.7	191.4	186.6	156.0
Netherlands	139.4	180.7	228.3	372.1	352.3	389.1	414.9	239.2	255.4	289.2	241.9	302.0	432.0	289.0
West Germany	111.4	119.0	207.1	245.2	228.3	177.9	309.0	230.2	252.2	249.2	246.0	249.0	189.0	289.0
Belgium & Luxemburg	21.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
France	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Denmark	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ireland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy	22.0	21.0	70.0	109.0	125.0	200.0	250.0	160.0	141.0	119.0	167.0	152.0	151.0	141.0
Greece	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portugal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Soviet Union	26.0	25.6	36.8	32.3	51.6	56.8	72.9	80.0	22.4	50.3	58.7	77.9	52.0	74.8
Others in Europe	35.7	28.5	29.0	73.3	51.3	129.8	152.2	189.3	102.4	144.8	208.1	164.4	174.3	133.9
<b>Total</b>	<b>7,426.3</b>	<b>7,102.5</b>	<b>8,546.5</b>	<b>10,852.7</b>	<b>11,643.2</b>	<b>15,590.1</b>	<b>23,950.4</b>	<b>25,164.5</b>	<b>22,328.3</b>	<b>21,145.9</b>	<b>21,887.8</b>	<b>18,586.7</b>	<b>14,805.0</b>	<b>13,959.6</b>

/a Preliminary figures through October 1987.

Source: Central Bureau of Statistics.

INDONESIA

COUNTRY ECONOMIC REPORT

Value of Imports by Principal Country of Origin, 1974-1987  
(US\$ million)

Countries	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984 /a	1985	1986	1987 /b
Asian	359.7	412.1	791.4	889.1	652.0	838.9	1,350.4	1,702.1	3,301.6	3,914.8	1,948.0	962.4	1,120.9	1,141.2
Malaysia	13.0	20.4	12.4	318.1	21.7	278.2	28.0	59.6	26.3	60.0	86.2	52.4	50.4	107.7
Thailand	81.8	11.4	205.4	18.1	100.0	218.6	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2
Philippines	21.7	34.8	5.8	53.3	45.4	53.7	93.1	1,243.0	2,879.0	3,481.0	1,791.0	830.0	984.8	882.7
Singapore	250.0	343.0	548.0	533.0	459.0	536.0	936.0	1,243.0	2,879.0	3,481.0	1,791.0	830.0	984.8	882.7
Brunei	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hongkong	1,116.6	54.9	1,485.9	1,485.1	2,112.2	101.4	139.4	67.8	86.6	66.8	85.9	52.5	94.3	89.8
Japan	1,116.6	54.9	1,485.9	1,485.1	2,112.2	101.4	139.4	67.8	86.6	66.8	85.9	52.5	94.3	89.8
Other Asia	313.1	226.3	200.0	993.9	949.7	7,240.8	7,992.3	7,988.1	2,451.3	2,220.1	2,337.5	7,928.7	7,188.9	7,382.8
Africa	24.5	108.1	57.8	29.0	68.9	131.7	130.4	252.2	201.5	134.8	171.4	160.3	102.9	137.9
USA	609.8	670.0	987.8	777.3	832.2	1,027.8	1,409.2	1,704.7	2,417.2	2,533.7	2,559.9	1,720.9	1,483.4	1,083.2
Canada	18.0	25.8	12.9	93.8	82.3	55.7	111.8	101.5	134.1	188.0	138.8	190.5	174.3	194.5
Other America	18.3	25.8	12.9	93.8	82.3	55.7	111.8	101.5	134.1	188.0	138.8	190.5	174.3	194.5
Australia	129.7	138.7	182.3	183.9	217.9	222.3	377.6	362.1	364.6	402.3	372.0	460.3	413.4	371.2
Other Oceania	74.3	13.9	22.0	28.3	37.9	42.6	75.5	98.0	95.7	72.4	78.2	68.8	71.3	66.7
EEC	743.3	885.1	1,204.1	1,296.0	1,267.4	1,073.7	1,444.7	2,200.0	2,655.9	2,234.1	2,061.9	1,706.1	1,795.5	1,904.4
United Kingdom	167.0	164.7	176.0	234.9	207.4	198.0	261.2	546.7	445.3	364.4	297.2	300.4	341.7	268.4
Netherlands	315.4	323.3	465.6	491.7	382.2	413.2	642.8	602.8	1,182.7	1,311.7	1,211.1	1,211.1	716.1	621.1
West Germany	92.1	88.9	80.7	187.4	185.9	163.3	249.9	147.1	131.1	131.1	131.1	131.1	131.1	131.1
Belgium & Luxembourg	76.1	76.1	201.1	187.4	185.9	163.3	249.9	147.1	131.1	131.1	131.1	131.1	131.1	131.1
France	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denmark	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ireland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy	51.0	70.0	66.0	51.0	58.0	67.1	75.0	95.7	104.5	125.7	113.2	101.1	143.7	208.7
Greece	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portugal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Soviet Union	132.8	237.3	126.7	120.9	219.8	213.4	279.8	411.7	383.8	621.2	426.1	363.3	432.8	132.1
Others in Europe	132.8	237.3	126.7	120.9	219.8	213.4	279.8	411.7	383.8	621.2	426.1	363.3	432.8	132.1
<b>Total</b>	<b>3,841.9</b>	<b>4,769.8</b>	<b>5,673.1</b>	<b>6,230.3</b>	<b>6,690.4</b>	<b>7,202.5</b>	<b>10,834.4</b>	<b>13,272.1</b>	<b>16,858.9</b>	<b>16,351.8</b>	<b>13,882.1</b>	<b>10,259.1</b>	<b>10,719.4</b>	<b>10,260.7</b>

/a Since 1984, excludes the value of processing deals in the oil sector.

/b Preliminary figures through October 1987.

Source: Central Bureau of Statistics.

INDONESIA  
 .....  
 COUNTRY ECONOMIC REPORT  
 .....  
 Oil Balance of Payments, 1976/77 - 1987/88  
 (US\$ million)

	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 /a
1. Exports, fob /b	6,349.7	7,191.7	6,858.7	10,994.5	15,186.6	16,481.5	12,283.1	12,050.4	10,625.4	8,816.4	4,712.4	6,204.8
Contract of work (COW)	2,890.5	2,726.8	2,428.5	3,330.4	4,843.9	5,379.3	3,691.2	3,762.5	5,122.8	4,115.1	2,678.1	2,169.3
Production sharing (PS)	1,291.8	1,701.8	1,723.2	2,210.4	3,027.7	3,493.2	3,673.2	3,671.1	3,672.9	3,192.8	1,805.3	1,601.4
ID kind (COW & PS)	663.7	961.4	880.8	2,949.1	3,945.8	4,052.7	2,308.7	2,017.5	1,782.8	1,725.0	905.8	1,094.2
PERTAMINA												
2. Imports, cif	-1948.0	-1640.0	-1829.4	-2844.8	-4183.2	-5278.0	-6645.2	-3599.2	-2866.1	-2510.2	-2166.7	-2401.3
COW	-111.0	-138.9	-111.9	-146.6	-246.2	-222.7	-276.5	-614.1	-49.8	-46.8	-43.2	-41.3
PS	-1024.9	-780.3	-859.9	-1308.0	-1908.0	-1588.0	-1543.0	-1028.7	-1280.0	-1725.8	-1523.2	-1681.8
PERTAMINA	-812.4	-780.8	-859.9	-2015.2	-2831.0	-3589.3	-2523.7	-1958.7	-1238.3	-738.8	-520.3	-678.8
3. Services	-692.1	-1200.0	-1254.1	-1871.9	-1929.0	-2824.8	-1849.7	-2433.0	-1914.5	-2302.0	-1205.0	-1416.2
COW	-439.6	-477.3	-473.2	-653.9	-828.8	-880.0	-881.8	-1082.8	-1221.3	-1114.8	-181.7	-271.8
PS	-111.1	-229.4	-228.2	-400.9	-488.3	-654.8	-488.1	-688.1	-671.4	-1019.8	-483.5	-643.9
PERTAMINA												
4. Current account (1+2+3)	3,709.6	4,351.7	3,785.4	6,307.8	9,344.4	8,378.7	5,788.2	6,016.2	5,844.8	4,004.2	1,340.7	2,387.3
COW	2,330.9	2,139.0	2,044.1	2,577.7	3,621.7	4,216.6	2,493.1	2,260.3	2,507.7	1,955.5	12.1	101.1
PS	1,378.8	1,701.8	1,580.9	2,670.9	3,421.0	3,283.2	1,197.7	1,405.9	2,092.0	1,099.9	132.3	1,000.9
ID kind (COW & PS)	1,221.7	1,701.8	1,558.5	2,670.9	3,707.3	3,283.2	2,507.7	2,071.7	2,072.7	2,176.2	1,205.2	1,094.2
PERTAMINA												
5. Miscellaneous capital	-710.3	-198.4	10.5	-904.3	-659.2	300.1	554.0	331.6	204.8	323.3	1,119.5	729.6
LNG Reimbursement	49.3	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debt repayments	-48.8	-219.8	-220.8	-165.2	-151.0	-127.0	-72.0	-50.0	-6.0	-7.0	7.0	-4.0
Short-term	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term	-149.4	-168.1	-92.0	-174.4	-66.4	-22.0	0.0	0.0	0.0	0.0	0.0	0.0
Special projects /c	-207.8	-132.2	-85.5	-43.1	-87.0	-81.8	-76.0	-50.0	-67.0	-77.0	77.0	-45.0
Debt repayments for crude /d	-207.8	-132.2	-85.5	-43.1	-87.0	-81.8	-76.0	-50.0	-67.0	-77.0	77.0	-45.0
Project prefinancing	-207.8	-132.2	-85.5	-43.1	-87.0	-81.8	-76.0	-50.0	-67.0	-77.0	77.0	-45.0
Oil export credit	-207.8	-132.2	-85.5	-43.1	-87.0	-81.8	-76.0	-50.0	-67.0	-77.0	77.0	-45.0
Payments due	-207.8	-132.2	-85.5	-43.1	-87.0	-81.8	-76.0	-50.0	-67.0	-77.0	77.0	-45.0
Receivables /e	-477.5	-529.7	-474.4	-684.3	-1078.1	-1150.9	-821.8	-879.8	-768.2	-874.7	-229.0	-345.7
6. Total (4+5)	2,999.3	4,153.3	3,795.9	5,403.5	8,685.2	8,678.8	6,342.2	6,347.8	6,049.6	4,327.5	2,460.2	3,116.9
7. Errors and omissions	-50.3	15.0	39.2	182.6	-65.6	792.1	254.5	121.5	972.7	804.7	271.3	147.3
8. Monetary movements	-2949.0	-4168.3	-3835.1	-5586.1	-8619.6	-9470.9	-6596.7	-6469.3	-7022.3	-5132.2	-2576.5	-3264.2

/a Preliminary figures.  
 /b Includes cross-purchase exports of \$1,016.0 million in 1979/80, \$1,099.8 million in 1980/81, \$1,849.0 million in 1981/82, and \$668 million in 1982/83.  
 /c Cilacap refinery and Kaltim fertilizer of which the latter has been transferred to Government's debt since April 1, 1977.  
 /d Paid: Cimelap, Cillegon pipeline, Cilacap-Bandung pipeline & Telecom, Tasikmalaya D-port, etc.  
 /e Excludes debt repayment in crude oil.

Source: Bank Indonesia.

**INDONESIA**  
**COUNTRY ECONOMIC REPORT**  
**LNG Balance of Payments, 1977/78 - 1987/88 /a**  
**(US\$ million)**

	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 /b
1. Exports, fob	161.7	516.2	1,345.3	2,110.5	2,342.6	2,461.1	2,398.9	3,368.9	3,621.0	2,168.0	2,537.2
Volume (trillion btu)	71.2	216.3	373.1	424.3	458.0	477.8	549.4	777.8	775.9	792.8	861.7
Price (\$/trillion btu)	2.8	2.8	3.7	3.5	5.1	5.2	4.4	4.3	4.7	2.7	2.9
Freight	27.2	88.1	165.7	-210.0	-245.2	-228.7	-223.1	-236.9	-228.2	-245.0	-298.2
Exports, C&F	188.9	604.3	1,511.0	2,320.4	2,587.8	2,689.8	2,622.0	3,605.8	3,849.2	2,413.0	2,835.4
2. Imports, cif	-17.0	-52.8	-95.4	-136.3	-129.1	-156.7	-237.4	-211.3	-211.8	-204.4	-201.6
3. Services	-52.2	-238.8	-582.7	-718.6	-831.3	-926.9	-807.0	-1186.5	-1290.1	-805.4	-1026.6
Cost of recovery	-21.8	-222.8	-428.2	-221.3	-216.0	-300.2	-338.9	-416.3	-600.4	-421.7	-574.6
Contractor's share	-30.4	-15.8	-154.7	-499.8	-615.3	-224.7	-468.2	-769.2	-884.4	-381.4	-377.4
Other charges	-	-0.2	-0.8	-1.7	-2.0	-2.0	-1.9	-8.0	-5.3	-2.3	-74.6
4. Current account (1+2+3)	92.5	224.6	667.2	1,255.6	1,382.2	1,377.5	1,354.5	1,971.1	2,119.1	1,158.2	1,309.0
5. Miscellaneous capital	-79.0	-146.6	-334.8	-149.6	-190.4	-168.7	-227.2	-513.1	-473.3	-400.1	-442.8
Debt repayments (JILCO											
ex-escrow account)	-29.7	-96.7	-140.4	-238.0	-167.1	-172.6	-195.4	-479.1	-459.4	-420.7	-457.6
LNG export credit											
(Net transfer to escrow											
and special account)	-49.3	-49.9	-194.4	88.4	-23.3	3.9	-31.8	-34.0	-13.9	20.6	14.8
6. Total (4+5)	13.5	78.0	332.4	1,106.0	1,191.8	1,208.8	1,127.3	1,458.0	1,645.8	758.1	866.2
7. Errors and omissions	13.9	1.5	-23.5	-102.6	-52.6	-49.3	-254.5	-344.9	-361.0	-109.9	-128.0
8. Monetary movements	-27.4	-79.5	-308.9	-1003.4	-1139.2	-1159.5	-872.8	-1113.1	-1284.8	-648.2	-738.2

/a Including LPG.  
 /b Preliminary figures.  
 Source: Bank Indonesia.

