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Indonesia
Growth, Infrastructure and Human Resources

May 26, 1992

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CURRENCY EQUIVALENTS

Before November 15, 1978 US$1.00 = Rp.415

Annual Average 1979-88

1979	US$1.00 = Rp. 623
1980	US$1.00 = Rp. 627
1981	US$1.00 = Rp. 632
1982	US$1.00 = Rp. 661
1983	US$1.00 = Rp. 909 a/
1984	US$1.00 = Rp.1,026
1985	US$1.00 = Rp.1,111
1986	US$1.00 = Rp.1,283 b/
1987	US$1.00 = Rp.1,644
1988	US$1.00 = Rp.1,686
1989	US$1.00 = Rp.1,770
1990	US$1.00 = Rp.1,843
1991	US$1.00 = Rp.1,950

May 26, 1991 US$1.00 = Rp.2,025

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.

INDONESIA: GROWTH, INFRASTRUCTURE AND HUMAN RESOURCES

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This report was prepared by a team led by Vladimir Konovalov. The principal authors were Vladimir Konovalov, Samuel Lieberman, Kyle Peters and Zia Qureshi. Sadiq Ahmed, Don Hanna, Nicholas Prescott, Dennis Whittle and Sachi Takeda made major contributions. Yasmine Hamid prepared the Statistical Annex and together with Cyrus Talati, and Jin He provided statistical support. The report also draws on background inputs prepared by Dipak Dasgupta, George Fane (consultant) and Sushma Ganguly.

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EXECUTIVE SUMMARY

GROWTH, INFRASTRUCTURE AND HUMAN RESOURCES

(i) This report explores how Indonesia can sustain a relatively high growth rate in the medium term, and move towards solid middle income status, with per capita income of about US$1,000, by the year 2000. Several factors suggest this is a realistic goal. High growth in recent years, the strong response of private enterprise to deregulation, and the impressive gains in economic diversification indicate that the foundations have been laid for such a transition. Moreover, comparison with the experience of other East Asian countries suggests that the structural changes required are achievable. The challenge lies in pressing ahead with the implementation of policies to ensure that Indonesia's enhanced prospects for growth are realized -- consistent with maintenance of macroeconomic stability, improvements in the distribution of the benefits from development, and longer-term environmental sustainability. Sound policies have contributed to the achievements so far -- they will need to be continued to ensure a smooth transition. In many respects, policymakers will need to grapple with more difficult issues over the rest of the decade. Economic transactions will become more complex, with the private sector playing an ever more important role. The focus of government will need to shift further from providing goods and services to helping markets work better. An effective, transparent administrative system will be essential, allowing the private sector to focus on increasing output and productivity, rather than on seeking rents.

(ii) The report highlights the importance of physical infrastructure and human resource development in achieving growth. Private sector growth is beginning to strain the available capacity and there is now a large pay-off to increased efficiency and investment in these services. Already bottlenecks are appearing, exemplified by power "brownouts" and increased recruitment of expatriate workers in some skill categories. Resources should be directed at expanding critically needed services, and improving quality and standards across-the-board. However, constraints on resources (including the need to reduce the current account deficit) call for improvements in the efficiency of service delivery. Additional investment will need to be carefully focused to stay within available resources in order to maintain macroeconomic stability. Access to physical infrastructure and human resource development programs also has an important equity dimension. These services attack some of the most important causes of poverty, thus providing the basis for long-term poverty reduction. Effective targeting can make access more equitable while contributing to efficiency improvements.

(iii) Meeting the development challenges will require action across a wide-ranging policy agenda. It will also require substantial resources, including continued high levels of support from the donor community. The policy agenda encompasses the need for macroeconomic stability and progress in the three inter-linked areas of incentives, investment and institutions. The key tasks are:

- maintaining macroeconomic stability through the coordinated use of monetary, fiscal and exchange rate policies. The basic challenge will be to increase domestic savings to support higher investment, consistent with a gradual reduction in the current account deficit to about 2% of GNP by 1995. Aggregate demand pressures will need to be contained through more active fiscal policy;

- improving incentives to increase the efficiency and competitiveness of the economy by continuing trade and regulatory reform. Greater competition and more flexible factor markets will ensure that resources move into activities in which Indonesia has a comparative advantage. Also, prices that reflect economic costs, especially for power, fuel, fertilizer and forestry, will mobilize resources and ensure they are allocated to their best use;

- investing more, but within resource constraints. This will call for increased investment efficiency to realize Indonesia's growth objectives as the feasible increases in investment will be modest. The priorities for public investment are infrastructure and human resource development. Private enterprise should focus on non-oil exports, but can also be tapped to improve the availability and quality of infrastructure and human development services; and

- building institutions to implement an ambitious policy agenda. Institution-building in the Central Government, decentralizing functions where appropriate, ensuring a sound financial system and improving public enterprise management are important parts of the agenda for developing infrastructure and human resources and establishing a framework for sound growth.

Growth with Stability

(iv) The key challenge for macroeconomic management is to design and implement policies that ensure the compatability of Indonesia's objectives of growth and stability. Sound fiscal, monetary and exchange rate policies will create a hospitable climate for private investment and thus promote productivity. Such policies will also provide an environment conducive to private savings and investment. Reconciling a higher investment rate with the need to reach and sustain lower current account deficits requires improving the domestic savings rate. This would permit growth rapid enough to absorb Indonesia's labor force, while allowing a reduction in the burden of external debt.

(v) In 1991, the economy continued to grow strongly. Despite a drought that sharply reduced growth in agriculture, total real GDP grew about 6.8%, while non-oil GDP grew 6.5%. Inflationary pressures persisted, with the CPI rising by nearly 10%. Non-oil trade trends were encouraging, with non-oil exports rising by 22% in 1991/92, and non-oil import growth slowing to 12%. This is a major improvement over last year when non-oil exports grew sluggishly and imports soared. Nevertheless, the current account deficit this year rose to US$4.5 billion (or about 4.3% of GNP), compared to US$3.7 billion

in 1990/91. This rise was primarily due to a decline in net oil earnings resulting from lower prices and higher domestic consumption of oil products. In addition, the large increase in debt in the past two years raised interest payments substantially.

(vi) The Government viewed the persistence of macroeconomic imbalances in 1991/92 with concern and responded in the following ways:

- Continued tight monetary policy, with reserve money increasing by only 2.9% in the year ending December 1991. As a result, domestic credit growth fell to about 20% year-on-year, a substantial decline.

- Took action to deal with the rapid growth in foreign borrowing planned by public and publicly-related enterprises to finance a number of very large, capital-intensive projects, that would have worsened macroeconomic imbalances. In September 1991 the Government formed the Commercial Offshore Loan Team (COLT) to coordinate approaches to international capital markets. In October 1991, the COLT deferred a number of these large projects and set out detailed annual ceilings for commercial borrowings.

- Restrained fiscal policy in 1991/92, to support monetary policy in dampening aggregate demand. Implementation of the 1991/92 Budget led to some tightening of the Government's fiscal policy stance, as non-oil revenues exceeded original projections. Nevertheless, real public investment grew 11% in 1991/92, contributing to domestic demand pressures.

(vii) Despite the effective steps taken in 1991/92 to contain domestic demand, the current account deficit--and the borrowing needed to finance it--remain too large. Therefore, the task in 1992/93 is to set the current account deficit on a declining path to achieve a more sustainable level of about 2.0% of GNP in the medium term, and to ease inflationary pressures. The policy balance needs to shift towards fiscal policy to ease the pressure on monetary policy, thereby helping to reduce interest rates and the associated strains in the private sector and the financial system.

(viii) Just maintaining the current account balance at its 1991/92 level in 1992/93 will be difficult, since the external environment, particularly the oil market, is likely to be less favorable. Net oil earnings are expected to fall by about US$1.7 billion due to lower prices, higher domestic consumption, and slightly lower production levels. Thus, maintaining the current account deficit at US$4.5 billion will require a large improvement (US$1.7 billion, or 1.5% of GNP) in the non-oil trade balance, implying non-oil export growth stays at its 1991/92 rate and non-oil import growth declines slightly. These are challenging goals given the low growth expected in many of Indonesia's major export markets. Nevertheless, policies to reduce the current account deficit are needed for the economy to progress towards a stable, sustainable growth path that maintains the confidence of international creditors.

(ix) A key challenge in achieving macroeconomic stability will be to raise domestic savings to permit higher investment while reducing the economy's dependence on foreign savings. Raising savings will require coordinated monetary, fiscal and exchange rate policies, as well as external debt management. The main goal of monetary policy is to achieve a rate of money growth that is consistent with the expected increase in the demand for money, given the growth and inflation targets. Changes in the behavior of monetary aggregates due to deregulation and development in the financial sector need to be monitored closely so that appropriate, timely adjustments can be made as required. In maintaining the Government's tight monetary policy stance, Bank Indonesia (BI) could enhance its ability to conduct monetary policy by deepening the stock of monetary instruments. Moreover, firm implementation of the Government's announced policy of phasing out liquidity credits (subsidized, directed credits) would also enhance the effectiveness of monetary policy, as well as help remove distortions in credit and product markets.

(x) The goal of fiscal policy in the near term is to achieve a positive fiscal balance to allow adequate room for continued robust growth in private investment while restraining aggregate demand. But this task is made more difficult by the urgent, substantial requirements for public expenditures on infrastructure and human resource development. Raising non-oil revenues and containing non-essential expenditures will be central to reconciling these two objectives. Higher non-oil tax revenues can be achieved through better tax administration, particularly improved audit and cross-checking procedures, and selective rate increases especially for the property tax. Non-tax revenues can be increased by raising forestry fees to capture a larger portion of the rent, and by enhancing the profitability and productivity of public enterprises. Reducing budgetary subsidies for domestic petroleum products and fertilizer further also will help contain expenditure growth and improve economic efficiency. Containing general administrative spending, and a careful examination of expenditure priorities, including off-budget and public enterprise expenditures will be essential.

(xi) Maintaining a competitive exchange rate will be a key factor in supporting the expansion of non-oil exports. More effective monetary and fiscal management to slow domestic inflation will help reduce the size of the nominal exchange rate adjustments needed to maintain competitiveness. Given the size of Indonesia's external debt, continued prudent external debt management will also be required to complement other macroeconomic policies. The establishment of the COLT was an important step in improving the institutional framework for debt management. Over time, the focus on debt management will need to be broadened to include all public and publicly guaranteed debt as well as commercial debt and to include formulation of a strategy for diversifying Indonesia's access to capital markets. To be fully effective, a strong secretariat, including full-time management and staff will be needed for debt monitoring and analysis. Effective scrutiny of public enterprise investment programs and more prudent decision-making in state commercial banks will be essential to reduce pressure on the borrowing ceilings and make the task of debt management easier.

The Climate for Enterprise

(xii) Enhancing the competitiveness and productivity of the economy will remain central to growth. It will allow more output from a given amount of inputs, especially capital, and lessen reliance on extensive, factor-driven growth. There are three key challenges faced by the Government in enhancing the competitiveness of the economy: further deregulating the incentives regime and investment licensing; making factor markets more flexible; and improving the functioning of markets, particularly through a sound framework of commercial laws and ensuring that incentives support environmentally sound growth. The Government's role rightly continues to shift from direct control of productive activities towards facilitating the development of markets and competition.

(xiii) While considerable progress has been made in the area of deregulation, a number of activities remain largely insulated from market pressures. Also, there have been cases of government interventions that go against the general trend of deregulation, such as the monopolization of domestic trade in some products. That could be remedied by further trade and administered price reforms. In trade, the priorities are to: remove the non-tariff barriers (NTBs) remaining in manufacturing, and reassess NTBs in agriculture; continue tariff reforms, lowering the highest rates to the 15-25% range; reduce the coverage of export restrictions, especially on forestry products (including rattan); and eliminate any unnecessary domestic trading monopolies. The flow of goods through the ports could be improved and the Customs agency needs to become more professional in conducting its business. Ensuring correct price signals in the economy calls for appropriate prices of petroleum products and many public services (see the following section), and freeing the prices of fertilizer and cement. Restrictions on entry and investment by domestic and foreign investors have been substantially eased. Nevertheless, further initiatives could be taken to improve the investment climate, including: relaxing the export and local content conditions; improving access to, and security of use of, land; streamlining local level regulations; and reassessing the duty exemption on capital goods.

(xiv) Flexible factor markets would help to translate incentives reform into an efficient supply response. The main priorities are regulatory reform of land and capital markets. There are two main drawbacks of the current land allocation system: cumbersome procedures for transferring land rights; and underpricing of State land. To overcome these problems, a market-based system of land allocation needs to be introduced, with the Government providing an enabling environment for the market to operate efficiently, primarily through the collection and dissemination of information and registration of land rights. This calls for implementing appropriate land policies, including: the legal and regulatory framework; land information systems and registration/titling; and resettlement policy.

(xv) The passage of major financial legislation in the past year, particularly the new banking law, constitutes an important landmark in the development of financial markets and institutions in Indonesia. Although the market for capital has improved substantially with the financial sector reform, deregulation has moved faster than the development of the legal and accounting structure and the capacity of authorities to supervise financial institutions. The current tight money policy and the resultant high interest

rates are placing some strains on the financial system, with lending to poorly performing firms resulting in a rise in non-performing assets during the past year. Ensuring the soundness of the system will require BI to continue to build its capacity to supervise the banks. The labor market works smoothly in Indonesia and has facilitated an expansion of labor-absorbing, export-oriented activities in which the country is competitive. Nevertheless, some improvements could be made, particularly those that promote a flexible labor market. As discussed further below, developing a flexible, responsive education system that provides graduates with requisite skills will add to the flexibility and productivity of labor.

(xvi) The Government also has a responsibility to foster development by making markets work better and, in particular, introducing a modern legal framework that would provide business with the kind of stable, predictable environment that raises confidence and reduces costs. This will require improvements both in the substance of commercial, credit and contract laws, and in the processes by which such laws and policies are developed, administered and enforced. Through sustained efforts to develop effective institutions, the Government can ensure that reforms are designed and implemented effectively. These efforts include: specialized training in commercial law issues for legal officials; the establishment of specialized commercial courts to handle disputes; better quality accountants and auditors; and wide dissemination of information on laws, regulations and processes to the public. Over the past year, the Government has actively assessed various measures to improve the legal system. Reforms in this area are complex and time-consuming, but sustained progress will offer major benefits.

(xvii) Reconciling Indonesia's growth with its long-term sustainability calls for new policies to create incentives to conserve and protect the environment. Significant improvements will be needed in many areas -- water and energy pricing, adequate taxes on forestry, well-functioning land markets -- where good economics and good ecology go hand in hand. In other areas, such as investments in pollution control, trade-offs may need to be faced. Even here, more efficient, less material-intensive modes of production can yield better profits and a healthier environment. Institutional measures, including adequate standards, legal and regulatory incentives and sanctions, and increased information, will promote environmentally sound growth. Sustainability also calls for intensifying programs to moderate population growth, in order to reduce pressures on land and water resources. Increasing participation of community groups and project beneficiaries in the design and implementation of development programs and institutional reform will help achieve the Government's growth and environmental goals in a consistent fashion.

Meeting the Challenge of Infrastructure Development

(xviii) More and better infrastructure can play a critical role in sustaining the dynamism of the private sector and robust growth. Substantial investment in new infrastructure capacity will be needed, but efficiency improvements in use and delivery of infrastructure will be equally important. Without improved efficiency, resources will be insufficient to meet demand. Accordingly, three key elements of a strategy to meet the infrastructure development challenge will be: promoting efficiency in the use of infrastructure services; enhancing efficiency in the provision of

infrastructure services, including through encouraging greater private participation; and ensuring the development of adequate new infrastructure capacity, in accordance with well-defined priorities.

(xix) Promoting efficient use of infrastructure requires appropriate pricing to ensure efficient management of users' demand, and effective operation and maintenance (O&M) of facilities to ensure they function properly. These policies are related, as appropriate pricing is necessary to generate adequate resources for O&M (as well as for new investment). Among major infrastructure services, prices fully reflect economic costs only in telecommunications, implying both inefficient use of and inadequate revenue mobilization from other services. For these services, prices need to be better aligned with costs. Where subsidization schemes are employed, as in power and water, the equity objectives could be met more effectively, and economically, by better targeting. The price review and approval process should allow adjustments to be made regularly and predictably, based on agreed criteria. More effective O&M would require improvements in both funding and management. Adequate funding would depend on strengthening cost recovery, and budgeting an appropriate balance between O&M and new investments. Management improvements would include: reducing the fragmentation of responsibilities and funding for O&M; improving the planning and budgeting of recurrent expenditures; and building institutional capacities, especially at the local level.

(xx) Improving efficiency in infrastructure provision will be built on two major thrusts: encouraging private participation in infrastructure development; and enhancing public institutional capacities to improve the delivery of services that remain in the public domain. Private participation will help improve efficiency through introducing greater competition, and will alleviate pressures on public financial and institutional capacities. Appropriate infrastructure pricing policies will be important in inducing adequate private investment. The benefits expected from private participation will depend on an appropriate policy and institutional framework that establish transparent and enforceable rules to protect the public interest, support competitive private entry and operation, and give security to investors. The possibility for private participation is largest for those services that can be provided in a competitive market setting, such as transport and power generation.

(xxi) Even with a large private role, the public sector will remain the dominant provider of infrastructure. Improving the efficiency of public provision will require progress on three fronts. First, to manage an expanded infrastructure development effort effectively, Central Government capacities will need to be enhanced, especially in the areas of investment planning and interagency coordination. The further streamlining of procedures for project implementation also will be important. Second, more responsibility will need to be devolved to local governments, to lessen the burden on central agencies and to exploit local initiative and energies. Effective devolution calls for building local government institutional capacities, mobilizing more revenues at the local level, and establishing clear accountability. Third, to improve the performance of public enterprises, the ongoing enterprise reform will need to be implemented vigorously. Greater operational and financial autonomy, in a framework of improved accountability and financial discipline, remain an important goal.

(xxii) Expanding infrastructure capacity is urgent, but the size of investment in new capacity will need to be determined within available resources. Indonesia's medium-term macroeconomic prospects suggest that an average level of total public investment of around 9% of GDP in the first half of the 1990s, rising to about 10% in the latter half, would be consistent with prudent economic management. Within this total, a strong emphasis on infrastructure development is warranted; allocating slightly more than half of the total to this purpose, as under REPELITA V, would be appropriate, and consistent with adequate funding of the other important objectives of human resource development and poverty alleviation. Setting sound sectoral and intra-sectoral priorities would be crucial to meeting the objectives of the public infrastructure investment program. The design of investment programs could be further improved by strengthening project evaluation and implementation capabilities. Power sector investment should continue to receive especially high priority. Public investment planning will need to integrate possibilities for greater private participation increasingly into the overall sector investment plans. Given a supportive, sound policy framework, the private sector's share in total investment in infrastructure could increase to about 35% in REPELITA VI, from about 15% in REPELITA IV.

Agenda for Human Resource Development

(xxiii) Indonesia has made impressive progress in human resource development. Since the late 1960s, the country has experienced sharp declines in fertility and mortality accompanied by large gains in literacy and in the educational attainment and skill base of the labor force. Primary schools now enroll 90% or more of the target age group, and junior and senior secondary enrollment rates have risen. Females constitute 48% of primary school students and 45% of secondary school students and the gender gap has narrowed over time. Meanwhile, rapid economic growth has increased employers' demand for skilled and professional employees and contributed to the expansion of training and post-secondary education. These achievements have altered the human resource scene. The agenda is no longer primarily that of launching major initiatives for quantitative expansion, assembling and deploying staff, and mobilizing resources to establish new facilities. Rather, the emphasis falls on improving the quality of services across-the-board and ensuring that the poor are reached effectively with basic health and education services. Responding to policy challenges in individual sectors will entail increased public outlays. But spending more on human resources will need to proceed in phases, with incremental outlays determined through monitoring and evaluating many experimental initiatives.

(xxiv) An important determinant of the changing health picture is the demographic transition, largely driven by increased contraceptive use, rapid fertility decline and falling death rates. The resulting slower growth of the childhood population will be counterbalanced by increases in older age groups. The shift to an urban, industrial economy is also transforming mortality risk factors. Economic growth will bring higher rates of motor vehicle and industrial accidents, as well as changes in lifestyle that are expected to elevate risks for cancer and cardiovascular disease. Meanwhile, a number of cases of AIDS have been detected in Indonesia -- an effective response now offers hope of avoiding the tragedy being experienced in many other countries. In dealing with such changing demands, most facets of the current health system will need to adapt including: the scope of preventive health measures,

the number and mix of personnel, the orientation of medical education, the scale and sophistication of facilities and referral systems, financing mechanisms, and the public-private division of roles. But the change in the nation's health needs will be neither steady nor uniform, with wide health disparities ranging across regions and between social groups. Infectious diseases that predominantly affect children and the poor need continued priority despite the new resource demands generated by better-off older groups. In particular, the delivery of health care to villages must be enhanced with the premium on targeting the most needy and ensuring service standards of appropriate quality.

(xxv) The demographic transition also has implications for education, reducing demands for new schools at the primary level. Initiatives are now needed to raise quality in primary education. The first is to attract more teachers, including new graduates, to rural areas. Instruction in teacher training programs, including expanding the system of on-the-job teacher professional support, could be improved. University education faculties also could help find ways to improve teaching and learning in primary school. Second, resources are needed to finance quality improvements. Non-salary recurrent outlays per pupil are substantially below the level suggested by experience in comparable countries. Funding increases should be phased in after an assessment of lessons from trial efforts. One possible funding mechanism would be a Special Assistance Fund (SAF) which could make grants for teaching materials to schools in targeted poor communities.

(xxvi) The main area for expanding services is in junior secondary education. The main policy issues relate to equitable access, financing and program design. Raising enrollment at the junior secondary level calls for establishing public schools, staffed by fewer teachers, in isolated areas to improve access for all children. Fee exemptions could be used to attract lower income students, while schools could be allowed to keep a significant portion of fee income. Funding mechanisms, such as the suggested SAF for primary schools, could be used to ensure availability of educational inputs, particularly in public facilities in poor rural areas.

(xxvii) In higher education, defining an appropriate public role is essential in a setting of rapidly growing private university enrollment. Careful assessment of the achievements, potential and constraints of the private sector is needed. The 1990 decree granting autonomy to public universities should bring them financial and other benefits, but will not of itself ensure that they will provide high quality instruction. The Government will need to follow up this decree with other initiatives to enhance the quality and efficiency of instruction and research. This could be facilitated through the accreditation process mandated under the decree, and by developing a mechanism through which public and private universities could compete for grants and research funds. The autonomy decree needs to be complemented by renewed efforts to make access to higher education more equitable. This could be done by making the scholarship and loan program a central element in higher education policy; access to grants and subsidized loans should be based on financial need and academic ability.

(xxviii) Vocational training needs to be upgraded and expanded to meet the skill demands associated with continuing industrialization. Experience in other countries as well as Indonesia indicates that greater reliance on

training by employers themselves and by private training institutions can increase the responsiveness and effectiveness of the training system. The policy challenge then is to redefine the role of the government, recognizing the distinctive activities of different training providers, including employers and private training institutions. Due to difficulties in predicting the pace, direction and technological level of industrial change, the skill acquisition system needs to respond to changing skill demands, at the same time assuring quality levels acceptable to trainees and employers.

Growth Prospects and External Financing Requirements

(xxix) Prudent macroeconomic management, combined with continued, consistent implementation of Indonesia's sectoral and institutional reform agenda, will enable Indonesia to meet the emerging challenges outlined above and to continue a 6-7% annual growth in non-oil GDP in the medium term. This would permit employment to continue to rise rapidly enough to absorb the growing labor force at higher levels of productivity and would continue to reduce poverty. Under this scenario, the non-oil current account balance would improve substantially during 1992/93 and in the medium term, building on the gains of the past year. Declining world oil prices and higher domestic oil consumption, however, will lower net oil earnings and offset this gain, implying that the current account deficit is projected to remain at its 1991/92 level in 1992/93. Over the medium term, improving trends in the non-oil current account should allow the current account deficit to decline to a more sustainable level of 2% of GNP. External debt service indicators, after rising slightly in 1991/92 and 1992/93 will decline over the medium term. With careful debt management and prudent borrowing, Indonesia's total debt burden should continue to ease over the medium term, leading to improved creditworthiness. The growth strategy outlined in this report, however, will continue to require substantial resources to finance the rapid expansion of the private sector, especially in non-oil export production, and higher public investment for infrastructure and human resource development. Thus, continued high levels of foreign capital inflows will be needed as well as a substantial increase in domestic resource mobilization.

(xxx) This scenario would call for aggregate external financing of US$12.6 billion in 1992/93, roughly the same as in 1991/92. Private capital flows and commercial and import-related finance will remain large and are projected to grow over time to cover an increasing share of Indonesia's external resource needs. Despite the increasing importance of private capital flows, Indonesia's need for development assistance remains substantial. Since the requirement for external finance will remain roughly the same in 1992/93 as in 1991/92, disbursements of official assistance, including grants, will need to reach about US$ 4.3 billion, the same amount disbursed in 1991/92. Provided the mix of assistance is appropriate, and commitments outside Indonesia's normal donor framework remain constant, the necessary level of disbursements could be realized from commitments within the normal donor framework of about US$4.8 billion, the same level as last year. The priorities for this assistance are for investments in physical infrastructure and human resource development, and supporting the efficient flow of resources to the private sector through two-step operations or financial sector loans.

(xxxi) Maintaining disbursements at the recommended level will require an appropriate mix of assistance. While progress was made in disbursing more project assistance in 1991/92, project disbursements can rise only gradually. Consequently, a portion of official assistance, roughly the same amount as in 1991/92, will need to be in faster-disbursing, sector-type operations, and provide about US$0.9 billion in disbursements. This faster-disbursing assistance should be designed primarily to support the balance of payments, including through sector loans that provide local cost financing for the Budget, programmed within an appropriately restrained fiscal policy. Such faster-disbursing assistance will help ensure that adequate foreign exchange is available for the private sector to invest in productive, export-oriented capacity. This level and mix of assistance will enable Indonesia to pursue its trade and other structural reforms with confidence while it seeks to improve its external and internal balances. Given the rapid build up in project aid commitments during the past several years, a solid base for increasing project disbursements has been established. Over time, as project disbursements rise and the current account deficit returns to a more sustainable level, the need for fast disbursing assistance will decline.

CHAPTER 1

DEVELOPMENT CHALLENGES

A. Introduction

1.01 Twenty-five years ago Indonesia was one of the poorest countries in the world. While the country has made great strides, its per capita income is only about US$570, and it still has a long way to go to reach the ranks of middle-income countries. Indonesia's continuing challenges are to sustain growth, while alleviating poverty and protecting the environment. This report highlights how physical infrastructure and human resource development contribute to meeting these challenges. If the momentum of development can be maintained, Indonesia can realistically expect to become a solid middle-income country with a per capita income of US$1000 by the end of the decade.

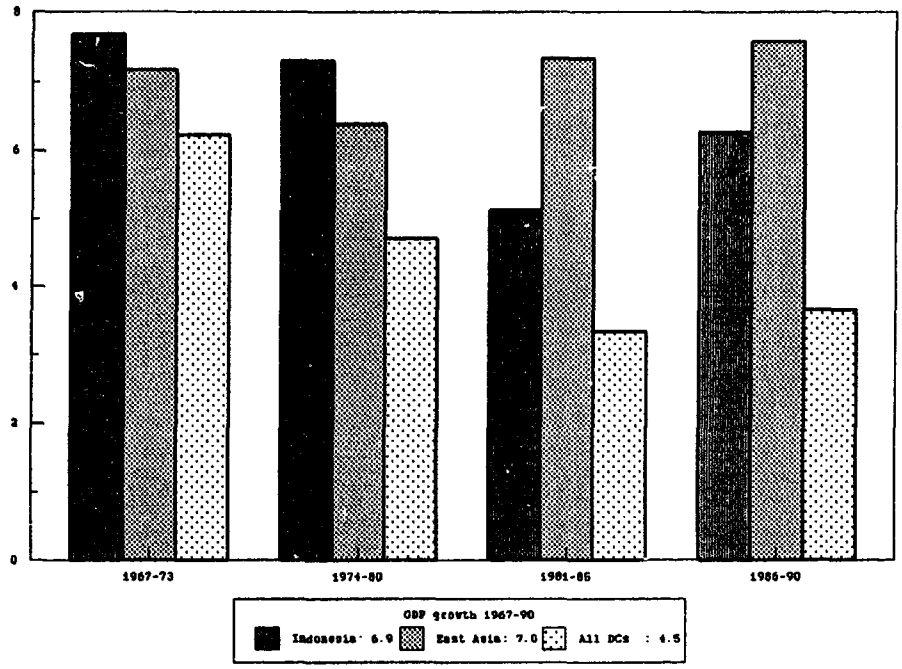
1.02 But meeting the development challenges successfully will not be easy or automatic; it will require action across a complex, wide-ranging policy agenda. This report develops the agenda within four broad themes -- macroeconomic stability, incentives, investment and institutions -- that cut across the entire report. While Indonesia's sound policy-making over the past twenty-five years indicates the nation's potential for meeting its challenges, the agenda is formidable and the effort required should not be underestimated. Substantial progress will be needed in all areas of the agenda if Indonesia is to realize its potential.

1.03 This Chapter sets the framework for the report. Starting with an analysis of Indonesia's past achievements (section B), it projects the main structural transformations likely in Indonesia's quest for middle-income status (section C). Cross-country comparisons presented in this section indicate that other East Asian countries have achieved similar transformations. The final section discusses how Indonesia can manage these transformations effectively, drawing on the main findings of the report and placing them in the context of the four cross-cutting themes of macroeconomic stability, incentives, investments and institutions.

B. Foundations for Growth

1.04 Indonesia started on the path of development from a very low base. In 1967, Indonesia's per capita income was only US$50, about half that of India, Bangladesh and Nigeria. Since then the country has sustained GDP growth at almost 7% per year, a rate far above average for developing countries and on par with those in East Asia -- the most dynamic region in the developing world (see Figure 1.1). Indonesia's economic growth has raised living standards, as its GNP per capita grew by 4.5% per year over the past twenty-five years. This is faster than either Thailand or Malaysia, although Indonesia started from a much lower base. Indonesia is still classified as a poor country with a per capita income of $570 in 1990, but it is now within striking distance of joining the middle income countries.

Figure 1.1: GDP Growth--Selected Countries
(% per year)



1.05 One important reason for Indonesia's growth record is that policymakers have maintained economic stability in the face of fluctuating oil prices. The strong emphasis on macroeconomic stabilization and the willingness to take hard decisions in times of boom and bust have kept the economy on track. During the oil boom of the 1970s, macroeconomic policies were used to spread the absorption of oil windfalls over time, and prevented the erosion of the non-oil sectors that plagued other oil exporters. A broad-based development strategy that emphasized raising rural incomes helped to alleviate poverty. Macroeconomic imbalances were avoided, although inflation moved into double digits in response to increased spending. But excessive accumulation of debt was avoided and the debt-service ratio was relatively low, averaging 16% during 1974-80, about one-third Mexico's level. During the oil bust of the 1980s, the Government moved promptly to adjust spending to reduced income. Fiscal and monetary policy contained domestic demand while a responsive exchange rate policy improved external competitiveness, thereby strengthening incentives for non-oil exports. Public investment was sharply curtailed, partly by rephasing large, capital-intensive projects. These macroeconomic stabilization measures reduced the current account and fiscal deficits and lowered inflation. They also established a sound foundation for structural reforms to promote growth.

1.06 Indonesia also successfully managed external borrowing and, unlike many other oil-exporting countries, has not rescheduled its external debt. Moreover, Indonesia's debt structure has included a relatively high share of concessional debt and a low share of variable interest debt, making it less costly than the average for developing countries. Despite the Government's

prudent external borrowing, Indonesia's debt-service, which had remained very low during the 1970s, rose sharply in the mid-1980s to a level significantly higher than in other East Asian countries (see Table 1.1). This was largely due to adverse external developments, particularly the depreciation of the US Dollar and the collapse in oil prices.

Table 1.1: DEBT SERVICE RATIO - SELECTED COUNTRIES, 1967-1989
(period averages, in %)

	1967-73	1974-80	1981-85	1986-89
Indonesia	14.7 /a	16.4	18.0	34.9
East Asia:				
- Malaysia	5.3 /a	7.4	14.2	19.3
- Thailand	13.1 /a	14.0	23.5	19.8
- Korea	18.7	14.0	21.6	19.9
Oil exporters				
- Mexico	41.0	54.5	49.2 /b	44.7 /b
- Venezuela	6.4	16.7	27.9 /b	37.1 /b

/a 1969-1973 only.
/b Debt service ratio based on actual payments only.

Source: World Tables, 1989 and 1991, World Bank staff calculations.

1.07 Reducing the economy's dependence on oil was a key achievement of the 1980s (see Table 1.2). Government policy reforms moved sharply toward a more outward-oriented growth strategy that spurred competition and expanded

Table 1.2: INDONESIA'S CHANGING ECONOMIC STRUCTURE

	1981/82	1985/86	1991/92 /c
Ratios of			
Oil/LNG exports to total merchandise exports /a	81.9	66.6	36.2
Non-oil exports to non-oil imports /a	28.6	53.8	77.5
Oil/LNG revenues to total revenues	70.6	57.1	36.0
Private fixed investment to total fixed investment /b	52.1	49.1	64.7
Non-oil manufacturing to GDP /b	8.4	11.5	15.5

/a Goods only; in current dollars.
/b Calendar year basis, in 1983 prices.
/c Preliminary estimates.

Source: World Bank staff estimates.

opportunities for growth, especially of non-oil exports. The reforms were particularly far-reaching in the areas of trade, investment, taxation and finance; they improved the structure of incentives and the flexibility of factor markets. The structural reforms were undertaken within a comprehensive, medium-term framework. Credibility was maintained by avoiding major policy reversals. The dismantling of regulatory barriers led to a strong and efficient supply response, embodied in a rapid surge in non-oil manufacturing and exports. Private investment also responded vigorously, and the private sector's share in economic activity expanded appreciably following the structural reforms. Indonesia's non-oil export performance compares well with other countries, including some of the region's best performers (see Table 1.3).

Table 1.3: NON-OIL EXPORT GROWTH RATES - SELECTED COUNTRIES, 1967-1990
(% per year)

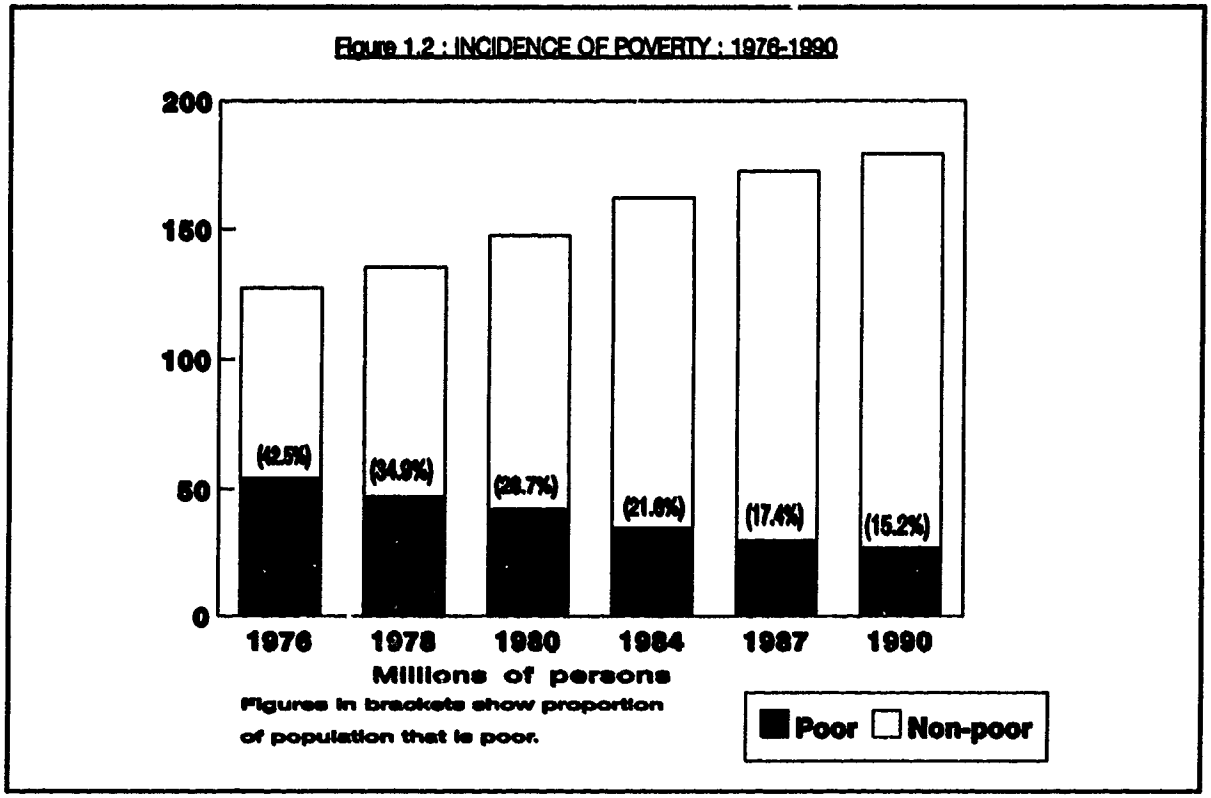
	1967-73	1974-80	1981-85	1986-90
Indonesia (non-oil)	1.2	8.6	11.5	15.8
East Asia:				
- Malaysia (non-oil)	22.0	7.0	9.7	11.1 /a
- Thailand (total)	14.9	17.7	0.3	22.0 /a
- Korea (total)	37.7	15.6	11.7	31.5 /a
Oil exporters:				
- Mexico (non-oil)	5.4	2.5	9.5	19.9 /a
- Venezuela (non-oil)	1.8	2.7	17.4	9.5 /a

/a 1986-88 only.

Source: World Tables, 1989 and 1991, World Bank staff estimates.

1.08 The most significant achievement of Indonesia's development strategy and adjustment to the oil shocks of the 1980s has been a substantial reduction in poverty. Only twenty years ago, poverty was widespread throughout the country; estimates suggest that almost 60% of the population, nearly 70 million people, were living in absolute poverty in 1970. Since then, poverty has declined steadily and significantly (see Figure 1.2). The World Bank's WDR 1990 found that, in the past two decades, Indonesia had the highest annual average reduction in the incidence of poverty among all countries studied.1/ There are several important reasons for Indonesia's success in reducing poverty. Investment in economic and social infrastructure in the 1970s kept the non-oil economy, especially agriculture, viable. This also enabled the momentum of growth and poverty reduction to be sustained when large cutbacks

1/ See, World Development Report, 1990, World Bank, Oxford University Press, July 1991, P. 45.



in public investment became necessary after oil prices collapsed in the 1980s. Although total public expenditure was reduced to help restore financial balance, poverty-related expenditures were protected relative to other expenditures. Also, in improving overall economic efficiency by shifting resources away from inward-oriented, capital-intensive activities, the reform program allowed Indonesia to make solid progress towards restoring financial stability while sustaining steady growth of income and consumption.

1.09 In the past fifteen years Indonesia has made a concerted effort to improve social services. The success of this effort is apparent in the social indicators shown in Table 1.4. The cross-country comparisons indicate that Indonesia has also made great strides, especially recently, in catching up to other East Asian Countries, despite starting from a very low base. Infant survival and life expectancy have improved dramatically during the past three decades. Government efforts to improve access to primary school education through abolishing school fees and an extensive school building program have also resulted in a substantial increase in the primary school enrollment ratio. Female enrollments have risen faster than average, and constitute about 48% of total enrollments at the primary level and 45% at the secondary level. A recent study finds that the poor now have greater access to health

and education services.2/ This suggests that these services can play an increasingly important role in reducing poverty.

Table 1.4: HUMAN RESOURCE DEVELOPMENT - SELECTED COUNTRIES, 1960-1990

	Life expectancy at birth (years)		Infant mortality rate /a		Adult illiteracy rate /b		Primary enrollment ratio /c		Secondary enrollment ratio /d		Population per physician	
	1960	1990	1960	1989	1960	1990	1960	1989	1960	1989	1960	1984
Indonesia	41	61	225	64	61	23	71	118	6	47	46,780	9,410
East Asia & Pacific												
- Philippines	53	64	134	42	28	10	95	111	26	73	na	6,570
- Malaysia	54	70	105	22	42	22	96	96	19	59	7,020	1,930
- Thailand	52	66	149	28	32	7	83	86	13	28	7,950	6,290
- South Korea	54	71	120	23	29	4	94	108	27	86	3,540	1,160
South Asia												
- India	43	59	165	95	72	52	61	98	20	43	4,850	2,520
- Sri Lanka	62	71	71	20	25	12	95	107	27	74	4,490	5,520
All Developing Countries	46	63	233	65	na	40	na	105	na	43	na	4,980

/a Number of infants per thousand live births, in a given year, who die before reaching one year of age.
/b Proportion of the population over the age of fifteen who cannot, with understanding, read and write a short, simple statement on their everyday life. Illiteracy rate is for 1960 except for the following: Indonesia and India (1961); Malaysia (1970); and Sri Lanka (1963).
/c Gross enrollment of all ages at primary level as a percentage of primary school-age children.
/d Computed in the same manner as the primary enrollment ratio.

Source: World Development Report, various issues; The State of The World's Children 1989.

1.10 The priority given by the Government of Indonesia to the development of physical infrastructure has been another major factor in Indonesia's economic growth and the resulting improvement in living standards over the past two decades. Over the past 15 years, the Government has allocated over 40% of all development spending for infrastructure, which has led to an impressive growth in services. For example, the installed capacity of the state electric company (PLN) increased eighteen-fold; the number of telephone lines rose seven-fold; and the length of paved roads increased nearly six-fold. This infrastructure supported rapid growth and recovery from the external shocks of the 1980s. The spread of infrastructure has helped to achieve more equitable development across regions and income groups. For example, improvement in transport and irrigation were major factors in reducing poverty in Java.

1.11 During the 1980s, the Government's policy stance on environmental issues developed in parallel with the growing awareness, in Indonesia and around the world, of how environmental degradation can jeopardize long-term development prospects. Indonesia made notable progress in the 1980s in

2/ See The Distribution of the Benefits from Social Services in Indonesia, 1978-87, D. van de Walle, Policy Research Working Paper No. 871, World Bank, March 1992.

establishing a regulatory framework for improving environmental management in several key areas. Steps have also been taken to define administrative responsibilities for environmental management and to integrate environmental considerations in the planning process through environment assessments. Although implementation of environmental policies remains constrained by inadequate institutional capacity, a strong foundation has been laid for pushing ahead with appropriate environmental policies and programs in the 1990s.

C. Transitions in the 1990s

1.12 Over the past twenty-five years, the Indonesian economy has grown rapidly, shown resilience to severe external shocks and begun a process of structural change. Despite this progress, significant development challenges remain: per capita income is low, only US$570; about 27 million people remain in absolute poverty; and the labor force is growing rapidly (2.3 million people per year). Meeting these challenges calls for continued strong efforts to achieve Indonesia's own development objectives of growth, equity and stability, in a policy framework that ensures environmentally responsible, sustainable resource use. Progress in these areas should enable Indonesia to become a middle income country by the end of the decade. Realistic objectives to achieve middle-income status by the end of the decade are shown in Table 1.5. The remainder of this section discusses, in light of evidence available for other East Asian developing countries:

- growth, and the associated shifts in the structure of production, demand and employment likely over the remainder of the decade;
- the effect the growth path would have on poverty; and,
- the implications of this growth path for the environment.

Growth and Structural Change

1.13 A non-oil GDP growth rate of 6-7% per year would raise living standards towards the US$1,000 level explained in Table 1.5. Since growth in the oil/LNG sector is expected to be slow, this implies overall GDP growth of 5-6% per year for the remainder of the decade. On the supply side, non-oil manufacturing and infrastructure services are expected to be the main sources of growth; on the demand side, non-oil exports (particularly manufacturing) and investment (in both infrastructure and manufacturing) would drive growth. This pattern of rapid industrialization and growth is similar to that followed by other East Asian countries, such as Thailand and Korea.

1.14 Structural change. At the sectoral level, non-oil manufacturing will provide the main source of growth, expanding more than 10% per year during the 1990s, and raising its share of GDP to almost 23% by the year 2000. The manufacturing sector is particularly important for non-oil export growth. As stressed throughout this Report, non-oil export growth is a key factor in reconciling sustainable current account deficits with rapid non-oil GDP growth. Continued, consistent implementation of reforms of the incentive framework, particularly trade policy, will ensure that incentives are

maintained to encourage efficient non-oil exports. The experience of other East Asian countries during the 1980s (see Table 1.3), the relatively small market penetration of most of Indonesia's exports, and the response of non-oil exports and investment to deregulation, all combine to suggest that relatively rapid non-oil export growth is feasible, provided the reform momentum is maintained.

Table 1.5: DEVELOPMENT GOALS FOR THE 1990s

	1990	2000 Projected
GNP (US$ billion) /a	98	220
Population (mid-year, mln. persons)	178	210
GNP per capita (US$) /a	550	1,040
Employment (mln. persons)	76	98
Implied value-added per worker (index, 1990 = 100)	100	140

/a GNP and GNP per capita are shown here in nominal dollars using the exchange rate for the year indicated, unlike the World Bank's Atlas, which uses an average exchange rate over a three year period. In 1990, US$ GNP per capita based on the Atlas methodology is US$570.

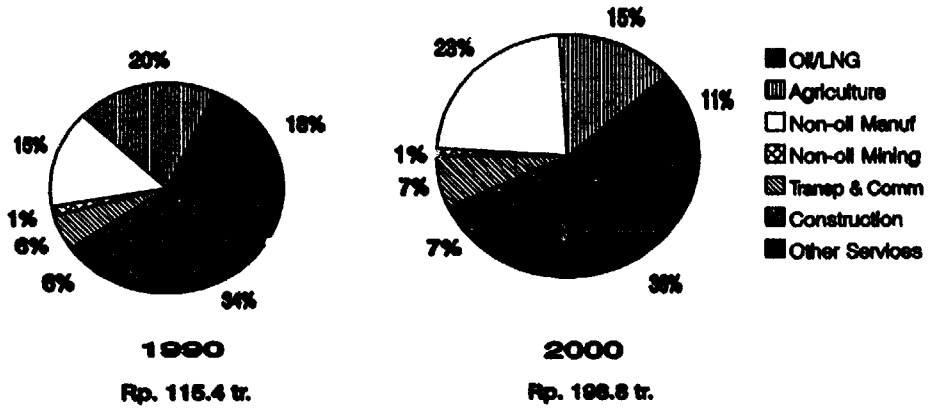
Source: World Bank staff projections.

1.15 Agriculture growth is expected to slow to 3% per year and its share of GDP will sarink from 20% to 15%. Hoever, the agriculture sector will continue to play a vital role in the economy, as a source of livelihood for many people, as well as the producer of critical wage goods, industrial inputs and commodity exports. Finally, services can be expected to support the growth in overall economic activity during the 1990s. The expansion of the financial sector in recent years illustrates how deregulation in combination with rapid industrial growth will help modernize the service sector and spur productivity growth. As a result of this pattern of growth, the structure of Indonesia's economy in 2000 would differ significantly from that which prevailed in 1990 (see Figure 1.3).

1.16 These structural changes are a common feature of economies going through rapid industrialization.3/ For example, the decline in agriculture's share of GDP expected in Indonesia during the 1990s would be similar to that experienced by several other rapidly growing countries in the ten-year period following the attainment of US$500 per capita income (see Figure 1.4). In fact, Korea and Malaysia achieved even faster growth in GNP per capita during

3/ See, Industrialization and Growth: A Comparative Study, Chenery, Robinson, and Syrquin, A World Bank Research Publication, Oxford University Press, October 1986, pp. 72-73.

Figure 1.3: GDP by Industrial Sector
(1983 constant prices)



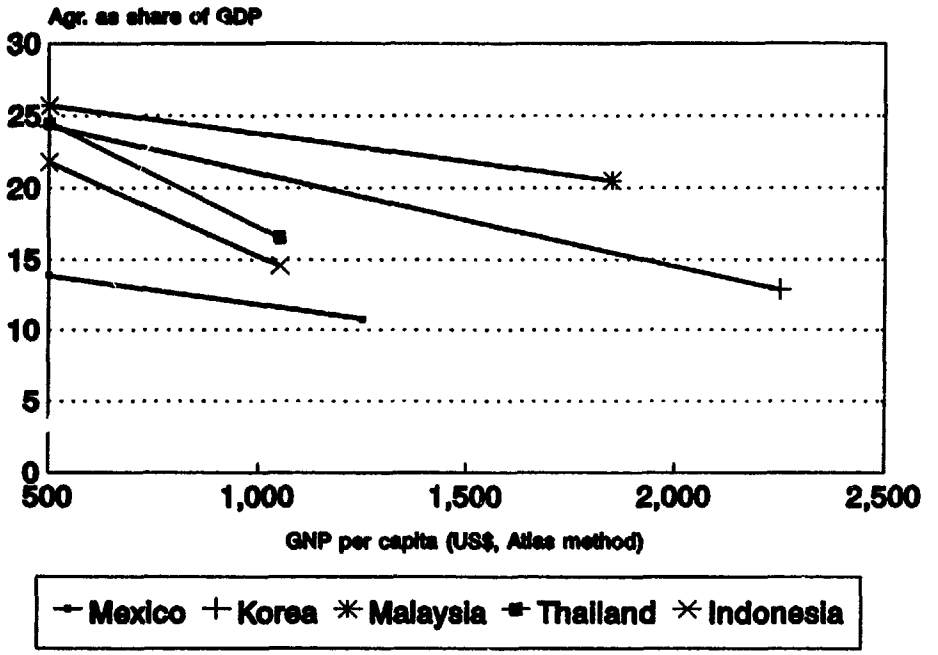
Source : World Bank staff estimates.

this ten-year period, while experiencing structural change similar to that projected for Indonesia; Thailand followed roughly the same pattern as is projected for Indonesia.

1.17 In tandem with these intersectoral changes, important intra-sectoral shifts are also expected. In agriculture, non-rice food crops, smallholder tree crops, and other non-food farm activities will grow more rapidly, and rice production growth is likely to slow. Supporting these structural changes will require policies that help farmers to become more productive and diversified, by following whichever cropping system is most efficient for them. Such policies include bringing input and output prices into line with world prices, improving rural infrastructure, providing more responsive research and extension services, and reducing regulatory restrictions. Non-oil manufacturing growth will continue to be labor- and resource-intensive. Labor-intensive sectors, such as textiles and footwear, are expected to grow throughout the decade as the labor supply will increase significantly. Resource-intensive industries will also contribute to growth, but their contribution is expected to decline as Indonesia adopts more sustainable natural resource policies. This pattern of growth will require the continuation of policies to ensure that the growth of manufacturing is efficient and outward-oriented. In services, three subsectors are likely to grow fast: infrastructure-based services, such as telecommunications, power and transport, in line with higher investments; tourism growth will result in a strong expansion in the retail trade subsector; and construction demand is likely to remain strong, reflecting projected investment outlays.

1.18 Investment. More investment, both public and private, will be required to sustain the projected growth rate. Substantial growth of private production capacity in non-oil manufacturing and agriculture will be needed.

Fig 1.4 Agriculture's Share of GDP--Selected Countries
(ten year period beginning at GNP per capita = $500)



Foreign direct investment can also play a very important role by introducing new technologies, thus promoting productivity gains. Higher public investment will foster private enterprise development by removing impending infrastructure constraints, especially in power, telecommunications, and transport, and by supporting human resource development.

1.19 Investments, particularly public investments, will need to be carefully selected and efficient for Indonesia to realize the growth rate projected with the limited investment resources likely to be available. In the first half of the 1980s, one broad indicator of investment efficiency, the incremental capital-output ratio (ICOR), deteriorated due to large public sector investments in industry and mining followed by a deceleration of growth. Subsequently, investment efficiency improved substantially in response to the Government's adjustment program. This is reflected in the movement of Indonesia's ICOR to the middle of the range of other countries in the region (see Table 1.6). During the 1990s, the ICOR is expected to rise slightly, reflecting the need for high levels of investment in infrastructure. Improved operations and maintenance and cost recovery will help enhance investment efficiency, as will carefully concentrating public investments on the main priorities. An increasingly open and competitive trade regime will encourage efficient private investment. Even with these improvements, fixed investment will need to rise to about 26% of GDP by 2000 from an

average of 24% during 1990/91. High investment rates of about this level have characterized other East Asian countries during periods of rapid growth.

Table 1.6: INCREMENTAL CAPITAL-OUTPUT RATIOS (ICOR): 1975-1990 /a
(5-year ICOR)

	1975-80	1980-85	1985-90
Indonesia	2.2	4.9	3.0
India	5.9	3.5	3.3
Korea	3.8	3.3	3.0
Malaysia	2.9	6.9	3.8
Singapore	4.0	7.4	4.5
Thailand	3.0	4.1	2.2

/a The ICOR is calculated as the sum of gross investment in the previous five years divided by the change in GDP over the 5-year period. It is not adjusted for depreciation.

Source: World Tables 1991 and World Bank Staff estimates.

1.20 Raising domestic savings will be necessary to reconcile higher investment with macroeconomic stability. High savings rates were a key factor in helping East Asian countries, such as Korea, Thailand and Malaysia, avoid debt-servicing difficulties in the 1980s (see Table 1.7). High savings rates in these countries were associated with policies that sustained high, export-led growth while limiting the uncertainties arising from inflation, balance of payments deficits and high levels of extend debt. Other cross-country studies suggest strong economic growth and public savings mobilization efforts, and low dependency ratios are associated with higher overall savings rates.4/ Indonesia's savings rate has returned to the high level prevailing in 1985 before the sharp drop in oil prices. This represents a significant achievement, but continued progress is needed. To achieve Indonesia's growth target and avoid macroeconomic difficulties, gross domestic savings must rise from the current 27% of GDP to 30% in the late 1990s. This is a difficult, but attainable target. Raising public savings will be crucial as it is positively correlated with higher total national savings.5/ Household savings are likely to rise with sustained growth, while business savings will respond to higher profitability. Demographic factors, which are an important

4/ See Household Saving in Developing Countries, K. Schmidt-Hebbel, et.al., PRE Working Paper No.575, January 1991, the World Bank; and Public Policies and Saving in Developing Countries, V. Corbo and K. Schmidt-Hebbel, PRE Working Paper No.574, January 1991, the World Bank.

5/ See The Macroeconomics of Public Sector Deficits: A Synthesis, William Easterly and Klaus Schmidt-Hebbel, PPR Working Paper No. 775, October 1991, The World Bank.

determinant of household savings, may reinforce higher savings as the dependency ratio is falling due to lower population growth.

Table 1.7: GROSS DOMESTIC SAVINGS RATES, SELECTED COUNTRIES--1985-1990
(% of GDP, current prices)

	1985	1986	1987	1988	1989	1990
Indonesia	27	22	24	25	26	27
India	21	20	20	21	21	20
Korea	31	35	37	38	37	37
Malaysia	33	32	37	36	34	33
Philippines	17	20	18	15	23	29
Singapore	40	39	40	42	44	45
Thailand	21	24	25	27	29	34

Source: World Tables, 1991 and World Bank Staff calculations.

1.21 Employment. The pace and pattern of growth projected for the 1990s will allow employment to grow rapidly enough to absorb the large increase in the labor force while raising levels of productivity and income (see Table 1.8). While Indonesia's labor force growth is likely to decelerate slightly in the 1990s as the effects of slower population growth are felt in the working-age groups, labor will be abundant and will provide a strong impetus to the growth of labor-intensive manufacturing industries. The projections are based on an employment elasticity with respect to non-oil GDP of 0.4, roughly consistent with the non-oil employment elasticity in Indonesia during 1982-90. East Asian countries had a similar average elasticity during 1973-87.6/ Despite a projected reduction in agriculture's share of employment, the agriculture sector will remain an important source of employment and absorb large numbers of people. Thus productivity growth in agriculture will be modest during the decade. This is similar to the experience of Thailand, where the agriculture sector still accounted for 67% of employment in 1986 and productivity is significantly lower than in other segments of the economy.7/

1.22 The manufacturing sector is projected to play a much more dynamic role in absorbing new entrants into the labor force than in the past; this will also raise average labor productivity significantly. Improving access to, and the quality of, secondary education will facilitate productivity

6/ See World Development Report, 1991, World Bank, Oxford University Press, June 1991, p. 43.

7/ See Public Policy to Promote Industrialization: The Experience of the East Asian NICs and Lessons for Thailand, David Dollar, Asia Regional Working Paper Series, No. IDP63, The World Bank, pp. 12-15.

Table 1.8: TRENDS IN EMPLOYMENT AND LABOR PRODUCTIVITY

	Annual Increment (millions of persons)		Growth Rate, 1990-2000 (% p.a.)		Share in Employment (%)		Average Labor Productivity (% g.r. per year)
	1982-90	1990-2000	Value Added	Employment	1990	2000	1990-2000
Agriculture	1.35	0.77	2.8	1.7	56.0	51.0	1.1
Manufacturing	0.21	0.52	10.5	5.3	10.0	13.0	5.0
Other services	0.70	0.94	6.7	3.2	34.0	36.0	3.4
Total non-oil	2.26	2.23	6.7	2.6	100.0	100.0	4.0

Source: Labor Force Survey (SAKERNAS) 1982, 1989 and 1990; World Bank staff estimates.

gains, as occurred in Korea and Taiwan during the 1970s and 1980s (see Chapter 5). Increasing manufacturing's share of employment by three percentage points to 13% by the year 2000 would be consistent with Thailand's progress when it crossed the US$1000 GNP per capita threshold. However, the need to absorb these workers into manufacturing underscores again the importance of expanding non-oil manufactured exports and maintaining the policies necessary to induce this expansion. The service sector is projected to grow rapidly, particularly infrastructure services, which in turn will lead to improved earnings for workers currently engaged in low-wage activities, as well as generate additional productive employment opportunities in the sector. The attitude of local governments towards service sector activities will be important, as regulations and restrictions on informal traders and transportation could inhibit growth of the sector. This would have an adverse effect upon employment, particularly for lower income groups.

Improving Living Standards

1.23 Despite the progress made in the past two decades, poverty reduction and equity remain key objectives for policy makers during the 1990s. Achieving a per capita income level of US$1000 by the year 2000 could have a dramatic effect on the incidence of absolute poverty in Indonesia. If the link between poverty reduction and economic growth remains the same in the 1990s as in 1976-1990, the incidence of poverty would decline from about 15% in 1990 to slightly less than 10% by the year 2000. As a result, there would be about 20 million poor people in Indonesia in 2000, about seven million fewer than in 1990. The pace and pattern of output and employment growth, discussed in the previous section, would permit such a reduction in poverty through gradual, continuous improvements in employment opportunities, productivity and incomes.

1.24 The challenge in maintaining Indonesia's past progress on poverty reduction will be to complement general macroeconomic policies with specific policies and programs designed to reach the poor. In general, this will entail policies that support an efficient, labor-intensive growth path, and that improve the productivity of Indonesia's lower income groups. Human resource development will also need to be targeted more effectively at the needs and location of the poor; this will both improve the present welfare of the poor and augment their human capital. Improving access to credit and land and the access of poor areas to trade, communications and infrastructure will

enable the poor to participate more effectively in Indonesia's development. The benefits of growth can be shared widely by establishing a level playing field, improving access to physical and social infrastructure, and ensuring that taxation policy is fair and that public expenditures enhance the productivity and quality of life of all members of society.

Ensuring the Sustainability of Development

1.25 Environmental sustainability is especially important for Indonesia, given its vast endowment of natural resources and the major role they play in the nation's growth. There is a fundamental need to ensure the longer-term sustainability of the Government's development programs especially where they deplete or degrade valuable environmental assets. The primary concerns are:

- Water use and quality. Increasing and often conflicting demands on water resources on Java from agriculture, industry and sanitation have limited the availability of water and degraded its quality, thus threatening Indonesia's growth prospects.

- Urban environment management. With a growing urban population and increased industrialization, significant environmental challenges will arise in urban areas. In addition to increasing pressure on water resources, other key urban environmental issues will be sanitation, solid and hazardous waste disposal, air pollution and congestion.

- Forestry depletion, the loss of biodiversity and land degradation in the Outer Islands. Increasing demands for land in the Outer Islands and current logging practices are resulting in rapid deforestation.

1.26 Reconciling Indonesia's growth with long-term sustainability provides a policy challenge to improve the incentive framework for environmental conservation and protection. Significant improvements are possible in many areas -- water and energy pricing, forestry taxation, land markets -- where good economics and good ecology go hand in hand (see Chapter 3). Trade-offs will need to be faced in other areas, such as investments in pollution control. Institutional factors, including adequate standards, legal and regulatory incentives and sanctions, and increased information, will also play a key role in promoting environmentally sound growth. Continuing and strengthening programs to moderate population growth can also contribute to sustainable growth, by reducing pressures on land and water resources. Another challenge and opportunity will be to increase the participation of community groups and project beneficiaries in the design and implementation of development programs.

D. Managing the Transition

1.27 The discussion above has highlighted Indonesia's rapid progress over the past 25 years from a very low base. If the country can keep up high growth, it could reach solid middle income status by the year 2000, implying substantially higher standards of living for the people. Such robust growth could reduce poverty further, from 15% of the population in 1990 to 10% in

2000. At the same time, progress can be made on environmental conservation and protection. Structural change has been managed very effectively by policy-makers so far and this instills confidence that the transitions likely in the 1990s can be managed smoothly. Moreover, the likely changes are broadly similar to those already managed in other East Asian countries. Nevertheless, enormous challenges remain. Consistent, continued progress will be required across a wide-ranging policy agenda. In particular, there will be a need for consistent macroeconomic policies (Chapter 2), continued development of the climate for enterprise (Chapter 3), greater efficiency and supply of physical infrastructure (Chapter 4), and improved quality and access to social services (Chapter 5). There are many issues and recommendations raised throughout the rest of the report and many cut across the separate chapters. A useful way of presenting the policy agenda is to analyze these issues in the context of the overriding themes of macroeconomic stability, incentives, investment, and institutional development. These themes and some of their interactions are reviewed below.

Macroeconomic Stability

1.28 As discussed in Chapter 2, macroeconomic stability is essential for efficient private sector growth. Stability creates a hospitable climate for enterprise because it reduces the riskiness of longer-term investment projects. This stimulates private investment, and associated increases in productivity. Macroeconomic stability also encourages the private savings needed to finance the economy's substantial investment, while allowing a lower current account deficit and associated debt. It also provides a firm foundation for structural reforms leading to a more competitive and robust economy. In turn, a more flexible economy (see Chapter 3) will make macroeconomic management easier. A more responsive economy is likely to translate growth in demand into more production and employment rather than inflation and increased imports. For example, in the past year the resurgence of non-oil exports has maintained growth while improving the trade balance. Likewise investment in infrastructure and human resource development (see Chapters 4 and 5) will ease bottlenecks and reduce inflationary pressures as aggregate demand expands.

1.29 Sound macroeconomic policies are needed to prevent pressures on prices and the balance of payments from disrupting growth and undermining the confidence of the business community. Indonesia needs to increase its investment rate to maintain adequate growth, and at the same time reduce the large current account deficit. This means that domestic savings (both public and private) will need to rise faster than investment. The kinds of pressures that the economy will be under are demonstrated by the recent investment boom, which increased the current account to unsustainably high levels. Managing such demand pressures will require coordinated policy action in three inter-related areas: (i) monetary policy to support the balance of payments by protecting Indonesia's foreign reserves and helping to maintain price stability; (ii) fiscal policies to help mobilize domestic resources, while meeting Indonesia's key expenditure priorities; and (iii) exchange rate and other policies to support export growth.

1.30 In some ways, the task of macroeconomic management will be more difficult during the 1990s, because in a less regulated environment policymakers have less direct control over the economy. The decline in the

role of oil also means that fiscal policy will have to focus on raising non-oil revenue. For these reasons, macroeconomic management will need to rely increasingly on indirect mechanisms. Continuous and improved monitoring of economic trends will be necessary, so that timely policy adjustments can be made. As outlined in the rest of the report, the pressure on macroeconomic management to achieve stability will be eased through improvements in efficiency and competitiveness throughout the economy.

Incentives

1.31 A key theme of the Report is that improving efficiency and competitiveness of the economy through reform of the incentives and regulatory framework is essential for stable and sustainable growth. Continued reform of the incentives and regulatory framework would help ensure that the large volume of investment now underway will be in areas where Indonesia is competitive, resulting in a lower-cost economy in the years to come. The reform agenda has two main elements. The first element is "getting prices right" through reform of the trade regime and price controls. These issues cut across all the Chapters. For example, pricing policies for fuel, power, fertilizer and forestry have important implications for resource allocation (Chapter 3), improved public enterprise performance (Chapter 4), and resource mobilization (Chapter 2). "Getting prices right" is also a central motivation of the discussion of trade reform in Chapter 3. The second element of the agenda is to improve the flexibility of factor markets, including capital, labor and land. This topic is an integral part of Chapter 3, yet developments in factor markets have important implications for other parts of the report. For example, changes in financial markets have implications for macroeconomic management in the current tight money environment (Chapter 2), as well as for the allocation of resources. Likewise, improving the quality of and access to basic education (see Chapter 5) will help ease bottlenecks in labor markets.

1.32 Continued reform of the trade regime will integrate Indonesia more completely into the world economy, supporting productivity growth and diversification of the non-oil economy. International experience suggests that an orientation towards global markets can stimulate growth -- Indonesia's own experience since the mid-1980s is a good example. So far the trade regime has shifted from a reliance on import licensing to tariffs and has reduced the levels and dispersion of tariffs over time. The reforms have reduced protection of the manufacturing sector relative to agriculture and further improved incentives for export production. However, the trade regime could be further improved. The priority areas include eliminating non-tariff barriers (NTBs), particularly in those sectors where NTBs provide high protection to domestic production. The restructuring of the economy would be facilitated by further gradual reduction in tariff ceilings. Reducing export restrictions would widen opportunities for producers of exports, as well as increase efficiency in domestic production. In this area the priority is to reassess the incentives and regulatory framework (including forestry fees) in the forest products sector (including rattan).

1.33 Prices of fuels, fertilizer and publicly-provided infrastructure services such as power, telecommunications and transport, are controlled. In many instances, these price controls do not serve well the objectives of efficiency, revenue generation and equity. This is because prices do not reflect economic costs for most of the services. Among major infrastructure

services, only telecommunications prices reflect economic costs, implying that other services are used inefficiently and mobilize inadequate revenue. Higher prices that reflect long-run marginal costs would increase efficiency for public utilities by ensuring that available supplies are allocated to the users who value them most. In addition, higher prices could be used to finance much needed capacity in electricity. There may be equity grounds for continuing subsidies in the provision of services such as power and water, but these could be better targeted.

1.34 Although improving the incentives regime is a necessary step, much more needs to be done in order to promote an efficient supply response. In particular, more flexible factor markets would facilitate resource flows out of declining activities into emerging activities. The greatest need for regulatory reform applies to land markets. The current land allocation system results in cumbersome and lengthy procedures in transferring land rights, and underpricing of state land. A more effective and transparent transfer system would remove this constraint and at the same time be more equitable. In general, the markets for capital and labor operate effectively. The financial sector has been substantially deregulated since the mid-1980s, leading to increased competition and efficiency. If anything, deregulation has moved faster than the development of the legal and accounting structure and the capacity of the authorities to supervise financial institutions. The labor market functions relatively smoothly in Indonesia and has facilitated the expansion of labor-absorbing activities in which Indonesia is competitive. Labor regulations could be improved by easing the process for lay-offs and dismissals, and also facilitating the hiring of expatriate staff. Improving the quality and level of education, as discussed in Chapter 5, will help enhance the productivity of the work force.

