Indonesia
Selected Fiscal Issues in a New Era

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CURRENCY EQUIVALENTS

(As of January 10, 2003)
Currency Unit = Rupiah (Rp.)
US$1 = Rupiah 8,950

FISCAL YEAR:
April 1–March 31 until 2000
FY 2000 is 9 months, April 1–December 31
Same as calendar year from 2001 onwards

ABBREVIATIONS AND ACRONYMS

ACC | Anti-Corruption Commission
ADB | Asian Development Bank
AFT | Asian Development Fund
AFTA | ASEAN Free Trade Area
APB | State Budget
APBN | Preliminary State Budget
ASEAN | Association of South East Asian Nations
BAPEPAM | Capital Market Supervisory Board
BAPPENAS | National Planning Development Agency
BCA | Bank Central Asia
BI | Bank Indonesia
BII | Bank Internasional Indonesia
BIS | Bank for International Settlements
BNI | Bank Negara Indonesia
BKN | Civil Service Agency
BKPK | Coordinating Agency for Poverty Reduction
BKPM | Investment Coordinating Board
BLBI | Bank Indonesia Liquidity Support
BPK | Supreme Audit Board
BPKP | Financial & Development Supervisory Board
BPR | Bank Perkreditan Rakyat
BRI | Bank Rakyat Indonesia
BTN | Bank Tabungan Nasional
BULOG | State Logistics Agency
CAR | Capital Adequacy Ratio
CGI | Consultative Group on Indonesia
CPI | Consumer Price Index
DAK | Special Allocation Fund
DAU | General Allocation Fund
DIP | Authorization to spend
DPKS | Social Electricity Development Fund
DPR | House of Representatives
FDI | Foreign Direct Investment
FITRA | Indonesian Forum for Budgetary Transparency
FMRC | Financial Management Reform Committee
FSA | Financial Supervisory Authority
FSPC | Financial Sector Policy Committee
FY | Fiscal Year
GDP | Gross Domestic Product
GFMIS | Government Financial Management Information System
GOI | Government of Indonesia
GOI | Government of Indonesia
GR | Gross Receipts
HIC | High Income Countries
IDA | International Development Association
IDF | International Development Fund
IMF | International Monetary Fund
IPS | Interim Poverty Reduction Strategy
IPC | Independent Power Producer
IPRSP | Interim Poverty Reduction Strategy
IRC | Interim Rice Regulation
JICA | Japan International Cooperation Agency
JRF | Japan Reconstruction Fund
KPMO | Kabinet Presiden
MDG | Millennium Development Goals
MTP | Medium-Term Plan
NGO | Non-Government Organization
OEC | Organization of Economic Cooperation and Development
OECD | Organization for Economic Co-operation and Development
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EXECUTIVE SUMMARY

1. After a long period of economic and political stability, the Government of Indonesia was faced with several fundamental changes that affected the fiscal system in a major way. The 1997 financial crisis sharply increased the government’s debt and fiscal pressures as the financial sector was bailed out, a big bang decentralization initiated in 2001 shifted much of the government apparatus to the control of the regions, and a burgeoning democratization process triggered demands for increased transparency and accountability in budget preparation and execution. Indonesia has managed to cope well with most of these challenges, although considerable risks to fiscal sustainability remain.

2. Indonesia has made substantial progress in managing its post-crisis fiscal challenges. Government debt to GDP has started to decline from its peak in 2000, due to renewed growth, a stronger exchange rate, and substantial fiscal consolidation that often required difficult and unpopular measures. The debt repayment burden has been kept within check due to external debt rescheduling, and the Government has started to address domestic debt repayment risk through reprofiling of the existing debt stock. Fiscal control was maintained during the rapid decentralization, even though the policy gave the regions considerably more revenues than spending obligations. At the same time, Parliament is no longer a rubber stamp and is now fully involved in the budget process. Reforms in planning and budgeting were initiated, although at a slow pace.

3. Despite this progress, risks to the budget have not disappeared and the government is still cautious and committed to continued fiscal consolidation. Debt sustainability is improving, but the budget remains vulnerable to shocks. Large non-discretionary spending items such as interest payments, transfers to the regions, and personnel spending, still constrain the use of fiscal policy for macroeconomic stabilization and social risk protection. To manage these risks, the Government’s options are limited. They necessarily entail increasing revenue—an area in which little progress has been achieved. Much of the revenue increase will have to come from improved tax administration, as tax compliance rather than tax structure is Indonesia’s key challenge. In addition, the Government should continue its fuel and power subsidy reduction program. Even the subsidy on kerosene, which is maintained for now, can be replaced over time with a better targeted alternative to protect the poor. Finally, to keep renewed debt financing into check, the Government must further dispose of financial assets it took over during the crisis.

4. As the fiscal situation improves and decentralization proceeds, a rethinking of resource allocation becomes necessary. Cuts in development spending undertaken during fiscal consolidation early in the crisis need to be reconsidered in light of a possible negative impact on growth prospects. Roads have deteriorated, the threat of power shortages is looming, and the quality of health and education services needs to improve. While much of infrastructure and social services are now a regional obligation, the central government will still have a major role to play in power and national roads, and may need to contribute in financing some of the local expenditures with large spillovers. At the same time, operations and maintenance has been underfunded for years, starting even before the crisis, and some of the central government’s core activities (e.g., justice, police) suffer from lack of sufficient funding. Continuing fiscal consolidation while reallocating resources from sectors where the regions can play a greater role to areas where the central government needs to increase spending would require a careful balancing act.

5. This report assesses Indonesia’s progress in dealing with challenges that have altered the fiscal system since the crisis. It reviews fiscal sustainability and fiscal risks; options for fiscal consolidation; sectoral issues in the new decentralized environment; and public expenditure management reforms.
Fiscal Consolidation: What Are the Options?

6. Fiscal consolidation has largely improved since the peak of the crisis, and budgetary discretion has increased, but the continued fiscal risks require continued reduction in the fiscal deficit. Not much more can be done on the expenditure side; most of the effort would come from the revenue side, mainly from improved tax administration.

7. **Increased revenue mobilization is needed to make the budget more risk proof.** Indonesia has a sound tax system, with many positive elements: modern VAT and income tax; little reliance on import duties; balanced reliance on income and consumption taxes. Equity of tax policy is also adequately addressed—income tax is progressive and the VAT is proportional. But Indonesia's overall tax burden is light—12 percent of GDP in 2001 compared with 14 percent in other countries of the region. This low tax ratio is partly due to reliance on oil and gas revenue, and needs to be raised given the current fiscal circumstances. Some policy measures could be undertaken to improve the tax system and raise revenue—increasing the VAT productivity (which is lower than several countries in the region) by further expanding the base, raising the VAT rate by one or two percentage points (from the current 10 percent), or increasing the excise tax rates on alcohol and tobacco. However, all these tax policy measures may bring less than half a percentage point of GDP in revenue to the budget.

8. **More mileage could be obtained from improving tax administration than tinkering with the tax structure.** Despite extensive use of withholding, enforcement is a serious problem, especially in corporate and personal income tax where the vast majority of returns claim no income. Overall, significant untapped revenue potential suggests that further progress in administrative efficiency is needed—the ratio of actual to potential revenues varies between 50-85 percent for various taxes (only half of the statutory maximum is being collected in some cases). Even with a 50 percent increase in uncollected taxes, the deficit would have been cut by half in 2001 and nearly eliminated in 2002. Tax administration measures planned by the Government include the creation of a large taxpayer regional office and two initial large taxpayers offices in Jakarta (more in the medium term), the improvement of the system of payments, strengthening of the audit program, and intensification of tax arrears collection.

9. **The government's decision to eliminate the fuel subsidy is critical for fiscal consolidation and has little social implications.** After already increasing fuel prices in 2001, the government took the decision in 2002 to allow fuel prices to follow border price movements within a certain range, except for kerosene which is largely used by the poor. This courageous measure is expected to cut fuel subsidy in half compared to 2001, and will have little direct social impact since, except for kerosene, fuel is not used by the poor at all. Over time, the kerosene subsidy could follow a similar measure—although the poor use kerosene, most of the subsidy goes to the non-poor and a better targeted program will cut costs.
10. For the wage bill, civil service size is comparable to countries with similar level of development; but there is an ongoing debate about whether civil service pay is appropriate, and whether it is linked to corruption in the public sector. Civil service pay is not small compared to the private sector and has been adjusted for the crisis impact more quickly than for the rest of the labor force. Adjustments in size and cost of civil service could be done at the decentralized level—local governments have more incentive for reforming a civil service they inherited and that may not fit their needs. Although this will not have a direct impact on the central government budget, it would free up resources at the local level and there will be less pressure on the center to devolve more resources. A civil service reform model for a decentralized Indonesia needs to be established at the central level and implemented at the regional level. The legal and institutional basis for greater flexibility to reforming regional governments needs to be put in place. In the medium term, a civil service reform agenda would need to comprise core elements such as a review of the administrative structures at the central and sub-national levels based on the new role of the state.

11. The large interest payments burden resulting from the sizeable debt incurred during the crisis is crowding out development spending—development spending declined from 42 percent of total spending just prior to the crisis to 14 percent in 2002, while interest payments increased from 12 percent to 27 percent over same period. The government is dealing with the bunching up of domestic bonds’ maturities in the next three years through reprofiling. Developing a secondary domestic bond market is essential. Moreover, building debt management capacity within the government is needed, including setting up an integrated debt management unit to establish a debt strategy and manage risk, implement an integrated debt reporting and risk management system that assesses vulnerability, risk, and cost in a sovereign liabilities portfolio, improve the “front, back, and middle-office” functions for public debt management, and monitor fiscal risks associated with the government’s contingent liabilities and incorporate them into debt management policy decisions. The Center for Government Bond Management recently set up within the Ministry of Finance is an important step forwards, but it needs to cover the entire debt, not only domestic debt.

12. Increased transfers to local governments resulting from decentralization are also limiting discretionary spending, but could be accompanied by a decrease in central development spending in areas of regional responsibilities. Although the general allocation fund (DAU) would automatically reflect any reduction in revenue (since it is set at 25 percent of revenue), it would not adjust to other budgetary shocks—such as an increase in interest rate, exchange rate, or rice price—which will thus squeeze the budget further. The increase in transfers to local governments is supposed to be accompanied by lower central government spending, with little impact on central government finances. But this is happening only slowly and the central government is still spending in areas that could be considered local tasks. The regions, on the other hand, ended up with a surplus of funds on aggregate. If the center stops spending in areas that are “regional” responsibilities, it could save nearly 2 percent of GDP in development spending which can in principle be picked up by the regions’ surplus. But to warrant across-the-board expenditure devolution, the center needs to ensure that devolved revenues are more equally distributed across regions.

13. Better management of oil revenue could reduce fiscal exposure. The petroleum sector plays a crucial—albeit declining—fiscal role in Indonesia. The budget is naturally hedged against oil-price exposure—higher oil prices bring more revenue into the treasury, but increase expenditure on fuel subsidy and on regional transfers. Still, net fiscal exposure is not insignificant, at about Rp. 3 trillion per year per dollar change in world crude oil price, roughly 6 percent of the petroleum sector’s net contribution to the budget. Fiscal exposure is exacerbated by inaccurate forecasting—budget forecasts have tended to underestimate both fiscal revenue and fiscal expenditure from petroleum. Accurate forecasting based on simple rules that are similarly used by Parliament to avoid inconsistencies would reduce fiscal exposure from oil.
Sectoral Issues

14. **Old sectoral issues remain but are further strained by cuts in the development budget during the crisis; they are now put in light of decentralization and fiscal recovery.** Most sectors were affected by the crisis as the government struggled to keep its budget under control—at best, spending was maintained such as in social sectors; at worst, severe budgetary cuts resulted such as in transport and power. The regions are inheriting underfunded and sub-optimally efficient sectors. Decentralization provides an opportunity for the regions to improve sectoral policies, but mechanisms to foster decentralization need to be put in place and a new role for the center needs to be defined. The speed and extent of decentralization is bound to vary across sectors, depending on the economies of scale involved and the preparedness of the regions. In many sectors, the center could expand the use of the special allocation fund (DAK) to the regions while maintaining some control during the transition period. The DAK could also be used for regional equalization as there are wide disparities across regions in provision of public services.

There are wide disparities in public services provision across regions

15. **In health and education,** the regions are inheriting many problems—including inadequate technical skills of teachers and healthcare providers and low maintenance of infrastructure. During the first year of decentralization, the central government continued to expand its spending on health and education—perhaps to avoid disruptions in service delivery during the transition period; but it is now engaging in various initiatives to better promote decentralization in these sectors. Minimum service standards are being prepared for schools and health care centers, and ways to fund these initiatives are being discussed (through DAK, grants, or other). It is important, however, for the center to extensively develop active linkages with the regions and step beyond its technical role into an advisory one.
16. In transport, the consistent failure of central government to provide adequate funds for maintenance, particularly at the kabupaten level, could be corrected or exacerbated through decentralization—better local solutions could be found for local problems, but the risk of under-funding and neglect of road maintenance may be even greater at the regional level given the low capacity for planning, management, and supervision. The central government still has a crucial role to play in transport, especially in the strategic allocation of funds between various networks (national, provincial, or local) and among different regions; it should retain this responsibility and allow the regions to decide on allocations at the project level to address local needs. In order to match expenditure needs assessed by the center with affordability at the regional level in a way that is consistent with decentralization, a special allocation fund could be created.

17. The power sector faces two burning issues: burgeoning power shortages, and the precarious financial condition of the State power utility (PLN). In order to avoid power shortages, restore financial viability to the sector, and continue expanding access to electricity, the Government has no alternative but to commit to a program that raises tariffs to commercial levels; press on with PLN’s financial (and corporate) restructuring; resolve outstanding issues relating to the existing IPP program while putting in place new guidelines for future private sector participation; and establish—under the new Electricity Law—the proposed Social Electricity Development Fund (DPKS) for targeting sector subsidies to underprivileged subscription groups, underdeveloped or isolated regions, and rural electrification. Initially, decentralization of the power sector will be slow and will primarily impact rural electrification and off-grid power supply. As the Electricity Law is enacted, some responsibility for power supply could
be passed on to provincial governments and kabupatens. But the central government will need to issue clear implementing regulations and prepare a comprehensive Rural Energy Strategy outlining how the proposed DPKS, and other mechanisms, can be used to support decentralized power provision in areas where it is uneconomic for PLN, or its successor companies, to extend the existing network.

Public Management Reform

18. Public financial management reforms are crucial to improve fiscal discipline and reduce fiscal risk. The call for greater transparency and accountability triggered by the new process of democratization has initiated fundamental changes in public financial management in Indonesia. The government submitted three draft laws to Parliament to govern the budget cycle—Finance, Treasury, and Audit—and MOF has formed a Financial Management Reform Committee that prepared a white paper on the principles and strategy of budget reforms. Not much progress, however, has been achieved since. Refinements in the current budget process to strengthen the linkages between planning and budgeting would improve budget management as well as fiscal discipline.

19. The current budget planning has a medium-term framework and is participatory, but it quickly becomes outdated—in a country with volatile economic conditions as Indonesia, a five-year plan can only be indicative. The annual plans, on the other hand, could allow more room for the executive to reflect their priorities and do not include costing of current spending policies over the next three to five years. The strategic plans of ministries are not costed and are not constrained by budget realities. The budget process begins early, allowing time to discuss fiscal policy with Parliament. But since there is no binding agreement between government and Parliament on fiscal policy prior to the detailed budget, discussion on fiscal aggregates continues throughout the budget formulation process; this leads to reduced fiscal prudence, unrealistic budget planning, and ad hoc cuts within the budget year. Moreover, fiscal policy has an annual focus and fiscal risks are not properly addressed during fiscal policy discussions.

20. The government could refine the budget management system. Some measures, which need to be carefully evaluated by MOF and Bappenas, could be undertaken in the current planning and budgeting process in order to integrate elements of a medium-term framework, consisting of a top-down resource envelope, a bottom-up estimation of the current and medium-term costs of existing policy, and ultimately, the matching of these costs with available resources in the context of the annual budget process. The Finance Law could be instrumental for establishing an accountability system between the Executive and Parliament. Unifying the central budget authority under a single office will improve accountability and effectiveness. The government could also restructure the budget execution and audit processes to improve financial accountability and reduce fiduciary risks.
<table>
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<th>Objective</th>
<th>Policy Measures</th>
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| **Improve fiscal sustainability and reduce fiscal risks** | - Restore growth  
- Maintain fiscal discipline  
- Accelerate financial and corporate restructuring  
- Decrease the size and duration of liabilities by continuing to reduce subsidies and retiring more outstanding debt  
- Increase the size and duration of assets by aggressively selling more IBRA assets, privatizing more SOEs, and raising revenue  
- Continue to reduce reliance on oil revenue by strengthening tax revenues  
- Produce more accurate forecasts of oil revenue and expenditures  
- Involve both Ministry of Finance and Parliament in the forecasting process to avoid biases and ensure internally consistent systems |
| Continue debt reduction |  |
| Improve government’s net worth and reduce duration gap of assets and liabilities |  |
| Reduce fiscal exposure from oil |  |
| **Continue fiscal consolidation** |  |
| Increase revenue through some changes in tax policy… | - Increase VAT productivity by expanding the base and raise the rate by one or two percentage points  
- Convert the luxury tax into excise for soft drinks and vehicles, and abolish it for other goods  
- Increase the excise tax on alcohol and tobacco  
- Unify the corporate tax rates to 30 percent and harmonize this rate with the maximum personal income tax rate  
- Provide profit rate preference for non-incorporated small business if needed  
- Raise the property assessment to 100 percent of assessment rate for property tax in a phased manner and improve the accuracy of property assessments  
- Continue with the plan to create large taxpayers office  
- Improve the system of payments and intensify collection of arrears  
- Strengthen the audit program  
- Strengthen enforcement and the court system in order to improve compliance  
- Reform customs administration by cracking down on corruption, facilitating trade, and combating smuggling and undervaluation. |
| …and major improvements in tax administration |  |
| Rationalize spending through subsidies… | - Eliminate the fuel subsidy while continuing with the fuel compensation program  
- Reduce the power subsidy as planned by raising electricity prices  
- Reduce the kerosene subsidy in a phased manner and replace it with more targeted programs for the poor  
- Maintain and improve the rice subsidy by reducing the rice price paid by government and better targeting the poor |
| …debt service | - Reprofile domestic debt to reduce bunching of repayment over the next few years  
- Develop a secondary domestic bond market  
- Set up an integrated debt management unit to establish a debt strategy and manage risks for domestic as well as total public debt |
| …and civil service reform | - Develop and adopt an appropriate civil service model for decentralized Indonesia  
- Clarify authority over civil service in the regions  
- Strengthen the legal and institutional basis to allow greater flexibility to reforming regional governments  
- Review the administrative structures at the central and regional levels based on the new role of the state |
<table>
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<tr>
<th><strong>Promote improved sectoral efficiency and allocations through the regions</strong></th>
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<tr>
<td><strong>Social sectors</strong></td>
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| • Promote initiatives in central agencies to facilitate decentralization and reform, including monitoring by region  
• Develop Minimum Service Standards in health and education, and assist provinces and districts in upgrading and sustaining important technical functions  
• Set up province-level interventions to address and develop cross-district strategies  
• Allow central agencies to retreat as the regions gradually increase their development spending and define a new role for the center in a decentralized framework  
• Create and apply new funding mechanisms, through DAK or targeted funding to specific programs  
• Put in place funding mechanisms to support operations in poor regions  
• Allow central agencies to develop and implement a new political strategy to increase dialogue and build consensus among different stakeholders |
| **Transport** |   |
| • Allow the center to maintain its role in evaluating the optimum allocation of resources among programs and regions to maximize overall network performance  
• Allow the regions to decide on allocations at the project level and to address local needs  
• Support the regions in their investment and operations and maintenance spending requirements through a special allocation fund |
| **Power** |   |
| • Commit to a program that raises tariffs to commercial levels  
• Press on with PLN's financial and corporate restructuring  
• Resolve outstanding issues relating to the existing IPP program and put in place new guidelines for future private sector participation  
• Establish under the new electricity law the proposed Social Electricity Development Fund for targeting subsidies and rural electrification  
• Issue clear implementing regulations to support decentralized power provision in areas where it is uneconomic for PLN to extend the existing network |
| **Continue budgetary reforms** |   |
| **Increase transparency and efficiency in planning and budgeting within a medium-term expenditure framework** |   |
| • Refine the budget process to strengthen linkages between planning and budgeting  
• Increase transparency by improving reporting to Parliament  
• Put in place a single budget office for current and development spending  
• Restructure the Ministry of Finance along its core functions  
• Improve management of information flows by developing an integrated information system  
• Reform the budget execution process to improve financial accountability |
1. INTRODUCTION: ADJUSTING TO A NEW ECONOMIC AND POLITICAL REALITY

1.1 Indonesia was able to achieve substantial fiscal progress since the crisis—with a modest growth of about 4 percent being maintained, debt to GDP declined from over 100 percent to around 85 percent, and the deficit dropped steadily from a peak of 5 percent of GDP to 2.5 percent in 2002. This performance was achieved thanks to difficult and sometimes unpopular policy measures that the government undertook, not the least a substantial cut in untargeted fuel subsidies put in place during the crisis. Despite this significant accomplishment, many challenges remain.

1.2 The cut in development spending undertaken during fiscal consolidation needs to be corrected to avoid a negative impact on growth prospects. With the crisis-induced recession, raising tax revenue was not possible. The deficit reduction thus entailed cuts in O&M and development spending, especially in infrastructure as donors thrived to safeguard spending on social services. Roads have deteriorated and the threat of power shortage is looming. With little prospect for private investment in these sectors, this in turn is threatening growth and even fiscal performance—false fiscal savings achieved from a drop in investment are likely to result in higher investment needs in the medium term. This creates difficult policy choices to invest more while maintaining fiscal goals.

1.3 In addition, some fiscal risks emerging largely from the crisis remain. The budget is still vulnerable to even small economic shocks despite the false security of a low and declining fiscal deficit. Government debt is still high, meaning that variations in interest rate or exchange rate would affect an already large debt service, currently absorbing over one-third of revenues. Fiscal risks also arise from the expansion in off-budget liabilities stemming largely, but not only, from the crisis. Contingent liabilities include guarantees to protect depositors and creditors in the banking system, guarantee schemes to the private sector some of which instituted since the crisis to restore the flow of credit, sovereign guarantees to private infrastructure providers, and pension payments obligations. They can have serious budgetary implications if some become realized.

1.4 At the same time, the big bang decentralization is altering the fiscal system in a major way. While the first year of decentralization went by without major setbacks (2 million civil service were successfully transferred from the center to the districts and service delivery was not interrupted), the decentralization system is far from finalized as the government continues to struggle with the issue of devolution of responsibilities, regional imbalance, and revenue sharing. The increase in transfers to the regions was not matched by a reduction in central development spending as expenditure responsibilities, loosely defined in the law, are being clarified. Decentralization will have fiscal implications at the central level that need to be managed prudently over the transition period and the medium term. It is also transforming the role of the central government in providing public services.

1.5 The entire environment of public policy-making has changed. The new process of democratization triggered changes in the way government manages its finances that increase transparency and accountability in budget preparation and execution. Decisions on fiscal policy are now subject to the rigors of democratic debate. Moreover, shrinking budgetary resources, rising public expenditure needs, and growing risks to Indonesia’s fiscal accounts have made it imperative to seek out new ways of using public resources wisely, prudently, and transparently. The current public financial management system falls short of these requirements, and the government is proposing a new legislation for budget formulation, treasury management, and auditing. If properly designed and implemented, such reforms would allow a transparent planning and budget formulation process where public resources are allocated
to strategic priorities while ensuring overall fiscal discipline. They become an important and integral part of fiscal management under the current risky circumstances.

1.6 This report is divided into five chapters. Chapter 2 evaluates fiscal sustainability and fiscal risks by assessing the vulnerability of the debt to domestic and external shocks, measuring the government's direct and contingent liabilities within a balance sheet approach, and evaluating fiscal exposure from oil which is an important element in the budget. Chapter 3 focuses on assessing possible measures the government can take to further improve fiscal consolidation and increase the share of discretionary spending—by reducing current spending or raising revenue—and reduce its vulnerability to fiscal risks. Chapter 4 reviews old sectoral issues within the new decentralization framework, focusing on social sectors (poverty alleviation, health, and education) and basic infrastructure sectors (transport and power). Finally, Chapter 5 assesses the budget planning, process, and execution and provides recommendations on how to improve public financial management in the era of democratization and transparency.
2. FISCAL SUSTAINABILITY AND FISCAL RISK

2.1 Despite substantial progress at reducing the fiscal deficit in recent years, risks to the budget arising largely from the crisis remain of concern: the debt is still large and could threaten fiscal sustainability, while fiscal risks from direct and contingent liabilities have not disappeared and create the specter of a larger "hidden" deficit. These risks render the budget more vulnerable to shocks. At the same time, a large—though declining—share of revenue derives from volatile oil, adding to fiscal uncertainty. This chapter (i) assesses the vulnerability of debt sustainability to external and domestic shocks; (ii) extends the conventional approach to sustainability by building a notional balance sheet for the government that provides a broader measure of fiscal risks; and (iii) evaluates fiscal exposure from the petroleum sector.

DEBT DYNAMICS AND THE MEDIUM-TERM FISCAL OUTLOOK

2.2 One enduring feature of the Indonesian economic crisis that began five years ago is the drastic increase in Indonesia’s public debt. From a starting point of moderate external indebtedness (and no domestic debt) and a widely-acclaimed record of prudent debt management, the crisis and its aftermath led policymakers to pursue financing strategies that pushed government debt to over 100 percent of GDP, siphoning off nearly 50 percent of government revenues for debt service at the peak of the crisis. As a result, fiscal sustainability has emerged as a central issue in the articulation of a feasible medium-term macroeconomic strategy.

2.3 Much effort has been achieved in this regard over the past three years and debt/GDP is on a declining trend, currently at around 75 percent. But Indonesia's public sector indebtedness is still placing a substantial strain on the fiscal system. Servicing the current high levels of public debt is putting pressure on the government’s ability to maintain essential spending on development and poverty-related programs. Moreover, concerns about the sustainability of public debt impact investor confidence, affecting both domestic interest rates and Indonesia’s ability to attract foreign capital. The high public indebtedness also increases vulnerability, greatly limits government’s ability to respond to new shocks, and leaves little margin for error in economic management.