## INDONESIA

## COUNTRY ECONOMIC REPORT

## Summary of External Debt Data, 1976-1987 /a

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
External debt data -----(US \$ million)-----												
<b>Disbursed and outstanding debt</b>												
(DOD) /b	10,002	11,670	13,150	13,278	14,971	15,870	18,514	21,654	22,355	26,863	32,851	41,284
Bilateral/multilateral	7,210	7,877	8,787	8,788	9,286	10,877	11,711	13,827	12,318	15,191	18,722	22,823
Other /c	2,792	3,793	4,363	4,490	5,685	5,000	4,803	7,827	10,037	11,672	14,129	18,461
<b>Total debt outstanding, including</b>												
undisbursed (TDO) /b	14,575	16,197	19,037	21,202	22,452	27,210	32,226	35,567	36,587	42,493	49,769	59,111
Bilateral/multilateral	8,928	10,634	12,835	14,188	16,477	17,822	19,561	20,948	21,776	25,557	28,665	32,711
Other /c	5,647	5,563	6,202	7,014	5,975	9,388	12,665	14,619	14,811	16,936	21,104	26,400
<b>Commitments</b>												
Bilateral/multilateral	3,133	1,721	3,285	4,101	4,277	5,266	7,074	5,723	4,780	4,183	4,081	5,111
Other /c	1,698	1,388	1,599	1,867	1,638	2,475	2,610	3,346	2,732	2,495	2,038	4,111
<b>Gross disbursements</b>												
Bilateral/multilateral	2,332	1,959	2,215	1,887	2,551	2,673	4,191	4,929	3,804	3,615	4,119	5,111
Other /c	1,412	1,092	1,288	1,082	1,421	1,310	1,835	1,709	1,865	1,698	1,988	2,400
<b>Net disbursements</b>												
Bilateral/multilateral	1,898	1,138	667	559	1,615	1,621	3,089	3,642	2,192	1,268	1,784	2,111
Other /c	1,084	721	735	549	805	888	1,720	1,483	1,692	1,965	1,974	2,400
<b>Net resource transfers</b>												
Bilateral/multilateral	1,572	698	153	-212	792	626	1,945	2,387	564	-376	-260	-111
Other /c	634	482	-398	-293	498	632	967	1,681	-932	-728	-324	140
<b>Public debt service</b>												
Amortization	761	1,262	2,062	2,099	1,758	2,047	2,246	2,542	3,240	3,991	4,379	5,111
Interest	434	821	1,548	1,777	835	1,052	1,182	1,285	1,613	2,327	2,822	3,111
<b>Public debt service</b>												
Bilateral/multilateral	761	1,262	2,062	2,099	1,759	2,047	2,246	2,542	3,240	3,991	4,379	5,111
Other /c	186	276	1,633	1,538	1,428	1,337	1,872	1,973	1,167	1,346	1,894	2,400
<b>Disbursement indicators -----(%)-----</b>												
Undisbursed debt/TDO /b	31	28	31	37	33	42	43	39	39	37	34	31
Bilateral/multilateral	33	33	35	32	43	34	42	42	42	41	36	33
Other /c	29	17	23	32	45	54	42	32	32	31	30	27
Gross disbursements/commitments	74	114	67	46	60	51	59	86	80	86	101	100
Bilateral/multilateral	84	63	72	37	67	57	73	73	68	71	87	85
Other /c	68	323	78	37	67	57	73	73	68	108	105	177
Gross disbursements/undisbursed debt and commitments /d	34	31	28	19	21	21	23	25	20	20	21	21
Bilateral/multilateral	24	20	18	12	14	14	17	19	19	19	19	19
Other /c	24	55	48	32	34	34	36	36	36	36	36	36
Net disbursements/gross disbs	81	58	30	30	63	61	74	74	58	35	43	43
Bilateral/multilateral	91	87	78	68	72	72	73	69	69	63	54	54
Other /c	75	35	5	68	57	48	73	69	69	63	33	33
Net resource transfers/gross disbs	67	36	7	-11	31	23	46	48	15	-10	-6	-11
Bilateral/multilateral	60	68	22	32	44	48	53	49	37	21	18	18
Other /c	59	70	-22	-45	21	22	42	53	-7	-28	-18	-11

/a Data in this table refer to public sector medium and long term loans. Loans with a maturity of less than one year; credits for LNG expansion, LPG and paraxylene projects; and grants are not included.

/b End of year.

/c Suppliers' credits, loans from financial institutions, bonds, nationalization debt.

/d Gross disbursements as a percentage of undisbursed debt (TDO-DOD) at beginning of year plus commitments during the year.

Source: IBRD Debtor Reporting System, based on data provided by Bank Indonesia.

## INDONESIA

## COUNTRY ECONOMIC REPORT

External Public Debt Outstanding as of December 31, 1987

(US\$ '000)

Type of creditor/ Creditor country	Debt outstanding			Major reported new commitments Jan 1-Dec 31 1987
	Disbursed	Undisbursed	Total	
<b>Suppliers' credits</b>				
France	2,816	0	2,816	0
Japan	4,668,418	2,341,311	7,009,729	21,231
Korea, Rep. of	48,629	0	48,629	0
Pakistan	8,877	0	8,877	0
Switzerland	1,275	0	1,275	0
United Kingdom	1,945	0	1,945	0
United States	2,598	133	2,731	0
Yugoslavia	23,734	0	23,734	0
<b>Total suppliers' credits</b>	<b>4,758,292</b>	<b>2,341,444</b>	<b>7,099,736</b>	<b>21,231</b>
<b>Financial institutions</b>				
Austria	72,752	38,865	111,617	16,575
Belgium	85,592	116,986	202,578	45,199
Finland	0	14,500	14,500	14,500
France	985,952	459,385	1,445,337	0
Germany, Fed. Rep. of	381,903	58,357	440,260	0
Hong Kong	594,506	852,430	1,446,936	473,346
Italy	3,142	0	3,142	0
Japan	3,953,760	577,587	4,531,347	198,523
Netherlands	362,116	308,887	671,003	29,300
Norway	25,636	0	25,636	0
Singapore	370,567	199	370,766	0
Sweden	133,756	71,291	205,047	0
Switzerland	28,765	79,812	108,577	0
United Kingdom	1,325,249	517,360	1,842,609	97,404
United States	1,878,974	0	1,878,974	0
Multiple Lenders	50,000	700,000	750,000	0
<b>Total financial institutions</b>	<b>10,252,670</b>	<b>3,795,659</b>	<b>14,048,329</b>	<b>874,847</b>
<b>Bonds</b>				
Germany, Fed. Rep. of	63,231	0	63,231	0
Japan	242,917	0	242,917	0
Kuwait	7,440	0	7,440	0
Netherlands	42,194	0	42,194	0
Saudi Arabia	75,000	0	75,000	0
Switzerland	192,500	0	192,500	0
United Kingdom	250,000	0	250,000	0
United States	300,000	0	300,000	0
<b>Total Bonds</b>	<b>1,173,282</b>	<b>0</b>	<b>1,173,282</b>	<b>0</b>
<b>Nationalization</b>				
Netherlands	158,650	0	158,650	0
<b>Total nationalization</b>	<b>158,650</b>	<b>0</b>	<b>158,650</b>	<b>0</b>

## INDONESIA

## COUNTRY ECONOMIC REPORT

## External Public Debt Outstanding as of December 31, 1987

(US\$ '000)

Type of creditor/ Creditor country	Debt outstanding			Major reported new commitments Jan 1-Dec 31 1987
	Disbursed	Undisbursed	Total	
<b>Multilateral loans</b>				
ADB	1,328,361	2,308,507	3,636,868	440,482
EEC	4,678	0	4,678	0
IBRD	7,390,769	4,035,951	11,426,720	1,418,000
IDA	865,479	5,648	871,127	0
IFAD	39,737	59,260	98,997	0
Islamic Development Bank	1,064	9,838	10,902	0
<b>Total multilateral loans</b>	<b>9,630,088</b>	<b>6,419,204</b>	<b>16,049,292</b>	<b>1,858,482</b>
<b>Bilateral loans</b>				
Australia	26,496	6,500	32,996	0
Austria	88,277	32,515	120,792	0
Belgium	95,946	10,557	106,503	0
Bulgaria	1,243	0	1,243	0
Canada	306,645	184,772	491,417	0
China	83,629	0	83,629	0
Czechoslovakia	41,467	0	41,467	0
Denmark	60,698	1,793	62,491	0
Egypt, Arab Rep. of	1,912	0	1,912	0
France	477,062	201,421	678,483	0
Germany, Fed. Rep of	2,063,113	435,862	2,498,975	131,673
Germany, Dem. Rep of	34,102	0	34,102	0
Hungary	10,343	0	10,343	0
India	42,183	6,455	48,638	0
Iran	10,503	24	10,527	0
Italy	56,207	47	56,254	0
Japan	7,643,224	3,815,612	11,458,836	2,168,263
Kuwait	65,988	68,121	134,109	0
Netherlands	848,397	159,746	1,008,143	37,660
New Zealand	1,548	0	1,548	0
Pakistan	4,644	0	4,644	0
Poland	58,243	0	58,243	0
Romania	8,351	0	8,351	0
Saudi Arabia	54,806	128,479	183,285	19,226
Spain	212,185	47	212,232	0
Switzerland	0	39,906	39,906	0
United Arab Emirate	8,121	1,713	9,834	0
United Kingdom	43,317	117,007	160,324	0
United States	2,377,225	753,313	3,130,538	151,050
USSR	462,064	0	462,064	0
Yugoslavia	69,811	0	69,811	0
Multiple lenders	53,468	0	53,468	0
<b>Total bilateral loans</b>	<b>15,311,218</b>	<b>5,963,890</b>	<b>21,275,108</b>	<b>2,507,872</b>
<b>Total external public debt</b>	<b>41,284,200</b>	<b>18,520,197</b>	<b>59,804,397</b>	<b>5,262,432</b>

INDONESIA

COUNTRY ECONOMIC REPORT

Service Payments, Commitments, Disbursements and Outstanding Amounts of External Public Debt

(US\$ '000)

Year	Debt outstanding at end of period		Transactions during period					Other changes	
	Disbursed only	Including undisbursed	Commitments	Disbursements	Service payments			Cancellations	Adjustments /a
					Principal	Interest	Total		
<b>Actual</b>									
1978	13,149,657	19,037,301	3,284,604	2,214,594	1,547,948	513,797	2,061,745	40,544	1,144,480
1979	13,277,846	21,202,410	4,101,016	1,887,248	1,328,284	770,911	2,099,195	128,425	-479,198
1980	14,971,336	24,451,888	4,277,370	2,550,504	934,966	823,134	1,758,100	118,261	25,335
1981	15,869,751	27,210,095	5,266,295	2,672,426	1,052,465	994,322	2,046,787	163,286	-1,292,337
1982	18,512,721	32,225,484	7,073,633	4,191,347	1,102,579	1,146,369	2,248,948	7,042	-948,623
1983	21,654,028	35,567,357	5,722,732	4,929,036	1,286,618	1,255,341	2,541,959	188,042	-906,199
1984	22,354,503	36,587,226	4,779,554	3,804,242	1,612,566	1,627,764	3,240,330	25,234	-2,121,885
1985	26,862,644	42,492,970	4,183,366	3,615,100	2,346,753	1,643,975	3,990,726	518,571	4,587,702
1986	32,850,964	49,768,861	4,081,192	4,118,670	2,334,380	2,044,136	4,378,516	187,967	5,717,046
1987	41,284,200	59,623,952	5,262,432	5,275,995	3,096,419	2,338,069	5,434,488	591,388	8,280,466
<b>Projected</b>									
1988	40,530,310	52,677,073		4,293,212	4,961,651	2,694,953	7,656,604	1,899,783	-85,445
1989	39,189,564	48,244,082		3,092,240	4,432,994	2,584,511	7,017,505		3
1990	37,537,497	43,906,788		2,685,224	4,337,323	2,448,456	6,785,779		29
1991	35,428,135	39,706,129		2,091,387	4,200,752	2,276,532	6,477,284		93
1992	32,832,508	35,355,484		1,755,060	4,350,712	2,112,575	6,463,287		67
1993	29,613,301	30,964,639		1,171,670	4,390,899	910,678	6,301,577		54
1994	26,796,714	27,458,305		689,767	3,506,375	1,671,680	5,178,055		41
1995	23,896,587	24,224,422		333,802	3,233,932	1,478,170	4,712,102		49

/a This column shows the amount of arithmetic imbalances in the amount outstanding, including undisbursed, from one year to the next. The most common causes of imbalances are changes in exchange rates and transfers of debts from one category to another in the table.

Source: IBRD Debtor Reporting System, based on data provided by Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Central Government Budget Summary, 1974/75 - 1988/89

(Rp. billion)

	-----Actual-----													-----Budget-----	
	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
1. Domestic revenues	1,753.7	2,241.9	2,906.0	3,534.4	4,266.1	6,696.8	10,227.0	12,212.6	12,418.3	14,432.7	15,905.5	19,252.8	16,140.6	17,236.1	21,803.0
2. Routine expenditures /a	1,016.1	1,332.6	1,629.8	2,148.9	2,743.7	4,061.8	5,800.0	6,977.6	6,996.3	8,411.8	9,429.0	11,951.5	13,559.3	15,026.5	20,066.0
3. Government saving (1-2)	737.6	909.3	1,276.2	1,385.5	1,522.4	2,635.0	4,427.0	5,235.0	5,422.0	6,020.9	6,476.5	7,301.3	2,581.3	2,209.6	1,737.0
4. Development expenditures	961.8	1,397.7	2,054.5	2,156.8	2,555.6	4,014.2	5,916.1	6,940.0	7,359.6	9,899.2	9,951.9	10,873.1	8,332.0	7,756.6	8,897.6
5. Balance (3-4)	-224.2	-488.4	-778.3	-771.3	-1033.2	-1379.2	-1489.1	-1705.0	-1937.6	-3878.3	-3475.4	-3571.8	-5750.7	-5547.0	-7160.6
Financed by:															
6. Counterpart funds /b	36.1	20.2	10.2	35.8	48.2	64.8	64.1	45.1	15.1	14.9	69.3	69.2	1,957.5	121.3	1,163.0
7. Project aid	195.9	471.4	773.6	737.6	987.3	1,316.3	1,429.7	1,663.9	1,924.9	3,867.5	3,408.7	3,503.4	3,794.7	5,425.7	5,997.6
8. Change in balances (- = increase)	-7.8	-3.2	-5.5	-2.1	-2.3	-1.9	-4.7	-4.0	-2.4	-4.1	-2.6	-0.8	-1.5	0.0	0.0

/a Includes debt service payments.

/b Program aid.

Source: Ministry of Finance.