Investment

1.35 Increases in output in the economy will need to come from: productivity and efficiency improvements, otherwise resources will be insufficient to meet demand; increased levels of investment in selected activities, but within the overall resource constraint and the need to reduce the current account deficit; and a larger private sector role, including in infrastructure. Increased investment will need to be directed largely towards the expansion of non-oil capacity, infrastructure and human resource programs. For the latter, while some programs need to expand, the main emphasis needs to be on improving quality and standards, as discussed in Chapter 5. Enhancing the productivity of private investment will require further progress in reforms of the incentives regime and improving the flexibility of factor markets, as discussed above and in more detail in Chapter 3.

1.36 The private sector will need to provide most of the investment in tradeable goods and services and to increase its role in providing infrastructure and some social services. While public provision of infrastructure will remain dominant, increased private participation can alleviate the pressure on public financial and institutional capacities and increase efficiency by more competition (Chapter 4). Infrastructure services are often near natural monopolies and the framework for private involvement will need careful structuring to generate competitive pressures. This will require reform of pricing policies and an appropriate policy and institutional framework for the design and implementation of proposals. The possibility for

private participation is largest for those services that can be provided in a competitive market setting, such as transport and power generation. Within social services, the private sector plays a central role in secondary, vocational and higher education, but will need to invest more to meet growing demands (see Chapter 5). In addition, there is scope for expanding employer-based training of workers in the private sector. In the medium term, the private sector could also provide and fund health insurance schemes.

1.37 The policy challenge for the public sector will be to provide sufficient complementary resources to support private sector growth and poverty reduction while staying within the overall resource constraint. New infrastructure investments should allow for the associated, incremental operation and maintenance (O&M) requirements, since infrastructure productivity depends greatly on the effectiveness of O&M. As emphasized in Chapter 4, efficiency improvements will be crucial to meet the growth in demand. The priority will be to increase efficiency and investment in the power sector. In the social sectors, increased public spending needs to be directed towards basic education and public health, especially for recurrent expenditure for medicines for the health system and teaching materials in primary schools. Public expenditure is also needed to the expand junior secondary education, especially to provide smaller schools in isolated areas in order to improve access to basic education.

Institutions

1.38 Managing the kinds of structural transition projected in this report requires the development of a sound institutional framework to improve the effectiveness of public management and provide a supportive, transparent climate for private enterprise. Institutional issues dominate the agendas for providing infrastructure and human resource services as discussed in Chapters 4 and 5, but they also underpin most other aspects of the projected transition. Important issues for public sector management in Indonesia include finding the appropriate balance between central and local responsibilities, strengthening the mechanisms for prudential regulation and supervision of the financial system, and improving the performance of public enterprises, including the state commercial banks. Continued attention is needed to develop the institutional underpinnings for private enterprise, including a transparent framework of commercial law and incentives for protecting the environment. Basic functions, such as customs clearance and inspection, will need to be carried out with increasing efficiency. The changing demands on the public sector also imply wide-ranging reforms of the civil service. Further deregulation can ease the institution-building process by economizing on scarce administrative capabilities.

1.39 Public sector management. Reorienting the role of central authorities from implementing projects to setting overall policies is a necessary step in improving public sector management. Central authorities could strengthen their planning, policy analysis and monitoring functions, while at the same time delegating more responsibilities to lower levels of government, including implementing and financing projects and services. Setting clear overall policies will allow coherent formulation of sector-specific programs. Chapters 4 and 5 provide examples of the opportunities in this area. In the provision of O&M for infrastructure, for example, BAPPENAS could play a guiding role in improving the balance between O&M and new

investment. Formulating and implementing coherent sector strategies will require greater coordination throughout government -- within sectors, across sectors and between levels of government (central and local). Decentralizing responsibilities to lower levels of government can generate more efficient service delivery by tapping local initiative, allowing expenditures to reflect local priorities better, and fostering accountability. For example, in the health care system steps are underway to move from a "vertically" determined set of health tasks to a system where provinces (and below) are able to take into account persistent differences in risk of and susceptibility to diseases (Chapter 5). The agenda for ensuring successful decentralization includes building up institutional capacities of local governments, their ability to finance increased responsibilities, and proper accountability.

1.40 Strict financial discipline and accountability need to be established to ensure public enterprises function efficiently and develop the commercial instincts that can make them competitive. Careful scrutiny of annual budgets and five-year corporate plans provide a starting point for this, and can set the stage for selective divestiture (Chapter 3). Raising the efficiency of public enterprises will also improve delivery of infrastructure services (Chapter 4). Countries that have raised the efficiency of their public enterprises have done so by increasing the competence, responsibility and incentives of enterprise managers and boards, while shifting government supervision from control of routine day-to-day operations to the serious evaluation of annual budgets and development plans. The same trend is occurring in Indonesia, although it could be accelerated. The scope for enterprise autonomy is greater where the market structure is more competitive; in less competitive market settings, regulation of prices and control of personnel compensation, for example, may need to continue. Given the priority of increasing power supply, particular attention could be directed to improving the performance of PLN.

1.41 Climate for enterprise. An important theme of this report, highlighted in Chapter 3, is that Government's role does not stop at deregulation, but also encompasses fostering development by providing transparent "rules of the game". A major institutional development effort will be required to ensure that initiatives in these areas are implemented effectively. Reform of the legal system is needed to provide business with the kind of stable, predictable environment that raises confidence and supports an increased level of private transactions and investment. Continued, consistent implementation of the Government's deregulation strategy will also call for institutional strengthening ranging from ensuring efficient customs operations to building capacity to analyze and recommend further deregulation measures. The success of the ongoing reform of the financial sector will depend critically on the development of banks as well-managed, disciplined institutions and on the development of BI's capacity to establish effective prudential regulation of banks. Finally, sustained, sound private sector growth will depend increasingly on an institutional framework to design and implement market-based incentives and regulations that reduce pollution and ensure environmentally responsible resource use.

1.42 Administrative reform. Implementation of the wide-ranging policy agenda in this report will have important implications for the size, functions and structure of the public sector and civil service. For example, deregulation in trade, investment and finance has eliminated many of the

controlling and licensing functions of a large number of civil servants. Similarly, moves towards decentralization imply a shift in planning and implementation responsibilities to regional governments. Furthermore, public enterprise reform, involving privatization of some and enhanced autonomy for others remaining within the public sector, will reduce the need for operational control by supervising line ministries. At the same time, institutional capacity has to be built up in such important areas as reform of the legal system. A major long-term task, therefore, will be to reassess and realign both the role of institutions within the public sector and the skills and incentives needed for the civil service to perform these changing functions. Improving the performance of the civil service will require creating or updating personnel management systems (including performance evaluation mechanisms), improving training, linking pay to productivity, and offering incentives to attract and retain competent, skilled personnel.

The Challenge of Reform

1.43 As outlined above, managing Indonesia's transition to solid, middle-income status by the end of the century involves a complex, perhaps daunting, agenda for reform and policy implementation. Although initiatives will be needed across a broad front, the Government needs to target its scarce financial and management resources carefully. To paraphrase a noted Indonesian economist, the Government should focus its efforts on the "unavoidable" tasks that no one else can do and that it can do best, and shun taking on "unaffordable" tasks that would divert attention from priorities.8/ The agenda calls for a continuation and intensification of the broad strategy Indonesia has been following to maintain sound macroeconomic policies, develop market incentives, implement well-selected, efficient investments and build effective institutions. Experience in Indonesia and in several of its faster-growing neighbors indicates that pursuing these policy directions in parallel produces a synergy that enables the economy to undergo a smooth transition to higher standards of living.

8/ The "unavoidable"/"unaffordable" distinction was used in an address by Dr. Sumitro Djojohadikusumo, in reference to large-scale public investment projects.

CHAPTER 2

A MACROECONOMIC FRAMEWORK FOR GROWTH WITH STABILITY

A. Introduction

2.01 Chapter 1 described Indonesia's progress over the past decade and the challenges for the future. The key development challenge for the 1990s is to maintain a rate of economic growth -- 5-6% per year -- sufficient to absorb Indonesia's growing labor force at higher levels of productivity and raise living standards of all members of society. At the same time, there is a need to ensure the long run sustainability of economic progress and reduce Indonesia's large debt burden The general directions for the overall policy agenda were reviewed in Chapter 1. This Chapter outlines a macroeconomic framework that, if implemented in conjunction with the sectoral and institutional policies discussed in the rest of the Report, would address these challenges by maintaining a stable macroeconomy conducive to private sector growth.

2.02 Section B of this Chapter discusses recent economic developments. This analysis shows that determined efforts by policy makers during 1991/92 are beginning to return the economy to a sustainable long-run growth path. However, demand pressures will need to be managed carefully in the short term to ensure that a stable macroeconomy is achieved. At the same time, the Government will need to ensure that adequate resources are available and are deployed efficiently to finance necessary investments in physical and social infrastructure. Maintaining macroeconomic stability in the short term, while devoting adequate resources to public investment will help to ensure sustained growth, high enough to raise living standards, reduce poverty, and ease the debt service burden over the medium term. Section C outlines a macroeconomic policy framework designed to meet these challenges. The medium term prospects for growth based on this framework and related sectoral policy and institutional development issues, which are reviewed in later Chapters, are then discussed in Section D. This section also estimates the level of public expenditures that would be consistent with macroeconomic stability. Enhancing domestic resource mobilization and managing carefully the available external financial flows are two important concerns in maximizing Indonesia's prospects for growth and development. These are discussed in Sections E and F, respectively.

B. Recent Economic Developments

Background

2.03 Responding to a series of severe external shocks, which were estimated to have cost the Indonesian economy some 8-9% loss of income per year during 1983-88, Indonesia has successfully implemented a comprehensive adjustment program, including both stabilization measures and structural reforms. These measures enabled a rapid restoration of macroeconomic stability while also protecting economic growth. By 1989, the current account

deficit was reduced to 2% of GNP, the overall public sector deficit was restrained to around 2% of GDP, inflation was contained at about 6%, and the debt-service ratio had declined from 40% in 1986 to 32% (see Table 2.1).

Table 2.1: Key Macroeconomic Indicators /a

	1975-83	1983-87	1988-89	1990	1991 (est.)
Average real growth rates (% p.a.)					
GDP	6.5	5.0	6.6	7.3	6.8
Non-oil GDP	7.0	5.7	7.8	7.8	6.5
Agriculture	3.5	3.3	4.0	2.5	0.9
Manufacturing	10.6	12.0	12.2	13.0	11.4
Mining	6.8	3.4	5.4	14.6	9.8
Construction	10.8	1.1	10.6	13.6	11.5
Other Services	8.6	6.0	8.1	7.6	6.6
GNY	8.5	3.4	7.0	8.5	5.6
Non-oil exports	10.5	12.2	17.8	3.4	24.8
Non-oil imports	13.8	-8.2	12.7	26.0	9.7
Fixed investment	10.7	-3.7	11.9	19.7	10.7
Public	12.6	-9.8	13.8	11.9	11.2
Private	9.1	0.9	10.7	24.4	10.4
Consumption	8.9	4.0	5.1	7.5	5.2
Macroeconomic balances (%) /b					
Current account/GNP	-7.8 /d	-2.5	-1.7	-3.8	-4.3
Non-interest current account/GNP	-6.0 /d	2.0	2.5	0.3	0.1
Overall public sector balance/GDP	-4.3 /d	-2.7 /e	-2.1 /e	0.2 /e	-0.7 /e
MLT debt service/exports	16.8 /d	34.8	32.3	27.8	30.1
MLT debt/exports	127.6	234.3	186.3	183.3	191.2
MLT debt/GNP	33.1	65.5	54.7	58.6	61.1
Structure of the economy (%) /b					
Non-oil manufacturing/GDP	9.9	12.8	14.1	14.9	15.5
Non-oil exports/non-oil imports	37.4	80.8	87.9	71.2	77.5
Public savings/GDP	8.9	4.8	6.5	9.3	8.9
National savings/GDP	21.0	19.1	21.7	22.1	22.2
Fixed investment/GDP	25.1	19.2	21.2	23.5	24.7
Private fixed investment/ total fixed investment	52.1	60.6	59.6	60.9	61.2
Consumption/GDP	73.9	75.6	73.4	72.8	72.8
Consumption/GNY	73.9	76.9	74.4	73.6	73.4
Prices					
Oil prices (US$/bbl) /b	28.9	17.6	17.9	22.6	18.3
Non-oil terms of trade (1983/84=100) /b	100.0	96.3	95.9	94.7	90.6
Domestic inflation (% p.a.) /b /c	16.2	7.9	6.3	7.9	9.4

/a Balance of payments and fiscal data are for fiscal years (starting April 1). Other indicators are for calendar years.
/b For last year of multi-year periods.
/c As measured by the consumer price index, with an adjustment for rice prices during 1987-89
/d For 1982/83.
/e Calendar year.

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

Despite the severity of the adjustment challenge, the non-oil economy grew at close to 6% per year during 1983-87 and then surged to almost 8% per year in 1988-89. The growth momentum continued in 1990, fueled by a rapidly expanding private sector. This expansion was facilitated by accommodative monetary policy through mid-1990. The combination of a booming private sector and monetary expansion exerted strong demand pressures. This was reflected in a

surge in imports and an acceleration of domestic inflation during 1990, as well as contributing to a slowdown in non-oil exports. It was also reflected in a significant decline in the private savings rate, at a time when private investment increased sharply, leading to a widening of the private savings - investment gap.1/ As a result, the current account deficit widened to 3.8% of GNP while inflation climbed to 8%.2/ Non-traded goods' prices increased by over 10%, as compared with 5% in 1989.

Developments during 1991/92 3/

2.04 Economic growth. These demand pressures continued into 1991/92, as the current account deficit worsened and inflationary pressures remained strong. Economic growth also continued at a high pace during 1991. Non-oil GDP increased by 6.5%, slowing from the 7.8% growth experienced in 1990. The agriculture sector was a major factor in the slowdown, as production declined significantly due to the drought on Java. This caused a decline in both rice and corn production. Moreover, Government policies to dampen aggregate demand pressures, reduced growth in the service sectors. Growth in non-oil manufacturing also slowed, but continued to be robust, reflecting primarily past investments in non-oil export manufacturing capacity; the surge in textiles and footwear manufacture particularly reflected this trend. The oil/LNG sectors also grew very strongly in 1991, reflecting higher production due to the relaxation of OPEC quotas during and after the Gulf War. As a result, real GDP increased by about 6.8%. As in the late 1980s, external demand was a key factor in the growth of expenditures, as both oil/LNG and non-oil exports grew strongly, while real import growth was considerably lower than in 1990. Adverse movements in the terms of trade, due to the sharp decline in oil prices, reduced the growth in gross national income compared to 1990. Combined with continued tight monetary policy, these factors contributed to a slowing of private demand in the economy. Real growth in private investment slowed to about 10% compared to more than 20% in 1990. Private consumption growth also slowed, and, as a consequence, the private savings rate increased slightly. Both public consumption and investment, however, remained strong, increasing by 7.2% and 11.2%, respectively, during 1991.

2.05 Inflation. Inflationary pressures remained high during 1991. Inflation, measured by the change in the average yearly CPI, rose from about 7.9% in 1990 to 9.4% in 1991. Administered price increases and the drought contributed to inflation in 1991/92, but prices of all other items rose nearly as fast as the overall CPI, indicating continued demand pressures. Recent monthly inflation rates, however, show some slowing of inflation. An easing in inflationary pressures is also supported by a decline in non-traded goods'

1/ Data on public and private savings and investment are weak; improving these data is a priority for the future.

2/ The average annual inflation rate presented here is calculated as the percentage change between the average of the monthly 27-city CPI in 1989 and the average in 1990.

3/ Economic developments during 1991/92 are discussed in greater detail in ANNEX 1.

inflation from 10.7% during 1990 to 9.6% in 1991. Despite the recent easing of inflationary pressures, inflation is still high especially when compared to international inflation and it is still too early to determine if the recent slowing is a clear trend or a short term fluctuation. Therefore, the possibility of a revival of inflationary pressures in 1992 cannot be discounted. Price trends need to be monitored very closely and present policies to contain demand pressures need to be continued.

2.06 Balance of payments. The current account deficit widened considerably during 1991/92. The primary factor behind this deterioration was the fall in oil prices, as the non-oil current account improved slightly (see Table 2.2). Non-oil exports, led by manufacturing items such as textiles and footwear, rose to US$ 18.8 billion--an increase of 22% in nominal terms. As non-oil export prices fell, due to lower agricultural and mineral prices, this represents a real non-oil export growth of 24%. Much of this increase was the result of private investment in non-oil export capacity in previous years, but the slackening of domestic demand was also a factor as producers diverted items from the domestic market to exports. The growth of non-oil imports levelled off, growing by about 12%, compared with about 35% in 1990/91. Imports of food products and capital goods continued to grow strongly; the former due to the drought and the latter due to strong manufacturing investment. Imports associated with the automotive industry slowed dramatically, consistent with the slowdown in private consumption. Overall, the non-oil trade deficit improved, reversing the substantial deterioration in the previous fiscal year (see Figure 2.1). However, a rise in MLT interest payments, of about US$0.4 billion, to US$3.6 million due to the higher borrowing by the private sector in 1990/91 and 1991/92, partly offset the improvement in the non-oil trade balance. In aggregate, therefore, the non-oil current account deficit improved only slightly. By contrast, the oil/LNG current account surplus declined significantly despite higher production levels, from US$6.0 billion in 1990/91 to US$4.6 billion in 1991/92, due to lower oil prices; the price of oil averaged US$ 18.3 for 1991/92, compared to US$ 22.6 for 1990/91. The net effect of these developments was that the current account deficit increased substantially to about US$4.5 billion in 1991/92 -- US$0.8 billion higher than in 1990/91.

2.07 Although total financing was adequate to cover both the higher current account deficit and allow a buildup in reserves in 1991/92, the level of private capital inflows that made this possible is unsustainable over the medium term because it implies an excessively rapid increase in debt and debt service payments. Tight domestic credit conditions widened the differential between domestic and foreign interest rates, leading to short-term private capital inflows. Direct foreign investment flows also remained strong. Moreover, external borrowing by the private sector also increased, although at a slower pace than in 1990/91. Net official capital inflows rose to US$1.6 billion in 1991/92, from US$0.7 billion in 1990/91. Net disbursements of official loan assistance in 1991/92 were roughly the same as in 1990/91; the increase in net public disbursements mainly reflects higher borrowing by public enterprises. Total capital flows were large enough to finance the current account deficit and allow net foreign assets to increase by US$1.4 billion in 1991/92, with official reserves remaining at about 4 months of next year's expected imports.

Table 2.2: BALANCE OF PAYMENTS, 1986/87-1991/92
(US$ billion at current prices)

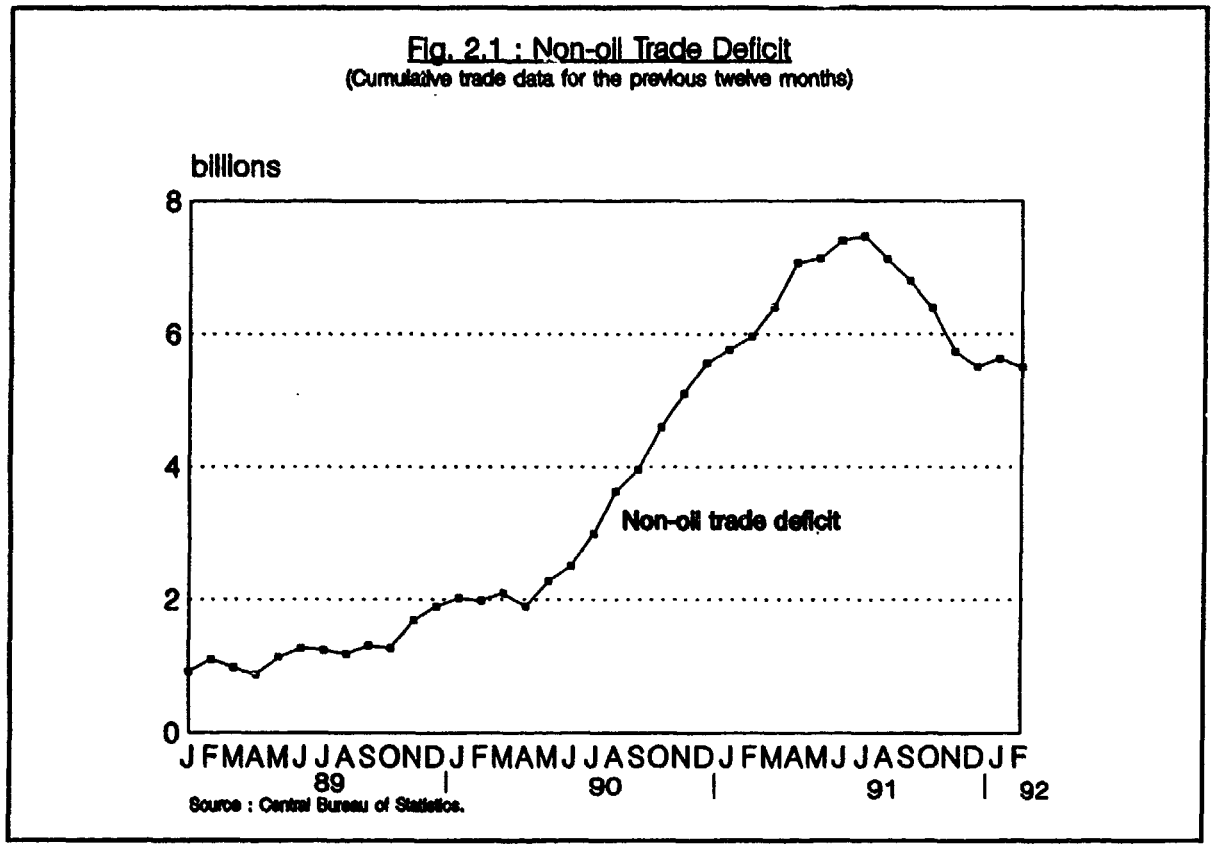
	Actual					Estimated
	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Merchandise exports (fob)	13.7	18.3	19.8	23.6	28.0	29.4
Oil & LNG	7.0	8.8	7.6	9.3	12.6	10.6
Non-oil	6.7	9.5	12.2	14.3	15.4	18.8
Merchandise imports (cif)	-12.8	-14.9	-16.2	-19.4	-25.6	-28.1
Oil & LNG	-2.4	-3.1	-2.6	-3.1	-4.0	-3.9
Non-oil	-10.4	-11.8	-13.6	-16.3	-21.6	-24.2
Trade balance	0.9	3.4	3.6	4.2	2.4	1.3
Non-factor services (net)	-1.5	-1.2	-1.2	-1.2	-0.7	-0.5
Interest payments (MLT)	-2.5	-2.7	-3.0	-3.2	-3.2	-3.6
Other factor services and transfers (net)	-1.2	-1.3	-1.2	-1.4	-2.2	-1.7
Current account balance	-4.3	-1.8	-1.8	-1.6	-3.7	-4.5
Oil/LNG current account	2.6	3.7	3.1	4.0	6.0	4.6
Non-oil current account	-6.9	-5.5	-4.9	-5.6	-9.7	-9.1
Public MLT loans (net)	2.2	1.8	3.3	1.4	0.7	1.6
Disbursements	5.0	6.0	7.4	6.1	5.1	6.2
Principal repayments /a	-2.8	-4.2	-4.1	-4.7	-4.4	-4.6
Other capital (net)	-0.4	0.9	-1.8	0.0	5.9	4.3
Use of net foreign assets	2.5	-0.9	0.3	0.2	-2.9	-1.4
Use of official reserves	0.7	-1.0	0.6	-0.2	-3.6	-1.3
Use of comm. bank reserves	1.8	0.1	-0.3	0.4	0.7	-0.1
Memo items:						
Net official reserves (US$ bln.)/b	5.0	6.0	5.4	5.6	9.2	10.5
- Months of imports /c	(4.1)	(4.4)	(3.3)	(2.6)	(3.9)	(4.1)
Total net foreign assets (US$ bln.)	10.0	10.9 /d	10.6	10.4	13.3	14.7
Current account/GNP (%)	-5.9	-2.5	-2.2	-1.7	-3.8	-4.3
Non-interest current account balance (% of GDP)	-1.7	2.0	2.2	2.5	0.3	0.1
MLT debt service/exports (%) /e	39.7	34.8	34.4	32.3	27.8	30.1

/a Includes prepayments of US$626 million in 1987/88, US$341 million in 1988/89 and US$300 million in 1989/90.
/b Net official reserves are defined as gross official reserves minus outstanding liabilities to the IMF and other short term liabilities.
/c Net official reserves in months of next year's expected imports (oil/LNG and non-oil) of goods.
/d Excludes US$326 million of prepayments, committed during the year but not completed until June 1988.
/e Debt service on public and private debt, excluding prepayments; denominator is gross exports of goods and services.

Source: Bank Indonesia and World Bank staff estimates.

2.08 Policy response to macroeconomic imbalances. The Government viewed persistent macroeconomic imbalances in 1991/92 with considerable concern, and a number of measures were taken to reduce aggregate demand. First, the Government has maintained a tight monetary policy stance and attempted to shore up the stability of the financial sector. Second, the Government moved to exercise greater control over the external borrowing of public enterprises, tightened reporting requirements on private borrowings and instituted a system to ensure a more orderly approach to international credit markets. In

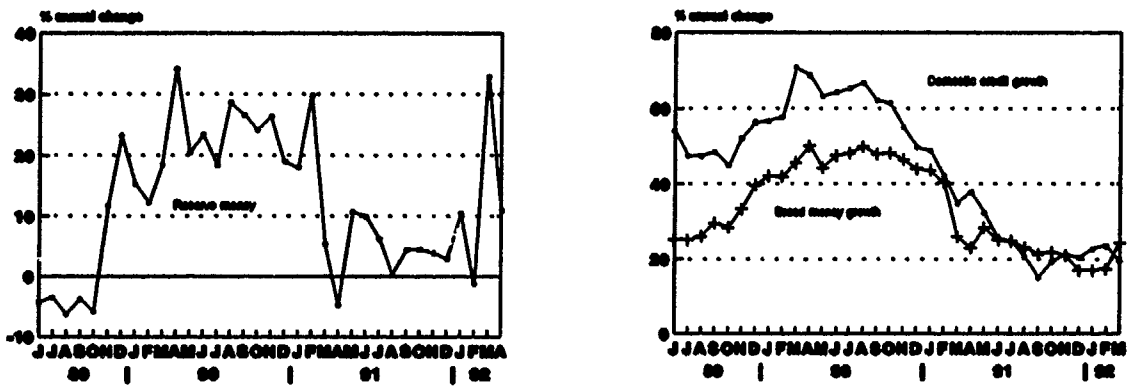
addition, a number of steps were taken to reduce speculative capital flows. And third, the cautious fiscal policies adopted in 1990/91 were continued in 1991/92.



2.09 Monetary policy. The Government tightened monetary policy considerably, in early 1991, by requiring state enterprises to withdraw deposits from the banking system and place them in Bank Indonesia's (BI) money market instruments (SBIs). Monetary policy remained tight throughout 1991. Reserve money grew by only 2.9% in the year to December 1991 (see Figure 2.2). This tightening was achieved by open market operations, offsetting a slight increase in liquidity credits and a large jump in net foreign assets. As a result of BI's tight reserve money management, domestic credit and total liquidity growth fell to 20% and 17%, respectively, year on year. By end-December 1991, credit growth had declined to a level, that if combined with appropriate fiscal restraint, will support slower growth of aggregate demand, a lower current account deficit and a decline in inflationary pressures. In the first four months of 1992 reserve money growth has stabilized at a level consistent with the Government's policy target of cautious monetary expansion. However, in the second half of March, due to seasonal factors and a sudden influx of foreign exchange, reserve money growth surged. Open market operations in April quickly brought reserve money back in line with targeted levels. The April correction demonstrates that BI has a strong commitment to maintaining its current monetary policy stance during 1992/93.

Fig 2.2 : Trends in Monetary Aggregates

(percentage change year on year)



Source : Bank Indonesia

2.10 Interest rates remained relatively high throughout 1991/92, although they dropped several percentage points from the peak reached as a result of the March 1991 tightening. High interest rates and slower credit growth also contributed to increased pressures on the financial system. With inflationary pressures still evident in the economy, the high level of the current account deficit, and the prospect for a weak world economy including lower oil prices, a loosening of monetary policy during 1992/93 could reignite domestic demand pressures, undoing the Government's hard-won progress to date.

2.11 Regulatory and supervisory changes introduced by the Government have contributed to a slowing of credit growth: the net open position was lowered from 25% of a bank's capital to 20%; this 20% requirement also was applied to both on-balance and off-balance sheet transactions separately; and, a requirement that the net open position could be only 25% in any single currency was also established (previously there were no single currency restrictions). These regulations were intended to lead to sounder banking practices regarding foreign exchange, but also limited commercial banks' options in sourcing funds from abroad. Moreover, swap transactions of less than two years were reclassified as liquidity swaps and will be accepted only at BI's discretion. The latter regulation is likely to end the use of the swap facility as a currency hedge for short maturity foreign borrowing. As a result, the stock of swaps were slightly less than US$0.5 billion at end February 1992 -- a significant decline from the previous year.

2.12 External borrowing stance. In addition to the widening of macroeconomic imbalances, which were being financed by commercial borrowings at increasingly stiffer terms (i.e. shorter maturities and higher spreads), some public and quasi-public entities were planning to raise external capital for a number of very large projects. The implementation of these projects, in conjunction with the demand pressures already evident in the economy, would have added further to pressure on the balance of payments and Indonesia's rapidly growing external debt. Faced with new demands for external commercial financing that far outstripped a sustainable level of borrowing, and deteriorating terms that had begun to affect even Government borrowings, the Government in September 1991 formed a ministerial-level team--the Commercial Offshore Loan Team (COLT)--for the coordination of all public and publicly-related borrowings. In October 1991, the COLT decided to defer four large public and quasi-public projects that would have involved commercial borrowings of about US$ 10 billion, and subsequently set out detailed annual ceilings for these borrowings, a list of approved projects, guidelines for a prudent level of private sector borrowing, and enlarged and improved reporting requirements. BI also issued regulations establishing a "queuing system", and limiting the ability of domestic banks to borrow short term debt from abroad to a percentage of their capital base. These actions eased pressures on the balance of payments and reassured creditors of Indonesia's commitment to sound macroeconomic policies and a sustainable external debt strategy. Moreover, they eliminated a large, potentially disruptive threat to macroeconomic stability over the medium term. They will also enhance the effectiveness of monetary policy, by lessening inflows of offshore funds during periods of tight domestic monetary conditions. While these measures helped to limit the increase in the current account deficit, they should not be viewed as a substitute for appropriate macroeconomic policies to dampen aggregate demand in the economy or for structural reforms that increase financial discipline in public enterprises or banks.

2.13 Fiscal policy. Some fiscal policy restraint was evident in 1991/92. This supported monetary policy in dampening aggregate demand (see Table 2.3). Although the 1991/92 Budget projected only a modest increase in non-oil revenues, implementation of the Budget during the fiscal year led to a tightening of the Government's fiscal policy stance. Non-oil revenues exceeded substantially projections in the Budget partly because of improved administration and selective tax increases on luxury items. Also, adjustments made to domestic petroleum prices reduced the petroleum subsidy. While civil servant salaries were increased in July 1991, the increases had been anticipated in the Budget. These factors led to the achievement of a small positive budget balance in 1991/92, compared to an original Budget estimate of a deficit of Rp.1.5 trillion (0.7% of GDP). If spending on state bank recapitalization and arrears on the petroleum subsidy for an earlier year are excluded, the overall budgetary outcome shows a positive balance of about Rp.0.5 trillion (0.2% of GDP). Nevertheless, the real growth of total public investment, including public enterprise investment, was about 11% in 1991/92, which contributed to domestic demand pressures. A lower level of public investment would have helped to support monetary policy and ease import demand further, as well as shifted more of the burden of adjustment onto the public sector.

Table 2.3: CENTRAL GOVERNMENT BUDGET, 1986/87-1992/93
(Rp. trillion at current prices)

	Actual					Estimated	Budget
	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Revenue and grants	16.7	21.8	23.9	30.0	42.6	41.9	46.5
Oil and LNG taxes	6.3	10.6	9.9	11.8	18.9	15.1	13.9
Non-oil taxes	7.9	8.8	11.9	15.4	20.7	23.5	28.9
Non-tax revenues /a	2.2	2.0	1.6	2.2	2.4	2.8	3.7
Grants	0.3	0.4	0.5	0.6	0.6	0.5	0.0
Current expenditures	13.4	15.3	16.8	19.8	24.0	25.1	26.8
External interest	2.8	3.7	4.3	4.5	4.8	5.3	5.8
Subsidies	0.9	1.4	1.0	1.5	4.0	1.6	0.2
Other	9.7	10.2	11.5	13.8	15.2	18.2	20.8
Government savings	3.3	6.5	7.1	10.2	18.6	16.8	19.7
Capital expenditures	6.8	9.0	10.6	11.6	14.0	16.7	19.5
Budget balance	-3.5	-2.5	-3.5	-1.4	4.6	0.1	0.2
Financed by:							
External loans (net)	3.2	2.3	5.0	2.6	1.6	1.4	-0.2
Disbursements	6.8	8.8	11.5	10.2	9.2	9.8	9.6
Principal repayments	3.6	6.5	6.5	7.6	7.6	8.4	9.8
Asset drawdown	0.3	0.2	-1.5	-1.2	-6.2 /d	-1.5 /d	0.0
Memo items (% of GDP):							
Non-oil taxes (% of non-oil GDP)	9.3	8.6	10.0	11.2	13.0	13.2	14.4
Government savings	3.0	5.0	4.8	5.9	9.5	7.6	8.1
Budget balance	-3.3	-1.9	-2.4	-0.8	2.3	0.0	0.1
Total expenditure	18.8	18.9	18.6	18.3	19.4	19.1	19.1
Net domestic expenditure /b	3.2	3.8	2.7	2.3	1.7	0.8	-0.5
Primary balance /c	-0.5	1.0	0.6	1.9	4.8	2.5	2.5

/a Includes domestic oil surplus in 1986/87.
/b Defined as the domestic content of expenditure less non-oil revenues.
/c Budget balance net of external interest payments.
/d Includes Rp.2.0 trillion allocated to reserves in the development budget in 1990/91 and Rp.1.5 trillion in 1991/92.

Source: Ministry of Finance and World Bank staff estimates.

2.14 In formulating the Budget for 1992/93, the Government noted the need to dampen aggregate demand further and achieve a better balance of policies through fiscal restraint. The Government assumed what was a relatively conservative oil price of US$17/bbl at the time of the Budget, but recent events indicate that the price may be somewhat lower. Non-oil tax revenues were projected to grow by about 23% due to: (a) a continued strong increase in income taxes to be achieved largely through better tax administration and a change in the taxation of corporate deposits; and (b) a 34% increase in VAT/sales tax revenues through a combination of better administration, an extension of the VAT to the retail level for establishments with an annual turnover exceeding Rp.1 billion, and increases in selected luxury sales tax rates. Current expenditure growth is to be contained at about 7%. The Budget provides for an increase of about 16% in capital expenditure; while providing continued strong support to the priority objectives of infrastructure and human resource development, the budgeted increase is less than in 1991/92. As

a result of high non-oil revenue targets and relative expenditure restraint, net domestic expenditure is projected to be -0.5% of GDP, compared to 0.8% last year. Thus, the fiscal stance will have a more moderating effect on domestic demand than in 1991/92 and will support efforts to reduce macroeconomic imbalances.

2.15 Exchange rate management. Movements of the real effective exchange rate over the past year reflect the Government's policy intention of supporting the growth of non-oil exports by maintaining the real effective exchange rate at about the same level prevailing after the 1986 devaluation.

2.16 In summary, Government macroeconomic policies have begun to dampen aggregate demand pressures in the economy. However, the objective of placing the economy on a sustainable medium-term growth path has not been fully achieved. This is indicated by the stubbornly persistent, high rate of inflation, a substantial current account deficit, especially in the non-oil account, and a high level of external indebtedness, combined with a recent hardening in the terms for foreign borrowing. The coming fiscal year, 1992/93, will be extremely important in establishing macroeconomic stability for the 1990s. This will require the continuation of prudent macroeconomic policies, particularly with more reliance on fiscal policy. Any significant relaxing of the policy stance is likely to rekindle demand pressures, negate the substantial progress already achieved in stabilizing the economy, and make adjustment ultimately more costly to realize.

C. A Macroeconomic Strategy and Policy Framework for the 1990s

2.17 The key challenge for macroeconomic management is to design and implement policies that ensure the consistency of Indonesia's objectives of growth and stability. This will require macroeconomic policies to raise national savings, which have declined in the past two years, in order to finance higher investment outlays. Sound fiscal, monetary and exchange rate policies will provide an environment conducive to private savings and thus help finance the economy's substantial investment needs while allowing a reduction in the debt burden. They will also create a hospitable climate for private investment and thus promote productivity. Finally, attracting foreign savings and investment will also be facilitated by sound macroeconomic policies.

2.18 As demonstrated during the 1980s, maintaining macroeconomic stability will be a continuing challenge to policy makers throughout the 1990s. There will be a constant tension between the need to increase investment to sustain higher growth and the need to raise savings, particularly private saving, to ensure stability. Domestic demand pressures arising from both consumption expenditures due to rising incomes and investment due to the development potential of Indonesia's vast labor and natural resources are likely to persist throughout the decade. The economy will also remain vulnerable to external developments, such as world economic growth, world trade, the exchange rates of Indonesia's major trading partners, the oil market and global capital flows. Without quick, corrective actions, these internal or external shocks could easily disrupt macroeconomic stability, which, in turn, would result in costly interruptions to economic growth. Furthermore,

macroeconomic stability could also be threatened by the fragility of the financial system. After a period of rapid asset growth, the Government's tight monetary policy stance has increased pressures on the financial system.

2.19 The tools for maintaining macroeconomic stability have changed substantially as a result of the structural reforms in the economy initiated by deregulation. In the early 1970s, the Government controlled the main sources of foreign exchange and tax revenues -- oil. As noted, oil's role has declined. Moreover, many of the Government's direct controls over the economy, such as credit and interest restrictions, import restrictions, and industrial and investment regulations have been dismantled. Fundamental reforms of the financial sector have also changed the underlying relationships among monetary aggregates, complicating monetary management. While the removal of these controls and the financial reforms were essential to improve economic efficiency, it also has resulted in the need for macroeconomic management to rely increasingly on indirect mechanisms. Thus, a careful, continuous monitoring of economic trends is necessary so that timely policy adjustments can be made, thereby avoiding costly interruptions in the growth process and maintaining the confidence of the business community.

2.20 To reiterate: a key challenge throughout the decade will be to raise savings -- both public and private -- to permit higher investment to sustain economic growth while reducing the economy's dependency on foreign savings. This is especially important in the near term, following two years of strong inflationary pressures and widening current account deficits. Prudent macroeconomic policies during 1991/92 are beginning to return the economy to a sustainable growth path, but significant demand pressures remain. Managing these pressures, while ensuring a high rate of growth, requires coordinated policy action in four interrelated areas: (i) monetary policy to support the balance of payments by protecting Indonesia's foreign reserves and helping to maintain price stability; (ii) fiscal policies to contain aggregate demand growth, while meeting Indonesia's key expenditure priorities; (iii) exchange rate policies; and (iv) structural and institutional reforms to create a more competitive and robust economy. It will also require a better balance of policies; in particular, fiscal policy will need to be used more actively to contain aggregate demand, shifting more of the burden of adjustment from the private sector to the public sector.

2.21 Monetary and financial policies. Given Indonesia's open capital account, monetary policy should be used to support the balance of payments by protecting reserves and to maintain price stability. Reserve money management should be geared to achieve a rate of money growth which is consistent with the demand for money, GDP growth and the Government's inflation rate target. However, the relationships between reserve money growth and other monetary aggregates may change significantly with the rapid deregulation and development of the financial sector, requiring adjustments to monetary policy. Setting interest rate targets and using monetary policy to achieve them can be counter productive, as domestic interest rates are closely tied to international interest rates and exchange rate expectations. Domestic interest rates can be reduced only through coordinated monetary and fiscal polices which contain aggregate demand, lower inflation and lessen expectations of exchange rate depreciation and through strengthening the financial sector which will lead to a reduction in intermediation margins and reduced perceptions of credit risk.

2.22 Developments during 1991/92 pointed out several areas that require attention in the near term. First, an adequate stock of money market instruments needs to be established. During 1991/92, however, the stocks of commercial bank debt instruments (SBPUs) held at BI, which were increased significantly in early 1991, were gradually allowed to decrease. While this was a key factor in maintaining a tight monetary policy stance, future options for monetary management could be enhanced by balancing sales and purchases of SBIs and SBPUs and broadening and deepening their market. In general, given the limited range and depth of monetary instruments available to BI, adjustments to the monetary stance need to be made by raising, rather than lowering, the existing stocks of SBIs and SBPUs, thus relying on changes in their net balance to achieve the desired monetary effect. This will also reduce the Government's dependence on forced sales of monetary instruments. Efforts to improve open market operations are particularly important because the low official reserve requirement makes monetary aggregates very responsive to small changes in reserve money. In improving open market operations, two areas are of particular importance: (i) setting quantity targets for money market instruments and allowing the interest rate to adjust to meet these targets; and (ii) fostering the development of a secondary market in these instruments.

2.23 Second, implementing monetary policy in the near term will be complicated by the effects of the phased introduction of the prudential regulations established last year and the ceiling on external borrowings. These changes in regulations will enhance the effectiveness of monetary policy in achieving the Government's inflation and balance of payments targets. But the banking system's behavior could also change significantly, in ways difficult to predict, complicating monetary management. BI will need to review the implications of the capital adequacy norms for the behavior of banks and the conduct of monetary policy and make adjustments if needed.

2.24 Finally, in a period of tight money some banks may be forced to reduce liquidity to low levels (the 2% reserve requirement is below the level needed for prudent liquidity management). BI has moved to increase liquidity by easing access to its discount window and making liquidity ratios an important factor in assessing bank soundness. Should these efforts prove less than fully effective, it may be worthwhile to consider a small additional liquidity ratio.

2.25 Monetary trends will need to be watched closely during the coming fiscal year to ensure that the monetary stance is having the desired effect on the balance of payments and prices. In this regard, the continued implementation of the Government's policy to reduce liquidity credits will be essential. While these credits declined as a proportion of total credit outstanding, they increased in absolute terms during 1991/92. This increase was due to previous commitments and to the establishment of a new program to support the clove monopoly. These credits distort financial markets and complicate monetary management.4/ They also segment credit markets and result in higher interest rates for other borrowers. Firm implementation of the Government's announced policy to phase out these credits will enhance the

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4/ They also result in distortions to goods markets. For example, support to the clove monopoly and to tree crops distorts the agriculture sector.

effectiveness of monetary policy, as well remove product market distortions. Finally, there is a continuing need to improve the timeliness and quality of information on monetary aggregates. While significant improvements in the timeliness of monetary statistics have been made in recent months, speeding the flow of information on monetary aggregates further would enhance the conduct of monetary policy.

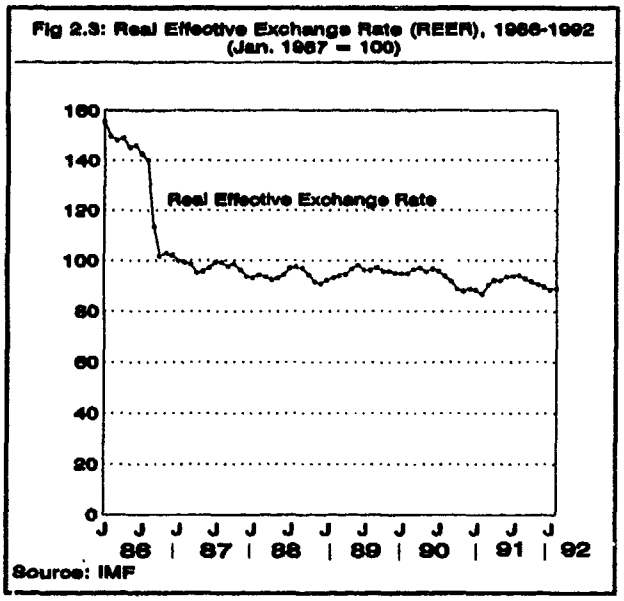
2.26 Fiscal policy. Fiscal policy has a central role to play in ensuring macroeconomic stability and contributing to sustained growth. With an open capital account, fiscal policy is the best tool to manage aggregate demand. In the past year or so, the Government has relied mainly on monetary policy to contain aggregate demand, placing the primary burden of adjustment on the private sector. A positive public sector balance will be required over the next two years or so to reconcile the current high level of private investment with sustainable current account deficits and manageable external debt. Achieving a positive budget balance in the near term is made more difficult by the urgent, substantial requirements for public expenditures on infrastructure and human resource development. Reconciling a positive budget balance with important public expenditure priorities requires careful attention to public resource mobilization and public expenditure priorities.

2.27 Public resource mobilization needs to be enhanced by increasing tax and non-tax revenues and by reducing budgetary subsidies. For taxes, the priorities are to collect more by better administration, including improved audit procedures. The property tax continues to be insignificant in the overall tax base and its contribution could be raised significantly. Substantial scope for increasing non-tax revenues exists in the forestry sector and in the public enterprise sector. A greater reliance on tax and non-tax instruments would also have a positive effect on income distribution. Moreover, despite the Government's efforts over the past several years to raise administered prices for petroleum products, electricity and fertilizer, they remain below their financial and economic costs. Raising their prices will help to ease demand pressures and to improve resource allocation through better price signals. These issues are discussed in Section E below.

2.28 Given existing demand pressures in the economy, public expenditures need to be carefully planned and implemented. An important first step in prioritizing public and publicly-related expenditures was taken by the Government, when a number of large, capital- and import-intensive projects was rephased during 1991. In the near term, both on- and off-budget, routine and development expenditures need to be closely scrutinized to ensure that they are consistent with both the Government's development objectives and the resource envelope and to ensure that all public resources flow into areas that return the highest benefits. Public enterprises also need more scrutiny of their five-year corporate plans and annual expenditure programs to ensure that their expenditures are a high priority and are consistent with macroeconomic stability. The rephasing of public enterprise expenditures through controls on their borrowing was an important first step in this direction, but a more systematic approach is needed in the future.

2.29 Exchange rate policy. A 31% devaluation of the Rupiah in September 1986 in response to the fall in oil prices, supported by appropriate fiscal and monetary policies, helped realign the real effective exchange rate (REER) towards its equilibrium rate. Since then, exchange rate policy has been

directed toward preserving external competitiveness, which is reflected in that the REER exchange has remained roughly unchanged (see Figure 2.3). In the future, maintaining a competitive exchange rate will be a key factor in



supporting the expansion of non-oil exports and in maintaining a sustainable current account balance. The appropriate level of the REER varies over time and depends on a number of factors: the terms of trade, real interest rates abroad, the outlook for capital flows, trade policy (such as tariffs, NTBs, and export restrictions) and the composition of government spending. Exchange rate policy, therefore, needs to adjust to changes in these fundamentals. However, it is important to note that a balanced combination of nominal exchange rate, monetary and fiscal policies is needed to maintain external competitiveness. In particular, more reliance on monetary and fiscal policy to slow domestic inflation will help reduce the inflation differential between Indonesia and its major trading partners, thereby reducing the need for nominal adjustments of the exchange rate. This would also reduce inflationary expectations in the economy.

2.30 Structural and institutional reforms. This Chapter deals primarily with the macroeconomic framework. However, meeting Indonesia's development objectives of growth, equity and stability requires that macroeconomic policies be complemented by sectoral and institutional reforms. These reforms are discussed extensively in the rest of this Report. Key elements of this agenda are further reforms of the incentive and regulatory framework to spur productivity growth and help diversify the economy. In trade policy, the principal focus of attention is to eliminate non-tariff barriers, gradually reduce tariffs, and remove export restrictions. Improving the incentive framework will also require removing price controls on transportation services and public utilities. Implementation of these elements of the sectoral policy agenda will raise economic efficiency and thus, help achieve a more robust and competitive economy.

2.31 Sectoral policy reforms will need to be complemented by the development of sound institutions to improve the effectiveness of public services and support private sector development. The primary focus of the institutional reform agenda will need to be: improving management and financial discipline in the banking system and in the financial sector at large; striking an appropriate balance between central and local responsibility; developing a modern corporate legal framework; and, raising the efficiency of public enterprises. Civil service reform will be a key factor in moving this institutional reform agenda forward.

D. Medium-Term Macroeconomic Projections

Prospects for Growth and Structural Change During the 1990s

2.32 This section projects macroeconomic outcomes based on the Government implementing the macroeconomic strategy outlined in the previous section, the sectoral and institutional policies reviewed in Chapters 3-5, and the World Bank's global outlook for the world economy. Two basic assumptions guide the macroeconomic projections:

- non-oil GDP growth of 6-7% per year will be necessary to absorb Indonesia's growing labor force at higher levels of productivity; and,
- a prudent debt strategy would be to reduce the MLT debt service ratio to around 20% and the MLT debt-to-export ratio to below 180%, as suggested by the experience of other countries.

These are consistent with the Government's own targets as reflected in REPELITA V.

2.33 The need to restrain domestic demand through a balanced combination of monetary, fiscal and exchange rate policies will dampen investment and growth in the short term. As a result, non-oil GDP growth is projected to average around 6.3% per year for the next few years, gradually increasing as the current account deficit is stabilized at about 2% of GNP (see Table 2.4). Lower growth in construction and the service sectors will result. Non-oil manufacturing growth will remain strong, about 10%, as robust non-oil export growth offsets slower domestic demand growth. Agriculture growth will recover somewhat, as conditions return to normal following the recent drought. GDP growth will average about 5.5% per year, as oil output levels are projected to stagnate, if not drop, in the near term.

2.34 Over the medium term, as macroeconomic balance is restored, non-oil economic activity can rise to and be sustained at 7% per year. One important factor supporting this rise will be higher investment outlays in infrastructure, particularly power, telecommunications and transport. Another factor will be private investment in non-oil manufacturing and mining which will spur productivity growth during the latter half of the decade. As a result, non-rice agriculture, non-oil manufacturing, non-oil/LNG mining, and higher levels of output of infrastructure services provide the main stimuli to economic activity.

2.35 Sectorally, as in the past several years, the non-oil manufacturing sector is expected to remain dynamic, growing by about 10% per year, raising its share of GDP from 15% in 1990 to 23% in 2000 (see Table 2.5). As the Government continues its ongoing program of trade and industrial deregulation, profitable areas for efficient export industries and import substitution are opened up, which are relatively labor-intensive. Thus, the manufacturing sector also makes an important contribution to employment during the 1990s. Agriculture is projected to increase by 3% per year throughout the decade, roughly the same as in 1985-90. This implies a decline in agriculture's share

Table 2.4: PROJECTIONS OF KEY MACROECONOMIC INDICATORS /a

	Estimated	Projected		
	1991	1992	1993-95	1995-2000
Average real growth rates (% p.a.)				
GDP	6.8	5.2	5.6	5.9
Non-oil GDP	6.5	6.2	6.5	7.0
Agriculture	0.9	3.0	3.0	3.0
Manufacturing	11.4	10.0	10.2	10.5
Mining	9.8	10.0	10.0	10.0
Construction	11.5	8.0	8.0	8.0
Other services	6.6	5.7	6.2	6.4
GNY	5.6	4.6	6.4	6.6
Non-oil exports	24.8	19.1	9.3	7.6
Non-oil imports	9.7	6.7	7.9	7.3
Fixed investment	10.7	7.1	5.9	7.5
Public	11.2	5.3	6.7	6.8
Private	10.4	8.1	5.4	7.8
Consumption	5.2	3.5	5.9	6.3
Macroeconomic Balances /b				
Current account/GNP	-4.3	-4.0	-2.0	-2.0
Non-interest current account/GNP	0.1	0.3	2.1	1.6
Overall public sector balance/GDP /c	-0.7	0.0	-0.2	-0.3
MLT debt service/exports	30.1	31.9	25.8	19.9
MLT debt/exports	191.2	186.7	143.5	102.6
MLT debt/GNP	61.1	61.6	52.9	41.2
Structure of the economy /b				
Non-oil manufacturing/GDP	15.5	16.2	18.4	22.8
Non-oil exports/non-oil imports	77.5	86.5	93.5	97.1
Public savings/GDP /c	8.9	9.6	9.7	9.8
National savings/GDP	22.2	22.9	24.4	25.6
Fixed investment/GDP	24.7	25.4	24.9	26.1
Private fixed investment/ Total fixed investment	61.2	62.5	60.4	61.4
Consumption/GDP	72.8	72.2	70.9	70.4
Consumption/GNY	73.4	72.8	72.0	71.4
Prices				
Oil prices (US$/bbl) /b	18.3	16.3	20.5	30.6
Non-oil terms of trade (1983/84=100) /b	90.6	90.7	94.2	96.3

/a Balance of payments and fiscal data are for fiscal years (starting April 1). Other indicators are for calendar years.
/b For last year of multi-year periods.
/c Calendar year.

Source: Central Bureau of Statistics and World Bank estimates.

of GDP from about 20% in 1990 to 15% in 2000. The pattern of agricultural production is also expected to diversify. Diversification will be towards products with high income elasticities and high land use intensity, such as fruits, vegetables, fish and poultry. These production patterns economize in the use of one of Indonesia's scarcest resources -- irrigated land on Java. This agricultural growth is low by historical standards, but it is still high relative to population growth and when compared to many other developing countries. Most importantly, allowing also for the expected rise in non-agricultural activities in rural areas, this growth still provides a solid base for reducing poverty further. The construction and services sectors will grow faster than aggregate GDP. A key factor in this will be investment in

infrastructure, which is projected to remain high throughout the decade. As these investments are completed, the unsatisfied demand for infrastructure services is expected increasingly to be met.

Table 2.5: GROWTH AND COMPOSITION OF GDP, 1984-2000

	Growth Rates (% p.a.)				Share in GDP /a	
	Actual		Projected		Estimate	Projected
	1984-87	1987-90	1991-95	1995-2000	1990	2000
Non-oil GDP	5.7	7.8	6.4	7.0	81.6	88.5
Agriculture	3.3	3.5	2.6	3.0	19.5	14.5
Manufacturing	12.0	12.4	10.4	10.5	14.9	22.8
Services, etc.	5.3	8.4	6.6	6.8	47.3	51.3
Oil/LNG	2.8	2.9	2.3	-0.5	18.4	11.4
Total GDP	5.0	6.8	5.7	5.9	100.0	100.0

/a In 1983 prices.

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

2.36 Total GDP will grow more slowly than non-oil GDP, as Indonesia's oil and LNG production is projected to rise only modestly. Oil/LNG's share of GDP is expected to decline from almost 20% in the late 1980s to 11%, indicating the extent of structural change ongoing in the economy. For crude oil production, the current production level of about 1.6 million barrels per day (including condensates) is expected to decline to about 1.35 million barrels per day by 2000. However, the increased pace of exploration activities could push production higher, with salutary benefits to economic activity and the balance of payments. Indonesia's bright LNG prospects will offset the decline in oil production to some extent; but LNG production levels are unlikely to increase significantly until after 2000.

External Balance

2.37 Underlying the balance of payments projections is the assumption that the Government continues to pursue macroeconomic policies that return the current account deficit to about 2% of GNP by 1995 (see Table 2.6). The current account deficit is projected to decline gradually to about 4% of GNP in 1992/93, about 3% in 1993/94 and 2.5% in 1994/95. This will enable economic growth to remain well above the 5% target of REPELITA V, although growth will be slower than in the late 1980s. This path for the current account deficit should enable Indonesia to improve its creditworthiness substantially and steadily, achieving the targeted reduction in the debt-service indicators by 2000.

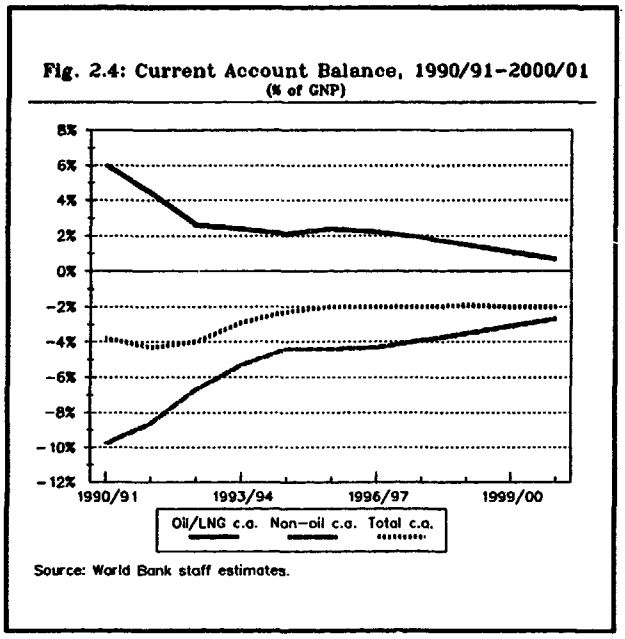


Fig. 2.4: Current Account Balance, 1990/91-2000/01 (% of GNP)

Source: World Bank staff estimates.

2.38 Just maintaining the current account deficit at the 1991/92 level in 1992/93 will require a substantial adjustment in the non-oil current account deficit, as the oil/LNG current account surplus is expected to decline by US$1.7 billion. Lower oil prices (US$16.3/bbl in 1992/93 compared to US$18.3/bbl in 1991/92), slightly lower production, and higher domestic consumption will all contribute to lower net oil exports in 1992/93. Maintaining the deficit at US$4.5 billion (or 4% of GNP), therefore, requires a US$1.7 billion reduction in the non-oil current account deficit (see Figure 2.4). Thus, non-oil import growth will need to be constrained to slightly below the level of 1991/92, while non-oil exports continue to grow robustly. If such factors as slower than expected world economic growth or even lower oil prices materialize, the Government will have to intensify its economic measures in order to stay on course for a return to a sustainable external balance. With lower oil revenues and the persistence of a high current account deficit in the near term, Indonesia will still need substantial official and private capital inflows, including direct foreign investment.

2.39 Over the medium term, pressures on the balance of payments are expected to ease and the stringency of macroeconomic policies can lessen, allowing the current account deficit to be maintained at about 2% of GNP for the latter half of the decade. But, throughout the 1990s, the need for macroeconomic stability will require a careful balancing between the growth needed to absorb the labor force at increasing levels of productivity and the need to reduce the current account deficit and achieve further improvements in Indonesia's debt-servicing capabilities. Any widening of external imbalances will need to be met with quick, decisive macroeconomic measures or difficulties with long lasting effects could result.

2.40 Improvement in the current account deficit and external debt indicators hinges crucially upon rapid non-oil export growth -- projected to average about 12% per year over the next four years and 8% per year thereafter (see Table 2.7). This is particularly important given the expected decline in the oil/LNG current account balance. The strongest growth is projected to be in non-oil manufacturing exports, but non-oil mining is also expected to make a major contribution given the recent increase in investment in this sector. Achieving rapid non-oil export growth will require maintaining the competitiveness of the exchange rate and reducing the domestic cost of production through competition and continued deregulation of trade policy, including a reduction in export restrictions. Several factors indicate that these projections are attainable. First, as shown in 1991/92, substantial past investments in non-oil export capacity are coming on stream in relatively efficient labor-intensive industries. Much of this production capacity is

Table 2.6: BALANCE OF PAYMENTS PROJECTIONS, 1991/92-2000/01
(US$ billion)

	Estimated 1991/92	Projected 1992/93	1993/94	1995/96	2000/01
Gross merchandise exports (fob)	29.4	32.1	36.5	45.6	76.6
Oil and LNG	10.6	9.1	9.4	10.8	14.2
Non-oil	18.8	23.0	27.1	34.8	62.4
Gross merchandise imports (cif)	-28.1	-30.6	-33.6	-41.3	-72.5
Oil and LNG	-3.9	-4.0	-4.1	-4.1	-8.2
Non-oil	-24.2	-26.6	-29.5	-37.2	-64.3
Trade balance	1.3	1.5	2.9	4.3	4.1
Net non-factor services	-0.5	-0.3	-0.1	0.0	0.5
MLT interest payments	-3.6	-3.9	-4.3	-4.4	-5.8
Other factor services and transfers (net)	-1.7	-1.8	-2.0	-2.7	-3.3
Current account balance	-4.5	-4.5	-3.5	-2.8	-4.5
Oil/LNG current account	4.6	2.9	2.9	3.5	1.5
Non-oil current account	-9.1	-7.4	-6.4	-6.3	-6.0
Public MLT loans (net)	1.6	1.7	1.3	2.3	1.5
Disbursements	6.2	6.8	6.8	7.6	8.5
Principal repayments	-4.6	-5.1	-5.5	-5.3	-7.0
Other capital (net)	4.3	3.4	2.4	3.3	5.7
Use of net foreign assets	-1.4	-0.6	-0.2	-2.8	-2.7
Memo items:					
Net official reserves (US$ bln)/a	10.5	11.2	12.9	16.6	30.2
(in mons. of imports) /b	(4.1)	(4.0)	(4.1)	(4.3)	(4.5)
Total net foreign assets (US$ bln)	14.7	15.3	15.5	20.4	35.1
Current account/GNP (%)	-4.3	-4.0	-2.9	-2.0	-2.0
Non-interest CA/GNP	0.1	0.3	1.6	2.1	1.6
MLT debt service/ exports (%)	30.1	31.9	30.6	25.8	19.9

/a Net official reserves are defined as gross official reserves minus outstanding liabilities to the IMF and other short term liabilities.
/b Net official reserves in months of next year's expected imports (oil/LNG and non-oil) of goods.

Source: World Bank staff estimates.

being relocated to Indonesia from other East Asian countries. These East Asian entrepreneurs have already established export markets and marketing networks in Europe and North America, thereby permitting a rapid increase in non-oil exports. The positive benefits of foreign investments from these countries was recently illustrated when Indonesia's textile quotas were expanded. In addition, access to these rapidly growing East Asian markets will also be enhanced. Second, capacity in existing export industries is being expanded and new export capacity is being created, as evidenced by the level and composition of foreign investment approvals at the Foreign Investment Coordinating Board (BKPM). Finally, with the exception of textiles and plywood, Indonesia's share of many manufacturing export markets is small;

therefore, there is ample room for growth without triggering concerns from the importing countries. If the projected growth rates of non-oil exports are bettered and the creditworthiness indicators improve commensurately, there would be scope for higher non-oil GDP growth in the last half of the decade. However, if non-oil export growth falters or falls short of these projections, there will be a need for further adjustment measures and a slower rate of growth.

Table 2.7: NON-OIL EXPORT GROWTH PROJECTIONS
(real growth rates, % p.a.)

	Actual		Projected		
	1985/86-1990/91	Estimated 1991/92	1992/93	1993/94-1995/96	1996/97-2000/01
Non-oil manufactures	20.7	29.7	24.3	10.9	8.6
Textiles	26.9	37.5	30.0	11.7	8.6
Plywood	16.8	15.1	8.5	2.5	2.0
Other	19.4	33.6	29.1	14.0	10.6
Agriculture	7.4	14.5	7.6	5.4	5.4
Metals and minerals	6.5	28.5	26.3	10.1	6.7
Total non-oil exports	12.9	24.8	19.1	9.3	7.6

Source: Bank Indonesia and World Bank staff estimates.

2.41 Financing these external balances, especially through 1995, has important implications for external financing requirements and external debt (see Section F for a detailed review). First, with the prevailing uncertainties in the world economy, particularly the oil market, Indonesia will need to keep a substantial reserve cushion. Given its open capital account, international reserves could dissipate very quickly, which would pose difficult challenges for economic policy makers. The base case assumes that official reserves would grow to 4.5 months of imports by 2000. This is a minimum acceptable level given the risks of macroeconomic instability. Second, Indonesia will continue to require substantial amounts of official assistance to finance priority investments in infrastructure to support sustained growth. Moreover, there will continue to be a need in the near term for relatively fast disbursing assistance to help finance the balance of payments while stabilization policies return the current account deficit to a level where extraordinary financing is no longer necessary. Third, during the 1990s, Indonesia will depend more heavily on import-related credits and commercial credits. This will harden overall credit terms and increase Indonesia's exposure to interest rate risk. This calls for a careful management of the balance of payments over the medium term and argues for a more rapid reduction in external imbalances, if possible. Finally, the ceilings on public and publicly-related borrowings need to be rigorously

enforced. Higher levels of borrowing than those permitted under the ceilings will squeeze out private investors, raise costs on all of Indonesia's borrowings and could imply such a rapid buildup in external debt that creditors become wary of their absolute exposure to Indonesia. On the other hand, if the projections for non-oil export growth and a lower current account deficit are realized, Indonesia will experience a decline in its external indebtedness which could set the stage for very rapid growth in the next century.

Internal Balance

2.42 To achieve and sustain a non-oil GDP growth rate of 6-7% per year during the 1990s, investment rates will have to rise by more than two percentage points of GDP, which will raise the share of fixed investment in GDP to about 26% by the end of the decade (see Table 2.8). Private sector investment will need to increase by about one percentage point of GDP in order to sustain the projected growth rate in non-oil manufacturing and accommodate private sector investment in infrastructure. To achieve this rate of private investment, further progress with trade and industrial sector reforms, as well as improvements in the financial sector, will be essential to enhance the profitability of private investment and to ensure resources flow to the most productive uses. Rising investments by the public sector will also be required to support the growth path of the economy. As a result of cutbacks in public investment undertaken during the adjustment period in the late 1980s, there has been a slowdown in the expansion of infrastructure capacity. At the same time, the demand for infrastructure services has risen substantially, due to the strong recovery of growth since 1987. Therefore, substantial investments are required in power, telecommunications, and transportation (see Chapter 4). Moreover, investments in human resource development are required to improve the human resource base for industrial development and to reduce further the incidence of poverty (see Chapter 5). These investments should raise public investment to about 10% of GDP by the end of the decade. Macroeconomic policy will be crucial in supporting both higher levels of investment, by maintaining a stable environment conducive to private investment and to raising the necessary level of domestic savings.

2.43 Attaining the level of investment necessary to support growth and simultaneously improving the current account deficit requires a significant increase in national savings. National savings will need to increase from 22% in 1991 to almost 26% in 2000. Private savings will need to increase considerably from the low rates which prevailed in the past two years, although they will need to increase by less than one percentage point over their peak in 1989. Raising savings will pose a major policy challenge. Rapid economic growth and a stable macroeconomic environment will help to raise savings. Moreover, business savings is expected to increase in response to higher profitability. Demographic factors will reinforce higher private savings, as the dependency ratio is declining and the rate of population growth is slowing. In addition to higher private savings, public savings needs to rise to almost 10% of GDP, implying a substantial improvement in non-oil revenues given declining oil/LNG revenues. In fact, in the next several years, the public sector will need to run a surplus until private savings rates recover. With the high level of public investment outlays required to support growth, this calls for a substantial effort to increase public resource mobilization. Measures to increase public savings are discussed in detail in the following section.

Table 2.8: Savings-Investment Balances, 1981-2000 /a
(% of GDP at current prices)

	Annual Average 1981-82	1983	1984	1985	1986	1987	1988	1989	1990	Estimate 1991	Projection 1995	2000
Gross domestic investment	29.5	27.0	25.3	24.0	23.0	22.5	22.2	23.5	25.2	26.2	26.4	27.6
- Fixed investment	25.1	25.1	22.3	20.5	20.1	19.2	20.0	21.2	23.5	24.7	24.9	26.1
- Change in stocks	4.4	1.9	3.0	3.5	2.9	3.3	2.2	2.3	1.7	1.5	1.5	1.5
Gross national savings	25.2	21.0	21.7	21.5	17.4	19.1	19.9	21.7	22.1	22.2	24.4	25.6
Savings-investment gap /b	-4.3	-6.0	-3.6	-2.5	-5.6	-3.4	-2.3	-1.8	-3.1	-4.0	-2.0	-2.0
Public sector												
Gross domestic investment /c	11.7	11.9	10.0	10.1	8.1	7.6	8.4	8.6	9.2	9.6	9.9	10.1
Public savings	8.7	8.9	10.0	8.2	4.9	4.8	5.4	6.5	9.4	8.9	9.7	9.8
Savings-investment gap	-3.0	-3.0	0.0	-1.9	-3.2	-2.8	-3.0	-2.1	0.2	-0.7	-0.2	-0.3
Private sector												
Gross domestic investment	17.8	15.2	15.3	13.9	15.0	14.9	13.8	14.9	16.0	16.6	16.5	17.5
- Fixed investment	13.4	13.2	12.3	10.4	12.1	11.6	11.6	12.6	14.3	15.1	15.0	16.0
- Change in stocks	4.4	1.9	3.0	3.5	2.9	3.3	2.2	2.3	1.7	1.5	1.5	1.5
Private savings	16.5	12.1	11.7	13.3	12.6	14.3	14.5	15.2	12.7	13.3	14.7	15.8
Savings-investment gap	-1.3	-3.0	-3.6	-0.6	-2.4	-0.6	0.7	0.3	-3.3	-3.3	-1.8	-1.7

/a All data converted to calendar-year basis. As a result, the data on the current account deficit and the public sector deficit differ slightly with other tables.
/b The inverse of the current account deficit expressed in calendar years.
/c Fixed investment only. Investment in stock changes is assumed to be financed by the private sector.