2.4 Continuous reduction in debt depends on progress in restoring growth, maintaining fiscal discipline, and accelerating financial sector restructuring. Reducing government debt to more sustainable levels is a central focus of economic policy. The government’s commitment to fiscal sustainability is prominently mentioned in its five-year program (Propenas, November 2000) and annual plans (Repetas 2001, 2002, and 2003). These focus on the goal of reducing the government debt to GDP ratio to below 60 percent by 2004. The budgets since 2001 have been consistent with this objective. Achieving this outcome will depend on progress in three policy areas:

- **Restoring growth:** Reducing debt in a low-growth setting is difficult. In a narrow sense, faster growth increases the denominator of the debt/GDP metric, reducing the debt burden. But more broadly, faster growth generates more resources and opportunities in the economy, facilitating the adjustment and restructuring in the private sector and expanding the public sector resource base.

- **Maintaining fiscal discipline:** Rising debt service costs have reduced the resources available for other programs; at the same time the need for development and poverty-targeted spending has risen. It is essential that the budget generate a continuing fiscal surplus over the medium term. This in turn will require both improved revenue mobilization and improved expenditure management.
2.5 Can the proposed debt targets be met? The base case scenario for 2000-2010 assumes: GDP growth recovers fairly rapidly, fiscal prudence is maintained through a combination of rising primary surplus and falling interest burden, and revenue remains at about 18 percent of GDP. The fall in nominal domestic interest rates (which primarily affects the variable interest bonds issued by the government) helps lower the interest burden, leveraging the rising primary surplus into an even larger swing in the overall deficit from -2.4 percent of GDP in 2002, to a near balanced budget in 2006 (Figure 2.1).

2.6 To finance the deficit, the IBRA/privatization revenues through 2005, and subsequent modest increase in public domestic and external borrowing, provide adequate resources to cover net financing requirements until 2008 (when a small surplus is achieved), after which net domestic and external financing requirements are negative, allowing a reduction in debt stocks. By the end of the decade, the total debt ratio will more than half (to 37 percent) from its peak, lower than at any time since the crisis began. The government’s target of a debt/GDP ratio of 60 percent by 2004 is just achieved, and the debt burden continues to drop quite steadily (4-5 percentage points yearly) throughout the decade. By the end of the decade, the debt problem would be largely solved.

2.7 A slower growth and fiscal consolidation would weaken the debt outlook. In a scenario characterized by the features of the base case, the debt problem does not appear so daunting. But establishing the feasibility of such a scenario does not guarantee the outcome, and it is not difficult to identify possible risks from the external environment to slippage or delays in policy consolidation on the domestic front. The debt outlook worsens even with small changes in assumptions where real growth

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1 The specific assumptions underlying the base case scenario include: real GDP growth recovering to 3.3 percent in 2003 and to 4.4 percent thereafter; primary fiscal surplus rising from 2.4 percent in 2002 to 2.7 percent from 2004 onwards; inflation reduced from 10.5 percent in 2002 to 8 percent in 2004, and 6 percent from 2005 onwards; stable but slightly depreciating exchange rate from 2003 onwards; real domestic interest rates at 4 percent from 2003 onwards; IBRA asset recovery continuing until 2005 and privatization receipts increasing to Rp. 8 trillion in 2003 up to Rp. 11 trillion in 2006. Under the high case, real GDP growth reaches 6 percent by 2005 and privatization is more aggressive (up to Rp. 13.7 trillion in 2006); the primary balance reaches 3 percent of GDP in 2004 and the budgetary balance achieves a small surplus in 2006. In the low case, real GDP growth declines to 2 percent, inflation declines more slowly (to 7.5 percent in 2006), interest rate reaches 12 percent only by 2006, the primary balance stays at 2.4 percent of GDP and the budgetary balances stays in deficit.
stalls at 2 percent per annum throughout the decade and the overall fiscal balance remains negative. Without the steady movement into the overall budgetary surplus of the base case, the underlying debt dynamic changes: instead of negative net financing (i.e. debt reductions) from 2008 onwards, financing needs remain. The implication is a substantial slowdown in the rate of decline of the debt/GDP ratio, which reaches only 52 percent in 2010, one half higher than the 37 percent achieved in the base case.

**GOVERNMENT FISCAL RISK: A BALANCE SHEET APPROACH**

2.8 The conventional approach to assessing the sustainability of a given fiscal deficit is to compare it with the deficit necessary to keep the public debt to GDP ratio constant. This is justified on the basis that if a country is not already in a debt crisis, then keeping the public debt ratio constant will be sufficient to avoid a debt crisis in the future. However, the conventional approach to sustainability is limited in two ways: it looks only at the liability side of the public sector balance sheet—ignoring public assets, and it looks only at explicit liabilities—ignoring implicit liabilities. A broader approach would require building a balance sheet for the government. The balance sheet approach to government fiscal accounts provides a broader measure of fiscal risks faced by the government. It places contingent liabilities alongside other sovereign exposures arising from both assets and liabilities, and gives a longer term perspective on fiscal sustainability than conventional deficit measures (Box 2.1).

2.9 Defining assets and liabilities is the first step towards a better understanding of Indonesia’s current financial position and future prospects. Such analysis, however, offers no immediate benefits if it is unable to predict or quantify the likely benefit of those assets—i.e., whether the government will be able to sell them or not—or the likely costs of those liabilities. For that, it is important to determine the “duration” of such assets and liabilities—how frequent is the cash flow arising from assets and liabilities. An asset with a longer (shorter) duration will make a larger proportion of its total payment later (earlier) in its life; a liability with a longer (shorter) duration will have to be serviced with a larger proportion of its total value later (earlier) in its life (Box 2.2). The government of Indonesia may have substantial assets due to its vast proven petroleum and natural gas reserves; however, these reserves can only be depleted at a steady rate each year—they cannot provide the government with large sums of money to manage any unexpected short-term liabilities, such as what happened during the 1997 crisis. Thus, duration mismatch is another source of risk.

2.10 In this section, an attempt at measuring the government’s assets and liabilities, and their duration, is made—it is by no means accurate and its aim is simply to give an idea of where things stand. Since we cannot measure directly government net worth, a pragmatic approach would be to capture all balance sheet items that can be measured, and evaluate individual actions for their effect on fiscal and external sustainability. In the case of Indonesia, a balance sheet or a fiscal risk/hedge matrix could have the items described in Table 2.1. The fiscal risks from contingent liabilities in Indonesia remain high, but there are several sources of fiscal hedge as well. Risks and hedge stem from: (i) explicit blanket guarantees to protect depositors and creditors of the banking system; (ii) assets and liabilities from SOEs, including power and oil companies; (iii) oil and gas reserves; (iv) sovereign guarantees given to private infrastructure providers; (v) obligations of minimum pension payments.
Box 2.1: A Balance Sheet for Government—Conceptual Approach

In a private firm, the asset-liability management (ALM) approach gives insights to the way a firm can manage both assets and liabilities in order to reduce the volatility of net worth by applying some basic principles of portfolio management, like diversification and hedging. The ALM provides a framework to contain risk by matching the financial features (e.g., interest rate characteristics) of the assets and liabilities so that one side of the balance sheet will be hedged—or immunized—by the other. Matching, however, does not need to be complete. For example, banks borrow from the public at short maturities and lend at longer maturities. Also, risks that cannot be hedged can nevertheless be controlled through diversification.

Unlike corporations, governments are not profit or net worth maximizers, and they have the capacity to raise taxes if necessary. These two distinctive features have important implications for sovereign risk definition and for the application of the ALM framework. For a sovereign, risk could loosely be defined as the possibility that services delivered have to be severely curtailed for a given level of taxes, or that taxes will have to be increased to maintain a given level of government services, both of which could result from different situations, including sovereign illiquidity and insolvency. Thus, the government’s objective is to manage assets and liabilities in such a way as to minimize the need to raise taxes or the need to curtail services when faced with unexpected shocks causing a permanent fall in fiscal revenues or a rise in the value of liabilities. The balance sheet and off-balance sheet items, including contingent liabilities, should be managed in a manner consistent with the objective of maintaining a level of services the government is expected to deliver without raising more taxes.

Risk, or the mismatch between assets and liabilities, can be measured either in present value or in cash flow terms, but government cash flows are complex. Since sovereign risk has been defined as a situation in which external shocks force a sovereign to raise taxes in order to maintain the expected level of services, or worse, when the capacity to raise taxes has been exhausted, its inability to service its financial liabilities in general. Therefore, items that may cause greater indebtedness or that may help the sovereign fulfill its financial commitments should be included. This leads to the exclusion of assets that do not generate financial flows and the inclusion of contingent liabilities. Some items that would normally be part of the accounting balance sheet can be irrelevant for this analysis, namely, illiquid assets such as national parks, military equipment, official buildings, etc. Some SOE may also fall into this category, unless they are part of a privatization program. On the liability side, a critical role is played by contingent liabilities.

The conceptual balance sheet used is an economic one. It can be seen as the accounting balance sheet modified to include only those items representing potential financial obligations, or that can effectively be used to meet those obligations. The difference is economic net worth and the government’s objective is to maintain net worth without raising taxing. The conceptual balance sheet is more an organizing framework that helps to identify the main sources of risks and the potential strategies that can help reduce it, rather than a set of numbers from which actual risk can be directly quantified.

There are two ways to evaluate sustainability using the balance sheet approach. The first is to estimate the stocks in the government’s balance sheet and assess whether public sector net worth is positive or negative. If negative, then sustainability will require that the present value of tax revenues minus government spending be sufficient to cover the negative net worth. The second approach would look at sustainability in flow terms. The criterion for sustainability would be to maintain a constant ratio of net worth to GDP. If there is no payment crisis today, then keeping net worth to GDP constant will avoid a payments crisis in the future. If there is a crisis today, then the rule would imply increasing the ratio of net worth to GDP.

Source: Elizabeth Carriere, mimeo, World Bank.
Box 2.2: The Importance of Duration Matching

Duration and duration matching are two important concepts widely used by financial institutions in managing their balance sheet. Consider two bonds of identical maturity and present value:

- Bond (i) pays out $50 annually for three years, with an annual discount rate of 10%; therefore: 
  \[ PV_i = \frac{50}{1+0.1} + \frac{50}{(1+0.1)^2} + \frac{50}{(1+0.1)^3} = 125 \]
- Bond (ii) makes one payment of $165 in three years, with an annual discount rate of 10%; therefore: 
  \[ PV_{ii} = \frac{165}{(1+0.1)^3} = 125 \]

Despite having an identical present value and maturity, the two bonds have different cash flows. Proceeds from holding Bond (ii) cannot service debt in the form of Bond (i). To service debt that requires small annual payments every year, we must hold an asset that gives us a cash flow of $50 annually, i.e. an asset that gives $165 three years from now will not help.

To better account for the rates at which cash flows are actually made, the concept of Duration was introduced. Duration recognizes that each of the individual payments is important and gives each payment its relative importance. Duration measures the effective maturity of the bond by taking a weighted average of the time until each payment.

\[
D = \sum_{j=1}^{T} \frac{t_j C_j}{(1+i)^j T}
\]

where:
- \( D \) is the Duration;
- \( i \) is the yield (yield for one period);
- \( t_j \) is the time until the \( j \)th cash flow;
- \( C_j \) is the \( j \)th cash flow;
- \( T \) is the total number of cash flows.

In the example above:
- the duration of Bond i, with three payments of $50 annually = \( D_i \)
  \[
  (1 \times (50/(1+0.1))/124 + (2 \times (50/(1+0.1)^2)/124 + (3 \times (50/(1+0.1)))/124 \Rightarrow D_i = 1.94 \text{ years} \]
- the duration of Bond ii, with one payment of $165 in three years = \( D_{ii} \)
  \[
  (3 \times (165/(1+0.1)^3)/124 \Rightarrow D_{ii} = 3.0 \text{ years} \]

Private banks often have to balance low duration liabilities (deposits) against high-duration assets (loans) to insulate against changes in net worth. The same could be true of governments. They could try to equate the durations of their assets with the duration of their liabilities. Another example with multiple assets and liabilities could be used to illustrate this point. Suppose a bank has the following portfolio:

<table>
<thead>
<tr>
<th>Assets (interest rate at 10 percent for all years)</th>
<th>Liabilities (interest rate at 10 percent for all years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond with PV of $125, three annual payments of $50, and duration of 1.94 years</td>
<td>Bond with PV of $125, one payment of $165 in 3 years, and duration of 3.0 years</td>
</tr>
<tr>
<td>Bond with PV of $435, four annual payments of $125, and duration of 2.39 years</td>
<td>Bond with PV of $400, two annual payments of $210, and duration of 1.7 years</td>
</tr>
<tr>
<td><strong>Total = $560</strong></td>
<td><strong>Total = $525</strong></td>
</tr>
</tbody>
</table>

The size-weighted duration of the assets: \( D_A = (125/560) \times 1.94 + (400/560) \times 2.39 = 2.30 \)
The size-weighted duration of the liabilities: \( D_L = (125/525) \times 3.0 + (400/525) \times 1.7 = 2.01 \)

Although PV of assets > PV of liabilities, \( D_A > D_L \); thus the cash flow from the assets does not match the cash flow from the liabilities—there is a duration mismatch or a duration gap. The duration gap is computed as the difference between duration of assets and duration of liabilities, weighted by assets and liabilities: \( D_G = D_A - (\text{liabilities/assets}) \times D_L \). To manage a balance sheet, the duration of assets needs to be in line with the duration of liabilities. This can be done by reducing the duration of some assets (e.g., by making earlier payments); increasing the duration of some liabilities (e.g., by requiring later payments); or some combination of both—assuming the PV of liabilities cannot decrease.

### Table 2.1: Hypothetical Balance Sheet for Indonesia

<table>
<thead>
<tr>
<th>Assets (fiscal hedge)</th>
<th>Liabilities (fiscal risk)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct assets</strong></td>
<td><strong>Contingent assets</strong></td>
</tr>
<tr>
<td>· IBRA assets recovery</td>
<td>· Revenue from oil and gas</td>
</tr>
<tr>
<td>· Privatization of SOEs</td>
<td>· Tax revenue-transfers</td>
</tr>
<tr>
<td>· BI reserves</td>
<td>· Savings from cuts in fuel subsidies</td>
</tr>
<tr>
<td>· Oil and gas reserves</td>
<td>· Future profits of SOEs</td>
</tr>
</tbody>
</table>

Source: Polackova and Schick, 2002, Government at Risk

### Banking Sector

2.11 In response to the banking crisis of 1998, the government issued about Rp. 400 trillion (55 percent of GDP, valued at Rp. 661 trillion in end-2001) worth of domestic bonds to recapitalize ailing banks and shore up its financial sector. At the same time, the government provided a blanket guarantee to all bank deposits (liabilities) and created the Indonesian Bank Restructuring Agency (IBRA) to restructure and resell loans in closed IBRA banks. The government effectively nationalized four banks (Bali, BCA, Danamon, and Niaga) and assumed majority control (alongside private shareholders) in seven other banks jointly recapitalized.

2.12 The government’s assets and liabilities in the banking sector derive from the contingent liabilities assumed through the blanket guarantee; assets, loans and equity stakes taken over; and sovereign debt issued to IBRA-controlled and state-owned banks. At the end of 2001, IBRA still had assets with an estimated face value of approximately Rp. 475 trillion (32 percent of 2001 GDP). Its goal is to return all assets under its management to the private sector by its sunset date of February 2004. The market value of these assets was assessed by IBRA’s independent auditor at year-end 2000 at around 26 percent of face value.

2.13 The Government dominates the banking sector. The major banks are the four State banks (about 43 percent of the system’s assets) and the eleven IBRA banks taken over in the aftermath of the crisis (totaling 23 percent of total assets). Government recapitalization bonds account for about 56 percent of these banks’ assets, Bank Indonesia Certificates (SBIs) about 8 percent, and loans (before provisioning) only about 23 percent (Table 2.2).

---

2 For the banks that were closed, the government transferred their deposits to state banks and issued bonds to the banks to back the deposits (to match assets with liabilities). For recapitalized banks, the government issued bonds to them and in return got their non-performing loans at book value.
2.14 **GOI's liabilities from the financial sector are both direct and contingent.** The consolidated balance sheet for GOI from the banking sector is shown in Table 2.3. Recap bonds, which are assets to IBRA banks and State banks, are direct liabilities to GOI. One type of Recap bonds is hedge bonds (about Rp. 20 trillion) which provide a hedge against exchange rate risk (Rp./$) faced by banks with foreign liabilities. Other assets of these banks are assets to GOI. Only deposits which are not covered by recap bonds (to avoid double counting) are contingent liabilities to GOI given the blanket guarantee. Another contingent liability comes from so-called Interbank Exchange Offer (IEO) programs, which are agreements between foreign creditor banks and domestic debtor banks that enabled Indonesian banks to reschedule their external obligations to foreign banks with their rescheduled payments stream backed by government guarantee. So far, the call on the guarantee amounted to about $332 million from three closed banks. Overall, the banking system remains thinly capitalized and thus vulnerable to its borrowers' performance and exogenous shocks.

### Table 2.3: Consolidated balance sheet for GOI from the banking sector, 2001 (Rp. trillion)

<table>
<thead>
<tr>
<th>Assets:</th>
<th>518</th>
<th>Explicit liabilities: Recap bonds</th>
<th>661</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBRA holdings</td>
<td>474</td>
<td>Contingent liabilities:</td>
<td></td>
</tr>
<tr>
<td>State banks capital equity</td>
<td>25</td>
<td>Interbank Exchange Offer</td>
<td>62</td>
</tr>
<tr>
<td>IBRA banks capital equity</td>
<td>19</td>
<td>Banks liabilities not covered by Recap bonds</td>
<td>371</td>
</tr>
</tbody>
</table>

Note: In addition to recapitalization bonds, in 2001 there were Rp. 55 trillion SBIs outstanding. In April 2002, BCA was sold for about Rp. 5.6 trillion. IBRA's asset recovery reached Rp. 15.5 trillion during January-June 2002, Rp. 15.8 trillion during the third quarter of 2002, and a target of Rp. 12.7 trillion is expected for the fourth quarter of 2002. Total banks liabilities are Rp. 1032 trillion.

### SOEs as a fiscal hedge?

2.15 **SOEs are not yielding high returns on capital invested.** In September 2001, the Ministry of SOEs had a portfolio of 155 companies, of which 117 fully-owned non-financial SOEs (Table 2.4). Their return on assets, at an average of 9 percent, is much lower than the cost of capital (at 19 percent in 2001 using lending rate as a proxy). If they were more efficient, and their assets were returning the cost of capital, these SOEs would have earned Rp. 34 trillion in profits, instead of Rp. 16 trillion—the difference represents the opportunity cost of capital invested in SOEs. Moreover, the past practice of exchange rate risk being borne by the Government under two-step loans will burden the state budget with at least $1.1 billion (Rp.11 trillion) per year during the next decade.

### Table 2.4: Profitability of non-financial, non-utility SOEs, end-2001 (in trillions Rp.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Of which:</td>
<td>Assets</td>
<td>Equity</td>
<td>Return on assets (%)</td>
</tr>
<tr>
<td>Total SOEs:</td>
<td>179</td>
<td>134</td>
<td>9</td>
</tr>
<tr>
<td>Plantations</td>
<td>12.1</td>
<td>7.6</td>
<td>6</td>
</tr>
<tr>
<td>Mining</td>
<td>6.9</td>
<td>4.2</td>
<td>14</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>40.9</td>
<td>23.6</td>
<td>6</td>
</tr>
<tr>
<td>Infrastructure, exc.</td>
<td>62.9</td>
<td>37.0</td>
<td>12</td>
</tr>
<tr>
<td>PLN</td>
<td>20.2</td>
<td>8.9</td>
<td>8</td>
</tr>
<tr>
<td>Service industries</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 Domestic debt, which consists mainly of recap bonds, is explicitly guaranteed by the Government of Indonesia. Recap bonds effectively back an equivalent amount of commercial banks' deposits. Thus, by explicitly guaranteeing the domestic debt, GOI is also guaranteeing commercial banks' deposits.

4 Under the Exchange Offer Program I (agreed in 1998 under the Frankfurt Agreement) and Program II (1999): (i) a total amount of $6.3 billion maturing between 1998 and 2001 were rescheduled between 1 to 6 years; (ii) Bank Indonesia participates in the programs as a guarantor for credit enhancement; (iii) interest rate spread of new loans (between 2.25% and 3.5%) are higher than original loans (around 1%).

5 There are no consolidated records of the size and composition of such two-step foreign currency loans which were administered by MOF. Liabilities of exchange risk coverage on these two-step foreign currency loans are huge. As an example, future obligations of PT Telkom's two-step loans amount to Rp. 27 trillion, or close to $3 billion at the current exchange rate. If PT Telkom had borne the exchange rate risk since 1998, over half of its shareholders' funds and its entire profit would have been wiped out (Source: ADB).
2.16 Privatization is proceeding slowly. Privatization proceeds (or equity) from SOEs are a main feature of the fiscal hedge matrix. Despite the significant fiscal costs (including opportunity cost) of operating SOEs in various sectors, the GOI made only limited attempts to reform and privatize SOEs. In 1999, a Master Plan for SOE Restructuring/Privatization was initiated and begins with a vision for turning SOEs into "business entities, which can compete globally and are capable of meeting stakeholders' expectations." The Master Plan expects to privatize 145 SOEs involved in 37 industries and possessing total assets worth Rp. 772 trillion (US$82 billion) in 2002 (including Rp. 491 trillion from State Banks). A new Master Plan was recently issued for 2002-2006. But privatization has been slow. In the meantime, SOEs provide annual revenue to GOI in the form of paid taxes and dividends; the 2002 budget estimates about Rp. 10.4 trillion in dividends paid by all state enterprises, of which Rp. 2.3 trillion from Pertamina.

PLN and the Power Sector

2.17 PLN’s financial situation deteriorated after the crisis. From a net profit of Rp. 1.2 trillion in 1996, Perusahaan Listrik Negara (PLN)—the State-owned monopoly supplier of electricity in Indonesia—posted net losses of Rp. 9.5 trillion in 1998, reaching Rp. 24.6 trillion in 2000 and its balance sheet deteriorated. PLN’s average revenue dropped from US7cents/kWh prior to the crisis to US3.2cents/kWh at the end of 2001 as demand for electricity dropped. Tariffs have increased recently but remain below cost. Because about 80 percent of PLN’s costs (i.e. fuel purchases and debt payments) are denominated in US dollars while revenues (subsidized tariffs) are earned in Rupiah, PLN’s debt increased significantly with the 1998 and 1999 currency depreciation. In June 2001, GOI restructured debt of Rp. 34 trillion (US$3 billion) for PLN. Under the financial restructuring scheme, Rp. 5.3 trillion of principal debt was treated as a new 20-year loan with a two-year grace period. The remaining Rp. 28.7 trillion debt was converted to government equity. Although this equity would show as an asset in the government’s balance sheet, it would be offset by an increase in liabilities since the government borrowed to inject this equity in PLN. Moreover, PLN proposes revaluing its fixed assets (equipment, machinery, etc.), most of which are imported, at the current exchange rate. This would raise its equity from Rp. 19 trillion to Rp. 237 trillion. Although this would allow a more accurate reflection of the company’s financial position, and would triple its asset value, it also means massive capital gains tax liability of about Rp. 8.5 trillion which PLN cannot pay.

2.18 Contingent liabilities from IPPs are being renegotiated. Before the crisis, PLN signed contracts or power purchase agreements (PPAs) with 27 IPPs. Under these contracts PLN made commitments to buy a minimum amount of power at a pre-specified price, or pay for that power in any event (take-or-pay). On average, prices set in PPAs reached with PLN were 6-8 cents per kWh, for a total additional new power of 11,000MW. These agreements would have resulted in total bills of $12 to $18 billion in present value (with a nominal value of $133 billion over a 30-year period). This was a substantial contingent liability for PLN, and ultimately GOI, because they would have to pay the difference in case the specified amounts of power were not purchased. Following the crisis, PLN was unable to fulfill these obligations, and the government unilaterally suspended or cancelled 16 of the power contracts relating to IPP projects proposed or under construction (although this decree was reversed in March 2002). All contracts with the IPPs are currently at different stages of renegotiation and will substantially lessen the payment burden and the contingent liability of the GOI. So far, successfully renegotiated PPAs have revised prices down to an average of 4.5 cents/kWh. PLN’s balance sheet is shown in Table 2.5.

<table>
<thead>
<tr>
<th>Table 2.5: PLN's Balance Sheet, Rp. trillion</th>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001 (before asset revaluation)</td>
<td>53</td>
<td>32</td>
<td>19</td>
</tr>
<tr>
<td>2002 (after asset revaluation)</td>
<td>171</td>
<td>35</td>
<td>136</td>
</tr>
</tbody>
</table>

Source: PLN
Pertamina and the Petroleum Sector

2.19 Indonesia has proven oil reserves of approximately 9 billion barrels, or another 17 years of production at current levels of 1.4 million barrels per day. Over 90 percent of oil and gas is produced by the private sector, governed by production sharing contracts. The Energy Information Administration (EIA) forecasts that the median price per barrel of oil, in real terms, for the next 20 years will be $20/barrel. This means that Indonesian oil reserves are worth $180 billion, with a present value of approximately $92 billion, of which $84 billion (Rp. 843 trillion) goes to the government in revenue from Pertamina and production sharing contracts. Indonesia also produces an average of 3,000 billion cubic feet of Natural Gas annually, earning an average of $5 billion annually. Indonesia has sufficient proven reserves of natural gas to produce at this rate for another 30 years—total reserves are estimated at 170 trillion standard cubic feet (95 proven reserves and the rest potential reserves). Assuming average prices during 1996-2000 for the next 30 years, natural gas reserves are worth $240 billion, with a present value of $83 billion (about Rp. 830 trillion, of which Rp. 750 trillion goes to the government in revenue). Taxes from petroleum and natural gas production amounts to about 35 percent of government revenue annually: Rp. 105 trillion in 2001. Liabilities from the fuel subsidy are declining as it is gradually being eliminated except for kerosene—from Rp. 68.4 trillion in 2001 to Rp. 30.4 in 2002. In the government's balance sheet, the oil and gas sector as a whole would be reflected as shown in Table 2.6.