INDONESIA

COUNTRY ECONOMIC REPORT

Central Government Receipts, 1974/75 - 1988/89

(Rp. billion)

	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
<b>Taxes on income</b>	1,228.7	1,592.1	2,046.6	2,511.3	2,996.3	5,129.3	8,230.3	10,100.3	10,009.9	11,605.1	12,846.5	13,624.9	8,798.1	10,528.5	12,939.9
Income tax	43.3	61.7	84.2	106.6	122.2	168.1	164.2	207.2	288.8	388.8	450.7	674.7	2,270.5	3,315.9	3,762.1
Corporate tax /a	91.2	1,228.2	1,277.2	1,826.4	2,368.4	4,297.1	7,019.6	8,892.8	8,720.4	9,210.3	10,420.3	11,638.3	6,337.6	6,938.6	8,855.8
Withholding tax /b	83.3	97.3	148.3	201.7	212.5	281.3	413.3	513.0	611.9	628.7	628.2	628.2	190.0	274.0	322.0
PEDA/property tax /d	28.0	34.9	32.3	32.3	43.3	61.8	78.2	85.9	105.7	132.4	137.2	167.5	190.0	274.0	322.0
Others /e	9.8	21.2	25.2	34.3	43.3	61.8	78.2	98.7	129.7	168.2	138.4	167.5	190.0	274.0	322.0
<b>Taxes on domestic consumption</b>	158.6	231.3	319.6	397.8	491.4	537.2	732.9	888.0	1,137.4	1,392.1	1,509.8	3,478.6	5,156.3	4,925.7	6,391.1
Sales/value added tax	84.9	118.2	162.3	203.4	221.1	192.2	265.6	310.3	426.6	575.2	637.2	2,326.7	2,800.1	2,546.0	4,787.6
Excises	75.0	97.4	146.3	187.6	253.3	327.4	457.6	544.3	710.8	777.6	872.6	942.0	1,018.8	1,012.3	1,331.0
Other oil revenues /f	15.0	11.1	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous levies	15.2	15.9	10.7	12.5	17.4	18.0	29.4	33.1	48.7	43.7	0.0	208.2	190.4	189.3	272.0
<b>Taxes on international trade</b>	299.8	308.1	421.3	481.7	587.0	843.0	948.1	887.9	835.4	916.0	861.9	657.8	1038.9	732.6	1212.7
Import duties	160.6	174.8	257.4	286.9	293.3	316.7	448.0	536.2	521.9	557.0	530.1	607.3	960.1	661.7	1068.3
Sales tax on imports /g	68.9	61.2	61.7	80.2	168.2	389.1	305.0	128.2	82.5	704.0	241.0	50.5	78.8	70.9	144.4
Export tax	70.3	61.6	61.7	80.2	168.2	389.1	305.0	128.2	82.5	704.0	241.0	50.5	78.8	70.9	144.4
<b>Nontax receipts</b>	66.6	110.4	118.5	143.6	191.4	187.3	315.7	336.4	435.6	519.5	687.3	1,491.5	1,147.3	1,049.3	1,259.3
<b>Domestic revenue</b>	1,753.7	2,261.9	2,906.0	3,534.4	4,266.1	6,696.8	10,227.0	12,212.6	12,418.3	14,432.7	15,905.5	19,252.8	16,140.6	17,236.1	21,803.0
<b>Development funds</b>	232.0	491.6	783.8	773.4	1,035.5	1,381.1	1,493.8	1,709.0	1,940.0	3,882.4	3,478.0	3,572.6	5,752.2	5,547.0	7,160.6
Program aid	36.1	20.2	10.2	35.8	48.2	64.8	64.1	43.1	15.1	3,15.2	3,62.3	3,62.2	1,851.5	1,211.3	1,163.0
Project aid /h	195.9	471.4	773.6	737.6	987.3	1,316.3	1,429.7	1,665.9	1,924.9	3,867.2	3,415.7	3,310.4	3,790.7	5,425.7	5,997.6
<b>Total revenues</b>	1,985.7	2,753.5	3,689.8	4,307.8	5,301.6	8,077.9	11,720.8	13,921.6	14,358.3	18,315.1	19,383.5	22,825.4	21,892.8	22,783.1	28,963.6

- /a Since 1986/87 included in income tax.  
 /b For 1975/76, excludes underpayment of revenues, estimated at about Rp. 340 billion, due to Government from Pertamina.  
 /c Since 1984/85, withholding tax eliminated as separate category and combined with income tax.  
 /d Since January 1986, PEDA replaced by property tax.  
 /e Classification changed to other tax (included in miscellaneous levies which consist of other taxes and stamp duty).  
 /f Oil subsidies shown as Government expenditures from 1977/78 (see Table 5.3).  
 /g Since 1984/85 classification changed to value-added tax and tax on luxury goods.  
 /h Includes commercial bank and suppliers' credits for development projects.

Source: Ministry of Finance.

INDONESIA

COUNTRY ECONOMIC REPORT

Central Government Expenditures, 1974/75 - 1988/89  
(Rp. billion)

	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	Actual 1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	Budget 1987/88	1988/89
Personnel expenditures	420.1	593.9	636.6	893.2	1,001.6	1,419.9	2,023.3	2,277.7	2,418.1	2,757.0	3,046.8	4,018.3	4,310.6	4,316.9	4,816.3
Wages and salaries	301.7	400.0	424.8	672.9	760.3	1,053.9	1,482.9	1,660.4	1,748.0	1,994.0	2,206.6	3,072.6	3,330.0	3,276.1	3,739.2
Rice allowance	39.5	111.9	115.9	126.2	139.8	178.9	213.3	237.3	249.0	254.1	271.0	302.0	286.1	312.5	322.5
Food allowance	29.4	23.3	32.4	31.9	31.2	109.9	187.5	241.0	254.0	281.3	271.4	300.4	286.3	312.0	322.5
Other	29.8	12.8	14.3	14.8	29.9	29.1	34.6	49.0	45.9	66.0	72.1	62.2	109.8	125.3	150.8
External	9.8	12.8	14.3	14.8	29.9	29.1	34.6	49.0	45.9	66.0	72.1	62.2	109.8	125.3	150.8
Material expenditures	175.2	304.9	339.7	376.8	419.5	569.0	670.6	922.4	1,041.2	1,057.1	1,182.8	1,367.1	1,366.5	1,175.1	1,333.2
Domestic	158.4	283.1	320.8	358.6	398.4	539.4	637.8	890.5	1,007.4	1,007.4	1,154.2	1,309.5	1,293.6	1,086.2	1,272.0
External	16.8	21.8	18.9	18.2	21.1	29.6	32.8	31.9	33.8	50.1	48.6	57.6	72.9	88.9	61.2
Subsidies to region /a	201.9	284.5	313.0	478.4	522.3	669.9	976.1	1,209.4	1,315.4	1,546.9	1,883.3	2,489.0	2,649.7	2,649.1	2,893.0
Irian Jaya	16.3	18.7	19.7	21.7	22.1	25.0	33.9	42.0	43.0	41.5	0.0	0.0	0.0	0.0	0.0
Other region	187.6	265.8	293.3	456.7	500.2	644.9	942.2	1,167.4	1,272.4	1,505.4	1,883.3	2,489.0	2,649.7	2,649.1	2,893.0
Debt service payments	73.7	78.5	189.5	228.3	534.5	684.1	784.8	931.0	1,224.5	2,102.7	2,776.5	3,323.1	5,058.1	6,805.4	10,648.0
Internal	6.4	7.8	24.1	7.6	8.8	39.3	30.8	91.8	19.8	22.8	39.3	20.0	0.0	0.0	0.0
External	67.3	70.7	165.4	220.7	525.7	644.8	754.0	919.2	1,204.7	2,079.9	2,737.2	3,303.1	5,058.1	6,785.4	10,608.0
Other expenditures	145.2	70.3	151.0	172.2	265.8	718.9	1,345.1	1,637.1	997.1	948.1	539.5	754.0	174.4	80.0	375.5
Food subsidy	141.0	50.0	39.0	0.0	63.5	124.9	281.6	224.0	1.0	0.0	0.0	29.4	0.0	0.0	266.5
Oil subsidy	0.0	0.0	0.0	0.0	0.0	34.9	1,021.6	1,314.0	94.0	92.1	50.0	379.8	0.0	0.0	1.0
Others /b	4.2	20.8	112.0	107.1	25.3	59.1	41.5	99.1	32.1	28.0	32.8	379.8	145.0	80.0	109.0
Routine expenditures	1,016.1	1,332.6	1,629.8	2,148.9	2,743.7	4,061.8	5,799.9	6,977.6	6,996.3	8,411.8	9,428.9	11,951.5	13,559.3	15,026.5	20,066.0
Development expenditures /c	961.8	1,397.7	2,054.5	2,156.8	2,555.6	4,014.2	5,916.1	6,940.0	7,359.6	9,899.2	9,951.9	10,873.1	8,332.0	7,756.6	8,897.6
<b>Total expenditures</b>	<b>1,977.9</b>	<b>2,730.3</b>	<b>3,684.3</b>	<b>4,305.7</b>	<b>5,249.3</b>	<b>8,076.0</b>	<b>11,716.0</b>	<b>13,917.6</b>	<b>14,355.9</b>	<b>18,311.0</b>	<b>19,380.8</b>	<b>22,824.6</b>	<b>21,891.3</b>	<b>22,783.1</b>	<b>28,963.6</b>

/a Since 1984/85, this item is sub-divided into wage/salary and non wage/salary expenditures without identifying regions.

/b This line shows debt service transfers to PERTAMINA (1976/77 - Rp. 31 billion, 1977/78 - Rp. 86.4 billion), PERTAMINA subsidy (1979/80 - Rp. 81.0 billion) and expenditures on the general election (1976/77 - Rp. 37.0 billion, 1981/82 - Rp. 81.0 billion, 1985/86 - Rp. 40 billion).

/c For details see tables 5.4 and 5.5.

Source: Ministry of Finance.

**INDONESIA**  
**COUNTRY ECONOMIC REPORT**  
**Development Expenditures, 1974/75 - 1988/89**  
**(Rp. billion)**

	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	Actual 1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Budget 1988/89
1. Departments	221.6	384.9	590.9	744.5	831.0	1,480.3	2,533.2	2,724.6	3,260.9	3,219.5	3,474.4	4,466.5	2,003.6	752.2	1,120.4
2. General INPRES programs	101.3	129.0	143.7	167.7	181.6	218.8	336.8	448.1	535.3	538.8	540.4	574.5	567.6	604.9	703.2
Subsidies to provinces	47.4	54.0	61.5	75.4	86.8	100.7	168.7	213.0	253.8	253.1	253.0	287.3	283.1	280.0	324.0
Subsidies to kabupaten	11.2	15.9	19.8	23.2	23.9	31.0	38.9	48.5	58.4	61.0	62.8	68.8	68.4	68.9	72.0
Subsidies to villages	42.7	59.1	62.4	69.1	70.9	87.1	129.2	166.6	223.1	224.7	224.6	258.4	256.1	256.0	307.0
3. Sectoral INPRES programs	25.0	65.1	94.1	137.0	176.4	252.0	377.2	584.5	644.2	771.2	824.4	753.7	720.6	326.3	402.8
Primary schools	19.7	49.9	57.3	85.0	111.8	153.8	249.8	374.5	267.4	549.3	572.0	526.1	495.9	190.8	112.5
Health	4.3	15.2	20.8	26.3	26.9	38.0	59.4	78.8	80.3	87.3	107.6	110.6	107.7	78.3	61.1
Markets	0.0	0.0	0.0	1.6	1.3	1.8	2.5	2.0	4.5	10.0	25.0	4.8	11.2	1.0	0.0
Replanting/reforestation	0.0	0.0	16.0	24.8	34.0	48.8	65.8	70.0	42.8	27.8	30.8	40.1	30.8	18.0	18.0
Roads	0.0	0.0	0.0	0.0	0.0	13.8	23.9	34.8	42.4	64.6	101.1	76.1	74.8	130.0	180.0
4. IPEDA	28.0	34.6	42.2	52.5	63.1	71.4	87.2	94.5	105.2	132.4	157.2	167.5	171.0	246.6	260.8
5. Irian Jaya and East Timor	4.0	5.5	5.0	9.0	10.4	6.6	6.4	6.8	5.7	5.2	4.2	6.9	7.3	5.0	6.0
Subtotal of transfers to local governments	158.3	234.2	285.0	366.2	431.1	548.8	807.6	1,133.9	1,090.4	1,447.6	1,526.2	1,502.6	1,466.5	1,182.8	1,372.8
6. Fertilizer subsidy	227.2	134.5	107.3	31.8	82.6	125.0	283.6	371.4	420.1	324.2	731.6	477.1	467.2	203.5	200.0
7. Government capital participation (PMP)	91.1	108.7	217.9	166.9	128.5	252.8	476.5	480.9	336.6	591.7	336.1	412.3	85.9	83.4	87.5
8. Others	67.7	64.0	79.8	109.8	75.1	291.0	385.5	565.3	326.7	448.7	474.9	511.2	514.1	109.0	119.3
Total (1 - 8)	765.9	926.3	1,280.9	1,419.2	1,568.3	2,697.9	4,486.4	5,276.1	5,434.7	6,031.7	6,543.2	7,369.7	4,537.3	2,330.9	2,900.0
9. Project aid	195.9	471.4	773.6	737.6	987.3	1,316.3	1,429.7	1,663.9	1,924.9	3,867.5	3,408.7	3,503.4	3,794.7	5,425.7	5,997.6
Total (1 - 9)	961.8	1,397.7	2,054.5	2,156.8	2,555.6	4,014.2	5,916.1	6,940.0	7,359.6	9,899.2	9,951.9	10,873.1	8,332.0	7,756.6	8,897.6

Source: Ministry of Finance.

INDONESIA

COUNTRY ECONOMIC REPORT

Development Expenditures by Sector, 1974/75 - 1988/89  
(Rp. billion)

Sector	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	Actual 1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
Agriculture and irrigation (of which fertilizer subsidy)	301.8 (227.2)	257.0 (134.5)	356.1 (107.3)	380.1 (31.8)	450.3 (82.6)	506.2 (125.0)	929.1 (283.6)	953.9 (371.4)	931.1 (420.1)	912.9 (324.2)	1,699.1 (731.6)	1,137.5 (477.1)	889.9 (467.2)	1,180.7 (203.5)	1,299.5 (200)
Industry and mining	70.7	124.1	194.9	139.0	205.0	402.6	490.9	826.7	913.1	2,153.1	839.2	1,189.0	680.7	349.9	374.2
Electric power	79.0	127.7	218.1	223.3	271.8	330.1	430.7	530.2	758.2	659.5	911.4	1,446.9	960.4	1,008.9	1,086.8
Transportation and tourism	123.5	311.6	428.8	354.7	413.2	465.8	780.5	807.2	875.8	1,527.7	1,428.3	1,484.3	1,131.4	1,288.1	1,654.3
Manpower and transmigration	4.5	11.9	27.1	60.7	94.7	162.2	326.4	416.5	436.0	456.4	421.6	665.1	292.4	156.6	147.4
Regional development	135.9	172.9	190.0	250.6	275.1	335.8	482.4	615.9	711.3	748.7	790.8	849.9	938.9	873.8	1,032.2
Education	47.2	113.7	135.5	210.6	251.1	361.4	574.7	725.7	703.2	1,032.1	1,231.0	1,412.9	1,184.4	1,021.5	1,075.6
Health	25.3	37.7	48.2	71.4	79.4	142.4	218.1	285.5	259.3	278.7	320.0	397.9	325.9	207.7	289.2
Housing and water supply	6.5	13.3	30.4	89.5	55.6	117.3	190.7	166.3	150.7	220.9	224.2	334.6	336.6	412.0	438.4
General public services /a	48.5	72.2	113.9	123.1	224.7	472.5	699.3	799.6	785.5	899.2	927.1	976.5	768.8	569.4	647.7
Government capital participation	97.8	115.4	225.2	190.0	161.6	465.6	388.9	389.4	280.7	233.9	291.7	220.5	211.4	191.1	207.9
Others /b	21.1	40.2	86.3	63.8	73.1	250.3	404.4	423.2	554.7	776.1	867.5	738.0	611.2	497.0	566.0
Total development expenditures	961.8	1,397.7	2,054.5	2,156.8	2,555.6	4,014.2	5,916.1	6,940.1	7,359.6	9,899.2	9,951.9	10,873.1	8,332.0	7,756.6	8,897.6
Total (excluding fertilizer subsidy)	734.6	1,263.2	1,947.2	2,125.0	2,473.0	3,889.2	5,632.5	6,568.7	6,939.5	9,574.7	9,220.3	10,396.0	7,864.8	7,553.1	8,697.6

/a Law and order, defence and security, government apparatus.

/b Trade and cooperatives, religion, information and science. From 1979/80 includes natural resource development and environment.

Source: Ministry of Finance.