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

2.44 The macroeconomic projections suggest that the Government could plan public investment averaging about 10% of GDP during the 1990s. The Government's priorities, as reflected in REPELITA V, indicate that these public investment outlays will be in three categories: economic infrastructure; human resource development, and others, which include PERTAMINA and other public enterprises producing tradeable goods. Retaining the sectoral priorities established in REPELITA V would imply that investments in economic infrastructure would comprise about 5.5% of GDP, in human resource development about 3.5%, and in others areas about 1.0%. Given that infrastructure provision and poverty alleviation are both investment priorities and they together exhaust about 80% of the public investment program, the room for flexibility in reallocating resources within the public sector is limited. This implies that public enterprise investments for the production of traded goods need to be closely monitored and kept within limits consistent with macroeconomic stability. This is especially true for PERTAMINA.

Implications of the Macroeconomic Scenario for Employment

2.45 The projected pace and pattern of economic activity, coupled with direct Government programs such as the INPRES program, should allow Indonesia to absorb its expanding labor force at higher levels of productivity and income. There will be continuing structural change in the labor market throughout the 1990s. First, employment in agriculture as a share of total employment will decline steadily. This is a natural consequence of Indonesia's development, as people respond to growing economic opportunities outside of agriculture. This trend in agricultural employment also does not

necessarily imply higher rural-urban migration and increasing congestion in urban areas. Many non-agricultural jobs -- especially in light manufacturing, and rural trading and marketing of agricultural products -- are becoming more available in rural areas. Policies designed to create jobs in rural areas should be given high priority. Second, manufacturing employment is likely to play a larger role in absorbing labor during the 1990s. Again, this underlines the importance of expanding manufactured exports and maintaining the policies necessary to induce this expansion, including an incentive pattern consistent with labor-intensive growth. Finally, employment in the service sector will continue to absorb a large share of Indonesia's labor force. Continued deregulation in transportation and other services will be important in improving earnings for workers currently engaged in low-wage activities, as well as generating additional employment activities in these sectors. Furthermore, the attitude of local governments towards the service sector will also be important, as regulations and restrictions on informal traders and transportation could inhibit growth in services and thereby reduce employment opportunities.

Risks and Uncertainties

2.46 As always, the macroeconomic outlook is subject to a number of risks and uncertainties. These are: (i) external risks--a slowdown in world economic growth, a sharp fall in oil prices, depreciation of the US dollar or a sharp jump in interest rates; (ii) policy backsliding--the measures to stabilize the economy or to implement the deregulation policies necessary for an efficient economy are not taken; and (iii) a shortfall in external financing. Among these, the uncertainties in the external sector pose the most serious risk. The probabilities of policy back-sliding and an external financing constraint are relatively low. Indonesia has shown the ability to make timely, substantive adjustments to macroeconomic policies to adjust to such risks; a similar vigilance and willingness to act quickly will be important in dealing with any external or internal shocks during the 1990s.

2.47 External risks and risk management tools. The economy remains vulnerable to a major deterioration of the external environment. The current account deficit could rise significantly if the price of oil, which still determines 40% of export revenues, declined further or if non-oil export growth slowed due to lower growth in world demand. The projections are less sensitive to rising interest rates, since only about 28% of Indonesia's debt is at variable rates (although this share would rise in the future). The current account is also vulnerable to an appreciation of non-dollar currencies since much of Indonesia's debt is in non-dollar currencies, while exports are mainly dollar-dominated. Based on a scenario incorporating these downside risks, their cumulative effect could amount to about US$5 billion between 1992/93 and 1995/96, implying a 33% increase in the total current account deficit over this period.5/ In the event of an external shock, the economy would be most likely to adjust through a combination of reduced demand, a drawdown of reserves, and use of its pipeline of undisbursed syndicated loans (totalling about $2.0 billion at end-March 1992). The rapidly changing

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5/ This scenario assumes a 10 percent decline in the prices of oil and other exports, a one percent rise in world interest rates and a 10 percent depreciation of the US Dollar against other major currencies.

structure of the Indonesian economy -- by 1995, non-oil exports are projected to represent roughly three-quarters of total merchandise exports -- will continue to reduce the economy's vulnerability to external shocks. Improved asset-liability management and use of market-based hedging instruments could also reduce Indonesia's vulnerability to risks from these factors, by allowing Indonesia to transfer to international markets a significant part of its exposure to risks.

2.48 Policy backsliding. The macroeconomic scenario is predicated upon prudent macroeconomic management, and continuing structural and institutional reforms. There are two potential areas for policy reversal. First, in the short term, if appropriate measures to control aggregate demand and reduce pressures on the balance of payments are not taken, the resulting macroeconomic instability could quickly jeopardize Indonesia's growth prospects and creditworthiness. Given the Government's past record of prudent macroeconomic management, this outcome is unlikely. Second, over the medium term, a weakening in the program of structural and institutional reforms could slow non-oil exports, investment and growth, with adverse implications for creditworthiness. However, policy reversals in this area are unlikely given the success of the Government's reform program to date.

2.49 Availability of finance. With the strong surge in private investment, a growing recourse to private sector flows is expected. In particular, net foreign direct investment (FDI) is expected to average $1.5 billion per year during 1992-94, 26% of Indonesia's net external finance requirements. Approvals of FDI have grown strongly, and are now among the highest in developing countries. Private net flows exceeded official net flows in 1991, and this is projected to continue in the future, as commitments of assistance from donors are expected to grow very slowly over the medium term. It is unlikely that the traditional sources of external finance (private overseas commercial banks and the donor community) will be able to expand their support in line with Indonesia's requirements for the 1990s. New sources of longer-term finance need to be developed, including international bond markets. Larger FDI inflows are also needed. However, if the projected financing is unavailable, Indonesia will need to scale back its growth target to sustain economic stability.

E. Public Resource Mobilization

2.50 Sustaining rapid growth calls for greater public resource mobilization. Higher public savings will be needed to increase public investment in infrastructure and human resource development while achieving an overall public sector balance that supports rapid growth with stability. Raising non-oil tax revenues will remain a central element of this effort; however, the public resource base will also need to be broadened by tapping more fully sources of government non-tax revenue, strengthening cost recovery from public services, and improving the financial performance of public enterprises. Increased revenue mobilization will be needed given projected public resource requirements, but public expenditure management also needs to be improved to allow more efficient use of the available resources. The main tasks on the expenditure side will include the reduction of subsidies, the containment of general administrative spending, and the appropriate ordering

of investment priorities. This section discusses the possibilities for strengthening the non-oil tax effort, raising government non-tax revenue, and reducing budgetary subsidies. Issues pertaining to cost recovery and public expenditure priorities for physical infrastructure and social services are discussed in Chapters 4 and 5, respectively. Chapter 4 also addresses issues relating to improving public enterprise performance.

Strengthening Non-Oil Tax Efforts

2.51 Through a major tax reform effort initiated in 1983, Indonesia has already achieved considerable success in raising non-oil tax revenue. Between 1983 and 1991, non-oil tax revenue increased from about 7% of non-oil GDP to 12%. This has reduced budgetary reliance on oil revenues significantly; non-oil tax revenue as a proportion of total tax revenue roughly doubled--from about 30% to 60%--over the same period. In addition to raising more revenues, the tax reform has achieved major improvements in the efficiency of the tax system, through base-broadening, rate rationalization and simplification. Despite these gains, there remains scope for additional, efficient mobilization of non-oil tax revenue to meet prospective public resource needs. The tax effort in Indonesia is still appreciably below that of other countries in the region (see Table 2.9). A feasible target over the medium term would be to raise the non-oil tax to GDP ratio by another 2-3 percentage points. Following the substantial reform of tax rates and structure already achieved, efforts to strengthen the non-oil tax effort now need to focus primarily on tax administration, where much room for further improvement remains. Some additional measures to expand the tax base or increase rates, however, could also be considered.

Table 2.9: COMPARATIVE INDICATORS OF TAX EFFORT IN ASEAN REGION, 1981-90 /a
(% of GDP)

	Tax Ratio			
	1981	1983	1987	1990
Indonesia /b	7.2	7.1	8.6	12.5
Korea	15.7	16.7	15.5	16.7
Malaysia /b	17.0	17.2	13.8	15.2
Philippines	10.3	10.4	12.1	14.0
Thailand	13.3	14.6	14.9	17.6

/a Central Government only.
/b Non-petroleum taxes/non-petroleum GDP.

Source : World Bank country economic reports and IMF Government Finance Statistics.

2.52 Alongside the reform of the tax structure in recent years, the Government has been taking steps to improve tax administration, and notable progress has been made. This effort has comprised a range of measures to increase taxpayer registration and filing, reduce under-reporting, improve collection and enforcement, and reorganize the Tax Directorate. Nonetheless, while increasing, the proportion of potential revenue actually collected remains relatively low for several major taxes: about 50% for personal and corporate income taxes; 55% for the VAT; and 60% for the property tax. The scope for additional collection is indicated by the fact that in countries with more fully developed tax systems, these ratios could be as high as 80-85%. The relatively small proportion of the revenue from personal and corporate income taxes that is currently collected from self-employed individuals and small- to medium-size companies provides another indication of the potential for improvement.

2.53 To strengthen tax administration further, three areas deserve attention. First, cross-checking systems, based on computerized data matching, could be further developed to increase taxpayer registration and compliance. This would include cross-checking among various taxes, made possible by the use of the same tax ID number for the major taxes (now being extended also to the property tax), and matching with third-party data, such as information on tax withholding, government payments, utility bills, property sales, and other trade and industry data. Second, improving the capacity for tax audits would reduce under-reporting of income taxes and the VAT. The decision to allow the hiring of private accountants to conduct field audits beginning in 1992/93 will help alleviate the present constraints on the Government's internal auditing capacity (this will be important to realizing the ambitious increases in income tax and VAT receipts projected in the 1992/93 Budget). However, there remains the need to strengthen training programs to increase the supply of qualified government auditors. Third, enforcement needs to be improved through the systematic application of legal sanctions for tax evasion. Closer monitoring of tax compliance, assisted by the new, computerized payment control system, needs to be followed up by penalties in cases of non-compliance (a good example is the application of penalties, including the confiscation of property, under the Tangerang pilot program for the property tax).

2.54 While increasingly focusing on improving tax administration in recent years, the Government has continued selectively to take additional measures to increase the tax base or adjust rates. New revenue-raising measures announced with the 1992/93 Budget included: the extension of the VAT to large-scale retailers (with annual turnover exceeding Rp.1 billion); increases in the sales tax on selected luxury goods; taxation of corporate income from interest on bank deposits and certificates at the regular marginal corporate income tax rate, instead of at 15% previously; and elimination of the tax exemption on interest on time deposits below Rp.5 million. These measures could generate up to Rp.1 trillion (0.4% of GDP) in their first full year of implementation. Additional measures that can be considered in the future include: further broadening the coverage of the VAT, by eliminating the remaining exclusions (some processing activities and services) and extending the tax more widely at the retail stage as implementation capabilities permit; raising the effective property tax rate from its current level of 0.1%, among the lowest in the world (this constitutes an especially

promising means of strengthening local government finances);6/ and taxing interest income for individuals at the same rate as other personal income (similar to the change made for corporations), equalizing treatment across financial instruments (e.g., with dividends on equity) and eliminating possibilities for "round-tripping".

Raising Non-Tax Revenue

2.55 The three largest sources of non-tax revenue in the Central Government budget are profit remittances by public enterprises, debt service on government loans to these enterprises, and fees. While the profitability of public enterprises has shown some improvement in response to recent reform measures, it remains well below potential. For non-financial public enterprises, the average rate of return on assets is still around 5% (even lower if Pertamina were excluded), which is considerably below the general rate of return on investment in the economy or the opportunity cost of capital as reflected in the real rate of interest. This suggests substantial room for additional resource mobilization through raising public enterprise profitability, which would benefit both the government budget and the financing of enterprises' own investment programs. At the estimated 1991 level of non-financial public enterprise assets, increasing the average rate of return on assets by one percentage point could generate about Rp.750 billion in additional public resources annually. Careful scrutiny of public enterprise investment programs through systematic screening of annual budgets and corporate five-year plans could introduce stricter financial discipline and accountability in public enterprise operations. Issues that arise in improving public enterprise financial performance, such as pricing and management policies, are discussed in Chapters 3 and 4. Other receipts from debt service on government loans to public enterprises (mainly two-step loans) are estimated at about Rp.1.5 trillion per year, although these receipts can be expected to decline as a result of the recapitalization of the State Commercial Banks. Moving these funds on-budget would: enhance transparency in the use of public resources; facilitate a consolidated assessment of fiscal operations; and increase the pool of resources available for supporting expenditure priorities determined through a systematic planning and budgeting process.

2.56 Among fees, the largest potential for raising additional revenue lies in forestry fees. Currently, the Government captures only about 30% of the surplus or rent accruing from logging, compared to about 85% in Indonesia's other major natural-resource-based sector--petroleum. Moreover, since restrictions on the export of unprocessed logs and a prohibitive export tax on sawn timber have reduced domestic log prices to about half the world level, the Government now captures only 12% of the rents that could accrue from logging if log prices in Indonesia rose to the world level. Raising forestry fees (which include royalties and license and reforestation fees) to increase the rate of rent capture and removing export restrictions could generate up to

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6/ The untapped potential of the property tax is reflected in its low revenue contribution (0.4% of GDP); about one-third of the revenue is from the petroleum sector.

Rp.4 trillion in additional revenue from forestry fees (see Box 2.1).7/ Higher forestry fees would also reduce incentives for unsustainable forest exploitation. To check waste further, fees could be levied on the value of standing timber; currently, the bulk of fees are charged on wood that actually gets processed, which encourages waste in logging and processing. Furthermore, the efficiency of expenditures financed from forestry fees could be raised if they were included on-budget and thereby, subject to the same discipline as budgetary expenditures. This would also facilitate macromanagement.

Box 2.1: ESTIMATES OF CURRENT AND POTENTIAL FORESTRY REVENUES

	US$
Log prices (Meranti)/m^3	
- Domestic	85
- World	155
Delivered cost of logs/m^3	45-60
- Cutting costs, return on capital, etc.	30-45
- Fees (including royalties)	15.40
Current Government revenue from fees (with fees at 12% of surplus/rent at present world prices)	400 million
Potential Government revenue from fees (with fees at 85% of surplus/rent at present world prices) /a	2.35-2.65 billion
Memo Item:	
Current Government expenditure on education	2.8 billion

/a Assumes log cut declines to a sustainable yield of 25 million m^3.

Source: World Bank estimates.

Reducing Subsidies

2.57 The two important subsidies in the budget are for petroleum products and fertilizer. There are important reasons for eliminating these subsidies. Even with the 1991 price adjustments, domestic consumption of petroleum

7/ This would cause a partially offsetting decline in income tax receipts from logging and processing activities, but this would at most amount to a third of the revenue gain (the maximum income tax rate is 35%).

products increased rapidly, over 8%, in 1991/92. At this rate of growth of domestic demand, Indonesia will become a net importer of oil during the REPELITA VI period. The implications of rapid domestic demand growth for the balance of payments and ultimately, for economic growth need to be carefully considered in setting petroleum product prices in the future. Other Asian countries have recognized the positive benefits of higher domestic fuel prices for energy efficiency and the balance of payments, and have raised prices to levels that are well above those currently prevailing in Indonesia (see Table 2.10). In realigning domestic oil prices, imbalances in the structure of relative prices need to be eliminated in order to improve economic efficiency. As discussed in Chapter 4, the full economic costs of automotive fuels also include road user costs. Raising petroleum product prices to cover full economic costs and the VAT could raise about Rp.2.5 trillion in additional revenue.

Table 2.10: COMPARATIVE DOMESTIC SALES PRICES FOR PETROLEUM PRODUCTS /a
(Rp./liter)

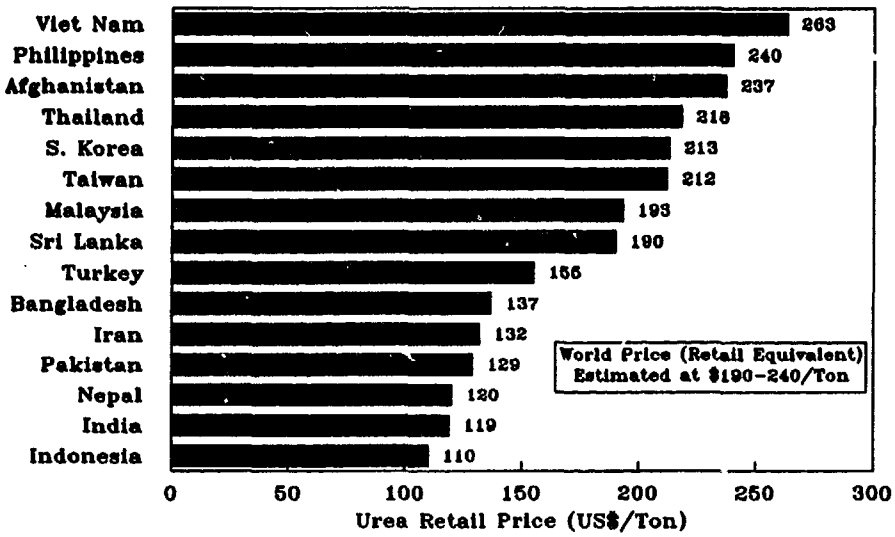
	Indonesia	Malaysia	Singapore	Thailand	Philippines	Korea
Avgas	400	1,405	1,998	...	...	...
Avtur	400	280	785	...	...	...
Gasoline	550	741	1,222	642	1,352	1,000
Kerosene	220	497	454	676	536	498
ADO	300	455	499	586	536	480
IDO	285	301	489	601	536	488
Fuel oil	220	210	281	241	356	354
Average /b	291	475	594	611	664	565

/a Data are for 1992 for Indonesia and Thailand, and 1991 for other countries.
/b Weighted average excluding Avgas and Avtur.

Source: Ministry of Finance.

2.58 A similar situation exists for the fertilizer subsidy. Fertilizer prices were raised in 1991 by about 6% (on average), but this increase will not curb use significantly and the unit subsidy could increase in 1992/93. Inefficient fertilizer use is encouraged by the low prices, as discussed in several field studies which show that economic returns to the subsidy are extremely low, if not negative. For some types of fertilizer (TSP, AS and KCl), it is estimated that use could be reduced by 25% or more without lowering rice yields. Again, this has been recognized in other countries and their fertilizer prices are substantially above Indonesian prices (see Figure 2.5). The Government's announced policy is to phase out this subsidy. Doing so is important, because eliminating the fertilizer subsidy would save about Rp.600-700 billion annually, which is equivalent to about a quarter of total government expenditure on agriculture.

Fig. 2.5: Fertilizer Price Comparisons
1990/91



Source: FAO; IFDC

F. External Borrowing and Debt Management

Requirements and Sources of External Finance During the 1990s

2.59 Projections of Indonesia's external capital requirements and sources are based on the macroeconomic scenario presented in Section D (see Table 2.11). Aggregate financing requirements are projected to be US$12.6 billion in 1992/93, roughly the same as in 1991/92, allowing for a lower reserve build-up. Provided the economy follows the projected path, the financing needs will increase only moderately through the middle of the decade, averaging US$13.4 billion during 1993/94 - 1995/96. In this period, the effect of the projected fall in the current account deficit on the aggregate financing requirements is offset by the need to maintain international reserves adequate to cover a growing level of import payments. Thus, total funding requirements remain roughly the same. However, beyond 1995, annual gross external financing requirements are projected to rise steadily averaging about US$17 billion each year, even though the current account deficit remains constant as a percentage of GNP. Most of the gross incremental borrowing requirements during the latter half of the 1990s are for the repayment of foreign debt and for a necessary build up in international reserves given Indonesia's open capital account and a rising import bill. Official reserves are projected to recover to 4.5 months of imports by 2000 -- a minimum acceptable level -- as a cushion against economic shocks. Debt service payments (interest and principal repayments) are projected to average US$15.4 billion during 1995/96-2000/01 compared to US$10 billion in 1991/92. The magnitude of the financing requirements in the late 1990s highlights the need to reduce Indonesia's large external imbalances as rapidly as possible,

to limit commercial borrowings in the near term in order to have adequate borrowing capacity in the future, and to maintain a comfortable external reserve position.

Table 2.11 : EXTERNAL CAPITAL REQUIREMENTS AND SOURCES
(annual averages in US$ billion)

	Actual		Estimated	Projected		
	1986/87-1989/90	1990/91	1991/92	1992/93	1993/94-1995/96	1996/97-2000/01
Requirements	6.6	12.0	12.3	12.6	13.4	17.0
Current account deficit	2.4	3.7	4.5	4.5	3.2	3.8
(of which interest payments)	(2.9)	(3.2)	(3.6)	(3.9)	(4.4)	(5.2)
Principal repayments	4.7	5.4	6.4	7.6	8.5	10.2
Increase in net foreign assets	-0.5	2.9	1.4	0.5	1.7	3.0
Sources	6.6	12.0	12.3	12.6	13.4	17.0
Direct foreign investment	0.5	1.4	1.6	1.6	1.7	1.8
Disbursement of private MLT loans	1.1	5.6	3.9	3.3	3.4	5.6
Short-term and other capital (net) /a	-1.1	-0.1	0.6	0.9	1.0	1.7
Disbursements of public MLT loans	6.1	5.1	6.2	6.8	7.3	7.9
of which:						
Official loan assistance /b	3.5	3.8	3.9	3.9	4.3	4.4
Other Central Government borrowing /c	2.1	0.9	1.1	1.2	1.7	3.0
Loans to public enterprises /d	0.5	0.3	1.2	1.7	1.3	0.5

/a Includes errors and omissions, oil export credit, and valuation adjustments.
/b Excludes grants, and includes official project aid, fast-disbursing program aid and local-cost financing.
/c Import-related credits and untied commercial credits.
/d Credits for LNG expansion, LPG and paraxylene projects and other public-related borrowings under the state enterprise ceilings.

Source: World Bank staff estimates.

2.60 During the 1990s, two important recent changes in the sources of external financing are expected to continue: (i) a growing reliance by the public sector on commercial finance as the relative importance of official assistance declines; and, (ii) an increase in the importance of private capital flows. Commitments of official assistance are not expected to grow over the medium term as rapidly as Indonesia's financing requirements, reflecting the scarcity of official lending resources and rising demands worldwide on these resources. As a result, official loan assistance would decline from 75% of total public disbursements in the 1980s to an average of about 50% in the late 1990s. Moreover, as the private sector in Indonesia has become the most important source of growth in the economy, an increasingly larger share of Indonesia's demand for external capital will come from the private sector. Private sector capital flows (disbursements of private MLT, net direct investment, and short term capital flows) will average about 50% of external financial flows during the 1990s, compared to an almost negligible amount during the 1980s.

2.61 In view of this compositional shift in the sources of external financing and Indonesia's current high level of debt, maintaining a cautious external borrowing strategy is a high priority. Managing Indonesia's external debt in the face of this shift in the composition of external financing will pose a number of policy challenges. First, rapid progress on removing the

remaining distortions in the policy environment is critical, in order to ensure that private capital flows are being used to finance economically viable and export-oriented projects that make effective use of Indonesia's abundant labor supply. In this regard, clear signals need to be sent to the business community and suppliers of external capital that large, capital-intensive projects need to be viable at world market prices. Second, the availability of private financing at the levels envisaged in the macroeconomic projections is by no means certain. In particular, there is a need to continue to attract foreign direct investment at the same high level as during the early 1990s; this implies that the climate for foreign investment needs to be continuously improved. Third, the recently announced debt ceilings on commercial borrowing by the public and quasi-public sector need to be enforced and closely monitored. The recent decision to allow one project to proceed could have adverse effects on Indonesia's creditworthiness. This effect would be exacerbated if other rephased projects were reactivated at this time. Finally, the growing reliance on commercial and market-based financing will increase effective interest costs and shorten the maturity structure of Indonesia's debt. The average real interest rate is expected to rise from about one percent in 1990 to about 3% by 1995. Similarly, the projections suggest that the average maturity structure of debt will decline significantly during the 1990s. Short term debt associated with trade financing will rise substantially over the decade and lead to a shorter average maturity structure. This hardening of the terms on Indonesia's external debt suggests a continuing need for a cautious, external debt management strategy. Diversifying Indonesia's access to credit markets could help to tap additional sources of capital and ameliorate to some extent this hardening of terms.

2.62 Despite the increasing importance of private capital flows, Indonesia's needs for official development assistance remains substantial. Indonesia's requirements for external finance will remain roughly the same in 1992/93 as in 1991/92, but disbursements of private capital inflows are expected to be about US$1 billion lower. As a result, disbursements of official assistance, including grants (which are included in the current account deficit in Table 2.12), will need to be about the same as the US$4.3 billion disbursed in 1991/92. Provided the mix of assistance is appropriate and commitments outside Indonesia's normal donor framework remain constant, the level of commitments of official assistance to Indonesia would need to be about US$4.8 billion in 1992/93 -- the same level as in 1991/92. The priorities for official assistance, which are discussed extensively in Chapters 4 and 5 of this report, are: (i) investments in physical infrastructure; and, (ii) investments in human resource development to support economic growth and poverty reduction. As discussed in last year's report, it continues to be important to strengthen mechanisms to channel assistance to the private sector, through two-step operations or financial sector loans.

2.63 Maintaining official disbursements at about US$4.3 billion will be a challenge to the Government, as well as official donors. Progress was made in 1991/92 in increasing project aid disbursements. Given the build up in project aid commitments during the past several years, a solid base for increasing project disbursements has been established. But project disbursements can be expected to increase only gradually. Therefore, as discussed in last year's Economic Report, about US$1 billion of official assistance, roughly the same amount as in 1991/92, will need to be in faster-disbursing, sector-type operations. This faster-disbursing assistance will

help ensure that adequate foreign exchange is available for the private sector to invest in productive, export-oriented capacity. This faster-disbursing assistance should be designed primarily to support the balance of payments, including through sector loans that provide local cost financing for the Budget provided they are programmed within an appropriately restrained fiscal policy stance. This level and mix of assistance will enable Indonesia to pursue its trade and other structural reforms with confidence while it seeks to improve its external and internal imbalances. However, the donor community should be prepared to respond flexibly, as it has in the past, in the event that the external environment is substantially worse than projected.

2.64 Over the medium term, the Government will rely increasingly on import-related credits (or suppliers and export credits), commercial credits and other forms of capital flows. The projections in Section D assume that new commitments of import-related credits rise steadily over the medium term, reflecting the size of the investments needed to satisfy Indonesia's growing infrastructure requirements. In 1991/92, commitments of import-related credits are estimated at about US$1 billion, while the projections assume that this will rise to more than US$3 billion per year by 2000. While no explicit ceilings have been announced for these credits, there will be a need to control access to these credits very carefully, as import-related credits could be used as a way to circumvent the ceilings imposed on commercial borrowings and thereby, to fund projects which have already been determined to have a low priority. All projects given access to import-related credits should be carefully scrutinized to ensure that they warrant priority in the public investment program and that the financing arrangements are appropriate.

2.65 Disbursements of commercial credits were only about US$0.3 billion in 1991/92, as the Government drew down a commercial credit that was about to expire, to take advantage of its favorable terms. To replace this expired line of credit, the Government signed another commercial credit for US$ 400 million in 1991/92, in order to maintain its undrawn lines of commercial credits at about US$ 2 billion. Through 1994/95, the Government has restricted its access to commercial credits to only US$ 500 million per year which should be sufficient to allow the Government to maintain its undrawn lines at their present level. Over the longer term, the Government needs to reevaluate its borrowing strategy in order to determine if it would be advantageous to maintain a more diversified mix of external capital sources, including bonds.

Implications for External Debt Management

2.66 With the rapid rise in external borrowing, primarily by the private sector, in the past two years, Indonesia's medium- and long-term debt outstanding and disbursed (MLT) had risen to US$63.5 billion at end 1991. In addition, short term debt reached US$14.6 billion. As a result, Indonesia's total external liabilities reached about US$78 billion--an increase of 38% over the end 1989 level. This was a significant and unsustainable increase. Credit markets have responded to this increase by tightening Indonesia's access to external credit by raising spreads and shortening maturities for both public and private debt. Partly as a result of worsening terms, but mostly due to the decline of oil prices, Indonesia's creditworthiness indicators deteriorated somewhat during 1991, a the debt service ratio (DSR) on MLT debt rose from 27.8% at end 1990 to 30.1% at end 1991 (see Table 2.12). The debt service ratio will also rise further in 1992, due to higher debt

payments on private debt. Beginning in 1993, however, debt indicators will begin to improve. The Government has reacted quickly to the signals from international creditors and imposed ceilings on the external borrowings of public and publicly-related enterprises. More importantly, the Government is using macroeconomic policies to limit the current account deficit and thus reduce the need for external financing. If the Government is successful in reducing the current account deficit along the path outlined in Section D and in keeping commercial borrowing within the borrowing ceilings, a substantial reduction in all the key debt indicators can be achieved. The DSR is projected to decline to around 20% by 2000. The ratios of DOD to GNP and to exports also are projected to fall significantly over the medium term. While Indonesia could run a larger deficit and sustain a higher DSR, the path discussed in Section D reduces Indonesia's vulnerabilities to external shocks and increases the chances for sustained, uninterrupted growth.

Table 2.12: MEDIUM- AND LONG-TERM DEBT INDICATORS, 1986-2000
(%)

	Actual				Projected /a		
	1986	1989	1990	1991	1992	1995	2000
DOD/GNP	50.1	54.7	58.6	61.1	61.6	52.9	41.2
Public	45.0	49.0	48.7	49.7	50.1	44.5	32.6
Private	5.1	5.7	9.9	11.4	11.5	8.4	8.6
DOD/exports /b	250.2	186.3	183.3	191.2	186.7	143.5	102.6
Public	224.9	166.8	152.3	155.7	151.9	120.6	81.2
Private	25.3	19.5	31.0	35.5	34.8	22.9	21.4
Debt service/exports /b /c	39.7	32.3	27.8	30.1	31.9	25.8	19.9
Public	33.0	27.3	23.0	22.4	22.7	16.8	12.6
Private	6.7	5.0	4.8	7.7	9.2	9.0	7.3
Interest/exports /b	16.6	12.1	10.4	10.9	10.8	8.5	6.6
Public	14.5	10.4	8.9	8.6	8.5	6.6	4.7
Private	2.1	1.7	1.5	2.3	2.3	1.9	1.9

/a Based on exchange rates of December 31, 1991.
/b Denominator is gross exports of goods and services.
/c Debt service excludes prepayments.

Source: Bank Indonesia and World Bank staff estimates.

2.67 The Government continues to administer its external debt payments efficiently, with no significant errors or delays. However, four areas of external debt management require attention:

- improving debt management. The formation of the COLT fills a major gap in the institutional framework for debt management. However, to ensure a fully effective debt management unit, three additional areas need to be strengthened: (i) the

current focus on public commercial debt needs to be broadened to include the formulation of policy for overall public debt management, including official assistance, import-related credits and short-term borrowing; (ii) there is a need for a strong secretariat, including full-time management and staff; and, (iii) systematic reviews of the expenditure plans of the public enterprises and the lending practices of state commercial banks need to be undertaken to ensure their borrowing plans are fully consistent with the overall macroeconomic stance.

- enlarging the focus of debt management. Complete, accurate and timely data on Indonesia's total external indebtedness, including all short-term, public enterprise, private sector, and non-recourse borrowings, as well as all guarantees, are essential for effective external debt management. While substantial improvements have been made in Indonesia's debt management capabilities in recent years, two important weaknesses need to be addressed: (i) lack of a single debt data system capable of meeting all of the demands on the system; and (ii) incomplete coverage and reporting of private sector, public enterprise and short-term debt. Debt data management should move towards a single, shared debt data system based on the existing DAMS system at BI, with maintaining consistency between the systems at BI and the Ministry of Finance as a secondary goal.

- over the medium term, risk management techniques should be developed and adopted. A number of instruments have been developed in international capital markets to reduce exposure to currency, interest rate and commodity price risks and transfer them to others who are better able to bear such risks. Self-insurance through a better matching of assets (Indonesia's international reserves) with liabilities, and an active public external liability management (matching the currency composition of new public debt flows with expected export earnings)--or integrated asset-liability management--would be the main instruments to reduce risks. The recent Government decree to encourage more active use of swaps is a positive step in this direction.

- over the medium term, implementing a strategy to diversify Indonesia's approaches to capital markets. Diversifying borrowing to tap wider sources of private savings and capital in world markets is highly desirable. A successful strategy will be one where funds are raised at a lower cost, from a diversity of sources, in a wider array of currencies and involve repayment over a longer time period. Indonesia should begin to prepare the ground for entering international bond markets at an appropriate time and work on improving the broad-based environment to facilitate greater equity investment. However, improving Indonesia's creditworthiness over the next several years is a crucial step in allowing Indonesia to benefit from entering bond and equity markets.

CHAPTER 3

THE CLIMATE FOR ENTERPRISE

A. Introduction

3.01 Since the mid-1980s, deregulation has integrated Indonesia more completely into the world economy through the gradual lowering of various trade barriers. Domestic markets have also become more open through the easing of restrictions on domestic and foreign investment. The private sector has been encouraged to expand, thereby enhancing productivity growth and diversification of the non-oil economy. The Government's role has been shifting from direct control of productive activities towards facilitating the development of markets and competition. This Chapter assesses the progress made so far in deregulation (particularly in trade policy, domestic regulations and the financial sector) and also in the important area of developing institutions to support markets. An agenda for further continued progress is also proposed.

3.02 Considerable progress has been made in the area of deregulation. The structure of price incentives is now less distorted and provides improved signals for investment activity. Indonesia's experience compares favorably with other countries (see Box 3.1). The scope for the exercise of monopoly power has been reduced and greater competition has forced public enterprises to improve their efficiency. There are two caveats to these favorable developments. First, some manufacturing and agricultural activities continue to be largely insulated from market pressures. Also, a number of processing industries depend on continuing support through export controls on raw material inputs. Further easing of NTBs on imports and controls on exports would promote structural adjustment in the economy and provide an impetus to export development and economic diversification. Second, there have been cases of government interventions that go against the general trend of deregulation, such as the monopolization of domestic trade in some products. Such developments have compromised the benefits of deregulation.

3.03 Translating increased competitive pressure into an efficient supply response requires flexible factor markets. In general, the markets for capital and labor operate effectively. Deregulation in the financial sector has increased competition and improved cost efficiency. Important reforms are underway to improve financial discipline in the banking system. Labor markets also work smoothly and have facilitated an expansion of labor-absorbing activities in which Indonesia is competitive. The greatest need for regulatory reform is in land markets. There is scope for introducing a more market-oriented allocation of land, with the Government upgrading the collection and dissemination of information, and registration and titling of land.

3.04 While continuing with further reforms of the incentive and regulatory framework, increasing attention is needed by the Government to making markets work better, through providing transparent "rules of the game". Selective market-friendly interventions are called for where markets do not operate

Box 3.1: PACE OF REFORM: COMPARISON WITH MEXICO

Since the mid 1980s, Mexico has made a successful transition from an inward-looking to an open economy with much less public intervention. Mexico is now cited as one of the most open of developing countries. Structural reforms have proceeded on a broad front, including initiatives in trade policy, investment regulations, privatization and the financial sector. The motivation for reform has been similar to that of Indonesia: the need to diversify away from oil following the collapse of oil prices in the early 1980s. Both countries started with heavily regulated economic systems in the early 1980s and both have implemented remarkably similar reforms, in terms of both scope and pace (see Box Table 3.1). However, Mexico's reform had a backdrop of more severe macroeconomic imbalances than Indonesia's. In both countries deregulation has led to an upsurge in private investment and manufactured exports. Despite the progress made, the experience of both countries shows that reform is an ongoing process: there are still many areas left untouched. In the case of Mexico, reform of the ejido system of land ownership is high on the agenda as it discourages investment in agriculture. Reform of land regulations also should be high on Indonesia's agenda.

Box Table 3.1: INDICATORS OF REFORM: MEXICO AND INDONESIA

	Indonesia			Mexico		
	1982	1985	1991	1982	1985	1991
Average tariff						
- unweighted (%)	37	27	22	27	23	13
- production weighted (%)	29	19	15	24	29	13
Import licensing						
- import weighted (%)	na	43	13	100	35	14
- production weighted (%)	na	41	22	100	47	20
Number of Public Enterprises	208	214	211	1,155	920	285
Foreign direct investment	Tolerated ---->		Promoted	Tolerated ---->		Promoted
Role of the state	Producer/ regulator ---->		Provide infrastructure	Producer/ regulator ---->		Provide infrastructure

properly (and where intervention can be well-designed to achieve the desired results). This particularly applies to the reform of the commercial legal framework and providing incentives and regulations for environmental protection. Reform of the commercial legal system is necessary to provide a sound institutional framework to support private sector development. The rapid expansion of the financial system has highlighted the need for improved management, prudential regulations, and supervision of the banking system and the stock market. Sustainable development will require a framework of environmental incentives and regulations that causes firms to take increasing

account of environmental costs that their behavior imposes on other firms and society at large. The Government could also help the development of the private sector by lessening its role in the direct provision of private goods and services. This will require an acceleration in the divestiture of certain public enterprises. The Chapter also outlines Government interventions in areas such as export promotion, development of small-scale firms and technology. Although more work is needed in defining the Government's role in these areas, some possible improvements are suggested.

B. Incentives and Investment Licensing

3.05 Reforms of the incentives and investment licensing regime, complemented by the right monetary and fiscal policies and a realistic exchange rate, have played a major role in promoting broadly-based growth and diversifying the economy. The reforms have been implemented as part of five major policy packages between 1985-1990 and addressed three principal areas: (a) trade policies (both for imports and exports); (b) price controls; and (c) investment licensing. In June 1991, the Government issued a new deregulation package that encompassed measures to reform the trade regime further and streamline investment licensing procedures. Earlier reforms were directed at the manufacturing sector; more recently, the focus has shifted to agricultural policies. These reforms are discussed in the following sections.

The Trade Regime

3.06 Non-tariff barriers (NTBs). The removal of direct controls such as import licenses makes the biggest contribution to efficiency improvements stemming from trade reform. In Indonesia, the shift away from import licensing towards tariffs has been the centerpiece of trade reform. All the key indicators show a gradual reduction in NTB coverage since 1986 (see Table 3.1). The decline in NTB coverage appears largest when measured by the share of imports subject to NTBs, which had been 43% in 1986 and is now only 13%. Annual imports of goods subject to NTBs total about US$2 billion, with the most important individual items being in agriculture and agro-processing: wheat, soybeans, sugar, rice and powdered milk together account for 35% of all imports under NTBs. Inputs into motor vehicle assembly (various engines and sheet steel) are the next largest category, followed by heavy equipment (mining machinery and bulldozers).

3.07 The proportion of domestic production protected by NTBs has declined from 41% in 1986 to 22% in 1991. The June 1991 package of reforms (Pakjun 91) largely focused on agriculture, with NTBs being eliminated on important products such as edible oils, soybean meal, poultry and other meats, and fruit and nuts. The deregulation of trade in edible oils is the most significant change and is part of an overall reform of the edible oil industry in response to a significant increase in domestic production. The deregulation of other agricultural products was prompted by the need to lower food costs in general and ensure supplies for the tourism industry. The main changes in the manufacturing sector were the easing of controls on certain steel products. The removal of PT Krakatau Steel's near monopoly on imports of tin plate represents an important reform for the food processing sector. The authorities initially eased controls on truck imports; however, this policy

Table 3.1: IMPACT OF REFORM PACKAGES ON IMPORT LICENSING COVERAGE SINCE 1986 /a

	Mid-1986	End-1987	End-1988	Early 1990	May 1990	June 1991
NTB coverage as:						
% of CCCN items	32	22	16	-	-	-
% of HS items	-	-	-	17	14	10
% of import value	43	25	21	17	15	13
% of total production value	41	38	29	28	25	22
Memo items:						
% of domestic production coverage of NTBs:						
- Manufacturing	68	58	45	38	33	32
- Agriculture	54	53	41	40	38	30
- Mining and minerals /b	0.2	0.2	0.2	0.2	0.2	0.2

/a There is a discontinuity in the series from end-1988 due to two causes: the shift from CCCN to the HS system of tariffs; and the update from 1985 to 1987 production weights for calculating production coverage ratios of NTBs. However, this discontinuity does not change the trends since 1986. It should be noted that the food, beverages and tobacco industries are included in the manufacturing sector.
/b Including oil and gas.

Source: World Bank staff estimates.

was reversed in August 1991 when trucks imports were again banned in response to pressures from local assemblers, who were facing a slump in domestic demand. Within manufacturing, the incidence of NTBs continues to be highest in the food processing, paper products and engineering industries. Rice and rice milling account for about two-thirds (by value) of total tradeable goods production still under NTBs; excluding rice, only 8% of tradeable goods production is protected by NTBs.

3.08 Indonesia's progress in reducing the coverage and restrictiveness of import licensing has increased competitive pressures on domestic industry, facilitated clearance of imported inputs by exporters, and enhanced the transparency of the trade regime. Exporters have reported that the price and quality of domestically produced inputs have become more competitive after NTBs on competing imported inputs were eliminated. Despite the progress made, restrictive import licenses continue to distort domestic production patterns. Imports of certain agricultural products are only permitted when shortfalls occur in domestic production and, even then, only certain companies or agencies are allowed to import. A number of manufacturing activities, often associated with a high degree of public enterprise involvement, also benefit from NTBs on competing imports. Eliminating the remaining NTBs remains a high priority.

3.09 Tariffs. With the relaxation of licensing restrictions, tariffs are playing a more important role in determining the level and pattern of imports. Since the mid-1980s, the average level and dispersion of tariffs have been substantially reduced (see Table 3.2). The reforms in Pakjun 91 have resulted in a marginal decline in various coverage indicators, largely from a cut in tariff rates above 35%. The tariff structure is moving towards a 30-35% ceiling, with 83% of all items at, or below, this range. More than half of production in all import-competing sectors is protected by tariffs of less than 10%.

3.10 The administration of surcharges was overhauled in Pakjun 91, with the vast bulk of them now only valid for one year. Split tariffs were also eliminated. This has notably improved the transparency of the tariff schedule. The import weighted tariff rate of 10% (outlined in Table 3.2) is based on the scheduled tariff rate and excludes the effect of duty exemptions in lowering collections. Actual duty collections are only about 5% of the value of imports. The exemptions from duties result largely from the operation of the scheme allowing duty-free imports for exports (BAPEKSTA), and imports for BKPM-approved investments.

Table 3.2: CHANGES IN THE TARIFF SCHEDULE /a

	Pre-1985	1985	1988	1989	1990	1991
Average tariff rates (%)						
Unweighted	37	27	24	27	22	20
Weighted						
- by import value	22	13	15	12	11	10
- by domestic production	29	19	18	19	17	15
Index of dispersion /b	62	108	90	93	89	83

/a Includes surcharges.
/b Measured by the coefficient of variation.

Source: World Bank staff estimates.

3.11 Customs officials have been given new responsibilities during 1991, not all of which are being implemented effectively. A major achievement of trade reforms in the mid-1980s was shorter delays in and lower costs of clearing goods through customs. At that time, the responsibility for checking all import consignments over US$5,000 was handed over to a private inspection firm. Subsequently, another joint venture firm was given the responsibility for checking exporters' claims under the BAPEKSTA scheme (duty exemptions and drawback). Recent changes in administrative regulations have granted Customs the authority to check goods, both imports and exports, if there are grounds for suspecting that incorrect declarations have been made (there is a time limit of 4 days for the procedures). Firms are concerned about the potential for these checks to delay imports and exports. Ensuring a smooth flow of goods through the ports should be a primary objective of Customs; experience shows the potential for unnecessary delays to disrupt severely the non-oil export drive and to raise costs throughout the economy.

3.12 Export regulations. Export regulations in Indonesia cover bans or prohibitions, licensing arrangements, quotas and taxes. Export quality controls are also applied to a wide range of products, especially in primary industries. Export regulations have a far-reaching effect on the structure of price incentives and the allocation of resources, particularly in natural-resource based industries. Currently over one-quarter of domestic tradeable

goods production is subject to some form of export control. Although export controls on some products (e.g. spices) have been relaxed, they have been extended on other products (e.g. sawn timber and rattan). As a result, the production coverage of export controls has increased since the mid-1980's, which contrasts to the relaxation of licensing arrangements on imports.

3.13 Controls on forestry-based products are by far the most important category of export regulations. These encompass prohibitions on exports of unprocessed logs, rattan and veneer, the regulation of exports of a wide range of sawn and processed timbers and plywood, and prohibitive export taxes on sawn timber. Export controls on forestry-based products have a major impact on resource allocation, revenues and the environment. These controls were introduced to encourage greater domestic value-added, but were subsequently, and wrongly, also justified as policies to ensure sustainable forest management. The various policy interventions in forestry have reduced log prices to roughly half the world price. Such low raw material prices have induced rapid expansion of wood processing industries, and plywood has grown to be one of Indonesia's leading export earners (total plywood exports were about US$3 billion in 1991). But, as argued below, this expansion in wood processing has high costs and there are strong grounds for reforming policies in this sector.

3.14 The log ban is an ineffective conservation measure because it does not slow the rate of logging for domestic consumption or for processing for re-export. On the contrary, the ban has led to artificially low domestic log prices, resulting in over-cutting and over-investment in processing capacity. The "sustainable" level of log production in Indonesia has been estimated at about 25 million cubic meters (m^3) p.a.. However, logging of natural forests increased from about this level in 1980 to an estimated 37 million m^3 p.a. in the late 1980's.1/ Moreover, the wood industry has capacity to process well over 50 million m^3 p.a. of logs. Low log prices have led to wasteful processing activity and also reduced the profitability of timber plantations in Indonesia, meaning that a greater proportion of wood must come from natural forests.

3.15 The ineffectiveness of the log ban as a conservation measure is partly due to the low level of royalties charged for logs. The current royalties of about US$15/$m^3$ are only about 12% of the potential surplus (or rent) based on the world price of logs. Increasing rent capture to 85% of the potential level, which other countries have shown to be feasible and which is done for the petroleum sector in Indonesia, would increase Government revenue dramatically (see Box 2.1). Increasing royalties would place considerable adjustment pressure on the wood processing industry, but necessary increases in royalties could be phased in over three to five years. This would give time for the industry to adjust.

3.16 A related objective of export restrictions has been to harness Indonesia's large share of world production to gain market power. (By the end of the 1980s, Indonesia had half the world plywood market). But export

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1/ "Situation and Outlook of the Forestry Industry in Indonesia, Resource Base", Volume 2: Directorate General of Forest Utilization, Ministry of Forestry and FAO, Jakarta: September 1990, p. 128.

policies such as the log ban on Indonesia's forestry products cannot be justified on these grounds. The domestic price of logs in Indonesia is estimated to be about half the world price. Approximately the same result could have been achieved by an export tax on logs of 50%, which is probably well above the optimal level. The Government now collects no revenue from log exports since they are banned, nor does it collect any revenue from plywood exports, which are untaxed. Some revenue is collected from sawntimber exports, but the amount is small because the tax is prohibitively high. To the extent that Indonesia has succeeded in using its market power, the gains have accrued to a relatively small number of firms in the wood processing industry. More efficient policy for the forestry sector would ultimately involve the replacement of the log ban by an export tax at less than a prohibitive level. However, there are compelling grounds for reducing the incidence of the sawn timber tax, which could be eliminated except for the largest profiles of sawn timber.

3.17 Indonesia's other main export restriction is on textiles, but it is externally imposed. In Indonesia, textile quotas have been allocated according to complicated rules that favor firms exporting to non-quota markets, and also cooperatives and members of the "weak group". Once allocated, quotas have come to be regarded as the property of the exporting firms, which retain quotas indefinitely, provided that they continue to utilize them. Such an allocation system is open to considerable administrative discretion and is a potential source of inefficiency. Nevertheless, textile producers report that administrative efficiency in allocating quotas has improved markedly over the past 18 months. The introduction of an auction for quota trading has helped ensure more complete utilization of the quotas. The transparency of administration could be improved further, through such simple initiatives as publishing information on quota holders, their export performance and production capacity.

3.18 International agreements. The signing of the ASEAN's Singapore declaration in January 1992 is an important development. The declaration indicates that ASEAN seeks to safeguard its collective interests in response to the formation of large and powerful economic groupings in developed countries, by increasing economic cooperation within the region. This will have important implications for the trade and investment regimes of the member countries, including Indonesia. In particular, intra-regional trade should be further stimulated by the establishment of the ASEAN Free Trade Agreement, which is to be based upon a Common Effective Preferential Tariff (CEPT) scheme. Under this scheme, tariffs are to be reduced to a range of 0-5%, in phases over 15 years. Accelerated reductions are to commence within 15 product groups (including chemicals, textiles, electronics, and wooden and rattan furniture). Economic cooperation is to extend to the fields of investment and industrial linkages, transport and communications networks and strengthening of joint trade and tourism. Thus, cooperation encompasses measures that are more comprehensive than trade reforms usually covered under GATT. The initiatives taken under the declaration can be seen as trade enhancing, particularly if they do not distract policy makers from the need to lower external trade barriers as well. In this regard, the Singapore declaration stresses that ASEAN will work towards promoting an open international economic regime and strongly urges major trading countries to work towards an early and successful conclusion of the Uruguay Round.

3.19 Meanwhile, Indonesia has become a more active participant in GATT, partly because the expansion in manufactured exports brings with it an increased stake in ensuring openness of markets. In this regard, Indonesia volunteered as an early participant in the GATT's Trade Policy Review Mechanism. The mechanism involves a comprehensive review of trade policy measures, with the findings published in a public report.2/ The Government found the review process useful on its own merits and indicated that it will undertake a similar exercise domestically every year, even though the obligation is to do so only every four years. This initiative will help maintain the momentum of trade reform, adding to the transparency of the trade regime and expanding the analytical capacity of the Government.

3.20 Domestic trade. Recently introduced government-backed monopolies have distorted domestic trade in certain products such as a cloves and citrus. The monopoly trading arrangements have been widely reported and criticized, and their continuation is not consistent with the Government's broad deregulation program. In the case of cloves, the monopoly arrangements have largely benefitted a consortium of private traders at the expense of farmers, consumers and the central bank. The consortium -- backed by Rp.760 billion in subsidized Government loans -- set out to double the price paid to clove farmers while also doubling the price charged to cigarette manufacturers (the main users). As expected, the new price structure increased supply from farmers and decreased demand from consumers, in a market that already had large clove stocks. The consortium could not defend the floor price, and most farmers now receive prices no higher (and in many cases lower) than the prices prevailing before the monopoly was granted. In early 1992, the consortium requested a rescheduling of its subsidized loan repayments.

3.21 The Government has recognized problems with the clove marketing arrangements and has recently introduced some modifications. These changes largely involve passing on the responsibility for clove procurement and stock management to cooperatives and reducing the floor price paid to farmers. But the consortium retains the exclusive right to sell cloves to cigarette companies, and it has reserved the right to sell its existing stocks (enough for 2 year's of domestic consumption) before acquiring new stocks. Meanwhile, the cooperatives will be required to purchase and store cloves produced by farmers over the next two years (at an estimated cost of Rp.1,000 billion), with little or no scope to sell them. The new arrangements will cause a heavy debt burden for the cooperatives.

3.22 The citrus trade in West Kalimantan has also been monopolized. Under regulations issued by the provincial administration, citrus growers are required to sell their fruit to specified cooperatives, which in turn sell the fruit to a consortium of private traders. The monopoly is meant to stabilize fruit prices, but in practice it has simply resulted in high prices to consumers with little gain to farmers. In fact, as in the case of cloves, prices received by many farmers have declined since the introduction of the monopoly.

3.23 Directions for future trade reform. Indonesia has made considerable progress in moving towards an outward-looking growth strategy and improving

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2/ GATT, Trade Policy Review: Indonesia 1991, Volumes I and II, August 1991.

the incentives structure. Increased competitive pressure has spurred firms to improve the efficiency and productivity of their operations. In a recent submission to the GATT, the Government indicated that it: "..... plans to continue its efforts to build an efficient domestic economy. The deregulation to date will be refined, and the possibility of further deregulation will be addressed. Trade policy in this way will pursue the achievement of the REPELITA V GDP growth target of 5% per year, of doubling non-oil exports, of creating 11 million new jobs, and building a business environment that is favorable to achieving these goals." The main specific actions in the trade regime that could be taken to fulfil these objectives are as follows:

- Eliminate more non-tariff barriers. The main priority in this area is to remove remaining NTBs in manufacturing. This will reduce protection for activities that impose high costs to the economy. Significant additional benefits would result from further deregulation of agriculture products, especially removing NTBs on imports of sugar and wheat. Where necessary, tariffs could replace NTBs.

- Reduce tariffs levels further so that only a few lie above the range of 15-25%. Higher rates would be limited and temporary, allowing only a specified (short) time for activities affected to adjust to the tariff reduction in an orderly fashion. The existing surcharges are to be reviewed and most of them could be phased out

- Reassess and reduce the coverage of export controls. The priorities for reform include: the export restrictions and royalty framework for forestry products including rattan; the export quota allocation procedures for textiles and cassava; the bans on lower quality grades of commodities such as rubber, coffee and vanilla; and the ban on cement.

- Improve the flow of goods through the ports. If Customs is to increase its responsibility over time, the agency has to develop a high level of professionalism in conducting its business; experience shows how much unnecessary delays can disrupt trade growth.

- Eliminate unnecessary barriers to domestic trade, such as the monopolies on cloves and citrus.

Price Controls

3.24 Price controls in Indonesia fall into three categories: (i) regulations that administer prices charged by monopolies; (ii) indicator prices that trigger market interventions by Government agencies; and (iii) administered prices designed to control ex-factory and retail prices. The key features of these price controls are as follows:

- The monopoly control category encompasses the prices of many transport services, public utilities and fuel products. For most of these products, regulated prices have been set below long run marginal costs leading to inefficient levels and patterns of demand and to non-price rationing (such as "brown-outs" in the case of electricity).

- The <u>indicator price category</u> includes rice and cement. If prices rise above the indicator prices, official intervention is triggered to increase supplies, either through imports, export bans or redirection of supplies to certain regions. For rice, the Government sets a price band. When prices fall outside the band, the Government logistical agency (BULOG) intervenes in the market by buying and selling. Selling is usually done from stocks, although BULOG imports rice during years of substantial shortage (as in 1991). Cement production is tightly regulated in Indonesia. In addition to price controls, there is substantial state ownership and regulations controlling exports and domestic marketing.

- <u>Administered prices</u> apply to products such as fertilizer and sugar. For fertilizers, the MOF uses data on costs in each factory to set "break-even" prices, which fall above or below the c.i.f. import price depending on the particular product. Fertilizers used by farmers are subsidized, which encourages over-consumption. Designated cooperatives are the only legal distributors. Price controls on sugar are part of a regulatory framework designed to encourage sugar production and lower reliance on imports. The regulations lead to domestic sugar prices that are well above world market prices, with consequent high prices for consumers and high costs for the downstream food processing industry, as well as inefficient use of land and water by farmers.

3.25 The most pressing need in the reform of price controls is to improve price signals for public utilities. Higher prices that reflect long-run marginal costs would increase efficiency in the use of public utilities by ensuring that available supplies are allocated to those who value them most, resulting in a more efficient level and pattern of demand. In addition, higher prices could be used: (i) generate more resources to support better operation and maintenance of existing infrastructure and contribute to investment in new capacity and (ii) to provide an incentive to private investors to participate in supplying infrastructure services. This is a central theme of the next chapter. Chapter 2 discussed how aligning petroleum product prices more closely with world prices would encourage efficient energy use in Indonesia, add to public revenues, and ease pressures on the balance of payments.

3.26 Price policies for rice was intended to ensure food security and dampen fluctuations in retail prices. By and large, the policy has achieved its objectives, and rice prices in Indonesia have on trend fallen between import and export parity. However, it may be worthwhile considering linking the domestic rice price more explicitly to world prices. Over extended periods, cement prices in Indonesia also have approximated international prices. However, the requirements for firms to supply certain regions reduces competition. Also the occasional use of export quotas or bans to protect domestic users disrupts development of overseas markets. The regulatory framework for sugar leads to excessive production; price controls on fertilizer lead to excessive consumption and budgetary costs. For cement, fertilizer and sugar, price controls could be reassessed, as part of a package of regulatory reform.

Investment Licensing

3.27 Most medium and large-scale investment projects proposed by domestic and foreign investors are licensed by the Investment Coordinating Board (BKPM). The BKPM also provides some concessions by way of exemptions from customs duty on most capital equipment and raw materials for the first two years of operation.3/ Domestic (but not foreign) investors who are prepared to forgo the duty exemptions need not get approval from the BKPM, although they must receive approval under various land and zoning laws. All investment projects used to be restricted by a positive or priority list of sectors that were open to some or all of domestic and foreign investors. In 1989, the positive list was replaced by a short negative list of activities that are closed to new investment. In fact, there are several negative lists: some activities are closed to all new investments; in other activities, new investors may be permitted if they fulfill certain conditions (such as achieving specified levels of local content, or producing mainly, or exclusively, for export). Investors are still required to obtain additional approvals when they wish to expand the capacity of their operations

3.28 Considerable progress has been made in reducing investment licensing, and with the most recent changes in Pakjun 91 the negative list now largely comprises service activities such as advertising, retail trading, radio and TV broadcasting, and some transport services. The only manufacturing items on the negative list are veneer, some chemicals (DDT and explosives) and transport equipment (aircraft and trains). As a result of Pakjun 91, the core negative list has declined from 70 to 60 products.4/ But about half the products remaining on the negative list are partially deregulated in the sense that projects are open for both domestic and foreign investors if either a certain proportion of production is exported, or specified local content levels are reached. However, such conditions apply only to the initial investment proposal. Any subsequent expansion of capacity does not have to be directed to exports. Although considerable deregulation has taken place at the central level, the implementation of investment projects has been impeded by lengthy delays in issuing licenses at the local level (including nuisance permits and environmental statements). The authorities are considering

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3/ There are some categories of imported goods on which duty exemptions are not granted even for approved projects, on the grounds of encouraging domestic production. Both in analyzing projects for approval, and in drawing up the lists of concessional imports, BKPM works in conjunction with a private surveillance firm (Societe Generale de Surveillance, S.A.).

4/ Most of the products that were completely deregulated in Pakjun 91 related to agriculture (coconut oil, some poultry farming and isoprene rubber) or automotive components (transmissions and brake systems). Other agricultural products such as refined palm oil, were opened for investment if at least 65% of the output is to be exported. Some of the changes were designed to stimulate investment in outer islands. For example, rattan was opened for investment outside Java; sawnwood, other than for export, and plywood were opened for investment in East Timor and Irian Jaya. In contrast, contractor services for clearing of forests was closed to all investment.

various initiatives to overcome delays, including permission for a group of industrialists establishing plants in a certain area to submit a single form on these matters.

3.29 The Government has complemented trade reform with an improved domestic incentives and regulatory regime for the private sector. As a result of reforms since 1989, investment licensing is no longer a significant barrier to entry and exit of firms into tradeable goods production in Indonesia. Investors are largely free to respond to the more competitive environment by investing in those activities where Indonesia has a comparative advantage. Moreover deregulation has meant that Indonesia reaps greater benefit from foreign investment (see Box 3.2). Most of the service activities that are on the negative list are only closed for foreign investment. Nevertheless some further initiatives could be taken to improve the investment climate:

- relaxing the export and local content conditions for some investment activities. If markets are open, then foreign joint ventures have to be competitive to survive;
- streamlining the processing of local level regulations; and
- reassessing the duty exemption on capital goods and raw materials as it increases the effective rate of protection of downstream industries--one option would be to abolish the exemption as part of a further reduction and rationalization of scheduled tariff rates.

C. Developing Factor Markets

3.30 The previous section focused on ways to improve incentives in order to increase competition within the economy, especially in markets for goods and services. Flexible factor markets would help transform competitive pressure into an efficient supply response, by facilitating resource flows out of declining and into emerging activities. This section discusses the developments in the markets for capital, land and labor and highlights areas for reform.

The Financial System

3.31 Finance and investment. Since deregulation commenced in 1983, the financial system has grown rapidly, mobilized greater amounts of financial savings and stimulated investment by transforming the maturity and size of savings to fit the needs of investment projects (see Table 3.3).5/ Financial asset growth averaged 19% a year between 1988 and 1991, with banking assets growing at over 26%. The value of all financial assets is now equivalent to 98% of GDP, with M2 accounting for 45% of GDP. Growth has been strong in newer areas such as equity finance and leasing. The increased investment in the past few years has been increasingly financed through the

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5/ Details of the deregulation packages are outlined in last year's economic report, Indonesia: Developing Private Enterprise, Report No. 9498-IND, World Bank, May 4, 1991, pgs. 75-91.

Box 3.2: DEREGULATION AND FOREIGN INVESTMENT

1. The opening up of the Indonesian economy since the mid-1980's has led to an upsurge in export-oriented direct foreign investment (DFI). In 1986, about 38% of approved investment projects (by number) were export-oriented and this proportion had climbed to about 70% in 1991. The value of exports planned by domestic investors increased from US$117 million in 1986 to US$ 8.9 billion in 1991; the corresponding numbers for foreign investors were US$266 million in 1986 and US$3.2 billion in 1991. DFI has increased its share of the total value of investment approvals from 19% in 1986 to over 30% in 1991. In absolute terms DFI approvals have reached about US$9 billion in 1991, indicating that Indonesia is an important regional destination for investment. The export market orientation of recent DFI contrasts starkly with earlier investment flows that were directed to the domestic market in response to a protectionist trade regime. Most of these investments were in activities in which Indonesia did not have a comparative advantage. In changing the orientation of investment flows, deregulation measures have helped Indonesia reap greater benefit from DFI.

2. In 1991 the Asian Newly-Industrialized Countries (NICs) (Korea, Taiwan, Hong Kong and Singapore) accounted for over 60% of the total number of new investment projects approved. The NICs are developing more technologically sophisticated, higher value-added industry and are relocating labor-intensive industries to countries such as Indonesia (an example being the development of the regional "Growth Triangle" encompassing Singapore, the Indonesian province of Riau and Johor in Malaysia). Indonesia provides the NICs with a low-cost export base to service traditional markets in developed countries. These developments are in response to appreciating currencies and rising costs of land and labor in the NICs. Favorable home and host country policies have been conducive to the recent investment surge into Indonesia, particularly from the four Asian NICs.

3. Indonesia will continue to be an attractive destination for foreign investors as long as it remains stable, policies are clear and predictable, and key infrastructure bottlenecks are overcome (particularly electricity and telecommunications). A key challenge is to maximize the benefits of DFI and, in particular, its potential to upgrade domestic technical capability through technology transfer and subcontracting arrangements. The key is to expand the base of entrepreneurs who can interact on a more equal footing with foreign investors, and this means more attention to appropriate education (both formal and informal) and training.

domestic financial system. Products that better serve the needs of savers and investors have also been created: more attractive savings schemes, more flexible mortgage loans, and mutual funds are prime examples. Likewise, domestic syndicated loans have allowed local banks to finance projects that previously would have required external sources.

3.32 Although growth in financial assets since 1988 has been strong, it slowed considerably last year (see Table 3.3). Overall, banking assets grew by only 5.8% in nominal terms in 1991, below the level of inflation. For some institutions, particularly the state commercial banks, assets fell during 1991. The stock market also performed poorly during 1991, with the overall index falling from a peak of over 425 in late February to below 225 in November. The slowdown in asset growth reflects three factors: (i) tight monetary conditions, (see Chapter 2); (ii) new prudential regulations constraining credit growth; and (iii) a natural period of consolidation after the initial opportunities created by the reforms were exploited. Although slower asset growth has created difficulties within the financial system, it has been part of a necessary adjustment, -- for the sector and the economy overall. Tight monetary conditions were designed to adjust aggregate demand to levels consistent with external balance through a slowdown in credit expansion. Prudential regulations, such as stricter capital requirements and greater liquidity, constrain credit growth, but promote a sounder financial system. Nevertheless, it is important to manage this period of financial consolidation so that it causes as little disruption as possible.

3.33 As banking assets have grown, the average maturity of bank credits has lengthened, creating a better fit with investment projects. This lengthening of average loan maturities, however, has not been coupled with a lengthening of deposit maturities. Concerns about a sudden devaluation in 1991, led to a further marked shortening of deposit maturities. The use of short-term deposits to fund long-term loans remains a source of risk. The interest rate risk inherent in the mismatch has been reduced as banks increasingly use variable rate loans, although the deterioration in interest spreads at state commercial banks reflects their continuing exposure to interest rate risk. The possibility of funding shortfalls and a liquidity crisis, however, remain even with variable rate loans. This risk has risen in the last year as tight monetary policy has complicated liquidity management.

3.34 Margins and profitability. Since the initial freeing of domestic interest rates in 1982, competition has forced down bank margins across all banks, but particularly at state banks. With more recent deregulation. the declines have been larger in fee income rather than in interest margins as banks have moved to compete on a broader basis than simply interest rates. At the same time, non-interest operating costs have been kept under control. In fact, these have tended to decline over the period, despite the expansion in the branch network of private banks and the increase in salaries for banking professionals. These trends suggest improvements in cost efficiency in the banking system since deregulation.

3.35 An important development during 1991 was the sharp decline in the profitability of state commercial banks. This largely resulted from a halving of net interest margin. That in turn reflects the interest risk inherent in their mismatched portfolio. Combined with a decline in fee income that exceeded reductions in non-interest operating costs, state commercial banks'

Table 3.3: INDONESIA: STRUCTURE AND GROWTH OF THE INDONESIAN FINANCIAL SYSTEM

	Number in				Assets (Rp. bln)				Asset Growth (% p.a.)		
	1982	1988	1990	1991 /a	1982	1988	1990	1991 /b	1982-88	1988-91	1990-91 /c
Bank Indonesia	1	1	1	1	13,707	42,445	49,045	55,220	18.8	8.8	11.9
Deposit money banks	118	111	166	185	17,105	65,693	135,992	152,377	22.4	28.0	11.4
State commercial banks	5	5	5	5	12,257	39,862	64,760	68,135	19.7	17.9	5.1
Private foreign exchange banks	10	12	23	23	1,168	10,189	37,311	44,873	36.1	49.4	18.5
Foreign banks	11	11	26	29	1,172	3,215	9,777	11,604	16.8	42.8	17.1
Other commercial banks	60	51	80	96	720	4,972	10,823	10,109	32.2	23.7	-6.8
Development banks	29	29	29	29	1,336	5,046	10,247	14,038	22.1	34.1	31.5
Savings banks	3	3	3	3	452	2,409	3,074	3,618	27.9	13.6	16.3
Nonbank financial institutions	13	13	13	13	805	3,063	4,730	4,793	22.3	14.9	1.3
Insurance companies	83	106	117	na	528	1,883	2,566	na	21.2	na	na
Leasing companies	17	83	83	na	114	1,735	2,711	na	45.4	na	na
Other credit institutions	5,808	5,783	5,994	6,243	86	637	856	na	33.4	na	na
All institutions	6,040	6,097	6,374	6,642	32,345	115,456	195,900	218,523	21.2	21.3	10.9

/a As of November 1991.
/b Growth for first 11 months of 1991 over the same period in 1990.
/c As of March 1991.
/d Village and Urban Peoples Credit Banks (BPRs).
/e Totals reflect previous year stocks for those categories for which 1991 data is unavailable.