<table>
<thead>
<tr>
<th>Table 2.6: Oil and gas sector in the government's balance sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
</tr>
<tr>
<td>PV of petroleum revenue: $56 billion (PV of reserves: $92 billion)</td>
</tr>
<tr>
<td>PV of natural gas revenue: $27 billion (PV of reserves: $83 billion)</td>
</tr>
<tr>
<td>Equity in Pertamina: Rp. 22 trillion</td>
</tr>
</tbody>
</table>

Pension Funds

2.20 Indonesia has a population of approximately 200 million, with an average annual population growth projected at 1 percent during 2000-2030, and 0.5 percent during 2030-2050. The population proportion above age 60 is expected to increase from 11.3 percent (1990) to 19.3 percent (2025). The formal social security system covers less than one-fifth of the 90 million total labor force. The three major pension plans are Jamsostek, Taspen, and Askes (Table 2.7). Jamsostek is a mandatory provident fund for the formal sector (for companies with more than 10 employees) and covered 13 million pensioners or 11 percent of the labor force in 1995. Taspen, or the civil servant pension system, covers 6 million workers. It is financed primarily from the state budget, and partly from the employees contributions. ASKES (the Government Employees' Health Insurance) was first established in 1968 to provide health care for civil servants, pensioners, and their dependents. In 1981, the scheme was broadened to include old-age, survivors, and invalidity pension for civil servants. The scheme is financed with a contribution of 2 percent of employee earnings. In 1997, it had 16 million members.

<table>
<thead>
<tr>
<th>Table 2.7: Pension funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership (million)</td>
</tr>
<tr>
<td>Askes</td>
</tr>
</tbody>
</table>

The Government’s Balance Sheet

2.21 An illustrative balance sheet for the government is computed based on assets and liabilities measured above, under two scenarios (Table 2.8). This balance sheet does not include “non-sellable” assets such as schools, roads, etc. but only assets that can actually generate a cash flow (Table 2.9). Duration is also computed for each asset and liability. Indonesia has substantial explicit liabilities, in the form of outstanding recap bonds (Rp. 433 trillion) and foreign debt (Rp. 585 trillion). To balance these liabilities, Indonesia has total assets of Rp. 120 trillion of IBRA loans and Rp. 200 trillion of SOEs equity (including state banks, utilities, and manufacturing SOEs). Oil and gas reserves are also major assets in the balance sheet. The flows of repayments of liabilities (debt repayment, expenditures, subsidies) and receipts from assets (privatization receipts, oil revenue, IBRA sales, revenue) under the two scenarios are shown in Figure 2.2. Indonesia has to make large repayments on its debt from 2002-2005, even after the recent reprofiling of domestic debt.

<table>
<thead>
<tr>
<th>Table 2.8: Assumptions for the Balance Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best Case Scenario</strong></td>
</tr>
<tr>
<td><strong>Worst Case Scenario</strong></td>
</tr>
<tr>
<td><strong>Government expenditures</strong></td>
</tr>
<tr>
<td>Unchanged in real terms every year(^b) of Rp. 213.9 trillion.</td>
</tr>
<tr>
<td><strong>Government revenue</strong></td>
</tr>
<tr>
<td>Unchanged in real terms every year. Rp. 217.3 trillion.</td>
</tr>
<tr>
<td><strong>SOEs</strong></td>
</tr>
<tr>
<td><strong>IBRA</strong></td>
</tr>
<tr>
<td><strong>Oil revenue</strong></td>
</tr>
<tr>
<td><strong>Gas revenue</strong></td>
</tr>
<tr>
<td><strong>Recap bonds</strong></td>
</tr>
<tr>
<td><strong>Foreign Debt</strong></td>
</tr>
<tr>
<td><strong>Kerosene subsidy</strong></td>
</tr>
<tr>
<td><strong>Rice subsidy</strong></td>
</tr>
<tr>
<td><strong>IBRA banks</strong></td>
</tr>
<tr>
<td><strong>Oil subsidy</strong></td>
</tr>
</tbody>
</table>

2.22 In the best case scenario, the net worth (assets – liabilities) of the government is positive at Rp. 703 trillion and the duration gap is small at -0.23. Repayments from liabilities exceed receipts from assets during 2002-2008, but the debt burden is reduced thereafter. This scenario also assumes that the government gradually reduces fuel and rice subsidies, completely eliminating them in 2012. The gap between repayments from liabilities and receipts from assets becomes negligible after 2009. Even the

---

6 Assuming expenditures and revenue increase by inflation every year, their PV stays at Rp. 177 trillion and Rp. 185 trillion respectively for each year of 30-year period.
exhaustion of revenue from petroleum production in 1029 does not affect much Indonesia’s fiscal health. Overall, the small mismatch between the duration of assets and liabilities (duration gap=0.23) can be eliminated by speeding the sale of IBRA assets or privatization of SOEs.

2.23 In the worst case scenario, where debt repayment rate is lower (possible rescheduling of domestic and external debt), privatization and IBRA sales are slower, and removal of the subsidies takes longer, the net worth of the government becomes negative at Rp. -645 trillion. The duration gap is also larger, at -2.39, implying that more cash flow arising from assets will come at a later stage than the cash flow of liabilities. Again, the government repays large amounts from liabilities in the initial years and smaller amounts in the later years; but the mismatch between repayments from liabilities and receipts from assets is larger than under the best case scenario and it is not eliminated in later years. This means that, when all assets and liabilities are taken into account, the government will not have enough cash flow to repay the liabilities due. Clearly, this path is difficult to sustain. The government would have to take drastic measures in order to decrease the size and duration of its liabilities (e.g., by reducing subsidies faster and retiring more of its outstanding debt) and to increase the size and duration of its assets (e.g., by aggressively selling more IBRA assets, privatizing more SOEs, and raising its revenue).

Figure 2.2: Repayments of Liabilities and Receipts from Assets Under Two Scenarios

<table>
<thead>
<tr>
<th>Best case scenario</th>
<th>Worst case scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

Source: Bank estimates
Table 2: GOI Balance Sheet, as of end-2001

<table>
<thead>
<tr>
<th>Rp Trillion</th>
<th>Best case scenario</th>
<th>Worst case scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assets (in years)</td>
<td>Duration (in years)</td>
</tr>
<tr>
<td>IBRA (at market value 25 percent of face value)</td>
<td>120</td>
<td>2.25</td>
</tr>
<tr>
<td>IBRA banks</td>
<td>11</td>
<td>2.8</td>
</tr>
<tr>
<td>State banks</td>
<td>17</td>
<td>2.8</td>
</tr>
<tr>
<td>PV of petroleum revenues</td>
<td>843</td>
<td>9</td>
</tr>
<tr>
<td>PV of natural gas revenues</td>
<td>750</td>
<td>15.5</td>
</tr>
<tr>
<td>PV of non-SOE, non oil/gas tax revenue over 30 years (Rp. 177 trillion per year)</td>
<td>6519</td>
<td>15.5</td>
</tr>
<tr>
<td>PLN (equity)—2001 valuation</td>
<td>19</td>
<td>2.8</td>
</tr>
<tr>
<td>2002 valuation</td>
<td>136</td>
<td></td>
</tr>
<tr>
<td>Pertamina (equity)</td>
<td>22</td>
<td>2.8</td>
</tr>
<tr>
<td>Other SOEs (equity)</td>
<td>134</td>
<td>2.8</td>
</tr>
<tr>
<td>Foreign debt (explicit)</td>
<td>585</td>
<td>5.0</td>
</tr>
<tr>
<td>Recap bonds (explicit)</td>
<td>502</td>
<td>9.5</td>
</tr>
<tr>
<td>PV of kerosene subsidy over 30 years (explicit)</td>
<td>113</td>
<td>0.7</td>
</tr>
<tr>
<td>PV of oil subsidy (explicit)</td>
<td>42</td>
<td>0.8</td>
</tr>
<tr>
<td>PV of rice subsidy over 30 years (explicit)</td>
<td>14</td>
<td>0.8</td>
</tr>
<tr>
<td>Pension funds: Taspen and Jamsostek (explicit)</td>
<td>9.2</td>
<td>3.5</td>
</tr>
<tr>
<td>PV public expenditure less all subsidies over 30 years (Rp. 214 trillion per year) (explicit)</td>
<td>6417</td>
<td>17.9</td>
</tr>
<tr>
<td>IPPs (contingent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Case Scenario</td>
<td>163</td>
</tr>
<tr>
<td></td>
<td>Low Case Scenario</td>
<td>109</td>
</tr>
<tr>
<td>Interbank Exchange Offer (contingent)</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Banks liabilities not covered by Recap bonds (contingent)</td>
<td>371</td>
<td></td>
</tr>
<tr>
<td>Total explicit assets</td>
<td>8386</td>
<td></td>
</tr>
<tr>
<td>Total explicit liabilities</td>
<td>7683</td>
<td></td>
</tr>
<tr>
<td>Total contingent liabilities</td>
<td>542</td>
<td></td>
</tr>
<tr>
<td>Net worth of GOI</td>
<td>703</td>
<td>-645</td>
</tr>
<tr>
<td>Size-weighted duration of assets</td>
<td>14.4</td>
<td>14.6</td>
</tr>
<tr>
<td>Size-weighted duration of liabilities</td>
<td>16.0</td>
<td>15.7</td>
</tr>
<tr>
<td>Duration gap</td>
<td>-0.23</td>
<td>-2.39</td>
</tr>
</tbody>
</table>

Note: PV of future profits by SOEs are not included because the equity value of SOEs is included instead and should represent the PV of future profits. Foreign exchange reserves (Rp. 288 trillion) could be included in the assets. All assets are in real terms; we assume for simplicity that assets and liabilities retain their real values through time. Pension funds include only Jamsostek and Taspen, which are the most important. Duration gap is: size-weighted duration of assets-(assets/liabilities) size-weighted duration of liabilities.
PETROLEUM FISCAL EXPOSURE

2.24 The petroleum sector plays a crucial—albeit declining—fiscal role in Indonesia. Given the volatility of international oil and gas prices, however, fiscal planning is difficult. So far, Indonesia’s main tool to face petroleum fiscal exposure is to be conservative in its forecasting. This has worked well. Indonesia could use lessons from international experience on hedging, risk management, and revenue stabilization needs, to find mechanisms to cope with petroleum fiscal exposure associated with volatile oil and gas prices.

Petroleum in the Budget

2.25 In Indonesia, petroleum fiscal revenue has comprised a substantial fraction of total revenue, peaking at 65-70 percent in the early 1980s, when crude oil prices were at historically high levels in real terms (Figure 2.3). The fall in real oil prices, declining Indonesian oil production, and growth of the non-petroleum sector of the economy all contributed to a dramatic decline in the government’s fiscal dependence on the sector, which fell to the 20-25 percent range in the mid-1990s. Damage to the economy following the Asian crisis damage, in combination with higher oil prices, led to a rise in the petroleum sector’s share of fiscal revenue to 35-40 percent in the last couple of years. The 2002 budget estimates that petroleum will account for about one quarter of total fiscal revenue. Petroleum fiscal revenue comes mainly through corporate income tax and profit sharing from Pertamina and oil producers. On the expenditures side, the fuel subsidy ballooned during the crisis, absorbing 60 percent of the revenues generated by the petroleum sector and accounting for about 20 percent of all government spending in 2000 and 2001. The government recently took drastic steps to reduce the fuel subsidy, except kerosene which is mainly used by the poor.

Coping with Petroleum Fiscal Exposure

2.26 Fiscal exposure measures the sensitivity of budget revenue and expenditure to changes in petroleum prices and production. Exact measures of exposure will depend on the exchange rate (including any effects on the exchange rate of oil price changes); the level of oil and gas production and the supply elasticities thereof; the level of the fuel subsidy; and the price elasticities of fuel demand (smuggling effect), the extent to which gas prices move with crude oil prices, and the extent to which higher petroleum prices themselves increase the cost of producing oil and gas.

2.27 A $1/barrel drop in crude oil prices from the budgeted $22/barrel for 2002 will:
- reduce non-tax receipts to government (from PSCs profit sharing) by 3 trillion rupiah/year (compared to a base of 44 trillion rupiah for 2002);
- reduce tax receipts (from PSCs’ income tax) by 0.6 trillion rupiah per year (compared to a base of 16 trillion rupiah for oil and gas in 2002);

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7 These figures underestimate the petroleum sector’s contribution to the budget because they omit dividends paid by Pertamina to GOI as its sole shareholder and do not take into account the multiplier effect on the rest of the economy.

8 $1/barrel x 9000 rupiah/$ x 1,320,000 barrels/day x 365 days/year x 97% of production through PSCs x 71.15% GOI profit share in PSCs.
reduce government’s contribution from Pertamina (taxes and dividends) by 0.2 trillion;\(^9\)
reduce the subsidy for kerosene by 0.7 trillion rupiah/year;\(^10\)
reduce the subsidy for the other fuels (solar, fuel oil, industrial diesel) by 0.4 trillion rupiah/year\(^11\)

2.28 Net fiscal exposure is about 2.7 trillion rupiah per year per dollar change in world crude oil price, roughly 6 percent of the base of 43.8 trillion rupiah expected in contribution from the petroleum sector (74.2 trillion in revenue, 30.4 million in expenditure) in the 2002 budget. But the central government budget is partially hedged for changes in oil price and exchange rate because implications on revenue and expenditure offset each other to some extent:

- Lower oil and gas revenues lower revenue shares for the regions: oil and gas non-tax revenues are shared with the regions (at 15 and 30 percent respectively).
- Lower revenues also reduce the general allocation grant which is based on 25 percent of total revenues net of revenue sharing and special allocation fund.
- Lower oil prices reduce the wedge between international prices and domestic prices, thereby reducing fuel subsidies.

2.29 At prices and exchange rate assumed in the budget, oil and gas revenues net of (i) resource transfers, (ii) oil and gas contribution to DAU, and (iii) fuel subsidies are Rp. 17.4 trillion or a little over 1 percent of GDP. A one-dollar decrease in oil prices/barrel will raise the overall deficit from 2.5 percent of GDP to 2.6 percent of GDP (Figure 2.4).

Forecasting

2.30 Accurate forecasting reduces fiscal exposure. When a large part of the government budget is financed by petroleum, forecasts of oil and gas prices and production are central to planning government revenue collection and spending. The key variables for forecasting petroleum fiscal revenue are the average prices of crude oil, refined products, and gas; the volume of production; and the exchange rate, since exports are in dollars. Of these, oil and gas prices provide the greatest forecasting challenge given their high volatility. Even forecasts provided by the futures market have not proven very accurate—although they tend to be unbiased, their average absolute error is large. In the case of Indonesia, the price of crude oil assumed in the budget the past four years has missed the realized mean by an average of $4.75/barrel, more than 25 percent of the average forecast of $17/barrel. Overall, budget forecasts have tended to underestimate both fiscal revenue and fiscal expenditure from petroleum.\(^12\)

\(^9\) This assumes that price elasticities of supply and demand, production cost, and natural gas prices are all zero; an exchange rate of Rp.9000/$; crude oil production level of 1320 barrels per day (2002 forecast), and petroleum domestic consumption of 56.3 million kiloliters (2001 level).
\(^10\) Assuming domestic fuel demand same as 2001, with each fuel share same as in 2000, and zero price elasticities of demand and income; a $1/barrel is equivalent to $6.29/kl ($6.29/kl x 12.8 million kl/year x 9000 rupiah/$).
\(^11\) $6.29/kl x 25% subsidy x 30.0 million kl/year x 9000 rupiah/$.
\(^12\) A complicating factor in estimating fuel/kerosene subsidy is that higher world oil prices may lead to an increased incentive to smuggle kerosene out of the country, resulting in a convex relationship between the size of the subsidy and world oil prices.
2.31 **Indonesia’s forecasts are biased.** Given the number of macroeconomic assumptions that go into these forecasts, it is difficult to disentangle the role of petroleum price and production assumptions in these forecasts (Table 2.10). Oil price forecasts of other petroleum-exporting countries for their budget cycle do not tend to be more accurate than Indonesia’s. This is also true for forecasts made by private firms, as well as the revenue office of the state of Alaska, which is far more dependent on petroleum fiscal revenue than Indonesia. However, although greater accuracy (i.e., smaller absolute error) may not be feasible, there is no reason that budget forecasts should consistently underestimate fiscal revenue and overestimate production. On average, forecast errors should be zero, even if the average absolute error is large. Futures prices are known to be unbiased, and thus could serve as the basis for unbiased revenue forecasts. Forecasting accuracy goes beyond petroleum prices and production levels. The Ministry of Finance’s forecasting systems for petroleum fiscal flows do not appear to be very accurate, even conditional on realizations of oil and gas prices. In 2001, the fuel subsidy was 65 percent higher than budgeted and petroleum revenue was 30 percent higher than budgeted, despite the fact that the average value of Indonesian crude oil was only 2.5 percent greater than the level assumed in the budget ($24.6 vs. $24 per barrel) and domestic fuel consumption rose only about 3 percent over 2000. In 1998/99, expenditure on the subsidy slightly exceeded forecasted levels, despite the fact that both Indonesian oil prices and petroleum fiscal revenue were lower than predicted.

2.32 **The many actors involved in the forecasting process leads to ad hoc errors.** The Ministry of Finance develops the crude oil price forecast for the proposed government budget in consultation with Pertamina. The Ministry’s forecast is based on Brent futures prices (as a proxy for Indonesian crude oils which are not widely traded), adjusted for statistical relationships between Indonesian crude values and Brent, and anticipated changes in market fundamentals, such as likely future OPEC decisions, demand trends, etc. The budget approved by DPR, however, may assume different values. More attention needs to be paid to developing internally consistent systems for forecasting petroleum fiscal flows accurately, conditional on petroleum price realizations. This effort would be most likely effective if undertaken cooperatively by MoF and DPR staff involved in the forecasting process. For example, both could agree in advance on a simple formula for forecasting, based on data published by credible third parties, e.g., use of Brent futures prices, perhaps adjusted by an historical discount that reflects the average difference between Brent prices and Indonesian average crude prices. Similarly, production forecasts could be based on simple rules for extrapolating past data, especially that oil and gas production change very slowly over time.

<table>
<thead>
<tr>
<th></th>
<th>Crude oil price</th>
<th>Crude oil production</th>
<th>Oil and gas revenue</th>
<th>Petroleum subsidy</th>
<th>Total expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Budget Actual</td>
<td>Budget Actual</td>
<td>Budget Actual</td>
<td>Budget Actual</td>
<td>Budget Actual</td>
</tr>
<tr>
<td></td>
<td>$/barrel</td>
<td>1000 barrels/day</td>
<td>trillion rupiah</td>
<td>trillion rupiah</td>
<td>trillion rupiah</td>
</tr>
<tr>
<td>2002</td>
<td>22</td>
<td>1320</td>
<td>74.2</td>
<td>41.3</td>
<td>315.8</td>
</tr>
<tr>
<td>2001</td>
<td>24</td>
<td>24.6</td>
<td>1341</td>
<td>80.5</td>
<td>354.9</td>
</tr>
<tr>
<td>2000</td>
<td>20</td>
<td>1460</td>
<td>43.3</td>
<td>22.5</td>
<td>179.7</td>
</tr>
<tr>
<td>1999/2000</td>
<td>11</td>
<td>1520</td>
<td>20.9</td>
<td>10.0</td>
<td>212.7</td>
</tr>
<tr>
<td>1998/99</td>
<td>13</td>
<td>1557</td>
<td>49.7</td>
<td>27.5</td>
<td>215.6</td>
</tr>
<tr>
<td>1997/98</td>
<td>16.9</td>
<td>1581</td>
<td>14.9</td>
<td>0</td>
<td>88.0</td>
</tr>
<tr>
<td>1996/97</td>
<td>20.7</td>
<td>1595</td>
<td>14.1</td>
<td>1.4</td>
<td>77.3</td>
</tr>
<tr>
<td>1995/96</td>
<td>17.4</td>
<td>1606</td>
<td>13.3</td>
<td>0</td>
<td>66.2</td>
</tr>
<tr>
<td>1994/95</td>
<td>16.4</td>
<td>1612</td>
<td>12.8</td>
<td>0.7</td>
<td>58.3</td>
</tr>
</tbody>
</table>

Source: MOF
Options for Reducing Oil Fiscal Exposure: International Lessons of Experience

2.33 *Hedging petroleum price exposure can stabilize fiscal revenue.* At present the budget is naturally hedged against oil-price exposure—higher oil prices bring more revenue into the treasury, but increase expenditure on the subsidy. Financial hedges can provide some fiscal benefits for petroleum-exporting countries, but relatively little hedging has actually been undertaken. The two most common arguments against hedging are (i) lack of liquidity in the derivatives market; and (ii) basis risk—associated with fluctuations in the *difference* between the price of the commodity hedged and the instrument used to hedge it. Both are unlikely to apply to Indonesia. While the depth of the petroleum derivatives market would be a serious limitation for a large oil-exporting country, Indonesia's net exports are small enough so that hedging a portion of them would be unlikely to cause serious liquidity problems. Likewise, basis risk is likely to be small because of the high correlation of changes in Indonesian average crude oil prices with those of Brent. A very different argument often given against hedging in practice is principal-agent problems. The entity undertaking the hedging may face asymmetric incentives, incurring considerable public scrutiny if *ex post* their hedge is out of the money, but relatively little reward if it ends up in the money. One solution to the agency problem when decision-makers are concerned about "losing money" *ex post* on hedges is the use of options, rather than forwards, futures, or swaps. By paying an option premium up-front, the hedger is protected against "downside risk;" if the option matures out of the money, it is simply exercised. The central bank of Mexico used put options to protect the government budget in the early 1990s.

2.34 *Risk management could smooth out windfalls and shortfalls.* Given the inherent difficulty in prudent fiscal management of the inevitable windfalls and shortfalls associated with oil and gas price volatility, it would be worthwhile to attempt to smooth out the windfalls and shortfalls themselves. The simplest way to do so would be to stabilize the prices that underlie fiscal revenue flows, either *directly* through risk management, or *indirectly* through agreeing with contractors in advance on prices to utilize as the basis for production-sharing contracts. In the direct method, a pilot program could be set up to allocate a fixed amount of budgeted expenditure to purchasing put options on the average price of Indonesian crude oil over the fiscal year. Such average-price options (sometimes called "Asian options") tend to be far less expensive than the exchange-traded American or European options on crude oil, currencies, equities, etc. Precisely such a pilot program has been undertaken by the state government of Texas, which receives royalty and severance-tax payments on crude oil and natural gas produced in the state. A pilot program of this type could be undertaken without any government expenditure if purchases of Asian put options were financed by the sale of call options. In this case, the GOI would be giving up some of the "up side" (i.e., reducing the size of windfalls) in order to protect the "down side." This approach may be attractive not only because it reduces or avoids up-front government expenditure in purchasing the options, but also because it diminishes political pressure to spend windfalls on unplanned or unproductive activities. In the indirect method, basing payments in PSCs on prices agreed in advance, effectively shifts the price risk to private contractors, who may be in a better position than the GOI either to take on such risk (especially for firms owned by diversified shareholders), or lay off the risk in financial markets. A formula would need to be agreed in advance (such as the price of Brent in the futures market, with adjustments for quality, cost of taking on such risk, etc.) to reduce hold-up problems and bargaining costs. These approaches are not mutually exclusive. There is no reason why pilot programs could not be undertaken simultaneously, to assess their effectiveness in the Indonesian context.

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13 The Mexican government has used such options to protect its petroleum fiscal exposure. Moreover, the country's state-owned petroleum enterprise, Pemex, manages its commercial petroleum exposure on an ongoing basis.
2.35 Stabilization funds are unlikely to work. Funds have been created by a number of governments where resource revenues fund a significant part of the budget. Examples from developing countries include Chile’s Copper Stabilization Fund (established 1985), Venezuela’s Macroeconomic stabilization fund (for oil revenues, established 1998), Papua New Guinea’s Mineral Resources Stabilization fund (mineral and oil revenues, established 1974). Stabilization funds aim at addressing the short-term volatility by saving some of the petroleum revenue when oil prices are higher than expected, investing the capital, and drawing down some of it when prices are lower than expected. In practice, however, stabilization funds have not worked well. With a recurring fiscal shortfall, as in the case of GOI, it is difficult to establish a separate fund for smoothing windfalls and shortfalls. Any such fund would need to await a budget close to balanced on average. Given the fact that stabilization funds are difficult to operate meaningfully in a budget-deficit environment, some of the benefits of smoothing government spending in a volatile environment—particularly avoiding political pressure to spend windfalls and damaging cuts to programs resulting for shortfalls—can be obtained nonetheless. The most straightforward approach involves contingent fiscal planning, that is, specifying in advance priorities for additional expenditures in the event of a windfall associated with higher oil and gas prices, and projects for which some of the funding would be held up in the event of shortfalls associated with lower oil and gas prices. In Indonesia, contingent budgeting already is in place in an informal sense as the budget is adjusted during the fiscal year. The key challenge is to ensure that national priorities are reflected in decisions to add or cut projects as volatile oil and gas prices expand or restrict the funding available.
3. CONTINUING FISCAL CONSOLIDATION

Budget Trend Before and After the Crisis

3.1 In the pre-crisis years Indonesia had demonstrated the virtue of fiscal prudence, but high growth disguised many weaknesses in the budget and the quality of fiscal adjustment was deteriorating (Figure 3.1). On the revenue side, government continued to rely heavily on oil revenue and was slow in improving a weak tax administration. On the spending side, capital expenditure was becoming more dependent on foreign sources and consistently declined relative to GDP as only a small proportion of windfall revenues were used to pay off external debt. Moreover, government continued to embrace expensive spending policies, such as fuel and credit subsidies. In addition, lack of transparency, the practice of favoritism and rent-seeking behavior in the public sector encouraged widespread corruption, which in turn raised the cost of public services. Furthermore, off-budget spending was on the rise. All of these issues were masked by the excellent record of sustained economic growth, continued poverty reduction, and rapid improvement of literacy rate during the same period.

3.2 The crisis turned the budget into deficit mainly due to increasing subsidy and interest payments. The fiscal deficit peaked at around 5 percent at the height of the crisis, but it has continuously declined since. In 2001, the deficit reached 3.7 percent of GDP, and further declined in 2002 to 2.5 percent of GDP, mainly on account of a reduction of subsidies from 5.5 percent of GDP in 2001 to 2.5 percent in 2002. The deficit target for 2003 was initially set at 1.3 percent of GDP, but was raised to 1.78 percent of GDP following the Bali crisis.