INDONESIA

COUNTRY ECONOMIC REPORT

Project Aid by Sector, 1974/75 - 1988/89

(Rp. billion)

	Actual														Budget	
	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	
Agriculture and irrigation	26.3	43.0	106.7	145.5	135.2	154.5	223.0	135.9	101.0	155.0	472.1	180.2	236.8	555.8	985.4	
Industry and mining	64.1	76.4	137.3	95.4	199.0	306.8	225.9	580.5	733.8	1,051.0	670.9	668.2	631.8	281.7	319.7	
Electric power	38.5	89.7	165.2	163.9	207.8	257.2	264.8	308.2	506.0	1,182.0	653.4	1,172.2	790.9	728.7	1,059.5	
Transportation and tourism	42.2	226.5	303.8	212.9	249.7	192.4	308.0	263.6	332.1	889.0	600.6	687.8	728.5	834.5	1,300.7	
Manpower and transmigration	0.2	0.6	1.0	9.8	11.6	23.0	31.1	30.5	14.9	45.0	75.7	35.6	123.1	71.7	92.9	
Regional development	0.4	0.4	1.5	7.9	7.9	18.2	23.6	16.7	2.6	7.0	1.0	7.6	24.6	4.1	44.5	
Education	7.8	7.3	5.3	29.5	35.3	42.8	50.0	36.7	24.2	211.0	179.7	58.6	345.6	742.7	779.5	
Health	7.4	6.9	5.9	14.8	21.7	34.4	36.2	33.6	23.7	37.0	77.5	56.1	100.1	37.6	87.0	
Housing and water supply	1.1	2.8	2.9	28.1	18.3	28.1	33.0	21.7	21.2	51.0	83.7	77.3	139.3	280.5	395.7	
General public services	0.0	0.0	0.0	0.0	54.1	174.9	153.9	179.5	83.2	152.0	254.9	186.1	257.0	344.9	382.3	
Government capital participation	6.7	6.7	7.3	23.1	33.1	34.3	35.6	27.9	46.8	45.0	160.3	203.0	185.2	173.3	204.3	
Others /a	1.2	11.1	36.7	6.7	13.6	49.7	44.6	29.1	35.4	42.0	178.9	170.7	231.4	343.4	346.1	
<b>Total project aid /b</b>	<b>195.9</b>	<b>471.4</b>	<b>773.6</b>	<b>737.6</b>	<b>987.3</b>	<b>1,316.3</b>	<b>1,429.7</b>	<b>1,663.9</b>	<b>1,924.9</b>	<b>3,867.0</b>	<b>3,408.7</b>	<b>3,503.4</b>	<b>3,794.7</b>	<b>4,418.9</b>	<b>5,997.6</b>	

/a Since 1979/80 includes natural resources development and environment.

/b Includes commercial credits for development programs/projects.

Source: Ministry of Finance.

INDONESIA

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COUNTRY ECONOMIC REPORT

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Money Supply, 1974-1987

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(Rp. billion)

End of	Total	Currency		Demand deposits		Change over period	
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		Amount	(%)	Amount	(%)	Amount	(%)
1974	937	494	53	443	47	268	40
1975	1,250	625	50	625	50	313	33
1976	1,603	781	49	822	51	353	28
1977	2,006	979	49	1,027	51	403	25
1978	2,483	1,240	50	1,243	50	482	24
1979	3,385	1,552	46	1,833	54	897	36
1980	4,995	2,153	43	2,842	57	1,610	48
1981	6,486	2,557	39	3,929	61	1,491	30
1982	7,121	2,934	41	4,187	59	635	10
1983	7,569	3,333	44	4,236	56	448	6
1984	8,581	3,712	43	4,869	57	1,012	13
1985	10,104	4,440	44	5,664	56	1,523	17
1986	11,677	5,338	46	6,339	54	1,573	16
1987	12,685	5,782	46	6,903	54	1,008	9

Source: Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Changes in Factors Affecting Money Supply, 1974-1987

(Rp. billion)

End of period	Net foreign assets	Public Sector					Total change in Money Supply		
		Net claims on Central Government	Claims on official entities & public enterprises	Blocked account /a	Claims on business & individuals	Time & savings deposits /b	Net other items	Amount	Percentage (%)
1974	364	-132	294	-	147	-196	-209	268	40
1975	-588	162	926	-415	298	-213	143	313	33
1976	345	-333	449	-51	356	-300	-113	353	28
1977	568	-275	35	67	284	-96	-180	403	25
1978 /c	50	-311	349	88	546	-112	-128	482	24
1979	1,788	1,779	371	85	557	-516	-436	897	36
1980	3,040	-1,868	489	-5	1,178	-859	-365	1,610	48
1981	149	-591	593	36	1,756	-535	83	1,491	30
1982	-1,237	129	689	109	2,260	-724	-591	635	10
1983 /d	1,180	-1,286	-42	118	2,183	-2,520	815	448	6
1984	3,530	-3,359	190	124	3,646	-2,262	-857	1,012	13
1985	1,750	-278	514	63	3,334	-3,693	-166	1,523	17
1986 /e	1,870	498	253	-29	4,544	-2,935	-2,628	1,573	16
1987	2,444	1,539	730	-2	6,245	-5,216	-4,732	1,008	9

/a Refers to government accounts blocked for special purposes.

/b Includes foreign currency deposits held by residents.

/c Does not include revaluation adjustment to foreign exchange balances resulting from the rupiah devaluation of November 15, 1978. The adjustments amount to Rp. 650 billion in net foreign assets; Rp. 46 billion in net claims on Central government; Rp. 551 billion in claims on official entities; Rp. 164 billion in blocked account; Rp. 41 billion in claims on businesses and individuals; Rp. 83 billion in time and savings deposits; and Rp. 1,041 billion in net other items.

/d Does not include revaluation adjustment to foreign exchange balances resulting from the rupiah devaluation of March 30, 1983. The adjustments amount to Rp. 1,962 billion in net foreign assets; Rp. 131 billion in net claims on Central government; Rp. 146 billion in claims on official entities and public enterprises; Rp. 106 billion in blocked account; Rp. 148 billion in claims on businesses and individuals; Rp. 620 billion in time and savings deposits; and Rp. 1,399 billion in net other items.

/e Includes revaluation adjustment due to devaluation on September 12, 1986.

Source: Bank Indonesia.

INDONESIA  
COUNTRY ECONOMIC REPORT

Consolidated Balance Sheet of the Monetary System, 1974-1986  
(Rp. billion)

End of period	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983 /b	1984	1985	1986 /c
Net foreign assets	653	72	417	985	1,663	3,318	6,419	6,811	5,365	8,837	12,368	14,046	15,989
Domestic credit	1,504	2,367	2,788	2,900	4,046	4,232	3,979	5,651	8,846	9,744	10,345	13,975	19,245
Claims on public sector	317	991	1,056	883	1,442	1,073	-360	-443	534	-939	-3,984	-3,687	-2,966
Central government	-167	-5	-339	-813	-878	-1,703	-3,619	-4,330	-4,193	-5,739	-9,098	-9,376	-8,878
Claims on official entities and public enterprises /a	484	1,411	1,861	1,895	2,796	3,167	3,655	4,247	4,979	5,040	5,230	5,741	5,993
Government-blocked account	0	-415	-466	-399	-476	-391	-396	-360	-252	-240	-116	-52	-81
Claims on private enterprises and individuals	1,187	1,376	1,732	2,017	2,604	3,159	4,339	6,094	8,312	10,683	14,329	17,662	22,209
Loans	1,141	1,321	1,655	1,939	2,493	2,993	4,107	5,844	7,995	10,184	13,550	16,392	20,375
Other claims	46	55	77	78	111	166	232	250	317	499	779	1,270	1,834
Assets = liabilities	2,157	2,439	3,205	3,885	5,709	7,550	10,398	12,462	14,411	18,581	22,713	28,021	35,234
Import deposits	283	79	88	146	174	213	365	298	300	242	218	268	402
Net other items	313	382	486	608	1,726	2,114	2,342	2,448	3,056	3,676	4,558	4,600	7,169
Money and quasi money	1,152	1,978	2,631	3,131	3,809	5,223	7,691	9,716	11,075	14,663	17,937	23,153	27,661
Money	637	1,250	1,603	2,006	2,488	3,386	4,995	6,485	7,121	7,569	8,581	10,106	11,677
Currency	494	625	781	979	1,240	1,552	2,153	2,557	2,934	3,333	3,712	4,440	5,338
Demand deposits	143	625	822	1,027	1,248	1,834	2,842	3,928	4,187	4,236	4,869	5,664	6,339
Quasi money /d	515	728	1,028	1,125	1,321	1,837	2,696	3,231	3,954	7,094	9,356	13,049	15,984

/a For 1979, includes changes resulting from the exchange rate adjustment on November 15, 1978 from Rp. 415 to Rp. 625 per US\$.

/b Includes changes resulting from the exchange rate adjustment of March 30, 1983 from Rp. 702.50 to Rp. 970 per US\$.

/c Includes changes resulting from the exchange rate adjustment on September 12, 1986 from Rp 1,134 to Rp 1,644 per US\$.

/d For 1979, includes revaluation of foreign exchange deposits amounting to Rp. 99 billion.

Source: Bank Indonesia.

INDONESIA  
COUNTRY ECONOMIC REPORT

Consolidated Balance Sheet of the Monetary Authorities, 1974-1986  
(Rp. billion)

End of period	1974	1975	1976	1977	1978/a	1979	1980	1981	1982	1983 /b	1984	1985	1986 /c
Foreign assets	612	246	620	1,057	1,652	2,626	4,216	4,033	3,667	5,314	8,047	9,279	9,358
Claims on public sector													
Central government	122	368	239	312	509	580	604	860	1,109	495	679	1,037	2,822
Official entities and public enterprises	227	886	1,209	1,225	1,925	2,143	2,414	2,584	2,626	2,230	720	761	901
Claims on private enterprises and individuals	9	14	17	21	33	45	69	108	227	186	233	363	443
Loans	5	8	14	17	25	29	40	63	145	127	150	202	243
Other claims	4	6	3	4	8	16	29	45	82	59	83	161	200
Claims on deposit money banks	294	565	640	681	846	1,129	1,722	2,548	3,742	4,365	6,938	7,633	8,672
Other assets	37	66	77	4	37	113	220	428	1,883	2,193	3,231	3,907	6,935
<b>Total assets/liabilities</b>	<b>1,301</b>	<b>2,145</b>	<b>2,802</b>	<b>3,300</b>	<b>5,002</b>	<b>6,636</b>	<b>9,245</b>	<b>10,561</b>	<b>13,254</b>	<b>14,783</b>	<b>19,848</b>	<b>22,980</b>	<b>29,131</b>
Reserve money	773	1,038	1,333	1,670	1,847	2,429	3,258	3,826	3,997	4,888	5,473	6,435	7,808
Currency outside bank and government held by banks	494	625	781	979	1,240	1,552	2,153	2,545	2,934	3,333	3,712	4,440	5,338
Bankers' deposits	197	310	423	528	613	734	866	981	1,123	1,203	1,392	1,534	1,833
Private sector demand deposits	29	31	29	68	58	97	47	82	53	59	52	104	211
Foreign currency and other deposits /d	2	4	3	1	3	27	41	104	57	110	25	64	42
Bankers' restricted and foreign exchange deposits	75	70	49	50	38	56	101	94	115	231	220	245	355
Import deposits	57	19	51	103	105	126	119	134	46	74	33	23	0
Foreign liabilities	-	42	111	112	229	193	149	177	30	29	24	812	1,022
Government deposits	392	1,017	1,254	1,364	5,819	3,805	5,577	6,214	8,573	8,774	12,632	13,170	15,136
Current account	224	270	422	677	4,094	1,755	3,361	4,134	4,225	4,546	6,946	6,388	4,667
Blocked account	0	415	468	390	476	391	360	360	253	240	115	52	81
Aid counterpart funds	18	19	62	78	77	208	175	59	89	498	433	439	1,182
Capital accounts	137	149	182	190	1,133	1,393	966	810	600	612	1,179	1,322	3,206
Other liabilities	13	164	122	20	39	58	699	851	3,407	2,878	3,959	4,969	6,000

/a Includes changes resulting from the exchange rate adjustment on November 15, 1978 from Rp. 415 to Rp. 625 per US\$, amounting to Rp. 561 billion.

/b Includes changes resulting from the exchange rate adjustment on March 30, 1983 from Rp. 702.50 to Rp. 970 per US\$.

/c Includes changes resulting from the exchange rate adjustment on September 12, 1986 from Rp 1,134 to Rp 1,644 per US\$.

/d For 1979, includes revaluation on foreign exchange deposits amounting to Rp. 17 billion.

Source: Bank Indonesia.

## INDONESIA

## COUNTRY ECONOMIC REPORT

## Banking System Credits by Economic Sector, 1974-1986 /a

(Rp. billion)

Sectors	1974	1975	1976	1977	1978 /b	1979 /c	1980	1981	1982	1983 /i	1984	1985	1986 /j
Agriculture	116	220	266	270	345	438	539	813	1,025	1,226	1,318	1,656	2,097
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In rupiah	116	212	256	265	344	436	539	813	1,025	1,226	1,318	1,656	2,097
In foreign exchange	0	8	10	5	1	2	0	0	0	0	0	0	0
Mining /d	11	741	1,036	1,062	1,699	1,893	1,867	1,693	1,472	806	384	258	394
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In rupiah	11	89	176	197	230	1,893	1,867	1,693	1,472	806	384	258	394
In foreign exchange	0	652	860	865	1,469	0	0	0	0	0	0	0	0
Manufacturing industry /e	359	719	990	1,156	1,624	1,933	2,213	2,762	3,923	5,207	6,667	7,592	8,537
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In rupiah	359	508	739	904	1,265	1,536	1,826	2,376	3,429	4,595	6,205	7,069	8,371
In foreign exchange	0	211	251	252	359	397	387	386	494	612	462	523	166
Trade /f	627	766	858	912	1,114	1,338	1,976	3,062	4,129	5,132	6,344	7,255	8,399
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In rupiah	604	741	837	898	1,105	1,334	1,970	3,046	4,009	4,781	6,299	7,214	8,329
In foreign exchange	23	25	21	14	9	4	6	16	120	351	45	41	70
Service rendering industry /g	122	172	260	319	389	422	946	1,385	1,867	2,277	3,169	4,183	4,813
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In rupiah	122	166	253	311	385	418	939	1,382	1,860	2,253	3,088	4,047	4,598
In foreign exchange	0	6	7	8	4	4	7	3	7	24	81	136	215
Others	339	132	156	219	223	244	333	444	606	651	931	1,213	2,162
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In rupiah	174	127	154	218	221	241	331	444	606	651	929	1,210	2,156
In foreign exchange /h	165	5	2	1	2	3	2	0	0	0	2	3	6
Total	1,574	2,750	3,566	3,938	5,394	6,268	7,874	10,159	13,022	15,299	18,813	22,157	26,402
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In rupiah	1,386	1,842	2,415	2,793	3,550	5,858	7,472	9,754	12,401	14,312	18,223	21,454	25,945
In foreign exchange	188	907	1,152	1,145	1,844	410	402	405	621	987	590	703	457

/a Credits outstanding end of period. Includes investment credits, KIK and KMKP. Excludes interbank credits, credits to central government and to nonresidents, and foreign exchange component of project aid.

/b Includes foreign exchange revaluation amounting to Rp. 681.8 billion.

/c Includes foreign exchange revaluation amounting to Rp. 698.0 billion.