Source: Bank Indonesia and World Bank staff estimates.

net operating margin fell to only 0.93% of average assets, one third its level of the previous year. Pre-tax earnings were only 0.12% of assets. Profitability of private national banks also declined, though not as sharply. Only foreign and joint venture banks managed to increase profitability over the last year.

3.36 Lending to poorly performing firms has resulted in a rise in non-performing assets during the past year.6/ The increase in non-performing assets is reflected in increased provision expense as a share of bank's interest margin (see Table 3.4). There are three main reasons for the increase in non-performing assets. First, the newly competitive market spurred some banks to build market share by aggressively expanding their lending portfolios at the cost of underpricing loans. The sheer speed of credit growth has meant that some credits have been booked that have soured with higher interest rates. Second, until recently, the predominance of liquidity credits reduced the bank's need to develop capacity to price loans

6/ Non-performing assets include three categories: substandard (interest and principal in arrears for over 3 months); doubtful (interest and principal in arrears for over 6 months); and loss (interest and principal in arrears for over 27 months).

adequately.7/ Third, a softening in some sectors of the economy has adversely affected ability of individuals and firms to repay loans. This applies particularly to the fast growth in credit for consumer goods, real estate and other services which have been among the slowest growing sectors recently.8/

Table 3.4: LOAN LOSS RESERVES AND PROVISIONS
(percent)

	1982	1988	1989	1990	1991
Loan Loss Reserve/Total Loans					
State Banks	3.2	4.2	2.3	4.4	4.8
Private Banks /a	1.0	1.1	1.0	0.8	1.3
All Banks	2.7	3.3	3.3	2.7	3.0
Provision Expense/Total Loans					
State Banks	na	1.2	0.6	1.3	0.9
Private Banks /a	na	1.0	0.7	0.7	0.9
All Banks	na	1.1	1.0	1.0	0.9
Provision Expense/Interest Margin /b					
State Banks	na	44.9	36.0	35.5	47.3
Private Banks /a	na	18.9	15.8	15.3	16.6
All Banks	na	29.2	28.2	22.3	23.4

/a Includes foreign and joint venture banks.
/b The interest margin is defined as the difference between interest income on loans and interest expense on deposits.

Source: Bank Indonesia and World Bank staff calculations.

3.37 The increase in non-performing loans should have resulted in a substantial increase in loan loss reserves to meet BI's prudential guidelines introduced in March 1991. Loan loss reserves have been bolstered in the last

7/ Liquidity credits had fixed interest rates and targeted markets. Credit risk could be passed off to Government insurance companies at subsidized premiums. The scaling back of liquidity credits has adversely affected the profitability of state commercial banks in particular.

8/ Services also show a relatively large share of lending in foreign exchange, about 15 percent of total lending to the sector. Lending in foreign exchange overall has increased in the last year, driven by a combination of increased offshore borrowing by banks in the face of tight rupiah liquidity, and the need for banks to limit any open position in foreign exchange to 20 percent of capital.

year, while provision expense as a share of total loans has risen at most banks (see Table 3.4). To the extent that loan reserves do not fully cover non-performing assets, the figures for bank profitability are overstated and interest and fee income has not been able to keep pace with the costs of provisioning. Undisclosed classified assets would induce banks to make riskier loans to offset diminished income. Riskier loans impair the soundness of the banking system. Up-to-date portfolio classification and strict adherence to provisioning standards is needed to ensure that financial accounts reflect the true condition of banks and that excessive risk-taking is curtailed.

3.38 Current issues. In the March 1991 package of reforms, Bank Indonesia mandated higher risk-adjusted capital requirements to be phased in over 1992 and 1993 (in line with Bank for International Settlements standards). By March 1992, banks were required to have capital equal to 5% of risk-weighted assets. The ratio is to increase to 7% by March 1993 and 8% by end-1993. This was done to reduce the risk that mismanagement by a bank of credit or other risks will lead to loss by depositors, since higher amounts of capital at risk will dampen a bank's appetite for risky loans. As a share of total assets, unadjusted for risk, capital has risen for banks overall, particularly after the new regulations (see Table 3.5). The 5% threshold for March 1992 did not create a serious problem for most private and foreign banks given the levels of capital these banks were holding when the new standards were announced. Reaching the capital-asset ratio is not as large a problem for state commercial banks as appears. This is because the Government, as owner of the state commercial banks, can provide the needed equity infusion for the group.9/ But the capital adequacy requirement of 7% by the end of 1992 will

Table 3.5: BANK CAPITAL AND LIQUIDITY
(percent)

	1982	1988	1989	1990	1991
Capital-asset Ratio					
State Commercial Banks	3.3	2.8	2.9	2.4	3.0
Private Banks /a	7.9	5.5	7.7	9.4	7.5
All Banks	5.5	4.9	5.6	6.0	6.1
Loan-to-Deposit Ratio					
State Commercial Banks	134.1	140.5	255.4	127.9	150.5
Private Domestic Banks	92.9	95.3	93.9	103.5	99.8
All Banks	130.2	133.0	126.2	133.0	137.3

/a Includes foreign and joint venture banks.

Source: Bank Indonesia and World Bank staff calculations.

9/ Unlike private banks, most state commercial banks were seriously undercapitalized prior to March 1992 due to a combination of legal constraints on paid-in capital and division of profits and non-performing assets.

start to constrain credit expansion and it is also likely to push up bank spreads, as loans will need to bear the costs of raising the additional equity. At current interest rates, this could add about 1.5% to the cost of a loan. This additional cost, however, will lessen the chances of financial distress leading to financial instability.

3.39 Banks are also under pressure to improve liquidity, as they are required by Bank Indonesia to reach a loan-to-deposit ratio of 85%. The loan-to-deposit ratio of many banks in Indonesia is over 100%. A bank with more liquid assets is better able to withstand unexpected withdrawals of deposits. Liquid assets are also available for sale at, or close to, book value to cover losses due to deterioration in other assets. The low levels of liquidity maintained by banks is due partly to the low level of reserve requirements -- 2% of third-party liabilities. Bank Indonesia (BI) has redesigned access to its discount window to encourage more active use by banks experiencing temporary illiquidity. Should efforts at easing access to the discount window and promoting lower loan-to-deposit ratios prove less than fully effective, it may be worthwhile considering a small secondary reserve ratio to strengthen the liquidity positions of the banks. Encouraging greater levels of liquidity in banks should also promote a deeper money market with more stable rates. This would facilitate variable rate lending, thereby tending to lessen interest rate risk.

3.40 Another emerging issue concerns the concentration of lending to a person, firm, or group. Experience in countries in Latin America and elsewhere has shown that the concentration of lending greatly increases the chances of bank failure. Ownership of banks by groups creates an environment in which concentration can easily occur. Although many countries allow ownership ties between banks and their borrowers, to ensure the soundness of the banking system, regulations must ensure that these ties are not abused. This problem has been recognized by BI, which moved in 1988 to establish legal lending limits for persons and groups. The new Banking Law phases in a tighter limit of 30% of bank equity for groups. Establishing a company registry would help BI in its efforts to enforce existing regulations on credit concentration by providing better information on the ownership structure of firms. A continuation of aggressive action by BI in penalizing banks that violate lending limits is also needed.

Land

3.41 Land is an important economic and social asset: its availability is a key issue in ensuring the sustainability of economic growth. An emerging scarcity of land for urban and agricultural development reflects in part the absence of efficient land markets and land resource pricing problems. Meeting Indonesia's demand for land for development requires appropriate policies to create efficient land markets. The task is complex and will take some time to complete: it involves building administrative and institutional capacity and implementing appropriate regulations. However, starting the process is urgent as delays in obtaining clear title to land are a major bottleneck for investors.

3.42 In Indonesia, the vast bulk of land is owned, controlled and administered by the State for the common good and it extends land rights in various ways. The most significant right for development is the right of

building, which permits the holder to construct and own buildings on land for 30 years (extendable by another 20 years). This is the most common right for formal sector residential and industrial development. The agricultural equivalent is called the right of exploitation, which allows commercial agricultural development on parcels of land over 5 hectares.10/ Such rights may be owned by Indonesian individuals and corporations. Joint ventures with foreign firms are able to acquire the rights of building. However, obtaining rights of exploitation is more problematic for foreign investors as the policy has been to grant the right only to the Indonesian participant in the joint venture. This has added an obstacle that discourages foreign investors.

3.43 There are two main drawbacks of the current land allocation system: cumbersome and lengthy procedures involved in transferring land rights; and underpricing of state land. At present, large tracts of land are unregistered, which complicates land transfer. Investors are required to undertake lengthy investigation to establish ownership and even then transfers are disputed.11/ Transfers must be undertaken through government agencies, also a lengthy process due to limited administrative capacity. State land is significantly underpriced, partly because the authorities have difficulty in establishing market prices and this leads to: extensive rather than intensive use of land, leading to accelerated demand for conversion of forest land for other uses and increased land degradation; allocation of land to those who can influence allocation decisions rather than to the most efficient user; and loss of revenue to the State. A market-based system of land allocation should be introduced with the Government primarily providing an enabling environment for the market to operate efficiently through collection and dissemination of information, registration of land rights and environmental protection. This would call for significant adjustment to land policies including:

(a) Implementing appropriate regulations. The number of land regulations could be simplified and reduced, and then published in the form of a land code. The distribution system could then move towards auctioning, with current market prices being set as the minimum. In general, grants of ownership rights should be considered in preference to lease rights as this would ensure that new owners take a long-term of sustainable management of land. In the longer term, consideration might be given to sharpening the regulations supporting the Basic Agrarian Law to remove restrictions on land lease periods and ownership of land rights. Other changes would include allowing rights of exploitation by foreign joint venture partners.

(b) Improving land information systems and land registration/titling. A number of actions could be taken by the appropriate agencies to collect and provide up-to-date data and making them easily accessible to all. Steps could be taken to improve and extend the national geodetic network, prepare standardized base maps and coordinate the

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10/ A right of ownership can be obtained under the Agrarian Law, but only by individual Indonesian citizens.

11/ High taxes on land transfers are a disincentive for reporting transactions.

production and dissemination of maps and information. The National Land Agency (BPN) could then begin an intensive program of cadastral surveys and registration of privately held land. It could also develop an inventory of State lands, which would allow land to be properly surveyed. A market-based competitive bidding procedure for releasing State land could be adopted. A fiscal cadastre for tax collection could be prepared by the Ministry of Finance, with emphasis on improving valuation of higher valued properties.

(c) Formulating a new and more equitable resettlement policy. The Government could consider a new resettlement policy that might protect the interests of the poorer segments of the population that are giving up land. The policy could offer people whose land is acquired several options from which they could choose including: equity participation in any development; equivalent land for land exchange; skill enhancement and employment; and cash compensation based on market prices. As the compensation paid to the people who release their land is so often disputed, an independent body could be established that would hear appeals against compensation rates.

Labor Regulations

3.44 A key priority of economic policy has been to find employment for the 2.5 million new entrants into the labor force each year and the tens of millions of un- or under-employed workers. The welfare of workers, and labor policy in general, is largely the concern of the Department of Manpower (DEPNAKER), which is responsible for: enforcing the minimum wage; hiring and retrenchment of workers; working conditions; and employment of expatriate workers.12/ Given the employment objectives, the labor regulations have been implemented flexibly. The resultant smooth functioning of the labor market has facilitated the expansion of labor-absorbing activities in which Indonesia is competitive. Care needs to be taken in the design and implementation of regulations, such as the minimum wage, so they help support worker welfare but do not discourage labor-intensive growth. In this way real wages can grow in line with productivity growth, providing a setting for a growth pattern that can absorb Indonesia's labor force efficiently.

3.45 In practice, DEPNAKER has focussed on trying to ensure that employers in medium and large scale firms abide by labor regulations. Over the past year, DEPNAKER appears to have enforced some of these regulations more vigorously, in particular, the payment of the minimum wage and hiring of expatriate staff. During 1991, there was an increase in protests and strikes, some of which related to the minimum wage and working conditions in general (although compared to other countries, these are relatively minor). During the past year, the minimum wage was increased on average, from 2,100 Rps per day to 2,500 Rps per day in Jabotabek (the Jakarta region) -- the actual minimum wage varies by sector and by region. Certainly the wage level is low compared to other countries (see Figure 3.1); however, low wages in Indonesia

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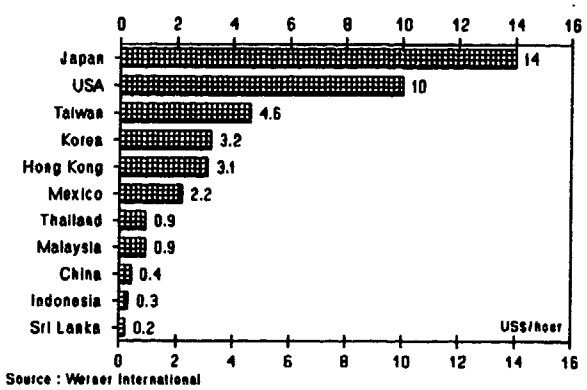
12/ The only labor union in Indonesia (All Indonesian Workers Union) plays a minor role in protecting workers' welfare. The union is affiliated to the ruling GOLKAR party and has 1 million members (out of a workforce of 80 million). The tight control of unions is partly in response to the legacy of labor militancy in the period 1957-65, when there were several trade unions, all affiliated with political parties.

Figure 3.1

SPINNING/WEAVING LABOR COSTS, 1990



Source : Werner International

reflect still low labor productivity and also the vast number of workers seeking jobs. Despite the large increase in numbers of workers, real wages in manufacturing have increased since 1983 at an average rate of 3.4% p.a.. If non-market pressures are used to cause wages to outstrip productivity, more capital-intensive production processes may be encouraged (both within and between industries) causing lower employment. Higher wages would also attract even more people to overcrowded urban areas. The Government is assessing ways of improving the welfare of workers, including the introduction of social insurance. Such programs will need careful planning and design, so that their costs do not become excessive.

3.46 Currently Indonesia has shortages of skilled technical and managerial personnel. In the longer run, the onus is on the education and training system to raise the skill level of the workforce. In particular, there is a need to extend and improve the quality of basic and higher education in Indonesia (see Chapter 5). In the meantime, to relieve this shortage and allow economic development to proceed smoothly, the strict regulations concerning hiring of expatriate staff could be eased. The process of approvals required for layoffs and dismissals should also be reviewed. The process is extended and has led companies to minimize the hiring of permanent labor and rely more on temporary workers.

D. Making Markets Work Better

3.47 A Government's role does not stop at enhancing the efficiency and productivity of the economy by facilitating competition and more flexible and efficient factor markets. It also has to foster development by providing transparent "rules of the game" and, in particular, introducing a modern legal system and ensuring financial discipline. These are important to provide business with the kind of stable, predictable environment that raises confidence, reduces costs, and improves the functioning of markets. Also sustainable development will require a framework of environmental incentives and regulations that causes firms to take increasing account of the environmental costs of their actions. One area where the Government could lessen its involvement is in the direct provision of tradeable goods. Broadly, an appropriate strategy would be for the Government to divest itself of those firms which produce goods and services that can be efficiently produced and allocated by the private sector. Ways of improving the performance of public enterprises providing infrastructure services are discussed in the next Chapter. The Government intervenes in areas such as

export promotion, development of small-scale firms and technology. Although more work is needed in defining the Government's role in these areas, improvements can be made in current policies. There are two important themes through the discussion: that in intervening, the Government should take a market-friendly approach; and that effective implementation of interventions will be complex and time-consuming as they will involve modification of procedures and re-orientation of institutions. This suggests the Government should be selective, intervening only where needed and when its interventions can be well-designed and implemented to achieve the desired results.

3.48 Legal framework. Reform of the commercial legal system is needed in Indonesia in order to support an increased level of private transactions and investment, and to foster greater equity and transparency for firms and individuals. There is also a need to improve the risk-assessment and disciplinary role of financial institutions not only to promote soundness, but also to reduce credit rationing, benefitting traditionally under-financed groups such as small- and medium-sized borrowers. This will require improvements both in the substance of commercial laws, and in the processes by which such laws and policies are developed, administered and enforced. The key objectives for reforms of the legal system are to reduce the costs and risks of entering into private transactions, and to reduce the barriers to entry and mobility of private investment, both domestic and foreign. Achieving these objectives would involve the following priority actions in the area of commercial laws:

- Developing a sound framework of company laws. Such laws would enhance competition and flexibility in the economy. Simple procedures for forming limited liability companies would facilitate entry of firms into economic activities. Restructuring of industry needs clear rules on mergers and acquisition. Likewise an effective bankruptcy law would facilitate smoother exit of failed firms;

- Proper accounting and auditing of firms and financial institutions would facilitate information flows and help investors assess enterprise performance. Of critical importance for the banking system is the clarification of the rules governing accounting for accrued interest, interest past due, and reserves against loan losses. BI is currently designing improved bank accounting standards. Improved accounting standards are also needed to increase investor confidence in the stock market. The success of attempts to improve accounting standards is closely linked to improvements in commercial law. At present, firms are only required to maintain "adequate" records. By placing the requirement for the generation of up-to-date accounting records in a revised commercial law, the demand for accounting services will expand sharply; and

- Developing a means of enforcing the provisions of modern company, credit and contract laws. Strengthening the court system and improving arbitration procedures are important steps in developing a reliable dispute settlement system.

3.49 A major institutional development effort is required to ensure such reforms are implemented effectively. Key elements include: the need for specialized training of law officials in commercial law matters; possible

establishment of specialized commercial courts to handle disputes; improving the quality of accountants and auditors; and providing an improved means of disseminating information to the public about laws, regulations and processes. Over the past year the Government has actively assessed various measures to improve the legal system. Reforms in this area are proving to be complex and time-consuming, but progress has been made in better coordinating the various participants in the reform process, an important development since the issues span economic, legal and other disciplines. The authorities are close to agreement on a new version of a companies law and have made firm commitments to improving the dissemination of legal information. To overcome obstacles in accounting, BI has initiated a joint effort with the Indonesian Accountants Association to establish accounting standards for banks. The new standards are scheduled to be completed by mid-1992. It is expected that the ground-breaking work being undertaken will lead to significant improvements to the legal system over the next few years.

3.50 Nevertheless much still needs to be done in order to improve the legal framework for the financial sector. In particular, there is need to establish an authoritative, Indonesian language version of contract and credit laws to assist the courts in defining and applying rules and regulations for these laws. A simple, effective and readily accessible system of security registration is also a priority. Such a system might cover collateral based on a personal filing system whereby rights, pledges, guarantees, fiduciary transfers of ownership and other securities would be registered and recorded under the name of the borrower. The ability to extend credit to small-scale and rural enterprises and to new enterprises in development areas with high growth potential will, in large part, depend on bringing increasingly more of the country's land under the land registration system. Much of the economic advantage currently enjoyed by urban groups can be traced to their longstanding access to credit based on the hypothecation of registered land.

3.51 Ensuring financial discipline. The rapid deregulation and expansion of the financial system has been followed by efforts to upgrade the quality of supervision, particularly in banking, the stock market and insurance and pension fund management. The March 1991 prudential banking regulations were a major step forward in upgrading the regulatory environment. The privatization of the Jakarta Stock Exchange and the continuing improvements in BAPEPAM, the exchange's supervisory agency, bode well for improvements in that market as well. New laws on banking, insurance and pension funds, recently passed by the Indonesian Parliament, provide a basis for sound growth. The supervisory authorities (BI, MOF and BAPEPAM) could also design a better framework for coordination across different fields.

3.52 The dynamic conditions in financial markets imply a need for continuous improvements in regulation and supervision. The profits squeeze in banking heightens the chances of bank failure. In this environment, it is important that BI prepare itself for overseeing a process of consolidation and merger so that the resiliency of, and confidence in, the system grows. Identifying and training a core team to assist troubled banks, empowered to make quick decisions would be an excellent preparatory step. BI's authority in instances of bank failure should be well-defined in a new central banking law. To smooth the process of regulatory change, a more open and collaborative approach to formulating new regulations would be advisable. Some recent regulatory changes have led to unexpected difficulties and have

been further altered or amended. By involving affected parties in the formulation of proposed regulations to the maximum feasible extent, the uncertainties and confusion created by regulatory changes would be reduced.

3.53 Just as important as expanding BI's capacity and authority in banking supervision are efforts to improve the private sector's ability to supervise itself. Strengthened reporting requirements were made in the February 1991 package of regulations that requires all banks and non-bank financial institutions to publish income and balance sheets. This requirement should not only be extended to all financial intermediaries, but also strengthened by requiring an auditor opinion. Doing so would improve the public's access to information and financial discipline more generally.

3.54 Environment. Indonesia's economic growth is grounded in the country's natural resources. The contribution of renewable and exhaustible resources to economic development, in terms of direct extraction and primary processing, represents nearly 40% of GDP. Export earnings from the primary sectors have consistently been more than 80% of total export earnings. Over 50% of the work force is employed in these sectors. Continued growth will depend on the sustainable use of Indonesia's resources as well as reducing pollution which is posing an increasing threat to the health and welfare of the people. This, in turn, will depend on efforts by the Government and the public at large to overcome emerging environmental problems through the development of a complementary set of market-based interventions and regulations. As in commerce or finance, it is critical that legal rules of the game be established and that information on environmental consequences of economic activities be disseminated. Key concerns are: the issues of deforestation, land degradation and the loss of biodiversity, all affecting chiefly the outer islands; and, on Java, issues of water resource use and quality, urban and industrial pollution and hazardous waste treatment.

3.55 In seeking to promote sustainable development and environmental protection, the Government has already established the basis of a legal and regulatory framework. The creation last year of BAPEDAL, the Indonesian environmental protection agency, provides the institutional basis for regulatory interventions. Further progress will be required, however, in developing an appropriate market-oriented policy and incentives framework, and in strengthening the institutional capacity for ensuring the sustainability of Indonesia's development. In general, pricing and taxation policies are likely to be the most efficient instruments for environmental conservation and protection, but more effective institutional arrangements for pollution monitoring and enforcement will also be needed. Reassessing policies such as low forestry fees and water charges, high energy subsidies, and inadequate land titling, could yield significant environmental and economic benefits.

3.56 In forestry, the Government, in consultation with donors and Non-Government Organizations (NGOs) has prepared a Tropical Forestry Action Plan, setting out the agenda for sustainable forestry management. Already stumpage fees have been increased for Indonesia's 500 forest concessionaries, though the fees still represent only a small fraction of economic rents. Concessionaires are being more closely scrutinized by the Ministry of Forestry to ensure that they abide by sound logging practices. Some 20 concessionaires have had their licenses revoked as a result of failure to meet the Ministry's standards. With many concession leases ending in the next few years, it is an

opportune time to overhaul the terms of concessions. Lengthening the period of leases beyond 20 years would bring the concessionaires' time horizon closer to the 35-year cutting cycle, thus increasing the incentive to manage the forest prudently. Another powerful instrument of a revamped approach could be the introduction of a sizable, interest-bearing performance bond, that is refundable only if sustainable forest management practices were actually carried out.

3.57 Indonesia's strategy for reducing pressures on the tropical forest includes the promotion of industrial timber estates (HTI). A subsidy program has been established that lends out reforestation fee income at zero interest for 35% of plantation costs. A reconsideration of this program is appropriate for several reasons. At current interest rates, this subsidy is close to the equity investment required from the private sector, vastly reducing the private investor's incentive to establish a well-run plantation. Many applications for HTIs are connected with the building of new pulp and paper plants in Indonesia. The fast-growing trees needed for these plants are privately profitable without any Government subsidy, and there is a risk that the subsidy could induce substantial over-capacity of pulp wood and processing plants. Furthermore, such plantations will not greatly diminish demands on the natural forest since their trees are unsuitable for use in plywood or saw mills, the chief users of tropical timber in Indonesia. A restructuring of the HTI program to restrict the subsidy to slow-growth species would increase the chances that the program meets its announced goal of promoting sustainable forest utilization.

3.58 A national action plan for the protection of biodiversity is nearing completion. Indonesia has set aside 10% of the land area and 30 millon hectares of coastal and marine habitat as conservation areas to protect some 515 species of mammals (largest number in the world), 600 species of reptiles (third in the world), and 1519 species of birds (fourth in the world). The challenge faced by the Government is to find a way to actually protect and manage these conservation areas. With the help of funding from the Global Environmental Facility, an integrated conservation and area development project is being designed to provide incomes and incentives (consistent with conserving biodiversity) to the communities surrounding the Kerinci-Sablat National Park in Sumatra.

3.59 Water resource management is struggling to overcome the problems caused by erosion in rural areas due to deforestation and the degradation of arable land and by pollution and growth in urban areas. A start has been made in improving efficiency in agriculture, the major user of water, by introducing water user charges in irrigation. Watershed management projects that seek better to integrate community and environmental concerns are being implemented. Here there are many potential synergies with efforts to protect forest lands and biodiversity.

3.60 Another challenge is to deal with the burden of household and industrial waste that contaminate the water supply. Lack of adequate sewage treatment leads to human and solid waste contaminating Indonesian rivers. For this reason in many areas households prefer to use groundwater sources rather than connect to piped water systems. Providing needed waste treatment will require large public investments. It will require solving daunting technical and implementation problems. Nevertheless, such investments are crucial to

maintaining a healthy urban environment, one capable of providing the basis for economic growth in coming years. Urban industrial water pollution is being tackled under the Prokasih program, under which polluters in 25 river basins agreed on targets for pollution abatement with the Government. Options for improvements in institutional management are under review.

3.61 Pollution control initiatives have accelerated with the creation of BAPEDAL. New standards for air quality and effluent have been prepared and released. Enforcement of the standards is being promoted by bringing high-profile legal actions against polluting firms. Publishing more information on the environmental and health consequences of pollution, as well as the sources of pollution, will spur more such actions. The quality and scope of environment impact assessments, mandated in 1989 for all new projects, has increased. BAPEDAL itself is receiving assistance in better defining its mandate, strengthening the framework for pollution control, decentralizing operations and improving recruitment.

3.62 Public enterprises. Indonesia has a large and diversified public enterprise sector, reflecting the major role in the past of public investment in providing direct production capacity in industry and, to a lesser extent, in agriculture. Some progress has been made to improve the performance of public enterprises. The most important measure has been the process of deregulation that has increased competitive pressure across a range of manufacturing and financial activities where public enterprises are important. A start has also been made to enhance the flexibility of public enterprises in managing their workforce. For example, employees of public enterprises are no longer allowed to remain in the civil service. Other changes to the operating environment of public enterprises have also encouraged efficiency. Transfers to public enterprises for new investments have been curtailed and they are no longer allowed to borrow independently from foreign sources. Efforts have also been made to reduce reliance on the budget by allowing public enterprises greater flexibility in setting prices.

3.63 A series of decrees from October 1988 through June 1989 have established financial soundness indicators covering profitability, liquidity and solvency, that are used to rank individual enterprises. Corporate restructuring options have been proposed ranging from changing the legal status of an enterprise to liquidation. The following changes have taken place as a result of these decrees: 17 enterprises have changed to more commercial legal status (persero); one cement company has issued shares publicly while another enterprise has been privately placed; 5 enterprises have merged and 14 have been liquidated. Complementary changes require that public enterprises prepare five-year corporate plans and annual budgets and work programs for use by management and supervising authorities. Improvements in incentives and accountability are also being fostered by linking salaries to financial performance. Steps are underway to broaden the performance indicators for public enterprises beyond financial measures to encourage greater efficiency.

3.64 Despite the progress to date, more could be done to focus and modify the role of public enterprises in order to promote an expanded role for the private sector. With the growth in the economy since deregulation, the private sector is now well placed to meet the needs for many goods and services. The appropriate strategy would be for the Government to accelerate

the divestiture of those firms which produce goods and services that can be efficiently produced and allocated by the private sector (private goods). Divestiture should be within a transparent framework and allow for a broad-based ownership of firms. Where such firms are already performing well, their divestiture could take place in the short term. For others, some adjustments may be needed to make them attractive to private owners. Efforts at the state tin company and state commercial banks are examples of the sorts of steps that are required. Where such firms are insolvent, they may have to be liquidated. At the same time, the Government would need to take measures to improve the performance of the few enterprises that will remain under government control or ownership, chiefly those producing public goods or natural monopolies (for specific measures to improve the performance of such enterprises see Chapter 4). More effective screening of public enterprise investment programs and external borrowing plans is essential to ensure they are efficient, focused on priority infrastructure and consistent with macroeconomic stability. Annual budgets and five-year corporate plans can be used for this purpose.

3.65 Export support services. To sustain the growth and diversification of non-oil exports there is scope for improving supporting services and institutional mechanisms to complement sound macroeconomic policies and appropriate incentives. There is scope for enhancing market opportunities for exports and assisting smaller exporters in improving production and supply efficiency. Experience in other countries suggests that the private sector is, in most instances, the most efficient provider of support services. The Government should facilitate the role of the private sector and concentrate its own activities on areas in which it can be cost effective and the scope for the private sector is limited. In enhancing market opportunities for exporters, the Government could focus its attention on trade promotion and perhaps setting up an independent information service. At present, trade promotion is undertaken by different public and private organizations, as well as by the Ministry of Trade and its National Agency for Export Development (NAFED). The experience of other East Asian economies (see Box 3.3) suggests that NAFED could become more business-oriented, and a step in this direction would be to introduced a private Advisory Board to rationalize NAFED's activities. The Government could also consider setting up an independent information service to help foreign buyers locate reliable export firms. This could be undertaken in partnership with private export associations.

3.66 Most foreign buyers would much prefer to find suppliers already competent to handle most of the production and supply tasks on their own, and shun suppliers that need a lot of instruction and assistance. In this context, the provision of production support by specific agencies to Indonesian export firms can be an important instrument to upgrade the supply capabilities of Indonesian firms. There are different agencies carrying out some of these functions in Indonesian at present, but they could be better focussed and made more responsive to the needs of exporters. The activities include those of the Export Support Board (ESB), which has been providing grants to exporters to pay for expert technical advice.

3.67 Further progress could be made in improving current institutional arrangements for the coordination of trade and export policies at the highest levels. The Government has considered setting up a high level Council on Trade and Export Policy, which could provide a useful forum for exporters to

Box 3.3: TRADE PROMOTION: LESSONS FROM EAST ASIA

The activities of Trade Promotion Organizations (TPOs) in four economies -- Korea, Taiwan province of China, Hong Kong, and Singapore -- have been exceptions to the generally disappointing results of TPOs in most developing countries. TPOs have worked well in the four economies and are highly cost-effective in promoting exports, but for very special reasons. First, expenditures on TPOs are a small fraction, one twentieth to one tenth of 1 percent, of the value of their manufactured exports. Second, there are no bottlenecks in export incentives or infrastructure. Third, they have systematically fostered provision of information and support services by the private sector. Fourth, the TPOs are business-oriented in the extreme, staffed by business professionals, and organizationally lean. Finally, they have concentrated on narrow functions: the Hong Kong TPO on "matchmaking" between foreign buyers and domestic firms looking to export.

put forward their concerns. Ensuring the momentum for trade reform is maintained is also important for the development of the export sector. In this regard, the capacity of the Team Tariff could be bolstered so that it could inform the government concerning the effects of reform and to represent the public interest in dealing with the inevitable lobbying for exceptions.

3.68 Technology policy. In order to upgrade industry in the face of competition from still lower wage economies, Indonesia will need to develop further technological capacity over the coming decade. International experience suggests that for a country at Indonesia's stage of development, acquisition and assimilation of technological capacity is best achieved by following an open trade and investment strategy, accompanied by investment in basic education and worker training. As discussed earlier, Indonesia has made considerable progress in deregulating the economy and the resulting inflow of foreign direct investment has helped to build the country's technological base. Indonesia has also taken an open stance in regulating international technology flows and, in practice, little screening takes place. But as argued in Chapter 5, there is a pressing need to enhance educational quality at all levels of schooling, while continuing to improve access to junior secondary schools. There is enormous scope to expand the quality of higher education. Also vocational training will need to be upgraded and expanded to meet the skill demands likely to be associated with continuing industrialization. A better educated and trained community would allow Indonesia to take greater advantage of foreign direct investment and also help to build skills that would enable increased assimilation and adaptation of technology.

3.69 The Government has a role to play in enhancing technological capacity beyond developing the education system. This role is based on 'public good' aspects of technology and research and development (R&D) investments. Although it is difficult to define and measure technological capacity and make

comparisons across countries, various indicators suggest that R&D expenditures in Indonesia are relatively low compared to India and Korea, but similar to other ASEAN Countries such as Thailand. Moreover, as noted below, proper accounting would indicate R&D outlays even higher than Thailand's. The stock of scientists and engineers is relatively small given Indonesia's size and enrollments in science and technology subjects in tertiary institutions is lagging.

3.70 The priority is to develop an overall and coherent science and technology policy. The Ministry of Research and Technology has commissioned a number of task forces on this issue, and action plans are to be ready in mid-1993. A useful starting point would be to develop a more complete picture of technological capacity in Indonesia and also the extent and direction of public expenditure. Indonesia's budgeted expenditure on science, technology and research was about US$300 million in 1991. However, additional expenditure is undertaken on investment in 'strategic industries' under the Ministry of State for Research and Technology, some of which is for R&D (including investments in aircraft, shipping, telecommunication and electronics). Funding for these strategic industries could be more transparent and a review of their rationale, competitiveness and profitability should be undertaken. The recently established National Academy of Science may be well-designed to conduct such a review. In general, it is important that government allocation of resources for R&D be responsive to private sector needs.

3.71 In Indonesia, special institutions and mechanisms have been developed to promote the diffusion and use of technology; for example, there are a number of industry specific R&D institutes under the Ministry of Industry. Such institutes potentially can play an important role in providing industrial extension services concerning technology and management. So far they have largely directed their attention to relatively small firms and simple technologies. One of the key issues in improving the performance of these institutes is finding a way to foster greater participation by the private sector in their operations. The incentive structure would change if these institutes were required to finance part of their operational costs by charging for their services. The Government has also begun to improve the technological support infrastructure in Indonesia, and this includes revamping and extending the system of standards, testing and quality control. Government has a role in maintaining primary standards (or internationally accepted standards) to provide basic references for calibration and documentation. More certified private or public laboratories, appropriately equipped and staffed, are needed to perform the measurement and testing services. Developing and implementing laws for patents and intellectual property rights is another important area for government involvement in technology policy. A new Patent Act came into force in August 1991, although expertise needs to be developed in order to implement the regulations. International patents should be respected because there is an increasing trend for developed countries to link market access to observance of international property rights. Also observance of international (and domestic) patent laws provides a measure of security to foreign investors.

3.72 <u>Policies to promote small firms</u>. Policymakers have been concerned about the development of small firms for various reasons, including the potential to create employment, particularly in rural areas, and as a training

ground for developing the skills of entrepreneurs and workers. The small scale sector has, in fact, thrived since deregulation in terms of growth of establishment numbers, employment and contribution to non-oil exports. Nevertheless it is commonly perceived that small firms are not participating to the full extent in economic growth. A related concern is that small firms have trouble competing against established larger firms. In practice, policies to promote small firms are justified to a large extent on social grounds as well as economic grounds. The vast array of schemes to help small firms include: credit schemes; share transfer; technical assistance; and implicit subsidies.

3.73 Since 1990, commercial banks have been required to allocate 20% of credits to small enterprises at market interest rates (KUK scheme). No formal sanctions are specified, although BI considers compliance in determining the overall rating of a bank. The scheme replaced an earlier attempt at directing subsidized credit for investment and working capital to small pribumi enterprises (KIK/KMKP). One study indicated that the earlier credit scheme had a positive impact on the economic rate of return of small firms in the manufacturing sector.13/ However, this scheme ran into difficulties because of arrears and collection problems. Credits were often used for uneconomic activities and the banks involved had insufficient incentives to seek repayment (unpaid loans were often insured by a government agency). Another scheme directed at small business development in rural areas (KUPEDES) has been much more successful in loan collection despite much higher market-based interest rates. This is attributed to incentives for loan collection at the village bank branch level.

3.74 In early 1990, the Government appealed to conglomerates to transfer 25% of their shares to cooperatives, although the obligation is not legally binding and the details vague. In April 1990, 30 conglomerates pledged to transfer an initial Rp.60 billion or about 1% of the value of their share capital. By mid-1991, these firms had actually transferred less than a third of this amount, and only a small proportion of the targeted 24,000 firms had participated in the scheme. In practice, transfer means "concessionary sale" and most have been to cooperatives established to organize activities and provide services for the employees of the conglomerates involved in the scheme. However, progress by small scale firms will require addressing underlying constraints such as credit and training in marketing and finance.

3.75 Since the mid-1980s, the Ministry of Industry has promoted a cluster system for small firms, that encompasses the provision of common service facilities, utilities and banking services. The initiative is complemented by the "bapak angkat" (foster father) scheme, whereby larger firms are enlisted to advise small firms in clusters on matters such as marketing and technology. In addition, state-owned enterprises are required to allocate 1 to 5% of their profits for the development of small-scale industries. The cluster program has been plagued by a lack of resources and skilled personnel, and so far has not led to many viable sub-contracting relationships between small and larger

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13/ As reported in Thee Kian Wie, Industrial Structure and Small and Medium Enterprise Development in Indonesia, presented at an EDI Seminar on Small and Medium Enterprise Development, Bangkok, November 1991.

industrial firms. To date there has been little incentive for larger firms (both public and private) to devote scarce organizational resources to help smaller firms.

3.76 Smaller firms are subsidized in various ways. For example, only small contractors may be considered for Government contracts less than Rp.50 million. For contracts between Rp.50 million and Rp.100 million, such contractors are extended a "margin" of 10% over other local firms. Small firms are granted favorable treatment in the allocation of textile quotas. Also small firms producing tofu and tempe receive allocations of soybeans from Bulog at below open market prices. In many cases these subsidies address equity concerns. But it is important that they are not used too extensively, otherwise they may inhibit efficiency improvements by discouraging small firms from growing into mid-sized firms.

3.77 Small firms have done well since deregulation and they have undoubtedly benefitted from various assistance schemes and implicit subsidies. Existing schemes should be carefully evaluated and efforts focused on the most effective approaches. In the case of credit allocation, programs to eliminate barriers holding banks back from lending to small firms could be designed rather than mandating a quota. Improving the skills of bank staff, particularly in management and accounting skills, would allow them to better appraise loans to small firms. Credit schemes could be more flexibly administered by allowing individual banks to buy and sell the obligation to service small firms (for example, by loan securitization). In this way, some banks could specialize in loans to small firms. Also, the cluster program could be improved by having more skilled personnel available for extension services. An improved policy environment with appropriate rules of the game will help to encourage linkages between small and large businesses. If the motivation for such links is merely to conform with Government rules, they are unlikely to be self-sustaining. Greater attention to education and vocational training will also help overcome constraints faced by small firms (see Chapter 5).

CHAPTER 4

MEETING THE CHALLENGE OF INFRASTRUCTURE DEVELOPMENT

A. Introduction

4.01 Alongside improvements in the incentive and regulatory framework, discussed in the preceding chapter, strengthening physical infrastructure will be important to sustaining the momentum of development and achieving continued, broad-based growth in the non-oil economy of about 6-7% p.a.. Adequate, efficient infrastructure facilities promote production and distribution by lowering firms' costs. For tradeable goods production, this means improved international competitiveness. Transport and telecommunications are necessary to link producers with input and product markets. Power and water are essential inputs into production. Without adequate development of infrastructure, serious bottlenecks can arise in production and distribution and choke off growth.

4.02 Indonesia's rapid economic growth in recent years has placed heavy demands on infrastructure facilities. Currently, most of these facilities are either operating close to capacity or are overloaded. To sustain robust growth in the 1990s, it will be necessary to meet the present unmet demand (quantity and coverage) and to provide adequately for the future growth in demand, while also improving the quality and reliability of services. Clearly, substantial investment in new infrastructure capacity will be needed. However, efficiency improvements in both the use (demand) and the provision (supply) of infrastructure services will also be important; without them, resources are unlikely to be sufficient to meet the growth in demand. While public provision of infrastructure will remain dominant, increased private participation can alleviate the pressure on public financial and institutional capacities and raise efficiency through greater competition in providing services. Accordingly, this chapter emphasizes three key elements of a strategy to meet the infrastructure development challenge that Indonesia faces:

- promoting efficiency in the use of infrastructure services;
- enhancing efficiency in the provision of infrastructure services, including through encouraging greater private participation; and
- ensuring the development of adequate new infrastructure capacity, in accordance with well-defined priorities.

Following a brief assessment of the current status and future needs of infrastructure development in Section B, each of these elements forms the subject of the three main sections of this chapter--Sections C, D and E, respectively. Echoing the main themes of this report, the discussion highlights the roles of appropriate incentives (pricing policies), institutional reform, and new investment in supporting a strategy of efficient and adequate infrastructure development.

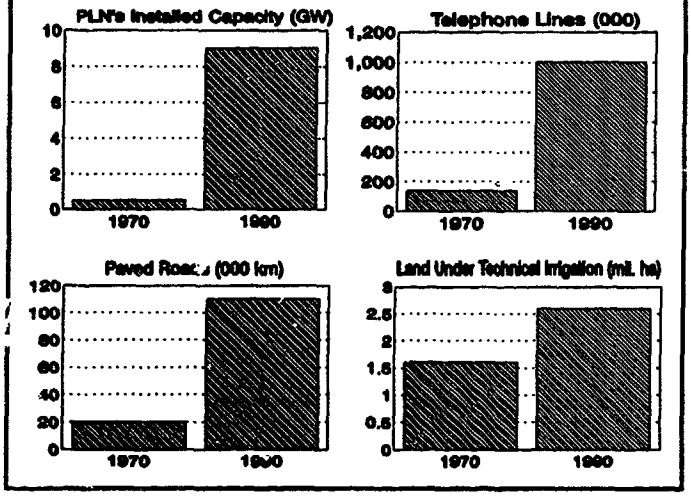
B. The Challenge of Infrastructure Development

Past Progress in Infrastructure Development

4.03 The importance of infrastructure development in promoting and sustaining economic growth and private sector development was recognized early by the Government. Infrastructure has also been seen as a means of achieving more equitable development across regions and income groups. Infrastructure development has consistently received high priority in successive five-year development plans (REPELITAs), accounting for, on average, over 40% of all development expenditure. Consequently, substantial progress has been achieved over the past two decades (1970-90) in developing and extending services in all major infrastructure sectors. This is shown by the following summary indicators: the installed capacity of the state electricity company (PLN) increased eighteen-fold; the number of telephone lines rose seven-fold; the length of paved roads increased nearly six-fold; the capacity of public piped water systems rose nearly three-fold; and the area under technical irrigation expanded by about 75% (Figure 4.1).

4.04 The rapid expansion of infrastructure underpinned strong economic growth (7-8% p.a.) in the 1970s, and supported economic recovery in the late 1980s from the external shocks experienced earlier in the decade. The build-up of infrastructure capacity has facilitated the recent surge in private investment induced by the reform of the incentive and regulatory regime. All major categories of infrastructure have contributed to Indonesia's impressive record of growth and development. Power development has been critical to supporting the rapid growth of manufacturing. The expansion and improvement of irrigation facilities have benefitted agricultural production and yields. The development of transport and telecommunications has been central to the commercialization of an economy characterized by a wide geographic dispersal of population and physical resources. It has enhanced the internal mobility of goods and supported the strong growth of non-oil exports. At the same time, the development of infrastructure, especially transport and irrigation, has been an important factor in reducing poverty.

Fig. 4.1 : Indicators of Infrastructure Development, 1970-1990



Infrastructure Challenges for the 1990s

4.05 While much progress has been achieved, meeting the infrastructure requirements in the 1990s, as Indonesia seeks to maintain a vigorous pace of economic growth and transform itself into a middle-income country, will pose a

major challenge. Comparative indicators for some middle-income countries in South East Asia (Malaysia, Philippines and Thailand) shown in Box 4.1 illustrate the direction for continued progress in improving infrastructure services to support the growth process. The challenge of infrastructure development that Indonesia faces is essentially three-fold. First, despite the substantial expansion of capacity over the years, there remains a large gap between the demand for, and the supply of, infrastructure services that will need to be bridged progressively. The emergence of a sizable backlog of unmet demand reflects both the recent rapid pace of economic growth and the immense base of potential demand for infrastructure services represented by a large, dispersed population and increasing urbanization. The challenge of meeting demand adequately is compounded by the wide regional variations in the size and pattern of infrastructure requirements. Currently, only about two-thirds of urban and one-fourth of rural households who can afford to purchase electricity at economic prices can be served by PLN. Moreover, PLN supplies about half of the electricity used in industry, while the rest is provided by diesel-based captive generation facilities which are less economical than grid-supplied electricity. In telecommunications, while the supply of services has expanded, the demand has grown still faster; registered unmet demand for telephone increased from about 40% of total supply in the early 1980s to about 75% by the end of the decade. In transport, the road network has come under increasing pressure in areas of rapid growth, especially in Java where much of economic activity is concentrated. In water supply, only a

Box 4.1: INDICATORS OF INFRASTRUCTURE DEVELOPMENT /a

Indicator	Indonesia	Selected Middle-income Countries
Power		
Electrified urban households (%)	62	90
Electrified rural households (%)	16	60
Electricity consumption/pop. (kWh/month)	200	600
Grid-supplied industrial consumption (%)	47	75
Service interruptions per consumer p.a.	31	10
Telecommunications		
Telephone density (lines/100 persons)	0.7	4.5
Successful local call ratio (%)	40	70
Average fault ratio (per 100 lines)	9	2
Transport		
Motorway, national or main roads (km/000 pop.)	0.1	0.5
All roads (km/000 pop.)	1.4	2.4
Water		
Urban households connected to municipal water (%)	30	50
Commercial demand met from municipal water (%)	12	60
Unaccounted-for piped water (%)	43	30
Irrigation water efficiency (%)	25	45

/a Most recent estimates (for 1989-90 in most cases).

Source : World Bank staff estimates.

small proportion of household and commercial demand is met by public piped water systems. The consequent heavy reliance on private groundwater extraction is putting severe pressure on groundwater resources in many areas, especially in Jakarta. At the same time, sanitation and drainage facilities in cities have been strained by the rapid pace of urbanization.

4.06 Second, in addition to the existing unmet demand, it will be necessary to provide for the substantial new demand for infrastructure services that will stem from future economic growth. Indonesia's target of maintaining growth in the non-oil economy at 6-7% p.a. in the 1990s, supported by faster growth in the more infrastructure-intensive manufacturing and non-oil export sectors, implies continued rapid increase in the demand for infrastructure services such as electricity and telecommunications. Continued development of transport infrastructure will be important to sustaining robust growth in existing centers of economic activity and to opening up new areas for development. For residential services, including water supply and sanitation, the growing population and urbanization would be additional factors fueling demand.

4.07 Third, in parallel with addressing demand-supply imbalances, continued efforts will be needed to improve the quality and efficiency of services. In the power sector, there is a need to improve service reliability, reduce transmission and distribution losses, and shift generation from reliance on petroleum products to lower-cost options--coal and gas. In telecommunications, the indicators of network performance, such as successful call ratios and the incidence of faults, have been improving but remain well below international comparators. In road transport, overall system costs are relatively high. In water supply, the quality of water is generally low and, in and around population centers, is being threatened by inadequate sanitation and waste disposal. Also, water losses in both public piped water and irrigation systems are high. In addition to addressing the existing deficiencies in services, there will be the need to develop more diversified and sophisticated services, for example, in telecommunications and transport.

4.08 Meeting the infrastructure needs outlined above constitutes a considerable development challenge for the Government, requiring both large investments in new infrastructure capacity and policy reforms to improve efficiency in the delivery and use of infrastructure services. The magnitude of the present unmet demand and the projected future demand make the need for substantial new investment in infrastructure facilities obvious. However, such investment will need to be contained to a level that is consistent with the resource envelope and the competing demands of other sectors, particularly social services. Given the resource constraints, policies to manage demand and improve efficiency in the use and provision of infrastructure services will be as important as new investment. Without such efficiency improvements, not only will the supply of infrastructure services fall considerably short of demand, but the services that are provided will also be used ineffectively.

C. Promoting Efficient Use of Infrastructure

4.09 Both the resource constraints and concerns about the quality of services underline the importance of policies to ensure an efficient use of

existing and future infrastructure facilities. Such policies, broadly, have two elements: appropriate pricing, to support efficient demand management; and effective implementation of operations and maintenance (O&M) activities, to ensure proper functioning of installed infrastructure capacity. These policies are related; appropriate pricing, in addition to its function of regulating and rationing demand, is necessary to generate resources to fund O&M expenditures. On the supply side, pricing policies also affect efficiency in the production of infrastructure services, contribute to financing new investments, and influence incentives for private participation.

Pricing Policies for Infrastructure

4.10 The goal of efficiency in resource use requires that prices that guide the decisions of consumers and producers reflect the marginal costs of production. Charging less induces excess demand and wasteful use, and results in inadequate cost recovery to support the maintenance and expansion of the facilities. The existence of unmet demand at prices that appropriately reflect costs provides a true indication of the need to expand supply. As a general rule, utility prices should cover operating expenses, interest and depreciation, and also allow self-financing of a part of new investment. For most infrastructure services, user charges based on the long-run marginal cost would achieve this objective. For utilities (e.g., power) characterized by lumpy investments and decreasing unit production costs, often a two-part pricing scheme is adopted, with the marginal-cost-based user tariff being supplemented by a lump-sum charge (e.g., a connection fee) to capture the fixed costs not recovered by the tariff. If utility pricing is used to address distributional objectives, proper targeting of subsidies to reach the poor is vital. Often, this involves adopting a subsidized, "lifeline" price up to a threshold level of consumption, with larger users being charged at marginal cost or ascending block rates. A properly targeted reduction or waiving of the lump-sum connection charges can also be considered to improve the access of the poor.

4.11 While there has been improvement, pricing policies for most infrastructure services in Indonesia do not adequately meet the objectives of efficiency, revenue generation and equity. Among the major infrastructure services, only in telecommunications do prices reflect full economic costs. Better aligning prices with costs for the other services would improve the efficiency of their use, strengthen revenue mobilization and enhance incentives for private provision. Where subsidization schemes are employed, as in power and water, they could be better targeted to achieve their equity objective. Accordingly, continued pricing policy reforms are needed for most infrastructure services.

4.12 Electric power. Electricity rates were last raised in July 1991, by 20% on average, but the adjustment is estimated to have left the average tariff still about 13% below the cost of supply in 1991, entailing a total annual economic subsidy of around Rp.600 billion. The subsidy needs to be reduced and better targeted. About 80% of the subsidy arises from residential sales, but no more than 5% of it is estimated to reach the poor; the remainder encourages excessive consumption by the better-off. The other 20% of the subsidy extends to several categories of non-residential users, and, in industry, covers most small- and medium-size enterprises. In a situation marked by substantial unmet demand for power, such a subsidized pattern of

consumption is unsustainable, and needs to be corrected by targeting the subsidy on residential consumption more narrowly, and eliminating all other subsidies, including those applying to small industrial users. The subsidization of the residential power tariff could be limited to a well-defined lifeline consumption level, say, 25 kWh/month, possibly supplemented by a partial waiver of the connection charge for the poor, which is high relative to their income level. The elimination of the subsidy on industrial consumption should not materially affect incentives for small producers, given the small role electricity costs play in their total production costs. In improving the power tariff structure, consideration should also be given to allowing tariffs to reflect regional cost differentials. Regional cross-subsidization implicit in a uniform tariff structure, based on average national costs, while costs vary significantly among the regions entails inefficiency in resource use; the effectiveness of this policy in promoting the Government's objective of balanced regional development is also doubtful, as it discourages service expansion in remote, sparsely-populated areas.

4.13 In recent years, PLN's tariff structure has generated enough revenue to meet all of its operating costs and finance part of its investment program, but this has been partly due to the availability of substantial below-market financing from the Government. Subsidized financing needs to be phased out and internal revenue generation enhanced (where subsidized government financing remains warranted, as in supporting socially directed rural electrification programs, it is better provided on a transparent basis). An appropriate and feasible target for PLN would be to raise its investment self-financing ratio from 15-20% in recent years to 35-40%. This would require adequate and regular tariff adjustments, together with continuing improvements in PLN's internal efficiency. Timely adjustment of tariffs to cost developments would be facilitated by the institution of a mechanism providing for regular tariff changes based on an agreed set of criteria. Through more frequent, automatic tariff adjustments, such a mechanism would obviate the need for larger, politically more difficult adjustments that become necessary at longer intervals.

4.14 Telecommunications. Pricing policies in this sector are more in line with appropriate principles. The tariff for telephone service not only allows PT TELKOM, the state-owned company providing domestic telephone service, to achieve full cost recovery and self-finance close to a quarter of new investment but also to make a notable contribution to the public treasury through income tax and dividend payments. The existence of substantial unmet demand for telephone service that cannot be satisfied for several years because of supply constraints justifies pricing the service at a level that exceeds full cost recovery. The absence of any subsidization scheme recognizes that the telephone service is not a basic need that warrants lower rates for the poor. In view of the pressure of demand and congestion problems in the network, further improvements in the structure of telephone charges to be considered include: introducing peak and off-peak rates for local calls, as is the case with long-distance calls; and reserving a portion of new lines for customers willing to pay a higher installation fee for priority service. Also, the process of tariff adjustment could be made more systematic, allowing more frequent, automatic adjustments in the light of cost developments.

4.15 While, in general, the telephone pricing policy is rightly geared to efficient demand management and supporting rapid network development, supply

efficiency could be improved. Reduction of operating costs through continuing improvements in productivity, complemented by adequate and regular tariff adjustments, could allow TELKOM to raise its self-financing of investment significantly, to around 45-50%. Also, the quality of the telephone service needs considerable improvement (Box 4.1).

4.16 Transport. The most important pricing issues in this sector relate to road network use. Direct road user charges are infeasible (except for specially constructed toll roads), but the available indirect options (notably, fuel and vehicle registration taxes) could be used more effectively. The main issue concerns the large subsidy on diesel fuel (para. 2.57). In addition to its fiscal cost and the encouragement given to inefficient resource use, the subsidy distorts the structure of charges levied on road users relative to the road-related costs they impose. This, in turn, distorts the pattern of demand for different transport modes and operators' investment decisions. Vehicles using diesel--medium and heavy commercial vehicles--impose much higher road user costs than smaller vehicles using gasoline, but, under the present price structure, the former are subsidized and the latter taxed. The differential between gasoline and diesel prices widened further with the last round of fuel price adjustments in July 1991. Estimates show that medium and heavy trucks account for over 40% of total road infrastructure costs in Indonesia but generate no net revenue to recover those costs. The underpricing of diesel encourages the diversion of traffic to road that might be carried more economically by other modes, such as rail. An important step in rationalizing the structure of road user charges is to adjust the price of diesel to cover its economic costs as well as a road user charge. This would improve the efficiency of road use, increase revenues to support road development programs, and support resource conservation.

4.17 The main issue relating to the vehicle registration tax (PKB) also concerns commercial vehicles. For these vehicles, the tax is low and inappropriately structured to reflect relative vehicle road user costs, entailing both a loss of potential revenue for local governments and the incidence of higher road maintenance costs. To correct this, the registration tax for commercial vehicles needs to be raised and better aligned with vehicle type and load carrying capacity, including removing disincentives in the present tax structure to replacing old, inefficient vehicles and to using multi-axle vehicles that do less pavement damage per unit of payload.

4.18 For ports and airports, tariff policies are broadly in line with full cost recovery for international services but need revision for domestic services. Currently, tariffs for domestic services provided by major ports and airports are set below those for international services, while tariffs for smaller facilities are likewise set below those for major facilities. The rationale underlying this policy appears to be that charges for domestic services and smaller facilities should be lower because the level of service provided is lower, and that smaller facilities merit subsidy because they are generally located in remote, less-developed area. But these reasons do not justify the substantial tariff-cost divergences that have developed. This has adversely affected efficiency and cost recovery, and the intended equity objectives have been ineffectively met because of the generalized nature of the resulting subsidies. This policy needs to be progressively amended to align tariffs with costs and to limit subsidies to clearly identified "pioneer services" in remote areas.

4.19 Among passenger and freight services, the main areas where pricing policies need improvement are urban rail and bus services. Charges for the economy and urban commuter rail services provided by PERUMKA (the state railway company) and for the main urban bus services provided by both public (PPD and Damri) and private companies are set at low levels and adjusted infrequently. This has resulted in: low quality of service; O&M problems arising from weak cost recovery; exacerbation of traffic congestion in big cities as many middle-income commuters use their own transport; and discouragement of private investment. Charges for these services need to be adjusted regularly. For certain basic levels of service, a limited element of subsidy could be maintained, supplemented by appropriately progressive tariffs for higher levels of service. For other passenger services, and for freight services, tariffs have either been deregulated or are set broadly in line with costs.

4.20 In recent years, less than 10% of public investment in the transport sector as a whole is estimated to have been financed through internal revenue generation. In view of the public good characteristics of some transport services, raising the self-financing of investment to the levels feasible for more commercially-oriented services (such as telecommunications and power) is difficult. Nonetheless, through improved cost recovery policies, as discussed above, the internal financing of investment in the sector could be raised to 15-20% over the medium term.

4.21 Water supply. In urban/industrial water supply, the tariff structure for public piped water is characterized by a high surcharge on industrial and commercial users and a large subsidy for most residential users. Although a tax on industrial and commercial users is appropriate to support system expansion, the residential subsidy needs to be better targeted. The subsidy accrues disproportionately to the better-off, as it applies even at relatively high levels of residential consumption, undermining the equity objective as well as encouraging wasteful consumption. Such subsidization of residential consumption has resulted in weak cost recovery by a majority of municipal water authorities (PDAMs). The residential subsidy could be reduced and better targeted by limiting it to lifeline consumption levels, e.g., 10 cubic meters/month.

4.22 As noted earlier, the bulk of urban/industrial water needs continue to be met through private groundwater extraction. Fees for groundwater use are generally very low, and are not effectively enforced (at least 75% of groundwater extraction occurs outside the official licensing and fee system). This underpricing of groundwater, coupled with the relatively high tariffs for piped water for industrial use, risks inefficient, excessive extraction in areas where groundwater is scarce. In some major urban areas, notably Jakarta, groundwater extraction already is considered to be running beyond sustainable levels. This points to the need to raise extraction fees in areas of relatively scarce groundwater and to align them better with tariffs for piped water, and to complement higher fees by enforcing them strictly.

4.23 The virtually free provision of irrigation water has been a key element of government policy to alleviate rural poverty. As farmers' incomes have risen, the scope for pricing this service has increased. Public irrigation water supply, which covers over 80% of the irrigated area, currently entails an estimated annual subsidy of around Rp.1 trillion. The

absence of a price signalling the costs of supply to farmers also induces inefficiency in water use. A large part of the country's emerging water shortage could be addressed through reducing water losses in irrigation. An irrigation service fee has recently been introduced in some provinces on a pilot basis, aimed at recovering O&M costs. This should improve system efficiency by supporting better maintenance and reduce the public subsidy. Since it is a lump-sum charge not linked to the volume of water used, however, the fee would not create the incentives necessary for improved efficiency in water use. Nonetheless, it constitutes an important first step in developing an appropriate pricing framework for irrigation. As the next step, the fee should be extended to other areas, and work should be initiated to develop a practical volume-based user charge, especially for application in areas of scarce water.

4.24 Self-financing of investment in the water sector as a whole has been very small (an estimated 2% in 1988). This proportion can, and should, be increased. The increase, initially, will need to come from the municipal water authorities. As an appropriate pricing regime is developed for irrigation, it could also support investment financing, in addition to recovering O&M costs; this, however, will take time, given the technical and institutional difficulties involved in irrigation pricing. Overall, raising the contribution of cost recovery to investment in the water sector to around 10% should be feasible over the medium term.

Improving O&M of Infrastructure

4.25 The productivity of capital investments in infrastructure facilities depends greatly on the effectiveness of their operation and maintenance (O&M). Poor operational practices are reflected in an underutilization or inefficient use of these facilities and a decline in the quality of services that they provide. Inadequate maintenance is reflected in rapid asset deterioration and the need for frequent and costly repair or rehabilitation work. The need for new investment can often be appreciably reduced through improved O&M of existing facilities. In planning new infrastructure investments, it is important to ensure that the associated, incremental O&M requirements can be met. Accordingly, an O&M strategy is an essential complement of an effective investment strategy for infrastructure development.

4.26 Since O&M policies in Indonesia were last reviewed in detail in a 1988 Bank Report 1/, the Government has made notable progress in improving these policies. The importance of O&M has been articulated in high-level policy statements, promoting national recognition of the need to improve performance in this area. Budgetary allocations to O&M, in both the routine and development budgets, have been raised. Actions have been initiated to improve the institutional framework for O&M. Examples of these are: preparation of O&M action plans for some sectors, such as urban infrastructure and rural roads, that address both funding and institutional aspects; improvement of the planning and budgeting framework for O&M of urban services through the initiation of an Integrated Urban Infrastructure Development Program (IUIDP) and a Performance-Oriented Maintenance Management System

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1/ World Bank, Indonesia: Selected Issues of Public Resource Management, Report No. 7007-IND, 1988.

(POMMS) and for national and provincial road maintenance through the development of a pavement management system; and introduction of needs-based budgeting for funding irrigation O&M. Also, steps have been taken to improve cost recovery, such as the introduction of a pilot irrigation fee.

4.27 The effort to improve O&M funding and implementation will need to be intensified, and sustained over several years. In transport, studies undertaken a few years ago estimated that about half of the national and provincial roads needed major repair while only a third of the district roads were in a fair condition. The need to improve maintenance is particularly acute in the railways and public bus services; for example, because of maintenance problems, PPD is typically unable to operate a relatively high proportion of its bus fleet. In irrigation, the operational efficiency of some systems (measured as percent of total flow used for cropping) is lower than 25%, although the systems are designed to run at 50%. Of the roughly 1.5 million ha of irrigation systems rehabilitated over the last 15 years, only a third are considered to be fit for efficient O&M. In urban water supply, weaknesses in O&M are reflected in the relatively low efficiency of the piped water systems--unaccounted-for water, including losses from deficient maintenance and unauthorized use, is estimated at 43% nationally and even higher in Jakarta--and the impairment of water quality due to inadequate treatment, drainage and waste disposal facilities. In telecommunications and power, O&M problems are less severe. Managed by semi-autonomous public corporations, these sectors are relatively protected from the administrative and financial fragmentation that affects the other sectors, and are also characterized by better cost recovery. Still, there are areas requiring improvement in O&M management, as exemplified by deficiencies in the quality and reliability of the telephone and power services (Box 4.1).

4.28 Improving O&M calls for a broad-based effort. O&M problems can arise from a multiplicity of factors: financial, structural and institutional. Some of these factors can be sector-specific, others systemic. The discussion below highlights the main elements of a continuing effort to improve O&M in Indonesia.

4.29 Ensuring adequacy of funding. Sizable additional resources will be needed to finance existing and future O&M needs. Indeed, the funding requirements relating to the backlog of special maintenance and rehabilitation in the roads and irrigation sectors alone were estimated at Rp.6 trillion (about 20% of government expenditure and 4% of GDP) in 1988. While the assessed O&M funding requirements are large, the actual increase in spending will, of course, need to be phased in, in line with the overall resource situation and implementation capacities. Policies to expand resources available for O&M financing will include: maintaining the recent reorientation of budgetary allocations to accord due priority to O&M; improving cost recovery; and mobilizing more revenues at the local level, where the underfunding of O&M has generally been the most severe. Adequately supporting a program of regular maintenance will save resources over time by reducing the need for frequent, high-cost rehabilitation (Box 4.2).

4.30 Improving planning and budgeting framework. Several improvements are needed in the planning and budgeting framework to permit more effective O&M management. First, there is a need to reduce the fragmentation and diffusion of responsibilities for O&M through consolidating and clarifying roles and

Box 4.2: COST SAVINGS FROM EFFICIENT O&M

A program of regular, efficient O&M can yield substantial cost savings, as illustrated by estimates made for irrigation infrastructure. Actual spending on regular O&M of irrigation systems in Indonesia has in the past been only about half the level considered appropriate. Because of the inadequate maintenance, the irrigation systems have on average required major rehabilitation every 10 years, whereas they are designed to operate without rehabilitation for at least 30 years. Taking into account the need for more frequent rehabilitation, the long-term costs of maintaining irrigation infrastructure have been about three times as much as would be necessary with adequate maintenance on a regular basis, as shown by the following estimates (staff estimates based on 1991/92 prices and a discount rate of 10%):

Actual costs of O&M of irrigation systems	Expenditure on regular O&M = Rp.16,500/ha/p.a. Expenditure on rehabilitation every 10 years = Rp.2 million/ha Net present value of total expenditure = Rp.1,339,000/ha
Estimated costs under an efficient O&M program	Expenditure on regular O&M = Rp.33,000/ha/p.a. Expenditure on rehabilitation in year 30 = Rp.3 million/ha Net present value of total expenditure = Rp.454,000/ha

Recognizing its potential benefits, the Government has recently instituted a program of efficient O&M for irrigation, which now covers about one-fifth of the publicly irrigated area.

improving coordination among the relevant central, sectoral and regional agencies. In irrigation, for example, at least six central ministries (Finance, BAPPENAS, Agriculture, Public Works, State Apparatus and Home Affairs) are involved in the authorization and allocation of financial and staff resources, while the implementation responsibilities are largely shared among provincial and district authorities, with water users' associations also playing a role. Such dispersion of responsibilities renders the planning and implementation of a coherent, coordinated approach to O&M particularly challenging. Second, to facilitate better budgetary planning of O&M, the structure of the budget needs improvement. Fragmentation in the sources of O&M funding could be reduced through consolidating the multiple channels in the routine and development budgets through which such funding is currently provided. Moreover, the budgetary classification of expenditures needs to be clarified. At present, identifying the O&M component of many routine and development outlays is difficult, which complicates the assessment of the adequacy of O&M funding, its allocation among sectors, and the balance among O&M inputs (salaries, materials and supplies, etc.). Third, the criteria for allocating INPRES transfers among regional governments need to be improved further to achieve a better correspondence between the resources provided to these governments and their O&M responsibilities and needs. In several sectors, such as road transport and irrigation, the responsibility for O&M implementation rests largely at the regional level. Fourth, the medium-term expenditure planning framework, now focused on investments, could be broadened to include O&M outlays, to help ensure balance in the planning of new investments and provisioning for their operation and upkeep. To support this, project evaluation procedures should be strengthened to incorporate downstream O&M requirements.

4.31 Developing sector strategies and policies. An important step at the sectoral level is the development of clear O&M strategies that provide a framework within which sector-specific policies and programs can be formulated

in a coherent fashion. With the preparation of O&M action plans for some sectors, a more systematic approach to O&M management is emerging. These initiatives need to be further developed and extended to other sectors, an effort in which BAPPENAS can play a useful guiding and coordinating role. The sector strategies could include the following: assessment of sectoral O&M needs and priorities; evaluation of the adequacy of funding and available options, including strengthening sectoral cost recovery mechanisms, improving the balance between new investments and O&M (especially needed in land transport services and irrigation), and reducing administrative overheads within the recurrent budget (e.g., only about half is spent at the field level in irrigation); development of an agenda for enhancing sectoral institutional capacities; assessment of the feasibility of transferring some O&M functions to the private sector; and, where feasible, formulation of guidelines defining unit costs of different O&M activities to facilitate both planning and performance evaluation. This should be supported by improving sectoral data bases, especially the preparation and updating of sectoral asset inventories.

4.32 Building institutional capacities. The realization of potential gains from improved planning and funding of O&M will depend on institutional capacities to ensure effective utilization of the resources allocated to these activities. These capacities in many cases are weak, particularly at the regional level. Addressing sector-specific institutional weaknesses would be a major element of the sectoral O&M strategies discussed above--e.g., improving the organization of Provincial Irrigation Services (PRIS), and developing the technical and managerial capacities of local authorities (PDAMs) in municipal water supply and of district public works departments (DPUKs) for road maintenance. However, there are some issues of a more systemic nature that need to be addressed at the national level. These include civil service development, effective decentralization of responsibilities to local governments and agencies, and public enterprise reform. These are discussed in Section D in the broader context of improving the efficiency of public provision of infrastructure.