Tax Revenue

3.3 Increased revenue mobilization is needed to make the budget more risk-proof and would mostly come from improved administration. Because the structure of the budget has changed after the crisis, revenue policies need to be re-thought. The budget today leaves very little discretion for fiscal policy or for dealing with shocks—debt service drained one-third of total revenue and nearly half of tax revenue while personnel expenditures absorbed 13 percent of total revenue and 20 percent of tax revenue in 2001. At the same time, revenues have become more dependent on volatile oil. In 2001, 37 percent of total revenue came from oil, oil income, or natural resources, compared with only 20 percent in 1994/95 (Figure 3.2). Higher tax and non-tax revenues will allow quicker redemption of costly debt and will increase the budget’s flexibility to deal with risks.
Given that the present structure of the tax system in Indonesia is fundamentally sound—after a major reform in the mid-1980s—future revenue growth would come mainly from improving a weak tax administration; it would also come from developing new and more efficient sources of revenue, including non-tax revenue, and better managing the government’s dependence on natural resource revenues.

Improving the Tax System

3.4 **Indonesia has a good tax system but a low tax ratio.** The Indonesia tax system has several positive elements: it has in place a modern value added tax and income tax; it relies little on import duties; and it has a balanced reliance on income and consumption taxes. Equity of tax policy is also adequately addressed—the income is progressive and the VAT is proportional (Figure 3.3). However, Indonesia’s overall tax burden is relatively light compared to other countries in the region—tax revenue to GDP was about 12 percent in 2001, compared to an average among non-OECD countries in the region of 14 percent (Table 3.1). This low tax ratio may be partly due to Indonesia’s reliance on oil and gas revenues—including oil, revenue to GDP rises to 20 of GDP, higher than the 18 percent average among non-OECD countries in the region. The composition of tax revenue is somewhat similar to the average of non-OECD countries in the region—with 51 percent of tax revenue coming from income tax and 45 percent from consumption tax.

![Figure 3.3: Indonesia’s tax system is progressive](image)

*Source: WB report on tax, 1995, and Staff estimates.*

### Table 3.1: Level and Composition of Tax Revenue in Selected Asian and Pacific Countries (percent of GDP)

<table>
<thead>
<tr>
<th>Total Tax Revenue</th>
<th>Income taxes</th>
<th>Consumption taxes</th>
<th>Property Taxes</th>
<th>Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>12.5</td>
<td>6.4 3.1 5.0</td>
<td>5.7 3.7 1.2</td>
<td>0.4 20.1</td>
</tr>
<tr>
<td>Average of all countries</td>
<td>20.4</td>
<td>9.2 3.9 5.0</td>
<td>7.7 4.2 2.7</td>
<td>1.5 25.5</td>
</tr>
<tr>
<td>Average OECD</td>
<td>30.1</td>
<td>14.0 4.1 9.5</td>
<td>8.8 4.6 2.8</td>
<td>0.4 36.1</td>
</tr>
<tr>
<td>Australia</td>
<td>30.6</td>
<td>18.1 4.9 13.2</td>
<td>7.6 2.5 3.3</td>
<td>0.6 33.2</td>
</tr>
<tr>
<td>Japan</td>
<td>27.1</td>
<td>9.1 3.5 5.7</td>
<td>5.1 2.4 2.0</td>
<td>0.2 39.7</td>
</tr>
<tr>
<td>Korea</td>
<td>26.4</td>
<td>7.6 3.7 3.9</td>
<td>10.1 4.5 4.0</td>
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<td>New Zealand</td>
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<tr>
<td>Av. non-OECD</td>
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<td>6.0 3.8 2.0</td>
<td>7.0 3.9 2.7</td>
<td>1.2 18.4</td>
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<tr>
<td>China</td>
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<td>4.1 2.7 1.0</td>
<td>11.3 9.5 1.0</td>
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<td>Hong Kong</td>
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<td>3.9 3.9 3.9</td>
<td>... 13.6</td>
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<td>4.8 3.0 1.8</td>
<td>8.4 2.8 3.8</td>
<td>1.8 16.1</td>
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</tbody>
</table>

**Note:** Data is for latest year for which data is available (2001 for Indonesia); data covers general government for OECD countries and central government for non-OECD countries.

**Sources:** Revenue Statistics (OECD); OECD Economic Outlook (OECD); and country documents (IMF).
3.5 VAT. The VAT has a single rate of 10 percent and is levied on a broad base of goods and services. Retailers can opt for replacing the VAT with a 2 percent turnover tax. Exports are zero-rated. Following the post-crisis devaluation, the basic registration threshold for VAT dropped below $50,000; in 2001, it was raised to Rp. 360 million ($36,000) for turnover of taxable goods and Rp. 180 million ($18,000) for turnover of taxable services but is still low. Unifying and raising the threshold to that of bookkeeping requirement (Rp. 600 million) would facilitate administration. VAT revenue productivity has been lower than several other countries in the region, but it is increasing (Figure 3.4) mainly due to some tax policy measures, including reducing exemptions, removing zero rating except for exports, abolishing the exemption on government-borne VAT on certain goods, and taxing on most food products, except basic goods consumed by the poor and certain "strategic" goods (including agriculture). The 2002 budget further extended the VAT base and removed the VAT exemption of capital goods. The VAT could be strengthened through further expansion of the base to, for example, mining and hotels. The rate could also be raised to 11 or 12 percent given the need for increased revenue, but only after increasing the productivity of the VAT.

3.6 Luxury tax, excises, and stamp duty. Indonesia imposes luxury goods sales taxes at rates between 10 and 75 percent on an extensive list of goods, including motor vehicles, alcoholic beverages, soft drinks, electronic goods, household appliances, footwear. While revenue from this tax rose as the list expanded, most of this increase came from a limited number of goods—motor vehicles alone accounted for over half of tax collections in 2001, and for 76 percent with electronic and food and beverages; while many luxury goods generate almost no revenue. The luxury tax on motor vehicles and soft drinks could be transformed into excises, and abolished for the remaining goods. Excises are levied on the importation and domestic manufacture of tobacco products, ethyl alcohol, and alcoholic drinks. Excise taxes could be strengthened by increasing the rates on tobacco and alcohol, and introducing a tax on petroleum (once the subsidy is eliminated). Stamp duty is levied as a specific tax on a plethora of instruments and documents that are required as proof of a legal transaction within Indonesia. It generates only 0.09 percent of GDP in revenue in 2001 (0.6 percent of total tax revenue). The stamp duty is considered a nuisance tax from an administrative point of view, and distortive from an economic point of view. Most countries have replaced it by broadening the tax base of more efficient taxes.

3.7 Income tax. Corporate and individual income tax collections as a share of GDP are low, especially once oil and gas revenues are removed—this points to a weak tax administration. The Corporate tax statutory rate has three brackets (10 percent, 15 percent, and 30 percent). Virtually all tax due is paid by the highest bracket. More than 60 percent of tax returns, accounting for almost half of taxable turnover, reported no net income and thus paid nothing in 2000. This suggests serious problems with collection data as well as enforcement. Relative to other countries in the region, Indonesia's 30 percent corporate tax rate for the highest bracket is average—Hong Kong (16 percent), Singapore (24.5 percent), and Malaysia (28 percent) have lower rates; China and Thailand have the same rate; and Philippines and Vietnam have higher rates (32 percent). Levying multiple rates under a corporate tax by applying different rates for different levels of profit is undesirable since the primary purpose of the corporate tax should be to raise revenue with as few distortions as possible rather than to redistribute income. It would be better to tax all profits at 30 percent (and harmonize this rate with the maximum...
personal income tax rate). If some preference is desired for non-incorporated small businesses, the tax on profit could be levied at reduced rate for small businesses measured by turnover.

3.8 Personal income tax is based on the principle of global income taxation, and extensive use is made of withholding. Taxable income is subject to a five-bracket progressive rate schedule (between 5 percent and 35 percent). In 2000, 7.3 million permanent workers and 13.6 million temporary workers paid by wage withholding; only 421 thousand taxpayers paid by self assessment, of which 90 percent claimed that their income was in the lowest taxable bracket. Indonesia’s personal income tax is similar to that of countries in the region in terms of rates and structure. Income tax incentives are provided for certain fields of business and certain geographic areas, but their benefit is questionable, even to foreign investors.

3.9 **Property tax.** The central government levies a land and building tax, transferring revenue to local governments. Property is assessed on an annual basis; the standard taxable value is 40 percent of assessed value for property above Rp. 1 billion and 20 percent for property below Rp. 1 billion. The tax rate on assessed value is 0.5 percent. The property tax is an important component of local revenues because the tax base is relatively immobile. Land and building tax has the potential to be a more significant source of revenue to local governments—they could have discretion over the tax rate, while tax administration could remain centralized. Property assessment can be raised to 100 percent of assessment rate in a phased manner. It is also important to have an accurate cadastre of property and accurate assessments of rental or property value.

3.10 **As the scope for base extension and withholding is exhausted to a large extent, future revenue growth would come mainly from improvements in tax administration.** Improvements in conventional tax administration (e.g., registration, filing, audit, etc.) have made a positive but modest contribution to the impressive growth in overall revenues in the aftermath of the 1984 reforms. This has mostly come from growth in the base on which non-oil taxes are levied and from the aggressive use of withholding arrangements (including on wages, interest, dividends, rent, royalties, fees for technical services, and imports). But the significant untapped revenue potential that continues to exist suggests that further progress in administrative efficiency is needed—the ratio of actual to potential revenues is of the order of 50-85 percent, i.e., only half of the statutory maximum is being collected in some cases (Figure 3.5). Although some adjustments could be made to the tax structure, raising income and value added tax rates should not be the basis for a future revenue enhancement strategy. Indeed, there is some concern that Indonesia’s competitiveness, especially in attracting foreign investment, may be hampered by its current level of corporate incomes tax rates compared with some of its neighboring countries, despite generous tax incentives.

3.11 There is much more mileage to be obtained from improving tax administration than tinkering with the tax structure. If all the tax potential was collected (which is a hypothetical extreme given that no country achieves this), then revenue would have been higher by 4.6 percent of GDP in 2000; 3 percent in 2001; and 2.5 percent in 2002. This would have eliminated the deficit. An increase in the VAT rate from 10 percent to 11 percent, on the other hand, will increase revenue by less than 0.5 percent of GDP (2001, IMF estimate) and is certainly more politically difficult.

3.12 Tax administration measures include the creation of a large taxpayer regional office and two initial large taxpayers offices (LTO) in Jakarta (more LTOs are planned in the medium term), the improvement of the system of payments, strengthening of the audit program, and intensification of tax arrears collection. The implementation of the LTOs has started in July 2002, with two offices located in Jakarta covering 2000 taxpayers. The LTOs would control for 50-70 percent of Jakarta’s national tax revenue collection. Improved tax administration measures could raise tax revenue by 1 percent of GDP. Indeed, there is room to improve revenue collection through improved administration, given that the coverage ratio is low (see figure above). Income tax recovery is lowest, at 60 percent—in fact, 90 percent
of revenue is generated by 10 percent of taxpayers, mainly from employees. Most of the tax leakage comes from the informal sector, individual taxpayers (non-employees), and personal businessmen. However, to improve compliance, a good enforcement and court system is needed, not just LTOs. Tax arrears are currently at Rp. 14 trillion, less than 10 percent of collection. With improved payment systems, it is estimated that 25 percent of tax arrears will be collected. Customs administration reform is also critical and should include: (i) cracking down on corruption by reducing face-to-face contacts, publishing customs data, putting in place a code of conduct for customs officers, and creating credible mechanisms to monitor and enforce the code of conduct; (ii) facilitating trade by streamlining customs release and payment procedures, fast track clearance for traders with good records, and modernizing customs computer systems; (iii) combating smuggling and undervaluation by re-registering the trader population, launching an anti-smuggling campaign, retargeting inspections on high-risk importers and goods, and substantially enhancing the capacity of the customs office to properly valuate goods; and (iv) coordinating the activities of external stakeholders by establishing a National Customs Advisory Committee, with both public and private representation. Details on tax administration reform and customs reform are found in recent IMF documents.

**Figure 3.5: Tax Administration is Key...**

<table>
<thead>
<tr>
<th>Coverage ratio is low but slowly rising</th>
<th>The budget deficit could be eliminated with better collection</th>
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</thead>
</table>

<table>
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<tr>
<th>Year</th>
<th>Income tax</th>
<th>VAT</th>
<th>Property tax</th>
<th>Other taxes</th>
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<td>90</td>
<td>40</td>
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<td>160</td>
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<td>2002</td>
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<td>100</td>
<td>50</td>
<td>40</td>
<td>170</td>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget deficit in percent of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>-3.0</td>
</tr>
<tr>
<td>2001</td>
<td>-2.0</td>
</tr>
<tr>
<td>2002</td>
<td>-1.0</td>
</tr>
</tbody>
</table>

Note: Coverage ratio is revenue collected/revenue potential.
Source: MOF (DG tax)

**Short-Term Measures**

3.13 *In its effort to mobilize revenue in the short term, the government is relying on a combination of base broadening and tax rate increases.* To strengthen indirect taxes, policy measures include (i) removing the VAT exemption on goods deemed strategic for national development, toll road service, and goods sold by state auction; (ii) raising the effective VAT rate on gold jewelry and videotapes; (iii) extending VAT in Batam; (iv) incorporating retailers and individual retailers in business centers into the VAT; and (v) increasing the rate of luxury tax on some vehicles and goods sold by state auction as well as the price of tobacco (subject to ad valorem excises). To strengthen income taxes, the authorities are considering an increase in the rate of final withholding tax on bond interest from 15 percent to 20 percent, subjecting the Bank of Indonesia to income tax, and increasing the effective tax rate on some individual proprietorships from 1 percent to 2 percent. To strengthen customs duties, import duties would be extended in Batam. Land and building taxes and transfer duties on land and buildings would also be increased.
3.14 The size and composition of current spending has improved since the crisis and leaves more room for discretionary spending, but decentralization reduces flexibility for fiscal policy. Current expenditures have increased from a little over 50 percent of the total budget prior to the crisis to about 90 percent in 2001 and 80 percent in 2002 (Figure 3.6). This substantial increase was caused by a rise in subsidies introduced during the crisis and debt service payments, both absorbing more than 70 percent of current expenditures. Material expenditures took the brunt of the fiscal adjustment on the current spending side as they dropped in absolute terms, threatening the sustainability of infrastructure. Transfers to regions rose as a result of decentralization, but were somewhat compensated by an increase in functional responsibilities at the local level. This composition in current spending reduces the flexibility for fiscal policy and is unlikely to change in the medium term, except for the declining role of subsidies.

Subsidies

3.15 Subsidies grew from being a minuscule part of the budget to an overwhelming item after the crisis (Figure 3.7), accounting for 40 percent of current spending in 1999/00 and one-third in 2001. Subsidies consist mainly of petroleum (85 percent of total subsidies in 2000), electricity (7 percent), rice for the poor (4 percent), and interest subsidy for program credit schemes (3 percent). Although the rice subsidy is small compared to the petroleum subsidy, its role in poverty reduction proved extremely important during the crisis. Other subsidies have done more harm than good.
Rice subsidy

3.16  The rice subsidy plays an important role in poverty alleviation but its budgetary impact could be reduced. Poverty headcount went down in 2000 by almost half compared to 1999—from 27 percent to 15 percent—almost back to the 1996 level, both in urban and rural areas (Figure 3.8). This was mainly attributed to the decline in rice prices (rice accounts for 60 percent of the food poverty line). The rice subsidy covers nearly 10 million households (20 percent of total households), of which one million will be counted against the fuel compensatory program (see below). In 2002, the rice subsidy was budgeted at Rp. 4.7 trillion, equivalent to the quantity of rice delivered to the poor through the Raskin program (20 kg/household) times the price difference between the subsidized price the poor households pay (Rp. 1000/kg) and the accounting ("book") price that MOF agrees with Bulog each year, currently around Rp. 2900/kg. The subsidized rice covers only a portion of the poor's consumption—the average five-person household consumes about 700 kg of rice a year (140kg/capita) while the Raskin allocation is a maximum of 240kg/year; the poor pay market price for the difference. The government is torn between maintaining higher rice prices to support farmers and helping poor households. The increase in rice price beginning in end-2001 and continuing into 2002 would hurt far more households than it would benefit (Box 3.1). Moreover, increasing producer price is not likely to increase production—productivity interventions are more important. A better outcome could be achieved by (i) lowering the price paid by government, and (ii) improving targeting.

3.17  First, the rice price paid by the government is too high and needs to be lowered. The current rice policy is maintaining domestic prices well above world market prices, and high in real domestic terms, to support farmers but to the detriment of the poor (Figure 3.9). Various trade policies and risks have kept the domestic price structure above the world price. A specific tariff of Rp. 430/kg is applied to rice. The Customs authorities have also increased inspection, paperwork examination, and other non-tariff barriers on rice. Exchange rate uncertainty adds to commercial risks of importing a bulky commodity that cannot be readily marketed domestically. Moreover, the accounting purchase price from Bulog is currently high compared to market price. The support provided to rice farmers by maintaining prices high through a variety of distortive measures, and the use of Bulog as an intermediary between farmers and consumers is not an optimum policy. However, the alternative direct subsidies to farmers, which will not distort prices, would have high fiscal costs and would be impractical to implement as there are over 22 million rice-growing households. There are several ways to reduce the price of rice paid or the cost borne by the government:

- Tariffs on rice import could be lowered and rice import procedures could be clarified; this will lower the domestic price and reduce the procurement price GOI pays to Bulog, as well as the price of non-subsidized rice that even the poor need to purchase.
- The accounting purchase price from Bulog can be lowered; the government can reduce the budget cost by at least 15 percent if it uses the market price adjusted to some administrative costs as a reference price.
- The cost can be reduced further if the quality of rice is reduced; this policy will also reduce leakages and function as a self-targeting mechanism.
- The unit cost of subsidy can be reduced by adjusting the reference subsidy price of Rp. 1000 by the inflation rate.
Box 3.1: An Increase in the Price of Rice will Hurt far more Households than it will Benefit

The effect of rice policies on household welfare depends on whether households are net producers or net consumers of rice. The distribution of the benefit ratio shows that an increase in the price of rice will benefit the rich more in rural areas and hurt the poor more in urban areas (Figure 1). In urban areas, the net benefit ratios are negative for all percentiles because 96 percent of households there are net consumers. The positive slope is just mirroring Engel law that the share of expenditure consumed on rice will decrease as the total expenditure increases. The total combined effect depends on the compensating effect of the negative effect experienced by the net consumers and the positive effect gained by the net producers. With the proportion of net producers in the whole country being 14 percent (for each net producer there are three net consumers), it is clear that an increase in the price of rice is not desirable.

![Figure 1: Distribution of Net Benefit Ratio for Rural Households](image1.png)

![Figure 2: Distribution of Net Benefit Ratio for Urban Households](image2.png)

Note: The benefit ratio = (income gained from rice) - (expenditure spent on rice) / total expenditure. It is computed for each household using the Susenas database. A flat line would show that all households benefit proportionately from an increase in the price of rice, so that it is neither regressive nor progressive; a positive slope indicates that benefits are proportionately larger for those who are better off.

Source: Vivi Alatas, World Bank

Figure 3.9: Real Rice Prices are Artificially High

![Rice Price Index vs. Consumer Price Index](image3.png)
3.18 **Second, households receiving rice subsidy could be better targeted.** The predecessor of the Raskin program (the OPK program) was not well targeted, with 50 percent under-coverage—10 out of 20 poor people were not covered by the program—and 75 percent leakage—30 out of 40 people who received subsidized rice were not poor (Table 3.2). Furthermore, 24 percent of households in the highest quintile of the income distribution received OPK rice (Figure 3.10). The authorities have introduced new systems to improve targeting. In 2001, the share of households in the fourth and fifth quintiles receiving subsidized rice declined. Targeting could be further improved. First, the number of eligible households could be reduced as poverty goes down. Second, the leakage could diminish if the eligibility criteria are improved, low quality rice is used, distribution centers are placed in poor areas, and other known measures that enhance self-targeting. If the government eliminates leakage, it can save about Rp. 3 trillion. This amount can be used to eliminate under-coverage and to double the eligible quantity to poor households at no additional budgetary cost.

![Figure 3.10: Subsidized Rice Coverage by Poor and Non-poor](image)

**Table 3.2: With Better Targeting the Poor Get More at no Additional Budget Cost**

<table>
<thead>
<tr>
<th></th>
<th>Current situation</th>
<th>No leakage or under-coverage; same rice portion</th>
<th>No leakage or under-coverage; double rice portion</th>
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<tr>
<td>Participant</td>
<td>Poor</td>
<td>Non-poor</td>
<td>Total</td>
</tr>
<tr>
<td>Success</td>
<td>10%</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>(Rp. 1 tr.)</td>
<td></td>
<td>(Rp. 3 tr.)</td>
<td>(Rp. 4 tr.)</td>
</tr>
<tr>
<td>Under-coverage</td>
<td>10%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Non-participant</td>
<td>Success</td>
<td>Under-coverage</td>
<td>Success</td>
</tr>
<tr>
<td>Total</td>
<td>20%</td>
<td>80%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Type I error: exclusion or under-coverage; Type II error: inclusion or leakage. Cost to government is in parentheses.
Source: SMERU and staff computations, 2001?.

3.19 **On the institutional front, rice distribution could involve more NGOs.** The subsidized rice is distributed from local Bulog warehouses (called Dologs at the sub-national level), either to local government as an interim step or directly to village representatives. There has been a lot of independent monitoring of this process, and by most accounts, the Bulog portion of this mechanism is implemented well, while the local governments have been more of a problem on the corruption side. The World Food Program (WPF) has been implementing a rice subsidy program in five major urban areas following the basic OPK model, but using NGOs for delivery to the households. This has been in place for two years now. Although NGOs are not a panacea, an expansion of the use of distribution by NGOs with adequate monitoring and management is clearly worth pursuing, starting with urban areas. Malaysia has successfully used NGOs for the implementation of its safety net programs.
Fuel subsidies

3.20 The fuel subsidy was put in place to provide affordable access to energy sources for all income groups. But the fuel subsidy raised several concerns (Figure 3.11). First, it burdened the central government budget, peaking in 2000 when oil price rose above $24 per barrel while the domestic price program to raise fuel prices was delayed and the rupiah was weak. Second, it promoted fuel smuggling, given the difference between domestic and international prices. This not only exacerbated the fiscal burden, but it also intensified corruption practices among government officials. Third, it failed to meet its equity objective and led to deterioration in income distribution. The government took the decision in 2001 to reduce the amount of subsidy to non-households, and in 2002 it allowed fuel prices to follow a border price movement within a certain range. This drastic measure is expected to cut the fuel subsidy in half, to Rp. 30 trillion or 1.84 percent of GDP in 2002.

3.21 There is little justification for a fuel subsidy, except possibly for kerosene, as a tool to help the poor cope with fuel spending. The coverage ratio for fuels other than kerosene is very low for the poor—less than 5 percent of poor households consumed gasoline in 1999 while none consumed diesel oil (except indirectly through public transportation); kerosene, in contrast, is used by more than 80 percent of poor households (Figure 3.12). Moreover, the fuel expenditure ratio—which measures the share of fuel spending in total household spending—is relatively low for both poor and non-poor households, at around 2-3 percent. Finally, the non-poor capture most of the fuel subsidy, even for kerosene—more than 90 percent of diesel oil and gasoline subsidy and more than half of the kerosene subsidy goes to non-poor households. The kerosene subsidy encourages economically wasteful substitution with other fuels and smuggling, further straining the budget.14

3.22 The recent measure to adjust fuel prices will not only provide budgetary relief but will also improve income distribution; however, it will worsen poverty. The increase in fuel prices (and the indirect impact from transportation cost adjustment) will translate into an increase of the proportion of poor people by approximately 1.7 percent, equivalent to about 3.5 million poor people in Indonesia (a rise in the headcount index of 1.15 percentage point in urban areas and approximately .90 percentage point in rural areas). However, the increase in fuel prices only increases the number of poor people but tend to affect less the poverty gap and the intensity of the poverty. The poorest are relatively protected from this price adjustment due to differences in fuel consumption pattern. Thus, removing the fuel subsidy will actually improve income distribution even without any compensation schemes—Theil Index declines from 0.1863 to 0.1828 after the price adjustment.

3.23 ...and thus justifies a compensation program To reduce the negative impact of fuel price adjustment, the government has supplemented the fuel price adjustments by several compensation programs including providing rice subsidy for poor households and continuing the scholarship program. First, this compensation will not only offset the poverty impact but also reduce the incidence of

14 While real GDP in 2000 was about 3 percent higher than five years earlier, kerosene consumption was roughly 27 percent higher as kerosene was redirected to transport and industry or smuggled outside the country.
poverty. The share of the poor drops from 26 percent (after price adjustment) to 21.4 percent—lower than the initial headcount index of 25 percent (Figure 3.12). It is further reduced to 21.2 percent if the scholarship program is included. Second, the compensation mechanism will also reduce the poverty gap and poverty intensity among poor households. Third, all three poverty indicators improve much more from the rice subsidy than from the scholarship program; this is because the share of rice expenditure is relatively high among the poor while the share of education expenditure is low.

3.24 Given the fuel subsidy’s large fiscal cost and its failure to achieve equity, the price adjustment program needs to continue its implementation in a consistent manner. The fuel subsidy program has failed to achieve the equity objective and instead deteriorated income distribution among Indonesians. With a very tight budget constraint over the medium term, it is imperative for the government to stick to its plan of adjusting fuel prices on a monthly basis and phasing out all fuel subsidies except kerosene by end-2004. Additional measures could be taken: (i) monthly adjustment of fuel price, which is already adopted for non-household consumers and gasoline, could be expanded by 2003 to include all consumers/fuels; (ii) a three-month moving average domestic fuel price scheme could be adopted to avoid large monthly fluctuations which affect the budget as well as consumers; (iii) an administered system for kerosene could be retained because of a high poor participation in kerosene consumption, but prices could be gradually adjusted on a semester or annual basis (link the price to international price, rather than keep it fixed).

Figure 3.12: The Fuel Subsidy is not Getting to the Poor

The poor don’t consume much fuel except kerosene  Most of the fuel subsidy goes to the non-poor.