/d Includes credits to PERTAMINA for repayment of foreign borrowing. Since March 1979, credit in foreign exchange to PERTAMINA has been converted to rupiah credits.

/e Processing of agricultural products is classified under manufacturing industry according to International Standard Industrial Classification (ISIC 1968). Starting 1980, credits for construction which were previously included in manufacturing industry are now included in service-rendering industry.

/f Includes credits for food procurement and hotel projects.

/g Credits for electricity, gas and water supply are included in service-rendering industry sector.

/h 1974 figure refers to credits in foreign exchange given to all sectors, except trade.

/i Includes foreign exchange revaluation amounting to Rp. 251 billion.

/j Includes revaluation adjustment due to the devaluation of September 12, 1986.

INDONESIA

COUNTRY ECONOMIC REPORT

Banking Credits Outstanding in Rupiah and Foreign Exchange by Group of Banks, 1974-1986 /a

(Rp. billion)

	1974	1975	1976	1977	1978 /b	1979 /c	1980	1981	1982	1983 /d	1984	1985	1986 /e
<b>Bank Indonesia</b>													
direct credits /f	231	893	1,212	1,229	1,935	2,163	2,454	2,649	2,771	2,356	870	964	1,144
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In rupiah	231	244	351	365	466	2,163	2,454	2,649	2,771	2,356	870	964	1,144
In foreign exchange	0	649	861	864	1,469	0	0	0	0	0	0	0	0
<b>State commercial banks /g</b>	1,136	1,602	2,007	2,267	2,832	3,270	4,295	5,881	8,031	9,787	13,345	15,371	17,782
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In rupiah	1,004	1,397	1,774	2,058	2,547	2,958	3,954	5,523	7,474	8,910	12,959	14,925	17,711
In foreign exchange	132	205	233	209	283	312	341	358	557	877	386	449	71
<b>National Private Banks /h</b>	89	133	197	257	366	493	711	1,081	1,554	2,294	3,552	4,106	6,272
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In rupiah	89	132	197	254	360	466	705	1,069	1,534	2,279	3,480	3,991	6,061
In foreign exchange	0	1	0	3	6	27	6	12	20	15	72	115	211
<b>Foreign Banks</b>	117	122	150	184	262	342	414	548	666	862	1,046	1,073	1,204
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In rupiah	62	70	93	116	176	271	359	513	622	767	914	934	1,029
In foreign exchange	55	52	57	68	86	71	55	35	44	95	132	139	175
<b>Total</b>	1,573	2,750	3,566	3,937	5,394	6,268	7,874	10,159	13,022	15,299	18,813	22,157	26,402
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In rupiah	1,386	1,843	2,415	2,793	3,550	5,858	7,472	9,754	12,401	14,312	18,223	21,454	25,945
In foreign exchange	187	907	1,151	1,144	1,844	410	402	405	621	987	590	703	457

/a Credits outstanding at end of period. Includes investment credits, KIK and KMP. Excludes interbank credits, credits to Central Government and to non-residents, and foreign exchange component of project aid.

/b Includes foreign exchange revaluation amounting to Rp. 681.8 billion.

/c Includes foreign exchange revaluation amounting to Rp. 698.0 billion.

/d Includes foreign exchange revaluation amounting to Rp. 251.0 billion.

/e Includes revaluation adjustment due to devaluation on September 12, 1986.

/f Excludes liquidity credits, includes credits to Pertamina for repayment for foreign borrowing.

/g Includes state development bank and liquidity credits.

/h Includes liquidity credits. National private banks refer to national private commercial banks and regional development banks.

Source : Bank Indonesia.

Table 6.7

## INDONESIA

## COUNTRY ECONOMIC REPORT

Small-Scale Investment Credits and Permanent  
Working Capital Credits, 1974-1986

	Small-Scale Investment Credits /a			Permanent Working Capital Credits /a		
	Number of applications approved ('000s)	Approved value ---(Rp. billion)---	Out- standing	Number of applications approved ('000s)	Approved value ---(Rp. billion)---	Out- standing
1974	10	15	13	15	16	13
1975	17	28	22	24	29	18
1976	28	50	36	166	67	41
1977	40	74	50	322	115	62
1978	55	106	65	420	177	84
1979	72	163	99	644	305	154
1980	119	321	210	905	602	312
1981	173	540	380	1,272	1,124	647
1982	207	669	407	1,462	1,535	803
1983	231	812	393	1,633	1,884	856
1984	250	921	366	1,809	2,309	928
1985	266	1,015	328	1,996	2,768	885
1986	283	1,135	305	2,147	3,241	879

/a Cumulative as at end of period.

Source: Bank Indonesia.

INDONESIA  
.....

COUNTRY ECONOMIC REPORT  
.....

Investment Credits by Economic Sector, 1980-1986 /a  
.....

(Rp. billion)

End of period	1980	1981	1982	1983	1984	1985	1986
<b>Credits approved /b</b>	<b>1,675</b>	<b>1,906</b>	<b>2,679</b>	<b>3,900</b>	<b>4,509</b>	<b>5,898</b>	<b>7,966</b>
Agriculture	277	340	467	734	809	1,402	2,274
Mining	5	40	54	57	179	229	363
Manufacturing industry	911	911	1,369	1,983	2,374	2,765	3,253
Trade	53	87	134	129	237	277	369
Service rendering industry	422	516	641	986	866	1,173	1,638
Others	7	12	14	11	44	52	69
<b>Credits outstanding /b</b>	<b>1,296</b>	<b>1,436</b>	<b>2,099</b>	<b>2,861</b>	<b>3,802</b>	<b>4,802</b>	<b>6,167</b>
Agriculture	137	202	322	477	555	877	1,233
Mining	2	26	34	49	178	224	367
Manufacturing industry	820	741	1,095	1,635	2,102	2,423	3,061
Trade	41	73	120	115	168	281	332
Service rendering industry	289	390	519	576	770	975	1,108
Others	7	4	9	9	29	22	66

/a Excludes investment credits from Bank Indonesia; includes State Development Bank and Local Developments Banks. Data with the same classification prior to 1980 are not available.

/b Excludes Small Scale Investment Credits, investment credits to the Central Government and foreign exchange components of project aid.

Source: Bank Indonesia.

INDONESIA  
-----COUNTRY ECONOMIC REPORT  
-----Time Deposits with State Banks, 1981-1986  
-----

(Rp. billion)

	1981	1982	1983	1984	1985	1986
24 months	748.3	848.5	565.8	280.4	411.1	518.5
12 months	81.5	79.1	885.9	1,721.0	2,794.5	3,867.1
6 months /a	106.8	121.8	549.3	720.9	725.8	950.1
3 months or less	42.1	44.5	679.3	672.7	1,306.7	1,322.7
Matured	103.4	125.6	142.9	10.0	10.9	13.1
Others	10.9	11.3	7.6	91.9	87.9	58.2
Total /b	1,093.0	1,230.8	2,830.8	3,496.9	5,336.9	6,729.7

/a Includes some 9 month deposits during 1984.

/b Includes interbank time deposits and residents' time deposits.

Source: Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Interest Rates on Deposits at Commercial Banks, 1978-1987 /a

(% p.a)

End of Period	Demand Deposits /b	TABANAS Savings Deposits /c	TASKA Savings Deposits /d	Certificate of Deposits /e	State Bank Time Deposits					Private National Bank /a Time Deposits				
					Less than 3 mos /f	3 mos	6 mos	12 mos	24 mos	Less than 3 mos /f	3 mos	6 mos.	12 mos.	24 mos.
1978 /g	1.8-3	6-15	9.0	7.6			6.0	9.0	12-15	12.8	12.5	15.6	17.2	20.7
1979	1.8-3	6-15	9.0	9.8	10.6	5.1	6.0	9.0	12-15	16.2	16.7	18.3	19.6	19.6
1980	1.8-3	6-15	9.0	10.2	7.2	8.2	6.0	9.0	12-15	14.2	16.1	17.8	20.1	19.3
1981	1.8-3	6-15	9.0	10.9	12.1	10.2	6.0	9.0	12-15	15.4	17.4	17.9	19.4	19.0
1982	1.8-3	6-15	9.0	12.5	7.7	8.6	6.0	9.0	12-15	16.9	17.1	18.5	19.3	18.8
1983 /h	1.8-3	12-15	9.0	15.4	14.4	14.8	13.1	17.5	12.5	18.7	17.4	18.8	19.7	19.3
1984	1.8-3	12-15	9.0	16.5	15.1	17.1	17.2	18.7	17.2	19.8	20.7	20.7	20.4	21.0
1985	1.8-3	12-15	9.0	14.5	13.4	14.6	16.0	17.8	18.3	14.6	15.9	17.8	19.8	21.3
1986	1.8-3	12-15	9.0	14.0	13.3	14.2	14.7	15.2	16.0	14.8	15.5	16.2	17.3	20.1
1987	1.8-3	15.0	9.0	16.0	15.5	17.0	17.3	17.0	17.4	17.2	18.6	19.3	19.1	19.7

/a Weighted average rate of interest at selected banks.

/b From March 1983, 3% for amounts above Rp. 50 million, 1.8% for Rp. 1 to 50 million, and individually determined for amounts less than Rp. 1 million.

/c "TABANAS" or "Tabungan Pembangunan Nasional" (National Development Savings) is an ordinary savings account sponsored by "Bank Tabungan Negara" (State Saving Bank) and offered by all state owned and some private national commercial banks, and post offices. Until June 1, 1983: 15% for amounts of Rp. 200,000 or less; 6% above Rp. 200,000. From June 1983: 15% for Rp 1 million or less; 12% for more than Rp. 1 million.

/d "TASKA" or "Tabungan Asuransi Berjangka" (Insured Time Deposits) is an ordinary time deposits sponsored by "Bank Tabungan Negara" and offered by the same institutions described in (c) above.

/e Midpoint of range for six months rates.

/f One month time deposits rate used as representative rate.

/g Effective January 1978: 15% for Rp. 2.5 million or less; 12% for more than Rp.2.5 million for 24 months State Bank time deposit.

/h Ceiling on time deposit interest rates at state banks removed on June 1, 1983.

12% legal minimum rate starting in June 1983 for 24 months State Bank time deposit.

Source: Bank Indonesia.

## INDONESIA

## COUNTRY ECONOMIC REPORT

## Principal Agricultural Products by Subsectors, 1974-1986

('000 tons)

Product	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 /a
<b>Food crops</b>													
Rice	15,276	15,185	15,845	15,876	17,525	17,872	20,163	22,286	22,837	24,006	25,932	26,542	26,784
Corn	3,011	2,909	2,572	3,143	4,029	3,606	3,991	4,509	3,235	5,087	5,288	4,330	5,931
Cassava	13,031	12,546	12,191	12,488	12,902	13,751	13,726	13,301	12,988	12,103	14,167	14,037	12,882
Sweet potato	2,469	2,433	2,381	2,460	2,083	2,194	2,079	2,094	1,676	2,213	2,156	2,161	1,967
Soya beans (shelled)	589	590	522	523	617	680	653	704	521	536	769	870	1,196
Groundnuts (shelled)	307	380	341	409	446	424	470	475	437	460	535	528	614
<b>Fisheries</b>													
Saltwater fish	949	997	1,082	1,158	1,227	1,318	1,395	1,408	1,490	1,682	1,713	1,822	1,923
Freshwater fish	388	393	401	414	420	430	455	506	524	533	548	573	607
<b>Meat and dairy</b>													
Meat	403	435	449	468	475	486	571	596	629	650	742	808	861
Eggs	98	112	116	131	151	164	259	275	297	319	355	370	432
Milk /b	57	51	57	61	62	72	78	86	117	143	179	192	220
<b>Cash crops</b>													
Rubber	817	782	857	844	884	898	1,020	963	900	1,007	1,033	1,055	1,060
Palm oil	348	397	431	473	532	642	701	748	884	979	1,147	1,243	1,269
Coconut/copra	1,341	1,375	1,532	1,518	1,575	1,582	1,759	1,812	1,718	1,604	1,750	1,920	2,091
Coffee	149	160	193	194	223	228	285	295	281	305	315	311	396
Tea	64	69	73	79	91	125	106	110	94	110	126	127	136
Cloves	15	15	20	41	22	35	39	40	32	41	49	42	53
Pepper	27	23	37	43	46	47	37	39	34	46	46	41	40
Tobacco	79	82	89	84	81	87	116	118	106	109	108	161	164
Cane sugar	1,237	1,227	1,321	1,438	1,516	1,601	1,831	1,700	1,627	1,628	1,810	1,899	1,866
Cotton	3	2	1	1	1	1	6	10	13	14	12	45	52
<b>Forestry /c</b>													
Teakwood	620	595	480	573	475	495	613	578	692	718	758	777	798
Other timber	22,660	15,701	20,947	22,366	26,256	25,520	21,702	14,024	13,236	24,180	27,716	24,277	27,403

/a Preliminary figures.

/b In liters million.

/c In '000 cubic meters.

Source: Supplement to the President's Report to Parliament, August 15, 1987.

## INDONESIA

## COUNTRY ECONOMIC REPORT

## Production of Major Crops by Type of Estate, 1974-1986

('000 tons)

Product	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986/a
<b>Smallholders</b>													
Rubber	571	536	610	584	612	616	705	740	586	673	704	720	729
Coconut/copra	1,335	1,370	1,527	1,513	1,554	1,561	1,737	1,789	1,707	1,590	1,734	1,905	2,072
Coffee	132	144	178	181	206	209	266	276	262	287	291	288	373
Cloves	15	15	17	37	21	35	39	40	32	40	48	41	52
Tea	15	14	13	14	17	17	21	22	17	23	24	30	31
Sugar	250	223	267	352	485	498	749	1,364	1,373	1,249	1,397	1,450	1,417
Tobacco	69	74	76	72	68	73	101	103	97	100	104	156	159
Pepper	27	23	37	43	46	47	37	39	34	46	46	41	40
Cotton	3	2	1	1	1	1	6	10	13	13	11	45	52
Palm oil	0	0	0	0	0	0	0	0	0	0	0	0	0
Palm kernel	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Private estates</b>													
Rubber	108	109	104	107	110	112	111	114	125	133	121	124	115
Coconut/copra	6	5	5	6	21	21	22	23	11	14	13	15	16
Coffee	7	6	6	6	7	8	6	6	6	8	9	10	10
Cloves	0	0	0	2	0	0	0	0	0	1	1	1	1
Tea	11	10	11	11	15	16	17	18	16	17	18	17	18
Sugar	127	126	152	162	71	73	114	116	72	88	83	106	106
Tobacco	0	0	0	0	0	0	0	0	0	0	0	0	0
Pepper	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0
Palm oil	104	126	145	147	165	168	202	206	285	269	329	339	346
Palm kernel	21	24	27	29	22	23	36	37	47	68	69	71	73
<b>Government estates</b>													
Rubber	138	137	142	147	162	170	186	192	189	201	208	211	216
Coconut/copra	0	0	0	0	0	0	0	0	0	0	0	0	0
Coffee	10	10	10	10	10	11	13	13	13	10	15	13	13
Cloves	0	0	0	0	0	0	0	0	0	0	0	0	0
Tea	40	46	49	51	59	92	68	70	61	70	84	80	87
Sugar	860	878	902	924	960	1,030	968	220	182	291	330	343	343
Tobacco	8	8	11	12	13	14	15	15	9	9	4	5	5
Pepper	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0
Palm oil	244	271	286	338	367	474	499	542	599	710	814	904	923
Palm kernel	52	57	56	64	72	85	90	98	110	97	177	187	192
<b>Total</b>													
Rubber	817	782	856	838	884	898	1,002	1,046	900	1,007	1,033	1,055	1,060
Coconut/copra	1,341	1,375	1,532	1,519	1,575	1,582	1,739	1,812	1,718	1,604	1,747	1,920	2,091
Coffee	149	160	194	197	223	228	285	295	281	305	315	311	396
Cloves	15	15	17	39	21	35	39	40	32	41	49	42	53
Tea	66	70	73	76	91	125	106	110	94	110	126	127	136
Sugar	1,237	1,227	1,321	1,438	1,516	1,601	1,831	1,700	1,627	1,628	1,810	1,899	1,866
Tobacco	77	82	87	84	81	87	116	118	106	109	108	161	164
Pepper	27	23	37	43	46	47	37	39	34	46	46	41	40
Cotton	3	3	1	1	1	1	6	10	13	13	11	45	52
Palm oil	348	397	431	485	532	642	701	748	884	979	1,143	1,243	1,269
Palm kernel	73	81	83	93	94	108	126	135	157	165	246	258	265

/a Preliminary figures.