D. Improving Efficiency in Infrastructure Provision

4.33 Given the resource constraints, the challenge of infrastructure development cannot be met effectively without improved efficiency in both the use and the provision of services. The effort to raise efficiency in the provision of infrastructure services will need to have two major policy thrusts: encouraging private participation in infrastructure development; and enhancing public institutional capacities to improve the delivery of services that will remain in the public domain.

Promoting Private Provision of Infrastructure

4.34 A mix of market failure considerations--public goods, scale economies producing natural monopolies, and externalities--and the initially small size of the private sector have led most developing countries, including Indonesia, to rely heavily on the public sector to provide economic infrastructure. However, as Indonesia's economy and the demand for infrastructure services have expanded, the public sector's capacity to deliver these services efficiently has not kept pace. The constraints on public provision have been

caused by three major factors. First, the predominance of public provision has limited the scope for private participation; the consequent absence of strong competition from the private sector has hindered efficiency in public service delivery. Second, public providers of services have been increasingly subject to institutional constraints on their capacities to operate and expand services, due to organizational and human resource weaknesses. Third, the decline in oil revenues and the tighter resource position have constrained public provision financially, especially given the large investment and O&M requirements of infrastructure.

4.35 Against this background, private participation can contribute to infrastructure development in three important ways. First, it can improve the efficiency of service provision by introducing greater competition. International experience demonstrates that deregulation and the establishment of a more competitive market environment for service provision have been accompanied by significant improvements in efficiency. Indonesia's own experience with maritime sector deregulation--lower freight rates, better quality of service--provides strong evidence of efficiency gains. Second, a larger private role can ease implementation constraints in the public sector. Efficient implementation of an expanded infrastructure development program will make much heavier demands on institutional capacities; private participation can help by bringing in much needed managerial and technical skills, including foreign expertise in the case of joint ventures. Third, private participation can reduce the financing requirements of the public sector. The overall financing needs of infrastructure development in Indonesia are enormous. Given public resource constraints, and the need to accommodate other expenditure priorities (especially poverty-related activities), mobilizing resources through greater private participation will be necessary. Private participation can provide sizable, incremental access to international capital markets in the form of equity and project-related (non-recourse) financing. It can also serve as a more viable means for mobilizing internal resources, e.g., through the capital market, given the limitations of public enterprises.

4.36 International experience shows that, as countries develop, the private sector's role in providing infrastructure expands. With the development of private financial and technical capacities over time, and the expansion of the demand for infrastructure services associated with economic growth, both the opportunities and the need for private participation in the provision of these services increase. Similar opportunities and needs for private participation are increasingly emerging in the Indonesian economy.

(i) Options and Scope for Private Participation

4.37 Options for private participation in the provision of infrastructure services can be broadly grouped into two categories. First, for those services that can be provided in a competitive market setting, such as many transport services, the options include deregulating public monopolies, allowing private entry, and privatizing part or all of the public enterprises. The scope for private participation is the largest in potentially competitive markets; the potential for gains in efficiency is also the greatest where the market structure underlying the infrastructure service allows effective competition. Second, for infrastructure services for which public monopolies are expected to remain the dominant provider (because of their natural

monopoly or public good characteristics), there can still be scope for significant private participation in some stages of production and delivery of the service. In power, for example, while distribution is a natural monopoly, generation is a potentially competitive activity. There are several possible options for involving the private sector in such activities. These include: concessions and franchises to operate certain services under public regulation; contracting out of services and short-term leases; and BOO/BOT (build, operate and own/transfer) type schemes involving private investment in specific, usually large-scale projects. The potential for increasing private participation in the provision of major infrastructure services in Indonesia is considerable. In tapping this potential, the Government will need to evaluate the relative merits of the available options carefully, and ensure that increased private participation is supported by necessary improvements in the regulatory and institutional framework.

4.38 In power, private enterprises are already engaged in three areas: captive power generation in industrial plants; small-scale power generation and distribution in rural areas; and contracting out of some PLN services, such as equipment installation, maintenance and customer administration. The first of these is by far the most important, as it accounts for over half of the electricity used in industry. While helping to bridge the shortfall in public power supply, such private provision for own use has entailed higher costs, since grid-based power--supplied by PLN--is more economical than smaller, diesel-based captive generation. A key future task will be to involve private enterprise in sector development in a more efficient way, by encouraging private participation in grid-based power.

4.39 A strategy to secure more efficient private participation will comprise three main, complementary elements. First, PLN could coordinate its grid with the existing captive generation capacity. Subs[illegible]al excess generation capacity exists in the larger captive plants, e[illegible]ted at around 1.0 GW. Inducing the private sector to supply surplus powe[illegible] PLN's grid would be an economical way in the short to medium term to [illegible]lement PLN's capacity, especially to meet peak-load demands. A key rec[illegible]rement for this would be the establishment of an appropriate purchase price. Second, PLN could encourage additional private investment in captive power plants to supply its grid, where that would be efficient. In some industries where power can be cogenerated with low-cost by-products, such as steam, captive generation can be more economical than large-scale grid supply. Third, over the longer term, a more important option would be to encourage the private sector to invest in large-scale power generation to supply the grid. Private investment in such large, dedicated plants can be promoted through BOO/BOT-type schemes, as are currently being considered for establishing additional units at the Paiton power plant and other sites. These schemes provide a means of attracting substantial private investment, but need to be evaluated and negotiated carefully to ensure that the intended benefits from private participation are realized. Besides generation, scope for private participation exists in distribution through arrangements such as franchising: possibilities include franchises covering both generation and distribution in specific geographic areas, such as Batam and Bintan Islands, or only distribution in major cities, such as Jakarta, Bandung and Surabaya.

4.40 Improvements in PLN's institutional structure could open up additional opportunities for private participation, while also raising the

efficiency of public provision. Under one possible model, PLN's operations in Java could be separated into five semi-autonomous units, with one unit being responsible for all generation which would sell bulk electricity to four distribution units covering East Java, Central Java, Metropolitan Java and West Java. Such a model would be similar to those that exist in the UK (CEGB plus the Area Boards) and Thailand (EGAT plus MEA and PEA). The bulk generation unit would be allowed to operate fully along commercial lines, and could subsequently be separated from PLN and progressively privatized through offering shares to the public. With an improved performance record, such a company would be able to access local and foreign capital markets or enter into BOO/BOT-type arrangements without government guarantees. A competitive environment created by comparative performance indicators could also help improve operational efficiency in the distribution units. Over the medium term, the pursuit of such a strategy, including the options mentioned earlier, could allow up to one-third of the total investment in the power sector to be funded by private enterprise, including, potentially, all generation in Java and some distribution. The public sector could then focus its resources on power generation in the outer islands, and on transmission and distribution.

4.41 At present, government enterprises own almost all telecommunications facilities and are monopoly providers of basic services. While the telecommunications network is a natural monopoly, there are at least three types of services where a competitive private role is possible: supply of terminal equipment; cellular telephone services; and VSAT and other specialized business services accessing the existing network. There is already some private provision of these services, but it is limited and competition is constrained by various restrictions. The private sector's role can be expanded by enforcing a firmer policy supporting competition in the provision of terminal equipment (while private participation has increased, the state-owned PT INTI remains the dominant provider), and by allowing private operators to provide the cellular telephone and the specialized services directly rather than only through revenue-sharing arrangements with TELKOM that are being employed at present. Also, there is greater scope for contracting out equipment installation and maintenance. Over the longer term, there will be more fundamental options to consider, such as promoting a second, private long-distance company to compete with the current public monopoly, and partial privatization of public enterprises in the sector through the sale of equity.

4.42 In transport, there are broadly two kinds of opportunities for an increased private role. First, passenger and freight services are a major area suited to competitive private provision. The private sector already plays a substantial role in road and maritime transport services, and recently a private domestic air carrier has also been allowed. However, the public sector remains a major provider of services in some transport subsectors. Two areas where private participation can be increased appreciably are urban bus services in major cities and port operations (e.g., the operation of berths and terminals at large ports, such as Tanjung Priok). In future, there will also be opportunities for private participation in the railways, including in the development of an urban transit system for Jabotabek, e.g., integrated development of station areas and other inner city land assets and investments in rolling stock. Second, in contrast to passenger/freight services, the provision of fixed transport facilities (road and railway networks, ports and airports) lies largely in the public domain; however, there are possibilities

for beneficial private participation. Private consortia have already demonstrated their interest in participating in major network projects, notably the construction and operation of toll roads and bridges and urban bus terminals under BOT arrangements. Future development of the transport network will offer additional opportunities of this kind. Moreover, there is considerable scope for contracting out, e.g., in road construction and maintenance.

4.43 Water supply services possess strong natural monopoly/public good characteristics; consequently, the scope for private provision of these services in a deregulated and competitive environment is limited. Nonetheless, schemes such as BOT arrangements, franchises and service contracts provide possible avenues for private participation in urban/industrial water supply. Some BOT/joint-venture proposals for bulk water production to supply urban areas are already being considered. The private sector could participate in urban water distribution through franchises/concessions, and services such as maintenance and billing could increasingly be contracted out. Contractual arrangements also offer substantial scope for greater private participation in environmental sanitation, e.g., in urban solid waste collection and disposal and maintenance of drainage facilities.

(ii) Policy and Institutional Framework for Private Participation

4.44 To be successful, private provision of infrastructure needs to be arranged within an appropriate policy and institutional framework. For services that can be provided through competitive markets, policies that promote effective competition among existing and potential service providers constitute the key to realizing the expected efficiency gains. For other services where the public sector will remain the dominant provider, given their natural monopoly or public good characteristics, the benefits of private participation will depend crucially on the ability of the policy and institutional framework to ensure that it meets the "additionality" test of providing needed infrastructure capacity/quality of service that the public sector either could not provide or provide only at higher cost.

4.45 The potential benefits of private provision need to be weighed carefully against its potential costs and risks. The latter could include: the risk of converting public monopolies into private ones; hidden subsidies in the form of loan, foreign exchange and profit guarantees likely to be sought by private investors; higher costs of funds raised through private borrowing and equity investments; a time-consuming, complex and expensive negotiating process; risks of non-performance in project completion and operation by private contractors; and lack of coordination of private investments with the least-cost development plan for the sector. Potential risks from private provision are greater in developing countries, such as Indonesia, where public regulation of private monopolies is under-developed, institutional capacities for dealing with complex project proposals are weak, the legal system has limitations in handling difficult commercial disputes, and the capital markets are at a formative stage. Ensuring that private participation effectively serves the public interest will require the development of policies and procedures that provide for a proper balancing of the benefits and costs of private investment and establish a transparent and systematic basis for the negotiation and selection of project proposals.

4.46 In developing an appropriate policy and regulatory framework for private participation, the key elements will be:

- preparation of clear policy guidelines on the objectives and scope of private participation, backed up by strategies for promoting the private sector's role in each of the major infrastructure sectors based on well-defined sectoral development programs;

- establishment of transparent rules for private entry and investment approval, including competitive bid tendering and evaluation;

- establishment of similarly transparent rules for divestiture where privatization of existing public enterprises may be involved, to ensure fairness in valuation and bidding;

- definition of the criteria for setting the prices of private infrastructure services, that would permit an adequate return on investment consistent with promoting efficiency in supply and demand;

- specification of appropriate "security" packages covering the sharing of financial and implementation risks, this being especially important in the negotiation of BOO/BOT-type projects;

- specification of applicable laws and regulations, including environmental protection and consumer safeguards; and

- establishment of clear legal processes to enforce contracts, to give security to the investor as well as protect the public interest.

4.47 There will be a need also to strengthen and adapt the public institutional framework. First, government institutional capabilities for designing and negotiating contracts for private participation will need to be enhanced; these contracts can be relatively complex and will require specialized skills to ensure appropriate terms. For this purpose, consideration may be given to establishing a government committee, able to co-opt specialized expertise as necessary, with responsibility for: preparing some key elements of the policy and regulatory framework outlined above, such as bidding procedures, pricing principles, and guidelines on security and financing packages; and designing, negotiating and monitoring the terms of major contracts. The role of sector agencies in this process would remain important, especially in developing initial proposals and ensuring that correct technical choices are made, but they would need specialized support from a central source (Box 4.3 illustrates the complex issues that arise in developing a major infrastructure project involving private participation). Second, the initiatives to promote private participation will necessitate significant shifts in institutional responsibilities. Public investment planning and project selection will need to adapt to a growing private sector role in areas previously reserved wholly or largely for the public sector. The relevant sector ministries will need to focus increasingly on appropriate regulation and monitoring compared to direct provision of services, while the affected public enterprises will need to redeploy their activities to services or areas where they will remain important or will have to be restructured.

Box 4.3: THE MAKING OF A PROPOSAL FOR PRIVATE PARTICIPATION: THE PAITON POWER PROJECT

Paiton Units 7 and 8 in East Java are the first power generation project to supply PLN's grid to be offered to the private sector. Planned to build 1200 MW of coal-fired power generating capacity at a cost of about US$1.8 billion, it would be among the largest infrastructure projects to be undertaken by the private sector in developing countries. Being Indonesia's first BOO project, the manner in which the project is processed and the agreements that are reached will set important precedents for similar projects in the future. Both the size of the project and its pioneer status underscore the need for careful preparation.

In the absence of an established policy and institutional framework for developing such projects involving private participation, or guiding precedents, the task faced by the Government in processing the project proposal has been complex. As issues have arisen, they inevitably have had to be tackled ad hoc, often requiring extended consultations within the Government and much learning through the process. The key issues have been: allowing adequate competition in bidding; putting in place transparent procedures for bid evaluation; applying sound principles in bid selection; and ensuring that the Government team for project evaluation/negotiation possesses necessary technical, financial and legal expertise. As the project proposal advances to negotiations, additional important matters will need to be addressed. These include: taking specific policy decisions on some fundamental issues relating to the implementation and power purchase agreements, namely, pricing principles for fuel and electricity, and risk sharing; establishing an appropriate decision-making structure capable of responding quickly to the many detailed issues that will arise during negotiations, including defining the authority of the negotiating team; determining responsibilities for necessary permits, consents, and environmental clearances; and tackling legal aspects important to contract enforceability.

While the preparation of this project itself has had to proceed without some key elements of a guiding policy and institutional framework already in place, the experience that has been and is being gained on the project will be a valuable input into the establishment of an appropriate framework to facilitate the development of similar projects in the future.

Enhancing Efficiency of Public Provision

4.48 Notwithstanding the possibilities for increased private participation, the public sector will continue to be the dominant provider of most infrastructure services. Implementing a substantially expanded infrastructure investment program in the 1990s, together with the need to improve the policy framework and ensure proper O&M, will challenge public institutional capacities. Rising to the challenge will require more effective public management of infrastructure programs, as well as enhanced implementation capacities at the project level.

(i) Reform of Public Institutional Framework

4.49 Public provision of infrastructure is a responsibility shared among the Central Government, local (provincial and district) governments, and public enterprises. Providing infrastructure more efficiently raises issues of institutional reform for all three elements of the public sector. The main issues relate to: institution-building in the Central Government; decentralization of additional responsibilities to local governments; and reform of public enterprise management.

(a) Institution-Building in Central Government

4.50 The Central Government provides infrastructure services both directly, by managing its own programs and projects, and indirectly, by

regulating and supporting the activities of the other providers, namely, other public agencies and the private sector. In both areas, demands on Central Government capacities are expected to mount. Meeting these demands effectively will require progress in three important areas: investment planning; interagency coordination; and civil service reform and staff development.

4.51 Investment planning. A fundamental need in enhancing capacities to undertake an expanding, high quality program of investments is to develop the use of appropriate project appraisal procedures in investment planning. Systematic evaluation of investment proposals needs to be extended beyond major projects. To promote the adoption of suitable procedures, guidelines to line ministries and agencies on project preparation and selection, including environmental assessments (EAs), will need to be strengthened, supported by necessary upgrading of the capacities of their planning units. These actions should be complemented by adequate provisions for central review and quality control, both to scrutinize individual projects and to assess the macroeconomic (and intersectoral) consistency of the planned investments. The effectiveness of the EA process could be enhanced by clarification of the evaluation roles of the Environmental Impact Management Agency (BAPEDAL) and the central and regional review commissions. It would be useful to develop an inventory of project profiles, employing standardized formats, which could be regularly updated. This would improve the basis of investment planning, enriching the project content of the public investment program, and also facilitate fiscal management by providing systematic information on the magnitude and timing of costs associated with ongoing and new investments.

4.52 Interagency coordination. Issues of interagency coordination arise government-wide--within sector, across sectors, and between levels of government (central and local). Examples are water resource development, where the formulation and implementation of a coherent sector strategy is complicated by the allocation of responsibilities for irrigation, piped and groundwater resources to different agencies; and urban infrastructure development, where the agencies involved extend across sectors and levels of government. The need for coordination intensifies as activities become increasingly inter-related. In the effort to improve coordination, the following deserve emphasis: early involvement of all concerned agencies, both to ensure timely availability of collaborative inputs and to develop a sense of common cause; adequate sharing of information among participants; institutionalization of the process of coordination, as against reliance on ad hoc means; and, where feasible, effective involvement of beneficiaries in decision-making, e.g., water users' associations in irrigation.

4.53 Civil service development. In most instances, institutional weaknesses also reflect some systemic constraints. These include a general shortage of trained staff--only one out of nine civil servants has a bachelor's degree--and civil service policies that fail to make effective use of available staff resources. Against this background, the recent commencement of work on civil service reform constitutes an extremely important initiative, which should be pursued with vigor. Through a wide-ranging job analysis, the reform being initiated aims at a government-wide streamlining of organizational structures, clearer specification/classification of tasks, and a better fit between staff and their assignments

and compensation. In addition to improving general institutional efficiency and staff motivation, an important objective of the reform is to adapt the civil service to a changing role resulting from the extensive deregulation underway in the economy and increasing decentralization. This involves a greater emphasis on planning, policy analysis, monitoring and coordinating functions, as many of the routine functions relating to the administration of direct controls and similar interventions disappear. The development of staff skills will require expanded, and better-focused, training programs. Improved task definition under the civil service reform should permit a clearer identification of needs for staff training and retraining.

(b) Decentralization

4.54 Decentralization can contribute to more efficient provision of services by tapping local initiative, allowing expenditures to better reflect local priorities, and fostering accountability. It facilitates balanced regional development. The transfer of responsibilities to local governments becomes increasingly necessary as the expansion of public services strains the capacity of central agencies. Decentralization has long been stressed as an important element of government policy in Indonesia. Over time, significant responsibilities in the provision of infrastructure services have been assigned to provincial, district and municipal authorities, and they have been given authority to manage sizable budgetary resources. Local government participation is especially important in urban infrastructure, irrigation and road transport. The Government's intention to intensify these moves toward decentralization was underlined by the President in his 1992 budget speech.

4.55 While there has been progress, effective decentralization in Indonesia faces several challenges. Three key prerequisites for successful decentralization are the adequacy of the institutional capacities of local governments to take on additional responsibilities, their ability to finance these responsibilities, and proper accountability. Currently, improvements are needed in all three areas. The institutional capacities of most local governments are weak. This applies particularly to project planning and design. Local governments' capabilities to implement projects are generally stronger; much of the responsibility transferred to them concerns implementation, where they have acquired notable experience. Shortages of skilled staff are more serious at the local level; weaker career prospects make it difficult to attract and retain high-quality staff, and the training opportunities are limited. Local government financial capabilities are also generally weak. Central government transfers still support about 75% of local government expenditures. Overall, less than 5% of total public revenues are mobilized by local governments. The heavy reliance on central grants, which are largely unlinked to performance criteria, has given little incentive to local governments to mobilize more of their own revenues. Their limited revenue raising authority has been a factor. Moreover, the availability of sizable, largely unconditional central financing, together with insufficient monitoring of financial performance at the local level, has resulted in weak accountability.

4.56 The agenda for further decentralization needs to focus on two main areas: developing local governments' institutional capacities; and strengthening their finances. How fast responsibilities devolve will need to be related to progress in these areas. Through collaborative participation,

technical assistance and provision of guidelines and standards, the Central Government can help local governments develop their capacities to plan and design projects, building on their experience in project implementation. An increased local role in investment planning and resource mobilization will call for corresponding adaptations in the planning and budgeting system, and in the functions of central agencies--especially BAPPENAS and the Ministry of Public Works. To underpin effective accountability, clear delineation of responsibilities and upgrading of local government monitoring and accounting systems will be important. To raise the quality of local government staff, their career prospects will need to be improved--a task in which effective coverage of local governments in the civil service reform being initiated will help--and training opportunities expanded.

4.57 Building local financial capacities calls for more revenue raising at the local level and supportive fiscal decentralization. The agenda includes: improving service-pricing policies; making fuller use of the property tax, currently the most important source of tax revenue at the local level, through continuing efforts to improve its administration (para. 2.53) and raising the effective tax rate from its current level of 0.1% (which is low even by developing country standards); restructuring arrangements for allocating central grants to raise local government accountability and responsibility; establishing a viable credit mechanism for local government financing, including the possible transfer of an increasing share of central funds as loans; and carefully reviewing inter-governmental sharing of the revenue-raising authority as devolution proceeds. The financial requirements of infrastructure development will increase substantially over the coming years. Effectively tapping the revenue raising potential at the local level, and thereby alleviating the burden on Central Government finances, will be an integral part of meeting those requirements in a sustainable manner, as the Latin American experience with urban infrastructure development demonstrates (Box 4.4).

(c) Public Enterprise Reform

4.58 Public enterprises involved in infrastructure provision range from limited liability companies to state corporations and departmental agencies. While differing among individual enterprises, the operational and financial performance of these entities has in general been relatively weak. In addition to enterprise-specific factors, such as the quality of management, systemic constraints stemming from the policy and regulatory framework governing public enterprises have been important, including lack of operational autonomy, weak accountability, and restraints on pricing and the relatively frequent injections of fresh public funds engendering continued financial dependence on the Government. Recognizing these problems, the Government has been developing a policy framework for public enterprise reform. In this context, an important step was the issuance of two ministerial decrees in 1989 that set out financial performance criteria for public enterprises and outlined a number of options to improve their performance. Based on a performance review of enterprises, a set of enterprise restructuring proposals was identified, ranging from change in corporate legal status to privatization or liquidation. Also, enterprises were required to prepare five-year corporate plans and annual work programs, and the roles of enterprise management and government ministries were clarified.

Box 4.4: URBAN INFRASTRUCTURE DEVELOPMENT: THE LATIN AMERICAN EXPERIENCE

The current rapid urban growth in Indonesia is similar to that experienced by many Latin American countries in the 1960s and 1970s. Regional governments' activities in heavily urbanized Latin America have traditionally accounted for about 20% of total government outlays, about 8% of GDP. They contributed heavily to the destabilizing fiscal deficits in these countries. The eventual collapse of expenditures on urban infrastructure seriously reduced the productive capacity of cities, impaired the climate for investment and aggravated social tensions. Several factors contributed to this outcome:

- excessive focus on expanding services and neglect of pricing to manage demand and recover costs, together with inefficiencies in the operation of services caused by institutional and policy weaknesses (especially at the local level), led to rapidly mounting resource needs that central and local governments were less and less able to meet;
- regional disparities fostered claims for interregional equalization, which governments responded to partly through costly, but largely unsuccessful, programs of direct investment and "spatial" location incentives;
- inadequate local revenue mobilization led to ballooning local deficits, totaling 5% of GDP in some countries and typically contributing about a third of public sector deficits, thus making the task of economic stabilization more difficult; and
- highly subsidized public credit programs, unsupported by proper project scrutiny, added to fiscal problems, simultaneously undermining the soundness of the financial system.

4.59 The initiatives taken by the Government provide a good starting point for systematic public enterprise reform, but the pace of reform needs to be accelerated. In further developing the framework for reform, and implementing the agenda of actions, the following elements will deserve particular emphasis: setting clear enterprise objectives and translating them into monitorable targets; selecting qualified managers and compensating them adequately; empowering managers with sufficient autonomy to achieve agreed objectives; holding managers accountable for the results and linking incentives to performance; and limiting the role of the Government to specifying the general policy framework for public enterprises, setting performance targets, and monitoring and rewarding performance. In addition to reforming the regulatory framework for public enterprises, exposing them to greater competition by encouraging private provision of infrastructure services will be important.

4.60 Allowing greater operational and financial autonomy will be at the center of enterprise reform. Reducing government controls and interventions will contribute to raising operational efficiency by improving management control over the major determinants of enterprise performance, increasing operational flexibility, spurring initiative and strengthening accountability (it will also relieve pressure on government administrative resources). Financial performance should benefit from greater autonomy in price-setting. To strengthen incentives for internal revenue generation, financial support available from the Government in the form of equity or subsidized loans should be tightened. Any subsidies, where warranted by social objectives, ought to be provided on a transparent basis. Government policy should continue to aim at upgrading enterprises providing commercially marketable services to a more autonomous corporate status, e.g., from a perum (state corporation) to a persero or PT (limited liability company), and requiring them to become financially self-sufficient. Last year, TELKOM was so converted, and a

similar conversion is proposed for the Airport Authority this year. Such a change of status could also be an objective for PLN. In a deregulated setting, routine management would be left to company boards of directors, with government interventions limited mainly to approving and reviewing annual and medium-term corporate plans. The Government's role would thus shift from exercising operational to strategic control. The scope for enterprise autonomy is greater where the market structure is more competitive; in less competitive market settings, regulation of prices and oversight of personnel compensation, for example, may be necessary.

4.61 An essential complement of increased enterprise autonomy is the establishment of an effective accountability system whereunder performance contracts are negotiated and enterprises held accountable for their implementation. Performance indicators should be few and easy to monitor (in contrast, the current monitoring system for PLN is based on about 80, quarterly reported, indicators). The requirement for enterprises to prepare corporate plans and work programs provides a good framework for negotiating performance targets. Locating the performance monitoring, evaluation and reward system outside the line ministries that supervise the enterprises helps ensure objectivity and the use of common standards. An oversight unit for this purpose already exists in the Ministry of Finance, and supervisory units exist in line ministries, but their capacities need to be upgraded. To motivate better enterprise performance, improved monitoring and evaluation should be complemented by strengthening the system of incentives linked to performance (e.g., bonuses for management and staff).

(ii) Improving Project Implementation Capacity

4.62 At the project level, streamlining implementation can yield substantial benefits in cost savings and quality improvements. Project implementation delays and quality lapses can entail sizable costs. For example, the cost of a two-year delay in project implementation could amount to an estimated 20% of the total investment cost. In recent years, some easing of procedural requirements has allowed a noticeable improvement in project implementation. A crude indicator of trends in project implementation is the disbursement rate, which measures disbursements as a ratio of commitments. For World Bank-financed projects, for example, the disbursement rate (estimated as a three-year moving average) rose from 18% in 1987 to 29% in 1990. However, a substantial unfinished agenda remains. Further improvements in project implementation, which will become increasingly important as the infrastructure investment program grows in size and complexity, will require progress in four main areas, as discussed below. Delegation of greater authority from central planning and finance agencies to project implementing agencies and simplification of relevant procedures (such as under the IUIDP for urban services) constitute the major thrust of this agenda. Efforts to build institutional and staff capacities within implementing agencies would need to complement these reforms.

4.63 Simplifying financing procedures. Complex budget and finance procedures hamper the timely release of funds to projects under implementation. Possible improvements include: consolidating the variety of budgetary channels through which funding is made available; allowing project agencies greater flexibility in shifting funds within expenditure categories, supported by post-audit control; simplifying documentary requirements to

secure advances to cover expected outlays; expediting the process of disbursing funds; and developing clear guidelines on budget and finance procedures (including loan agreements and disbursement rules for donor-assisted projects) for dissemination among project agencies.

4.64 Streamlining procurement. Lengthy procurement procedures remain a constraint on efficient project implementation. Procurement for smaller works has improved markedly, due to some decentralization of responsibilities, but inordinate delays continue to characterize the processing of most larger contracts (Box 4.5). Even large public enterprises, such as PLN, lack adequate autonomy in procurement and face a cumbersome set of procedural and approval requirements. The average processing time for larger contracts could be reduced to between one-third and one-half of that indicated in Box 4.5. Estimates for PLN indicate that the time required between receiving bids and awarding equipment contracts could be reduced from the current average of 12-14 months to 3-4 months with fuller corporate autonomy in procurement matters. The achievement of these significant potential savings in time and project costs require several improvements in the procurement process: reducing central agency approval requirements to the minimum necessary; promoting the use of standard bidding and contract documents; streamlining the bidding process by doing away with unnecessarily rigid and onerous requirements relating to prequalification, retendering, etc.; raising the threshold above which formal bidding is required from the current very low level of Rp.20 million; and expediting bid evaluation, e.g., through establishing standing review committees comprising representatives from concerned agencies.

Box 4.5: INDICATORS OF DELAYS INVOLVED IN PROCUREMENT

Type of Procurement /a	Processing Time /b
Small Contracts up to Rp.500 million (LCB)	3 -4 months
Medium Contracts up to Rp.1 billion (LCB)	4 - 6 months
Large Contracts over Rp.1 billion (LCB)	10 - 14 months /c
Large Civil Work Contracts (ICB)	17 - 22 months
Large Equipment Contracts (ICB)	18 - 30 months

/a "LCB" and "ICB" denote local and international competitive bidding, respectively.
/b Time taken from prequalification notice to contract signature (up to delivery for equipment).
/c Longer time for contracts over Rp.3 billion needing EKUIN review.

4.65 Essentially similar issues arise in the procurement of consultant services. In many instances, the selection process can take 12-18 months. Delays of 4-6 months in the finalization of contract agreements are relatively common. This undermines both project implementation and the effectiveness of technical assistance. The main improvements needed are the simplification of central regulations on review and approval and the introduction of greater flexibility in consultant billing rates.

4.66 Facilitating land acquisition. Acquiring land for projects is also often a protracted process, especially in Java and in and around major cities. An important underlying factor is unavailability of the necessary land records in many parts of the country. As a result, significant land mapping and

surveying often need to precede the acquisition of project land. To alleviate the resulting pressure on the National Land Board (BPN), the agency responsible for land records, and to expedite implementation, project agencies could be allowed to assist in mapping and surveying; BPN could establish appropriate guidelines for such work and oversee compliance with them. Also, delays stemming from administrative bottlenecks could be reduced. The procedures laid down by BPN for the submission and processing of applications for land could be simplified, together with providing the district-level land acquisition teams with additional capacity, in areas of more intensive development activity, to handle the applications expeditiously.

4.67 Strengthening project monitoring. Increased delegation of authority to project implementing agencies raises the importance of an effective project monitoring system. Many elements of an implementation monitoring system are already in place: the Ministry of Finance keeps data on the release of funds to project agencies; BAPPENAS maintains a project monitoring system; and sector agencies such as the directorates for water resource development, highways and human settlements have developed management information systems to track the physical and financial implementation of projects. These systems, however, do not produce standardized management reports. Recognizing the need for standardized reporting, the Ministry of Public Works (MPW) has been selected to develop a procurement/disbursement monitoring system which, if successfully implemented within MPW, could be extended to other ministries. This is an important initiative; if satisfactorily completed, it could appreciably strengthen the basis for systematic monitoring of an expanding portfolio of infrastructure projects.

E. Expanding Infrastructure Capacity

4.68 Policies to manage demand and improve efficiency in the use and provision of infrastructure will moderate the need for investment in new capacity, and the associated claims on scarce national resources. Even so, given the sizable unmet demand already for some services, and the new demand that will arise as Indonesia maintains rapid growth in the 1990s, investment in infrastructure will need to increase substantially. This will require both a large program of public investment and increasing private participation.

Size of Overall Infrastructure Investment Program

4.69 Although the prospective requirements are large, how much actually to invest in infrastructure will depend on resource availability, taking into account the need to maintain a stable macroeconomic environment, and implementation capacities. The base-case assessment of macroeconomic prospects in Chapter 2 indicates that, if public resource mobilization improves as envisaged, an average level of total public investment of around 9% of GDP p.a. in the first half of the 1990s, rising to around 10% in the latter half, would be consistent with prudent economic management. Within this overall resource envelope for public investment, allocations to infrastructure will need to be determined in the light of competing demands of the other sectors. In recent years, the Government has accorded high priority to infrastructure, raising its share in total public investment to 53% in REPELITA V from 43% in REPELITA IV. This strong emphasis on infrastructure

development is appropriate, and, given judicious allocation of the remaining spending, should allow adequate funding of the other priority objectives of human resource development and poverty alleviation (their share also was raised in REPELITA V). Provided these relative priorities are broadly maintained, the aforesaid levels of total public investment would allow investment in infrastructure of about 5% of GDP p.a. during REPELITA V, rising to about 5.6% of GDP p.a. during REPELITA VI (these compare with the rate of about 4.5% of GDP p.a. actually achieved during REPELITA IV). Some indicative estimates of public investment in infrastructure during the 1990s, developed on this basis, are set out in Table 4.1. These show that, within the above parameters, substantially more can be invested. Between REPELITAs V and VI, the indicated increase in total public infrastructure investment amounts to close to 50% in real terms, implying average real growth of around 8% p.a. Effective implementation of the implied levels of investment would call for commensurate build-up of institutional capacities, but should be feasible if progress continues to be made on the agenda for institutional development discussed in the preceding section.2/

4.70 Even with such growth in public investment, meeting prospective demand will require an increasing contribution from private investment. During REPELITA IV, total investment in infrastructure was on the order of 5.5% of GDP. Of this, about 15%, or close to 1% of GDP, is estimated to have

Table 4.1: INDICATIVE INFRASTRUCTURE INVESTMENT PROGRAM FOR THE 1990s, BY SECTOR AND PUBLIC/PRIVATE PARTICIPATION (Rp.trillion, constant 1989/90 prices)

	Public Sector		Private Sector		Total	
	1989/90-93/94 (REPELITA V)	1994/95-98/99 (REPELITA VI)	1989/90-93/94 (REPELITA V)	1994/95-98/99 (REPELITA VI)	1989/90-93/94 (REPELITA V)	1994/95-98/99 (REPELITA VI)
Power	16.5	27.3	1.5	13.0	18.0	40.3
% of GDP	1.7	2.1	0.2	1.0	1.9	3.1
Telecommunications	5.2	6.9	1.0	2.6	6.2	9.5
% of GDP	0.5	0.5	0.1	0.2	0.6	0.7
Transport	19.0	27.3	11.8	19.5	30.8	46.8
% of GDP	2.0	2.1	1.2	1.5	3.2	3.6
Water /a & sanitation	8.4	11.3	1.0	2.6	9.4	13.9
% of GDP	0.8	0.9	0.1	0.2	0.9	1.1
Total	49.1	72.8	15.3	37.7	64.4	110.5
% of GDP	5.0	5.6	1.6	2.9	6.6	8.5

/a Includes both agricultural and non-agricultural water supply.

Source: Government Five-Year Development Plan and World Bank staff estimates.

2/ These and other investment estimates discussed in this section are indicative; they are not only orders of magnitude, but they also depend on realization of the base-case macroeconomic scenario. As emphasized in Chapter 2, macroeconomic prospects are uncertain; if these prospects change, the appropriate level of public investment, including investment in infrastructure, will need to be reassessed.

been contributed by the private sector, much of it in transport. Given the many possibilities for increased private provision, this share can be raised appreciably. Provided a supportive and sound policy and regulatory framework for private provision is established in a timely fashion, the private sector's share of infrastructure investment potentially could increase to about 25% during REPELITA V and further to 35% during REPELITA VI. On a sectoral basis, private investment could account for about one-third of total investment in both power and telecommunications and over two-fifths in transport during REPELITA VI (its contribution in water supply and sanitation is expected to remain smaller because of the less commercial nature of these services). If such levels of private investment are realized, total investment in infrastructure could rise to about 6.6% of GDP during REPELITA V and 8.5% of GDP during REPELITA VI (Table 4.1).

4.71 Effective implementation of the indicative investment "program" set out in Table 4.1 would allow adequate expansion in infrastructure services to support continued growth in the non-oil economy of 6-7% p.a. in the 1990s. The increase in the private sector's role would also contribute to raising the overall efficiency of service provision. While serious bottlenecks impeding growth would be avoided, there would remain appreciable unmet demand for some services, e.g., telecommunications, at the end of the decade; because of its sheer size, fully meeting such demand would necessarily take longer.

Sectoral Public Investment Priorities

4.72 Within the overall public infrastructure investment program, setting appropriate sectoral and intra-sectoral priorities will be central to the program's effectiveness in meeting its objectives. Sectoral allocations will need to be guided by four key considerations: overall investment requirements for meeting appropriate sectoral targets; availability of financing; implementation capacity; and the potential role of the private sector. Indicative sectoral allocations, based on these considerations, are shown in Table 4.1. The particularly strong, and increasing, pressure of demand on power services, and the importance for growth of alleviating supply shortages, are reflected in a sizable increase in the indicative allocation to power--2.1% of GDP during REPELITA VI, compared to 1.7% during REPELITA V and an estimated 1.4% during REPELITA IV. For similar reasons, a higher allocation is proposed for telecommunications: the proposed 0.5% of GDP compares with an estimated 0.3% of GDP during REPELITA IV. For the other sectors, the indicated allocations, relative to GDP, are similar to recent levels, i.e., 2.1% of GDP for transport and 0.9% of GDP for water supply and sanitation.

4.73 Electric power. On current demand projections, total investment in the power sector will need to increase to around 3% of GDP p.a. in the mid- to late-1990s to ensure adequate growth in supply. This could support an expansion of total installed generation capacity (excluding captive generation) from about 9,000 MW in 1989/90 to about 22,000 MW in 1998/99, together with commensurate expansion of transmission and distribution capacity. In implementing a program of this magnitude, PLN would face both financial and institutional constraints. An appropriate strategy would be to induce the private sector to contribute about one-third of the required investment, as assumed in the indicative power sector program summarized in Table 4.1. Even so, implementing the implied program for PLN, which is set out in Table 4.2, would call for improvements in PLN's financial performance

(allowing higher self-financing of investment) and institutional capacities. This program should allow PLN's sales to increase on average by about 15% p.a. in the 1990s; in addition to meeting increased demand from existing consumers as incomes and output rise, this should allow a significant expansion of household coverage and a gradual increase in the share of grid-supplied power in total industrial consumption. As private participation increases, transmission and distribution would be expected to account for a rising proportion of total PLN investment.

Table 4.2: INDICATIVE PUBLIC INVESTMENT PROGRAM FOR ELECTRIC POWER

	Estimate 1984/85-88/89 (REPELITA IV)	Projected 1989/90-93/94 (REPELITA V)	Projected 1994/95-98/99 (REPELITA VI)
Physical Targets /a			
Electrified urban households (%)	62	75	79
Electrified rural households (%)	16	25	33
Grid-supplied industrial consumption (%)	47	55	69
Generation based on natural gas (%)	3	9	25
Investment Requirements (Rp.trillion, current prices)			
Generation	3.8	10.4	17.7
Transmission and distribution	4.2	8.5	22.5
Total	8.0	18.9	40.2
Memo item			
Self-financing of investment (%)	13.6	27.0	40.0

/a At the end of the five-year periods.

Source: PLN, and World Bank staff estimates.

4.74 An important element of sectoral investment planning is to ensure the use of least-cost options in expanding generation capacity. Cost comparisons show natural gas and coal as lower-cost fuel sources for generation than petroleum products and geothermal and nuclear sources. In achieving a substitution of lower-cost options for petroleum products, a key policy requirement would be to allow petroleum product prices to reflect their economic values.

4.75 Telecommunications. Implementation capacity has in the past been a major constraint on TELKOM's ability to expand investment in response to the substantial and increasing excess demand for telephone service (actual investment fell well short of targets under REPELITA IV). A major challenge in raising investment in the sector, accordingly, will be to enhance TELKOM's institutional capacities. A positive development in this regard has been the recent conversion of the enterprise into a limited liability company, which has resulted in greater operational autonomy. Efforts are also being intensified to improve internal organization and management. Progress in these areas is reflected in the recent increase in TELKOM's investment levels. Given a continued build-up of institutional capacities, TELKOM's medium-term investment program, summarized in Table 4.3, provides for a gradual catch-up with demand. The proposed investment levels would achieve a significant

Table 4.3: INDICATIVE PUBLIC INVESTMENT PROGRAM FOR TELECOMMUNICATIONS

	Estimate 1984/85-88/89 (REPELITA IV)	Projected 1989/90-93/94 (REPELITA V)	Projected 1994/95-98/99 (REPELITA VI)
Physical Targets /a			
Total telephone lines (millions)	0.9	2.1	5.0
Telephone density (lines/100 persons)	0.5	1.0	2.4
Investment Requirements			
(Rp.trillion, current prices)	1.4	6.0	10.0
Memo item			
Self-financing of investment (%)	22.2	40.0	50.0

/a At the end of the five-year periods.

Source: PT TELKOM, and World Bank staff estimates.

increase in access to telephone service, and reduce the waiting list from about 75% at the end of REPELITA IV to about 30% by the end of REPELITA VI.

4.76 The investment program for TELKOM targets a significant reduction in the utility's relatively high unit costs as well as an improved quality of service. These objectives deserve increased attention, and their attainment would be helped by: utilizing more cost-effective technology; employing more competitive procurement and financing policies; adopting an integrated system approach to project implementation; and adequately providing for operations and maintenance. More fundamentally, increased competition in service provision through greater private sector participation would spur efficiency. In telecommunications, instituting processes to ensure that investment decisions are made in the light of full information on fast-changing technologies is especially important. Improved financial performance resulting from more cost-effective operations should strengthen TELKOM's capacity to self-finance its investment program. In the context of its increasing commercial orientation, TELKOM could also consider diversifying its sources of financing, for example, by issuing subscriber bonds. With stronger finances, it would be better placed to expand services in response to demand as its implementation capacities grow.

4.77 Transport. The combination of large investment requirements in transport and public resource constraints underlines the importance of setting clear investment priorities, improving cost recovery and increasing private participation. The major area for public investment will remain the development of roads. The indicative investment program set out in Table 4.4 sees its share in total sector investment rising to 50% in the 1990s from 44% in REPELITA IV, reflecting partly the greater scope for private participation in sea and air transport. For interurban roads, the priorities would be: providing additional capacity in those corridors, in Java and other areas of rapid growth, where traffic volumes are now approaching saturation levels and where heavy freight traffic will necessitate further pavement strengthening; and upgrading national and provincial links that have not recently undergone betterment. For district roads, important to providing improved access to rural communities, the current level of spending seems appropriate for now;

the major issues relate to developing the capacities of responsible local governments and increasing the share of resources allocated to maintenance. In contrast, expenditure on urban roads and related transport infrastructure will need to increase substantially. Such spending should be supported by effective traffic restraint measures to contain demand for private transport to manageable levels. Estimates for Jabotabek indicate an investment requirement of around Rp.10-12 trillion (at 1991 prices) up to the year 2015 to provide a basic network of segregated busways and light rail lines in existing major corridors. Additional investments will be needed in Jabotabek, and in major cities elsewhere, to provide more road capacity in congested inner city corridors and to open up new peripheral areas for development.

Table 4.4: INDICATIVE PUBLIC INVESTMENT PROGRAM FOR TRANSPORT
(Rp.trillion, current prices)

	Estimate 1984/85-88/89 (REPELITA IV)	Projected 1989/90-93/94 (REPELITA V)	Projected 1994/95-98/99 (REPELITA VI)
Road Network	5.0	11.0	20.2
Land Transport	2.1	4.4	8.0
Sea Transport	2.2	3.2	6.0
Air Transport	2.0	3.2	6.0
Total	11.3	21.8	40.2
Memo item			
Investment financed by cost recovery (%)	9.7	15.0	20.0

Source: Ministry of Finance, and World Bank staff estimates.

4.78 Substantial past investment in public bus services in urban areas has been ineffective, particularly in Jabotabek. Allowing greater competition by further opening up the market to private operators will both improve service standards and reduce public resource requirements. In the railways, a major priority for PERUMKA will be to implement the large backlog of deferred maintenance and asset replacement. In addition, some new investment in rolling stock is needed to serve high potential markets. Other major new investments in capacity expansion can be deferred pending improvement in the operational and financial performance of PERUMKA. In maritime transport, the most pressing need is to expand capacity at the principal general cargo ports in Java and Sumatra. Continuing investment, on a more limited scale, will be needed to develop and rehabilitate small ports in more remote areas, particularly in eastern Indonesia. The expansion of shipping services and shipbuilding can be left largely to the private sector. In air transport, sizable investment is being made, and will remain necessary, in the expansion and improvement of the major airports. Investment proposals need to be guided by realistic projections of growth in traffic volumes, especially tourism-related traffic. Demands on public resources could be reduced if private participation in the development and management of airport facilities is expanded.

4.79 Water supply and sanitation. An investment program of about 0.9% of GDP p.a., as reflected in the indicative estimates presented in Table 4.1,

could achieve realistic targets for expanding services in water supply (agricultural and non-agricultural) and sanitation, provided cost-effective approaches are used and private participation is encouraged where feasible, e.g., in urban bulk water supply. Although the government budget will remain the predominant source of financing public investment, a gradually increasing contribution from cost recovery will be necessary to establish a more sustainable basis for supporting sector development. Of the estimated total sectoral investment requirements during REPELITA VI, the bulk (close to 0.7% of GDP) will be for non-agricultural water supply and environmental sanitation (Table 4.5). Expenditure on piped water supply will need to be increased substantially, to extend service coverage and check excessive groundwater extraction. However, the Government's current targets for piped water provision, e.g., raising the urban household coverage by 50% under REPELITA V, are rather ambitious, given the implementation capacity of the local water authorities and the pace of urban population growth. In addition to scaling down these targets, the distribution of expenditures needs to be improved by focusing more on larger cities where the backlog of demand for piped water is much greater, and also by expanding programs to supply water to poorer people through the installation of public standpipes or similar low-cost means. Significant expansion of investment will also be required to improve

Table 4.5: INDICATIVE PUBLIC INVESTMENT PROGRAM FOR WATER /a AND SANITATION
(Rp.trillion, current prices)

	Estimate 1984/85-88/89 (REPELITA IV)	Projected 1989/90-93/94 (REPELITA V)	Projected 1994/95-98/99 (REPELITA VI)
Kampung Improvement Program (KIP)	0.3	0.5	1.3
Water Supply	1.1	2.5	5.0
Environmental sanitation and drainage	0.2	0.5	2.5
Flood protection	1.0	2.1	3.2
Total	2.6	5.6	12.0
Memo Item			
Investment financed by cost recovery (%)	5.0	9.0	15.0

/a Excluding agricultural water supply.

Source: Ministry of Finance, and World Bank staff estimates.

sanitation and drainage, an increasingly urgent need on health and environmental grounds as the quality of raw water faces potentially serious deterioration in some areas (the indicated investment levels may need to be revised upwards in the light of further work on these environmental issues). Again, in designing investments, low-cost approaches, such as KIP, should be emphasized to maximize coverage of waste disposal, garbage handling and flood control facilities.

4.80 In irrigation, expenditure allocations should be guided by three priorities. First, in expanding the irrigated area, the focus should be on completing existing command areas, that being much more economical than the development of new command areas. Also, targets for expansion of area under

irrigation should be based on a careful assessment of need and implementation capacity. On all of these counts, the target for the development of new irrigation area during REPELITA V--500,000 ha-- seems high. For REPELITA VI, an analysis of the expansion of irrigated area already achieved, the costs of developing new command areas, and the prospective irrigation requirements (especially for maintaining trend self-sufficiency in rice) suggests that expenditure on new irrigation development could be reduced significantly. Second, sizable investment will continue to be needed in rehabilitation and upgrading (R&U) to restore existing irrigation infrastructure to its designed state and improve the efficiency of water use. Third, O&M must be allocated adequate resources; R&U will be effective, and cost-efficient, only if followed by proper O&M (see Box 4.2). While agreeing with the need to emphasize irrigation R&U and O&M, the Government considers that new irrigation investment may also have to be increased during REPELITA VI to support its objectives of regional development. The Government continues to evaluate the irrigation investment program, which will be discussed further during the review of an Agriculture Sector Report being prepared by the World Bank.

CHAPTER 5

AGENDA FOR HUMAN RESOURCE DEVELOPMENT

A. Introduction

5.01 Indonesia has made impressive progress in human resource development. Since the late 1960s, the country has experienced sharp declines in fertility and mortality accompanied by large gains in literacy and in the educational attainment and skill base of the labor force. The demographic transition is already apparent in smaller numbers of children aged 0-4 than in 1980, a phenomenon that will shortly extend to the primary and then the junior secondary age cohorts. Primary schools now enroll 90% or more of the target age group, and secondary enrollment rates have risen and are set for further gains. Meanwhile, rapid economic growth has increased employers' demand for skilled and professional employees and contributed to the expansion of training and post-secondary education. Yet, despite these achievements, Indonesia still faces a formidable agenda for human resource development. Part of this challenge is linked to the national goal of ensuring that basic health and education services reach and benefit the poor. Another part is tied to the need to equip a rapidly growing labor force with the skills required to sustain rapid industrialization in the 1990s and beyond.

5.02 Indonesia's past achievements, highlighted in section B, have significantly altered the human resource scene. The agenda is no longer primarily that of launching major initiatives, assembling and deploying staff, and mobilizing resources to establish new facilities. This has been done in the health, family planning and education (with the exception of junior secondary) and training fields on a massive scale and with good results. Nevertheless, the challenge remains to build on these achievements to realize further significant increases in the population's health, nutrition, education and skills. Meanwhile, recent gains have brought some new concerns and policy questions into view. Against this background Section C identifies critical sectoral challenges and priorities for the 1990s. Section D then reviews intersectoral themes underlying the human development agenda. Section E concludes by examining implications for financing human resource development.

B. Progress in Human Resource Development

Rapid Fertility Decline

5.03 Between the late 1960s and late 1980s, the total fertility rate was nearly halved from 5.6 to 3.1 births per woman. The crude birth rate fell from 42 to 28 births per thousand population, and the overall population growth rate decreased from 2.4% per annum to 1.8%. Nearly all of this fertility decline is attributable to a striking increase in contraceptive use, from under 10% in the late 1960s to over 50% in 1991. The success of the family planning program coordinated by BKKBN in creating awareness, making safe and affordable methods available at village supply points, and attracting low income and poorly educated clients has enabled Indonesia to accelerate

through the fertility transition, catching up with several more favorably placed countries. For instance, during the 1965-1985 interval, contraceptive use rose and fertility fell at rates approaching those experienced earlier and at higher income levels in South Korea and Thailand. By the late 1980s, Indonesian use of family planning methods had virtually matched or exceeded that in countries with significantly higher per capita income levels (see Figure 5.1). As noted below, these achievements have important implications for the demographic profile, including reducing the numbers of school age children over time.

Better Nutrition

5.04 Survey data from the 1980s show significant increases in average caloric intake, and reductions in the prevalence of moderate and severe malnutrition among young children. These advances are attributable to growth in food production and rural employment, and better monitoring of shortages and improved management and distribution of food supplies. Another factor, was the intersectoral UPGK program which used monthly village meetings (now called posyandu) to promote nutrition education. Also noteworthy has been the decreased incidence of blindness and other problems linked to vitamin A deficiency since the late 1970s. Again, government programs, including nutrition education and distribution of vitamin A capsules, contributed to the observed improvement.

Lower Mortality

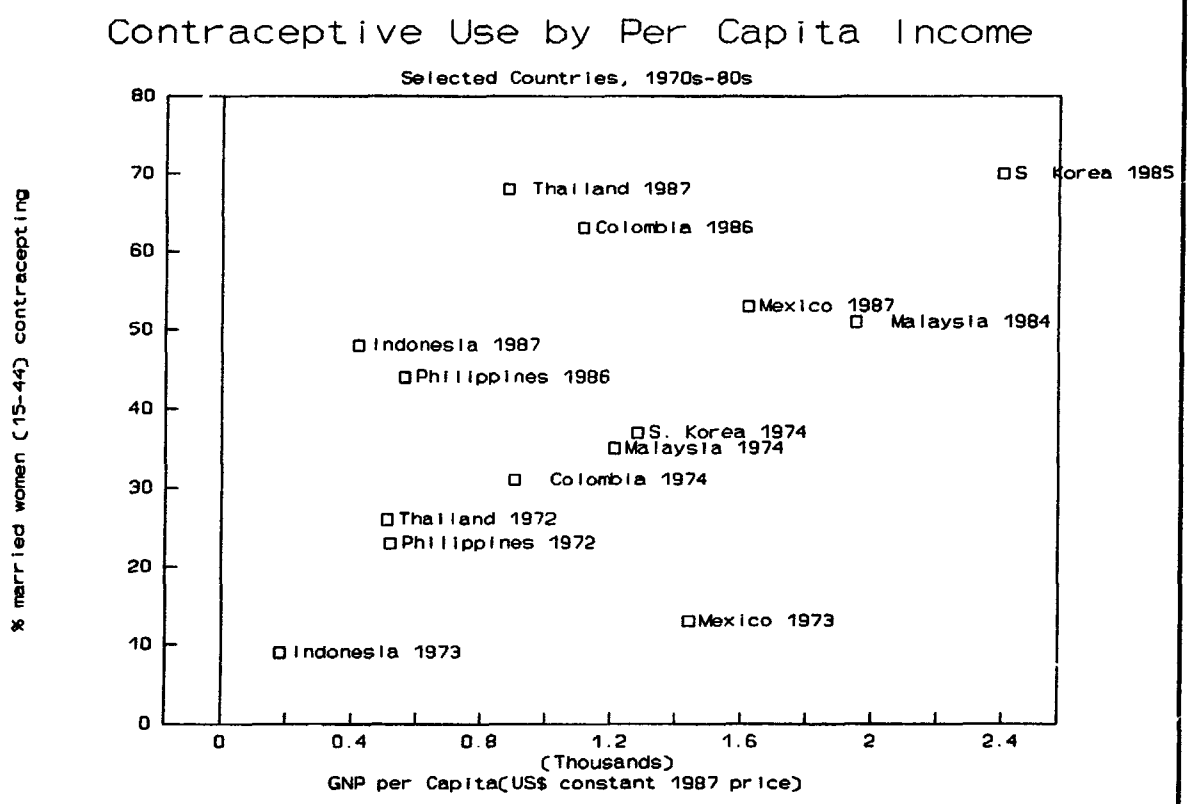
5.05 Income and nutritional gains along with fertility decline probably account for much of the fall in the infant mortality rate (IMR) from an estimated 124 deaths per thousand births in the late 1960s to 105 in the late 1970s and 66 in 1990 (preliminary estimate). Another contributory factor has been increased coverage of immunization against childhood diseases. Access to immunization and other preventive and curative health services expanded with the establishment during the 1980s of a network of nearly 6,000 health centers, each staffed by various medical and paramedical personnel, and each serving several subcenters and an estimated 40 village-level posyandus. Survey findings suggest that this system is gaining acceptance and delivering a growing volume of services. For example, the 1987 National Socioeconomic Survey (SUSENAS) identified an increased tendency for lower and middle expenditure groups, rural and urban, to visit health centers for treatment. In 1987, 30% of the rural poor (lower four deciles) in Java and 26% in the Outer Islands visited health centers for care when ill in 1987 compared with only 17% and 11% respectively in 1978. And the 1991 Demographic and Health Survey (DHS) found that health centers and village health posts had provided some antenatal care for nearly half of the births during the previous five years. The survey reported that nearly three quarters of all children aged 12-23 months had received the BCG vaccine and over half had received the measles vaccine and the full series for diphtheria, pertussis and tetanus.

Higher Literacy and School Enrollments

5.06 The primary school (grades 1-6) attendance rate for the 7-12 age group reached 92.5% (92% for boys, 93% for girls) by 1987 thanks to ambitious government school construction, teacher training and subsidy (abolition of official fee) measures. There are currently 1.1 million primary school

teachers, working in 146,000 schools with an estimated student population of 26.5 million. Meanwhile, expanded access to primary schooling and innovative non-formal public programs helped increase adult literacy from 56% in 1970 to 81% in 1988. Government initiatives also brought about large enrollment increases at the junior (grades 7-9) and senior (grades 10-12) secondary levels during the 1970s and early-to-mid 1980s.

Figure 5.1



Sources: W.P. Mauldin and S.J. Segal, "World Trends In Contraceptive Use, By Method and Their Relationship To Fertility, the Population Council, Working Paper No. 139, 1988; World Tables, 1991.

Expanded Tertiary Education and Skill Training

5.07 Higher education enrollment has expanded rapidly, involving nearly 9% of the 20-24 age group by 1990. Most striking has been the increased number of students attending private tertiary education institutions. More than 900 or so private universities, academies and related institutions (up from 350 in 1975) now account for two-thirds of the post-secondary student population. The increase in tertiary school enrollment owes much to the development of new, more flexible degree and non-degree programs. Private initiative has also played a large role in the rapid expansion of in-service and pre-service

training activities. For instance, enrollment in privately-run skill training programs is estimated to be ten times the 60,000 current annual attendance in government-operated training centers. Moreover, a number of private initiatives in management training have emerged over the past five years.

C. Sectoral Challenges and Priorities

Slowing Population Growth

5.08 Continuing rapid fertility decline is by no means guaranteed. Other countries (e.g., Malaysia and the Philippines) have experienced a fertility "stall" once contraceptive use approached 50% of married women of reproductive age and the total fertility rate fell below 3.5 children. An additional difficulty facing the program will be the need to prepare for a rapid increase in eligible couples that will be added in coming years. The number of married women of reproductive age will increase from 30.8 million in 1988 to 35.6 million in 1994, or by about 800,000 per year. Once program dropouts are taken into account as well, the number of acceptors that must be recruited simply to sustain the current use rate will amount to nearly four million annually.

5.09 BKKBN will need to intensify the special program efforts it is directing at regions and groups with lagging contraceptive prevalence rates. For instance, 1991 survey data indicate that family planning use is a fifth or more below the national average in Aceh, South Sulawesi, East Nusa Tenggara and several other less well developed outer island provinces, and among uneducated, poor women. Yet, the demand for family planning in these population segments is potentially large. The 1991 Demographic and Health Survey (DHS) reported that among those not using contraception, nearly 70% of women with no education and over 65% of respondents in the outer island provinces either desired no additional children or wanted to delay childbirth for at least two years. Focusing program efforts in poorer, more sparsely populated areas and on low income groups will require changes in service provision strategy. Thus far the program has employed a standard set of service delivery approaches and managerial principles on a country-wide basis. These will likely need to be refined and modified if contraceptive use is to rise among those currently underserved.

5.10 The program will also need to make its services more attractive to those currently using family planning. For example, the large and growing number of older women who have been using temporary methods (mainly pills) for prolonged periods need to switch to long lasting methods for health reasons as well as for increased contraceptive effectiveness. Also, rising average levels of women's schooling have increased demands for higher quality of services and a wider choice of methods. Better service quality will help lower discontinuation rates which are over 20% for oral and injectable contraceptives. Finally, the rising numbers of middle and low income youth entering reproductive ages will need tailor-made advice and easy access to contraceptive services.

5.11 Together these steps will require greater provider sensitivity to the needs of clients, including the institution of appropriate safeguards and

follow-up for those using NORPLANT and other new contraceptives, and the definition and enforcement of quality standards. Several concerns have been raised about NORPLANT-related services, including poor availability of removal on demand and lack of systematic provision for removal after 3-5 years.1/ BKKBN has prepared a remedial NORPLANT strategy which addresses many of the implementation problems that have arisen. These measures call for close coordination with the Ministry of Health's emerging safe motherhood activities. BKKBN will need to upgrade its staff development and personnel policies to improve workers' counselling and (if necessary) clinical skills and to inculcate a commitment to quality and voluntarism. It also needs to strengthen surveillance and research so that these activities become an integral part of policy development and execution. The program needs rapid, accurate feedback on clients' experiences and preferences as regards family planning services, and on the effectiveness of different communication, delivery and follow-up initiatives.

5.12 Over the longer term (and particularly in areas of high contraceptive use), BKKBN must prepare for transforming its role from a direct provider of specific services towards indirect financial and technical support to other public agencies, non-governmental organizations (NGOs) and private providers (including large and small employers and health insurance companies). The expansion of private provision through the multi-media "Blue Circle" campaign represents a valuable beginning. It aims at making existing or potential family planning clients aware that private doctors and midwives offer some contraceptive services; it also encourages those who can pay private sector prices to refrain from using free public facilities, and introduces certain contraceptives at subsidized prices. In addition, BKKBN could help to establish doctors in private practice by providing loans and technical assistance (linked to requirements that quality standards would be maintained), working to ease restrictions on entry, and allowing field workers to make referrals to private providers. Comparable support can be extended to NGOs, many of which face funding, management and other constraints. It will be important for BKKBN to establish balanced, effective relationships with various professional associations (doctors, midwives). These changes will require adjustments in organization style and scale, and will have implications for staff selection, training and supervision.

Improving Health

5.13 Social and economic change will affect health conditions in Indonesia in the 1990s and beyond. An important determinant of this changing health picture is the demographic transition, largely driven by the rapid fertility decline. Figure 5.2, based on World Bank projections, illustrates the changing demographic and health picture. Slower growth of the childhood population coupled with declining death rates are projected to reduce the burden of child mortality. But this will be counterbalanced by the rapid increase in the adult and aging population. This continuing growth in the older age groups, and the rising share of adults, especially those over age 60, in total mortality, is due to the momentum of population growth, and

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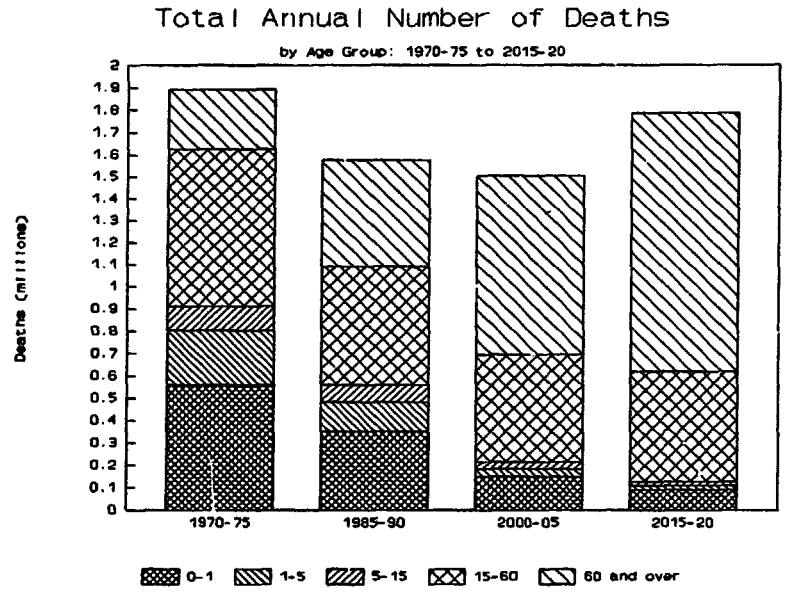
1/ See S.J. Ward, I.P.S. Sidi, R. Simmons and G. Simmons, "Service Delivery Systems and Quality Care in the Implementation of NORPLANT in Indonesia," the Population Council, New York, 1991.

results from the aging of the large numbers of children born when fertility was high. As a consequence, Indonesia will have to provide for the health needs of a rapidly increasing adult and aged population for many years into the future.

Figure 5.2



Source: World Bank staff estimates.

5.14 A second determinant of the changing health picture are social and economic trends which are transforming mortality risk factors themselves. One important indicator is the shift from rural subsistence to an urban market-oriented industrial economy. Economic growth will bring higher rates of injuries related to motor vehicles, industrial accidents and toxic chemicals. Rising incomes will also bring changes in lifestyle including overeating and increases in smoking which are expected to increase age-specific risks for chronic diseases, notably cancer and cardiovascular disease. In fact, a growing share of deaths due to cancer and cardiovascular causes is already seen in Indonesian health surveys conducted during the 1980s. Meanwhile, a number of cases of AIDS, a communicable disease with potentially high incidence among adults, have been detected in Indonesia (see Box 5.1). Experience in several other Asian countries suggests that AIDS could spread rapidly, placing new burdens on the health system. In dealing with such changing demands, it is likely that most facets of the current system will need to undergo substantial adjustment including: the scope of preventive health measures; the number and mix of personnel; the orientation of medical education; the distribution, scale and sophistication of facilities, referral systems, instruments and capital equipment; financing mechanisms; and the public-private division of roles.

Box 5.1: AIDS IN INDONESIA

By the end of 1991, 47 positive cases of the Human Immune Deficiency Virus (HIV) had been diagnosed in Indonesia, including 21 cases of Acquired Immune Deficiency Syndrome (AIDS). Experts believe, though, that the small number of reported cases greatly understates the magnitude of the problem. Alternative estimates of the number of HIV positive cases range up to 12,500. But whichever estimate is used, reported numbers appear to be increasing exponentially. This suggests that Indonesia, with the fourth largest population in the world, is at a crossroads in the AIDS era. The AIDS virus appears to be spreading within the high risk groups at increasing rates, and has almost certainly entered the general population. This is still the early stage, and the large scale spread of the virus through the population may still be prevented. If effective interventions are made over the next 12 to 18 months, Indonesia could avoid the rapid epidemic trend that has recently emerged in Thailand and India. Indonesia may be the only large developing country where it may still be possible to keep AIDS from emerging as a major national problem, one with profound human and economic implications.

In recent months, Indonesian policy makers have shown increased awareness of the AIDS problem and a heightened willingness to address it. Experience elsewhere has pointed to several desirable elements in a national AIDS strategy, while highlighting the need to promptly initiate small-scale studies and tests and other preparatory work. The suggested components in a country strategy include:

(i) Policy Development to produce information and educational materials aimed at senior health, economic, legal, and social planners and policy makers, including religious, NGO and private sector leaders.

(ii) Stepped-up Surveillance Activities in special high risk groups to keep planners abreast of the extent of the epidemic.

(iii) Educational/Behavioral Change Campaigns directed at persuading high risk groups to practice safe sex, and informing the general public about the AIDS problem.

(iv) Stronger Facilities and Mechanisms for treating sexually transmitted diseases, particularly among high risk groups.

(v) More thorough Blood Screening, especially in urban areas where HIV cases have been reported.

5.15 This approaching epidemiological transition will be neither a steady nor uniform process. Wide disparities in health conditions, including both infectious and chronic diseases, exist among regions and across different social groups. For instance, a 1991 survey found high prevalence in Eastern Indonesia of moderate to severe child malnutrition, a high incidence of goitre in some pockets, high rates of anemia among preschool children and pregnant women, and the continued presence in some areas of adverse health effects of vitamin-A deficiency. Thus, both old and new medical challenges will likely coexist for some time. Accordingly, great care will be needed to make sure that the infectious diseases which predominantly affect children and the poor are not neglected in the face of new resource demands generated by the better-off or older groups. The health policy challenge is to develop efficient and equitable strategies to meet these new conditions.

5.16 The financing and management of services are key considerations in achieving the improvements in adult care that will become necessary during the 1990s and thereafter. The diseases involved are usually long lasting, sometimes requiring intensive treatment by highly trained staff using

sophisticated technologies in dedicated facilities. Accordingly, health care for adults is potentially very costly.2/ On the other hand, many patients should be able to afford treatment expenses if payments can be channeled through effective health insurance or other arrangements. There is no compelling argument on public or merit good grounds, for direct public involvement in funding or providing such services.

5.17 Once adequate financing mechanisms such as health insurance are in place, the market should be able to provide needed services. However, there is a major challenge entailed in creating viable financing arrangements. In Indonesia, this challenge is seen in the debate over whether and how to expand participation in health insurance schemes. Existing, essentially pilot health insurance initiatives for the general population have not worked well and do not appear to be sustainable options. For example, PKTK, a government-sponsored scheme for private employees, has neither generated significant public interest nor shown that it can operate without considerable subsidy. Consequently, rapid movement towards mandatory participation in PKTK or some variant of this scheme would not be advisable. However, the experience gained could have lessons to help identify viable approaches. Indeed, well-designed health insurance plans have worked well as funding instruments and as means of extending coverage to the poor in several countries (e.g., Japan, Germany, and South Korea). The Government should examine carefully the applicability of these plans to Indonesia, including the way they are providing coverage to the poor.3/ In the near term, the government should pursue an active research and development program to accumulate the experience required to evolve an effective national policy. Research is needed, for instance, on the willingness to pay for prepaid care, budgetary impacts of alternative schemes, and distributional impacts, including the incidence of wage-based health benefit taxes and the likely welfare effects of compulsory coverage.