Inequality improves with fuel price adjustment, and even more so with compensation  Poverty increases with fuel price adjustment, but declines with compensation.

Source: Based on Ikhsan and Usman, forthcoming; data from 1999 Susenas.
Electricity subsidy

3.25 The crisis, bad electricity policies, and lack of transparency led to the bankruptcy of PLN. The electricity subsidy reappeared in the budget during the crisis when the government decided to freeze energy prices, including electricity, to prevent them from rising as a result of the large devaluation. The cost of electricity, however, was rising for reasons beyond the collapse of the price system. The increased average electricity cost to the State electricity company (PLN) caused by lack of transparency in contract arrangement with the private sector, exacerbated by the transfer of exchange risk from foreign exchange-denominated purchase price of electricity to PLN, resulted in a negative cash flow for PLN since 1998 and a technical bankruptcy in 1999. To prevent any supply shortages, the government decided to transfer all PLN’s negative cash flow into the central government budget; this led to a significant increase in the electricity subsidy—from Rp. 1.98 trillion in 1998/99 to Rp. 4.62 trillion in 2001. Some price adjustments were allowed for medium and large customers but had little impact on the amount of the subsidy since most of it goes to small consumers.

3.26 The new measures are a step in the right direction. In early 2002, the government introduced a gradual quarterly price adjustment mechanism for all tariff classifications and limited the subsidy to small customers. This price adjustment, however, is still not enough to produce a positive cash flow for 2002 since PLN incurs higher fuel costs as a result of adjustments in fuel prices; a positive cash flow may be reached in the first quarter of 2003. The price adjustment in electricity price is required not only to reduce the fiscal impact of the electricity subsidy but also to improve the supply capacity of PLN and attract private sector participation in the electricity market. This is needed to overcome electricity supply shortages in several regions in Indonesia and avoid a potential black out in Java and Bali in 2004/05.

3.27 Targeting electricity subsidies has likely improved. Since 2001, the government changed the mechanism of electricity subsidy from a lifeline subsidy scheme to a more targeted approach. The subsidy now covers only a maximum of 30 kWh per month of electricity consumption for specific customer groups—households with voltage classification 450 KVA, social institution, small business, and small industry. The total subsidy cost for 2001 was about Rp. 4 trillion and is estimated at Rp. 4.1 trillion for 2002. The old subsidy scheme was not effectively targeted to the poor—most of the subsidy was spent on households consuming between 30-100 kWh while these households have a low probability of being poor (Table 3.3). The share of the electricity subsidy spent on non-poor connected households was 15 percent for those consuming less than 30 kWh; 27 percent for those consuming 30-60 kWh; and 31 percent for those consuming 60-100 kWh. Overall, over 80 percent of the subsidy was spent on non-poor connected households.

<table>
<thead>
<tr>
<th>Consumption level (kWh)</th>
<th>Share of clients (percent)</th>
<th>Share of clients in poverty (percent)</th>
<th>Average consumption (kWh)</th>
<th>Total bill without subsidy (Rp million)</th>
<th>Total subsidy (Rp million)</th>
<th>Share of subsidy spent on non-poor (percent)</th>
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<tr>
<td>0 - 30</td>
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<td>60 - 100</td>
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Source: Ikhsan and Usman, forthcoming.
Managing Government Debt and its Service

3.28 In the aftermath of the economic crisis, Indonesia ended up with public and private debt of alarming proportions. The size of total government debt nearly tripled from $55 billion or 27 percent of GDP in 1996 to around $152 billion or 112 percent of GDP in 2000, then dropped moderately to $141 or 94 percent of GDP in 2001 and further in 2002 (Figure 3.13). The bulk of the increase in government debt was due to massive domestic debt issued to cover the cost of bank recapitalizations and bank closures. As a result, debt service payment became a major fiscal burden for the government, with interest payments alone accounting for around 25 percent of domestic revenue in 2001.

3.29 For public external debt, Paris Club III will provide some relief in interest payment. External debt increased from $54 billion pre-crisis to around $75 billion by end-2000. External debt service payment has been kept relatively low, decreasing from more than 37 percent of domestic revenue in 1999 to less than 16 percent in 2000 and 2001, because of Paris Club debt rescheduling. A third rescheduling has been completed in April 2002 and will reduce external debt service during 2002-2004 (Figure 3.14). Under the third Paris Club arrangement, the principal and interest amounts rescheduled are estimated at $2.5 billion in 2002 and $3 billion in 2003 for a total of $5.5 billion. The consolidation period covers 21 months (from April 2002 to the end of the IMF program in December 2003). Under the comparability of treatment rule, Indonesia agreed to reschedule debts owed to the private sector falling due in the same consolidation period, and has rescheduled $340 million in official loans owed to private creditors from the London Club.

3.30 For public domestic debt, the government is dealing with the bunching of bonds maturity through reprofiling. Public domestic debt resulted from bond issuance mainly to cover the cost of bank restructuring and stood at more than Rp. 650 trillion, about 50 percent of GDP, as of June 2001. The large increase in the stock of domestic debt is partly offset by a concurrent (though hugely asymmetric) rise in government assets, as the government received shareholdings in industrial enterprises, nationalized banks, real estate and loan portfolios in exchange for bank restructuring bonds. It is difficult to put a precise value on these assets, but IBRA has estimated that it could generate a 26 percent recovery (about $20 billion) from asset sales. The maturity profile of government bonds up to 2009 (Box 3.2), basically reflects the maturity of the recapitalization bonds given to recapitalized banks since the indexed bonds for Bank Indonesia are 10 to 20-year bonds. A large amount of government debt will be due during 2004-2009. The government has recently obtained Parliamentary approval to reprofile Rp. 175 trillion of domestic debt between 2004 and 2009. This will increase interest payments costs by an estimated Rp. 760 billion per year as coupons of fixed rate bonds will be adjusted to market prices.
Box 3.2: Government Debt Reprofiling Operation

- A large volume of domestic government obligations will fall due over the coming years, the result of maturing recapitalization bonds issued following the banking crisis of 1997-98. State banks are the principal holders of the bonds, accounting for 60 percent of the outstanding stock, with other banks and domestic investors accounting for the remainder (foreign holdings are relatively small). After modest repayments in 2002, amortizations are set to rise from Rp 13 trillion in 2003 to Rp 82 trillion by 2009 (see Figure below).

- As part of its debt management strategy, the government is taking steps to extend the maturity of this debt through a bond exchange with the state banks. As an illustration of how such an exchange might look (based on the staff understanding of the government’s plans), the accompanying chart assumes that the government could swap bonds with a face value of Rp 175 trillion, representing about 40 percent of the outstanding stock of bonds. The majority of the bonds exchanged would be held by Bank Mandiri, the dominant holder of recapitalization bonds (35 percent of the total).

- Such an exchange would be carried out on market-based (NPV-neutral) terms. This approach would safeguard the financial condition of the participating banks and preserve the government’s commitment to servicing its debt. Under such an exchange:
  - *Variable rate bonds*—60 percent of the bonds exchanged—would have their maturities extended by 10-11 years, with the coupon continuing to be linked to the 3-month SBI.
  - *Fixed rate bonds* would have their maturities extended by 5 years (on average) and would carry a coupon based on a yield curve from available secondary market information and agreed with the state banks.

- Such an operation would significantly improve the government’s domestic debt maturity profile. The average maturity of the debt would increase from 4½ years to 8 years, and the debt maturity profile would be smoothed, considerably reducing the amortization burden in the immediate period ahead. Given recent declines in interest rates, the cost to the budget through 2009 of extending the maturities would be relatively modest, with the average coupon on recapitalization bonds increasing by less than 50 basis points.

Source: IMF

3.31 *It is also important to develop a secondary domestic bond market.* The creation of a deep and liquid bond market is essential to reduce the burden of managing debt repayments for the government in the future, and to create a source of long-term domestic financing in the country. A public debt management law has just been approved in Parliament. But so far, the market is quite shallow, which makes these bonds illiquid instruments. The government needs to realistically assess the absorption capacity of the local bond market in the coming three years. There may be room for an increasing demand for longer maturity instruments from the NBFIs, but that is unlikely to exceed Rp. 10-15 trillion. However, a more immediate source of demand could come from commercial banks if SBIs are phased down.15 The remaining bonds that cannot be retired will have to be exchanged for either new recaps or

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15 Currently there are Rp. 75 trillion SBIs in circulation. BI supports the phasing out of SBIs and their replacement by T-bills to avoid competing sovereign instruments.
new T-bonds with longer maturities of over 5 years. From a market development point of view, it could make more sense to exchange them for more marketable instruments that could gradually help to extend the yield curve.

3.32 The set up of an integrated debt management unit is an important step towards establishing a debt strategy and managing risks. The large debt burden is limiting the government’s ability to absorb fiscal risks. First, the government lacks adequate liquid contingency reserves. Second, government debt is already high and access to debt markets and new financing is severely limited. Third, risks such as exchange rate depreciation are only partly offset by changes in oil revenue. Finally, the government does not yet have much risk management capacity. Shocks and sudden pressures on government finances are thus likely to result in disruptions to public expenditure programs, with serious consequences for the country’s social development. The government needs to build institutional arrangements and capacities, including (i) establishment of an integrated debt management unit; (ii) implementation of an integrated debt reporting and risk management system for public debt that assesses vulnerability, risk and cost in a sovereign liabilities portfolio; (iii) development of operational tools (policy guidelines, software and hardware) to improve the front, back, and middle office functions for public debt management; and (iv) monitoring of fiscal risks associated with the government’s outstanding public contingent liabilities and incorporating the analysis into debt management policy decisions. A new law on Government Securities was passed in September 2002, allowing the government to issue bonds and reprofile the existing bonds to smooth associated debt service payments. The Center for Government Bond Management within MOF has subsequently been established to manage domestic debt, and eventually the entire public debt.

Civil Service

3.33 The size of Indonesia’s civil service is at par with countries of similar per capita income (China and India). Since the crisis, the government has provided salary increases to civil servants to compensate for inflation; such increases, however, exceeded and preceded those in the private sector—they were large for an economy struggling to emerge from crisis and added burden on the budget. Following decentralization, only about 2 million civil servants remain with the central government. Decentralization provides an opportunity for civil service reform as employees are reshuffled and job needs are changing. Corruption, which has long plagued the public sector, remains an issue.

3.34 The size of the civil service is comparable to countries with similar development level. Indonesia’s civil service consists of some 4.6 million people. Of these, about 500,000 are police and military, leaving some 4 million civilian civil service. This represents about 2 percent of the population and is at par with countries of similar per capita income, such as China (1.7 percent), Pakistan (1.8 percent), and India (1.3 percent); it is lower than neighboring East Asian countries like Malaysia and Singapore which are more developed (Figure 3.15). But government employment could exceed official figures by about one million. In addition to civil servants,

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**Figure 3.15: The Size of Indonesia’s Civil Service is in Line with Similar Countries**

![Graph showing civil service employment as a share of population for various countries including China, Indonesia, Korea, Malaysia, Philippines, Singapore, Thailand, and Vietnam. Source: Barbara Nunberg, World Bank.]

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16 Regressions on a global scale have shown that the size of government employment increases as per capita incomes rises, a relationship known as Wagner’s Law.
there are 650 thousand members of the Armed Services and 1.9 million pensioners; the government has personnel expenditure liabilities out of the routine budget for almost 7 million Indonesians.

3.35 It is estimated that "ghost employees", workers who exist in name only so that additional wage payments can be claimed by others, represent up to 10 percent of total employment. Moreover, personnel expenditures out of the routine budget do not include any workers paid out of the development budget who work full or part-time, mostly at the regional level. These are mainly non-civil servants; in some cases these could be short-term employees but in many cases they have long-term attachments to government.

3.36 Civil service pay is not small, and has been largely adjusted for the crisis impact. Pay scales according to rank include a base wage, a family allowance, a children's allowance, a food allowance, and some other incidental allowances. Prior to the crisis and the subsequent large government pay increases, the average government worker earned more than her/his private sector counterpart—with lower skill government workers earning a positive premium over the private sector alternative, while higher skilled workers earning slightly less than their counterparts. This premium is in line with advanced country private-public differentials.

3.37 Following the crisis, most Indonesian workers suffered a significant decline in their real wages as consumer prices doubled between 1997 and 1999 (Figure 3.16). A doubling in consumer prices resulted in a reported 15-20 percent erosion in real earnings for production workers in industry, mining and the hotel sectors. Civil servants experienced similar declines, but they have realized real wage increases above those of the private sector, due to generous pay hikes in the public sector. The wage bill for fiscal year 2001 is estimated to exceed that of 1999/2000 by as much as 31 percent. But as real wages in the private sector started to rise over the past year, they may have caught up with civil service pay rise. Moreover, the salary policy over the last two years has resulted in extreme variance in pay increases among different skill types and levels of civil servants.

3.38 Decentralization of civil service proceeded without problems, but could be used as an opportunity for reform. Key safeguards were put in place to ensure a smooth transition in civil service—in the 2001 budget, the government included a contingency fund of Rp. 6 trillion, of which half was used, and the central government decided to continue to pay the civil service for a transitional period of 5 months, while deducting the wage bill from the general grant allocation to the regions. By end-September 2001, the transfer of civil servants, facilities, and archives was largely completed. In total, 239 provincial level offices of the central government, 3,933 district/city level offices, and over 16,000 implement units were handed over to the provinces, districts, and cities. With these offices, some 2.1 million civil servants were also transferred.

3.39 Authority over civil servants in the regions is still unclear. Although regulations indicate how the new system will work, much remains to be clarified—including authority over promotions, career

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17 Earnings data from Sakernas refer to reported monthly earnings from primary employment. There is no way of telling if individuals include only basic salary in their response or if allowances, benefits, bonus payments, etc., are included as well.
management, training, and competency standards (Table 3.5). The current legislation is replete with contradictions, perhaps reflecting the prevailing lack of direction and consensus on civil service options. First, while the Civil Service Law (Law 43/99) upholds the principle of one civil service, Law 22/99 allows the regions to hire and fire their own civil service. Second, although the basic civil servant salary is determined by the central government, the local governments have the right to give additional salary to their employees (from their local budget) as long as it is approved by local parliament. Third, PP25/2000 gives the center some control over the qualifications of certain types of civil servants such as doctors and teachers, but is silent on other central requirements; regulatory authority in other public services is devolved, giving rise to the possibility that competencies in a given profession could differ across regions. Fourth, PP25/00 states that the central government is still responsible for the re-assignment of civil servants from one province to the other, whereas provincial government is responsible for re-assignment from one district to the next.

**Table 3.5: Central Authority over the Subnational Civil Service: Comparisons for Indonesia**

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<td>4</td>
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</table>

Source: WB staff assessment (Manning, Hofman, Dice, Campos, Nankivell, Monaghan).
Key: 1 total central authority; 2 central dominance; 3 central guidance; 4 central leadership; 5 autonomous.

3.40 **Decentralization has created possible redundancies.** Decentralization of government functions to sub-national levels has likely created significant staffing redundancies. Functions carried out by deconcentrated central staff may well overlap with those working in local and regional governments. Functions carried out by central ministries may shift in nature, relocate to sub-national government, or disappear entirely. The need for serious rationalization of government employment is thus inevitable. In response to these problems, the government requires a well-articulated rightsizing and separation program. The government needs to develop and adopt an appropriate civil service model for a decentralized Indonesia, which is then implemented at the sub-national level. Following the emergence of such a model, or to permit experimentation with competing models in different regions, the legal and institutional basis for greater flexibility to reforming regional governments will need to be put in place. In the medium term, a civil service reform agenda would need to comprise core elements such as: (i) a review of the administrative structures at the central and, if feasible, sub-national levels based on the new role of the state, and a strategy for dealing with duplication; (ii) clarification of the civil service role, functions, size and skill mix, based on the functions and structure of the central and sub-national governments; (iii) assignment of responsibility for civil service policy and management within government; (iv) institutional arrangements for merit-based and transparent recruitment, performance evaluation and promotion; and (v) strategy to arrive at the appropriate civil service size, skill mix, wage bill, and salary levels.
3.41  **Corruption is still a big issue...** Indonesia's longstanding reputation for corruption has been largely associated with the "crony capitalism" that characterized Soeharto's New Order Regime. But widespread corruption and compromised ethics in the civil service are also viewed by citizens—and government officials themselves—as posing a serious impediment to the country's future development prospects. The culture of corruption is pervasive among civil servants and is leading to a sub-optimal efficiency in service delivery. To a large extent, reducing corruption will need strong leadership at the top. Indonesian government policy has repeatedly called for pay increases to combat corruption—as far back as 1970, the government's Committee of Four attributed widespread corruption principally to low salaries. But with civil service pay shown to be adequate in Indonesia, even for most high level government officials, civil service corruption is unlikely motivated by poor remuneration.

3.42  While levels of pay may not be germane, the nature of pay administration may be providing possibilities for abuse. The non-transparent nature of civil service remuneration and the opaque system for compensation administration in Indonesia may allow discretion that does not exist in simpler, more streamlined systems. Indeed, basic salary and allowances are only part of the compensation currently received by many civil servants. Government officials often have opportunities—both legal and illegal—for additional income. For example, medical specialists appear to earn only 10 percent of total mean earnings from basic salary and allowances, the remainder acquired through special fees and after-hours practice. Likewise, more than half of university lecturers earn significant portions of their income outside of their main teaching post. The smaller share of official pay to total earnings may result from lax enforcement of rules governing hours worked on public jobs, greater individual discretion over what additional employment is permissible, and financial management practices that make it difficult to track individual remuneration. Project-associated fees and bonuses, another form of extra compensation, have frequently been cited as a source of untraceable income for civil servants. Mainly financed out of the development budget, payments are allocated to government staff engaged in specific projects. Employees in so-called "wet agencies", which have greater access to development projects, also have greater access to such payments.

3.43  **...but there may be reason for some cautious optimism.** Recently, a number of high profile corruption cases came under investigation or prosecution, but it is too early to judge if these cases represent a genuine commitment to being to tackle the huge problem of corruption. Moreover, initial steps were taken to have relevant government ministers and other state officials engage in a dialogue of legal reform—the justice sector being itself prone to corruption—under the auspices of the Partnership for Governance Reforms. Still, the continuing failure to establish an anti-corruption commission with powers to investigate and prosecute corruption cases, three years after such an entity was first promised in legislation, is indicative of weak commitment to deal with this issue.

**TRANSFERS AND THE IMPACT OF DECENTRALIZATION ON THE CENTRAL BUDGET**

3.44  Decentralization is altering the fiscal system in a major way. Transfers to the regions increased from Rp. 17.5 trillion in 1999/2000 to Rp. 81.5 trillion in 2001. This transfer is supposed to be accompanied by lower central government spending on wages and salaries as well as on development, with little impact on central government finances. However, this did not happen yet as the central government’s routine and development expenditures kept rising. Are the regions receiving enough to cover the spending obligations they inherited from the central government in the course of decentralization?

3.45  **The regions as a whole seem hardly strapped for funds.** On aggregate, more than enough revenues seem to have been devolved to match the transferred spending responsibilities. In total, the regions received “surplus” revenues of some Rp.21 trillion in 2001, or 1.5 percentage point of GDP (see RPER). Thus, decentralization “cost” the center this very same amount—if it had perfectly targeted the
devolved resources, it could have saved Rp. 21 trillion. Moreover, the regions had enough resources to raise their regional development budget, which made a significant jump from an Rp. 14 trillion in FY2000 to a planned Rp. 26 trillion in FY2001.

3.46 The center could devolve more spending to the regions as per the decentralization law. Currently, a significant part of the central government spending is devoted to tasks that could be considered local government tasks. Taking the 2002 budget as a guide, the development budget still contains as much as Rp. 29 trillion, 1.7 percent of GDP, or more than half the center’s development budget that could be further devolved to the regions. This amount corresponds to the central government spending in sectors that according to Law 22/99 are to be managed by the regions; in health and education alone, some Rp. 13 trillion is spent. The reason for this high central spending in supposedly devolved sectors is not just the central departments holding on to tasks they should no longer do; it was Parliament that increased the central development budget in 2002 by over Rp. 5 trillion, most of it to health and education.

3.47 The center may not need to devolve more resources but rather ensure that they are more equally distributed. If the “regional” expenditures of the center (Rp. 29 trillion) are devolved to the regions, they can be almost fully covered by the regions’ surplus (Rp. 21 trillion) and thus would required only about Rp. 9 trillion in additional resources to take on all their “regional” responsibilities. Since the central government is determined to increase the tax ratio to GDP over time, one quarter of that increase will already be automatically transferred to the regions through the DAU. However, although on aggregate the resources transferred to the regions covered the expenditure responsibilities devolved in 2001, the distribution of the resources was unequal. Thus, the center needs to focus more on ensuring equality among regions.

3.48 Can the center devolve more? At first sight, central finances seem tight. The budget is burdened by heavy interest payments on state debt, and hard-to-change spending on subsidies and civil service. Together with the transfers to the regions, this leaves only 12 percent of the budget for development spending, and only 17 percent in discretionary spending on the center’s budget. Undoubtedly, this limits the government’s ability to use spending as a tool of macroeconomic policy. Yet, if the central government stops spending in areas that are “regional” responsibilities (thus saving Rp 29 trillion), it becomes clear that central government could devolve more resources if it wanted to do so.

3.49 But whether more resources should be made available to the regions remains to be seen. First, several areas of central government’s own responsibility that have been chronically underfunded, most notably Operations and Maintenance. Second, the central government is aiming for a zero budget deficit by FY2004, and achieving this goal is likely to absorb some of the savings and additional revenues mobilized (although the development budget could suffer, if the government did so extensively). Third, local governments may not be ready to absorb additional spending at this time, as they have just almost doubled their levels of spending, and their local planning, budgeting and financial management systems may already be stretched.
4. SECTORAL ISSUES IN A DECENTRALIZED FRAMEWORK

Old Sectoral Issues in a New Decentralization Framework

4.1 Decentralization requires a new approach to tackling sectoral issues. During the crisis, the inter-sectoral allocation of resources was adjusted to reflect budget cuts. Development spending on social sectors was protected with the help of international loans, but investments in agriculture, irrigation, and especially transport steadily decreased (Figure 4.1). The development budget started rising in FY2001 as the fiscal situation of the government was improving and further reductions in public investments were threatening the sustainability of infrastructure. Defense spending grew by 64 percent in 2002, but it is unclear whether this was accompanied by a decline in off-budget spending. Most importantly, trends in development spending need to be evaluated within the decentralization process. The regions are inheriting underfunded and sub-optimally efficient sectors. These issues need to be identified, mechanisms to foster decentralization need to be put in place for each sector, and a new role for the center needs to be defined.

![Figure 4.1: Sectoral Allocation of Central Development Spending Changed During the Crisis](image)

**Source:** World Bank

**HEALTH AND EDUCATION**

4.2 In health and education, decentralization led to the shift of about a million teachers and health workers, schools and health care centers to the regions. But the regions are inheriting weak health and education portfolios. Indonesia made striking progress in health and education indicators in the 1975-97 interval—it was one of the first countries to put in place a health-for-all policy framework aimed explicitly at the poor; it has attained near-universal enrollment in primary education and has made tremendous progress towards attaining full participation in junior secondary education. To a large extent, however, this progress had begun to slow down, even before the crisis. Service quality has deteriorated in both health and education and efficiency gains have diminished. These trends were exacerbated by the crisis, as resources became scarce. The health and education sectors were thus especially vulnerable to decentralization. In theory, the ball is in the court of the regions to improve health and education outputs and outcomes. But so far, the central government has not fully let go of its responsibilities and is still reflecting about ways to go about decentralization.
Health and Education Prior to Decentralization—What Did the Regions Inherit?

4.3 In education, continuing coverage improvements brought no apparent advances in the quality of education achievement. Problems in quality were evident in the 1990s and earlier—for example, Indonesia ranks low in cross-country tests of student learning (Figure 4.2), and wage premiums for junior secondary relative to primary level graduates are modest—even though near-universal primary enrollment was attained along significant increases in the proportion of students continuing on to junior secondary schools and the benefits were pro-poor (Figure 4.3).

Figure 4.2: Indonesia is behind its neighbors in reading achievements

Mc cr
Mean ocore
4.3

In education, continuing coverage improvements brought no apparent advances in the quality of education achievement. Problems in quality were evident in the 1990s and earlier—for example, Indonesia ranks low in cross-country tests of student learning (Figure 4.2), and wage premiums for junior secondary relative to primary level graduates are modest—even though near-universal primary enrollment was attained along significant increases in the proportion of students continuing on to junior secondary schools and the benefits were pro-poor (Figure 4.3).

Figure 4.3: Enrollment Rates and Benefit Incidence of Public Education

<table>
<thead>
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<th>Enrollment in Secondary Education is Rising</th>
<th>Benefit Incidence in Education by Quintile, 2002</th>
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</thead>
<tbody>
<tr>
<td><img src="image1" alt="Graph showing enrollment rates (1995-2003)" /></td>
<td><img src="image2" alt="Graph showing benefit incidence by quintile (2002)" /></td>
</tr>
</tbody>
</table>

Note: Quintiles are based on per capita expenditures; Q1 is the poorest quintile.

Source: Bank computations based on Susenas

4.4 During the crisis, a tradeoff had to be made between enrollment and quality due to lack of funds; quality was further eroded as the focus was mainly on avoiding a sharp decline in enrollment among the poor. The overall education budget was maintained in real terms, the basic education budget was increased, and a nation-wide back-to-school program of scholarships to poor students and grants to poor schools was implemented. While this response was successful in maintaining enrollment rates, quality problems have possibly been exacerbated.

4.5 In health, the main concern was the system’s inability to sustain or extend access and coverage levels accomplished in the early 1990s. The system of government-run health centers and hospitals expanded during the 1980s, and by the early 1990s, government facilities were attracting nearly a third of those seeking care; by 1995, however, the contact rate for public facilities had fallen below 30 percent and in 1998 it slipped below 20 percent, with performance even worse in poorer regions. Hospital outpatient visits and in-patient occupancy rates tell a similar story. Moreover, access to public healthcare was not pro-poor, especially in hospitals (Figure 4.4).
Utilization and Benefit Incidence of Public Health Facilities

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</table>

Note: Quintiles are based on per capita expenditures; Q1 refers to the poorest quintile.