Source: Supplement to President's Report to Parliament, August 15, 1987.

INDONESIA  
-----COUNTRY ECONOMIC REPORT  
-----Rice - Area Harvested, Production and Yield, 1974-1986  
-----

Year	Area harvested ( <sup>'</sup> 000 ha)	Average yield (tons/ha)	Paddy output ( <sup>'</sup> 000 tons)	Rice output /a ( <sup>'</sup> 000 tons)
1974	8,509	2.6	22,464	15,276
1975	8,495	2.6	22,331	15,185
1976	8,368	2.8	23,301	15,845
1977	8,360	2.8	23,347	15,876
1978	8,929	2.9	25,772	17,525
1979	8,850	3.0	26,283	17,872
1980	9,005	3.3	29,652	20,163
1981	9,382	3.5	32,774	22,286
1982	8,988	3.7	33,584	22,837
1983	9,162	3.9	35,302	24,006
1984	9,764	3.9	38,134	25,933
1985	9,902	4.0	39,033	26,542
1986 /b	9,896	4.0	39,388	26,784

/a Estimated on the basis of a conversion factor of 0.68 from paddy into rice.

/b Preliminary figures.

Source: Central Bureau of Statistics.

## INDONESIA

## COUNTRY ECONOMIC REPORT

## BULOG Rice Program, 1978/79 - 1987/88

('000 tons)

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87 /c	1987/88 /g
Beginning stock	459	708	886	1,242	1,623	1,045	1,455	2,387	2,122	1,775
Domestic procurement	881	431	1,635	1,952	1,933	1,195	2,374	1,943	1,586	1,250
Import:	1,268	2,580	1,213	437	506	1,115	187	0	41	136
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PL-480	304	353	101	46	0	65	54	0	0	0
Other food /e	15	327	198	48	0	140	0	0	41	136
Commercial	949	1,900	914	343	506	910	133	0	0	0
Total availability	2,608	3,719	3,734	3,631	4,062	3,355	4,016	4,330	3,749	3,161
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Distribution /a	1,852	2,834	2,480	2,014	2,972	1,872	1,612	2,186	1,954	2,333
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Government	608	666	649	806	1,320	1,373	1,368	1,414	1,498	1,511
State enterprises	106	90	89	95	105	89	59	77	94	102
Market operations /f	1,032	2,036	1,628	1,033	1,518	399	69	277	175	600
Other /d	106	42	114	80	29	11	116	418	187	120
Losses	46	8	12	26	45	28	17	22	20	35
End stock	708	806	1,242	1,591	1,045	1,455	2,387	2,122	1,775	793
Memorandum item:										
-----										
Rice production /b	17,325	17,872	20,163	22,286	22,837	24,006	25,933	26,542	27,014	27,202

/a Since June 1982, all regions have received rice in kind; formerly, surplus regions received food allowances in money.

/b On calendar year basis.

/c Provisional figures.

/d Includes export of 95,000 tons in 1984/85 and 480,000 tons in 1985/86, 201,000 tons in 1986/87 and 100,000 tons in 1987/88.

/e In 1986/87, the figure shows repayment of rice loans.

/f Includes special sales at reduced prices of submarket standard rice of 130,000 tons in 1985/86 and 150,000 tons in 1986/87.

/g Estimates.

Source: BULOG (Badan Urusan Logistik/State Logistic Board).

## INDONESIA

## COUNTRY ECONOMIC REPORT

## Area Covered Under Rice Intensification Programs, 1974-1986

('000 ha)

Year	BINAS /a	Of which INSUS /b	INMAS /c	Of which INSUS	Total
1974	2,676	0	1,048	0	3,724
1975	2,683	0	1,957	0	3,640
1976	2,424	0	1,189	0	3,613
1977	2,059	0	2,181	0	4,240
1978	1,960	0	2,888	0	4,848
1979	1,571	0	3,452	0	5,023
1980	1,374	420	4,142	640	5,516
1981	1,384	587	4,802	1,119	6,186
1982	1,296	832	5,047	2,113	6,343
1983	1,308	882	5,387	2,595	6,695
1984	434	278	6,936	3,528	7,370
1985	200	104	7,461	3,996	7,661
1986	258	135	7,533	4,345	7,791

/a BINAS = Bimbingan massal (Mass rice planting guidance program).

/b INSUS = Intensifikasi khusus (Special intensification program).

/c INMAS = Intensifikasi massal (Mass intensification program).

Source: Supplement to the President's Report to Parliament, August 15, 1987.

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Index of Manufacturing Production by Selected Industry Group, 1975-1987 /a

(1975 = 100)

Code of Industry Group	Description /b	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987 /c
31121	Condensed and dried milk, creamery and processed butter, fresh and preserved cream (4)	100	148	174	173	201	234	235	239	261	220	207	197	203
31330	Malt liquor and malt (4)	100	94	103	105	118	129	147	170	144	107	119	125	143
31420	Clove cigarettes (20)	100	104	125	122	120	151	180	187	196	224	246	267	292
31430	Other cigarettes (13)	100	104	105	116	131	130	125	115	120	117	97	86	76
32111	Yarn and thread (20)	100	109	101	112	111	118	126	121	114	123	111	115	130
32112	Weaving mills (except jute weaving products) (193)	100	108	109	112	122	126	139	130	121	125	127	132	146
32114	Batik (10)	100	114	113	117	117	117	99	110	106	114	100	101	107
32130	Knitting mills (32)	100	95	89	90	77	88	89	81	82	80	84	89	65
32400	Footwear (4)	100	114	115	119	112	130	123	124	153	179	173	174	182
33113	Plywood (6)	100	118	197	218	220	392	471	424	438	418	387	429	497
34111	Paper manufacture (all kinds) (8)	100	98	107	134	151	153	152	152	129	164	182	206	231
35110	Basic chemicals (except fertilizer) (13)	100	97	97	87	124	128	127	130	132	147	149	155	157
35120	Fertilizer (5)	100	83	161	192	336	466	492	496	560	706	850	930	852
35210	Paint, varnish, and lacquers (7)	100	97	92	101	98	115	159	168	147	164	189	199	161
35232	Matches (7)	100	103	113	124	139	179	189	230	291	323	389	395	462
35510	Tyres and tubes (12)	100	137	168	203	227	257	301	294	300	300	311	329	352
36210	Glass and glass products (17)	100	94	139	160	171	208	257	209	227	247	250	244	316
36310	Cement (9)	100	125	178	255	314	367	395	419	566	616	686	767	783
37100	Basic iron and steel industries (15)	100	137	161	180	443	1034	1248	970	1147	1165	1158	1359	1385
38130	Structural metal products (24)	100	109	133	154	154	172	188	196	203	197	214	218	252
38312	Drycell batteries (12)	100	115	149	165	180	228	231	267	328	316	343	358	355
38320	Radio, TVs, cassettes, other communication equipment and apparatus (16)	100	125	180	232	230	340	349	333	351	279	243	217	192
38430	Motor vehicles assembly and manufacture (17)	100	108	122	136	117	194	256	227	198	179	183	211	246
38440	Motor cycles and three wheel motor vehicles, assembly and manufacture (5)	100	89	76	89	75	114	161	187	130	93	100	128	114
	General index	100	109	125	146	158	194	214	214	229	241	258	275	280

/a The annual figures shown here are calculated as the average of quarterly indices.

/b Figures in brackets "( )" indicate the number of establishments covered in that group.

/c Average of three quarters.

Source: Central Bureau of statistics.

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Production of Minerals, 1974-1986  
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Year	Petroleum (mln bbls)	Tin concentrate	Copper ore concentrate	Nickel ore ('000 tons)	Bauxite	Coal	Iron sand concentrate	Gold (kg)	Silver (kg)	Natural gas (mcf)
1974	502.0	25.7	212.6	878.9	1,290.1	156.2	365.2	265.3	6,466.6	202.2
1975	477.0	25.3	201.3	801.1	992.6	206.4	353.0	330.7	4,754.7	222.2
1976	550.0	23.4	223.3	1,102.0	940.3	182.9	292.3	355.2	3,397.5	312.1
1977	615.0	25.9	189.1	1,302.5	1,301.4	230.6	311.5	255.9	2,831.9	542.8
1978	597.0	27.4	180.9	1,256.5	1,007.7	264.2	233.3	253.9	2,506.4	820.1
1979	580.0	29.4	188.8	1,551.9	1,051.9	278.6	79.9	170.0	1,644.6	998.4
1980	577.0	32.5	186.1	1,537.4	1,249.1	338.0	62.9	247.9	2,196.0	1,045.7
1981	584.8	35.4	188.5	1,543.2	1,203.4	392.8	86.6	183.1	2,000.2	1,123.8
1982	488.2	33.8	223.7	1,640.9	700.2	588.0	144.5	222.7	3,057.9	1,111.9
1983	490.5	26.6	205.0	1,278.0	777.9	648.2	132.9	259.5	1,793.7	1,186.4
1984	516.5	23.2	190.3	1,066.8	1,003.2	1,468.2	83.0	239.1	1,999.7	1,506.7
1985	483.8	21.8	223.4	961.9	830.5	1,491.7	130.9	235.4	2,155.0	1,580.0
1986	507.2	24.0	251.2	1,533.1	648.8	1,725.4	152.3	201.5	2,530.0	1,628.9

Source: Central Bureau of Statistics.

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Crude Oil Production by Company, 1974-1987

('000 bbls)

	PERTAMINA	LENIGAS	Contract of work				Production sharing contract	Total	Average daily output
			Caltex	C&T	Starvac	Subtotal			
1974	40,143	362	329,907	1,959	16,626	348,492	112,840	501,837	1,375
1975	32,590	306	300,879	1,944	13,889	316,712	127,247	476,855	1,306
1976	31,333	260	304,616	1,803	12,787	319,206	199,512	550,319	1,504
1977	30,706	285	292,950	2,459	11,974	307,383	277,812	616,186	1,688
1978	31,273	195	275,349	2,266	11,853	289,468	275,762	596,698	1,635
1979	30,253	213	266,048	1,856	10,811	278,715	271,203	580,384	1,590
1980	29,812	205	258,325	2,046	11,577	271,948	274,971	576,936	1,576
1981	29,398	176	255,515	1,799	13,141	270,455	284,694	584,723	1,602
1982	27,280	196	175,928	1,422	13,214	190,564	270,055	488,095	1,337
1983 /a	27,374	233				233,790	203,134	464,531	1,273
1984	31,421	203				5,767	431,121	468,512	1,280
1985	30,211	170				6,421	394,436	431,238	1,181
1986	29,321	193				7,327	470,387	507,228	1,390
1987 /b	24,554	198				9,649	444,317	478,718	1,312

/a Since May 1983, contract of work data have been consolidated.

/b Preliminary figures.

Source: Ministry of Mines and Energy, Directorate General Oil & Gas.

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Petroleum Product Supply and Demand, 1974-1987

(million bbls)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987 /a
Production of crude	501.8	476.9	550.3	615.1	596.8	580.4	577.0	584.8	488.2	454.5	468.5	431.2	507.2	479.1
Crude imports	2.7	2.6	7.7	29.7	31.1	30.5	32.9	37.0	22.0	25.7	34.2	32.1	21.7	30.2
Subtotal	504.5	479.5	558.0	644.8	627.9	610.9	609.9	621.8	510.2	480.2	502.7	463.3	534.9	509.3
Crude exports	378.9	363.1	449.5	485.3	472.0	410.8	378.8	383.4	320.9	330.2	354.6	295.1	327.4	291.9
Crude available for refineries	125.6	116.4	108.5	159.5	155.9	200.1	231.1	238.4	189.3	150.0	148.1	168.2	207.5	217.4
Changes in crude stocks (decrease = -)	0.7	3.0	-5.2	5.7	-3.6	14.1	38.2	44.7	6.7	-34.0	-42.6	-31.6	-10.0	-16.4
Refinery input (including swaps)	124.9	113.4	113.7	153.8	159.5	186.0	192.9	193.7	182.6	184.0	190.7	199.8	217.5	233.8
Refinery consumption	7.7	6.7	6.4	11.2	9.4	13.0	13.5	6.5	6.5	7.2	9.2	21.0	14.2	15.2
Refinery output	117.2	106.7	107.3	142.6	150.1	173.0	179.4	187.2	176.1	176.8	181.5	178.8	203.3	218.6
Exports of refined products	45.1	36.7	41.8	51.4	40.3	49.3	53.4	49.9	39.0	43.3	66.0	47.3	55.2	62.4
Waxy residues	41.3	32.6	35.2	42.1	36.3	48.9	51.0	47.9	33.7	40.5	49.9	32.1	34.9	42.2
Bunker fuel, AVTUR, etc.	3.8	4.1	6.6	9.3	4.0	0.4	2.4	2.0	5.3	2.8	16.1	15.2	20.3	20.2
Available for domestic consumption	72.1	70.0	65.5	91.2	109.8	123.7	126.0	137.3	137.1	133.5	115.5	131.5	148.1	156.2
Product imports	12.8	15.0	30.4	18.3	16.9	15.0	22.0	42.6	28.0	23.5	5.0	2.7	5.4	10.3
Total supply	84.9	85.0	95.9	109.5	126.7	138.7	148.0	179.9	165.1	157.0	120.5	134.2	153.5	166.5
Domestic consumption	67.9	77.5	87.7	98.5	113.0	134.3	141.8	156.0	161.1	155.5	157.6	155.3	152.8	162.9
Changes in refined stocks	17.0	7.5	8.2	11.0	13.7	4.4	6.2	23.9	4.0	1.5	-37.1	-21.1	0.7	3.6

/a Preliminary figures.

Source: Ministry of Mines and Energy, Directorate General Oil & Gas.