5.18 This new agenda coexists with concerns about how well the existing primary health care system is operating. Despite the major gains noted above in the poor's access to the health system compared to the late 1970s, only 30% or less of poor households interviewed for the 1987 SUSENAS visited health centers when ill. And the 1991 DHS reports that only half of all women received antenatal care and only a third to two-fifths of children with poorly educated mothers had received the full series of DPT and polio immunization. Service statistics point to continuing large Java-Outer Island differences in coverage of maternal and child health services. These continuing challenges reflect the variations in the availability of health facilities and associated

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2/ See M. Over, R.P. Ellis, J.H. Huber, and O. Solon, "The Consequences of Adult Ill-Health," in R.G.A. Feachem, T. Kjellstrom, C.J.L. Murray, M. Over and M.A. Philips, The Health of Adults in the Developing World, the World Bank, May 1991. Over et. al. estimated an income elasticity of 1.33 for total health expenditures. This reflects the aging of the population that occurs in conjunction with increases in average expenditure.

3/ However, the form of the copayments and fee contracts that are included in the Korean scheme have not proved fully effective in containing costs. Indonesian policymakers should carefully weigh the advantages and disadvantages of alternative insurance models.

staff that remain despite the major achievements realized. Indeed, wide inter- and intra-provincial differences remain in access to health centers. There are similar disparities in the average numbers of doctors, paramedics and other staff actually serving in operating health centers--the Eastern Island provinces have had problems in ensuring that health centers are continuously staffed by doctors and other essential staff.4/ Recent deployments of health staff have responded to these disparities.

5.19 Meanwhile, other problems exacerbate the effects of health center staff and other shortages. Young, inexperienced health center doctors frequently lack critical public health, public relations and community mobilization skills which medical schools with their clinical orientation have not begun to teach. In addition, the role and responsibilities of health subcenter staff, the village midwife, and other elements in the emerging health delivery structure remain unclear. These observations suggest that there is scope to improve the average productivity of staff and facility use.

5.20 Provision of health services is also impaired by problems at the district where the doctor-in-charge, the dokabu, is responsible for the entire range of services delivered through health centers. The dokabu's ability to concentrate those resources he can control on priority activities is weakened by discontinuities in staffing, staff inflexibility due to age, poor training, limited availability and use of information for planning and management, unfamiliarity with health communication strategies, and strict guidelines on resource allocation. At the provincial level, an unclear division of labor and occasional friction between province-based Central staff (kanwil) and local government health workers (dinas) are a concern. This unsatisfactory situation is sustained by a fragmented and rigid budgeting process which sometimes requires provincial staff to decide on programs without knowing whether or when they may be needed. Cross-sectoral collaboration is another area that needs strengthening at the provincial level. For example, the Health and Nutrition Boards, set up in some provinces as a mechanism for combining health and non-health staff in a coordinated approach to malnutrition, do not have a formal position in the public bureaucracy or secure and significant budgets, and have not yet played an effective role.

5.21 Several issues will need to be addressed simultaneously to bring about improvements in the primary health care system. The first relates to the determination of health problems that receive priority attention at the field level and the services to be provided at each point in the primary care and referral system. Health program strategy at the province level and especially at the district and sub-district levels should take full account of persistent differences in risk and susceptibility. The existing focus on a uniform "bundle" of services made sense when the system was new and untried. However, this standard package approach now needs to be differentiated to reflect current epidemiological and economic diversity. This can be done by ensuring that those most aware of local conditions and requirements, i.e. kecamatan and puskesmas health workers, have a large role in setting

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4/ For example, the Irian Jaya health department reported that by the end of 1991 there were 121 health centers with doctors in place, with an additional 37 doctors needed.

priorities and designing health initiatives.5/ Responsible staff will also need the managerial and budgetary authority to develop and implement local plans. Finally, this approach will need to draw on regularly updated data on incidence, outcome and service utilization. The capacity to generate and use such information will have to be enhanced.

5.22 Secondly, more and better used resources will be required if the focus on locally determined priorities is to work. Although many facilities and personnel are now in place, there remain critical staff vacancies, skill deficiencies, and shortages of drugs and transport. These missing components undermine program effectiveness, especially in poorer areas with more severe public health problems. The government needs to allocate the funds required to sustain effective primary health care activities.

5.23 However, resource infusions need to proceed in phases in conjunction with experimental efforts to raise the productivity of staff and facilities. Here, facility-level indicators need to be developed and then used to monitor and reward performance of responsible staff. Personnel policies covering conditions of service, housing options, promotion possibilities and criteria, career development, rights regarding transfer within and between regions, and the use of contractual arrangements may need further adjustment and refining as well - some new measures were announced in January 1992. Also meriting reconsideration are standard staffing norms and various guidelines and incentives bearing on how puskesmas staff divide their time between in-clinic and out- reach activities. The range of possible options here is quite large. Available doctors, nurses, paramedics and other staff can be used to upgrade the range and quality of services available at the health center itself and/or in the network of attached subcenters. Alternatively, the puskesmas can be used to project services and skills into the hinterland, with some or most staff assigned to routine or enhanced posyandu visits; training of village-level voluntary workers; various community development activities; liaison with village midwives, as well as NGO workers and private providers; health education campaigns; and follow-up of high risk or specially targeted cases. The puskesmas doctor-in-charge and his supervisor, the dokabu, need the freedom to adjust, based on pilot initiatives, the mix of activities according to local circumstances and priorities, and likely staff effectiveness. Responsible officials also need the latitude to change work routines and the mix of staff, if necessary, to alter duties and tasks, and to hire extra manpower locally if required. Obviously, many implications for training, supervision and performance evaluation follow from these recommendations.

5.24 Puskesmas-level improvements will need to be supported by technical assistance from units located at the district, province and even the center. Jakarta-based staff might contribute most effectively to innovative or high priority activities, e.g., fostering use of iodized salt, that have national

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5/ A promising pilot scheme, the Malaria Surveillance Program in two kabupatens in Central Java, has stratified the region into high- and low-risk areas, reallocated workers to intensify surveillance in high risk zones, and created a new, devolved decision-making structure which has led to a restriction of routine spraying. See Joseph Hunt, "The Malaria Surveillance Program: New Strategy for Malaria Control in the Republic of Indonesia," Center for Policy and Implementation Studies, Jakarta, 1991.

implications, and for which there are research results, and standards or policies to apply, while more routine assistance could be made available from province-based personnel. A reorientation of the role of Jakarta-based units has implications for the activities of province-based, Central staff in the kanwil's office. The latter could primarily provide a link and feedback between Jakarta-based research, standard setting and technical assistance initiatives and ongoing provincial, district and puskesmas-based activities. Routine administration, and planning and budgeting could be left to local health staff in the dinas office, who report to the Governor.

Strengthening Education and Training

5.25 Consolidating primary and secondary education. The challenge is to enhance educational quality at all levels of schooling while striving to improve access to junior and senior secondary schools. The Government is committed to universalizing basic education, now defined to cover grades 1-9, by raising junior secondary enrollment rates. At the primary level this goal will require improved quality and effectiveness of teaching and better student preparation, and a higher continuation rate from sixth grade (now less than 55%). It will also necessitate greater attention, mainly through non-formal programs, to the roughly four million handicapped or disadvantaged students who never enroll or dropout. During REPELITA V, low and possibly declining transition rates from primary level appear to have produced stagnant junior secondary enrollment despite the objective of raising attendance. While these trends need to be verified, several reasons for them are possible, including poor perceived quality and usefulness of secondary education, its high direct and indirect costs, and insufficient schools and teachers in rural areas.

5.26 At primary school level, policy action is needed and is receiving Government attention in three main areas. The first concerns distribution and training of primary teachers. Mechanisms are needed to monitor the availability of teachers in different localities, including remote or low income settings, and to identity surpluses and shortages as they arise. Variations in teacher availability can be redressed by fostering recruitment of staff from deficit areas and by developing ways of influencing the placement of graduates of teacher training institutes (D2). Improvements in teachers' pay, professionalism and career development, promotion prospects and general conditions of service will also help. Some measures were announced by the Government in January 1992 to improve incentives to teaching, including paying salaries into bank accounts and prohibiting unofficial salary deductions. Steps are also being taken to improve instruction in pre-service and in-service D2 programs. Staff within the education faculties and institutes that have replaced the secondary level teacher training programs and are providing the upgraded diploma course for many teachers, need further training and exposure to field realities. Meanwhile, the curriculum used in the D2 program needs to be revised to give more weight to practical teaching skills. The projected expansion of the system of on-the-job Teacher Professional support in "Student Active Learning" to a wider sample of provinces should help. Finally, university education faculties need to expand their research on ways to improve primary school teaching-learning processes.

5.27 Second, additional resources need to be made available to finance quality improvements in primary schools. During the 1980s, real outlays per primary school pupil peaked in 1985 and then fell, reflecting the end of the

major push to expand the numbers of primary schools to achieve nearly universal enrollment. Expenditures have subsequently recovered. In the first instance, increased funds could support purchase of crucial educational inputs and materials which are currently financed through parental contributions in better-off areas and which are not provided in poor localities. In 1990/91, the Central government's nonsalary recurrent outlay per primary pupil was just under $3--this money was largely spent on instructional materials. International experience suggests that this figure would need to rise to roughly $7.50 per student in order to have the intended effect.6/ The indicated increase of $4.50 or so per pupil is equal to the additional outlay per student in better off communities that is presently paid for through parental contributions. Funding increases need to occur, though, in a phased manner to allow lessons from trial efforts to be digested and to be consistent with resource availability. A possible mechanism is a Special Assistance Fund (SAF) which makes grants to schools in targeted communities and trains school principals in resource management. Procedures would need to be worked out for identifying and selecting under-served areas, and for the budgeting, channeling and supervision of SAFs. If such outlays were limited to the most impoverished (lowest 10%) schools, the additional funds required would amount to only 0.68% of the consolidated central government primary education budget. Additional resources would also need to be allocated to support innovative programs of teacher professional support and student active learning. These quality-enhancing initiatives bring in their wake substantial recurrent costs, estimated at nearly $36 per pupil.7/ Therefore, such programs would need to be introduced in phases and targeted at the most needy communities.

5.28 Third, capacity to manage primary level educational quality improvement needs to be enhanced. Here one required step is to simplify financial planning and budgetary processing to ensure consistency between the allocation of funds and quality enhancement goals. Also local administrative support to primary schools, including the planning and execution of quality improvements needs to be strengthened. This will necessarily involve review and reconsideration of the respective roles of the central and local education offices. The current dual administration arrangements need to be clarified. For example, the local office could be made responsible for providing administrative support for day-to-day operations, leaving central staff to be largely concerned with monitoring and evaluation of quality improvements, testing new approaches, deriving policy implications, and disseminating results. MOEC's capacity to play this new role needs to be enhanced.

5.29 At secondary school level, there are difficult issues of equitable access, financing, teacher training and management of quality improvement. With respect to access, enrollments at the junior secondary level are apparently faltering, despite expansion efforts. The reasons behind this need careful analysis to design an appropriate response (see Box 5.2). A greater

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6/ During the 1990 World Conference on Education for All in Jomtien, Thailand, countries were encouraged to spend an additional $5 per pupil for nonsalary recurrent expenditures to improve student learning achievement.

7/ Indonesia: Primary Education Quality Project, Report No. 9575-IND, World Bank, February 6, 1992.

number of smaller schools may need to be established in relatively remote areas through public initiative in order to ensure access to basic education for all children. Fee exemptions could help guarantee access to lower income students, while schools should be allowed to keep a significant portion of fee income. And vehicles such as the suggested SAF for primary schools need to be evolved to ensure availability of educational inputs at the secondary level, particularly in public facilities in rural areas.

Box 5.2: FALTERING SECONDARY SCHOOL ENROLLMENT: A POSSIBLE RESPONSE

Primary to secondary transition rates and junior secondary enrollment rates in Indonesia appear to have fallen recently, though to some extent this may reflect a growing role for private religious schools, which provide a similar curriculum but are not included in Ministry of Education statistics.

While more evidence is needed to confirm these trends, it is worth investigating what may lie behind them and their implications for education policy. Explanations center on the continuing inaccessibility and the relatively low and possibly declining returns to junior secondary education. As compared to the country's 145,000 primary schools, many operating in remote communities, there are only about 21,000 junior secondary schools (one-third government run), which are largely located in urban centers. Unlike primary schools, junior secondary schools charge pupils formal fees ranging from Rp.450/month to Rp.1,500/month. In addition, a contribution of Rp.450/month-Rp.2,800/month to a school's Parent's Association is routinely paid; some schools also require an initial lump sum of Rp.6,000-Rp.65,000 from new students. For many parents, these and other expenses may be too steep, especially in urban labor markets in which, according to the 1989 SAKERNAS, job-seeking junior secondary graduates do not appear to have a large advantage over primary school graduates.

In this situation, it would seem advisable for the Government to open many more junior secondary schools, especially in rural areas, and to find ways to reduce fees, especially for students from low-income families. Part of the solution may lie in developing a lower-cost approach to junior secondary education, especially for relatively isolated rural and often impoverished settings. At present, junior secondary students take 11-12 classes per term with each subject taught by a specialized instructor. Therefore, junior secondary schools need to hire at least a dozen teachers -- this staffing load is affordable in urban areas where enrollments average 500 or more in multi-stream schools, but would be extremely costly to parents and/or to the Government Budget, if applied to a large number of smaller rural schools. Another factor working against replication of the existing "12 subject" public junior secondary model is the ability of teachers in urban areas to earn a second income from private "afternoon" schools.

An alternative approach, which needs to be pilot tested, could be built on smaller, single-stream schools, staffed by fewer teachers, each qualified to handle several subjects. The salaries and allowances paid such teachers would need to reflect their additional professional responsibilities and provide adequate incentives to live in rural areas. Meanwhile, a national school mapping exercise is needed as a basis for detailed planning of school expansion and for determining the additional investment implications.

5.30 Guidelines also need to be considered for possible public support to private schools, which account for 44% and 58% of junior and senior secondary enrollment respectively. For instance, a linkage could be developed between subsidies to private secondary schools and tuition charges, particularly for the poor in areas not yet served by public schools. Meanwhile, teacher training and curricula may need to be modified to enable a smaller number of teachers to cope with several subjects in smaller rural schools. The existing program of in-service teacher training needs to be institutionalized, extended functionally and geographically, linked to pre-service training, and bolstered through appointment of appropriate staff. Greater ties must be established

between pre-service and in-service training, with practicing teachers being used to bring insights from classroom experience. Finally, a coordinated and effective system of school-leaving examinations needs to be established in place of the present ad hoc, generally unsatisfactory arrangements.

5.31 Improving skill training. During the last two decades, skill levels in Indonesia's labor force have increased thanks to general education gains, investments in various training facilities and various forms of on-the-job training. Skill training is now available through senior vocational high schools, which account for 27% of upper secondary enrollments; 150 public training centers (BLKs and KLKs) which offer short, specialized courses; and numerous privately run programs, largely in general skills training with little capital investment needs (e.g., commercial skills), and some large enterprises providing training for their workers. A number of polytechnics, established in the mid-1970s, provide diploma programs for mid-level technicians in engineering and commercial subjects.

5.32 However, much of the technical training currently available in Indonesia is of poor quality. For instance, evaluations of public secondary technical schools have pointed to deficiencies in equipment and teaching materials, weak links with industry and a lack of flexibility in what is a highly centralized system. And with some exceptions, most private vocational secondary schools have inadequate facilities. Assessments of government skills training centers have also found limitations in teachers, equipment and materials, inadequate links with industry, and like technical schools, little autonomy and flexibility in resource use. Indeed, BLK and KLK enrollments dropped substantially in the 1980s, due to budget cuts. Meanwhile, the rapid expansion of private training institutions suggests that they can assume a greater role in skills development, provided certain weaknesses are corrected. Since they are largely financed through student fees, program scope and quality are limited to keeping costs at affordable levels. Courses concentrate on subjects that require relatively little capital investment and are sufficiently general to permit large classes. There is usually little objective information about quality of these courses to guide individual choices. Finally, most manufacturing enterprises still lack the capacity to provide in-service training themselves. Only a small number of large companies have good quality programs, with diseconomies of scale and lack of resources preventing smaller firms from providing job-specific training. Training activities are weak even in the dynamic export-oriented manufacturing sub-sector.

5.33 The vocational training sector will need to be upgraded and expanded in the medium to long term, to meet the skill demands likely to be associated with continuing industrialization (see Box 5.3). Indonesia has the opportunity to develop gradually approaches to training that can avoid some of the pitfalls encountered in other developing countries. Due to the inherent difficulties in predicting the pace, direction and technological level of industrial change, it is important that the skill acquisition system be as responsive to changing skill demand as possible, while at the same time assuring acceptable quality levels to trainees and employers. Ensuring adequate quality graduates of primary and secondary schools is important in developing a skilled, flexible labor force. Workers with solid basic skills with words, numbers and concepts can be readily trained and retrained to meet changing job needs, making effective use of available training. Experience in

other countries indicates that greater reliance on training by employers themselves and by private training institutions can increase the effectiveness and responsiveness of the training system.8/

Box 5.3: SKILLS TRAINING DURING KOREA'S INDUSTRIALIZATION

Korean industrialization brought major changes in the volume and mix of firm-level demands for labor skills. Nevertheless, labor market bottlenecks were avoided because of a three-pronged training approach pursued in anticipation of subsequent industrial trends. Specifically, pre-service teaching of general vocational skills was upgraded and expanded by establishing public training centers outside the formal education system, and by raising capacity and standards in public and private vocational high schools. Linkages between these training institutions and manufacturing firms were strengthened and used to gauge the extent of market demand for specific skills. The total number of recipients of vocational training rose from 166,000 in 1967-71 to 752,000 in 1977-81. These and other human resource policy measures (e.g., rapid expansion of primary and secondary general education) succeeded in orienting the education and training system to the needs of industry. More generally, such an approach greatly expanded Korea's "capacity to transform" and accommodate growth, and structural and technological change. It is noteworthy that other Asian "newly industrializing countries" also used well-timed skills development initiatives to expand and enrich local absorption capacity and with it long term industrial growth rates.

5.34 The policy challenge is to redefine the role of the government, recognizing the distinctive roles of employers, private training institutions, public training centers, vocational secondary schools and polytechnics in providing diversified training services. A clear rationale needs to be developed for the government's interventions, based on an assessment of the comparative advantage of various actors in providing general, transferable skills and job-specific skills.

5.35 To encourage employer-based training, the government can strengthen incentives to promote in-service training to upgrade worker skills. To reinforce efforts of firms to undertake training activities, government support of training needs assessments, training of trainers, monitoring and curriculum development could be important. It is recommended that past experience in schemes such as the Industrial Training Development Units be evaluated and incorporated in planning for the future.9/ Meanwhile, the use and effectiveness of financial incentives and other regulatory measures could also be evaluated, keeping in mind lessons from other countries. Currently, Indonesia recognizes training costs as business costs, which can be deducted from taxable income. There are regulations that mandate training of local staff in firms that hire foreign personnel. Levy-grant training funds are another alternative now being considered to encourage training investment by firms. However, a successful training fund would require a clearly-stated rationale, as well as transparent mechanisms for administering funds, and would require considerable administrative sophistication. It is recommended

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8/ Vocational and Technical Education and Training, a World Bank Policy Paper, Washington D.C., 1991.

9/ A technical assistance scheme under the World Bank's Manpower Training and Development Project (Loan 2705).

that the proposals currently under discussion, such as those in East Java, be pursued with close attention to establishing a clear rationale and procedures to ensure accountability.

5.36 Private training centers can be upgraded through the establishment of accreditation systems combined with technical and financial support to improve training quality. Accreditation procedures can provide useful information to both employers and trainees. Possible criteria for accreditation include the availability of laboratories, workshops and libraries, and the qualifications of teaching staff, as well as performance indicators including employment outcomes.

5.37 The public sector can play a critical but complementary role in delivering training to the rapidly expanding industrial sector. For instance, private training institutions have concentrated on training in commercial subjects. Technical training, which is more capital intensive and therefore more risky, has attracted less private interest. For that reason, government polytechnics were established at the post-secondary level to provide a technical degree. These institutions have been successful, with good placement records reflecting their relatively high quality levels. Direct cooperation between public and private institutions may also prove effective. For instance, public delivery of instructor training could fill subject matter gaps, and provide exposure to current industrial practices. Public training centers (BLKs and KLKs) should be granted greater financial and managerial autonomy, to allow flexibility in program decisions, and to enhance accountability for training services.10/

5.38 The contribution of vocational secondary schools to overall skills formation will need to be reassessed. Typically, vocational secondary education aims to provide students with some general knowledge and skills, as well as transferable occupational skills in preparation for employment. The effectiveness of the current vocational secondary system, including curriculum content and costs, needs to be reviewed in light of the higher estimated rates of return for general senior secondary education and the rising public appetite for general schooling.11/

5.39 Equity is also an important consideration in training policy. The traditional approach has been for the government to provide free services to those enrolled in public training centers. Public training centers were established in some isolated areas to obtain greater access. However, this approach appears to have diluted efforts to provide effective and relevant training, without necessarily achieving the equity objectives. Given budgetary constraints, a new approach to directly target disadvantaged groups (women, workers from small enterprises) and students from low income families may be needed.

10/ However, a recent policy initiative enables government training institutions to engage in revenue-raising training activities.

11/ W.W. McMahon and Boediono, "Market Signals and Labor Market Analysis: A new View of Manpower Supplies and Demand," Ministry of Education and Culture, Jakarta, 1991.

5.40 Finally, the roles of central and regional authorities need to be reassessed. At the central level there is need for coordination among the concerned agencies. Moreover, the central government is no longer well-placed to determine all training activities due to the diversity of labor market conditions in the country. It is also be important to build regional capacity, giving representatives of local employers and training institutions an active role in training policy making. Effective coordination among the several government universities involved in training is also more easily achieved at the regional level.

5.41 Rethinking higher education. The higher education system in Indonesia has grown rapidly during the last 20 years. Total enrollment expanded rapidly in the 1970-89 interval, raising the proportion of the age group in tertiary institutions from 1% to 9%. This enrollment rate is comparable to that in South Korea, Singapore, and Thailand in the late 1970s. Enrollment grew especially quickly in the public universities between the early 1970s and mid 1980s before tapering off in the late 1980s. The number of public tertiary institutions rose from 40 to 48 during this period.12/ In 1989, 81% of the student body in public universities were enrolled in undergraduate programs, 18% were registered for various diploma courses, and a small proportion (1%; 12,858 students) were working towards postgraduate degrees.

5.42 With public enrollment growing more moderately after the mid-1980s, the number of private higher education students nearly tripled, with the number of privately-run institutions increasing by nearly a third to 914, during the mid and late 1980s. Private institutions accounted for 65% of total enrollment in 1989, up from roughly 50% in the early 1980s. Students are enrolled in either undergraduate or diploma courses (there are no private postgraduate programs). Growth of the private higher education sector seems likely to continue both in absolute and relative terms. The government expects future demand increases to be satisfied by private universities, and is providing various types of assistance.

5.43 This private-sector based higher education development path is reminiscent of Japan's postwar experience as well as recent trends in South Korea, Brazil and the Philippines (see Box 5.4).13/ One set of issues revolves around quality, which may be a casualty if cost-minimizing, fee-financed private schools economize on teaching costs, e.g., by hiring teachers with lower credentials, increasing teaching loads, or paying salaries lower than those in the public sector. This scenario seems to apply to Indonesia where there are various indications of quality weaknesses within large segments of the rapidly growing private sector. Unfortunately, many of the same quality-reducing factors seem to be present within the public university sector.

12/ "University" includes IKIPs (the teacher training colleges), institutes of technology, and polytechnics which are faculty-level units offering diploma programs in engineering and commercial subjects.

13/ See E. James, "Private Finance and Management of Education in Developing Countries: Major Policy and Research Issues," paper prepared for the International Institute of Educational Planning, 1991.

Box 5.4: HIGHER EDUCATION: A PUBLIC-PRIVATE DIVISION OF LABOR

In South Korea and several other countries, largely self-supporting private suppliers rather than financially and capacity-constrained public institutions have responded to rapidly rising demand and become the main providers of higher education services. Once the private sector is "unleashed", enrollment sometimes rises very quickly. In South Korea, the enrollment rate leaped from ten percent in 1979 to 16 percent in 1980 and 38 percent in 1989 following the government's decision to exercise fewer controls on admissions, establishing new universities, and so forth. For example, private universities account for 78 percent of enrollment in Japan, 80 percent in the Philippines, 66 percent in South Korea and 60 percent in Brazil and Colombia. In these countries, an established or in some cases, an emerging division of labor between private and public institutions is discernible. In this paradigm, a large private sector meets the large increase in demand for higher education by concentrating on teaching undergraduates rather than on graduate training or research, which become the responsibility of public universities. Undergraduate education attracts private suppliers because it is a relatively low-cost product with large private benefits for which individuals are willing to pay. On the other hand, graduate education and basic research are more costly; their benefits are not readily captured by individuals or firms, and hence are less conducive to fee financing and private provision. For similar reasons, private universities usually emphasize fields such as management or social science which can be taught in large classes with low capital requirements, rather than clinical or laboratory sciences whose high costs cannot be recouped through tuition. As with graduate training and research, public universities in this paradigm focus on important but risky and costly special fields which have potentially large spillover benefits for society.

5.44 Another set of issues centers on equity. Public involvement in higher education is often defended on equity grounds. Since self-supporting private institutions cannot absorb extensive fee reductions, subsidized public universities are expected to provide access to low-income individuals who otherwise could not afford high tuition and other charges. Such appears to be the case in Indonesia where a negligible share of private university students get some sort of scholarship. At the same time, the public system in Indonesia has a mixed record on equity grounds. The enrollment share (37%) for women exceeds that in South Korea and Japan. But the share of students getting loans fell due to the termination of the government's student loan scheme, because of extensive default. However, the number of students getting scholarships (including from private sources) increased substantially. Overall the share of students getting scholarships and loans increased slightly from 14% in 1984 to 15-20% in 1990. MOEC information on student backgrounds provides further corroboration. Most public university students are drawn from urban, white collar families with a very high public service representation.14/ Finally, the equity issue has a regional dimension in that public universities outside Java have higher student/staff ratios, fewer books, laboratories, and classrooms and take longer to graduate students.

5.45 It is not surprising that private universities may be found wanting on quality and equity grounds. Indeed, the emergence of institutions providing various levels of service quality would be an expected and desirable outcome, provided consumers are able to make informed choices. To date

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14/ In 1990, 43 percent of students listed military (9 percent) or civil service (34 percent) for parental occupation, while 3 percent put farming, fishing and labor. When those with retired parents are excluded, the public service share rises to 50 percent.

though, the public university sector has not been able to complement various private system characteristics, e.g., by providing higher quality products and pursuing redistributive aims more aggressively. For the most part, the higher education budget continues to support the same relatively low quality undergraduate training, catering to students from upper and middle income backgrounds, that is provided in the private system. In the public system, there are few incentives and resources aimed at raising quality.

5.46 The policy imperative is to arrive at an appropriate public role in a setting of rapidly growing private university enrollment. Here an important recent measure was the 1990 decree granting autonomy to public universities in financial, academic and institutional matters.15/ Financial autonomy gives universities greater discretion in charging for services and allows them to retain income from tuition and fees, research, consultancies and gifts, thus reducing their dependence on central government funding. Academic autonomy permits public universities to offer study programs based upon their own perceptions of priorities and demand. Institutional autonomy enables them to alter inherited organizational structures. Another important change is to allow universities to hire the full-time staff without giving them civil service status. This should permit institutions to compete with industry for highly skilled technicians, and to attract other staff with particularly needed skills.

5.47 Expanded autonomy should bring financial and other benefits to the public universities but will not itself ensure that they play a distinctive role as centers of excellence vis a vis private schools. Public institutions may simply respond to increased autonomy by behaving more like private universities. Accordingly, the government will need to follow-up the autonomy decree with other initiatives. One area that requires attention is the quality and efficiency of instruction, research and other activities in the public university sector. These institutions could offer high quality undergraduate instruction, to the best qualified students, and pursue graduate studies and research particularly in scientific and technical fields which private universities find too costly or risky to enter. Appropriate incentives and resources will need to be put into place to achieve this: teachers' qualifications will need to be upgraded; the utilization of facilities will need to be strengthened; and higher level personnel will need training in management skills. One option involves the accreditation of public universities that must occur routinely under the new education law. Such a review process could be used to bring about major changes in the focus and performance of the public system. Another option is to develop a mechanism through which public universities could compete with each other and with private universities for core grants and research funds aimed at supporting work of national importance.

15/ The 1990 Education Law was preceded by other policy actions including a 1986 doubling of fees for incoming university students, awarding overseas fellowships for university teachers, initiating domestic postgraduate education, developing a mandatory upgrading seminar for university teachers, and introducing functional pay allowances and training programs for university administrators.

5.48 The new education law also needs to be complemented by renewed efforts to make access to higher education more equitable. The enrollment share of those from low income backgrounds can be strengthened by increasing the percentage of students benefiting from scholarships and loans. To reverse this trend, scholarship and loan programs need to become central elements in higher education policy. The average size of scholarships and loans should be linked to tuition, with only eligible students gaining access to grants and subsidized loans. Scholarships should be based on financial need and academic ability--those with the greatest financial need and high academic potential should get scholarships, with other deserving students getting loans on favorable terms. Fully self-financing loans could be made available to those with no demonstrated economic need. To control default, the government should experiment with income contingent loan repayment terms in which initial obligations are considerably smaller than subsequent amounts. Indonesia's past experience with student loans indicates the program would need to be carefully designed and implemented. Nevertheless, programs based on sound principles have been successfully implemented in several other countries.16/

5.49 Finally, the government needs to develop a systematic approach towards the private university sector reflecting its achievements and potential, current constraints on performance, and the utility of different policy instruments. In this regard, there are a number of issues worth exploring. For instance, many private institutions have remained at the lowest level of accreditation. Is this a socially acceptable outcome, considering the different tastes for quality in the market and the varying objectives of private universities? Does the current accreditation process provide effective ways of inducing schools to improve in quality and/or to reach poorer students? What alternative measures e.g., grants, loans and other inducements as well as taxes, quality and quantity regulations, might be employed? Another topic relates to how effectively resources, public and private, are being used in the private sector. For example, how well have seconded teachers performed in private universities? To what extent are private university activities limited by scarcities of investment and operational funds? Have loans from public or private banks been helpful and should such a practice be encouraged?

D. Intersectoral Themes

5.50 Key challenges and priorities in individual sectors were reviewed in Section C above. This section highlights five recurrent themes which cut across the sectors in shaping the future human development agenda: (a) better targeting; (b) raising quality; (c) improving staff commitment, accountability and initiative; (d) expanded local authority and control; and (e) closer partnership with the private sector.

5.51 Targeting. Redoubled efforts need to be made to deliver basic health and educational benefits to subgroups that were not effectively reached by the

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16/ D. Albrecht and A. Ziderman, "Deferred Cost Recovery: Student Loan Programs in Developing Countries." The World Bank, September 1991.

uniform delivery strategies developed in the 1970s and 1980s and lack the wherewithal to purchase services in the market. Examples include coastal villages in South Sulawesi (lagging contraceptive adoption), Merauke kabupaten in Irian Jaya (high maternal mortality risks), rural NTB (low primary school enrollment) and Flores district in NTT (high incidence of goiter)--there appears to be substantial overlap between groups and regions defined according to different risk categories. Resource constraints provide further justification for sharpening the focus of program design and implementation. However, targeting in the sense of differentiating and prioritizing "markets" and refining delivery strategies is appropriate even when programs are well funded, as is the case with BKKBN.

5.52 To be effective, targeted designs need to be pilot-tested, and should be based on careful mapping of those at risk, taking account of income and health and/or educational indicators. In addition, competent surveillance and analysis of program utilization and impact indicators are critical for gauging outcomes and adjusting delivery strategies if necessary. Staff selection, training, pay and other conditions of employment (including special grants and subsidies) need to be adjusted to ensure that field workers are sufficiently well-equipped and motivated to reach the most vulnerable.

5.53 Raising quality. A related policy consideration deserving attention is service quality. Poor quality of service inputs including the activities of field staff (e.g., teachers, midwives, etc.) is a concern across sectors. Adverse quality is reflected in high program drop-out and discontinuation rates, disappointing test scores and other output indicators. Experience suggests that quality improvement will demand a high level of senior management and organizational commitment. Concern for quality must be incorporated at the design phase and retained during program implementation. The specific elements needed to produce quality vary from sector to sector. They include, at least, attention to clients' preferences and needs; development of useful interaction with "customers" and effective work routines; local recruitment of field staff; appropriate staff training, supervision and incentives; use of mass media in a supporting capacity; and flexibility to alter program activities as needed to achieve desired results.

5.54 Improving staff commitment. Improvements in service delivery will require more effective performance of field activities by staff. There are many challenges entailed in working in poor, largely rural settings. Education and health staff must master new, technically demanding fields. And they must also learn to cope with jobs that have multiple tasks and responsibilities and limited material and operational support. To be successful, they need communication and interpersonal skills, and must be adaptive and entrepreneurial, and capable of exercising personal initiative and judgement effectively. The people-oriented organizations in which they work need to evolve means of fostering staff commitment, initiative and accountability and evaluating performance in roles that are usually open-ended.

5.55 Effective fieldwork requires continuing staff development, professional but informal relations between workers and supervisors, and reliance on teamwork and peer interaction. It needs to be recognized that the necessary organizational learning-by-doing is being stymied by existing civil service procedures and conditions of service, including compensation and

promotion opportunities. Current rules and arrangements need a thoroughgoing review with a view to creating well motivated, adequately paid corps of public health and educational professionals. The government may want to consider placing teachers and health workers under separate public service bodies that would be delinked from the civil service. In this connection, job-analysis is being used in different ministries to map out skill needs and staff capacities and training requirements. This approach provides a good entry point to civil service reform, but needs to take place within a critical review of the functions and activities of work units and agencies as a whole. Without such a broader review taking place, micro job analysis could formalize existing rigidities and inefficiencies rather than lead to efficient new structures and practices.

5.56 Expanded local authority and control. Appropriate steps need to be taken to enhance program design and implementation authority and capacities at the provincial level and below. Such a transfer of responsibilities and tasks is needed to heighten involvement and accountability of field staff, to call forth innovative departures from conventional delivery strategies, to increase flexibility and responsiveness to identified local needs and target groups, to ensure that planning and budgeting are at once comprehensive and locally grounded, and to assist resource mobilization efforts. This reconfiguration of functions does not imply a less significant role for central units, which would give up direct service delivery responsibilities, but would retain important technical support, overview, policy analysis and program evaluation responsibilities. Experience with this process in the health sector in East Kalimantan and NTB has been very encouraging. Provincial staff have taken responsibility not only for preparing preliminary plans and budgets, but for negotiating and finalizing expenditure proposals in direct discussion with BAPPENAS and the Ministry of Finance in Jakarta. Planning and budgeting are now proceeding in an integrated framework, while more transparent accounting and monitoring procedures are being used. Meanwhile, the system of dual authority is evolving. Most implementation and management functions and responsibilities have been transferred to the regional government office, and central staff assigned to the regions have become more involved with technical planning, supervision and monitoring. Other changes have taken place and are planned--developments in these provinces need to be watched carefully and replicated if effective.

5.57 One potentially useful mechanism are the Provincial Food and Nutrition Boards which served to engender coordinated, cross-sectoral responses to food shortages in the 1970s. Lately, these entities have not been used to correct food and nutrition imbalances, possibly because they lack a specified place (and budget) in the existing bureaucracy. One possible reaction involves transferring their coordination functions to the provincial planning agency, BAPPEDA, and reconstituting the Provincial Boards to include representatives of private providers, NGOs and private citizens. Initially these hybrid institutions could exercise broad oversight and review functions, with a more extensive transfer of responsibilities occurring later on.

5.58 Fostering and guiding private sector activities. The policy agenda now includes creating an appropriate enabling environment for private provision of services and upholding the public interest in sectors that already have considerable private activity. In this regard, policy needs differ by sector. In the health and family planning arena, the challenge is

to develop means of fostering and upgrading private service provision. This can be done, for example, through assessing health insurance initiatives and increased user fees in public facilities. Other efforts are needed to ascertain whether private health providers can supplement or even replace the puskesmas-based health care network. In this connection, the government's recent decision to hire new doctors on a contractual basis, rather than as civil servants, provides an interesting opportunity. Here, the "franchise" doctor program that is being established in Mexico and the Dominican Republic deserves some attention. In this approach, health departments contract with NGOs to set up and operate health centers in remote and/or poor settings. NGOs hire, train and arrange assignments for private practitioners and provide furniture and equipment on a loan basis. Doctors are expected to repay loans after two years based on estimated income from fees for various services.17/

5.59 Policy development is also needed for the rapidly growing private education and training sector. Private secondary schools and universities have responded to rapid increases in demand from the hundreds of thousands of students who could not be accommodated in the constrained public sector, while private vocational training institutes have reacted to labor and product market signals. The ensuing large increase in enrollment showed how adaptive and resourceful private suppliers can be. This responsiveness is recognized in REPELITA V which assigns a key role in the expansion of tertiary and vocational enrollment to the private sector.

5.60 Of course, this transfer of major human resource responsibilities to private suppliers cannot be unconditional. The Government retains critical obligations such as promoting equity, sponsoring activities with large spillover effects or of long gestation, and ensuring that consumers know enough to make informed choices. For these reasons, policymakers will need to assess public goals and possible trade-offs in connection with a growing private provider role, and to identify instruments that can be used to shape sectoral trends. Such an exercise cannot take place instantaneously. It would need to reflect a careful review of experience, including results of pilot efforts that have been and could be initiated in several areas. Such a stocktaking effort might consider some of the following questions: How do public and private schools and training programs compare as regards efficiency, quality and equity effects? What measures can be employed to influence and regulate private supplier activities? Are there ways to influence levels of service quality? How can low income students gain access to a private system? What eligibility criteria should be set for use of public funds? What kinds of information should be made available to potential consumers of private sector services? Should special grant or loan funds be made available to private schools and their students, and if so, how can appropriate spending be ensured and/or default risks minimized? What other public services should be provided to private institutions and at what price? More generally, what is the appropriate role for public funds in a mixed public-private system?

17/ See The Enterprise Program, John Snow, Inc. in collaboration with Birch and Davis International, Inc., Coverdale Organization, Inc., and John Short and Associates, Inc., Community Doctors Handbook, funded by the US Agency for International Development, October 1991.

5.61 Supporting institutional changes. The policy agenda set out in this chapter is a major challenge. It involves improved targeting and levels of service quality, in traditional areas of public responsibility, as well as new enabling, catalytic and regulatory functions vis a vis the private sector. Action on this agenda will require various facilitating institutional and procedural changes including: reforms in the conditions of public employment, including possibly the creation of separate oversight bodies for teachers and health and family planning workers; reform of budgetary practices, and the devolution of planning and implementation authority and responsibility to the provinces; and recasting the responsibilities of Central line ministry staff including those working at the provincial level.

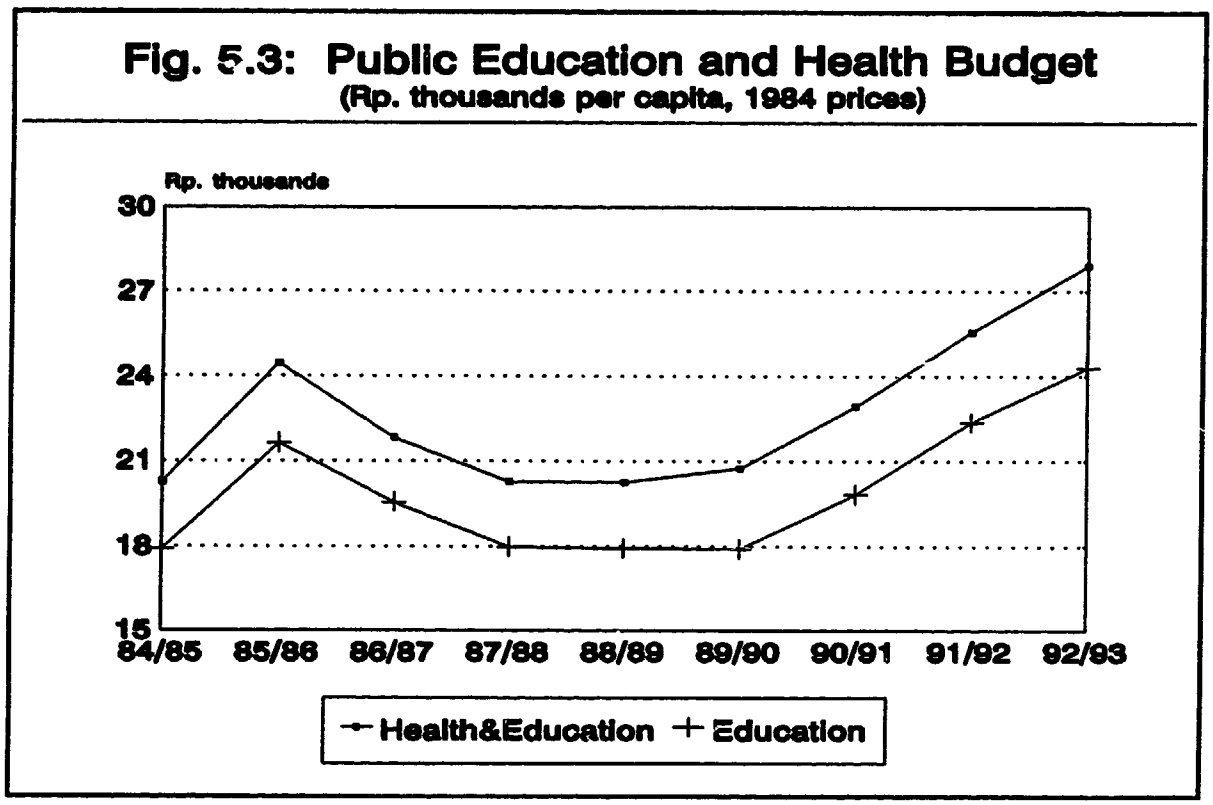
5.62 In addition, clarification is needed of the roles of core and line ministries in defining the agenda and formulating policies in respect of sectoral and emerging cross-sectoral issues (e.g., pollution, resource conservation, training and research in areas of national importance) matters. Second, closer cooperation needs to be engendered between the Central Bureau of Statistics and other data collection agencies and existing and potential information users in the line ministries. Third, greater public discussion of human resource development issues needs to be fostered.

E. Financing Human Resource Development

5.63 The recommendations offered in this chapter carry numerous implications for human resource spending, some for the short run but most of a medium-term nature. Increased government allocations need to be directed towards basic health and education to ensure adequate funds to sustain operations at required levels of effectiveness. This need is illustrated by shortages of health center staff and drugs mentioned above, and by the lack of teaching materials in many primary schools. Resources are also needed to heighten the impact of health and education services through careful targeting, follow-up and various quality enhancing measures. Finally, increased outlays will be required to finance the recommended expansion of publicly-sponsored junior secondary education.

5.64 The scale of the funding increases that are implied cannot be stated definitively. However, a rough idea of what is entailed emerges when Indonesian spending is compared to sectoral outlays in other East Asian countries. In the mid and late 1980s, real per capita government spending on health and education declined, reflecting the slowdown in the primary school building program as universal enrollment was approached, the freeze in civil service salaries over the 1986-1989 period, and the overall austerity in the Budget during the adjustment period (see Figure 5.3). Subsequently, real per capita expenditures have risen significantly, reflecting the priority attached to these sectors by the Government. In a broad sense, these trends have moved Indonesia closer to the real spending levels in countries like Thailand and Malaysia. However, further increases are likely to be needed. Other countries typically spend a much higher proportion of GDP on the health

sector.18/ A similar challenge obtains in education. As a share of GDP, Indonesian education outlays (3.1% in 1992/93) are well below levels attained in the late 1980s in Thailand (4%), Taiwan (4.5%) and Malaysia (6.3%).



5.65 However, human resource spending increases will need to proceed in phases. The actual pace and focus of incremental outlays should be determined through the close monitoring, evaluation and, if necessary, recalibration of a host of experimental initiatives. Examples of the "learning by doing" exercises recommended above include operational experiments to: foster private provision of health and family planning services; allow local authorities to adjust the mix of health staff skills and activities; evaluate different means of channeling resources and enhancing instruction in primary and secondary schools; provide public funds to private secondary, higher education and training institutions which satisfy specified criteria; establish smaller, less staff intensive public secondary schools in targeted areas; explore the effectiveness of levy-grant training funds; use accreditation procedures and competition for funds to improve public university quality and performance; and make scholarships and loans available to needy students and test the impact of income contingent loan repayment terms. Assessment of these efforts should help establish what program designs and levels of service quality are effective in benefiting target clients. The

18/ Charles Griffin, Health Sector Financing in Asia, Asia Regional Series, The World Bank, August 1990.

reality-tested delivery strategies that are determined in this fashion should be given first "call" on public funds.

5.66 Meanwhile, persistent resource constraints and high intrinsic costs of operating primary health and education programs make it essential that new financing and revenue raising approaches be explored. For instance, largely self-financing health insurance schemes need to be developed for those above the poverty line.19/ Such arrangements may stimulate private investment in hospitals, allowing the government to reduce its outlays on curative care. But to be effective, health insurance schemes would need to be part of a financing and restructuring package that would also include increased service charges in public hospitals and other facilities, and reductions in less essential outlays. Recently, East Kalimantan and NTB decided to raise prices on specific services in selected districts. This initiative was based on a careful review of service costs, ability to pay and price responsiveness in the catchment areas, and provision for subsidizing poor households. Analogous revenue raising, expenditure adjustment and scholarship packages need to come forward in the public higher education and training sectors. The new university autonomy law is a hopeful development in this respect, as is the Presidential decree on self-financing institutions (Lembaga Swadana). Such initiatives should help in generating needed resources, thereby allowing various targeted, quality-enhancing experimental programs to proceed on a wider scale in individual sectors.

19/ See Indonesia: Health Insurance Issues in the 1990s, Report No.9999-IND, World Bank, January 1992.

RECENT ECONOMIC DEVELOPMENTS

Economic Activity

1. Indonesia's GDP growth slowed slightly from 7.4% in 1990 to just under 7% in 1991 (see Table 1). The slowdown resulted from lower non-oil GDP growth (from 7.8% to 6.5%), due partly to stagnant agricultural output caused by poor weather. Growth in manufacturing and services also slowed but was still strong. A strong expansion of the oil sector largely offset the slowing non-oil GDP growth.

Table 1: GROWTH IN SECTORAL VALUE ADDED, 1975-1991 /a
(% p.a. at 1983 prices)

	Average 1975-83	Average 1983-87	1988	1989	1990	1991	Sector Shares in 1991 (% of GDP)
Oil/LNG Sectors	2.2	2.8	-0.6	4.1	5.4	8.1	18.6
Oil & gas	0.3	0.2	-3.5	4.8	4.2	8.8	14.2
LNG & refined oil	14.9	16.9	9.7	2.2	9.7	6.2	4.4
Non-Oil Sectors	7.0	5.7	7.4	8.2	7.8	6.5	81.4
Agriculture	3.5	3.3	4.9	3.1	2.5	0.9	18.4
Mining	6.8	3.4	4.8	6.0	14.6	9.8	1.3
Manufacturing	10.6	12.0	12.8	11.6	13.0	11.4	15.5
Construction	10.8	1.1	9.5	11.8	13.6	11.5	6.0
Other services	8.6	6.1	7.0	9.3	7.6	6.6	40.2
Gross Domestic Product (GDP)	6.5	5.0	5.8	7.4	7.3	6.8	100.0

/a In 1989, CBS released new GDP estimates for the years 1983-1988. The series prior to 1983 has not been revised, however, so the average growth rate for 1975-83 is derived using the 1983 production level from the old series, which is at constant 1973 prices.

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

2. Oil/LNG output grew faster than any year since 1984. The growth was concentrated in primary production of oil and in LNG. The lifting of OPEC quotas in August 1990 led to rapid exploitation of new oil fields beginning in the first quarter of 1991, with output up by nearly 9%. Additional short-term contracts led to greater capacity utilization of a new LNG train inaugurated in 1990 in East Kalimantan, increasing LNG production by 10%. Constrained capacity meant that refinery oil output could only increase by only about half

the rate of domestic demand for refined products, necessitating increased imports. Output of natural gas continued to rise.

3. Non-oil growth declined from nearly 8% in 1990 to 6.5% in 1991. The slowest growth was in agriculture, where drought in most parts of the country caused rice production to fall by over 2% and corn by nearly 5%. This was the second poor rice harvest in a row (production was up only 1% in 1990), although heavy rainfall in late 1991 indicates that the 1992 crop is likely to rebound. Production declines for rice and corn were due entirely to reduced area planted, since rice yields actually increased by about 1.5% and corn yields maintained their 1990 level. Because of the dry conditions, farmers tended to plant more area in soybeans, sweet potatoes, and peanuts. Soybean output was up by 4% and cassava by 3%.

4. The overall decline in food crop output was cushioned by the robust performance of estate crops (both smallholder- and plantation-grown), which are less sensitive to annual fluctuations in rainfall. Partially in response to a promise of artificially high farmgate prices from a new marketing monopoly, clove farmers increased production by 17%, at a time when stocks were already excessively high. Pepper production was up by 20%, albeit from a small base. Past heavy investments in oil palm plantations and processing facilities came on line, increasing production of palm oil by 13% and palm kernels by more than 25%. Rubber and copra output--which come mostly from smallholders and together make up nearly half of total estate crop GDP--continued growing at their recent trend of about 3.0-3.5%. Cocoa has emerged as a very profitable crop in Indonesia. In 1991, production slowed from its rapid pace of earlier years, but it still reached about 8%. By contrast, coffee output declined by 6%, as world market preferences continued to shift toward *arabica* varieties rather than the *robusta* beans that dominate Indonesian production. Sugar production was unchanged for the year.

5. GDP from the livestock subsector grew by about 3.5%. Growth in the sector was constrained by high interest rates, that reduced the amount of investment in the poultry sector, below expectations built up following the recent deregulation. The cost of soybean meals--an important component of animal feed--also increased, due to the imposition of a 35% import tariff surcharge. Fisheries output grew by about 2%. Preliminary data indicate that output in the forestry sector may have fallen.

6. The manufacturing sector was once again a main engine of growth in the non-oil economy. Production was up over 11%, and the sector contributed almost one-quarter of total GDP growth. Output growth was highest in footwear, textiles, plywood, and paper. Much of this growth was due to past investment, although investment in these subsectors remained strong in 1991 (as evidenced by imports of related machinery), even in the face of high interest rates.

7. The construction sector grew at about 12%, down only slightly from 14% in the previous year. As with the previous year, there was strong growth both in commercial property development and road building. Growth in value added from other services was somewhat slower than the previous year at about 6.5%.

8. Income and expenditure. Gross National Income (GNI) rose less than GNP due to the terms of trade effect of lower commodity prices--especially oil, whose price declined steeply after resolution of the Gulf Crisis. Total consumption growth fell from about 7.5% to 5.2%. Private consumption growth declined even more, as reflected in lower consumer credit growth for the year. Government consumption growth actually rose, as civil servant salaries were raised. Tight monetary policy contributed to a substantial decline in the growth rate for private sector investment, toward a more sustainable level. Public sector investment growth was largely unchanged, maintained by strong resource mobilization efforts and official aid flows. Total fixed investment growth was a respectable 10.7%, though well below the 1990 rate of nearly 20%.

Table 2: INCOME AND EXPENDITURE, 1975-1991
(at 1983 prices)

	Growth rates (% p.a.)						1991
	Average 1975-83 /a	Average 1983-87	1988	1989	1990	1991 /c	Share in GDP(%)
Consumption	8.9	4.0	4.4	5.7	7.5	5.2	68.1
- Public	8.5	1.7	2.7	6.7	6.9	7.2	8.8
- Private	11.9	4.4	4.6	5.5	7.6	4.9	59.3
Fixed investment	10.7 /b	-3.7	10.3	13.4	19.7	10.7	22.6
- Public	12.6 /b	-9.3	11.8	12.1	11.9	11.2	8.0
- Private	9.1 /b	0.7	9.4	14.2	24.4	10.4	14.6
GDP	6.5	5.0	5.8	7.4	7.3	6.8	100.0
GNP	6.4	5.5	6.0	7.5	7.2	7.0	96.8
GNY	8.5	3.4	6.3	7.8	8.5	5.6	89.6

/a 1975-83 average is at 1973 prices.
/b 1978-82 only, and at 1983 prices.
/c Preliminary.

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

Balance of Payments

9. The current account deficit widened considerably during 1991/92 (see Table 3). The non-oil current account deficit narrowed slightly as an improvement in the non-oil trade balance was offset by a rise in interest payments due to higher borrowing by the private sector. The chief reason for the wider current account deficit was the significant decline in the oil/LNG current account surplus, from US$6.0 billion in 1990/91 to US$4.6 billion in 1991/92, due to lower oil prices. Although total financing in 1991/92 was adequate to cover both the higher current account deficit and allow a prudent rise in reserves, the amount of private capital inflows that made this

Table 3: BALANCE OF PAYMENTS, 1986/87-1991/92
(US$ billion at current prices)

	Actual					Estimated
	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Merchandise exports (fob)	13.7	18.3	19.8	23.6	28.0	29.4
Oil & LNG	7.0	8.8	7.6	9.3	12.6	10.6
Non-oil	6.7	9.5	12.2	14.3	15.4	18.8
Merchandise imports (cif)	-12.8	-14.9	-16.2	-19.4	-25.6	-28.1
Oil & LNG	-2.4	-3.1	-2.6	-3.1	-4.0	-3.9
Non-oil	-10.4	-11.8	-13.6	-16.3	-21.5	-24.2
Trade balance	0.9	3.4	3.6	4.2	2.4	1.3
Non-factor services (net)	-1 5	-1.2	-1.2	-1.2	-0.7	-0.5
Interest payments (MLT)	-2.5	-2.7	-3.0	-3.2	-3.2	-3.6
Other factor services and transfers (net)	-1.2	-1.3	-1.2	-1.4	-2.2	-1.7
Current account balance	-4.3	-1.8	-1.8	-1.6	-3.7	-4.5
Oil/LNG current account	2.6	3.7	3.1	4.0	6.0	4.6
Non-oil current account	-6.9	-5.5	-4.9	-5.6	-9.7	-9.1
Public MLT loans (net)	2.2	1.8	3.3	1.4	0.7	1.6
Disbursements	5.0	6.0	7.4	6.1	5.1	6.2
Official assistance	2.3	3.4	4.4	3.8	3.8	3.9
Import-related credits	1.1	1.1	1.0	0.6	0.8	0.8
Commercial credits	1.4	0.9	1.3	1.2	0.1	0.3
State enterprises	0.2	0.6	0.7	0.5	0.4	1.2
Principal repayments /a	-2.8	-4.2	-4.1	-4.7	-4.4	-4.6
Other capital (net)	-0.4	0.9	-1.8	0.0	5.9	4.3
Use of net foreign assets	2.5	-0.9	0.3	0.2	-2.9	-1.4
Use of official reserves	0.7	-1.0	0.6	-0.2	-3.6	-1.3
Use of comm. bank reserves	1.8	0.1	-0.3	0.4	0.7	-0.1
Memo items:						
Net official reserves (US$ bln.)/b	5.0	6.0	5.4	5.6	9.2	10.5
- Months of imports /c	(4.1)	(4.4)	(3.3)	(2.6)	(3.9)	(4.1)
Total net foreign assets (US$ bln.)	10.0	10.9 /d	10.6	10.4	13.3	14.7
Current account/GNP (%)	-5.9	-2.5	-2.2	-1.7	-3.8	-4.3
Non-interest current account balance (% of GDP)	-1.7	2.0	2.2	2.5	0.3	0.1
MLT debt service/exports (%) /e	39.7	34.8	34.4	32.3	27.8	30.1

/a Includes prepayments of US$626 million in 1987/88, US$341 million in 1988/89 and US$300 million in 1989/90.
/b Net official reserves are defined as gross official reserves minus outstanding liabilities to the IMF and other short term liabilities.
/c Net official reserves in months of next year's expected imports (oil/LNG and non-oil) of goods.
/d Excludes US$326 million of prepayments, committed during the year but not completed until June 1988.
/e Debt service on public and private debt, excluding prepayments; denominator is gross exports of goods and services.

Source: Bank Indonesia and World Bank staff estimates.

possible is not sustainable over the medium term because it implies an excessively rapid increase in the debt stock and debt service payments. As a result of the high capital inflows in 1991/92, official reserves rose to US$10.5 billion, about 4 months of next year's expected imports.

10. Exports. Crude oil prices fell to an average of US$18/barrel in 1991/92, compared to US$23/barrel in 1990/91. With production unrestrained by OPEC quota restrictions until late in the year (February 1992), Indonesia was able to increase its oil export volume (including refined products) by 4% to about 382 million barrels in 1991/92. However, lower prices offset higher export volume and nominal oil export revenues fell by 17% to US$6.9 billion for the fiscal year. Despite volume gains, export revenues from LNG and LPG also fell by 12% to US$3.8 billion.

11. Non-oil export receipts increased by US$3.4 billion in nominal terms, from US$15.4 billion in 1990/91 to an estimated US$18.8 billion in 1991/92. This growth was possible despite a 4% fall in non-oil terms of trade. Significant growth in the manufacturing sector contributed more than 80% of the increase in non-oil export revenues. Within manufacturing, textiles contributed more than half of the increase or about US$1.3 billion. Textile export volumes grew by 37.5%, based on an increased penetration of non-quota markets. Plywood exports grew by about US$100 million or 15% in real terms. Export revenues from the diversified group of commodities that compose the "other" manufacturing category are estimated to have doubled from US$2.5 billion in 1989/90 to a little over US$5.0 billion in 1991/92. This reflects the rapid expansion of investment in manufacturing sector during the last two years. Commodities which grew more than 75% over the last six years include ceramics, plastics, footwear, furniture and basic metal products.

Table 4: NON-OIL MERCHANDISE EXPORTS, 1983/84-1991/92

	Value at current prices (US$ million)				Growth in value (%)	Growth in volume terms (% p.a.)		
	Actual			Estimate	1991/92	1983/84-	1990/91	1991/92
	1983/84	1989/90	1990/91	1991/92	(est)	1989/90		(est.)
Agricultural commodities	3,095	4,506	4,505	4,955	10.0	5.0	0.8	15.6
Timber products	582	1,024	659	832	26.3	-4.0	-44.0	34.6
Rubber	984	952	902	932	3.3	1.0	2.2	7.5
Coffee	506	448	366	362	-1.1	4.8	4.6	-1.0
Palm oil	92	279	282	349	23.8	22.5	15.6	2.3
Tea	156	176	154	145	-5.8	5.2	-2.6	0.9
Shrimp	206	513	721	820	13.7	19.9	-3.8	81.0
Rattan	87	0	0	0	-	-100.0	-	-
Others	483	1,114	1,421	1,515	6.6	9.7	19.1	0.2
Minerals & metals	800	1,543	1,403	1,647	17.4	7.5	-7.3	28.5
Tin	309	208	147	142	-3.4	1.1	-0.8	14.0
Gold	-	218	67	140	109.0	-	-69.8	105.0
Aluminum	165	267	202	166	-17.7	6.2	-21.7	0.0
Copper	89	321	447	559	25.1	10.1	39.9	49.7
Nickel (total)	170	373	289	304	5.2	-6.0	5.1	5.0
Others	67	156	251	336	33.5	13.8	45.4	40.7
Manufactured goods	1,484	8,245	9,472	12,171	28.5	27.8	7.2	29.7
Textiles	365	2,421	3,080	4,318	40.2	31.5	20.4	37.5
Plywood/panel products	579	2,430	2,764	2,868	3.8	21.1	5.9	15.1
Others	540	2,394	3,628	4,985	37.4	31.2	-1.0	33.6
Total non-oil exports	5,379	14,294	15,380	18,772	22.1	14.1	3.4	24.8

Source: Bank Indonesia and World Bank staff estimates.

Table 5: MAJOR ITEMS WITHIN "OTHER" MANUFACTURED EXPORTS, 1985/86-1991/92
(US$ million at current prices)

Products	Actual 1985/ 1986	1986/ 1987	1987/ 1988	1988/ 1989	1989/ 1990	1990/ 1991	Estimate 1991/ 1992	Average Annual Growth Rate % (p.a.)
Footwear	7.0	12.4	31.4	69.3	291.3	687.5	985.7	128.2
Ceramics	0.4	2.1	5.8	11.9	30.3	29.6	46.8	123.0
Plastics	2.0	16.7	31.0	44.9	88.6	112.7	123.5	99.4
Furniture	7.6	11.0	36.1	56.9	193.0	294.2	343.0	88.8
Oth. articles of basic metal	3.5	10.3	25.9	45.3	86.1	91.3	79.3	68.2
Glass & its products	9.2	14.2	44.0	76.0	97.0	97.1	135.7	56.5
Paper & its products	21.0	40.5	113.1	107.2	167.0	165.5	300.4	55.8
Goods not elsewhere specified	136.9	91.8	299.4	742.0	720.0	436.2	1639.4	51.3
Iron/steel	49.6	81.2	220.1	240.1	465.5	280.6	402.0	41.8
Processed food	59.6	86.9	113.8	112.3	244.7	321.4	409.2	37.9
Matting	14.7	24.9	58.6	54.6	44.5	44.4	768.7	33.3
Fertilizer	94.1	105.7	105.5	112.3	164.4	214.5	321.6	22.7
Electrical appl.	152.7	63.8	65.1	83.7	214.1	291.1	442.4	19.4
Essential oils & perfume	52.8	39.1	39.7	30.4	104.4	126.4	142.8	18.0
Cement	22.2	46.4	58.6	59.6	130.4	68.6	58.0	17.4
Chemical products	62.1	50.9	70.1	58.9	119.2	113.3	152.1	16.1
Leather & its products	37.5	44.6	63.7	58.4	87.0	85.2	82.3	14.0
Pharmaceutical products	6.3	8.2	9.1	13.7	9.2	8.8	12.9	12.6
Animal feed	93.8	96.7	118.3	120.4	137.0	159.4	128.1	5.3
Total	833	847	1,509	2,098	3,394	3,628	4,985	35

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

12. Agricultural exports increased by 15.6% or about US$600 million in 1991/92, with strong performance in timber products and shrimp offsetting slower growth of tea and a decline in coffee. Timber products, excluding sawnwood, started to expand after decelerating in the previous year due to a combination of strong prices and volumes. Shrimp exports doubled in 1991/92 despite lower prices. Rubber export volumes increased by 7.5% and earnings rose slightly due to high world prices.

13. The value of metal and mineral exports increased 17.4% and volume by 28.5%. The declines in aluminum and slow growth in nickel were due to a weakening of world prices. Gold export values doubled and volumes increased by more than 100%.

14. Imports. The growth in imports markedly decelerated during the year. The total value of imports reached about US$28.1 billion in 1991/92, which was 10% higher than the level reached the previous year (see Table 3). Non-oil import growth also slowed, though not as sharply (see Table 6). Intermediate and capital good continue to comprise the bulk of non-oil imports. Capital good imports increased by 17.3%, with the main goods being machinery for textile and paper industries, electrical generating sets, and telecommunications apparatus. Growth of imports of intermediate goods declined to 9.8%, and included mostly raw materials for the textile industry (i.e, cotton), food industry (i.e, maize, wheat, other grains) and refined sugar. The decline in passenger vehicles was largely CKD kits and resulted from the slowdown in domestic production and car sales.

Table 6: NON-OIL MERCHANDISE IMPORTS, 1983/84-1991/92 /a

	Value at current prices (US$ billion)					Growth in current prices (% p.a.)		
	Actual				Estimate			
	1983/84	1987/88	1989/90	1990/91	1991/92	1983/84-1987/88	1989/90-1990/91	1990/91-1991/92
Capital goods	2.59	2.54	4.04	6.65	7.80	-0.5	64.5	17.3
Parts & accessories	2.20	2.23	2.57	3.82	4.23	4.0	48.7	10.7
Intermediate goods	8.39	6.36	8.88	10.13	11.12	-6.7	14.1	9.8
Passenger vehicles	0.14	0.16	0.24	0.36	0.21	2.8	53.7	-41.7
Consumer goods	0.85	0.41	0.48	0.59	0.74	-16.4	24.1	25.4
Goods /b	0.14	0.09	0.09	0.05	0.10	-9.3	-51.7	100.0
Total	14.30	11.80	16.30	21.60	24.20	-4.7	32.5	12.0

/a Disaggregation based on BPS import statistics, applied to BI estimated non-oil imports.
/b Goods not elsewhere specified.

Source: Central Bureau of Statistics, Bank Indonesia and World Bank Staff estimates.

15. Capital flows and debt. In aggregate, public MLT disbursements increased by US$1.1 billion to total US$6.2 billion. Disbursements of loans to public enterprises accounted for the bulk of the increase, rising by US$0.8 billion as a number of large PERTAMINA projects began implementation during the fiscal year. Repayment of principal rose by about US$0.2 billion. Therefore, net disbursements of public MLT were US$1.6 billion, a significant increase from the previous year. Inflows of private capital, including private non-guaranteed debt, direct foreign investment and short-term capital flows, remained high at US$4.3 billion, although these flows declined from their 1990/91 level. The total debt service ratio rose from 27.8% in 1990/91 to 30.1% in 1991/92, reflecting the decline in oil prices and higher service payments for private debt.

16. Disbursements of official loan assistance from the IGGI increased only slightly (about US$0.1 billion) in 1991/92, totaling about US$3.9 billion.1/ This reflects three factors: (i) higher commitments (US$4.8 billion) at the 1991 IGGI meeting; (ii) an improvement in the project disbursements ratio; and (iii) the significant portion of official assistance that was provided in the form of relatively fast-disbursing loans. These loans played an important role in maintaining disbursements of official assistance thereby financing the balance of payments and allowing the Government to push ahead with its program of structural reforms.

17. Import-related credits remained at about US$0.8 billion in 1991/92, reflecting the continuing need for substantial investments in infrastructure and the extensive use of export credits to finance these investments. Disbursements of untied commercial credits were US$0.3 billion in 1991/92, as the Government drew down an expiring line of credit. With the signing of a new line of credit in November 1991, the Government's undisbursed lines of commercial credits were maintained at about US$2.0 billion.

1/ Disbursements of grants (included in the current account) from the IGGI were roughly US$0.4 billion in 1991/92 -- the same as in 1990/91. Therefore, in aggregate, disbursements of total official assistance were about US$4.3 billion in 1991/92.

18. Other capital flows 2/ remained high during 1991/92. Direct foreign investment flows are estimated at about US$1.6 billion reflecting the surge in private investment activity particularly from foreign investors. Data on private non-guaranteed debt agreements between the Indonesian private sector and offshore financial institutions indicate that private debt increased by almost US$4 billion, but this was less than half the increase in 1990/91. Several factors contributed to this slowdown: (i) the Government's effort to contain domestic demand through monetary and fiscal policies; (ii) the formation of the Government's Commercial Offshore Loan Team and the resulting establishment of guidelines on private enterprise borrowing and restrictions on borrowings by banks; and (iii) the financial difficulties of one private company which had borrowed heavily in offshore markets. Higher public and private disbursements resulted in an increase in net official reserves from US$9.2 billion in 1990/91 to US$10.5 billion in 1991/92.