Source: Bank calculations based on Susenas

At the same time, there are large regional disparities both in health outcomes and in public health service provision. Infant mortality is high in Sumatra, rural West Java, South Kalimantan, rural central Sulawesi, and rural West Nusa Tengara (which has the highest infant mortality rate in the country at over 100 per 1000 births); malnutrition is a problem in Aceh (where almost half the children are malnourished), rural Java, and the Eastern provinces. There is regional disparity as well in public service provision. Provinces like North Sumatra, Jakarta, Yogyakarta, Bali and North Sulawesi have a higher concentration of hospitals; while provinces like Bengkulu, South and East Kalimantan, South-East Sulawesi and Irian Jaya have a higher concentration of health clinics (Figure 4.5).

What accounted for performance shortfalls in health and education? On the supply side, the technical skills acquired by teachers and health providers in pre-service training were inadequate. Neither
sector developed in-service training, technical support, and supervision mechanisms which proved effective when replicated in remote or difficult areas, and in large scale operations. In addition, maintenance of physical infrastructure and availability of inputs such as text books, school materials, drugs, and medical supplies were recurrent problems. Finally, each system took on agendas, i.e., the education curriculum and the 18 services and activities each health center was supposed to deliver, which were over-ambitious and unworkable. In response, policy makers adopted various guidance and control mechanisms in order to manage widely dispersed personnel, and to ensure that poorly trained staff adhered to standard service practices and management norms. However, in the 1990s, it was recognized that these supply side measures had misfired, creating perverse signals within government facilities and lowering staff commitment. On the demand side, the lack of client-responsive behavior also played a role in perpetuating this inefficiency—decentralization provides an opportunity to systematically involve citizens in policy decisions and service provision monitoring.

The Decentralization Debut in Health and Education

4.8 As decentralization began in 2001, central development budget for health and education kept rising in the aggregate; in 2002, allocations increased by 14 percent in health and by 54 percent in education. This increase was driven by Parliament, perhaps to avoid disruptions in service delivery during the transition period or just because of uncertainty about how to proceed with decentralization. But not all regions received an increase in the central development budget and some regions have started taking charge. In North Sumatra, for example, while overall development spending in health and education across all levels of government declined, a shift in the composition of spending is actually happening (Figure 4.6). In education, overall development spending fell in 2001 by 10 percent. This reduction was due to a 14 percent decrease in central outlays combined with a 33 percent decrease in province level spending. District development outlays increased by 6 percent, but this was not enough to offset the large central decrease. Similarly in health, the reduction by two thirds in central development outlays in 2001 (relative to 2000 on 12-month basis) was not fully offset by the near tripling of district development spending. The net result was a 10 percent cut in total health expenditures across the three levels of government.

**Figure 4.6: Did Decentralization Increase or Decrease Total Development Spending in Health and Education? Evidence from North Sumatra**

![Graph showing development spending](image)

*Education includes Ministry of Religious Affairs activities
Source: Regional Public Expenditure Review

4.9 *The central government has engaged in several initiatives to better promote decentralization in health and education.* In education, GOI’s response to decentralization is still taking shape. MNE’s education decentralization strategy consists of backing a phased strengthening of local control by piloting school committees and district school councils. As part of the package, Minimum Service Standards (MSS) are being prepared by schooling level, indicating expected levels and quality of education inputs, processes, and outcomes. Funds for these initiatives would be channeled in part via grants directly to districts and schools for various expenditures. Inevitably a large part of the outlays needed to sustain expansion of basic education, and simultaneously raise quality standards and achievements, must come from district funds—districts have started making allocations and defining functions and practices relating to supervising and compensating teachers, procurement, and distribution of books.

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4.10 In health, MOH aimed at functioning as the pivotal agency within a decentralized health sector. A number of policy initiatives and instruments were developed to this end, although implementation so far is producing mixed results. First, a Decentralization Unit was set up by MOH to facilitate health decentralization and reform, including monitoring implementation by region and level, and advising on existing and proposed legislation and operational guidelines. Second, National Health Grants were put in place to support health operations in poor regions and catastrophic care for low income families. Third, current sections within the MOH were converted into specialized technical agencies aimed at defining and disseminating recommended standards and practices, and assisting provinces and districts in upgrading and sustaining important technical functions. Fourth, province-focused interventions were set up to address and develop cross-district strategies.

4.11 As the regions gradually increase their development spending in health and education, the central government needs to retreat from these sectors and define its new role in promoting health and education in a decentralized framework. Despite the GOI's strong initiatives to further decentralization in these sectors, there is much room for improvement. First, it could create more effective transfer instruments so that actual spending is better targeted and more efficient. Second, it could develop and implement a political strategy for decentralization.

4.12 Create and apply new funding instruments. The central government could develop effective vertical linkages to aid decentralization. Chile, for example, became responsible for providing schools funds on a per-student basis, giving support in-kind such as school food and textbooks, supplying technical support to rural schools or to schools with greater need, funding school improvement proposed by the schools, giving national achievement tests and thus supervising schools on a regular basis. The government could consider several options:

i. DAK: a way to institutionalize grants. Like other sectors, health and education face disruption due to the transition to financing rules and arrangements which are not fully elaborated and tested, or grounded clearly in principles of equity and fairness. One likely outcome is a mismatch between funds (assignment of revenues) and spending requirements (expenditure authority). Funding for minimum services, for example, may suffer because the DAU formula does not factor in health conditions and the central government lacks the remedial resources. In this regard, a DAK would provide a means of redressing funding inequities and mismatches.

ii. Locally generated and private funding resources. The central government could also encourage and develop a greater reliance on locally generated funds. User charges would not only improve service delivery efficiency, but could also contribute to the sustainability of local health and education programs. In Romania, for example, schools have been encouraged to diversify and increase their financial resources through specific activities such as consultancies, renting school halls, school festivals, or collection of user fees. Nevertheless, the central government would have to complement that effort with grants to regions that do not have the means to generate such funds. The Central government can also encourage the provinces to tap into private funding resources as to involve greater civil society participation in health and education planning. Provinces can also be given improved access to donor funds, commercial credits and bond markets.

iii. Targeted funding. Another way to optimize funding would be to form partnerships with local governments with different spending priorities. In this case, Central funding would be directly channeled to specific programs in those provinces. Such contracts would be an excellent way to both coordinate and augment funding to the provinces while facilitating and supporting priority programs.

4.13 Develop and implement a new political strategy. Another essential responsibility for MOH and MNE is to increase dialogue and build consensus among different stakeholders in each sector. Moving past its initial reforms, decentralization calls on the central government to build and develop linkages with
POVERTY ALLEVIATION PROGRAMS

4.14 Following the economic downturn in late 1997, a number of social safety net programs were implemented to mitigate the worst impact of the crisis on the poorest—including labor-intensive works programs, subsidized rice distribution, scholarships and block grants to the poorest schools, and subsidized health services to the poorest. Most of these programs have finished or are soon expiring and it is unclear to what extent they will be extended. On a more comprehensive scale, the central government is in the early stages of preparing a national poverty reduction strategy. But in the current context of rapid decentralization of the substance of social programs along with the budgets, any national strategy needs to be complemented by comprehensive provincial and district initiatives.

Social Safety Nets During the Crisis

4.15 Social safety net programs were implemented to mitigate the dramatic and immediate effects of the crisis on the most vulnerable poor. The population living below the poverty line more than doubled in two years—from 23 million (11 percent of the population) in 1996 to 50 million (24 percent of the population) in 1998. The social impacts of the crisis were more complex and heterogeneous than expected—many of the poor were worse off, but the newly-emergent urban middle class was hit hardest, while people less strongly tied to the formal economy (e.g., off-Java) experienced less adverse effects. The government responded quickly to the challenge of keeping children in school and maintaining basic health by introducing a range of safety net programs, with the following main objectives: (i) provide a minimum amount of basic food to the poor at an affordable price; (ii) create temporary employment to increase the short-run purchasing power of the poor; (iii) ensure sustained health and education services for the poor; and (iv) generate community-level economic activities.

4.16 In general the mechanism of social safety net programs (commonly called JPS) planning was as follows: (i) each line ministry at the central level determined the guidelines of operations and geographic targeting; (ii) the district/municipal government allocated the budget for the lower level of administration; and (iii) the lower levels of government, and sometimes communities themselves, retained some flexibility in determining the final distribution. Although overall development spending shrunk during the crisis, the share allocated to social sectors rose from an average of 13 percent during 1989-1994, to 19 percent in 1998/99; and the share allocated to SSN programs grew to 13 percent. Although the JPS were very imperfectly targeted, they were much less costly, at Rp. 8 trillion budgeted in FY99/00, and much better targeted than expenditures on fuel subsidies, which cost Rp. 28 trillion (Figure 4.7).

Figure 4.7: Spending on Crisis Programs and Who Benefited, GOI FY1999/00

Source: Ministry of Finance staff.
Lessons Learned and the Way Forward

4.17 Most of the safety net programs put in place during the crisis have expired or are expiring soon and it is unclear what would happen next. The government is channeling funds saved as a result of reducing fuel subsidies to programs targeting the poor, and this has become the principal source of funds for the ongoing subsidized rice distribution program (Box 4.4). The central government is currently preparing a national poverty strategy. But an effective strategy needs to involve a joint effort between central and local governments—important lessons were learned from the implementation of the crisis safety net programs and point further to the need of involving local governments and civil society.

Box 4.4: The Government's Program to Compensate the Poor for the Fuel Price Increase

The 2002 budget includes seven programs totaling Rp. 2.85 trillion to compensate the poor for the fuel price increase introduced on January 17, 2002. These programs are virtually the same as those implemented last year to compensate the poor for the fuel price increase in June 2001:

- distribution of subsidized rice to one million poor households, at a total cost of Rp. 500 billion. They will be counted from the 9.79 million households receiving 20 kg. of subsidized rice per month, with the price of rice remaining unchanged at Rp. 1,000 per kg.
- bus subsidy schemes equaling Rp. 190 billion.
- various health initiatives totaling Rp. 570 billion. These include free inpatient services for the poor in 446 public hospitals throughout the country; free hepatitis vaccines for around 1.5 million infants under five years throughout the country; provision of free generic drugs for 47.9 million poor throughout the country.
- various education programs totaling Rp. 1,280 billion. Resources are allocated across four separate programs: scholarships to an additional 3.6 million school children; aid in kind to the learning community; support for 300 centers of public learning activity; and scholarships to poor university students.
- clean water scheme for Rp. 130 billion targeted to 650 poor communities with water supply problems.
- micro-capital scheme through 850 institutions costing Rp. 90 billion.
- coastal community empowerment scheme amounting to Rp. 90 billion.

4.18 Targeting and delivery mechanism. Although the social safety net programs were a central government initiative, and thus had a strong top-down characteristic, local governments assumed a very important role in local targeting (determining village allocations) and made necessary adjustments to adapt to specific local conditions in implementation. Moreover, starting 1999/00, this responsibility was fostered through involvement of local civil society—at the village level, local communities were the main actor in the targeting process through the mechanism of village community meetings. Based on these mechanisms, the programs were directly delivered to the beneficiaries, without going through the structure of the bureaucracy. The success of this approach varied widely across districts, however. In some villages, community meetings were never held and the usual local officials (e.g., village head, school master) determined the beneficiaries unilaterally. Nonetheless, such an innovative targeting and delivery mechanism should be fostered in the future—the central government could use a general (and reliable) poverty data to prepare geographic allocations at the district level, while the next allocation process would be conducted at the local level by the government and civil society to incorporate specific needs of its population.

4.19 Planning and design. With local governments assuming responsibility for most public services under decentralization, uniform and nation-wide programs need to be replaced with specific programs that

18 The section on lessons learned is based on "Indonesia’s Social Safety Net Programs and Its Safeguarding: An Expression of People’s Right to Development", National Coordinating Team for Social Safety Net Programs, Bappenas, 2001.
are more flexible and are better based on local needs and characteristics. Local civil society and communities need to be involved in the planning and design of these activities to ensure proper government response to people’s needs and accountability. Good planning and design of local poverty and safety net programs requires: (i) reliable poverty data based on local characteristics; (ii) institutional capacity building, particularly to foster community initiatives and participation to increase effectiveness of programs; (iii) mobilization of alternative resources by local stakeholders for local poverty reduction programs, particularly from the private sector (funds) and civil society (expertise); and (iv) integration of community initiative programs, NGOs, and private sector activities with the government’s efforts.

4.20 Monitoring and safeguarding. Civil society can play an increasing role in monitoring and safeguarding social programs. Several lessons learned from the SSN in that regard deserve attention. First, increase the capacity of local civil society—not only the capacity of public officials—which has been suppressed for many years during the New Order era. Second, raise awareness of civil society by improving the quality of information dissemination—the lack of emphasis on what information is needed by stakeholders and how information can reach target groups (in addition to centralized dissemination) led to limited understanding and awareness of beneficiaries to participate in the program. Third, introduce new mechanisms for grievance and complaints—the lack of grievance mechanisms and active discouragement of complaints in the last few decades of development has created a culture of acceptance.

4.21 What role for the central and local governments in poverty alleviation? The role of the central government in poverty alleviation in a decentralized framework is not easy to define. On the one hand, there is a legitimate role for the center in setting overall policy objectives (including national standards) and in coordinating an effective poverty strategy. The center benefits from the “systems” advantage—it can directly analyze aggregate data, establish priorities, and implement policies across regions. It plays a key role in balancing general resource flows in order to help reduce differences in poverty across regions. On the other hand, the regions would seem better able to assess local conditions and implement a targeted poverty strategy. Because of the wide differentials in regional conditions, service delivery would be most effective at the local level because officials would be closer to people’s needs and better able to create and implement a given policy strategy. This balance between the central and local governments’ role needs to be reflected in the current government national poverty strategy. The government has just completed an Interim-Poverty Reduction Strategy Paper which recognizes the critical importance of a broad-based approach to addressing poverty reduction.

TRANSPORT

4.22 In a vast archipelago comprising more than 17,000 islands, stretching more than 5,000 km from west to east with a total land area of approximately 2 million km², the management of road assets carries a unique challenge for the government. Although the need for multi-modal transport is crucial because transport connectivity is difficult in such geography, the road networks provide for the majority of transport—93 percent of passenger transport and 41 percent of freight transport. The road network comprises national, provincial, Kabupaten (district) and Kotamadya (urban) roads (Figure 4.8). This network is most extensive at the district level in terms of length, but at the national and provincial level in terms of traffic. There are also differences in network availability and utilization across regions—while Java/Bali has the highest utilization and availability of roads, Sumatra has similar road availability on a per capita basis as Kalimantan, Sulawesi, and Eastern Indonesia but much higher road utilization rate.
4.23 During 1984-1994, the primary focus of road management\textsuperscript{19} was on the upgrading and betterment of the national and provincial road networks. The sixth 5-year development plan (Repelita VI) covering the period of 1994 to 1998, aimed to manage the preservation of existing roads and to improve the roads upgraded in status. In line with the goal of the Second Long Term Development Plan (PJP II: 1994-2019), the current road development policy is focused on:

- maximizing utilization of the existing road network through maintenance of the network, and improvement of pavement structure and ride quality (excluding widening);
- improving network accessibility through the development and maintenance of access roads from food/services production areas to market distribution points and ports; and
- strategic development by connecting future development projects to outlets by means of: maintenance of existing roads; improving or widening existing roads; construction or upgrading of 'missing links'; and new roads (lowest priority).

Figure 4.8: Road Distribution by Region and Level of Government

\begin{center}
\begin{tabular}{|c|c|}
\hline
Road length distribution by level of government & Regional distribution of road demand and supply \\
\hline
\end{tabular}
\end{center}

Source: Bill Paterson, World Bank

\textsuperscript{19} Road management programs include routine and periodic maintenance, betterment (including widening and upgrading), new road development, strategic route planning and improvement in network accessibility.
4.24 **Road development budget has not kept pace with expenditure needs.** Roads have always accounted for a significant share of government development expenditures before the crisis, fluctuating between 10 percent and 22 percent; after the crisis, roads share dropped to a low 7 percent in 1999/00 before recovering to a budgeted 14 percent in 2002 (Figure 4.9). But despite the recent economic slowdown, growth in transport demand and urbanization have continued apace. Moreover, competitive pressure is rising from other Asian countries which placed more emphasis on reducing the cost and increasing the efficiency of road transport, and ensuring better links with other modes of transportation, mainly international shipping. Road expenditure requirements have thus risen more quickly than the government's ability to fund them, underscoring the need to consider ways of closing the financing gap through private sector funding and infrastructure cost recovery from user charges.

4.25 **Attempts to attract private sector participation and increase cost recovery have not been effective.** The private sector is already involved in program and project preparation and implementation. The government has also pursued a policy of encouraging private sector financing of toll roads under build-and-operate schemes. To attract private financing, however, the government granted concessions to offset risks perceived by potential investors; this ultimately undermined the efficiency incentives of private sector participation. Moreover, the government's commitment to cost recovery and earmarking of user charges for road maintenance continues to feature in its Policy Statement and Action plan, but no progress has been achieved in that regard. With present resources, the government cannot afford to finance all economically viable capacity expansion projects. At the same time, private investors who withdrew from Indonesia following the crisis are unlikely to return until a more stable, reliable legal and regulatory framework for private sector participation is established—this is the most urgent priority if private funds are to support the development of the network.

4.26 **The center has a medium-term road expenditure planning approach to optimize its road spending.** The crucial issue of strategic allocation of funds between the various networks (including national and provincial highways, and urban and local roads) and particularly among the different regions of the country was handled previously through a central economic planning process, assisted by a formula based on population, area and network length. In order to base these decisions on a more rigorous economic and developmental basis, an optimization tool called Strategic Expenditure Planning Module (SEPM) was developed since 1998, which evaluates alternative program allocations across all road assets for medium expenditure plans (5-10 years) under alternative budget constraints, and selects strategies for managing the physical characteristics of the networks which maximize the economic benefit in terms of NPV/C (Net Present Value over Cost) across programs and networks under whatever budget constraints imposed.

4.27 **Budget constraints can be applied to the total roads budget,** by class of roads (national, provincial, district-level), by type of program (maintenance versus betterment or new construction), or by region. A series of annual budget scenarios covering the period 2000–2010 were undertaken. Expressed in constant 1999 prices, the annual budget averages ranged from Rp. 3 trillion to Rp. 8 trillion.²⁰ At low funding

²⁰ The scenarios estimate (i) a direct benefit comprising the new savings in road user costs and in life-cycle road maintenance and construction costs; and (ii) an indirect benefit represented in macroeconomic growth at the regional level due to triggered economic activity as a result of road investment (multiplier effect).
levels, the NPV rises steeply with increasing budgets. At higher budget levels, incremental increases give diminishing returns and the optimum constrained budget level is around Rp. 8 trillion per year (Figure 4.10).

**Figure 4.10: Using a Medium-Term Optimization Tool for Road Allocation**

<table>
<thead>
<tr>
<th>Optimal Road Budget Is Rp. 8 trillion per year for the Next Decade: Actual Budget was Rp. 3.3 trillion in 2002.</th>
<th>Intra-transport allocation of spending is not optimal</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Graph showing the relationship between annual expenditure and net present value" /></td>
<td><img src="image2" alt="Graph showing the allocation of road expenditures" /></td>
</tr>
<tr>
<td><strong>Distribution of overall spending across government levels is adequate</strong></td>
<td><strong>Kabupatens have an unacceptable share of bad roads</strong></td>
</tr>
<tr>
<td><img src="image3" alt="Bar chart showing budget allocation" /></td>
<td><img src="image4" alt="Bar chart showing road condition" /></td>
</tr>
</tbody>
</table>

Note: Actual is for 1999/00; Source: Bill Paterson

4.28 **Allocation of the road budget is not optimal across types of spending but is adequate across levels of government.** Government spending has concentrated mainly on betterment of existing roads while maintenance has been less than adequate (Figure 4.10). The low maintenance spending is particularly felt at the kabupaten level—while overall allocation of spending across different levels of government is close to optimal (for an equivalent budget constraint), the bias towards spending on betterment at the expense of maintenance is more accentuated at the district level. As a result, the proportion of roads in bad conditions at the kabupaten level is unacceptable—97 percent of national roads, 89 percent of provincial roads, but only 37 of kabupaten roads were in good/fair condition in 2000.

4.29 **The consistent failure of central government to provide adequate funds for maintenance could be corrected—or exacerbated—through decentralization...** Choices facing decision makers—address urban traffic growth and congestion on main inter-urban corridors, expand the network to serve remote or poor communities, and preserve existing assets—are difficult under tight budget constraints. Decentralization, with its emphasis on democratic accountability, transparency, community
empowerment, and a sense that local solutions are being found to local problems, will both accentuate these difficulties and prove a timely opportunity to introduce more radical reforms. But the risk of under-funding and neglect of road maintenance may be even greater with decentralization, as there may be political pressure to develop new projects in preference to maintaining existing assets given limited resources. The risk to maintenance will also be exacerbated by shortcomings in the ability of regional administrations to carry out and sustain road condition survey, maintenance planning, contract management, works supervision, implementation and monitoring tasks—more capacity at the local level thus needs to be built.

4.30 **...the central government still has a crucial role to play.** Complementary systems of road management at the national and sub-national levels need to be established that effectively reconcile central government concerns (e.g., consistent policy implementation and regional equity) with those of regional administrations. The central government have the advantage of evaluating the optimum allocation of resources among programs and regions and measuring the effectiveness of such programs on overall network performance. This advantage will be lost with decentralization if no role is given to the center, since transfers differ significantly from region to region and hence it is likely that some regions will be able to afford substantial road programs in which the return may be low while others might only manage basic programs that exclude potentially high-yielding projects.

4.31 **What could be the optimum distribution of responsibilities?** The central government should retain the responsibility to evaluate the optimum allocation of resources up to the program level (using the SEPM), and allow the regions to decide on allocations at the project level to address local needs. The process of network planning would thus be formalized at the central level and integrated with the process of regional development. In order to match expenditure needs assessed by the center with affordability at the regional level in a way that is consistent with decentralization, a special allocation fund (DAK) could be created, funded directly from the center’s budget and/or through the establishment of a dedicated road fund (financed from user charges, vehicle registration fees, and a new levy on fuel sales). Balancing transfers from a national road fund would compensate for inter-regional differences between revenues and expenditures needs. Independent condition surveys could help strengthen priority setting and implementation at the district level. Independent surveys and SEPM planning procedures (which ensure overall network efficiency and regional balance) would continue to be used as the basis for allocation of road fund proceeds. It is important to maintain open and transparent reporting of all activities under the fund and assessment of their impacts, which should be measured objectively against targets in the terms of network condition and user costs.

**Power Sector**

4.32 Indonesia’s development budget on energy dropped drastically from 6 trillion in 1998/99 to 3.7 trillion in 2002 (Figure 4.11). It consists mainly of electricity development (88 percent) and rural electrification (less than 1 percent). The State power utility (PLN)—Indonesia’s monopoly supplier of electricity—is in charge of expanding access of power to small villages, and receives loans and equity from the government for electricity development.

![Figure 4.11: Spending on Power Dropped](image-url)
4.33 **PLN's financial condition is precarious and the power sector would need government support for some time.** The electricity system on Java-Bali is relatively well-developed, and over the medium term can potentially be transformed into a commercially viable and financially independent operation, allowing the eventual sale of the generation, distribution, and possibly transmission assets of PLN. By contrast, power system operations in many areas outside Java are much less developed; they cannot survive as a commercial activity and will require stronger Government support for the foreseeable future. But PLN has been in dire financial condition since the crisis (Box 4.5)—the company has been unable to bear the burden of a depreciating Rupiah on its foreign currency-denominated loan repayment commitments, power purchases from independent power producers (IPPs), and fuel costs. Without major tariff increases and financial restructuring, PLN will remain effectively insolvent, jeopardizing its ability to provide secure supply to existing consumers and limiting its capacity to accomplish the Government’s mandate to expand electrification throughout the country.

**Box 4.5: PLN’s Dire Financial Condition**

Prior to the crisis, PLN was a profitable company, although it still had difficulty meeting the Bank’s financial covenants, namely, an 8 percent return on assets and a debt service cover of 1.5. Given that tariffs had not been increased since 1994, the Bank persistently warned PLN and the Government of the impact which the planned IPP program would have on PLN’s financial position. But even without the upward pressure on PLN’s costs due to the IPP contracts, the currency depreciation resulting from the crisis—without tariff increases—has rendered PLN effectively insolvent.

PLN’s finances have deteriorated drastically since 1997, with accumulated losses amounting to Rp. 45 trillion (US$4.8 billion). The company’s current liabilities add to Rp. 19 trillion, mostly from unpaid power purchases to IPPs, and it has no capacity to service its long term debts of Rp. 30 trillion (US$3.2 billion). Nevertheless, for 2001, PLN’s audited financial statements show a small net profit of Rp. 180 billion (US$19 million). A big factor in the improved result was the large reductions, about Rp. 16 trillion, in interest expenses and foreign exchange losses from debt service relief measures arranged with the Government. However, the profit result was only obtained by counting the Rp. 6.7 trillion in operating subsidies provided by the Government as part of income (PLN expects to receive about two-thirds of this amount in 2002). More indicative is the fact that PLN’s operating loss was Rp. 3.3 trillion in 2001, corresponding to a negative rate of return of 6.3 percent. But even this result understates the true severity of PLN’s financial position, because the company’s assets have not been revalued since before the crisis. PLN’s financial projections indicate that more than a fourfold increase in the Rupiah value of gross fixed assets is required to bring asset value (and depreciation provision) in line with the cost of servicing the associated foreign currency-denominated debt. In practice, however, implementation of such a revaluation is hindered by concerns regarding the major capital gains tax liability that would arise as a result.

Solvency remains a critical issue for PLN, with current liabilities exceeding current assets by a factor of more than 2 to 1. Arrears owing IPPs for purchased power could be as much as Rp. 19 trillion (about US$2 billion), depending on the outcome of the ongoing renegotiation of the IPP contracts. Settlement of these obligations should be the next critical step in restoration of PLN’s finances, although some substantial progress has already been achieved. Debt service coverage in 2001 was only 0.1, if Government subsidies and foreign exchange losses are excluded. Consequently, further tariff increases and financial restructuring are needed for PLN to reach covenanted debt service levels.