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Domestic Sales of Petroleum Products, 1974-1987 /a

('000 bbls)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987 /b
aviation gas	139	139	143	128	134	134	130	110	103	83	73	66	63	54
aviation turbo	2,150	2,579	2,758	2,913	3,494	3,656	4,355	4,869	4,899	3,686	4,374	4,442	3,806	4,199
premium gasoline	496	661	706	710	728	618	466	392	238	247	523	738	1,024	1,431
regular gasoline	12,787	14,284	15,606	17,356	19,608	21,295	23,321	25,648	25,709	24,380	24,909	25,206	27,063	29,048
kerosene	26,769	30,623	33,259	36,880	41,717	45,457	48,975	52,497	51,778	48,224	45,213	43,954	43,618	43,352
motor diesel	14,524	18,023	22,749	27,041	31,709	34,595	40,116	44,737	48,918	49,790	48,567	47,682	47,421	54,075
industrial diesel	4,022	4,673	5,429	6,239	6,744	7,581	7,829	9,391	9,311	9,978	10,285	10,329	8,855	8,319
fuel oil	8,755	7,844	8,222	10,296	11,061	13,626	15,739	17,587	19,341	21,149	23,625	22,863	18,004	19,054
Total	69,642	78,826	86,872	101,563	115,195	126,962	140,931	155,231	160,297	157,537	157,569	155,280	149,874	159,532

/a Excluding lubricating oil and similar products.

/b Preliminary figures.

Sources: Ministry of Mines and Energy, Directorate General Oil and Gas.

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-----Consumer Price Index, 1979 - 1987 /a  
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(April 1977 - March 1978 = 100)

End of	Foodstuff	Housing	Clothing	Others	Total	Change (%)
1979	141.1	140.9	168.2	137.7	143.1	21.8 /b
1980	165.6	168.7	190.8	159.1	167.6	16.0
1981	179.3	182.3	198.2	168.8	179.8	7.1
1982	192.7	209.8	205.0	189.3	197.9	9.7
1983	212.7	238.1	214.0	221.5	221.5	11.5
1984	226.4	270.0	220.6	246.5	241.6	8.8
1985	230.9	289.4	228.0	259.7	252.2	4.3
1986	263.9	302.9	250.4	275.0	275.3	9.2
1987	296.1	321.5	270.4	297.9	300.8	9.3

/a The consumer price index for Indonesia has been used commencing March 1979 to replace the Jakarta cost of living index.

/b Percentage change of CPI for the period January through December 1979 using the rate of increase of the Jakarta cost of living index for period January through March 1979.

Source: Central Bureau of Statistics.

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**Indonesia Wholesale Price Index, 1983-1987 /a**  
.....  
**(1983 = 100)**

Sectors /b	1983	1984	1985	1986	1987
Agriculture (44)	100	113	118	128	145
Mining & quarrying (6)	100	109	117	125	132
Manufacturing (140)	100	103	115	123	143
Imports (53)	100	113	119	129	158
Exports (38)	100	111	112	85	118
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Excluding petroleum (34)	100	114	115	130	170
Petroleum (4)	100	112	113	73	103
General index (281)	100	111	116	116	142
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General index excluding exports (263)	100	111	117	127	151
General index excluding exports of petroleum (224)	100	110	116	125	146

/a This new index replaces the previous WPI based on 1975.  
  Figures show the average for year.

/b Figures within brackets "()" indicate the number of items  
  represented in that sector.

Source: Central Bureau of statistics.

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Domestic Prices of Petroleum Products, 1974-1987

(Rp./liter)

	1974	1975	1976	1977	1978	1979	1980 /a	1981	1982 /b	1983 /c	1984 /d	1985 /e	1986	1987
Aviation gas	50	62	70	70	70	100	150	150	240	300	300	330	250	250
Aviation turbo	50	62	70	70	70	100	150	150	240	300	300	330	250	250
Premium gasoline	55	67	90	90	90	140	220	220	360	400	400	440	440	440
Regular gasoline	46	57	70	70	70	100	150	150	240	320	350	385	385	385
Kerosene	13	16	18	18	18	25	38	38	60	100	150	165	165	165
Motor diesel	19	22	25	25	25	35	53	53	85	145	220	242	200	200
Industrial diesel	13	19	22	22	22	30	45	45	75	125	200	220	200	200
Fuel oil	12	19	22	22	22	30	45	45	75	125	200	220	200	200

/a From May 1980.

/b Price increased on January 1.

/c Price increased on January 7.

/d Price increased on January 12.

/e Price increased on April 1, due to the application of 10% VAT.

Source: Ministry of Mines and Energy, Directorate General Oil and Gas.

**INDONESIA**  
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**Approved Foreign Investment by Sector, 1977-1987 /a**  
**(US\$ million)**

Sector	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Agriculture	21.4	3.0	16.2	56.0	25.0	9.0	9.8	0.2	9.0	125.9	116.7
Forestry	28.5	38.6	12.1	8.2	115.2	32.4	6.5	0.0	0.0	0.0	4.6
Fishery	2.7	23.1	21.1	2.9	21.6	3.0	20.9	0.0	11.3	3.9	12.0
Mining & quarrying	200.5	38.1	65.5	3.0	28.5	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing	327.4	274.8	1,157.7	770.9	833.8	1,120.0	2,615.2	1,001.7	687.3	536.7	861.0
Food	8.3	5.5	60.7	14.2	40.5	5.8	83.0	77.0	5.9	36.1	174.1
Textiles & leather	70.8	111.0	33.7	76.2	138.9	23.7	11.0	0.0	0.0	0.0	177.1
Wood & wood products	0.0	1.0	6.0	10.8	12.0	3.3	0.0	0.0	0.0	0.0	0.0
Paper & paper products	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chemicals & rubber	60.4	20.2	31.5	28.8	23.7	31.6	185.0	9.0	33.0	296.0	108.0
Nonmetallic minerals	18.7	12.7	30.1	22.1	20.3	57.1	40.0	0.0	0.0	0.0	25.0
Basic metals	18.7	9.6	50.1	16.0	84.8	7.7	83.0	60.0	24.0	81.4	58.5
Metal products	72.0	92.0	4.1	16.7	14.5	70.2	71.1	210.0	24.0	11.0	52.0
Others	0.0	6.2	0.0	9.7	0.0	0.0	0.9	8.7	0.0	0.0	2.9
Construction	0.8	5.4	0.5	7.7	48.8	11.0	43.5	17.0	122.3	64.7	41.7
Trade & hotels	7.0	9.7	3.0	38.6	0.0	17.0	78.0	84.0	0.0	0.0	196.0
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hotels	7.0	9.7	3.0	38.6	0.0	17.0	78.0	84.0	0.0	0.0	196.0
Transport & communications	0.0	0.0	0.2	25.1	0.0	0.0	0.0	4.2	0.0	70.0	213.0
Real estate and business services	20.3	4.4	43.9	0.0	18.2	204.2	108.3	0.0	28.9	25.0	22.9
<b>Total</b>	<b>608.6</b>	<b>397.1</b>	<b>1,320.2</b>	<b>912.4</b>	<b>1,091.1</b>	<b>1,396.6</b>	<b>2,882.2</b>	<b>1,107.1</b>	<b>858.8</b>	<b>826.2</b>	<b>1,467.9</b>

/a Intended Capital Investment. Amount represents original approvals plus expansions minus cancellations.

Source: Bank Indonesia and Investment Coordinating Board (BKPM).

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Implementation of Foreign Investment by Sector, 1977-1987 /a  
(US\$ million)

Sector	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987 /b
Agriculture	12.5	10.1	4.3	14.5	13.0	5.8	6.7	4.1	3.7	4.0	1.2
Forestry	22.1	15.0	19.2	26.2	34.9	11.0	13.9	16.3	2.7	0.0	1.7
Fishery	2.8	13.5	10.5	7.9	0.4	9.0	5.8	0.7	0.2	0.0	0.0
Mining and quarrying	20.1	57.3	47.5	49.4	70.0	32.2	110.0	46.1	31.0	265.0	8.6
Manufacturing	186.2	267.0	192.0	235.4	243.5	388.3	358.0	233.7	468.7	180.4	28.4
Food	11.0	14.0	7.1	7.4	15.8	7.1	4.5	17.7	159.4	5.2	0.2
Textiles and leather	21.9	31.7	41.1	78.4	103.8	60.7	23.5	16.6	122.2	20.0	0.0
Wood and wood products	1.7	0.7	0.1	2.4	5.2	1.7	1.7	19.8	11.8	0.0	0.0
Paper and paper products	0.2	1.8	9.1	2.1	5.2	0.7	1.7	19.8	11.8	0.0	0.0
Chemicals and rubber	28.0	71.8	43.8	30.0	47.2	16.0	17.7	62.1	60.1	11.2	0.0
Nonmetallic minerals	22.0	9.0	4.3	20.0	30.0	1.0	1.0	4.1	4.1	11.2	0.0
Basic metals	37.8	37.8	43.5	52.0	37.4	28.8	25.1	22.5	47.4	120.2	14.6
Metals products	35.2	89.8	36.0	52.0	35.4	28.8	25.1	22.5	47.4	120.2	14.6
Others	1.3	0.1	10.2	2.0	1.9	0.0	2.4	5.7	1.2	0.0	0.0
Construction	3.0	1.4	12.0	0.8	0.6	6.9	0.5	0.5	1.8	5.4	1.8
Trade & hotels	6.2	17.2	4.3	0.4	2.9	0.0	2.1	7.2	8.7	7.3	0.0
Wholesale trade	0.0	0.7	0.0	0.0	2.5	0.0	0.4	0.0	0.0	0.0	0.0
Hotels	6.2	16.5	4.3	0.4	0.4	0.0	1.7	7.2	8.7	7.3	0.0
Transport & communications	2.0	4.7	21.9	4.8	1.3	0.0	0.0	2.4	1.0	0.0	0.0
Transport	1.8	1.3	0.1	2.1	0.2	0.0	0.0	0.2	1.0	0.0	0.0
Communications	0.2	3.4	21.8	2.7	1.1	0.0	0.0	2.2	0.0	0.0	0.0
Real estate, business services and others	3.9	19.0	6.9	7.2	12.4	6.1	17.9	77.0	80.8	27.9	0.0
<b>Total</b>	<b>258.8</b>	<b>405.2</b>	<b>318.6</b>	<b>346.6</b>	<b>379.0</b>	<b>459.3</b>	<b>516.9</b>	<b>388.0</b>	<b>598.6</b>	<b>490.0</b>	<b>41.7</b>

/a Excluding investment in petroleum and banking sectors.  
/b Up to June 1987.

Source: Bank Indonesia and Investment Coordinating Board (BKPM).

INDONESIA  
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COUNTRY ECONOMIC REPORT  
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Approved Domestic Investment by Sector, 1977-1987 /a  
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(Rp billion)

Sector	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987 /c
Agriculture, fisheries and livestock	49.4	100.4	39.0	30.0	60.0	62.0	681.0	277.0	899.0	1,879.0	2,584.0
Forestry	64.0	58.5	80.0	115.0	175.0	93.0	149.3	19.0	37.0	21.0	640.0
Mining	0.0	18.3	33.0	55.0	13.0	52.0	578.1	7.8	38.0	89.0	266.5
Manufacturing	401.4	531.2	580.0	1,093.0	1,306.0	1,419.0	3,791.5	1,332.3	1,411.1	1,842.0	4,939.6
Textiles	75.0	167.6	61.0	162.0	195.0	110.0	103.5	127.0	97.0	262.0	1,163.7
Chemicals	98.7	103.0	141.0	57.0	193.0	205.0	765.9	272.0	928.0	814.0	1,885.5
Electrical goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other manufacturing	227.7	260.6	378.0	874.0	918.0	1,104.0	2,922.2	933.3	386.1	766.0	1,890.4
Construction	0.0	2.6	5.0	4.0	8.0	16.0	195.3	67.1	269.6	75.0	37.2
Hotels	4.1	11.6	13.0	10.0	54.0	76.0	255.2	213.9	312.0	17.0	136.6
Real estate	35.2	15.0	6.0	16.0	5.0	74.0	204.0	31.0	168.0	168.0	128.0
Others /b	19.9	24.2	18.0	35.0	70.0	157.0	1,151.0	1.0	278.5	326.0	562.4
<b>Total</b>	<b>574.0</b>	<b>761.8</b>	<b>774.0</b>	<b>1,358.0</b>	<b>1,691.0</b>	<b>1,949.0</b>	<b>7,005.4</b>	<b>1,949.0</b>	<b>3,413.2</b>	<b>4,417.0</b>	<b>9,294.3</b>

/a Figures refer to intended capital investments, and represent original approvals plus approved expansion minus cancellations.

/b Includes transportation sector.

/c Up to November 1987.

Source: Investment Coordinating Board.

STANDARD TABLES FOR INDONESIA

National Accounts Summary at Current Prices  
(In billions of national currency units)

	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>Origin and Use of Resources</b>									
A.1. GDP at market prices	24,002	34,845	48,914	58,421	62,646	73,698	87,055	94,493	96,474
2. Net indirect taxes	1,029	1,806	1,635	1,752	2,188	2,547	..	..	..
3. GDP at factor cost	22,973	33,040	47,279	56,669	60,514	71,151	..	..	..
4. Agriculture	6,745	9,874	11,728	13,649	15,001	17,696	20,834	22,413	25,024
5. Industry	8,578	12,944	20,405	24,076	23,745	27,301	32,479	34,163	30,504
a. Manufacturing	2,816	4,003	6,853	7,067	7,492	8,211	11,092	12,676	13,542
b. Mining and quarrying	4,263	6,886	11,238	13,218	12,153	13,968	15,996	15,404	10,741
c. Other (by difference)	1,499	2,075	2,818	3,792	4,110	5,122	5,412	6,093	6,221
6. Services, etc.	8,680	12,027	16,783	20,696	23,901	28,701	34,241	37,917	40,946
B.1. Resource balance	587	2,402	6,277	2,967	253	-787	4,358	1,894	298
2. Exports of goods & NFS	5,317	10,148	16,162	16,402	15,325	20,448	22,965	21,671	21,165
3. Imports of goods & NFS	4,730	7,746	9,886	14,034	15,071	21,235	18,627	19,838	20,867
C.1. Domestic absorption	23,416	31,943	42,637	56,054	62,393	74,485	82,697	92,658	96,176
D.1. Total consumption, etc	17,682	22,794	30,742	38,746	45,152	52,817	60,520	67,751	71,920
2. Private	15,126	19,516	25,595	32,293	37,924	44,739	51,399	56,858	60,591
a. Statistical discrepancy	..	0	0	0	0	0	0	0	0
3. General government	2,556	3,277	5,148	6,452	7,229	8,077	9,122	10,893	11,329
E.1. Gross domestic investment	5,734	9,150	11,895	17,309	17,241	21,668	22,177	24,908	24,256
2. Fixed investment	..	..	..	..	..	..	..	..	..
3. Increase in stocks	..	..	..	..	..	..	..	..	..
<b>Memorandum Items:</b>									
G.1. Net factor income from abroad	-462	-1484	-2011	-1925	-3036	-3360	-4168	-3932	-4053
2. Net current transfers from abroad	0	0	0	0	0	9	54	68	91
3. Gross national product	23,540	32,800	46,903	56,496	59,611	70,338	82,887	90,561	92,421
H.1. Gross domestic saving	6,821	11,551	18,171	19,676	17,494	20,881	26,534	26,741	23,478
2. Gross national saving	0	0	0	0	0	17,531	22,421	22,876	19,319
I.1. Exports of goods and NFS as per BOP	4,974	9,629	13,849	15,034	13,894	17,490	21,876	21,513	19,547
a. Difference with NA (%)	-7	-5	-17	-9	-14	-17	-5	-1	-8
2. Imports of goods and NFS as per BOP	4,742	7,555	10,090	13,608	15,025	20,037	19,798	19,813	20,770
a. Difference with NA (%)	0	-3	2	-3	0	-6	6	0	-5
3. Net factor income as per BOP	-867	-1484	-2011	-1941	-1960	-3319	-4166	-3934	-4125
a. Difference w/ NA (% of line I.1)	8	0	0	0	-8	0	0	0	-1
4. Net current transfers as per BOP	0	0	0	0	0	9	54	68	91
a. Difference w/ NA (% of line I.1)	0	0	0	0	0	0	0	0	0
<b>Exchange rates:</b>									
J.1. IFS conversion rate	442	623	627	632	661	909	1,028	1,111	1,283
2. IEC Conversion rate	442	623	627	632	661	909	1,028	1,111	1,283