19. Indonesia's stock of public and private MLT external debt outstanding rose significantly, from US$57.2 billion at end 1990 to an estimated US$63.5 billion at end 1991. While this is a substantial increase, it is much smaller than the US$8.5 billion increase recorded in the previous year. The slower accumulation of debt reflects the Government's efforts to contain aggregate demand and manage debt in an orderly fashion. Public debt rose 8.8% to US$51.7 billion, including US$33 billion of assistance from the IGGI. Private non-guaranteed debt outstanding rose to US$11.8 billion at end-1991 from US$9.6 billion at end-1990. Total MLT debt payments were US$10 billion in 1991, an increase of US$1.4 billion over the 1990 level. Due to lower oil prices and higher service payments resulting from the surge in private borrowings, the debt service ratio rose from 27.8% in 1990 to 30.1% in 1991. As discussed in Chapter 2, the debt service ratio and other debt indicators are projected to decline over the medium term.

Fiscal Developments and Policies

Budgetary Developments in 1991/92

20. In support of policies to restrain domestic demand, fiscal policy was tightened during 1991/92. Net domestic expenditure declined from an estimated 1.7% of GDP in 1990/91 to about 0.8% of GDP (see Table 7). Compared to an overall deficit of about Rp.1.5 trillion (0.7% of GDP) implicit in the original budget for 1991/92, a small surplus was achieved. An important factor contributing to this outcome was a better-than-budgeted non-oil revenue performance; non-oil tax revenues exceeded the budget projection by about Rp.1.2 trillion.

21. Revenue developments. The stronger-than-projected performance of non-oil tax revenues reflected both the continuing efforts to improve tax administration and selective increases in luxury sales tax rates in December/January. The largest increase took place in income tax receipts--about 22%. The budget target for non-oil tax revenue would have been exceeded

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2/ As defined in Table 3, other capital flows are a residual item, including direct foreign investment, oil/LNG export credits, all private capital flows, valuation adjustments, and errors and omissions.

Table 7: CENTRAL GOVERNMENT BUDGET, 1988/89-1992/93
(Rp. trillion at current prices)

	1988/89	1989/90	1990/91	1991/92		1992/93
		Actual		Budget	Estimate	Budget
Revenues and grants	23.9	30.0	42.6	40.1	41.9	46.5
Oil/LNG	9.9	11.8	18.9	15.0	15.1	13.9
Non-oil taxes	11.9	15.4	20.7	22.3	23.5	28.9
Non-tax revenue	1.6	2.2	2.4	2.8	2.8	3.7
Grants	0.5	0.6	0.6	0.0	0.5	0.0
Current expenditures	16.8	19.8	24.0	24.8	25.1	26.8
External interest	4.3	4.5	4.8	5.2	5.3	5.8
Subsidies	1.0	1.5	4.0	1.4	1.6	0.2
Other	11.5	13.8	15.2	18.2	18.2	20.8
Government savings	7.1	10.2	18.6	15.4	16.8	19.7
Capital expenditures	10.6	11.6	14.0	16.9	16.7	19.5
Budget balance	-3.5	-1.4	4.6	-1.5	0.1	0.2
Financed by:						
External loans (net)	5.0	2.6	1.6	1.5	1.4	-0.2
Disbursements	11.5	10.2	9.2	10.4	9.8	9.6
- Project aid /a	(5.9)	(5.1)	(6.7)	(8.8)	(8.4)	(9.1)
- Other /b	(5.6)	(5.1)	(2.5)	(1.5)	(1.4)	(0.5)
Amortization	6.5	7.6	7.6	8.9	8.4	9.8
Asset drawdown	-1.5	-1.2	-6.2 /c	0.0	-1.5 /c	0.0
Memo items (as % of GDP)						
Revenues and grants	16.2	17.5	21.7	18.3	19.1	19.2
Non-oil taxes /d	10.0	11.2	13.0	12.5	13.2	14.4
Government savings	4.8	5.9	9.5	7.0	7.6	8.1
Budget balance	-2.4	-0.8	2.3	-0.7	0.0	0.1
Total expenditure	18.6	18.3	19.4	19.0	19.1	19.1
Net domestic expenditure /e	2.7	2.3	1.7	1.3	0.8	-0.5
Primary balance /f	0.6	1.9	4.8	1.7	2.5	2.5

/a Includes import-related credits.
/b Includes program loans, rupiah support and commercial borrowing.
/c Include Rp.2.0 trillion and Rp.1.5 trillion allocated to reserves in the development budget in 1990/91 and 1991/92, respectively.
/d As % of non-oil GDP.
/e Estimated domestic content of expenditure less non-oil revenues.
/f Budget balance net of external interest payments.

Source: Ministry of Finance and World Bank staff estimates.

by still more but for a shortfall in import duties of close to Rp.0.5 trillion. The shortfall reflected the substantial drop in import growth induced by the policies of demand restraint, a shift in the structure of imports toward capital and intermediate goods (which bear lower duties), as well as further tariff reforms implemented during the year. Total non-oil tax revenue increased by about 14%, compared to 8% in the budget. Non-tax revenues and oil/LNG revenues were broadly in line with the budget.

22. Expenditure developments. Total Central Government current expenditure increased by about 5% during 1991/92, broadly in line with the budget. Within the total, there were sharply divergent movements. Expenditure on subsidies declined from about Rp.4 trillion to Rp.1.6 trillion.

This was almost wholly on account of the oil subsidy, which fell from about Rp.3.4 trillion to Rp.1 trillion (or Rp.0.8 trillion if payments for arrears from previous years are excluded); this reduction reflected both the drop in world crude oil prices following the end of the Gulf crisis, and an average increase in domestic petroleum product prices of about 18% implemented in July 1991. The fertilizer subsidy also declined (from about Rp.665 billion to Rp.600 billion), but remained much higher than budgeted as the increase in fertilizer prices implemented in October 1991 was modest (5.7% on average). On the other hand, personnel-related spending, the largest component of current outlays, rose by about 16% due to a 15% increase in civil servant salaries implemented in July 1991.

23. Capital expenditure increased by about 20% in 1991/92, broadly in line with the budget target, making 1991/92 a second successive year of strong growth (the increase in 1990/91 was about 21%). Spending priorities were the strengthening of physical infrastructure to support private sector development, and the development of human resources, with particular emphasis on provision of basic social services to alleviate poverty. These two areas claimed about 45% and 20%, respectively, of the total development expenditure. Budgetary capital spending in 1991/92 included Rp.200 billion for state bank recapitalization. The strong increase in government capital spending has been supported by higher savings. In 1991/92, government savings appreciably exceeded the budget projection, contributing to a government asset build-up of about Rp.1.5 trillion notwithstanding the large increase in capital expenditure.

Budget for 1992/93

24. The policy stance reflected in the budget for 1992/93 seeks to strengthen the role of fiscal policy in restraining domestic demand, thereby achieving a better balance between fiscal and monetary policies while reducing the current account deficit and inflation. On the basis of stronger measures to increase non-oil revenues supported by expenditure restraint, the budget projects a decline in net domestic expenditure from an estimated 0.8% of GDP in 1991/92 to -0.5% of GDP in 1992/93. Although oil/LNG revenue are projected to drop appreciably, the budget provides for a small overall surplus.

25. Revenue policies. The 1992/93 budget reflects recognition of the need to mobilize non-oil revenues to offset the expected fall in oil revenue. In preparing the budget, the Government adopted a conservative oil price assumption of US$17/bbl but more recent developments suggest that the price could be still lower (the current World Bank projection for 1992/93 is US$16.3/bbl). The budget sets ambitious targets for raising non-oil tax revenues. If achieved, the non-oil taxes/non-oil GDP ratio will rise from an estimated 13.2% of GDP in 1991/92 to 14.4% in 1992/93. To meet this target, the budget includes measures to expand the tax base, increase rates, and improve tax administration. Measures to expand the tax base or increase rates include: the extension of the VAT to retailers with annual turnover exceeding Rp.1 billion; selective increases in luxury sales tax rates; taxation of corporate income from interest on bank deposits at the regular corporate income tax rate, instead of the previous 15%; and elimination of tax exemption on interest on time deposits between Rp.1-5 million. Together, these measures should generate up to Rp.1 trillion (0.4% of GDP) in their first full year of

implementation. Tax administration will improve with the hiring of private accountants to conduct field audits. A concerted effort to improve tax compliance and enforcement will be needed to achieve the budget's revenue targets.

26. The increase in non-tax revenues projected in the budget arises largely from an anticipated surplus on domestic sale of petroleum products given the assumed decline in world oil prices. There will, however, remain a sizable subsidy on diesel and kerosene.

27. Expenditure policies. Current expenditures projected in the 1992/93 budget represent an increase of about 7% over the estimated level for 1991/92. With the projected elimination of the aggregate oil subsidy, the total subsidy bill will decline, although without a price adjustment during the year, the fertilizer subsidy would be higher than provided for in the budget. The budget allocation for personnel expenditure shows another relatively large increase of about 20% over the estimated outlay for 1991/92. The Government, however, has announced that there will be no salary adjustment this year other than the increase in the spouse allowance from 5% to 10% already awarded.

28. Capital expenditure is projected to increase by about 16%, lower than the estimated increase in 1991/92, but still allowing sizable growth in real terms (8-9%). The budgeted increase in capital expenditure is broadly matched by the projected increase in government savings supported by the stronger revenue mobilization effort. The budget employs rather conservative assumptions about external financing. Actual disbursements of external financing are likely to be higher than estimated in the budget, though not all of those disbursements flow into the budget.

29. Capital expenditure allocations in the budget are broadly consistent with Government development objectives reflected in REPELITA V, with a distribution similar to the 1991/92 budget (see para. 23). The budget also supports the Government strategy of devolving greater responsibilities to regional governments, especially in the development of basic services critical to poverty alleviation. This is reflected in a 27% increase in regional development (INPRES) transfers.

Money and Prices

30. Monetary policy. Monetary policy continued to be used to maintain adequate reserves, limit domestic demand and control inflation. The gradual efforts at tightening policy over 1990 had succeeded in restoring reserves and raising interest rates. They were less effective, however, in limiting credit growth or domestic demand. In an effort to take a larger bite out of demand, at the end of February 1991 a sharp contraction of M2 was engineered by the withdrawal of Rp.10 trillion in public enterprise and government deposits from the banking system. The deposits were exchanged for special BI bonds (SBIs khusus), mostly of 1 year maturity. To mitigate the effect on the banks, particularly the state banks, BI bought bank commercial paper (SBPUs) of maturities up to one year to cover about 75% of the deposit withdrawals. By the end of March the net contraction in reserve money was Rp.1 trillion, or 9%. Although the resort to the use of government-related accounts demonstrated short-comings in BI's regular open market operations, the

February maneuver did provide a large stock of SBIs/SBPUs for use in controlling reserve money.

31. The effect of the SBI operation on interest rates was immediate. Led by increases at the state commercial banks, nominal rates rose 400 basis points, with one month deposits fetching as much as 26% (see Table 9). Lending rates moved to near 30% for a few months. Ex-post real rates, however did not show such a sharp rise as domestic inflation picked up in mid year. Only toward the end of the year did real rates climb back to the levels seen in 1990. Over the course of the rest of the year, the higher nominal deposit rates, though falling from their March peaks, attracted foreign asset inflows that allowed some rebound in the growth of M2. Net foreign assets expanded by 46% over the year, while M2 expanded by 17% (see Table 8). As in recent years, M1 growth was led by demand deposits. Quasi-money continued to outstrip the growth of M1, itself led by surging foreign-exchange-denominated deposits.

Table 8: FACTORS AFFECTING MONEY SUPPLY AND LIQUIDITY, 1986-91
(Billions of Rupiah)

	Change in Year End Stocks /b						% Change in Stocks /b				
	1986/a	1987/c	1988	1989	1990	1991	1987/c	1988	1989	1990	1991
Net foreign assets	1,850	2,452	-549	409	-2,171	7,430	15.3	-3.0	02.3	-11.9	46.1
Use of Government deposits	470	1,529	-248	-1,176	-3,877	-1,356	-2.2	-3.3	-16.4	-46.4	-11.1
Credit to public enterprises	227	729	659	1,444	-921	105	12.2	9.8	19.6	-10.4	1.3
Credit to private sector	4,547	6,245	11,069	22,132	35,809	20,263	28.1	38.9	56.0	58.1	20.8
Net other assets	-2,586	-4,731	-3,314	-6,102	-2,915	-12,013	-62.5	-27.0	-39.1	-13.4	-48.8
Broad money (M2)	4,508	6,224	8,113	16,707	25,925	14,429	22.5	23.9	39.8	44.2	17.0
Narrow money (M1)	1,573	1,008	1,707	5,722	3,705	2,523	8.6	13.5	39.8	18.4	10.6
- Currency	898	444	464	1,180	1,668	252	8.3	8.0	18.9	22.5	2.8
- Demand deposits	675	564	1,243	4,542	2,037	2,271	8.9	18.0	55.8	16.1	15.4
Time & saving deposits (QM)	2,935	5,216	6,406	10,985	22,220	11,906	32.6	30.2	39.8	57.6	19.6
Rupiah liquidity /d	3,180	5,883	6,416	15,301	19,337	9,006	25.5	22.2	43.3	38.2	12.9
Reserve money	1,373	858	-490	1,909	1,921	349	11.0	-5.7	23.3	19.0	2.9
Memo items:											
M2/GDP ratio	28.3	29.6	31.8	34.9	42.6	43.2					
QM/GDP ratio	16.4	18.5	20.9	22.8	30.4	31.7					

/a Includes effect of exchange rate adjustment on September 12, 1986.
/b December vs. previous December.
/c 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".
/d M2 less foreign currency deposits.

Source: Bank Indonesia.

Table 9: INTEREST RATES OF COMMERCIAL BANKS, 1985-91 /a
(Annual percent)

	December						March	June	December
	1985	1986	1987	1988	1989	1990	1991	1991	1991
Nominal deposit rates /b									
State banks	16.0	14.7	17.3	18.2	17.2	19.4	23.6	24.4	22.3
Private banks	17.8	15.5	18.5	19.6	18.2	20.0	23.1	25.2	23.3
All Banks	16.9	15.4	18.4	19.0	17.7	19.6	23.4	24.7	22.7
Ex post real deposit rates /c									
State banks	9.0	6.4	10.6	9.1	6.5	11.2	8.8	10.6	11.2
Private banks	10.7	7.1	11.7	10.4	7.5	11.7	8.4	11.3	12.1
All banks	9.9	7.1	11.6	9.9	7.0	11.4	8.6	10.8	11.5
Nominal lending rates /d									
State banks	15.3	18.5	20.0	20.2	19.7	21.2	[illegible]	24.2	25.1
Private FX banks	24.2	23.0	23.6	23.8	21.7	25.1	[illegible]	29.3	28.2
All banks	22.1	21.1	22.1	22.3	21.0	23.0	26.7	26.9	26.1
Ex post real lending rates /c									
State banks	8.4	9.9	13.1	11.0	8.8	12.8	8.4	10.4	13.7
Private FX banks	16.7	14.1	16.5	14.3	10.6	16.5	14.0	14.9	16.5
All banks	14.8	12.3	15.1	12.9	10.0	14.5	11.5	12.8	14.6

Memo items (Annual Avg.)	1985	1986	1987	1988	1989	1990	1991
LIBOR /e	8.6	6.9	7.3	8.1	9.3	8.4	6.1
Inflation differential between Indonesia and USA /f	5.2	8.7	6.5	5.3	1.4	4.3	7.2

/a For Rupiah transactions, excluding liquidity credit program. Rates shown include all outstanding loans or time deposits, not marginal rates.
/b Average rates on six-month time deposits.
/c Rate calculated using the actual annualized semester inflation as a proxy for expected inflation. Expected inflation in December 1991 assumed to be 10%.
/d Average nominal rates on working capital. Because of long credit maturities, the average shown responds slowly to current rates on offer and thus the lending rates cannot be compared directly to deposit rates.
/e London Interbank Offered Rate on 6 month US Dollar deposits.
/f US WPI inflation less Indonesian adjusted CPI-27 inflation.

Source: Bank Indonesia and World Bank staff estimates.

32. BI was successful in sterilizing a large part of its reserve inflows generated by rising domestic interest rates, initially through the sale of SBIs and later through not renewing expiring SBPUs. Reserve money grew at only 3%, though growth in the last quarter of the calendar year was significantly higher. This success was aided by the Government's reinstatement in September of

quantitative controls on external borrowing by commercial banks, the curtailment of BI's swap facility and further tightening in the net open position requirements.3/

33. Unlike last year, the very slow growth in reserve money, and the new prudential regulations, brought down credit growth, which ended the year with a 21% increase. This rate reflects a sharp slowdown between March and September with some rebound since then. This pattern reflects the easing of monetary policy that characterized the last quarter of the year when BI allowed some expansion of reserve money and lowered SBI interest rates. The imposition of BIS-based capital adequacy requirements served to curb lending, since for every additional 100 rupiah lent an additional 5-8 rupiah must be added to capital. The new capital adequacy requirement can also be expected to increase the spread between deposit and loan rates since the cost of raising the additional equity will need to be factored into banks' costs. Other elements of the new prudential soundness rating system also slowed credit expansion. New liquidity requirements led banks to build up liquid assets at the expense of lending. This effect was reinforced by a growing caution among bankers in the face of deteriorating portfolio quality and high interest rates. Credit to the Central Government continued to shrink, though at a slower rate than in 1990. Public enterprise credit reversed its 1990 decline, growing 1% in 1991.

34. The large stock of special SBIs, about 8 trillion, falling due in February 1992, generated speculation in the market about an abrupt loosening of monetary policy. This was avoided, however, by the rolling over of the bulk of the special SBIs, and their accumulated interest, for another year. The uncertainties caused by these SBIs, however, demonstrate the need for increased reliance on normal open market operations.

Domestic Inflation

35. Consumer price inflation, measured on an annual average basis continued to increase in 1991, reaching 9.4% for the year (see Table 10). In part this reflects price increases of 1990, since on a December-to-December basis consumer price inflation in 1991 was slightly below 1990. Nontraded goods prices, though rising by 10.7%, grew somewhat more slowly than in 1990, reflecting the slowdown in the growth of domestic demand. Some of the increase in transportation costs, a major component of non-traded goods prices, was the result of July increases in fuel prices. Food price inflation rose compared to the previous year, induced in part by the drought. Controlled rice prices, however, dampened the impact of the drought on consumer prices. Overall, goods with administered prices and those affected by the drought contributed only slightly more strongly to consumer price inflation than other goods.

3/ During the year swaps under 3 months were first eliminated, followed in November with the elimination of swaps under 2 years, except as initiated by BI. The net open position limits banks' on and off balance sheet net exposure in foreign exchange expressed in US dollars to 20% of its capital. Sub-limits of 25% exist for each currency.

Table 10: DOMESTIC INFLATION INDICATORS, 1986-1991
(% change in yearly average)

	1986	1987	1988	1989	1990	1991
General Indicators						
CPI-27 cities /a	5.8	9.5	9.3	6.3	7.9	9.4
WPI /b	8.5	18.9	10.0 /c	7.4	6.4	7.3
Non-oil GDP deflator	7.1	12.1	7.9	8.0	6.2	8.3
Specific Indicators						
CPI Jakarta /a	5.5	9.6	8.0	6.5	7.0	10.2
KFM-K3 /d	-2.0	1[illegible].6	3.9	5.7	7.1	n.a
Nine essential commodities						
- Urban /e	5.4	6.7	13.4	5.0	8.9	n.a
- Rural /f	11.8	12.9	17.1	5.9	8.6	10.8
Farmers household consumption/g	9.2	12.3	12.0	7.5	8.1	12.1
Proximate Indicators						
Import goods prices /h	8.4	22.7	11.5 /c	8.5	7.4	5.0
Non-oil export goods prices /h	13.0	30.8	7.6	6.6	0.4	3.7
Urban rice prices /i	-10.6	11.8	36.4	4.1	5.9	7.8
Non-traded goods prices /j	3.7	6.4	4.7	5.2	12.6	10.7

/a Revised estimates from 1987-89 reflecting adjusted rice prices for Jakarta. Spliced to the CPI-17 by updating the old index numbers with the inflation rates of the CPI-27. Splicing begins in April 1990.
/b Excluding exports of oil and gas.
/c Revised estimate reflecting adjusted import prices.
/d Physical Minimum Requirements index for 3-child family; weighted average for 26 province (excluding East Timor).
/e Component of CPI-27 cities index.
/f Unweighted average of Java and Madura and the Outer Islands.
/g Component of Farmers' Terms of Trade index rebased last year to 1983-100; weighted average for Yogyakarta and West, Central and East Java.
/h Component of WPI.
/i Weighted average of urban medium-quality rice prices in 14 provincial capital. Starting in 1991, weighted average in 27 provincial capital cities.
/j Constructed from components of the CPI.
Spliced in the same fashion as the CPI-27.

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

36. Indicators of price inflation for the poor in Indonesia again show a somewhat harsher impact of inflation relative to other groups in 1991. The index of 9 Essential Commodities for rural areas shows an acceleration of inflation to levels higher than the general CPI. The same is true of the Farmer's Consumption Index. The impact on the urban poor, however, is less certain as urban rice prices rose only 7.8%.

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STATISTICAL ANNEX /a

List of Tables

/a With the exception of the tables on External Debt, the Statistical Annex is a compilation of official data from Government sources. In some instances, these data may differ from data in the main text and Annex 1 due to different Bank definitions and methodologies in construction the statistical series.

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Population And Growth Rates by Province, 1930-1990

Region	Population ('000)						Average growth rate (% p.a.)				
	1930	1961 /a	1971 /a	1980	1985	1990	1930-61	1961-71	1971-80	1980-85	1985-90
Java	41,718	63,059	76,086	91,270	99,852	107,528	1.3	1.9	2.0	1.8	1.5
DKI Jakarta	811	2,973	4,579	6,503	7,885	8,225	4.3	4.4	4.0	3.9	0.8
West Java	10,586	17,615	21,624	27,454	30,830	35,380	1.7	2.1	2.7	2.3	2.8
Central Java	13,706	18,407	21,877	25,373	26,945	28,519	1.0	1.7	1.7	1.2	1.1
DI Yogjakarta	1,559	2,241	2,489	2,751	2,930	2,915	1.2	1.1	1.1	1.3	-0.1
East Java	15,056	21,823	25,517	29,189	31,262	32,490	1.2	1.6	1.5	1.4	0.8
Sumatra	8,255	15,739	20,809	28,017	32,603	36,436	2.1	2.8	3.4	3.1	2.2
Lampung	361	1,668	2,777	4,625	5,905	6,006	5.1	5.2	5.8	5.0	0.3
Bengkulu	323	406	519	768	943	1,181	0.7	2.5	4.5	4.2	4.6
South Sumatra	1,378	2,773	3,441	4,630	5,370	6,278	2.3	2.2	3.4	3.0	3.2
Riau	493	1,235	1,642	2,169	2,548	3,283	3,0	2.9	3.1	3.3	5.2
Jambi	245	744	1,006	1,446	1,745	2,016	3.6	3.1	4.1	3.8	2.9
West Sumatra	1,910	2,319	2,793	3,407	3,698	4,001	0.6	1.9	2.2	1.7	1.6
North Sumatra	2,542	4,965	6,622	8,361	9,422	10,254	2.2	2.9	2.6	2.4	1.7
Aceh	1,003	1,629	2,009	2,611	2,972	3,417	1.6	2.1	3.0	2.6	2.8
Kalimantan	2,170	4,102	5,155	6,723	7,722	9,111	2.1	2.3	3.0	2.8	3.4
West Kalimantan	802	1,581	2,020	2,486	2,819	3,237	2.2	2.5	2.3	2.5	2.8
Central Kalimantan	203	497	702	954	1,118	1,398	2.9	3.5	3.5	3.2	4.6
South Kalimantan	836	1,473	1,699	2,065	2,273	2,599	1.8	1.4	2.2	1.9	2.7
East Kalimantan	329	551	734	1,218	1,512	1,877	1.7	2.9	5.8	4.4	4.4
Sulawesi	4,231	7,079	8,528	10,409	11,554	12,519	1.7	1.9	2.2	2.1	1.6
Central Sulawesi	390	693	914	1,290	1,511	1,705	1.9	2.8	3.9	3.2	2.4
North Sulawesi	748	1,310	1,719	2,115	2,313	2,480	1.8	2.8	2.3	1.8	1.4
South Sulawesi	2,657	4,517	5,181	6,062	6,610	6,983	1.7	1.4	1.8	1.7	1.1
Southeast Sulawesi	436	559	714	942	1,120	1,351	0.8	2.5	3.1	3.5	3.8
Other Islands	4,219	7,106	8,630	11,071	12,316	13,654	1.7	2.0	2.8	2.2	2.1
Bali	1,101	1,783	2,120	2,470	2,649	2,779	1.6	1.7	1.7	1.4	1.0
West Nusa Tenggara	1,016	1,808	2,203	2,725	2,995	3,371	1.9	2.0	2.4	1.9	2.4
East Nusa Tenggara	1,344	1,967	2,295	2,737	3,061	3,270	1.2	1.6	2.0	2.3	1.3
Maluku	579	790	1,089	1,410	1,609	1,853	1.0	3.3	2.9	2.7	2.9
Irian Jaya	179	758	923	1,174	1,371	1,631	4.8	2.0	2.7	3.2	3.5
East Timor	n.a	n.a	n.a	555	631	750	n.a	n.a	n.a	2.6	3.5
Total Indonesia	60,593	97,085	119,208	147,490	164,047	179,248	1.5	2.1	2.4	2.2	1.8

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

Source: Central Bureau of Statistics, Population Census Reports, 1961, 1971, 1980 and 1990; Statistical Yearbook Of Indonesia, 1984; and SUPAS 1985.

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Distribution of Population by Age Group and Sex, 1961-1990 /a
('000)

Age Group	1961			1971			1980			1985			1990		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	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	10,766	10,120	20,887
5-9	7,744	7,701	15,445	9,593	9,302	18,895	10,889	10,446	21,335	11,379	10,739	22,118	11,791	11,290	23,081
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	10,998	10,438	21,437
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	9,553	9,367	18,920
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	7,662	8,486	16,148
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	13,962	14,770	28,732
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	9,778	9,475	19,253
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	7,036	7,284	14,320
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	4,615	4,887	9,502
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	3,213	3,749	6,962
Not stated	60	57	117	7	8	15	11	9	20	4	3	7	3	5	8
Total	47,871	49,214	97,085	58,753	60,455	119,208	73,332	74,158	147,490	81,645	82,402	164,047	89,376	89,872	179,248
							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	12.0	11.3	11.7
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	13.2	12.6	12.9
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	12.3	11.6	12.0
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	10.7	10.4	10.6
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	8.6	9.4	9.0
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	15.6	16.4	16.0
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	10.9	10.5	10.7
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	7.9	8.1	8.0
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	5.2	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	3.6	4.2	3.9
Not stated	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source : Central Bureau of Statistics, Census Reports, 1961, 1971, 1980, and 1990; Intercensal Population Survey, 1985.

Statistical Annex
Table 1.3

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Employment by Main Industry, 1971-1990 /a

Main Industry	1971 million	1971 %	1980 million	1980 %	1982 million	1982 %	1985 million	1985 %	1990 million	1990 %
Agriculture, forestry, hunting & fishery	26.5	64.2	28.0	54.8	31.6	54.7	34.1	54.6	35.5	50.1
Mining and quarrying	0.1	0.2	0.4	0.7	0.4	0.7	0.4	0.7	0.7	1.0
Manufacturing	2.7	6.5	4.4	8.5	6.0	10.4	5.8	9.3	8.2	11.6
Electricity, gas & water	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Construction	0.7	1.6	1.6	3.1	2.2	3.7	2.1	3.4	2.8	4.0
Wholesale and retail trade & restaurants	4.3	10.3	6.6	12.9	8.6	14.8	9.4	15.0	10.6	15.0
Transportation, storage & communications	1.0	2.3	1.5	2.9	1.8	3.1	2.0	3.1	2.7	3.8
Finance, insurance, real estate & business services	0.1	0.2	0.2	0.4	0.1	0.2	0.3	0.4	0.5	0.7
Public services	4.1	10.0	7.7	15.1	7.1	12.3	8.3	13.3	9.7	13.7
Others	1.9	4.6	0.7	1.4	0.0	0.0	0.1	0.1	0.0	0.0
Total	41.3	100.0	51.2	100.0	57.8	100.0	62.5	100.0	70.8	100.0

/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 and 1990 Census.

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Population Distribution by Province and Urban & Rural, 1980-1990

Region	1980 Urban	1980 Rural	1990 Urban	1990 Rural	Growth Rates (% p.a.) Urban	Growth Rates (% p.a.) Rural
Java	22,926,377	68,290,593	38,335,297	69,182,666	5.28	0.00
DKI Jakarta	6,071,748	408,906	8,222,515	0	3.08	0.00
West Java	5,770,868	21,678,972	12,208,176	23,170,307	7.78	0.67
Central Java	4,756,007	20,611,337	7,694,539	20,822,247	4.93	0.10
DI Yogyakarta	607,267	2,142,861	1,294,056	1,618,555	7.86	(2.77)
East Java	5,720,487	23,448,517	8,916,011	23,571,557	4.54	0.05
Sumatera	5,481,488	22,514,439	9,293,747	27,128,739	5.42	1.88
Lampung	576,872	4,047,366	747,327	5,256,782	2.62	2.65
Bengkulu	72,492	695,496	240,192	938,759	12.73	3.04
South Sumatra	1,267,009	3,360,710	1,839,492	4,438,453	3.80	2.82
Riau	588,212	1,575,684	1,047,454	2,233,592	5.94	3.55
Jambi	182,846	1,261,630	432,727	1,581,327	9.00	2.28
West Sumatra	433,120	2,973,012	807,983	3,190,694	6.43	0.71
North Sumatra	2,127,436	6,223,514	3,638,832	6,613,479	5.51	0.61
Aceh	233,501	2,377,027	539,740	2,875,653	8.74	1.92
Kalimantan	1,441,300	5,275,596	2,506,657	6,596,249	5.69	2.26
West Kalimantan	416,923	2,067,968	642,989	2,592,377	4.43	2.29
Central Kalimantan	98,257	855,919	245,249	1,150,612	9.58	3.00
South Kalimantan	440,901	1,622,326	702,950	1,893,697	4.78	1.56
East Kalimantan	485,219	729,383	915,469	959,563	6.55	2.78
Sulawesi	1,654,190	8,746,358	2,761,021	9,750,142	5.26	1.09
Central Sulawesi	115,472	1,169,056	281,134	1,422,196	9.31	1.98
North Sulawesi	354,607	1,760,215	564,795	1,913,151	4.76	0.84
South Sulawesi	1,096,075	4,963,489	1,685,443	5,295,146	4.40	0.65
Southeast Sulawesi	88,036	853,598	229,649	1,119,649	10.06	2.75
Other Islands	1,342,474	9,659,008	2,494,449	11,150,256	6.39	1.45
Bali	363,336	2,106,388	734,237	2,043,119	7.29	(0.30)
West Nusa Tenggara	383,421	2,340,257	582,180	2,789,519	4.26	1.77
East Nusa Tenggara	205,457	2,531,531	372,242	2,895,677	6.12	1.35
Maluku	152,944	1,255,507	352,438	1,498,649	8.71	1.79
Irian Jaya	237,316	869,975	395,131	1,233,956	5.23	3.56
East Timor	0	555,350	58,221	689,336	0.00	2.18
Total Indonesia	32,845,829	114,485,994	55,391,171	123,808,052	5.36	0.79

Source : Central Bureau of Statistics

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Gross Domestic Product by Industrial Origin at Current Market Prices, 1979-1990 /a
(Rp. billion)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /b
Agriculture	9,384	11,726	13,698	15,062	17,696	20,420	22,513	24,871	29,116	34,278	39,095	42,404
Farm food crops	4,774	6,103	7,826	9,162	11,057	12,692	13,860	15,085	17,540	21,124	24,489	[illegible],019
Farm non-food crops	1,614	1,924	2,048	1,915	2,295	2,739	2,979	3,534	4,140	4,389	4,694	4,965
Estate crops	273	303	294	270	375	593	715	690	978	1,245	1,354	1,571
Livestock product	809	1,191	1,478	1,611	1,754	2,084	2,427	2,640	3,015	3,545	3,849	4,560
Forestry	1,292	1,412	1,077	990	994	939	938	1,001	1,247	1,448	1,682	1,931
Fishery	623	793	976	1,114	1,220	1,373	1,595	1,921	2,196	2,528	3,027	3,358
Mining and quarrying	6,866	11,238	13,218	12,153	16,107	16,938	13,571	11,503	17,267	17,162	21,823	25,448
Oil & natural gas	6,541	10,610	12,673	11,648	15,103	15,917	12,584	10,502	15,979	15,525	19,283	21,509
Other	324	628	544	505	1,004	1,021	987	1,001	1,287	1,637	2,540	3,940
Manufacturing	4,093	6,353	7,067	7,482	9,896	13,113	15,503	17,185	21,150	26,253	30,323	40,830
Refinery oil	97	94	180	155	359	1,013	1,864	1,915	1,820	2,026	2,148	3,561
LNG	582	1,198	1,282	1,615	1,871	2,787	2,424	1,969	2,097	2,949	3,299	4,648
Other	3,324	5,061	5,605	5,712	7,666	9,394	11,216	13,301	17,233	21,278	24,876	31,621
Electricity, gas & water	130	231	292	341	314	354	396	647	747	869	1,008	1,258
Construction	1,945	2,582	3,500	3,769	4,597	4,757	5,302	5,314	6,087	7,169	8,884	10,760
Trade	5,608	7,323	8,781	9,947	11,541	13,435	15,417	17,122	21,048	24,379	29,014	34,284
Retail & wholesale trade	4,800	6,314	7,586	8,567	9,933	11,371	12,962	14,235	17,561	20,389	24,599	28,996
Hotels & restaurants	809	1,009	1,194	1,380	1,608	2,063	2,455	2,887	3,487	3,991	4,415	5,288
Transport & communications	1,681	2,211	2,370	3,164	4,098	5,051	6,100	6,407	7,443	8,140	9,306	11,000
Transport	1,568	2,060	2,182	2,942	3,694	4,611	5,539	5,770	6,639	7,227	8,280	9,694
Communications	113	150	188	222	404	440	562	637	804	913	1,025	1,306
Banking, etc.	680	924	1,406	1,783	2,359	3,058	3,496	4,037	4,795	5,322	6,551	8,182
Ownership of dwellings	960	1,228	1,494	1,731	2,356	2,573	2,775	2,976	3,349	3,736	4,151	4,891
Public admin. & defence	2,299	3,225	4,203	4,706	5,712	6,470	7,925	8,307	8,912	9,446	11,174	12,801
Other services	1,486	1,872	2,099	2,339	3,001	3,718	3,999	4,315	4,903	5,351	5,830	6,434
Gross Domestic Product	34,849	48,914	58,127	62,476	77,676	89,885	96,997	102,683	124,817	142,106	167,158	197,492

/a In 1989, Government released a revised national account series for the period 1983-1988. Since the 1978-1982 series has not yet been revised, it is not directly comparable with the 1983-1988 series.
/b Preliminary figures.

Source : Central Bureau of Statistics.

INDONESIA

COUNTRY ECONOMIC REPORT

Gross Domestic Product by Industrial Origin at Constant 1983 Market Prices, 1979-1990 /a
(Rp. billion)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /b
Agriculture	15,249	16,303	17,270	17,497	17,696	18,513	19,300	19,799	20,224	21,214	21,876	22,424
Farm food crops	8,838	9,661	10,639	10,736	11,057	11,680	11,986	12,287	12,415	12,974	13,472	13,569
Farm non-food crops	1,866	2,050	2,219	2,274	2,295	2,349	2,576	2,581	2,693	2,835	2,868	2,951
Estate crops	290	317	343	363	375	446	511	562	565	623	636	709
Livestock products	1,414	1,538	1,634	1,703	1,754	1,890	2,037	2,064	2,111	2,212	2,265	2,434
Forestry	1,796	1,620	1,296	1,165	994	894	851	889	966	1,013	974	1,013
Fishery	1,046	1,116	1,139	1,167	1,220	1,253	1,341	1,418	1,472	1,557	1,663	1,748
Mining & quarrying	16,093	16,078	16,319	13,876	16,107	17,120	15,490	16,309	16,366	15,893	16,664	17,489
Oil & natural gas	15,590	15,525	15,767	13,249	15,103	16,187	14,513	15,237	15,219	14,692	15,391	16,030
Other	502	553	573	627	1,004	933	968	1,072	1,146	1,201	1,273	1,459
Manufacturing	5,952	7,284	7,878	7,973	9,896	12,079	13,431	14,678	16,235	18,182	19,856	22,277
Refinery oil	173	186	170	142	359	626	767	927	938	981	990	1,090
LNG	1,230	1,672	1,712	1,782	1,871	2,790	2,919	2,923	3,233	3,595	3,685	4,037
Other	4,549	5,447	5,997	6,049	7,666	8,663	9,746	10,828	12,064	13,607	15,181	17,150
Electricity, gas and water	265	312	361	421	314	324	361	430	495	549	616	726
Construction	3,266	3,850	4,368	4,409	4,597	4,394	4,508	4,609	4,803	5,259	5,878	6,679
Trade	8,906	10,303	10,968	11,609	11,541	11,811	12,399	13,399	14,356	15,657	17,331	18,668
Retail & wholesale trade	7,520	8,819	9,436	10,057	9,933	10,028	10,412	11,238	12,005	13,035	14,440	15,525
Hotels & restaurants	1,387	1,484	1,532	1,546	1,608	1,783	1,987	2,161	2,351	2,621	2,891	3,143
Transport & communications	2,670	2,911	3,309	3,540	4,098	4,443	4,487	4,669	4,939	5,212	5,812	6,368
Transport	2,513	2,722	3,083	3,276	3,694	4,008	4,032	4,178	4,394	4,626	5,151	5,596
Communications	157	188	226	263	404	435	455	490	545	586	660	772
Banking, etc.	1,159	1,263	1,762	2,073	2,359	2,829	3,020	3,483	3,659	3,752	4,288	4,858
Ownership of dwellings	1,573	1,683	1,823	1,879	2,356	2,412	2,461	2,545	2,654	2,762	2,878	2,999
Public admin. & defence	3,787	4,053	4,682	5,329	5,712	5,997	6,455	6,862	7,366	7,932	8,397	8,783
Other services	2,581	2,663	2,792	2,851	3,001	3,117	3,180	3,299	3,422	3,570	3,791	3,981
Gross Domestic Product	61,500	66,723	71,553	71,361	77,676	83,037	85,982	90,881	94,518	99,982	107,385	115,251

/a In 1989, Government released a revised national account series for the period 1983-1988. Since the 1978-1982 series has not yet been revised, it is not directly comparable with the 1983-1988 series.
/b Preliminary figures.

Source : Central Bureau of Statistics.

Statistical Annex
Table 2.3

INDONESIA

COUNTRY ECONOMIC REPORT

Expenditure on GDP at Current Market Prices, 1979-1990 /a
(Rp. billion)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /b
Private consumption	19,516	25,595	32,294	37,924	47,063	54,067	57,201	63,355	71,989	81,045	88,752	106,312
Government consumption	3,277	5,148	6,452	7,229	8,077	9,122	10,893	11,329	11,764	12,756	15,698	17,573
Gross fixed investment	7,668	10,550	14,135	15,822	19,468	20,136	22,367	24,782	30,980	36,803	45,650	58,403
Changes in stock /c	2,166	1,345	3,189	1,584	2,847	3,406	4,837	4,243	8,166	8,007	13,155	14,196
Exports of goods and nonfactor services	10,003	16,162	16,177	15,103	19,846	22,999	21,534	20,010	29,874	34,666	42,505	51,953
Less: Imports of goods and nonfactor services	7,791	9,886	14,119	15,186	19,625	19,845	19,835	21,036	27,956	31,171	38,601	50,946
Gross Domestic Product	**34,840**	**48,914**	**58,127**	**62,476**	**77,676**	**89,885**	**96,997**	**102,683**	**124,817**	**142,105**	**167,158**	**197,492**

/a In 1989, Government released a revised national account series for the period 1983-1988. Since the 1978-1982 series has not yet been revised, it is not direct y comparable with the 1983-1988 series.
/b Preliminary figures.
/c Residual.

Sou e : Central Bureau of Statistics.

Statistical Annex
Table 2.4

INDONESIA

COUNTRY ECONOMIC REPORT

Expenditure on GDP at Constant 1983 Market Prices, 1979 - 1990 /a
(Rp. billion)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /b
Private consumption	32,491	36,037	39,699	42,172	47,063	48,942	49,448	50,530	52,200	54,225	56,476	62,053
Government consumption	5,767	6,801	7,567	8,291	8,077	8,353	8,991	9,241	9,226	9,924	10,965	11,317
Gross fixed investment	12,382	15,646	17,659	18,740	19,468	18,297	19,616	21,422	22,597	25,201	28,568	34,200
Changes in stock /c	27	(3,077)	5,475	3,239	2,847	4,452	6,641	6,333	5,049	1,120	1,366	1,868
Exports of goods and nonfactor services	24,458	26,182	21,163	19,242	19,846	21,145	19,495	22,460	25 745	26,016	28,733	28,863
Less: Imports of goods and nonfactor services	13,625	14,866	20,010	20,323	19,625	18,151	19,109	19,906	20,299	16,504	18,723	23,050
Gross Domestic Product	61,500	66,723	71,553	71,361	77,676	83,037	85,082	90,081	94,518	99,981	107,385	115,251

/a In 1989, Government released a revised national account series for the period 1983-1988. Since the 1978-1982 series has not yet been revised, it is not directly comparable with the 1983-1988 series.
/b Preliminary figures.
/c Residual.

Source : Central Bureau of Statistics.

Statistical Annex
Table 2.5

INDONESIA

COUNTRY ECONOMIC REPORT

Distribution of GDP at Current Market Prices, 1979-1990 /a
(%)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /b
Economic sectors												
Agriculture, forestry, fishery and livestock	26.9	24.0	23.6	24.1	22.8	22.7	23.2	24.2	23.3	24.1	23.4	21.5
Mining & quarrying	19.7	23.0	22.7	19.5	20.7	18.8	14.0	11.2	13.8	12.1	13.1	12.9
Manufacturing	11.5	13.0	12.2	12.0	12.7	14.6	16.0	16.7	16.9	18.5	18.1	20.3
Electricity, gas and water	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.6
Construction	5.6	5.3	6.0	6.0	5.9	5.3	5.5	5.2	4.9	5.0	5.3	5.4
Transport & communications	4.8	4.5	4.1	5.1	5.3	5.6	6.3	6.2	6.0	5.7	5.6	5.6
Other services	31.1	29.8	30.9	32.8	32.1	32.5	34.7	35.8	34.5	33.9	33.9	33.7
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Expenditure categories												
Private consumption	56.0	52.3	55.6	60.7	60.6	60.2	59.0	61.7	57.7	57.0	53.1	53.8
Government consumption	9.4	10.5	11.1	11.6	10.4	10.1	11.2	11.0	9.4	9.0	9.4	8.9
Gross domestic investment	28.2	24.3	29.8	27.9	28.7	26.2	28.0	28.3	31.4	31.5	35.2	36.8
Net exports	6.4	12.8	3.5	-0.1	0.3	3.5	1.8	-1.0	1.5	2.5	2.3	0.5
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

/a In 1989, Government released a revised national account series for the period 1983-1988. Since the 1978-1982 series has not yet been revised, it is not directly comparable with the 1983-1988 series.
/b Preliminary figures.

Source: Tables 2.1 and 2.3.

Statistical Annex
Table 2.6

INDONESIA

COUNTRY ECONOMIC REPORT

Distribution of GDP at Constant 1983 Market Prices, 1979 - 1990 /a
(%)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /b
Economic Sectors												
Agriculture, forestry, fishery and livestock	24.8	24.4	24.1	24.4	22.8	22.3	22.7	22.0	21.4	21.2	20.4	19.5
Mining & quarrying	26.2	24.1	22.8	19.4	20.7	20.6	18.2	18.1	17.3	15.9	15.5	15.2
Manufacturing	9.7	10.9	11.0	11.2	12.7	14.5	15.8	16.3	17.2	18.2	18.5	19.3
Electricity, gas and water	0.4	0.5	0.5	0.6	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
Construction	5.3	5.8	6.1	6.2	5.9	5.3	5.3	5.1	5.1	5.3	5.5	5.8
Transport & communications	4.3	4.4	4.6	5.0	5.3	5.4	5.3	5.2	5.2	5.2	5.4	5.5
Other services	29.3	29.9	30.8	33.3	32.1	31.5	32.3	32.8	33.3	33.7	34.1	34.1
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Expenditure categories												
Private consumption	52.8	54.0	55.5	59.1	60.6	58.9	58.1	56.1	55.2	54.2	52.6	53.8
Government consumption	9.4	10.2	10.6	11.6	10.4	10.1	10.6	10.3	9.8	9.9	10.2	9.8
Gross domestic investment	20.2	18.8	32.3	30.8	28.7	27.4	30.9	30.8	29.2	26.3	27.9	31.3
Net exports	17.6	17.0	1.6	-1.5	0.3	3.6	0.5	2.8	5.8	9.5	9.3	5.0
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

/a In 1989, Government released a revised national account series for the period 1983-1988. Since the 1978-1982 series has not yet been revised, it is not directly comparable with the 1983-1988 1983-1988 series.
/b Preliminary figures.

Source : Tables 2.2 and 2.4.

INDONESIA

COUNTRY ECONOMIC REPORT

Balance of Payments, 1978/79 - 1992/93
(US$ million)

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93 /c
1. Net oil exports /a	3,785	6,308	9,345	8,379	5,788	6,016	5,845	4,004	1,426	2,334	1,535	2,311	2,882	2,803	1,213
2. Net LNG exports /a	225	667	1,256	1,382	1,378	1,355	1,971	2,119	1,158	1,426	1,525	1,600	2,128	2,354	2,048
3. Non-oil exports (net)	-5163	-4777	-8479	-12551	-14205	-11522	-9784	-7955	-6635	-5466	-4918	-5510	-9751	-9556	-8284
Imports, fob	3,979	6,171	5,587	4,170	3,928	5,367	5,907	6,175	6,791	9,502	12,184	14,480	15,380	18,225	21,870
Imports, cif	-7543	-9028	-11837	-14561	-15824	-14346	-12921	-11186	-10385	-11763	-13585	-16478	-21609	-23854	-26801
Services (nonfreight)	-1601	-1920	-2220	-2160	-2309	-2543	-2770	-2944	-2901	-3205	-3517	-3525	-3522	-3927	-4073
4. Current account (1+2+3)	-1155	2,198	2,131	-2790	-7039	-4151	-1968	-1832	-4051	-1706	-1858	-1599	-3741	-4399	-4343
5. Official capital disbursements	2,101	2,690	2,684	3,521	5,011	5,793	3,519	3,432	5,472	4,575	6,588	5,516	5,006	5,457	5,561
IGGI	1,567	2,237	2,406	2,415	2,905	4,255	3,189	2,751	3,978	4,368	5,468	4,668	4,897	5,108	5,541
Program aid	94	239	118	50	21	84	52	38	48	30	23	6	0	0	0
Project aid	1,473	1,998	2,288	2,365	2,884	4,171	3,137	2,713	3,930	4,338	5,445	4,662	4,897	5,108	5,541
ODA	814	1,106	1,299	996	1,356	1,902	1,442	1,332	1,952	2,807	3,973	3,583	3,766	3,815	4,537
Non-ODA	659	892	989	1,369	1,528	2,269	1,695	1,381	1,998	1,531	1,472	1,079	1,131	1,293	1,004
Non-IGGI	534	453	278	1,106	2,106	1,538	330	681	1,494	207	1,120	848	109	329	20
Cash loan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Amortization	-592	-492	-615	-909	-926	-1010	-1292	-1644	-2129	-2949	-3763	-3686	-4082	(4,431)	(4,726)
7. Other capital (net)	542	-1312	-361	1,140	1,795	1,191	499	572	1,232	1,709	-211	575	5,856	3,797	3,529
Direct investment	271	217	140	142	311	193	245	299	252	544	585	722	1424	1,634	1,739
Oil sector	75	-1237	-685	791	1,322	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Others	196	-292	184	207	162	998	254	273	980	1165	-796	-147	4,432	2,143	1,790
8. Total (4 through 8)	856	2,884	3,839	1,062	(1,159)	1,823	758	528	524	1,529	756	806	3,039	404	21
9. Errors and omissions	-62	-1256	-1165	-2050	-2121	247	-91	-498	-1262	57	-1432	-558	263	-52	0
10. Monetary movements /b	-794	-1628	-2674	988	3,280	-2070	-667	-30	738	-1586	676	-248	-3302	-352	-21

/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 Projections.

Source: Bank Indonesia.

Statistical Annex
Table 3.2

INDONESIA

COUNTRY ECONOMIC REPORT

Non - oil Exports, 1984/85 - 1990/91

	Value (US$ million)							Volume ('000 tons)						
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Agricultural	3,663	3,635	4,493	5,764	6,927	7,011	7,269							
Timber	1,167	1,217	1,586	2,461	2,884	3,454	3,414	5,201	4,670	5,309	6,578	7,368	7,561	6,279
a. Log	135	2	0	0	0	0	0	1,223	79	0	0	0	0	0
b. Plywood	697	848	1,160	1,851	2,095	2,437	2,764	2,105	2,495	2,959	3,849	4,381	5,086	5,351
c. Sawn timber	320	349	321	483	592	600	90	1,789	2,017	1,600	1,872	2,093	1,739	97
d. Other	16	18	105	127	197	416	561	84	79	750	857	894	736	831
Rubber	856	714	749	1,037	1,229	956	887	1,042	1,082	1,062	1,187	1,220	1,222	1,221
Palm oil	95	170	114	214	313	279	284	175	504	569	703	808	943	1,098
Coffee	568	659	753	499	577	452	371	308	294	309	275	323	399	426
Tea	211	134	106	119	137	181	154	91	102	93	98	110	118	112
Tobacco	44	55	72	47	43	44	72	23	21	24	20	20	17	21
Pepper	66	82	152	158	144	94	78	34	25	33	36	53	44	52
Copra cake	18	35	34	41	43	51	56	213	433	348	384	355	460	632
Tapioca	31	42	52	93	154	98	121	418	534	439	833	1,368	1,303	1,268
Rattan	96	80	99	162	37	0	0	101	92	116	135	30	0	0
Hides	40	37	45	59	68	70	58	2	8	10	6	4	4	2
Other foodstuff	98	122	122	153	202	250	324	748	884	1,338	2,122	1,224	1,143	1,181
Animal products	219	274	390	488	839	781	1,076	87	109	132	194	245	316	411
of which shrimps	183	228	297	352	541	520	711	44	52	53	86	91	137	133
Others	155	14	221	234	258	302	365	n.a	3	n.a	n.a	n.a	n.a	n.a
Mineral	775	799	719	1,112	1,556	1,585	1,439							
Tin	252	248	156	143	165	213	147	22	23	24	22	24	26	26
Copper	132	133	144	186	238	321	446	242	279	271	290	318	341	477
Nickel	121	139	112	152	438	404	326	955	943	1,288	1,456	1,592	1,965	1,615
Aluminum	208	223	201	245	301	267	202	153	219	177	151	124	164	136
Granite	9	8	8	6	6	9	14	1,300	1,194	1,272	858	860	1,083	1,718
Others	53	49	98	379	407	371	305	n.a	65,546	n.a	n.a	n.a	n.a	n.a
Manufactured	1,469	1,739	1,519	2,626	3,701	5,897	6,680							
Textiles	418	577	713	1,128	1,571	2,219	2,731	n.a	111	n.a	n.a	n.a	n.a	n.a
Handicraft	116	30	30	67	184	250	357	n.a	26	n.a	n.a	n.a	n.a	n.a
Electrical app.	134	109	46	55	103	176	259	n.a	7	n.a	n.a	n.a	n.a	n.a
Cement	14	23	47	54	85	128	69	516	955	2,012	2,316	3,316	4,008	1,752
Fertilizer	31	109	97	117	136	167	214	208	1,047	1,212	1,266	1,011	1,716	1,553
Others	757	892	585	1,205	1,619	2,958	3,051	n.a	2,494	n.a	n.a	n.a	n.a	n.a
Unclassified	0	0	0	0	0	0	0	0	0	0	e	0	0	0
Total Non-oil Exports	5,907	6,173	6,731	9,502	12,184	14,493	15,379							

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COUNTRY ECONOMIC REPORT

Value of Exports by Principal Country of Destination, 1978-1991
(US$ million)

Countries	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Asean	1,478	2,233	3,054	3,415	3,499	3,476	2,487	1,982	1,515	1,703	2,079	2,429	2,515
Malaysia	21	66	67	75	59	58	98	77	82	94	184	220	253
Thailand	18	38	35	35	26	49	98	81	83	87	151	234	189
Philippines	198	165	181	411	293	242	166	199	108	71	87	149	161
Singapore	1,241	1,964	2,771	2,894	3,121	3,128	2,126	1,626	1,239	1,449	1,653	1,818	1,902
Brunei	0	0	0	0	0	0	0	0	2	3	4	8	11
Hongkong	43	99	152	135	145	182	261	348	345	420	554	549	618
Japan	4,566	7,192	12,042	11,950	11,193	9,678	10,353	8,594	6,644	7,393	8,018	9,321	10,923
Other Asia	631	807	802	805	970	801	1,254	1,475	1,170	1,869	2,415	2,934	4,035
Africa	37	32	56	37	57	79	140	160	179	150	272	217	199
USA	2,962	3,171	4,801	4,852	3,546	4,267	4,505	4,040	2,902	3,349	3,074	3,497	3,365
Canada	30	28	28	22	19	28	46	46	60	94	101	108	139
Other America	766	431	956	1,960	929	1,015	1,031	326	182	48	47	50	102
Australia	107	190	339	447	674	208	275	149	159	310	293	387	403
Other Oceania	7	51	109	211	278	264	236	81	83	43	31	59	84
EEC	874	1,173	1,388	1,063	894	953	1,036	1,113	1,340	1,541	2,152	2,338	3,028
United Kingdom	54	89	142	131	126	199	168	191	197	212	349	384	517
Netherlands	355	399	415	347	265	289	332	392	453	493	646	681	723
West Germany	226	338	389	239	253	252	246	255	334	361	456	493	750
Belgium & Luxemburg	18	18	25	18	20	33	63	45	91	109	177	173	210
France	54	77	122	52	77	53	49	71	93	102	164	209	286
Denmark	40	43	40	15	10	4	6	3	6	13	20	36	54
Ireland	1	0	1	0	0	1	4	2	2	7	17	22	35
Italy	126	210	254	168	142	120	167	152	152	175	221	234	276
Greece	0	0	0	93	1	1	1	3	6	3	2	4	9
Portugal	0	0	0	0	0	0	0	0	7	10	22	24	17
Spain	0	0	0	0	0	0	0	0	0	55	78	80	152
Soviet Union	52	55	73	80	22	50	59	78	52	82	38	100	81
Others in Europe	91	130	152	187	102	145	206	194	174	133	144	171	183
Total	11,643	15,590	23,950	25,165	22,328	21,146	21,888	18,587	14,805	17,136	19,219	22,159	25,675

/a January-August 1991.

Source: Central Bureau of Statistics.

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COUNTRY ECONOMIC REPORT

Value of Imports by Principal Country of Origin, 1978-1991
(US$ million)

Countries	1978	1979	1980	1981	1982	1983	1984 /a	1985	1986	1987	1988	1989	1990
Asean	652	839	1,350	1,702	3,302	3,915	1,948	962	1,121	1,244	1,305	1,765	1,836
Malaysia	22	35	36	60	56	60	86	52	50	139	276	369	326
Thailand	101	219	288	146	199	209	55	48	72	75	96	210	183
Philippines	76	49	90	253	228	182	15	23	28	82	36	63	55
Singapore	453	536	936	1,243	2,819	3,465	1,791	839	969	947	896	1,122	1,272
Brunei	0	0	0	0	0	0	0	0	1	0	1	2	0
Hongkong	142	102	139	68	87	65	86	53	94	104	133	179	273
Japan	2,016	2,103	3,413	3,989	4,279	3,793	3,308	2,644	3,128	3,596	3,386	3,767	5,300
Other Asia	995	1,249	1,992	1,986	2,452	2,220	2,338	1,727	1,681	1,924	2,266	3,203	4,633
Africa	69	132	130	252	202	135	171	160	103	153	201	202	170
USA	832	1,028	1,409	1,795	2,417	2,534	2,560	1,721	1,483	1,415	1,736	2,218	2,520
Canada	83	73	97	102	138	186	319	198	214	303	274	311	407
Other America	77	56	111	266	166	129	139	191	174	211	224	455	519
Australia	218	223	378	362	365	402	372	461	413	463	578	925	1,186
Other Oceania	38	43	76	98	96	72	78	69	71	80	96	98	115
EEC	1,267	1,074	1,445	2,200	2,656	2,234	2,062	1,706	1,796	2,353	2,510	2,575	4,059
United Kingdom	208	198	261	547	445	364	297	300	342	325	340	360	440
Netherlands	146	119	116	205	185	257	266	215	189	316	258	248	550
West Germany	594	462	685	905	1,193	741	820	677	719	836	887	920	1,502
Belgium & Luxemburg	33	63	56	86	97	124	102	101	89	142	159	167	232
France	166	143	236	344	571	591	432	284	281	392	465	406	643
Denmark	60	19	12	14	54	21	20	18	26	26	22	31	61
Ireland	2	2	3	4	4	8	8	9	4	6	6	8	72
Italy	59	67	76	96	104	125	113	101	144	237	248	348	4.0
Greece	0	0	0	0	3	3	4	0	0	2	3	3	6
Portugal	0	0	0	0	0	0	0	0	2	6	3	2	6
Spain	0	0	0	0	0	0	0	0	0	66	120	82	136
Soviet Union	15	14	20	41	39	25	12	3	5	16	45	51	53
Others in Europe	287	269	274	412	663	641	490	365	435	510	494	611	764
Total	6,690	7,203	10,834	13,272	16,859	16,352	13,882	10,259	10,759	12,370	13,249	16,360	21,835

/a Since 1984, excludes the value of processing deals in the oil sector.
/b January-August 1991.

Source: Central Bureau of Statistics.

Statistical Annex
Table 4.1

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COUNTRY ECONOMIC REPORT

Summary of External Debt Data, 1981-91 /a

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
External debt data						(US$ million)					
Disbursed and outstanding debt (DOD) /b	15,908	18,318	21,494	22,266	26,777	32,634	40,908	41,257	41,105	45,022	48,334
Bilateral/multilateral	10,096	10,913	11,818	12,203	15,063	18,565	24,788	26,552	28,252	33,287	37,214
Other /c	5,813	7,405	9,676	10,063	11,714	14,069	16,120	14,705	12,853	11,735	11,120
Total debt outstanding, including undisbursed (TDO)	26,953	32,008	35,298	36,352	42,771	50,073	60,429	60,138	59,770	65,199	69,190
Bilateral/multilateral	17,705	19,326	20,556	21,495	25,346	29,464	37,314	38,966	41,426	47,418	53,226
Other /c	9,248	12,682	14,741	14,856	17,425	20,609	23,114	21,172	18,344	17,781	15,964
Commitments	4,951	7,070	5,687	4,816	4,627	4,103	5,992	6,087	7,158	6,229	7,840
Bilateral/multilateral	2,157	2,593	2,294	2,745	2,421	2,004	4,791	4,779	5,744	5,251	6,166
Other /c	2,795	4,477	3,393	2,071	2,206	2,099	1,202	1,308	1,413	978	1,674
Gross disbursements	2,672	3,951	4,979	3,890	3,553	4,240	5,463	6,440	6,468	4,745	5,606
Bilateral/multilateral	1,362	1,595	1,737	1,937	1,625	1,900	3,694	4,287	4,262	4,146	4,528
Other /c	1,310	2,356	3,242	1,953	1,928	2,340	1,769	2,152	2,206	598	1,078
Net disbursements	1,618	2,847	3,689	2,290	1,223	1,618	2,057	2,091	2,033	612	1354
Bilateral/multilateral	985	1,126	1,186	1,368	1,010	1,007	2,543	2,951	2,887	2,509	2,721
Other /c	633	1,721	2,503	922	213	611	-486	-951	-854	-1897	-1367
Net resource transfers	628	1,715	2,456	661	-419	-454	-216	-525	-469	-1922	-1315
Bilateral/multilateral	654	732	733	802	314	81	1,462	1,642	1,492	912	930
Other /c	-26	983	1723	-141	-733	-535	-1677	-2168	-1961	-2834	-2245
Public debt service	2,045	2,236	2,523	3,229	3,972	4,694	5,679	6,965	6,937	6,667	6,922
Amortization	1,054	1,104	1,290	1,600	2,330	2,622	3,406	4,439	4,436	4,132	4,253
Interest	991	1,132	1,233	1,629	1,643	2,072	2,273	2,526	2,501	2,535	2,669
Public debt service	2,045	2,236	2,523	3,229	3,972	4,694	5,679	6,965	6,937	6,667	6,922
Bilateral/multilateral	708	863	1,004	1,135	1,311	1,819	2,232	2,645	2,770	3,234	3,598
Other /c	1,336	1,373	1,519	2,093	2,661	2,875	3,447	4,320	4,167	3,432	3,324
Disbursement indicators						(%)					
Undisbursed debt/TDO /b	41	43	39	39	37	35	32	31	31	31	30
Bilateral/multilateral	43	44	43	43	41	37	34	32	32	30	30
Other /c	37	42	34	32	33	32	30	31	30	34	30
Gross disbursements/commit.	54	56	88	81	77	103	91	106	90	76	72
Bilateral/multilateral	63	62	76	71	67	95	77	90	74	79	73
Other /c	47	53	96	94	87	111	147	165	156	61	64
Gross disbursements/undisbursed debt and commitments /d	21	24	38	28	24	27	22	28	32	9	17
Bilateral/multilateral	14	14	16	16	13	15	21	25	23	21	20
Other /c	21	24	38	28	24	27	22	28	32	9	17
Net disbursemnts/gross disbs.	61	72	74	59	34	38	38	31	31	13	24
Bilateral/multilateral	72	71	68	71	62	53	69	69	68	61	60
Other /c	48	73	71	47	11	26	-27	-44	-39	-317	-127
Net resource transfers/gross disbs.	23	43	49	17	-12	-11	-4	-8	-7	-41	-23
Bilateral/multilateral	48	46	42	41	19	4	40	38	35	22	21
Other /c	-2	42	53	-7	-38	-23	-95	-101	-89	-474	-208

Data in this sector refer to public 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.
End of year.
Suppliers' credits, loans from financial institutions, export credits, bonds and nationalization only.
Gross disbursements as a percentage of undisbursed debt (TDO-DOD) at beginning of year plus commitments during the year.

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

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COUNTRY ECONOMIC REPORT

External Public Debt Outstanding as of December 31, 1991
(US$ '000)

Type of creditor/ creditor country	Debt outstanding Disbursed	Undisbursed	Total	Major reported new commitments Jan 1-Dec 31 1991
Suppliers' Credits				
Finland	12,186	23,691	35,877	21,757
France	37	-	37	0
Japan	2,348,984	647,391	2,996,375	85,660
Korea, Republic of	4,129	-	4,129	0
Pakistan	3,805	-	3,805	0
Switzerland	1,203	-	1,203	0
Total suppliers' credits	2,370,344	671,082	3,041,426	107,417
Financial Institutions				
France	252,647	9,630	262,277	0
Germany, Fed. Rep. of	1,737	-	1,737	0
Hong Kong	948,936	1,099,680	2,048,616	0
Italy	2,359	-	2,359	0
Japan	3,148,244	883,882	4,032,126	400,000
Multiple Lenders	93,750	-	93,750	0
Netherlands	945	-	945	0
Singapore	67,436	-	67,436	0
United Kingdom	147,953	187,070	335,023	0
United States	252,873	130,000	382,873	0
Total financial institutions	4,916,882	2,310,262	7,227,142	400,000
Bonds				
Germany, Fed. Rep. of	197,889	-	197,889	0
Netherlands	11,693	-	11,693	0
Switzerland	82,500	-	82,500	0
United Kingdom	88,100	-	88,100	0
United States	300,000	-	300,000	0
Total bonds	680,182	0	680,182	0
Nationalization				
Netherlands	120,907	-	120,907	0
Total nationalization	120,907	0	120,907	0
Multilateral Loans				
Asian Dev. Bank	4,365,715	2,939,604	7,305,319	990,000
EEC	4,243	-	4,243	0
IBRD	10,597,020	4,460,794	15,057,814	1,532,600
IDA	829,079	-	829,079	0
Intl. Fund Agr. Dev. (IFAD)	53,239	61,988	115,227	0
Islamic Dev. Bank	472	-	472	0
Nordic Invest. Bank	105,023	33,470	138,493	42,098
Total multilateral loans	15,954,791	7,495,856	23,450,647	2,564,698

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COUNTRY ECONOMIC REPORT

External Public Debt Outstanding as of December 31, 1991
(US$ '000)

Type of creditor/ creditor country	Debt outstanding Disbursed	Undisbursed	Total	Major reported new commitments Jan 1-Dec 31 1991
Bilateral Loans				
Australia	386,057	101,413	487,470	0
Austria	42,831	23	42,854	0
Belgium	94,059	34,943	129,002	30,868
Brunei	100,000	-	100,000	0
Bulgaria	912	-	912	0
Canada	349,619	63,410	413,029	11,848
China	22,913	-	22,913	0
Czechoslovakia	30,408	-	30,408	0
Denmark	22,749	41,790	64,539	38,324
Egypt, Arab Republic of	1,274	-	1,274	0
France	756,481	316,580	1,073,061	9,806
German Dem. Rep.	25,008	-	25,008	0
Germany, Fed.Rep.of	1,887,509	1,490,012	3,377,521	742,698
Hungary	7,585	-	7,585	0
India	10,263	3,163	13,426	0
Italy	48,895	50,195	99,090	14,849
Japan	13,084,409	5,405,146	18,489,555	2,395,977
Korea, Republic of	2,041	9,711	11,752	0
Kuwait	65,572	60,115	125,687	0
Netherlands	1,249,512	69,116	1,318,628	0
New Zealand	853	-	853	0
Other	20,000	-	20,000	0
Pakistan	3,096	-	3,096	0
Poland	42,712	-	42,712	0
Romania	6,123	-	6,123	0
Saudi Arabia	74,968	61,288	136,256	0
Spain	40,297	29,797	70,094	36,429
Switzerland	27,530	10,094	37,624	0
United Arab Emirates	3,980	-	3,980	0
United Kingdom	43,739	67,556	111,295	0
United States	2,310,505	702,340	3,012,845	320,768
USSR	445,663	-	445,663	0
Yugoslavia	51,195	-	51,195	0
Total bilateral loans	21,258,760	8,516,692	29,775,453	3,601,568
Export Credits				
Austria	170,094	280,814	450,908	248,538
Belgium	131,641	152,979	284,620	60,577
Denmark	0	15,213	15,213	15,213
France	1,158,607	646,572	1,805,179	307,676
Germany, Fed.Rep.of	163,798	36,873	200,671	0
Hong Kong	96,510	-	96,510	89,885
Japan	202,527	59,250	261,777	15,000
Netherlands	216,157	147,824	363,981	92,623
Norway	483	-	483	0
Singapore	3,375	-	3,375	0
Spain	82	-	82	0
Sweden	155,487	-	155,487	0
Switzerland	83,402	63,612	147,014	58,456
United Kingdom	649,505	459,294	1,108,799	278,757
Total export credits	3,031,669	1,862,431	4,894,098	1,166,726
Total external public debt	48,333,533	20,856,323	69,189,855	7,840,409

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

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COUNTRY ECONOMIC REPORT

Service Payments, Commitments, Disbursements and Outstanding Amounts of External Public Debt
(US$ '000)

	Debt outstanding at end of period		Transactions during period					Other Changes	
	Disbursed only	Including Undisbursed	Commit-ments	Disburse-ments	Service Payments: Principal	Service Payments: Interest	Service Payments: Total	Cancel-lations	Adjust-ment /a
Actual									
1980	15,027,314	24,509,975	4,277,373	2,550,505	939,494	823,811	1,763,305	118,261	-
1981	15,908,458	26,953,145	4,951,129	2,672,429	1,054,106	990,708	2,044,814	163,286	-1,290,566
1982	18,317,545	32,007,959	7,069,817	3,951,336	1,104,100	1,132,291	2,236,391	7,043	-903,858
1983	21,493,904	35,297,509	5,686,879	4,979,024	1,289,872	1,233,096	2,522,968	197,669	-909,788
1984	22,265,531	36,351,869	4,816,038	3,889,587	1,599,633	1,628,892	3,228,525	25,234	-2,136,811
1985	26,777,203	42,771,002	4,626,913	3,552,883	2,329,754	1,642,524	3,972,278	514,889	4,636,864
1986	32,634,046	50,072,964	4,103,343	4,240,118	2,621,963	2,071,669	4,693,632	183,468	6,004,050
1987	40,907,974	60,428,825	5,992,347	5,462,822	3,405,766	2,272,912	5,678,678	635,218	8,404,498
1988	41,257,265	60,137,709	6,087,470	6,439,542	4,438,748	2,525,945	6,964,694	508,737	-1,438,099
1989	41,104,637	59,770,116	7,157,553	6,468,181	4,435,510	2,501,324	6,936,835	293,165	-2,796,470
1990	45,021,705	65,198,728	6,228,970	4,744,574	4,131,903	2,534,729	6,666,632	840,471	4,172,017
1991	48,333,533	69,189,855	7,840,409	5,606,326	4,252,652	2,669,110	6,921,762	1,957,643	2,361,012
Projected									
1992	49,167,121	61,770,704	-	5,653,987	4,796,255	2,851,647	7,647,902	2,598,753	-24,143
1993	48,943,377	56,665,709	-	4,881,250	5,105,003	2,828,804	7,933,807	-	9
1994	47,696,527	52,248,996	-	3,169,884	4,416,735	2,686,913	7,103,649	-	21
1995	45,493,563	48,012,410	-	2,033,626	4,236,590	2,542,659	6,779,250	-	5
1996	42,925,340	44,185,422	-	1,258,788	3,827,010	2,365,124	6,192,134	-	22
1997	39,919,262	40,500,708	-	678,680	3,684,759	2,180,414	5,865,172	-	45
1998	36,685,746	36,890,175	-	377,105	3,610,620	1,985,591	5,596,211	-	87

/a This column shows the amount of arithmetic imbalances in the amount outstanding, including undisbursed, from one year to the next. The most comm causes of imbalance 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.