Source: World Bank

4.34 **Secure operation of the power system—particularly on Java-Bali—is vital to the entire Indonesian economy.** As the widespread blackouts and the resultant boom in mostly uneconomic self-generation by larger electricity consumers during the early 1990s evidenced, electricity is a key driver of Indonesia’s economic growth. However, many areas outside Java are experiencing power supply interruptions. This situation could extend to the crucial Java-Bali power system unless actions are taken to accelerate completion of Java’s backbone extra high voltage transmission network (without

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21 The Bank estimates that some 40 percent of total generation capacity in Indonesia is due to "captive power" plants which, from a regional perspective, is unusually high (Captive Power Supply in Indonesia: Historical Development, Present Status and Future Role, World Bank, 1998).
which even existing generation cannot be dispatched fully), de-bottleneck elements of the existing power delivery system, and increase new generation capacity.

4.35 **Demand growth for electricity continues to be robust, despite the fallout from the regional crisis.** In the three years leading up to the regional crisis, PLN attained the notable achievement of making more than 2.5 million new consumer connections per year, resulting in an annual electricity sales growth of more than 13 percent (Figure 4.12). Yet even this rate of connection was unable to keep up with demand and long waiting lists were common. While the regional crisis dampened demand significantly—with 1998 seeing an increase of only 1.5 percent—in the following two years electricity sales recovered by 9 percent and 11 percent respectively, with a somewhat lower rise of just over 6 percent in 2001. This growth occurred despite the fact that PLN’s financial constraints only allowed about 1.1 million new consumer connections to be made during each of the last three years.22 However, even this reduced investment program required a post-crisis capital expenditure of Rp. 29 trillion (about US$3.1 billion).

4.36 **Overall investment needs remain huge.** A simple comparison of existing installed generating capacity and peak electricity load might imply that there is already ample generation in the Java-Bali power system (Figure 4.13). However, after adjusting for constraints in the transmission network, as well as for the need to perform regular maintenance and to maintain sufficient generating reserves to ensure secure system operation, it becomes apparent that the existing installed capacity is barely adequate even under the most conservative demand growth projections. PLN itself estimates that to serve sales growth of 7 percent per annum from 2002-2006 would require a countrywide capital expenditure program of Rp. 114 trillion (US$12 billion), over and above the costs of Tanjung Jati B (the sole major IPP plant still under construction). Financing this investment program would require a huge turnaround in PLN’s operating revenues, borrowing, and equity contributions, which depends on the Government agreeing to implement a sustainable tariff path and a credible financial restructuring plan. Although significantly curtailing the rate of consumer connection would mitigate some of the mounting system security problems, this is not a sustainable solution, since by doing so PLN faces the prospect of losing even more consumers to self-generation, and a decreased rate of electrification is itself likely to depress economic growth. As a whole, the country’s electrification ratio still stands at only a little over 50 percent.

4.37 **Private sector participation should be made more attractive, but this will not resolve the sector’s immediate investment needs.** Even if PLN were in a strong financial position, it would be untenable for the company to provide the required level of new investment in generation, transmission

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22 The implication is that a significant portion of the rebound in demand has not been due to new connections, but to at least some existing consumers (predominantly industrial) restoring their consumption to pre-crisis levels.
and distribution on its own, or to remain in its currently monopolistic form. The new Electricity Law will put in place the framework for competitive, efficient and transparent power sector operation on Java-Bali—one in which the private sector plays the lead role of meeting future investment needs. However, while Indonesia’s IPP program was successful at attracting private capital into the power sector, inadequate governance led to contracts that have resulted in substantial real and contingent liabilities for PLN and the Government (Box 4.6). Apart from the country’s poor investment climate overall, it will be difficult over the short to medium term to attract new private investors to play a major role in the sector—even for generation—until (a) the existing IPP program has been rationalized, (b) a new competitive tendering code governing transparent and efficient private sector participation has been promulgated under the Law, and (c) the proposed independent regulatory body for the power sector has been established.

Box 4.6: Indonesia’s Independent Power Producer Program

In response to the power shortages of the early 1990s, a Presidential Decree was issued in 1992 to open the door to independent power producers (IPPs). Beginning with the deal for the 1,230MW Private Paiton I power plant, the Government (through PLN) entered into 27 primarily US$-denominated Power Purchase Agreements (PPAs) with IPP sponsors, corresponding to about US$18 billion of financing and 11,000 MW of new generating capacity, the greater part on Java-Bali (10,000 MW). Project financing for these plants was mainly secured from international sources, including the US Exim and Japan Exim banks, commercial bank syndications, and in a few cases, bond issues. Several of the projects arranged political risk insurance from agencies including the Overseas Private Investment Corporation (OPIC) and MIGA. Although no explicit government guarantees were issued, most PPAs had associated agreements from the Ministry of Finance—or from the then Ministry of Mines and Energy—to cause PLN to perform its obligations.

The consequence of the flood of predominantly unsolicited IPP proposals, most of which championed by well-connected local partners, was to promise the private sector good returns—PPA prices mostly ranged from 6-8c/kWh—but to leave the public sector with high risks and contingent liabilities. PLN effectively lost control over decisions regarding the location of new generation capacity, primary energy mix, unit sizes, the mix of base load, intermediate and peaking plant, as well as the rate of generation capacity expansion.

At the advent of the crisis, three relatively small IPP plants were in commercial operation, ten projects had reached financial closure but not achieved commercial operation, and 13 had not reached financial closure (although the construction of some of these had begun). The crisis spurred the Government into designating some of the IPP projects as postponed or reviewed, and PLN into meeting only a part of its payment obligations to the operating IPPs. The reaction from the IPP sponsors to these actions was mixed, tempered to some extent by whether they held a long or a short term view of their involvement in the sector. Although a cross-Ministerial Steering Committee was appointed to co-ordinate the renegotiation of the PPAs, IPP sponsors for three projects sought compensation through international arbitration, and to date, the International Arbitration Tribunal has required PLN to pay compensation with respect to two of them (i.e., US$573 million with respect to the Dieng and Patuha PPAs). When PLN failed to pay, this in tum triggered OPIC’s insurance claim, and discussion regarding a settlement is ongoing, as are discussions relating to eight other projects.

On the positive side, six projects have now reached an agreement on close out, and prices and terms have been successfully renegotiated for ten more of the projects, with PPA prices revised downwards to 4.5c/kWh on average. (For instance, the Paiton I PPA has been reduced from 8.5c/kWh to 4.9c/kWh). In a number of these settled cases, agreement has also been reached on the payment of power purchase arrears, which could be as high as Rp 19 trillion overall (about US$2 billion) depending on the outcome of ongoing renegotiations. Eight of the projects are currently in partial or full operation—amounting to about 3,100 MW—and construction of the major 1,320 MW Tanjung Jati B plant in Central Java has resumed, with completion expected in 2005. Moreover, some of the existing IPP sponsors—notably for Paiton I—have begun to discuss expanding the capacity at already operating plants. However, while a key concern relating to the IPP program had been the prospect of substantial excess generating capacity on Java-Bali, rationalization of the IPP program has meant that, of the 10,000 MW planned, only 2,850 MW has been commissioned, and thus Java-Bali again faces the prospect of power shortages.

Source: World Bank

4.38 **Further tariff increases and restructuring of PLN are required to restore the power sector’s financial health and to lessen its negative fiscal impact.** The fiscal burden to the Government of
maintaining post-crisis electricity prices at around 3c/kWh—more than 60 percent below costs—has been enormous. The Government has provided Rp. 8.7 trillion in direct subsidies to PLN, written off Rp. 29 trillion in overdue interest to equity, and converted unpaid principal of Rp. 5.3 trillion to new long-term debt. The total cost of this support has been Rp. 43 trillion (US$5.7 billion), yet the subsidies provided to the sector have largely benefited the better off, since the poorest groups in the population are less likely to have access to electricity at all. Although the Government has agreed, in principle, for tariffs to be gradually increased to the pre-crisis levels of about 7c/kWh, most of the gains from past average tariff increases—25 percent in 1998, and twice in 2000 by 27 percent and then 20 percent—have been offset by further depreciation of the Rupiah. Quarterly tariff increases of 6 percent have been approved during 2002, but the Government will also be phasing out fuel subsidies over the next two years, putting further upward pressure on PLN’s costs. Hence, in order to avoid power shortages, restore financial viability to the sector, and continue expanding access to electricity, the Government has no alternative but to: (i) commit to a program that raises tariffs to commercial levels; (ii) press on with PLN’s financial (and corporate) restructuring; (iii) resolve outstanding issues relating to the existing IPP program, while putting in place new guidelines for future private sector participation; and (iv) establish—under the new Electricity Law—the proposed Social Electricity Development Fund (DPKS), for targeting sector subsidies to underprivileged subscription groups, underdeveloped or isolated regions, and rural electrification.

4.39 **Decentralization will primarily impact rural electrification, and off-grid power supply.** Until the new Electricity Law was passed, PLN was the key monopoly supplier of electricity throughout Indonesia, responsible for achieving the government’s electrification targets. However, with the new law recently enacted, some responsibility for power supply will be able to pass on to provincial governments, kabupatens, private companies, and even community-based cooperatives, since licenses for off-grid electricity provision—not crossing municipal (or provincial) boundaries—will be able to be issued by local mayors (or governors). Consequently, the government will need to issue clear implementing regulations, and prepare a comprehensive Rural Energy Strategy, to outline—*inter alia*—how the proposed Social Electricity Development Fund, and other mechanisms, can be used to support decentralized power provision in areas where it is uneconomic for PLN, or its successor companies, to extend the existing network.
5. INDONESIA BUDGET REFORM INITIATIVE

5.1 Development planning and a strong central agency model has served Indonesia well in the past. It provided fiscal discipline and the country grew rapidly. Now, in the era of democratization, public demand for transparency and accountability has implications for the planning and budgeting processes. The government is aware of the need for reforming the planning and budgeting processes and wants to change the laws governing the planning and budgeting, financial management, and audit processes. It has formed a Financial Management Reform Committee (FMRC) under the leadership of the Secretary General of MOF. The FMRC prepared a white paper on the principles and strategy of budget reforms and submitted three draft laws to the Parliament to govern the budget cycle—Finance, Treasury, and Audit.

5.2 The Government is clearly committed to retain a national development planning system. In a recent speech, the State Minister of National Development Planning Mr. Kwik Kian Gie explained that “the planning is more not less important in a democratic, decentralized, post-crisis Indonesia...Planning is the core of consensus building and vision setting and should be the foundation for improved coordination. Equally planning and the priorities it represents must be linked to budget and reflect the results on the ground.” Hence the issue is to refine the linkages between planning and budgeting processes in order to provide a sound framework for macroeconomic management, sectoral policy making and priority setting, transparency and accountability. This section reviews current planning and budgeting processes, identifies their strengths and weaknesses, and provides recommendations for refining the linkages between them and suggests an implementation plan.

THE CURRENT PLANNING AND BUDGETING PROCESSES

5.3 As the Peoples Consultative Assembly (MPR) begins its term, it issues the State Guidelines as a decree. State Guidelines require the President to present to the DPR (Parliament) a five-year development plan—Propenas—with clear performance indicators. The preparation of the Propenas is organized by Bappenas (the Ministry of National Development Planning) with a participatory approach including line ministries, civil society organizations and universities. The Propenas identifies legal development, economic development, political development, development of religious affairs, education development, social and cultural development, regional development, natural resources and environmental development and development of defense and security as priorities of the nation and provides concrete actions for addressing these issues. The Propenas is voted on by DPR and has the status of a law. Repeta is the annual development program and presents annual development priorities consistent with Propenas. Repeta does not only discuss budgetary priorities, it covers other policy matters beyond the budget. The preparation of Repeta is also organized by Bappenas.

5.4 The budget for central government can be divided into a routine budget accounting for about 62 percent of budget outlays (including personnel expenditures, non-personnel expenditures, and subsidies), and a development budget accounting for 14 percent of budget outlays (including investment, social safety net, and defense spending). The development budget comprises both capital and recurrent spending associated with development projects. Donors currently finance for about 52 percent of the development budget. Transfers to the local governments account for the remaining 24 percent of the budget. This comprises of a general fund, a sharing fund, and a special fund allocation, all of which are transferred to provinces, districts, and municipals.

5.5 Budget Preparation. Bappenas begins preparing the Repeta including macro economic estimates in February and presents it to Cabinet in late March. In 2001, Cabinet discussed Repeta in a single meeting and endorsed it. In 2002, Cabinet decided to take a more in-depth look at the Repeta and discussions continued for five meetings throughout April. Within MOF, the budget preparation is initiated by an assessment of the macro fiscal indicators undertaken by the Agency for Fiscal Analysis (BAF).
After deciding on the aggregate spending level, the BAF gives an overall spending limit for recurrent spending to DG Budget and an overall spending limit for development expenditure to Bappenas. Bappenas issues a budget circular for the preparation of development expenditures, since it manages the development budget, and MOF issues a budget circular for the preparation of routine expenditures, requesting spending proposals from line ministries for development as well as for routine.

5.6 Line ministries submit their routine budget proposals to the DG Budget in June of the year preceding the budget year. The lead time for routine budget preparation in line ministries is relatively short, starting in May and finish in July. Preparation of the routine budget is largely focused on assessing program costing in line with changes in prices. The budget discussion between the DG Budget and the line ministry is mainly about costing rather than about on policy issues. The DG Budget allocates routine budget ceiling in the middle of August. The line ministry then proceeds to prepare the budget in detail. The development budget proposal is submitted to DG Budget and Bappenas at the same time. Both agencies review the proposal with regards to the corresponding five-year plan (Propenas) and the annual plan (Repeta). Bappenas manages the process of allocating funds to development programs. Later, sector ministries allocate these funds to projects in consultation with the responsible sector commission in the DPR. Although ministries have strategic plans (Renstra) they do not play an important role in allocation process.

5.7 Within the executive, almost all budgetary decisions are delegated to central agencies (MOF and Bappenas). Budget-related documents go to President and Cabinet for approval not for decision. Over the last two years, the DPR has been fully involved in the budget process, exercising its constitutional budget right fully, from taking a much more passive role in the past.

5.8 **Budget Enactment.** DPR’s deliberations of the budget take place in two phases. The first phase consists of preliminary discussions. The process of “preliminary talks on proposed budget” between the government and DPR begins early in February by forming three teams among the staff of MOF, Bappenas and parliamentary Budget Commission on (i) fiscal policy, (ii) development spending, and (iii) transfers to local governments. In these discussions, MOF represents the government and Budget Commission represents the DPR. In March, the Budget Commission and MOF review the reports of these three teams in two sessions:

- **Session 1** focuses on the macroeconomic and fiscal policy and the annual development plan (Repeta) of the next fiscal year based on Propenas. It takes place in April and lasts for a week. In early May, draft Repeta and fiscal aggregates are presented to sector commissions. After discussing the results of sector commissions’ review, Budget Commission and MOF decide on Repeta and on macro aggregates, and finish the preliminary talks in the third week of July.
- **Session 2** is designed as a preliminary overview of the government’s forthcoming budget proposal. It takes place in July and lasts for one week. The Minister of Finance and Head of Bappenas appear before the Budget Commission. Based on the recommendations of the Budget Commission, DPR enacts a binding resolution agreeing or disagreeing with major outlines of the budget.

5.9 The second phase consists of deliberations. In mid-August of each year, the President delivers the budget speech and the government’s budget proposal to the DPR. This is followed by 2-month comprehensive deliberations in DPR, with the Budget Commission meeting every week. These deliberations are organized in 3 parts:

- **Part I** consists of two sessions where each faction of the DPR makes General Comments on the budget proposed. The Minister of Finance delivers the Government’s responses and answers.
Part II lasts for 1 month and consists of the Budget Commission sessions attended by the Minister of Finance and sometimes by some line ministers and Deputy Governor of the central bank. The discussion in these sessions is focused on (i) reviewing and discerning the macroeconomic assumptions on which the proposed budget is based, (ii) the revenue side of the budget, (iii) the expenditure priority for different sectors, and (iv) the financing of budget deficits.

Part III lasts for 2 weeks and consists of thorough reviews of the expenditures plan of each line ministry. This part is carried out in parallel sessions by all the sectoral commissions of the DPR with their respective ministries. The thorough reviews are designed to ensure that expenditures plan pertaining to the line ministry activities is in accordance with the priority determined by the Budget Commission and the Minister of Finance for routine budget for personnel, goods and services expenditures, or by the Budget Commission with Head of Bappenas for development budget. The DPR votes the budget in terms of programs but approves also the allotment at the subprogram level, generally to projects.

The annual budget is targeted to be enacted into law in October of its preceding year, but this has not yet happened. The early enactment of the budget is intended to accommodate reasonable time interval requested by sub-national governments (mainly regional governments) to prepare and to work out on their own budgets before entering the budget year. This is critical as the fiscal transfer elements of the central government budget are the primary revenue sources for sub-national governments.

ADVANTAGES AND DISADVANTAGES OF THE CURRENT PLANNING AND BUDGETING PROCESSES

5.11 Budget planning. Propenas provides a medium-term framework for priorities and policy directions. It is prepared by Bappenas in a participatory approach including the ministries, universities, and various civil society organizations. However, Propenas suffers from two main problems: (i) its economic assumptions become outdated and unrealistic as soon as the plan is issued—in a country with volatile economic conditions as Indonesia, a five-year plan cannot be a binding document but only an indicative plan or a vision statement; (ii) it is voted in DPR and becomes a law, but as conditions, politicians, and priorities change over time, actions needed to address upcoming issues may require the authorities to fall in conflict with Propenas and create problems with abiding the law. Repeta reflects Propenas in the annual budget priorities, but it can improve in two ways: (i) it could allow more room for the executive to reflect their priorities, as the document is typically discussed and approved by the President and Cabinet in a single meeting. This has recently changed, however, following recommendations in an earlier draft of this report; in 2002, Cabinet decided to take a more in-depth look at Repeta and discussions continued for five meetings; and (ii) it does not include forward estimates, hence it does not lead to top-down spending ceilings identified by the Cabinet for ministries. Ministries are required to prepare 3-year strategic plans (Renstra) and performance accountability reports at the end of the year. This initiative is lead by the Internal Audit Unit (BPKP) not by Bappenas. The strategic plans are not costed and are not constrained by budget realities. Neither the strategic plans nor the performance accountability reports are submitted to DPR and they hardly play any role in the budget process. Budget preparation needs to be incorporated with performance reporting, so that the budget is based on performance.

5.12 Budget process. Budget process begins early, which gives enough time to discuss fiscal policy and Repeta with DPR prior to detailed sector budgets. But, since there is no binding agreement between DPR and Government on fiscal policy prior to detailed budget, discussions on macro-economic assumptions and fiscal aggregates continue throughout the budget formulation process, with DPR sometimes changing revenue estimates. This leads to reduced fiscal prudence, unrealistic budget planning, and ad hoc cuts within the budget year. Moreover, fiscal policy has an annual focus and fiscal risks are not properly addressed during fiscal policy discussions. Macroeconomic assumptions and models are not transparent to public. Finally, although the DPR is involved deeply in the budget
formulation process, it lacks technical capacity and is dependent on the technical skills of MOF and Bappenas.

5.13 **Budget execution.** The lack of a modern financial controllership function at the ministerial level is a serious internal control weakness. Public sector accounts have poor quality. Duplication of budget monitoring and record keeping among various government units results in highly fragmented financial information systems. Until recently, the consolidated financial statements presented to the DPR were not available until two years after the end of the fiscal year. For 2000, the time was reduced to 14 months, and for 2001, it may be reduced to 12 months. The objective is to reach the OECD standard of 6 months and to improve the quality of the report to include a balance sheet, a cash flow statement, and a budget realization report.

5.14 **Accountability and reviews.** Strong central agency model provided fiscal discipline and allocated resources to development priorities. But this model has its drawbacks—extensive central agency intervention all the way to the project level limited line ministries ownership of their budget and prevented an environment where they would be accountable for results. The program review and its feedback to planning has been the weakest link in the public expenditure management cycle in Indonesia. Although there are units responsible for program review both in MOF and in Bappenas, they lack capacity and methodology. Budget negotiations, particularly in recurrent budget, are about discussing the program cost not their effectiveness. The executive does not make any demands on which policies or programs need to be reviewed.

5.15 Public external audit, internal audit, and inspection functions are ineffective. External audit is undermined by the lack of independence. Although BPK is the Supreme Audit Agency of Indonesia, BPKP, an internal audit agency created by Presidential decree, also carries out external audits of ministries and reports to the President. The distinction between external audit and internal audit is blurred. There is a concern whether BPKP can be truly independent in auditing public finances, SOEs and foreign funded projects as a Government agency. Similarly, there is a lack of clarity about BPKP and Inspector General’s respective roles in internal audit function. The lack of systematic follow up of audit recommendations to improve internal control (with public reporting thereon) is another area of great concern over the effectiveness of the public audit function in Indonesia.

5.16 The role of the Legislature as the institution with public responsibility for financial oversight is not widely understood in the country. The perception remains that the Legislature is only responsible for policy debates, law making and budget approval. Budget implementation and financial control of the public purse have been historically viewed largely as the internal business of the Executive arm of the State. A fully functioning Public Accounts Committee (PAC) is yet to be established although a Parliamentary commission has assumed the role of PAC. It would need to include accounting experts.

5.17 **Budget functions.** The central budget authority is divided between MOF and Bappenas. This situation creates coordination problems in budget formulation and does not allow a thorough program perspective. Moreover, the development budget is not just capital expenditure, it also includes some recurrent expenditures. Treasury functions are spread across various departments within MOF and since there is no integrated government financial management system, both within-year reports and year-end accounts are prepared quite late. The MOF has a restructuring plan that consolidates budget office and treasury functions, which are currently spread across various departments, under two new general directorates. But nothing has been done over the last four years to implement the plan.
RECOMMENDATIONS

5.18 The government is committed to retain a national development planning system and is thinking about integrating elements of a medium-term expenditure framework (MTEF) into existing planning and budgeting systems, with the planning umbrella linked to policy, budgeting, and performance monitoring. The current planning and budgeting system of Indonesia already contains several elements of the MTEF, such as the Repeta which contains national priorities, fiscal policy and budget policy statements. But this system can further improve. Some measures, which need to be carefully evaluated by MOF and Bappenas, could be undertaken in the current planning and budgeting process in order to integrate elements of the MTEF, including:

- refinements in the budget process to strengthen the linkages between planning and budgeting,
- more transparency by improved reporting to DPR,
- need for a single budget office,
- restructuring the MOF along its core functions,
- enabling the government to manage the necessary information flows effectively by developing an integrated information system, and
- reforming the budget execution process to improve financial accountability.

5.19 First, the Government could refine the budget process to produce an executive decision on aggregate expenditure ceiling before the resource allocation process begins. International experience shows that the key budget process rule for fiscal discipline is to separate fiscal policy-making from resource allocation process both within the executive and the legislative branch. Ideally, fiscal policy process ends with an agreement between the executive and legislature on an aggregate expenditure ceiling, then the resource allocation process begins. The logic of this sequential separation is quite familiar to economists: set the constraint—aggregate expenditure ceiling—before maximizing the utility function—resource allocation. Many OECD countries have adopted a system whereby the government submits a Fiscal Policy Statement to the parliament several months before the detailed budget and seeks agreement on fiscal aggregates.

5.20 Indonesia is half way there. The “preliminary talks on proposed budget” between the DPR and the government include discussions on fiscal policy, but this process does not produce a firm and binding agreement on fiscal aggregates. Negotiations are kept open throughout the budget formulation process. The government could refine this process by producing an executive decision on an aggregate expenditure ceiling and submitting this decision to DPR in a Fiscal Policy Statement by mid May—three months before the budget submission. The macroeconomic assumptions of Repeta and the fiscal policy report of the MOF “Nota Keangan” would constitute the basis of a Fiscal Policy Statement.

5.21 Such a process could also be reflected in the new Finance Law by requesting a Fiscal Policy Statement outlining the Government’s framework for the forthcoming budget to be submitted to the DPR three months prior to the presentation of the Budget. The Fiscal Policy Statement would include: (i) the Government’s broad outcome priorities; (ii) the Government’s planned fiscal aggregates, specifying planned level of operating expenditures, investment expenditures, operating revenues, deficit, and debt; (iii) the key assumptions on which these numbers are based; and (iv) a clear presentation of fiscal risks. The Finance Law needs to specify that the Fiscal Policy Statement needs to be binding on the Government and DPR for the year to which it relates (unless a majority of the DPR notify the Speaker of their objection to the Statement within one month of the Statement being tabled in DPR).

5.22 Second, Government could refine the budget process to produce an executive decision on ministry level expenditure ceilings early in the allocation process. International experience shows that a top-down budget process, whereby the executive decides on ministry level expenditure ceilings before a
ministry prepares its budget, is more conducive for channeling resources to strategic priorities and also for fiscal discipline—again reflecting the economists' logic of setting constraints before maximization. Many OECD countries have adapted a procedure that enables the executive to decide on ministry level expenditure ceilings and to explain them to ministries in the budget call circular. Some countries took a further step whereby government presents its decision to parliament in an annex of the Fiscal Policy Statement.

5.23 Indonesia is again halfway there. The Repeta process allows the executive to discuss its priorities before the budget circular, and the “preliminary talks” process brings the DPR into this discussion. But these processes do not lead to a decision on ministry expenditure ceilings. Unaffordable budget requests by ministries cause unnecessary haggling over costs instead of reviewing underlying policies. Strategic plans become a wish list in the absence of a resource constraint.

5.24 To be able to decide on ministry targets, the executive will need information on future costs of current policy obligations. Many countries have developed a system called forward estimates to show the future recurrent and capital costs of individual programs. Forward estimates serve as the budget base upon which the Executive makes adjustments to reflect its priorities and to make sure that total amount of ministry ceilings stay below the aggregate expenditure ceiling agreed earlier during fiscal policy process. Annual ceilings accompanied by forward estimates will provide to a ministry a medium term resource constraint as well as predictability within which strategic plans could be prepared.

5.25 There are various options for ceilings: (i) a single ceiling for the ministry (portfolio ceiling), (ii) separate ceilings for recurrent and capital spending, (iii) a single ceiling at program level, or (iv) separate ceilings for recurrent and capital spending at program level. Given the divided budget authority, central agencies’ tendency would be to choose the fourth option, which already exists for the development budget. However, that might not be the most beneficial option—first, the more detailed the ceilings are, the less is the flexibility given to a ministry for reallocating spending and the less is ministries’ ownership of their budget; second, forward estimates will provide program-level base budgets in detail so there is no need to specify the ceilings at that level; and third, this is just the beginning of the budget formulation and not the end, so central agencies will have another chance to review ministry spending requests later in the budget process. Hence, the second option may be the most appropriate level in Indonesia.