**STANDARD TABLES FOR INDONESIA**

**National Accounts Summary at Constant 1988 Prices  
(In billions of national currency units)**

	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>Origin and Use of Resources</b>									
A.1. GDP at market prices	59,190	61,777	66,675	71,618	71,877	73,699	78,145	90,014	83,180
2. Net indirect taxes	2,495	2,347	2,229	2,148	2,490	2,547	..	..	..
3. GDP at factor cost	55,695	59,430	64,446	69,466	69,387	71,151	..	..	..
4. Agriculture	14,381	15,339	16,399	17,197	17,371	17,699	18,481	19,209	19,734
5. Industry	24,619	25,575	27,544	28,947	28,679	27,301	29,503	29,673	30,988
a. Manufacturing	5,108	5,952	7,304	7,878	7,973	8,211	9,770	10,590	11,162
b. Mining and quarrying	16,364	16,093	16,078	16,340	18,878	18,968	14,789	13,961	14,572
c. Other (by difference)	3,149	3,531	4,162	4,729	4,830	5,122	4,944	5,103	5,255
6. Services, etc.	19,190	20,864	22,732	25,479	27,327	28,701	30,210	31,152	32,457
B.1. Resource balance	12,061	11,284	11,316	1,667	-647	-787	4,018	1,919	2,839
2. Exports of goods & NFS	24,255	24,810	26,182	21,457	19,524	20,448	20,563	18,915	21,637
3. Imports of goods & NFS	12,194	13,527	14,866	19,890	20,171	21,235	16,544	16,996	18,798
C.1. Domestic absorption	46,129	50,513	55,358	70,047	72,024	74,485	74,128	77,992	80,341
D.1. Total consumption	34,978	39,235	42,911	47,250	50,402	52,817	55,251	57,016	58,879
2. Private	29,848	32,491	36,037	39,699	42,172	44,739	46,898	48,041	49,638
a. Statistical discrepancy	0	0	0	0	0	0	0	0	0
3. General government	5,128	5,743	6,874	7,551	8,230	8,077	8,353	8,975	9,241
E.1. Gross domestic investment	11,153	12,279	12,448	22,797	21,622	21,669	18,875	21,079	21,462
2. Fixed investment	..	..	..	..	..	..	..	..	..
3. Increase in stocks	..	..	..	..	..	..	..	..	..
<b>Memorandum Items:</b>									
G.1. Net factor income from abroad	-1120	-2670	-2741	-2360	-3459	-3360	-3702	-3590	-3651
2. Net current transfers from abroad	..	..	..	..	..	9	49	57	78
3. Gross national product	58,150	55,745	60,988	66,671	68,381	70,338	74,442	78,434	79,529
H.1. Gross domestic saving	12,665	18,478	21,888	26,152	21,961	20,881	22,745	22,548	17,941
2. Gross national saving	7,641	10,480	16,371	21,403	19,066	17,531	19,053	19,279	14,388
I.1. Capacity to import	13,706	17,747	24,304	23,245	20,509	20,448	20,415	18,567	15,597
2. Terms of trade adjustment	-10549	-7084	-1878	1,788	385	0	-148	-348	-5907
3. Gross domestic income	47,641	54,713	64,797	78,401	72,363	73,698	77,997	79,563	76,567
4. Gross national income	42,602	48,682	59,111	68,459	69,367	70,338	74,295	75,982	72,738

STANDARD TABLES FOR INDONESIA  
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 Implicit Deflators for National Accounts  
 (In national currency 1983 = 100)

	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>Origin and Use of Resources</b>									
A.1. GDP at market prices	41	56	73	82	88	100	111	118	116
2. Net indirect taxes	41	56	73	82	88	100	..	..	..
3. GDP at factor cost	41	56	73	82	88	100	..	..	..
4. Agriculture	47	61	72	79	86	100	110	117	127
5. Industry	35	51	74	83	89	100	110	115	98
a. Manufacturing	55	67	87	90	94	100	113	120	121
b. Mining and quarrying	26	43	70	81	88	100	108	110	74
c. Other (by difference)	48	59	88	80	85	100	109	119	118
6. Services, etc.	45	58	74	81	88	100	113	122	126
B.1. Terms of Trade (Px/Pm)	57	72	93	108	105	100	99	98	88
2. Exports of goods & NFS	22	41	62	76	79	100	112	115	98
3. Imports of goods & NFS	39	57	67	71	75	100	113	117	111
C.1. Domestic absorption	51	63	77	80	87	100	112	119	120
D.1. Total consumption	51	60	72	82	90	100	110	119	122
2. Private	50	57	75	85	88	100	110	118	122
3. General government	51	60	71	81	90	100	109	121	123
E.1. Gross domestic investment	51	75	96	76	80	100	117	118	113
2. Fixed investment	..	..	..	..	..	..	..	..	..
3. Increase in stocks	..	..	..	..	..	..	..	..	..
<b>Memorandum Items:</b>									
F.1. Net factor income from abroad	41	56	73	82	88	100	113	110	111
2. Net current transfers from abroad	..	..	..	..	..	..	..	..	..
3. Gross national product	44	59	77	85	87	100	111	118	116
G.1. Gross domestic saving	50	70	83	75	80	100	117	119	131
2. Gross national saving	..	..	..	..	..	..	..	..	..
H.1. EPD merchandise trade indices									
2. Export prices (px) US\$, 1980=100	48	69	100	108	97	89	88	83	57
3. Import prices (pm) US\$, 1980=100	74	85	100	101	97	93	91	90	89
4. Terms of Trade (Px/Pm)	66	82	100	105	101	95	96	92	64

STANDARD TABLES FOR INDONESIA

Balance of Payments Summary at Current Prices  
(in millions of US dollars)

	1978	1979	1980	1981	1982	1983	1984	1985	1986
A.1. Exports of goods & NFS (FOB)	11,252	15,454	22,088	28,797	20,251	19,285	21,924	19,871	15,240
2. Merchandise	11,019	15,188	21,782	28,848	19,747	18,889	20,754	18,527	14,398
a. of which: Manufactures	228	498	538	738	868	1,618	2,166	2,461	2,961
3. Non-factor services	233	315	327	449	504	546	570	844	844
B.1. Imports of goods & NFS (FOB)	10,727	12,125	16,077	21,540	22,716	22,037	19,286	17,840	16,194
2. Merchandise	8,382	9,240	12,599	16,542	17,854	17,728	15,047	12,705	11,938
a. of which: Manufactures	6,452	6,903	9,213	12,874	13,818	12,385	11,383	8,954	10,142
3. Non-factor services	2,345	2,885	3,478	4,998	4,862	4,311	4,239	5,185	4,256
C.1. Resource balance	525	3,328	6,012	2,257	-2465	-2802	2,038	1,581	-954
D.1. Net factor income	-1981	-2382	-3207	-3073	-2998	-3850	-4061	-3542	-3216
2. Factor receipts	58	83	120	1,081	1,023	631	828	768	725
a. of which labor income	..	..	..	..	..	..	..	..	..
3. Factor payments	2,018	2,465	3,327	4,154	4,016	4,281	4,889	4,310	3,941
a. of which LT interest (DRS)	720	1,049	1,181	1,431	1,568	1,636	1,908	1,920	2,363
E.1. Net current transfers (private)	0	0	0	0	0	10	53	61	71
2. Transfer receipts	0	0	0	0	0	10	53	61	71
a. of which workers' remittances	..	..	..	..	..	10	53	61	71
3. Transfer payments	..	..	..	..	..	..	..	..	..
F.1. Current acct bal (excl off trans)	-1436	948	2,805	-816	-5458	-6442	-1970	-1950	-4099
G.1. Long-term capital inflow	1,600	1,349	2,349	2,401	5,230	5,427	3,095	1,907	2,977
2. Net direct investment	279	226	180	133	225	292	222	310	258
3. Net official transfers	14	30	201	250	134	104	114	27	95
4. Net LT loans (DRS)	886	889	1,618	2,057	2,710	3,842	2,575	1,268	1,925
a. disbursements	2,975	2,870	3,248	3,848	4,650	5,885	4,884	4,390	4,861
b. repayments	2,110	2,011	1,628	1,789	1,940	2,023	2,309	3,124	2,936
5. Other LT inflows(net)	442	434	350	-39	2,161	1,189	184	314	699
H.1. Other items (Net)	7.3	-850.2	-2725	-1959	-1625	1,199	-144	553	119
2. Net short-term capital	142	-448	-818	-290	528	731	476	-98	1,295
3. Capital flows n.e.i.	0	0	0	0	0	0	0	0	0
4. Errors and omissions	-134	-403	-1907	-1669	-2151	468	-620	651	-1176
I.1. Changes in net reserves	-171	-1444	-2428	374	1,853	-134	-981	-510	1,003
2. Use of IMF credit	..	..	..	..	..	445.1	-31.9	-367	5.2
3. Other reserve changes	-171	-1444	-2428	374	1,853	-629	-949	-148	998
Memorandum Items:									
J.1. Exports of goods (UN Trade System)	11,643	15,590	21,909	22,260	19,747	20,961	20,345	18,711	13,567
a. Difference with BOP (X)	6	3	1	-5	0	12	-2	1	-6
2. Imports of Goods (UN Trade System)	9,493	10,384	14,139	18,527	19,938	19,853	16,853	14,230	13,103
a. Difference with BOP (X)	13	12	12	12	12	12	12	12	10

**STANDARD TABLES FOR INDONESIA**

**National Accounts Summary at Constant 1980 Prices  
(In billions of national currency units)**

	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>Origin and Use of Resources</b>									
A.1. GDP at market prices	42,889	45,320	48,914	52,536	52,363	54,066	57,328	58,700	61,022
2. Net indirect taxes	1,830	1,722	1,635	1,576	1,783	1,869	..	..	..
3. GDP at factor cost	40,859	43,598	47,279	50,961	50,580	52,197	..	..	..
4. Agriculture	10,283	10,967	11,726	12,269	12,420	12,653	13,178	13,785	14,110
5. Industry	18,238	18,946	20,405	21,444	19,764	20,224	21,856	21,962	22,956
a. Manufacturing	4,443	5,177	6,353	6,853	6,935	7,142	8,498	9,211	9,708
b. Mining and quarrying	11,438	11,249	11,238	11,422	9,699	9,764	10,337	9,772	10,186
c. Other (by difference)	2,357	2,521	2,813	3,170	3,180	3,319	3,204	3,307	3,405
6. Services, etc.	14,168	15,404	16,783	18,812	20,176	21,191	22,305	22,966	23,964
B.1. Resource balance	6,864	6,307	6,277	18	-1361	-1499	7,649	3,654	5,404
2. Exports of goods & NFS	14,973	15,316	16,162	13,245	12,052	12,622	12,693	11,676	13,356
3. Imports of goods & NFS	8,109	9,009	9,885	13,227	13,413	14,121	11,002	11,302	12,501
C.1. Domestic absorption	35,825	39,013	42,637	52,518	53,724	55,564	55,297	58,180	59,933
D.1. Total consumption, etc	25,058	27,392	30,742	33,851	36,109	37,839	39,563	40,848	42,162
2. Private, etc	21,328	22,979	25,595	25,079	26,900	28,810	30,200	30,936	31,964
a. Statistical discrepancy	0	0	0	0	0	0	0	0	0
3. General government	3,840	4,301	5,149	5,655	6,163	6,049	6,255	6,721	6,920
E.1. Gross domestic investment	10,667	11,733	11,895	21,784	20,661	20,706	18,036	20,143	20,508
2. Fixed investment	..	..	..	..	..	..	..	..	..
3. Increase in stocks	..	..	..	..	..	..	..	..	..
<b>Memorandum Items:</b>									
G.1. Net factor income from abroad	-1782	-2133	-2011	-1748	-1059	-1188	-1309	-1266	-1291
2. Net current transfers from abroad	0	0	0	0	0	0	0	0	0
3. Gross national product	40,875	42,871	46,903	51,273	52,588	54,093	57,249	58,781	61,161
H.1. Gross domestic saving	10,516	13,681	18,171	21,713	18,233	17,337	18,864	18,719	14,896
2. Gross national saving	0	0	0	0	0	0	0	0	0
I.1. Capacity to import	9,115	11,801	16,162	15,459	13,639	13,598	13,576	12,347	10,372
2. Terms of trade adjustment	-5858	-3514	0	2,213	1,586	975	882	671	-2003
3. Gross domestic income	36,831	41,806	48,914	54,749	53,950	55,041	58,210	59,294	57,602
4. Gross national income	35,017	39,357	46,903	53,485	54,175	55,068	58,132	59,372	57,579

STANDARD TABLES FOR INDONESIA  
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 Implicit Deflators for National Accounts  
 (In national currency 1980 = 100)

	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>Origin and Use of Resources</b>									
A.1. GDP at market prices	56	76	100	111	120	136	152	161	158
2. Net indirect taxes	56	76	100	111	120	136	..	..	..
3. GDP at factor cost	56	76	100	111	120	136	..	..	..
4. Agriculture	66	86	100	111	121	140	154	163	177
5. Industry	47	68	100	112	120	136	149	155	133
a. Manufacturing	63	77	100	103	108	115	130	139	139
b. Mining and quarrying	37	61	100	116	125	143	155	158	105
c. Other (by difference)	64	82	100	120	131	154	169	184	183
6. Services, etc.	61	78	100	110	119	135	154	165	171
B.1. Terms of Trade (Px/Pm)	61	77	100	117	113	108	107	108	95
2. Exports of goods & NFS	38	66	100	124	127	162	181	188	158
3. Imports of goods & NFS	58	88	100	106	112	150	169	176	167
C.1. Domestic absorption	65	82	100	107	118	134	150	159	160
D.1. Total consumption	71	83	100	115	125	140	153	166	170
2. Private	67	76	100	114	117	134	170	184	190
3. General government	71	85	100	129	141	155	146	162	164
E.1. Gross domestic investment	54	78	100	80	83	105	120	124	118
2. Fixed investment	..	..	..	..	..	..	..	..	..
3. Increase in stocks	..	..	..	..	..	..	..	..	..
<b>Memorandum Items:</b>									
F.1. Net factor income from abroad	26	70	100	110	287	283	222	213	314
2. Net current transfers from abroad	..	..	..	..	..	..	..	..	..
3. Gross national product	58	77	100	110	113	130	149	154	151
G.1. Gross domestic saving	40	84	100	91	96	120	134	148	158
2. Gross national saving	..	..	..	..	..	..	..	..	..
H.1. EPD merchandise trade indices									
2. Export prices (px) US\$, 1980=100	48	69	100	106	97	81	72	83	57
3. Import prices (pm) US\$, 1980=100	74	85	100	101	97	91	91	90	89
4. Terms of Trade (Px/Pm)	66	82	100	106	101	96	83	92	64