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COUNTRY ECONOMIC REPORT

DEVELOPMENT ASSISTANCE FLOWS, 1985-1990 /a
(US$ million)

COUNTRIES	1985 Comm. /b	1985 Disb. /c Gross	1985 Disb. /c Net	1986 Comm. /b	1986 Disb. /c Gross	1986 Disb. /c Net	1987 Comm. /b	1987 Disb. /c Gross	1987 Disb. /c Net	1988 Comm. /b	1988 Disb. /c Gross	1988 Disb. /c Net	1989 Comm. /b	1989 Disb. /c Gross	1989 Disb. /c Net	1990 Comm. /b	1990 Disb. /c Gross	1990 Disb. /c Net
IGGI members:																		
AUSTRALIA	56.6	46.8	46.8	42.1	42.0	42.0	32.2	48.2	48.2	84.0	71.7	71.7	106.2	83.1	83.1	62.8	77.4	77.4
AUSTRIA	0.6	0.5	0.5	0.2	0.2	0.2	17.6	0.6	0.6	19.2	10.5	6.9	20.7	15.7	4.4	26.8	34.3	21.2
BELGIUM	2.3	4.7	3.4	5.6	13.4	11.3	7.1	5.8	5.8	11.9	13.3	6.2	10.7	10.7	10.7	6.5	6.5	(1.6)
CANADA	12.3	35.9	34.1	54.2	54.2	52.1	37.6	45.4	43.0	88.9	43.3	40.1	81.7	38.4	33.4	37.6	51.9	48.4
FRANCE	26.0	27.7	20.6	8.3	45.9	39.2	46.7	43.5	37.3	137.2	67.6	57.1	288.9	115.3	108.9	209.7	136.0	122.4
GERMANY	134.7	120.6	86.9	44.8	183.0	126.1	139.0	140.4	61.8	151.4	190.2	97.6	179.4	138.8	52.4	268.2	211.4	99.0
ITALY	19.0	1.4	1.2	15.7	12.4	11.8	3.9	19.8	19.4	8.1	2.8	1.3	48.4	21.2	17.5	0.5	11.3	9.8
JAPAN	696.8	282.8	161.3	165.6	337.4	160.8	1,336.3	941.1	707.3	1,701.0	1,264.7	984.9	1,455.2	1,407.1	1,145.3	1,500.2	1,131.9	867.8
NETHERLANDS	43.2	70.8	56.6	102.3	108.8	90.5	113.7	165.0	140.3	254.6	186.5	156.2	222.2	191.0	161.5	202.6	228.4	190.1
NEW ZEALAND	1.4	1.5	1.5	1.2	2.1	2.4	2.1	2.1	2.1	2.4	2.3	2.3	-	2.2	2.2	3.3	3.1	3.1
SPAIN	-	-	-	-	-	-	-	-	-	-	-	-	23.0	-	-	10.6	22.9	22.9
SWITZERLAND	5.5	6.0	6.0	20.0	9.7	9.7	16.8	7.4	7.4	8.3	28.4	28.4	7.0	21.4	21.4	19.6	19.4	19.4
UNITED KINGDOM	25.6	41.2	38.0	9.4	10.9	7.3	33.3	14.5	10.4	35.6	21.7	17.2	45.2	18.2	14.5	317.0	26.4	22.4
UNITED STATES	108.2	101.0	43.0	109.7	104.0	46.0	124.2	96.0	36.0	79.8	86.0	22.0	64.4	97.0	31.0	54.2	101.0	31.0
Other DAC countries:																		
DENMARK	11.3	0.0	(0.2)	0.1	0.2	(0.2)	-	0.8	0.3	-	1.1	0.6	3.4	11.5	11.1	0.6	5.7	4.9
FINLAND	4.5	1.4	1.4	5.3	1.4	1.4	1.7	1.8	1.8	8.9	3.3	3.3	0.6	5.8	5.8	3.9	2.7	2.7
IRELAND	-	-	-	-	-	-	0.1	0.6	0.1	-	-	-	-	-	-	-	-	-
NORWAY	1.6	1.7	1.6	4.6	4.2	4.2	3.1	0.8	0.6	-	2.2	2.0	-	1.2	0.5	-	0.3	(0.2)
SWEDEN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
ARAB COUNTRIES	35.2	13.5	1.2	24.7	33.5	20.4	42.4	24.4	11.2	19.7	27.9	9.1	-	20.5	1.9	-	32.0	20.0
SUBTOTAL	1,188.8	757.5	503.9	613.8	963.3	625.2	1,957.8	1,558.2	1,133.6	2,611.0	2,023.5	1,506.9	2,557.0	2,199.1	1,705.6	2,724.1	2,102.7	1,560.8
MULTILATERAL																		
A.S.D.B.	263.1	166.2	139.8	457.3	205.3	170.0	585.2	355.0	311.0	561.1	530.4	470.1	694.9	700.7	631.1	1,069.6	778.1	667.8
E.E.C.	0.3	8.6	8.6	24.0	7.3	7.3	37.2	6.3	6.3	2.9	8.3	8.3	1.3	13.9	13.9	1.2	13.9	13.9
IBRD	1,068.1	738.6	611.3	982.1	810.1	579.5	1,418.0	1,359.9	1,004.1	1,066.9	1,647.9	1,219.2	2,007.4	1,256.4	783.4	1,565.2	987.3	436.4
IDA	-	38.4	32.7	-	18.1	12.4	-	14.4	8.7	-	1.3	(4.8)	-	1.1	(7.0)	-	-	(11.2)
IFAD	12.8	13.3	12.1	0.2	17.6	13.2	13.7	16.9	15.6	0.3	12.2	10.8	-	12.6	10.1	-	12.8	8.5
U.N. AGENCIES	39.9	34.1	34.1	43.9	40.0	40.0	50.2	44.9	44.9	47.2	40.6	40.6	53.6	45.2	45.2	51.6	43.3	43.3
UNDP	-	14.3	14.3	-	15.6	15.6	-	21.2	21.2	-	20.6	20.6	-	19.1	19.1	-	17.0	17.0
UNFA	-	4.6	4.6	-	3.6	3.6	-	5.1	5.1	-	3.7	3.7	-	5.2	5.2	-	4.3	4.3
UNICEF	-	7.6	7.6	-	9.3	9.3	-	10.5	10.5	-	11.9	11.9	-	11.3	11.3	-	10.0	10.0
UNRWA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WFP	-	4.4	4.4	-	9.0	9.0	-	5.2	5.2	-	2.7	2.7	-	7.6	7.6	-	8.0	8.0
UNHCR	-	3.2	3.2	-	2.5	2.5	-	2.9	2.9	-	1.7	1.7	-	2.0	2.0	-	4.0	4.0
OTHER MULTILATERAL	-	5.9	5.9	-	4.0	4.0	-	5.3	5.3	-	6.7	6.7	-	10.0	10.0	-	8.4	8.4
ARAB AGENCIES	7.4	0.3	0.0	-	5.3	4.3	-	0.2	(1.0)	-	0.3	(1.4)	-	-	(1.0)	-	-	-
SUBTOTAL	1,391.6	1,005.5	844.4	1,507.5	1,107.6	830.8	2,104.3	1,802.9	1,394.9	1,678.4	2,247.7	1,749.5	2,757.2	2,039.8	1,485.7	2,667.6	1,843.8	1,167.2
TOTAL	2,580.4	1,763.0	1,348.3	2,121.3	2,070.9	1,456.0	4,062.1	3,361.1	2,528.5	4,289.4	4,271.2	3,256.4	5,314.2	4,238.9	3,191.3	5,391.7	3,946.5	2,728.0

/a Calendar year.
/b Commitments.
/c Disbursements.

Source: OECD: "Geographical Distribution of Financial Flows to Developing Countries"; For Spain, As.D.B., IBRD and IDA: Debtor Reporting System, World Bank.

Statistical Annex
Table 5.1

INDONESIA

COUNTRY ECONOMIC REPORT

Central Government Budget Summary, 1978/79-1992/93
(Rp. billion)

	Actual													Budget	
	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
1. Domestic revenues	4,266	6,697	10,227	12,213	12,418	14,433	15,906	19,253	16,141	20,803	23,804	28,740	39,546	40,184	46,509
2. Routine expenditures /a	2,744	4,062	5,800	6,978	6,996	8,412	9,429	11,952	13,539	17,482	20,739	24,331	29,998	30,558	33,197
3. Government saving (1-2)	1,522	2,635	4,427	5,235	5,422	6,021	6,477	7,301	2,581	3,322	2,265	4,409	9,549	9,626	13,312
4. Development expenditures	2,556	4,014	5,916	6,940	7,360	9,899	9,952	10,873	8,332	9,477	12,251	13,834	19,452	19,998	22,912
5. Balance (3-4)	(1,033)	(1,379)	(1,489)	(1,705)	(1,938)	(3,878)	(3,475)	(3,572)	(5,751)	(6,156)	(9,985)	(9,426)	(9,903)	(10,372)	(9,600)
Financed by:															
6. Program aid	48	65	64	45	15	15	69	69	1,958	728	2,041	1,807	1,397	1,538	501
7. Project aid	987	1,316	1,430	1,654	1,925	3,868	3,409	3,503	3,795	5,430	7,950	8,422	8,508	8,834	9,099
8. Change in balances (- = increase)	(2)	(2)	(5)	(4)	(2)	(4)	(3)	(1)	(2)	(2)	(5)	(4)	(1)	0	(0)

/a Includes debt service payments.

Source: Ministry of Finance.

Statistical Annex
Table 5.2

INDONESIA

COUNTRY ECONOMIC REPORT

Central Government Receipts, 1978/79 - 1992/93
(Rp. billion)

	Actual													Budget	
	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Taxes on income	2,996	5,129	8,230	10,100	10,010	11,605	12,847	13,625	8,798	12,986	13,951	17,330	25,278	23,882	25,868
Income tax	122	148	164	207	289	399	451	675	2,271	2,663	3,949	5,488	6,755	8,821	10,930
Corporate tax /a	227	297	448	539	675	757	1,670	1,638							
Corporate tax on oil /b	2,309	4,260	7,020	8,628	8,170	9,520	10,430	11,144	6,338	10,047	9,527	11,252	17,712	15,089	13,948
Witholding tax /b	233	291	434	513	642	628									
IPEDA/property tax /c	63	71	87	95	105	132	157	168	190	275	424	590	811	839	991
Others /d	43	62	78	99	129	169	158								
Taxes on domestic consumption	491	537	733	888	1,157	1,392	1,510	3,479	5,136	4,719	6,187	7,589	9,624	10,798	14,638
Sales/value added tax	221	192	266	311	477	575	657	2,527	2,980	3,390	4,505	5,837	7,463	8,224	11,832
Excises	253	326	438	544	630	773	873	944	1,056	1,106	1,390	1,477	1,917	2,215	2,442
Other oil revenues /e	0	0	0	0	0	0	0	0	1,010	0	0	0	0	0	801
Miscellaneous levies	17	19	29	33	41	44	0	208	190	223	292	276	244	351	355
Taxes on international trade	587	843	948	888	835	916	862	638	1,039	1,122	1,348	1,739	2,530	2,685	3,101
Import duties	295	317	448	536	522	557	530	487	940	938	1,192	1,587	2,486	2,574	3,041
Sales tax on imports /f	126	137	195	223	231	255	241								
Export tax	166	389	305	128	83	104	91	51	79	184	156	172	44	121	60
Nontax receipts	191	187	316	336	436	560	687	1,482	1,147	1,977	1,569	2,082	2,115	2,831	2,930
Domestic revenue	4,266	6,697	10,227	12,213	12,418	14,433	15,906	19,233	16,141	20,803	23,054	28,740	39,546	40,184	46,538
Development funds	1,036	1,381	1,494	1,709	1,940	3,882	3,478	3,573	5,753	6,158	9,991	9,429	9,905	10,372	9,650
Program aid	48	65	64	45	15	15	69	69	1,958	728	2,041	1,007	1,397	1,538	501
Project aid /g	987	1,316	1,430	1,664	1,925	3,868	3,409	3,503	3,795	5,430	7,950	8,422	8,508	8,834	9,099
Total revenues	5,302	8,078	11,721	13,922	14,358	18,315	19,384	22,805	21,889	26,961	32,995	38,169	49,451	50,556	56,188

/a Since 1986/87 included in income tax.
/b Since 1984/85, witholding tax eliminated as separate category and combined with income tax.
/c Since January 1986, Ipeda replaced by land and building tax.
/d Classification changed to other tax (included in miscellaneous levies which consist of other taxes and stamp duty).
/e Oil subsidies shown as Government expenditures from 1977/78 (see Table 5.3).
/f Since 1984/85 classification changed to value-added tax and tax on luxury goods.
/g Includes commercial bank and suppliers' credits for development projects.

Source: Ministry of Finance.

INDONESIA

COUNTRY ECONOMIC REPORT

Central Government Expenditures, 1978/79 - 1992/93
(Rp. billion)

	Actual													Budget	
	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Personnel expenditures	1,002	1,420	2,023	2,278	2,418	2,757	3,047	4,018	4,311	4,617	4,998	6,202	7,054	7,753	9,145
Wages and salaries	760	1,054	1,483	1,660	1,749	1,996	2,207	3,073	3,330	3,561	3,833	4,826	5,571	6,063	7,220
Rice allowance	133	180	252	253	290	346	407	402	406	451	518	588	640	769	806
Food allowance	51	110	193	241	255	261	271	300	288	299	327	373	382	436	473
Other	34	47	61	80	79	88	90	161	177	176	185	243	264	267	311
External	24	29	34	43	46	66	72	82	110	130	135	171	198	215	255
Material expenditures	420	569	671	922	1,041	1,057	1,183	1,367	1,366	1,329	1,492	1,702	1,830	2,201	2,432
Domestic	398	540	638	891	1,007	1,007	1,134	1,310	1,294	1,239	1,378	1,569	1,670	2,038	2,248
External	21	29	33	32	34	50	49	58	73	90	114	133	160	162	185
Subsidies to region /a	522	670	976	1,209	1,315	1,547	1,883	2,489	2,650	2,816	3,038	3,566	4,237	4,660	5,269
Irian Jaya	22	25	34	42	43	42	0	0	0	0	0	0	0	0	0
Other region	500	645	942	1,167	1,272	1,505	1,883	2,489	2,650	2,816	3,038	3,566	4,237	4,660	5,269
Debt service payments	535	684	785	931	1,225	2,103	2,777	3,323	5,058	8,205	10,940	11,939	13,395	14,361	15,902
Internal	9	37	31	16	20	30	39	20	0	39	78	149	250	251	275
External	526	648	754	915	1,205	2,073	2,737	3,303	5,058	8,166	10,863	11,790	13,145	14,130	15,627
Other expenditures	266	719	1,345	1,637	997	948	540	754	174	515	271	923	3,483	1,563	449
Food subsidy	44	125	282	224	1	0	0	0	29	0	0	0	0	0	0
Oil subsidy	197	535	1,022	1,316	962	928	507	374	0	0	0	0	0	1,187	0
Others /b	25	59	42	97	34	20	33	380	145	515	271	923	3,483	376	449
Routine expenditures	2,744	4,062	5,800	6,978	6,996	8,412	9,429	11,952	13,559	17,482	20,739	24,331	29,998	30,558	33,197
Development expenditures /c	2,556	4,014	5,916	6,940	7,360	9,899	9,952	10,873	8,332	9,477	12,251	13,834	19,452	19,998	22,912
Total expenditures	5,299	8,076	11,716	13,918	14,356	18,311	19,381	22,825	21,891	26,959	32,990	38,165	49,450	50,556	56,109

/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. 31.0 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. 40.0 billion).
/c For details see Tables 5.4 and 5.5.

Source: Ministry of Finance.

Statistical Annex
Table 5.4

INDONESIA

COUNTRY ECONOMIC REPORT

Development Expenditures, 1978/79 - 1992/93
(Rp. billion)

	Actual													Budget	
	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
1. Departments	851	1,480	2,533	2,725	3,261	3,220	3,474	4,467	2,004	2,113	1,861	2,509	4,854	6,447	8,038
2. General INPRES programs	182	219	337	448	535	539	540	575	568	656	714	706	1,058	1,435	1,867
Subsidies to provinces	87	101	167	215	253	253	253	287	293	290	334	324	486	594	716
Subsidies to kabupatens	71	87	119	163	194	194	195	189	188	263	267	270	392	591	825
Subsidies to villages	24	31	51	71	88	92	93	99	86	102	112	112	181	250	327
3. Sectoral INPRES programs	176	252	377	585	444	771	824	754	721	451	429	536	1,282	1,843	2,282
Primary schools	112	156	250	375	267	549	572	526	496	193	131	100	374	522	669
Health	27	30	50	79	80	87	65	111	108	74	99	122	193	269	339
Markets	1	12	3	6	5	11	26	4	12	3	3	3	3	3	3
Replanting/reforestration	36	41	49	70	50	59	61	43	31	16	17	17	33	75	97
Roads	0	13	26	55	42	65	101	70	75	164	180	295	679	975	1,173
4. PBB /b	63	71	87	95	105	132	157	168	171	223	344	478	657	679	802
5. Irian Jaya and East Timor	10	7	6	7	6	5	4	7	7	5	0	0	0	0	0
Total (2-5) : Transfer to local governments	431	549	808	1,134	1,090	1,448	1,526	1,503	1,467	1,334	1,486	1,720	2,998	3,957	4,951
6. Fertilizer subsidy	83	125	284	371	420	324	732	477	467	756	200	278	265	175	175
7. Government capital participation (PMP)	129	253	477	481	337	592	336	412	86	336	125	141	323	95	145
8. Others	75	291	386	565	327	449	77	511	514	515	629	765	505	489	503
9. Development expenditures in reserves	:	:	:	:	:	:	:	:	:	:	:	:	2,000	:	:
Total (1 - 8)	1,568	2,698	4,486	5,276	5,135	6,032	6,543	7,370	4,537	5,054	4,301	5,413	10,944	11,164	13,813
9. Project aid /a	987	1,316	1,430	1,664	1,925	3,868	3,409	3,503	3,795	4,423	7,950	8,422	8,508	8,834	9,099
Total (1 - 9)	2,556	4,014	5,916	6,940	7,360	9,899	9,952	10,873	8,332	9,477	12,251	13,835	19,452	19,998	22,912

/a For 1987/88 excluding project aid in Rupiah.
/b Land and Building tax = transfer from Central Government to local governments (IPEDA prior to December 1985).

Source: Ministry of Finance.

INDONESIA

COUNTRY ECONOMIC REPORT

Development Expenditure by Sector, 1978/79 - 1992/93
(Rp. billion)

Sector	Actual													Budget	
	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Agriculture and irrigation	450	508	929	954	931	913	1,699	1,138	880	1,937	1,614	2,049	2,308	2,816	2,955
(of which fertilizer subsidy)	(83)	(125)	(284)	(371)	(420)	(324)	(732)	(477)	(467)	(756)	(280)	(278)	(265)	(175)	(175)
Industry and mining	205	403	491	827	913	2,153	839	1,189	681	335	565	420	714	728	784
Electric power	272	330	431	530	758	660	911	1,447	960	1,085	1,955	1,397	1,707	2,210	2,749
Transportation and tourism	413	466	781	807	876	1,528	1,428	1,484	1,131	1,598	2,011	3,086	3,743	3,968	4,385
Manpower and transmigration	95	162	326	417	436	456	422	665	292	200	266	281	580	745	886
Regional development	275	336	482	616	711	749	791	850	939	930	1,137	1,369	1,938	2,409	2,919
Education	251	361	575	726	703	1,032	1,231	1,413	1,184	1,181	1,686	1,587	2,052	2,563	3,082
Population & Health	79	142	218	286	259	279	329	398	326	225	339	470	723	783	955
Housing and water supply	56	117	191	166	151	221	224	335	337	432	481	495	677	833	959
General public services /a	225	473	699	800	786	899	927	977	769	652	733	909	1,247	1,376	1,518
Government capital participation	162	466	389	389	281	234	292	221	211	219	238	625	335	378	390
Others /b	73	250	404	423	555	776	1,599	1,235	1,078	684	1,305	1,306	1,429	1,250	1,410
Development budget in reserves	-	-	-	-	-	-	-	-	-	-	-	-	2,000	-	-
Total development expenditures	2,556	4,014	5,916	6,940	7,360	9,899	9,952	10,873	8,332	9,477	12,251	13,834	19,452	19,998	22,912
Total (excluding fertilizer subsidy)	2,473	3,889	5,633	6,569	6,940	9,575	9,220	10,396	7,865	8,721	12,051	13,556	19,187	19,823	22,737

/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.

Statistical Annex
Table 5.6

INDONESIA

COUNTRY ECONOMIC REPORT

Project Aid by Sector, 1978/79 - 1992/93
(Rp. billion)

	Actual													Budget	
	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Agriculture and irrigation	135	155	223	136	101	155	472	180	237	576	1,087	1,345	1,5[illegible]	1,924	1,980
Industry and mining	199	307	226	581	734	1,051	671	668	632	267	327	240	409	597	632
Electric power	208	257	265	308	506	1,182	653	1,172	791	769	1,783	1,269	1,314	1,692	2,122
Transportation and tourism	250	192	308	264	332	889	601	688	729	845	1,424	2,174	1,976	1,419	1,264
Manpower and transmigration	12	23	31	31	15	45	76	36	123	62	98	83	91	67	47
Regional development	8	18	24	17	3	7	1	8	25	4	45	121	155	171	21
Education	35	43	50	37	24	211	180	59	346	718	1,236	1,085	957	934	1,066
Population & Health	22	34	36	34	24	37	78	56	100	38	99	177	188	56	30
Housing and water supply	18	28	33	22	21	51	84	77	139	273	400	351	444	514	581
General public services	54	175	154	180	83	152	255	186	257	350	382	566	471	727	653
Government capital participation	33	34	36	28	47	45	160	203	185	168	213	419	100	144	216
Others /a	14	50	45	29	35	42	179	171	231	355	855	594	890	590	566
Total project aid /b	987	1,316	1,430	1,664	1,925	3,867	3,409	3,503	3,795	4,423	7,950	8,422	8,508	8,834	9,099

/a Since 1979/80 includes natural resources development and environment.
/b Includes commercial credits for development programs/projects.

Source: Ministry of Finance.

INDONESIA

COUNTRY ECONOMIC REPORT

Money Supply, 1974 - 1991
(Rp. billion)

End of	Total	Currency		Demand deposits		Change over period	
		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	2,488	1,240	50	1,248	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	18
1986	11,677	5,338	46	6,339	54	1,573	16
1987	12,685	5,782	46	6,903	54	1,008	9
1988	14,392	6,246	43	8,146	57	1,707	13
1989	20,114	7,426	37	12,688	63	5,722	40
1990	23,819	9,094	38	14,725	62	3,705	18
1991	26,342	9,346	35	16,996	65	2,523	11

Source: Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Changes in Factors Affecting Reserve Money Supply, 1974-1991
(Rp. billion)

End of period	Net foreign assets	Public Sector: Net claims on Central Government	Public Sector: Claims on official entities & public enterprises	Claims on business & individuals	Net other items	Total change in Money Supply: Amount	Total change in Money Supply: Percentage (%)
1974	364	-132	294	147	-209	268	40
1975	-588	162	926	298	143	313	33
1976	345	-333	449	356	-113	353	28
1977	568	-275	35	284	-180	403	25
1978 /b	50	-311	349	546	-128	482	24
1979	1,788	1,779	371	557	-436	897	36
1980	3,040	-1,868	489	1,178	-365	1,610	48
1981	149	-591	593	1,756	83	1,491	30
1982	-1,237	129	689	2,260	-591	635	10
1983 /c	1,180	-1,286	-42	2,183	815	448	6
1984	3,531	-3,359	190	3,646	882	1,012	13
1985	1,750	-214	511	3,333	-115	1,523	18
1986 /d	1,870	469	252	4,547	-2496	1,573	16
1987	2,444	1,538	729	6,245	-4710	1,008	9
1988	-549	247	659	11,069	-3053	1,707	13
1989	409	-1175	1,444	22,132	-6156	5,722	40
1990	-2171	-3877	-921	35,809	-2498	3,705	18
1991	7,430	-1356	105	20,263	-12095	2,523	11

/a Refers to government accounts blocked [illegible] ecial purposes.

/b Does not include revaluation adjustme[illegible] 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.

/c 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.

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

Source: Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Consolidated Balance Sheet of the Monetary System, 1981-1991
(Rp. billion)

End of period	1981	1982	1983 /a	1984	1985	1986 /b	1987	1988	1989	1990	1991
Net foreign assets	6,811	5,565	8,837	12,368	14,119	15,989	18,433	17,884	18,293	16,122	23,552
Domestic credit	5,651	8,846	9,744	10,345	14,325	19,323	26,729	39,802	62,131	93,142	112,154
Claims on public sector											
Central government	-4,330	-4,193	-5,739	-9,098	-9319	-8798	-8366	-7036	-8309	-12202	-13582
Claims on official entities and public enterprises	4,247	4,979	5,040	5,230	6,034	5,993	6,725	7,381	8,825	7,904	8,009
Government-blocked account	-360	-252	-240	-116	-52	-81	-84	-66	-40	-24	0
Claims on private enterprises and individuals	6,094	8,312	10,683	14,329	17,662	22,209	28,454	39,523	61,655	97,464	117,727
Loans	5,844	7,995	10,184	13,550	16,392	20,409	26,072	36,502	55,933	90,109	105,599
Other claims	250	317	499	779	1,270	1,800	2,382	3,021	5,722	7,355	12,128
Assets = liabilities	12,462	14,411	18,581	22,713	28,444	35,312	45,162	57,686	80,4[illegible]	109,264	135,706
Import deposits	298	300	242	218	268	402	424	684	632	1,048	966
Net other items	2,448	3,036	3,676	4,558	5,291	7,651	11,277	15,688	[illegible]087	23[illegible]6	35,681
Money and quasi money	9,716	11,075	14,663	17,937	23,153	27,661	33,885	41,998	58,705	84,630	99,059
Money	6,485	7,121	7,569	8,581	10,104	11,677	12,685	14,392	20,114	23,819	26,342
Currency	2,557	2,934	3,333	3,712	4,440	5,338	5,782	6,246	7,426	9,094	9,346
Demand deposits	3,928	4,187	4,236	4,869	5,664	6,339	6,903	8,146	12,688	14,725	16,996
Quasi money	3,231	3,954	7,094	9,356	13,049	15,984	21,200	27,606	38,591	60,811	72,717

/a Includes changes resulting from the exchange rate adjustment of March 30, 1983 from Rp 702.50 to Rp. 970 per US$.
/b Includes changes resulting from the exchange rate adjustment on September 12, 1986 from Rp 1,134 to Rp 1,644 per US$.

Source: Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Banking System Credits by Economic Sector, 1981-1991 /a
(Rp. billion)

Sectors	1981	1982	1983/f	1984	1985	1986/g	1987	1988	1989	1990	1991
Agriculture	813	1,025	1,226	1,318	1,656	2,097	2,657	3,648	5,350	[illegible]	8,465
In rupiah	813	1,025	1,226	1,318	1,656	2,097	2,631	3,610	5,281	7,176	7,979
In foreign exchange	0	0	0	0	0	0	26	38	69	192	486
Mining /b	1,693	1,472	806	384	258	394	381	144	591	615	743
In rupiah	1,693	1,472	806	384	258	394	371	124	456	570	614
In foreign exchange	0	0	0	0	0	0	10	20	135	45	129
Manufacturing industry /c	2,762	3,923	5,207	6,667	7,592	9,095	10,912	14,956	20,333	30,502	33,131
In rupiah	2,376	3,429	4,595	6,205	7,069	8,839	10,503	13,994	17,654	25,002	24,828
In foreign exchange	386	494	612	462	523	166	409	962	2,679	5,500	8,303
Trade /d	3,062	4,129	5,132	6,344	7,255	8,399	10,247	13,888	20,109	29,737	33,049
In rupiah	3,046	4,009	4,781	6,299	7,214	8,329	10,065	13,682	19,342	27,267	28,842
In foreign exchange	16	120	351	45	41	70	182	206	767	2,470	4,207
Service rendering industry /e	1,385	1,867	2,277	3,169	4,183	4,345	5,460	7,382	10,424	17,867	20,066
In rupiah	1,382	1,860	2,253	3,088	4,047	4,130	5,151	6,917	9,600	14,913	16,683
In foreign exchange	3	7	24	81	136	215	309	465	824	2,954	3,383
Others	444	606	651	931	1,213	2,162	3,187	3,721	1,866	11,709	17,371
In rupiah	444	606	651	929	1,210	2,156	3,143	3,667	1,709	11,197	16,326
In foreign exchange	0	0	0	2	3	6	44	54	157	512	1,045
Total	10,159	13,022	15,299	18,813	22,157	26,402	32,844	43,739	58,673	97,798	112,825
In rupiah	9,754	12,401	14,312	18,223	21,454	25,945	31,864	41,994	54,042	[illegible],125	95,272
In foreign exchange	405	621	987	590	703	457	980	1,745	4,631	11,673	17,553

/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 credits to PERTAMINA for repayment of foreign borrowing. Since March 1979, credit in foreign exchange to PERTAMINA has been converted to rupiah credits.
/c 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.
/d Includes credits for food procurement and hotel projects.
/e Credits for electricity, gas and water supply are included in service-rendering industry sector.
/f Includes foreign exchange revaluation amounting to Rp. 251 billion.
/g Includes revaluation adjustment due to the devaluation of September 12, 1986.

Source: Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Banking Credits Outstanding in Rupiah and Foreign Exchange by Group of Banks, 1981-1991 /a
(Rp. billion)

	1981	1982	1983 /b	1984	1985	1986 /c	1987	1988	1989	1990	1991
Bank Indonesia direct credits /d	2,649	2,771	2,356	870	964	1,144	1,347	1,547	696	718	783
In rupiah	2,649	2,771	2,356	870	964	1,144	1,347	1,547	696	718	783
In foreign exchange	0	0	0	0	0	0	0	0	0	0	0
State commercial banks /e	5,881	8,031	9,787	13,345	15,374	17,782	21,676	28,631	39,579	55,826	59,861
In rupiah	5,523	7,474	8,910	12,959	14,925	17,711	21,225	27,614	37,151	50,648	52,628
In foreign exchange	358	557	877	386	449	71	451	1,017	2,428	5,178	7,233
National Private Banks /f	1,081	1,554	2,294	3,552	4,746	6,272	8,423	11,910	20,216	34,975	44,452
In rupiah	1,069	1,534	2,279	3,480	4,631	6,061	8,175	11,536	18,955	31,458	39,467
In foreign exchange	12	20	15	72	115	211	248	374	1,261	3,517	4,985
Foreign Banks	548	666	862	1,046	1,073	1,204	1,406	1,913	3,115	6,177	8,512
In rupiah	513	622	767	914	934	1,029	1,122	1,559	2,173	3,039	3,177
In foreign exchange	35	44	95	132	139	175	284	354	942	3,138	5,335
Total	10,159	13,022	15,299	18,813	22,157	26,402	32,852	44,001	63,606	97,696	113,608
In rupiah	9,754	12,401	14,312	18,223	21,454	25,945	31,869	42,256	58,975	85,863	96,055
In foreign exchange	405	621	987	590	703	457	983	1,745	4,631	11,833	17,553

/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. 251.0 billion.
/c Includes revaluation adjustment due to devaluation on September 12, 1986.
/d Excludes liquidity credits, includes credits to Pertamina for repayment for foreign borrowing.
/e Includes state development bank and liquidity credits.
/f Includes liquidity credits. National private banks refer to national private commercial banks and regional development banks.

Source : Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Investment Credits by Economic Sector, 1981-1991 /a
(Rp. billion)

End of period	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Credits approved /b	1,906	2,679	3,900	4,509	5,898	7,966	9,814	13,500	18,263	26,450	32,906
Agriculture	340	467	734	809	1,402	2,274	2,584	3,393	5,009	6,811	9,788
Mining	40	54	57	179	229	363	382	495	481	502	517
Manufacturing industry	911	1,369	1,983	2,374	2,765	3,253	3,540	5,182	7,615	10,742	11,774
Trade	87	134	129	237	277	369	355	536	1,012	2,298	3,375
Service rendering industry	516	641	986	866	1,173	1,638	2,900	3,788	4,021	4,914	6,336
Others	12	14	11	44	52	69	53	106	125	1,183	1,116
Credits outstanding /b	1,436	2,099	2,861	3,802	5,471	6,486	7,635	10,422	14,292	19,961	25,748
Agriculture	202	322	477	555	948	1,292	1,690	2,284	3,357	4,361	5,450
Mining	26	34	49	178	224	367	342	372	358	372	459
Manufacturing industry	741	1,095	1,635	2,102	2,781	3,098	3,567	4,817	6,424	8,866	10,484
Trade	73	120	115	168	96	443	435	632	1,022	1,859	3,372
Service rendering industry	390	519	576	770	1,098	1,215	1,560	2,249	3,010	4,060	5,032
Others	4	9	9	29	24	71	41	68	121	443	951

/a Excludes investment credits from Bank Indonesia; includes State Development Bank and Local Development 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

Outstanding Bank Funds in Rupiah and Foreign Exchange by Group of Banks, 1982-1991
(Rp. billion)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Deposits										
State Banks	6,169	8,381	10,035	12,916	15,193	18,111	22,527	29,731	40,638	41,812
Private Banks	1,284	2,119	3,020	4,550	5,435	8,040	11,167	19,655	33,951	43,143
Regional Development Banks	411	498	700	825	797	954	1,300	1,674	2,550	3,228
Foreign Banks	1,004	1,398	1,743	1,883	2,086	2,226	2,516	3,315	6,016	6,935
Total	8,868	12,396	15,498	20,174	23,511	29,331	37,510	54,375	83,155	95,118
Share in Total Deposits										
State Banks	69.6	67.6	64.8	64.0	64.6	61.7	60.1	54.7	48.9	44.0
Private Banks	14.5	17.1	19.5	22.6	23.1	27.4	29.8	36.1	40.8	45.4
Regional Development Banks	4.6	4.0	4.5	4.1	3.4	3.3	3.5	3.1	3.1	3.4
Foreign Banks	11.3	11.3	11.2	9.3	8.9	7.6	6.7	6.1	7.2	7.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Annual Growth Rate in Deposits										
State Banks	2.2	30.6	18.0	25.2	16.2	17.6	21.8	27.7	31.3	2.8
Private Banks	40.0	50.1	35.4	41.0	17.8	39.2	32.9	56.5	54.7	24.0
Regional Development Banks	16.1	19.2	34.0	16.4	-3.4	18.0	30.9	25.3	42.1	23.6
Foreign Banks	27.2	33.1	22.1	7.7	6.5	6.5	12.2	27.[illegible]	59.6	14.2
Total	10.2	33.5	22.3	26.4	22.1	22.1	24.6	37.1	42.5	13.4

/a Total funds are the sum of demand, time and savings deposits. Figures differ from the monetary survey because these include Central Government accounts. Rural credit banks are excluded.

Source : Bank Indonesia.

INDONESIA

COUNTRY ECONOMIC REPORT

Interest Rates on Deposits at Commercial Banks, 1978-1991 /a
(% p.a)

End of Period	Demand Deposits /b	TABANAS Savings Deposits /c	TASKA Savings Deposits /d	Certificate of Deposits /e	Time Deposits									
					State Bank					Private National Bank /a				
					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	15.6	15.5	17.0	17.3	17.0	17.4	17.3	18.6	19.3	19.1	19.9
1988	1.8-3	15.0	9.0	15.9	15.8	18.1	18.4	18.7	18.8	20.2	20.1	20.3	20.2	20.9
1989	n.a	n.a	n.a	16.3	15.1	16.2	17.2	18.7	18.8	17.0	18.0	18.8	19.7	20.5
1990	n.a	n.a	n.a	15.9	20.5	20.7	20.7	20.5	20.0	20.9	21.3	21.3	21.2	21.0
1991	n.a	n.a	n.a	19.0	20.0	21.3	22.3	22.5	21.0	21.8	22.6	23.3	23.4	12.6

/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. From July 1987 to November 1989 : 15% for all denominations. Thereafter left to banks' discretion.
/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, 1978-1990
('000 tons)

Product	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /a
Food crops													
Rice /b	17,525	17,872	20,163	22,286	22,837	35,302	38,134	39,033	39,726	40,078	41,676	44,726	45,270
Corn	4,029	3,606	3,991	4,509	3,235	5,087	5,288	4,330	5,920	5,155	6,652	6,193	6,766
Cassava	12,902	13,751	13,726	13,301	12,988	12,103	14,167	14,037	13,312	14,356	15,471	17,117	15,591
Sweet potato	2,083	2,194	2,079	2,094	1,676	2,212	2,156	2,161	2,091	2,013	2,159	2,224	1,962
Soya beans (shelled)	617	680	633	704	521	536	769	870	1,227	1,161	1,270	1,315	1,427
Groundnuts (shelled)	446	424	470	475	437	460	535	528	642	533	589	620	643
Fisheries													
Saltwater fish	1,227	1,318	1,395	1,408	1,490	1,682	1,713	1,822	1,923	2,017	2,170	2,272	2,374
Freshwater fish	420	430	455	506	524	533	548	573	607	653	711	765	795
Meat and dairy													
Meat	475	486	571	596	629	650	742	808	860	895	937	971	1,082
Eggs	151	164	259	275	297	319	355	370	432	452	443	456	472
Milk /c	62	72	78	86	117	143	179	192	220	235	265	338	360
Cash crops													
Rubber	884	898	1,020	963	900	1,007	1,033	1,055	1,109	1,130	1,176	1,209	1,263
Palm oil	532	642	701	748	884	979	1,147	1,243	1,350	1,506	1,800	1,965	2,413
Coconut/copra	1,575	1,582	1,759	1,812	1,718	1,604	1,750	1,920	2,114	2,075	2,139	2,208	2,245
Coffee	223	228	285	295	281	305	315	311	339	380	386	401	424
Tea	91	125	106	110	94	110	126	127	136	126	137	141	144
Cloves	22	35	39	40	32	41	49	42	55	58	61	55	63
Pepper	46	47	37	39	34	46	46	41	40	49	56	68	70
Tobacco	81	87	116	118	106	109	108	161	164	113	116	81	81
Cane sugar	1,516	1,601	1,831	1,700	1,627	1,628	1,810	1,899	1,894	2,176	1,918	2,108	2,116
Cotton /d	1	1	6	10	13	14	12	45	53	48	39,731	38,374	41,000
Forestry /e													
Teakwood	475	495	613	578	692	718	758	777	798	689	725	725	780
Other timber	26,256	25,520	21,702	14,024	13,236	24,180	27,716	24,277	27,403	28,255	28,485	24,409	25,312

/a Preliminary figures.
/b Paddy production starting 1983.
/c In million of liters.
/d In tons.
/e In '000 cubic meters.

Source: Supplement to the President's Report to Parliament, August 16, 1991.

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Production of Major Crops by Type of Estate, 1979-1990
('000 tons)

Product	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /a
Smallholders													
Rubber	612	616	705	740	586	673	704	720	763	795	839	853	902
Coconut/copra	1,554	1,561	1,737	1,789	1,707	1,590	1,737	1,905	2,098	2,055	2,117	2,193	2,227
Coffee	206	209	266	276	262	287	291	288	316	359	362	377	398
Cloves	21	35	39	40	32	40	48	41	53	57	59	53	61
Tea	17	17	21	22	17	23	24	30	31	25	26	25	28
Sugar	485	498	749	1,364	1,373	1,249	1,397	1,450	1,417	1,744	1,499	1,621	1,627
Tobacco	68	73	101	103	97	100	104	156	159	110	113	77	77
Pepper	46	47	37	39	34	46	46	41	40	49	56	68	70
Cotton	1	1	6	10	13	14	12	45	53	48	40	38	41
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
Private estates													
Rubber	110	112	111	114	125	133	121	124	150	135	143	141	143
Coconut/copra	21	21	22	23	11	14	13	15	16	20	22	15	18
Coffee	7	8	6	6	6	8	9	10	10	8	10	11	11
Cloves	0	0	0	0	0	1	1	1	2	1	2	2	2
Tea	15	16	17	18	16	17	18	17	18	21	23	26	26
Sugar	71	73	114	116	72	88	83	106	106	109	103	181	181
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	165	168	202	206	285	269	329	339	385	352	435	597	789
Palm kernel	22	23	36	37	47	68	69	71	73	76	87	119	178
Government estates													
Rubber	162	170	186	192	189	201	208	211	196	200	194	215	218
Coconut/copra	0	0	0	0	0	0	0	0	0	0	0	0	0
Coffee	10	11	13	13	13	10	15	13	13	13	14	13	15
Cloves	0	0	0	0	0	0	0	0	0	0	0	0	0
Tea	59	92	68	70	61	70	84	80	87	80	88	90	90
Sugar	960	1,030	968	220	182	291	330	343	371	323	316	306	308
Tobacco	13	14	15	15	9	9	4	5	5	3	3	4	4
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	367	474	499	542	599	713	818	904	965	1,154	1,365	1,368	1,624
Palm kernel	72	85	90	98	110	98	178	187	193	243	273	274	326
Total													
Rubber	884	898	1,002	1,046	900	1,007	1,033	1,055	1,109	1,130	1,176	1,209	1,263
Coconut/copra	1,575	1,582	1,759	1,812	1,718	1,604	1,750	1,920	2,114	2,075	2,139	2,208	2,245
Coffee	223	228	285	295	281	305	315	311	339	380	386	401	424
Cloves	21	35	39	40	32	41	49	42	55	58	61	55	63
Tea	91	125	106	110	94	110	126	127	136	126	137	141	144
Sugar	1,516	1,601	1,831	1,700	1,627	1,628	1,810	1,899	1,894	2,176	1,918	2,108	2,116
Tobacco	81	87	116	118	106	109	108	161	164	113	116	81	81
Pepper	46	47	37	39	34	46	46	41	40	49	56	68	70
Cotton	1	1	6	10	13	14	12	45	53	48	40	39	41
Palm oil	532	642	701	748	884	982	1,147	1,243	1,350	1,506	1,800	1,965	2,413
Palm kernel	94	108	126	135	157	166	247	258	266	319	360	393	504

/a Preliminary figures.

Source: Supplement to President's Report to Parliament, August 16, 1991.

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Rice - Area Harvested, Production and Yield, 1974-1990

Year	Area harvested ('000 ha)	Average yield (tons/ha)	Paddy output ('000 tons)	Rice output /a ('000 tons)
1974	8,509	2.64	22,464	15,276
1975	8,495	2.63	22,331	15,185
1976	8,368	2.78	23,301	15,845
1977	8,360	2.79	23,347	15,876
1978	8,929	2.89	25,772	17,525
1979	8,850	2.97	26,283	17,872
1980	9,005	3.29	29,652	20,163
1981	9,382	3.49	32,774	22,286
1982	8,988	3.74	33,584	22,837
1983	9,162	3.85	35,302	24,006
1984	9,764	3.91	38,134	25,933
1985	9,902	3.97	39,033	26,542
1986	9,988	4.00	39,726	26,784
1987	9,923	4.04	40,078	27,253
1988	10,090	4.13	41,676	28,340
1989	10,531	4.25	44,726	29,072
1990	10,479	4.32	45,270	29,426

/a Estimated on the basis of a conversion factor of 0.68 from paddy into rice for the years prior to 1989, and a factor of 0.65 for the years 1989 and following.

Source: Central Bureau of Statistics.

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COUNTRY ECONOMIC REPORT

BULOG Rice Program, 1978/79 - 1992/93
('000 tons)

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90 /c	1990/91	1991/92 /g	1992/93 /h
Beginning stock	459	708	886	1,242	1,623	1,045	1,497	2,432	2,172	1,867	755	1,077	1,499	978	957
Domestic procurement	881	431	1,635	1,952	1,933	1,195	2,382	1,953	1,647	1,215	1,801	2,178	1,348	1416	2000
Import:	1,268	2,580	1,213	437	506	1,115	187	0	41	79	315	150	30	762	295
PL-480	304	353	101	46	0	65	54	0	0	0	0	0	0	0	0
Other food /e	15	327	198	48	0	140	0	0	41	79	315	150	30	89	295
Commercial	949	1,900	914	343	506	910	133	0	0	0	0	0	0	673	0
Total availability	2,608	3,719	3,734	3,631	4,062	3,355	4,066	4,385	3,860	3,161	2,871	3,405	2,877	3,156	3,252
Distribution /a	1,852	2,834	2,480	2,014	2,972	1,872	1,612	2,186	1,967	2,372	1,768	1,878	1,871		
Government	608	666	649	806	1,320	1,373	1,368	1,414	1,498	1,525	1,512	1,559	1,589	1610	1650
State enterprises	106	90	89	95	105	89	59	77	94	97	106	94	94	89	100
Market operations /f	1,032	2,036	1,628	1,033	1,518	399	69	277	175	640	142	57	175	450	350
Other /d	106	42	114	80	29	11	116	418	200	110	8	168	13	18	30
Losses	46	8	12	26	45	28	22	27	26	34	26	28	28	32	31
End stock	708	806	1,242	1,591	1,045	1,455	2,432	2,172	1,867	755	1,077	1,499	978	957	1091
Memorandum item:															
Rice production /b	17,325	17,872	20,163	22,286	22,837	24,006	25,933	26,542	27,014	27,253	28,340	29,072	29,366	28,808	29,725

/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 400,000 tons in 1985/86, 173,750 tons in 1986/87 and 100,000 tons in 1987/88.
/e In 1987/88, 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 Preliminary.
/h Estimates.

Source: BULOG (Badan Urusan Logistic/State Logistic Board).

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Area Covered Under Rice Intensification Programs, 1974-1990
('000 ha)

Year	BIMAS /a	INMAS /b	Total	Of which INSUS /c
1974	2,676	1,048	3,724	0
1975	2,683	1,957	3,640	0
1976	2,424	1,189	3,613	0
1977	2,059	2,181	4,240	0
1978	1,960	2,888	4,848	0
1979	1,571	3,452	5,023	0
1980	1,374	4,142	5,516	1,060
1981	1,384	4,802	6,186	1,706
1982	1,296	5,047	6,343	2,945
1983	1,308	5,387	6,695	3,477
1984	434	6,936	7,369	3,806
1985	200	7,461	7,661	4,100
1986	258	7,533	7,791	4,480
1987	n.a	n.a	8,035	4,922
1988	n.a	n.a	8,283	5,837
1989	n.a	n.a	8,826	6,847
1990	n.a	n.a	8,793	7,153

/a BIMAS = Bimbingan massal (Mass rice planting guidance program).
/b INMAS = Intensifikasi massal (Mass intensification program).
/c INSUS = Intensifikasi khusus (Special intensification program).

Source: Supplement to the President's Report to Parliament, August 16, 1991.

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Index of Manufacturing Production by Selected Industry Group, 1986-1991 /a
(1983 = 100)

Code of Industry Group	Description /b	1986	1987	1988	1989	1990	1991 /c
31121	Condensed and dried milk, creamery and processed butter, fresh and preserved cream (6)	87.5	94.0	123.3	122.5	142.2	198.1
31330	Malt liquor and malt (5)	94.4	113.2	116.4	117.2	146.8	159.9
31420	Clove cigarettes (80)	147.4	166.5	177.7	196.2	226.4	211.7
31430	Other cigarettes (13)	78.8	81.9	79.2	78.2	80.7	69.6
32111	Yarn and thread (53)	129.9	130.5	169.0	196.2	253.5	260.1
32112	Weaving mills (except jute weaving products (409)	130.7	144.3	172.9	187.6	216.9	206.2
32114	Batik (65)	95.8	81.8	83.9	111.1	144.0	210.0
32130	Knitting mills (73)	219.2	233.3	239.8	312.8	347.2	461.1
32400	Footwear (32)	113.1	91.5	111.2	184.9	208.2	244.7
33713	Plywood (40)	139.3	192.7	242.1	266.2	256.7	275.8
34111	Paper manufacture (all kinds) (23)	159.2	159.7	242.0	251.5	298.1	256.0
35110	Basic chemicals (except fertilizer) (50)	119.0	156.4	139.0	152.9	174.0	199.5
35120	Fertilizer (10)	166.0	121.8	129.7	143.7	158.1	158.9
35210	Paint, varnish, and lacquers (25)	135.6	126.5	91.2	129.9	136.6	127.2
35232	Matches (8)	108.7	142.3	175.5	154.4	167.3	142.9
35510	Tyres and tubes (22)	109.5	79.2	109.7	141.2	157.4	202.8
36210	Glass and glass products (21)	178.0	149.3	124.6	145.2	163.3	212.0
36310	Cement (7)	144.4	150.9	149.8	198.1	206.4	204.0
37100	Basic iron and steel industries (16)	154.9	147.1	167.4	199.0	259.1	440.6
38130	Structural metal products (59)	110.2	118.7	125.7	180.6	224.4	184.1
38312	Drycell batteries (7)	123.9	115.5	158.6	179.1	192.6	159.7
38320	Radio, TVs, cassettes, other communication equipment and apparatus (23)	90.6	86.9	118.1	153.9	180.6	131.6
38430	Motor vehicles assembly and manufacture (23)	114.7	126.8	115.8	132.5	188.3	
38440	Motor cycles and three wheel motor vehicles, assembly and manufacture (11)	98.0	81.3	76.8	106.0	104.9	122.5
	General index	128.4	143.5	164.2	184.1	209.4	221.5

/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 First quarter 1991; very preliminary.

Source: Central Bureau of statistics.

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COUNTRY ECONOMIC REPORT

Production of Minerals, 1974-1990

Year	Petroleum (mln bbls)	Tin concentrate	Copper ore concentrate	Nickel ore ('000 tons)	Bauxite	Coal	Iron sand concentrate	Gold /a (kg)	Silver /a (kg)	Natural gas (mcf)
1974	502.0	25.7	212.6	878.9	1,290.1	156.2	365.2	265.3	6,464.6	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	2,391.5	35,473.1	1,186.4
1984	516.5	23.2	190.3	1,066.8	1,003.2	1,468.2	83.0	2,247.1	38,794.7	1,506.7
1985	483.8	21.8	223.4	961.9	830.5	1,491.7	130.9	2,619.4	38,327.3	1,580.0
1986	507.2	24.0	251.2	1,533.1	648.8	1,725.4	152.3	3,303.5	46,596.0	1,628.9
1987	479.0	26.1	259.8	1,825.7	635.3	1,887.0	194.0	3,752.8	50,485.4	1,731.1
1988	484.7	30.6	294.7	1,733.2	505.8	2,854.5	202.8	4,730.9	61,538.0	1,852.6
1989	514.2	31.3	331.5	2,020.9	862.3	4,553.1	142.7	5,239.3	62,395.9	1,925.2
1990	530.5	31.3	398.6	2,179.1	1,163.8	7,330.2	142.1	10,653.0	66,723.5	527.3

/a Since 1983, production of gold and silver including private enterprises.

Source: Central Bureau of Statistics.

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COUNTRY ECONOMIC REPORT

Crude Oil Production by Company, 1980-1991
('000 bbls)

	PERTAMINA	LEMIGAS	Contract of work: Caltex	Contract of work: C & T	Contract of work: Stanvac	Subtotal	Production sharing contract	Total	Average daily output
1980	29,891	205	258,325	2,046	11,578	271,949	274,971	577,016	1,577
1981	29,515	175	255,515	1,799	13,141	270,455	284,693	584,838	1,602
1982	27,375	195	175,928	1,422	13,214	190,564	270,055	488,189	1,338
1983 /a	26,947	233	191,307	1,411	11,766	204,484	286,384	518,048	1,419
1984	31,002	203	-	1,533	4,372	5,905	513,652	550,762	1,505
1985	30,071	170	-	1,358	5,130	6,488	453,190	489,919	1,342
1986	29,328	193	-	1,228	6,085	7,313	478,078	514,912	1,411
1987	26,775	210	-	1,236	8,354	9,590	475,854	512,429	1,404
1988	24,789	/b	-	1,368	13,413	14,781	451,941	491,511	1,343
1989	25,567	/b	-	2,044	13,233	15,277	473,341	514,185	1,409
1990	24,483	/b	-	1,972	10,587	12,559	496,664	533,706	1,462
1991	25,017	/b	-	1,462	8,838	10,300	545,690	581,007	1,592 /c

/a Since May 1983, contract of work data have been consolidated.
/b Since 1988, Lemigas data have been included in Pertamina.
/c November and December reconciliation.

Source: Ministry of Mines and Energy, Directorate General Oil & Gas.

Statistical Annex
Table 8.4

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COUNTRY ECONOMIC REPORT

Petroleum Product Supply and Demand, 1981 - 1991
(million bbls)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1. Production of crude	584.8	488.2	518.0	550.8	489.9	514.9	512.4	491.5	514.2	533.7	581
2. Crude imports	37.0	22.0	25.7	34.2	32.1	27.7	30.2	31.2	28.1	45.7	54
3. Subtotal (1+2)	621.8	510.2	543.7	585.0	522.0	542.6	542.6	522.7	542.3	579.4	635.0
4. Crude exports	383.4	320.9	336.2	[illegible]	295.1	327.4	291.9	276.6	291.5	288.7	330.5
5 Crude available for refineries (3-4)	238.4	189.3	207.5	230.4	226.9	215.2	250.7	246.1	250.8	290.7	304.5
6. Changes in crude stocks (decrease = -)	44.7	6.7	23.5	39.7	27.1	-2.3	16.9	0.3	3.2	24.0	20.4
7. Refinery input (including swaps) (5-6)	193.7	182.6	184.0	190.7	199.8	217.5	233.8	245.8	247.6	254.7	284.1
8. Refinery consumption	6.5	6.5	7.2	9.2	13.1	13.3	13.0	13.0	13.9	15.5	15.9
9. Refinery output (7-8)	187.2	176.1	176.8	181.5	186.7	204.2	220.8	232.8	233.7	239.2	268.2
10. Exports of refined products (11+12)	49.9	39.0	43.3	66.0	47.3	55.2	62.4	63.7	55.4	57.8	56.0
11. Waxy residues	47.9	33.7	40.5	49.9	32.1	34.9	42	45.3	40.6	42.0	43.3
12. Bunker fuel, AVTUR, etc.	2.0	5.3	2.8	16.1	15.2	20.3	20.4	18.4	14.8	15.8	12.7
13. Available for domestic consumption (9-10)	137.3	137.1	133.5	115.5	139.4	149.0	158.4	169.1	176.3	181.4	212.2
14. Product imports	42.6	28.0	23.5	5.0	2.7	5.4	10.3	13.3	21.3	23.9	21.8
15. Total supply (13+14)	179.9	165.1	157.0	120.5	142.1	154.4	168.7	182.4	199.6	205.3	234.0
16. Domestic consumption	156.0	161.1	155.5	157.6	155.3	152.8	162.9	171.3	183.6	211.4	266.6
17. Changes in refined stocks (15-16)	23.9	4.0	1.5	-37.1	-13.2	1.6	5.8	11.1	16.0	-6.1	-32.6

Source: Ministry of Mines and Energy, Directorate General Oil & Gas.

INDONESIA

COUNTRY ECONOMIC REPORT

Domestic Sales of Petroleum Products, 1981-1991 /a
('000 bbls)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 /b	1991
Aviation gas	110	103	83	73	66	63	56	60	60	59	58
Aviation turbo	4,869	4,899	3,686	4,374	4,442	3,806	4,199	4,445	4,286	4,607	4,889
Premium gasoline	392	238	247	523	738	1,024	1,431	1,838	2,451	1,247	/b
Regular gasoline	25,648	25,709	24,380	24,909	25,206	27,083	29,048	30,855	33,199	39,000	43,023
Kerosene	52,497	51,778	48,224	45,213	43,954	43,618	43,352	44,664	46,601	49,472	50,573
Motor diesel	44,737	48,918	49,790	48,567	47,682	47,421	54,075	59,143	64,508	72,950	80,837
Industrial diesel	9,391	9,311	9,978	10,285	10,329	8,855	8,319	8,809	9,515	10,720	10,806
Fuel oil	17,587	19,341	21,149	23,625	22,863	18,004	19,054	18,097	18,329	24,847	28,899
Total	155,231	160,297	157,537	157,569	155,280	149,874	159,534	167,911	178,949	202,707	219,085

/a Excluding lubricating oil and similar products.
/b Provisional.

Source: Ministry of Mines and Energy, Directorate General Oil and Gas.

INDONESIA

COUNTRY ECONOMIC REPORT

Consumer Price Index, 1979 - 1991 /a /c
(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	321.4	270.4	297.9	300.8	9.3
1988	320.1	335.4	280.0	307.4	317.6	5.6
1989	104.1	109.6	108.1	105.7	106.4	6.1
1990	111.5	123.9	113.4	118.6	117.0	9.9
1991	118.3	128.2	117.1	126.7	123.0	5.2

/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.

/c Starting 1989, using new base period (April 1988-March 1989 = 100).

Source: Central Bureau of Statistics.

INDONESIA

COUNTRY ECONOMIC REPORT

Indonesia Wholesale Price Index, 1983-1991 /a
(1983 = 100)

Sectors /b	1983	1984	1985	1986	1987	1988	1989	1990	1991 /c
Agriculture (44)	100	113	118	128	145	163	177	191	214
Mining & quarrying (6)	100	109	117	125	132	143	156	169	194
Manufacturing (140)	100	103	115	123	143	156	166	176	200
Imports (53)	100	113	119	129	158	164	178	191	203
Exports (38)	100	111	112	85	118	118	131	159	163
Excluding petroleum (34	100	114	115	130	170	183	195	195	209
Petroleum (4)	100	112	113	73	103	99	112	148	150
General index (281)	100	111	116	116	142	149	162	178	193
General index excluding exports (243)	100	111	117	127	149	160	173	185	203
General index excluding exports of petroleum (2	100	110	116	125	146	161	172	182	204

/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.
/c November 1991.

Source: Central Bureau of statistics.

INDONESIA

COUNTRY ECONOMIC REPORT

Domestic Prices of Petroleum Products, 1980-1991
(Rp./liter)

	1980 /a	1981	1982 /b	1983 /c	1984 /d	1985 /e	1986	1987	1988	1989	1990 /f	1991 /g
Aviation gas	150	150	240	300	300	330	250	250	250	250	330	400
Aviation turbo	150	150	240	300	300	330	250	250	250	250	330	400
Premium gasoline	220	220	360	400	400	440	440	440	440	440	/h	/h
Regular gasoline	150	150	240	320	350	385	385	385	385	385	450	550
Kerosene	38	38	60	100	150	165	165	165	165	165	190	220
Motor diesel	53	53	85	145	220	242	200	200	200	200	245	300
Industrial diesel	45	45	75	125	200	220	200	200	200	200	235	285
Fuel oil	45	45	75	125	200	220	200	200	200	200	220	220

/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.
/f Price increased on May 25.
/g Price increased on July 11.
/h Discontinued.

Source: Ministry of Mines and Energy, Directorate General Oil and Gas.

INDONESIA

COUNTRY ECONOMIC REPORT

Approved Foreign Investment by Sector, 1977-1991 /a
(US$ million)

Sector	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Agriculture	21	3	16	56	25	9	10	0	9	126	117	8	122	117	14
Forestry	29	39	12	8	115	32	7	0	0	0	5	26	4	20	1
Fishery	3	23	21	3	22	3	21	0	11	4	12	46	47	20	11
Mining & quarrying	201	38	66	3	29	0	0	0	0	0	0	0	0	116	0
Manufacturing	327	276	1,158	771	834	1,120	2,615	1,002	687	537	852	3,828	4,246	5,822	3,970
Food	8	6	61	14	41	6	83	77	6	34	54	231	223	99	382
Textiles & leather	71	115	34	76	139	26	12	1	7	9	118	213	581	1,094	532
Wood & wood products	0	1	6	11	124	5	13	0	0	32	45	104	106	218	62
Paper & paper products	10	0	11	2	49	0	722	0	25	47	109	1,506	211	730	822
Chemicals & rubber	49	26	364	282	236	317	183	96	338	294	209	1,544	2,512	1,991	923
Nonmetallic minerals	98	20	77	222	20	57	50	0	3	0	251	30	184	125	133
Basic metals	18	10	561	0	85	3	836	609	65	39	7	61	106	825	197
Metal products	73	92	45	163	141	706	7.[illegible]	210	244	82	57	129	292	460	856
Others	0	7	0	1	0	0	1	9	0	0	3	10	30	281	62
Construction	1	5	1	8	49	11	44	17	122	65	42	2	16	77	26
Trade & hotels	7	10	3	39	0	17	78	84	0	0	196	405	98	874	4,019
Wholesale trade	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hotels	7	10	3	39	0	17	78	84	0	0	196	405	98	874	4,019
Transport & communications	0	0	0	25	0	0	0	4	0	70	213	3	5	803	167
Real estate and business servic	20	4	44	0	18	204	108	0	29	25	20	117	181	902	570
Total	609	397	1,320	912	1,091	1,397	2,882	1,107	859	826	1,457	4,435	4,719	8,750	8,778

/a Intended Capital Investment. Amount represents original approvals plus expansions minus cancellations.

Source: Investment Coordinating Board (BKPM).

INDONESIA

COUNTRY ECONOMIC REPORT

Approved Domestic Investment by Sector, 1977-1991 /a
(Rp billion)

Sector	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Agriculture, fisheries and livestock	49	100	39	30	60	62	681	277	899	1,879	2,885	2,698	3,418	6,435	3,468
Forestry	64	59	80	115	175	93	149	19	37	21	640	487	252	593	1,472
Mining	0	18	33	55	13	52	578	8	38	89	290	111	94	147	182
Manufacturing	401	531	580	1,093	1,306	1,419	3,792	1,332	1,632	1,842	5,518	9,747	12,931	43,240	26,465
Textiles	75	168	61	162	195	110	104	127	97	263	1,289	2,309	3,563	12,612	3,648
Chemicals	99	103	141	57	193	205	766	272	928	773	2,047	3,039	4,062	12,643	8,429
Electrical goods	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other manufacturing	228	261	378	874	918	1,104	2,922	933	607	806	2,183	4,399	5,307	17,985	14,388
Construction	0	3	5	4	8	16	195	67	270	74	50	31	146	87	275
Hotels	4	12	13	10	54	76	255	214	312	17	139	537	1,265	4,974	3,897
Real estate	35	15	6	16	5	74	204	31	267	169	174	846	936	1,790	3,504
Others /b	20	24	18	35	70	157	1,151	1	296	325	569	460	551	2,614	1,822
Total	574	762	774	1,358	1,691	1,949	7,005	1,949	3,750	4,417	10,265	14,916	19,594	59,878	41,085

/a Figures refer to intended capital investments, and represent original approvals plus approved expansion minus cancellations.
/b Includes transportation sector.

Source: Investment Coordinating Board.

MAP SECTION

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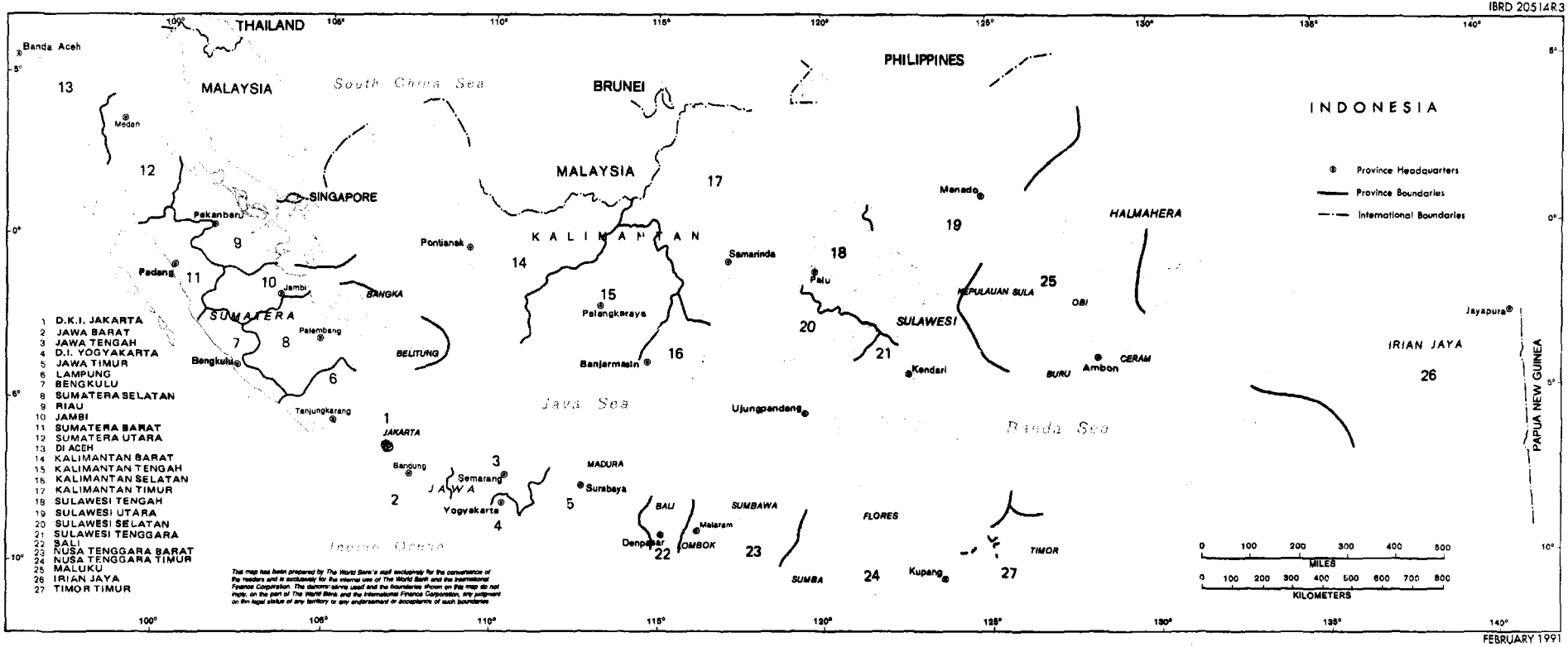

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