5.26 Third, strategic plans could establish the basis for resource allocation and accountability within a ministry. Over the last decade, many developed and developing countries devolved planning to ministry level and adopted strategic planning as the main planning methodology. The strategic plan of a ministry sets out what will be delivered for what costs in the coming year, taking into account medium term requirements and funding forecasts. It does this in a way that can be measured, monitored and reported on. It is a way to link the work of the ministry to the government’s requirements and to the budget of the ministry. In all these countries, strategic plans accompany the budget request of the ministry; they are submitted to Parliament with budget documents and are public documents. At the end of the year, ministries report on results—what they have delivered at what cost—and explain the differences from their strategic plans. These two reports constitute the basis of performance accountability.

5.27 In Indonesia, ministries are required to prepare strategic plans—Renstra—and annual performance reports. However, strategic plans are neither linked to Repeta nor to the budget planning process. These plans are neither costed nor prepared under a resource constraint. They are perceived as a separate exercise, regulated by the Internal Auditor (BPKP) not by Bappenas or MOF. Because strategic plans are divorced from the budget, they do not accompany budget documents and they are not submitted to DPR which in fact has the constitutional budget right. Strategic plans of line ministries need to be integrated with the budget document and submitted to DPR.
5.28 The strategic planning process should become the centerpiece of resource allocation within a ministry. After a minister receives his/her expenditure ceiling from the Executive, he/she needs guidance on how to allocate resources to programs within his/her portfolio. Strategic plans would provide such guidance. Constrained by the forward estimates, a strategic plan will explain what will be delivered for what costs in the coming year. Given the overall ceiling, each ministry would update its strategic plan and assign a ceiling to each program while protecting the high priority programs. Program managers will prepare their detailed budget under their ceiling and submit spending proposal to the ministry. After the review at the ministry, the ministry budget office will consolidate program budgets and present them to the central Budget Office.

5.29 Strategic plans need to accompany budget documents when they are submitted to central agencies and ultimately to the DPR. A discussion may arise on whether the strategic plans and annual reports need to be reported to DPR while ministers are accountable clearly to the President. The answer is yes; they do need to be reported to DPR, because the DPR has the constitutional budget right and they appropriate specific amounts of resources to individual programs. Properly prepared strategic plans would explain what will be delivered for what costs in the coming year by a particular program. Strategic plans and annual reports will enable the sector commissions of DPR to understand the budget requests of ministries and to assess their performance better. Effective parliamentary oversight is a necessity for democracy. The Finance Law could be instrumental for establishing this accountability system by requiring the budget request (appropriation estimates) to include strategic plans of ministries (see Appendix 5.1 for more details on appropriation estimates).

5.30 Ministers would also need to table in DPR an explanation for any appropriation for which they are responsible in respect of which the consumption of resources is greater than that appropriated. The explanation needs to identify the cause of the unappropriated expenditure and the action taken to redress the unappropriated expense.

5.31 Fourth, Government could consider unifying central budget authority under a single office. Central planning agencies were formed generally in the 1960s to channel resources to developmental activities along with five-year plans, and it was entrusted with the central authority over capital/investment projects. Central planning offices became de-facto a second budget office with a developmental perspective, whereas the MOF, as the main budget office, was left only with recurrent expenditure, and hence became an accountants' office. Over time, different bureaucratic cultures and incentives typically separated these two authorities, leading to less cooperation over the budget.

5.32 It is well known that when accountability is diffused nobody is accountable. A result-oriented public sector needs a single vessel between the Executive and ministries when it comes to resource allocation. A single budget office should regulate and manage planning and budgeting processes across the government and ensure that resources are allocated to strategic priorities. The budget office will oversee whether ministry strategic plans reflect the priorities of the Executive and are properly costed, whether ministry strategic plans and budget requests are contained by expenditure ceilings, and whether ministries deliver what they promised to deliver. The budget office will assist the Executive to keep the ministries accountable for these actions.

5.33 If GOI would choose to implement the refinements in its budget process as recommended above, the Executive would need a single budget office (hence a unified budget) and would have to decide where that office would be. Although there is a common understanding for such a need within bureaucracy, there is no agreement on where the central budget authority should be. The options are clear: the central budget office will be either under the MOF or under Bappenas.
5.34 International experience does not suggest where the budget office should be; there are successful practices either way. It does, however, suggest that a single budget office is more effective than a divided authority. Throughout the rest of this section, when the roles and responsibilities of the Budget Office are mentioned, we used the term “Budget Office”, with no recommendation of where it should be located.

5.35 **Fifth, slight modifications in the procedure and timing of the budget planning process could yield better results.** The refinements in the budget planning process recommended above imply some changes in the preparation and calendar (see Annex 5.2 for details).

5.36 **Sixth, the government could restructure MOF around its core functions and create a model for local governments.** Over the last four years, MOF has been thinking of reorganizing its echelon 1 organization around its core functions—DG Fiscal Policy, DG Budget,23 DG Treasury, DG Tax, and DG Customs. Although MOF realizes the need for such reforms, and the FMRC white paper discusses such need, no action has yet taken. There is an added pressure on MOF today to undertake some reforms as regional governments will model their finance organization after MOF—thus, not only does MOF have to reorganize itself, but it also has to present a model for regional governments with its regulations, procedures, human resources and information systems. In fact, there is no reason for the budget and treasury units in regional finance departments to have different rules, regulations, procedures and management systems from the central government (see Annex 5.3 for details of possible reforms).

5.37 The main difference between this proposal and FMRC’s proposal is that FMRC (i) proposes two other directorates for budget execution and for financial reporting and analysis; and (ii) divides the debt management function between two directorates as domestic and external debt. Given that the functions of the proposed directorate for budget execution duplicate the upstream functions of budget office during budget execution (issue apportionment and allotment documents, authorize virements and monitor budget execution), it may be better to place these functions in the new DG Budget, not in Treasury. It is also better not to separate the financial reporting function from accounting, even more so if the treasury will be endowed with a financial management information system. The system will provide financial reports from the accounting entries so there will be no need to form a separate directorate for this function. Finally, it is better that the external and domestic debt is managed under the same directorate endowed with proper risk management instruments (as suggested by the PER 2000).

5.38 **Seventh, the government could develop an integrated Financial Management Information System to support the budget process and create a model for local governments.** Currently, the MOF presents consolidated government financial statements to DPR two years after the end of the fiscal year. This is a poor performance even for developing countries. Even the best budget process would not be effective without timely information. The MOF should consider developing an integrated Government Financial Management Information System (GFMIS). Table 5.1 shows the modules of a GFMIS and how they relate to proposed organization of MOF (see Annex 5.4 for a short explanation of these modules). Figure 5.1 shows the core government financial management processes, information systems and information flows.

5.39 Many countries develop various modules of GFMIS simultaneously. But the core of the GFMIS is the treasury ledger system and cash management module. Developing and implementing these modules may take five to seven years depending on government’s commitment and management of the project. The project entails four phases: institutional reforms may require 6 to 12 months, design phase may

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23 DG Budget here refers to the current DG Budget in charge of routine expenditures (if no single budget office is created), and not to the single budget office recommended which could be either in MOF or in Bappenas.
require 12 to 18 months, procurement phase may require another 12 to 18 months, and implementation phase may require 24 to 36 months (see Annex 5.5 for details of reforms in each phase).

5.40 Currently, Indonesia is in the middle of the institutional reform phase. Finance and Treasury laws are prepared, new accounting standards and chart of accounts will be announced soon, a new Treasury organization is ready to be launched and a technical assistance project is ready to review the treasury regulations. If the government is committed and manages the project effectively, a treasury system could be developed and implemented within four years both at the central and regional government level.

<table>
<thead>
<tr>
<th>Table 5.1: GFMIS Modules and Relation to MOF Organization</th>
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<tbody>
<tr>
<td>Modules of GFMIS</td>
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<tr>
<td>Macro economic forecasting module</td>
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<tr>
<td>Budget preparation module including Current Investment</td>
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<tr>
<td>Treasury Ledger System including Budget and warrant control Accounts Payable Accounts Receivable General Ledger Fiscal Reporting</td>
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<tr>
<td>DG Directorate of Public Accounting</td>
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<td>DG Directorate of Public Accounting</td>
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<td>DG Directorate of Public Accounting</td>
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<tr>
<td>Cash Management module</td>
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<tr>
<td>Debt Management module including Domestic Foreign</td>
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<tr>
<td>Asset Management module</td>
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<td>Civil service Management including Position Management Payroll systems Pensions systems</td>
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<tr>
<td>Tax Administration System</td>
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<td>Customs Administration System</td>
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<tr>
<td>Audit Systems</td>
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5.41 *Eighth, the government could restructure the budget execution and audit processes to improve financial accountability.* Some progress in improving financial accountability has been achieved. First, the White Paper issued by the FMRC provides key recommendations for reform of budget process, clarification of roles and responsibilities of internal and external auditors, and a realignment of financial management roles and responsibilities between the line Ministries and the MOF. However, the White Paper is at best a statement of intentions, and is silent on exactly how and where these proposed changes will be incorporated in the legal framework for implementation, including the three draft laws on State Finance, Treasury, and Audit. Second, an Amendment to the Constitution was approved by Parliament in November 2001, by virtue of which BPK is now authorized to (i) establish regional audit offices; (ii) establish a single controller/treasury function to manage various activities pertaining to accounting, cash management, reporting and financial management information systems; (iii) create a single external audit and internal audit function for all levels of government; (iv) review by the Parliamentary anticipation of its political role as Indonesia’s Supreme Audit Institution.

5.42 In order to improve financial accountability and reduce fiduciary risks, several actions need to be taken: (i) strengthen the draft Audit Law by establishing the Supreme Audit Institution as the sole external auditor of public finances at all levels of Government; (ii) provide more clarity in the role and function of the Parliamentary commission in reporting to Parliament; (iii) review by the Parliamentary commission...
periodically of all audit reports and make appropriate recommendations to the Executive for corrective action. The Executive should be expected to report back to the Legislature on the actions taken in response to the recommendations of its commission. Such accountability reports should be available for public inspection.
Figure 2. Core Government Fiscal Management Processes, Information Systems and Information Flows

Case 2b: Treasury is Responsible for Making Payments. Retail Banking Operations carried out through a Fiscal Agent (Commercial Bank).

Central Government Fiscal Management Processes:
- Develop macroeconomic framework (with sectoral ministry input)
- Issue guidelines
- Receive budget proposals (ministries and consolidated proposals (including SLG) to IFOP)
- Consolidated budget proposals & finalize budget
- Enter budget appropriations (original and revisions) into system & inform Finance
- Monitor overall budget execution

Expenditure Management/Control Processes:
- Obtain expenditure figures and cash balances from TBS
- Obtain statutory limits on committed budget in system and inform Finance
- Enter suspense appropriation and commitment limits for SLG
- Enter financial relation to SU accounts (enter in system and inform SLG)
- Request for expenditure, administrators' approval & advisory center of clarity
- Commitments and verifications (goods receipt) transactions
- Payment orders to make expenditure
- Budgetary control at Treasury
- Payment transactions against TSA by Treasury

- Confirm with commercial banks of amounts authorized for credit to Govt. Creditors
- Daily file of payments from TSA and reconciliation by Treasury
- Summary of receipts (tax and non-tax) to the TSA
- Daily transfers from correspondent bank to and from central bank (TSA)
- Detailed accounts of ministries from system
- Detailed SU accounts from system
- Information from staff of subordinate units

Regional and District Spending Unit Processes:
- Request for expenditure administration approval & local budgetary control
- Commitments and verifications (goods receipt) transactions
- Payment orders to make expenditure
- Budgetary control at Treasury (RTU)
- Payment transactions against TSA by Treasury
- Credit to commercial banks of amounts authorized for credit to Govt. Creditors
- Daily file of payments from TSA
- Summary of receipts (tax and non-tax) to the TSA
- Detailed accounts of SU from system

Central Functional Processes:
- Spending
- Ministry of Finance
- Treasury
- IFOP
- Information Systems
- Control Bank: TSA
- Fiscal Agent: Commercial Bank

Legend:
- Information Flow
- Agency involvement in the process
- Daily management of fiscal Agent Bank account from TSA
- Daily management of fiscal Agent Bank account from IFOP
Annex 5.1: Appropriation Estimates

For each ministerial portfolio, the appropriation estimates should:
(a) outline the strategic objectives of the portfolio over the short and medium term;
(b) identify the agencies administering the appropriations;
(c) identify, for each program under the Ministry, a description of the program; the ministry, agency or other organization who will conduct the program; the proposed level of expenditures to be incurred in that program; the link between the program and the Government’s strategic objectives;
(d) identify the proposed expenditures to be incurred for each category of transfer payments;
(e) identify the proposed amount of each capital appropriation and whether it is a debt or equity capital contribution, or for the purchase of an asset;
(f) identify the purpose of each appropriation, other than appropriations for programs;
(g) identify total forecast government revenue to be generated within the portfolio; and
(h) where relevant, include comparative budgeted and estimated actual figures for the previous appropriation period for each of the items above.

The annual report of the portfolio minister should include:
(a) the minister’s strategic objectives for the year and the level of achievement;
(b) a description and cost of the programs delivered and an explanation of any variance with the programs specified in the Appropriation Estimates;
(c) a description and cost of each category of transfer payments and an explanation of any variance with the transfers specified in the Appropriation Estimates;
(d) a description and cost of each category of capital appropriation and an explanation of any variance with the capital appropriations in the Appropriation Estimates; and
(e) total Government revenue generated in the portfolio and an explanation of any variance with the Government revenue specified in the Appropriation Estimates.

Annex 5.2: Proposed Changes in Budget Preparation and Calendar

The refinements in the budget planning process recommended above imply the following preparation and calendar:
(i) Economic and Fiscal Update and Outlook Reports will be prepared after each quarter: a report providing information for Fiscal Policy Statement is issued on April 15th; a report providing information for mid-year budget execution and for the draft budget law is issued on July 15th; and two similar reports are issued around October 15th and January 15th. Currently, Bank of Indonesia and Bappenas prepare macro-economic forecasts. The MOF could use these forecasts to conduct its fiscal analysis and forecasts.24
(ii) Cabinet will meet on Fiscal Policy around the second week of April. Upon the April Economic and Fiscal Update and Outlook, the MOF will prepare three fiscal scenarios based on high, medium, and low growth assumptions and present them to the Executive. The Executive decides on which fiscal scenario to adopt and on an aggregate expenditure ceiling before discussing priorities for the next budget year. Currently, Cabinet is rather large with some thirty members. A Cabinet subcommittee could be formed—possibly consisting of President, Vice President, Coordinating Minister for Economy, Minister of Finance, Minister of Planning, Coordinating Minister for Social Sectors, and Coordinating Minister for Security—to decide on fiscal policy.
(iii) Cabinet will meet on Priorities during mid-April to mid-May. There would be a number of Cabinet meetings to decide on priorities, as there were five meetings to discuss Repeta this year. The Budget Office would update the forward estimates and present them to the Cabinet with Repeta. It is important that the new initiatives coming top-down from the President or Cabinet are agreed and costed at this stage.
(iv) Ministry Spending Ceilings are decided and Budget Call Circular is issued around May 15. As the aggregate spending target sets the overall constraint and the forward estimates show the spending pressures of current policies, the top-down and bottom up needs to be reconciled at this early stage while providing enough resources for new initiatives. That will require downward adjustment forward estimates of low

24 The IMF’s December 1998 report provides detailed recommendations on this issue.
priority portfolios and upward adjustment for high priority portfolios and programs. It is best if the cabinet subcommittee decides on ministry spending ceilings, not the full cabinet.

(v) Fiscal Policy Statement and Repeta are submitted to DPR around May 15.
(vi) Ministry Strategic Plans and Budget Request are submitted to the Budget Office around end of June.
(vii) Budget Negotiations between the Budget Office and Ministries take place in July. The Budget Office checks whether the proposed budget is within the ceiling, and whether it addresses the priorities set by the Cabinet, and reflects the ministry strategic plan.
(viii) Cabinet Review and Approval of Budget take place during the first week of August.
(ix) Submission Government’s Budget Proposal to DPR takes place mid-August.
(x) Annual Budget Law approval takes place end-October.

Annex 5.3: Restructuring MOF Around its Core Functions

MOF’s reforms around its core functions could follow the following path:

- reorganize echelon 1 and echelon 2 organization along core functions
- identify the knowledge, skill and ability requirements for personnel performing these functions,
- review and update budget and treasury instructions and regulations,
- issue new accounting policies and adopt international public sector accounting standards (IPSAS) in modified accounting basis,
- update budget codes and issue new chart of accounts,
- develop the functional requirements and data architecture of financial management information systems,
- identify the software and hardware specifications,
- procure the necessary systems and give them away to regional governments,
- train the central and regional government staff in these systems.

None of these changes have to wait for the enactment of the Finance or Treasury laws. The MOF already has the authority it needs to implement these reforms. Extensive analytical work has been conducted on MOF reorganization with the assistance of IMF advisors; the ADB has prepared a technical assistance grant to assist in (ii) and (iii); a working group has been working on (iv) and (v) and plans to complete its work in July 2002; and the World Bank is ready to assist the government with financial management information systems (vi – ix).

1. Echelon 1 Reorganization: Tax and customs are already organized as separate general directorates. The IMF has provided detailed recommendations on how to reorganize the DG Fiscal Policy, DG State Budget and DG Treasury from the current organizational structure. The main problem with the current organizational structure is that budget formulation and execution (treasury) functions are divided under several DGs. In summary, the MOF reorganization plan is as follows:

- Agency of Fiscal Analysis will become the new DG Fiscal Policy (DGFP),
- Tax and non-tax revenue policy unit and revenue estimation unit will be under DGFP,
- DG Central and Regional Fiscal Balances will become a directorate under the new DG Budget,
- All the divisions elsewhere which deal with subsidies, transfers and any other central government expenditure (including extra-budgetary funds) will be under the new DG Budget,
- Most of budget execution functions of DG Budget will be moved to the new DG Treasury,
- Bakun will merge into the new DG Treasury,
- All entities dealing with asset management will be brought under DG Treasury,
- The subsidiary loan management functions of DG Financial Institutions could be moved to Directorate of Asset Management under the new DG Treasury,
- The Oil and Non-Tax revenue function of DG Financial Institutions could be moved to the new DG Tax,
- Other regulatory functions of DG Financial Institutions will be eventually moved to the new Financial Markets Regulatory Authority (OJK).
The reporting requirements of MOF relating to the new general directorates will be as follows:

### Echelon 1 Reporting Requirements
- **DG Fiscal Policy:**
  - Economic and Fiscal Update and Outlook Reports, Fiscal Scenarios, Fiscal Policy Statement
- **New DG State Budget:**
  - Forward Estimates, Budget Ceilings, State Budget Proposal, Allotments, Program review and Evaluation reports
- **DG Treasury:**
  - Monthly, quarterly and annual financial statements and accounting policies and standards

### 2. Echelon 2 Reorganization for the new DG State Budget:

Around the budget cycle, the functions of a budget department are to prepare forward estimates, verify the costing of new policy initiatives, issue budget ceilings, issue budget call circular, analyze and review the ministry budget requests, prepare state budget proposal, issue apportionment and allotment documents, authorize *virements* (budget transfers), monitor budget execution, prepare supplementary budget, and review and evaluate programs and policies. However, a budget department is not divided along these functional lines—it is organized to replicate the line ministry structure. Therefore, the following organizational structure is proposed:

- DG Secretariat and Budget Policy Coordination Unit
- Directorate Central Budget Sector I (general government services: parliamentary units, presidents office, defense, foreign affairs, home affairs, justice, finance)
- Directorate Central Budget Sector II (economic ministries: industry and trade, information, communications, public works, mining and energy, agriculture)
- Directorate Central Budget Sector III (social ministries: social, health, education)
- Directorate Regional Fiscal Balances
- Directorate of Oil and Non-Tax Revenue.

The Budget Policy Coordination unit issues the budget circular, consolidates and coordinates the central government budget, and monitors and reports the aggregate spending. All other functions need to be conducted by sector directorates which are the main interface between the MOF and spending units. The main difference between the proposed organizational structure and the FMRC’s proposal is that the FMRC includes three additional directorates—for budget analysis, for revenue estimation, and for extra-budgetary funds. The functions of the first two directorates may duplicate those of the DG Fiscal Policy; therefore it may be best to place these functions in DGFP. For extra-budgetary funds and State enterprises, they could be handled under directorates for central budget sector, under the ministry responsible from these transfers.

### 3. Echelon 2 Reorganization for DG Treasury:

Unlike the Budget Department, a Treasury is organized along functions not sectors. Core functions of a Treasury are Cash Management and Financial Planning, Payment and Receipts Management, Debt Management, Asset Management, Issuing Accounting Policy and Standards. Given these functions, Treasury could be organized along the following organization:

- Directorate of Cash Management
- Directorate of Public Accounting (including management of central and field treasury offices, accounting policy and financial reporting)
- Directorate of Debt Management
- Directorate of Asset Management
Annex 5.4: Government Financial Management Information Systems Modules

Information Systems to support Macro Economic Forecasting: These systems assist the MOF with macro fiscal forecasting and development of the macroeconomic framework which is used by the MOF to advise cabinet on aggregate budget parameters and guidelines for budget agencies to submits budget estimates.

Information Systems to assist in Budget Preparation and Approval: The Budget preparation systems receive details of ongoing and planned programs and projects from line agencies, consolidate them, and produce from them the documents that form the basis of the negotiations between the line agencies and central agencies. After finalization of the budget by cabinet, the system produces the approved budget estimates. The finalized budget figures are then loaded into the systems for budget execution, accounting and fiscal reporting.

Information Systems for Budget Execution, Accounting and Fiscal Reporting. These systems maintain data on approved budget appropriations spending authority, sources of financing of programs and projects, budget transfers, supplementary allocations, funds releases (warrants). They also record commitments and actual expenditures against budget allocations and tax and non tax revenues as they are deposited in the Government banks. They receive the initial budget data from the budget preparation system after the budget is finalized. They maintain and record the data on budget transfers, supplementary allocations and warrants. They receive commitment, and payment transactions from the spending unit systems, or in hard copy format, as they occur during the course of the year. They receive information on receipts from the banks responsible for government receipts. These systems are the centerpiece of the GFM systems network, the primary repository of financial data, and serve as the basis of the government’s Financial Management Information System. They assist the Government in the budget monitoring, accounting and fiscal reporting processes.

The Cash Management System: This system assists Government to maintain an up-to-date picture of the government’s liquidity position and cash requirements. They receive the information on cash requirements from the ministries/ spending units and the data on cash balances from the Banks where government accounts are held.

Debt Management System. These systems maintain information on public domestic and external borrowings. Payments related to government borrowings are carried out by the central accounting system based on the data in the debt management system. Loan receipts recorded in government accounts are processed by the central accounting system and then used to update the debt database maintained by the debt management system.

Revenue Administration Systems: This group of systems assist the government in the processes associated with formulating tax and tariff policies and the subsequent collection of tax and non tax revenue. A number of separate systems are involved in this group: for example, those supporting the administration and collection of income taxes, customs duties or VAT, and those supporting the collection of various types of non-tax revenues, such as stamp duties.

Systems to Assist in Fiscal Aspects of Personnel Management: These are the systems modules that assist in functional processes associated with post management and complement control and with payroll and pension payments. The payroll and pensions systems periodically post summaries to the central accounting system.

Systems to Support Auditing: These systems assist the internal and external audit agencies in their functions. To perform the audit function, they need access to the data bases maintained by the other systems modules.
Annex 5.5: Developing a Financial Management Information System to Support the Budget Process

The core of the Government Financial Management Information System is the treasury ledger system and cash management module. Developing and implementing these modules may take five to seven years depending on government's commitment and management of the project. The project entails four phases: institutional reforms may require 6 to 12 months, design phase may require 12 to 18 months, procurement phase may require another 12 to 18 months, and implementation phase may require 24 to 36 months.

**Institutional Reforms phase.** It includes:

- Development of a comprehensive Budget Management Law which will provide a framework for the proper management of public funds and property, with specific emphasis on: (a) the receipt and custody of public funds (including banking arrangements); (b) public expenditure management (including control processes and linkages with appropriations); (c) the accounting system; (d) the role and responsibilities of the Treasury, MOF and other departments; (e) asset management and control; (f) borrowing and investment (specifically management of the public debt); and (g) reporting and audit. This is often incorporated in an organic budget law that also deals with budget preparation.
- Adoption of a budget classification system consistent with the IMF’s Government Finance Statistics (GFS) methodology, and final design of a treasury chart of accounts embodying this classification system.
- Consolidation of Government bank accounts to a Treasury Single Account (TSA) at the Central Bank and setting up appropriate institutional arrangements for processing payment and receipt transactions against this account.
- Implementation of systems for and development of detailed regulations and operating manuals covering TSA-based budget execution processes (spending limits, cash allocations, commitment and payment control, payment processing, accounting and reporting).
- Establishment of a cash management unit in the Treasury and formulation of procedures for its operations, which will cover cash flow forecasting and monitoring, and day to day management of funds distribution among spending units and field treasuries. The cash flow forecasting and monitoring function is of central importance to the system of monthly spending limits and commitment control. The cash management unit will be responsible for making realistic forecasts of likely cash inflows and spending requirements based on actual trends. This unit should work very closely with the budget department of the MOF to advise on the appropriate levels for spending ceilings.

**The Design Phase.** This covers the following:

- High Level Functional Design addresses the major functional components necessary to meet the functional requirements of the Treasury. High level functional design would address issues related to the legal and institutional framework for budget preparation and execution, and the necessary inter-linkages between various agencies and the Ministry of Finance.
- Detailed Functional Design includes the definition of the key functional processes and information flows associated with budget execution, a definition of budget classification structures and chart of accounts, and reporting requirements.
- Technical Systems Design defines the overall technical architecture in terms of the characteristics of the application software, hardware and communications infrastructure required to implement the treasury systems.
- Component Sizing and Preparation of Procurement Specifications. This task develops the key performance criteria for information system components, such as volume of data to be processed or required response time, and incorporates these into the procurement specifications.
- Component Procurement wherein all hardware, software and implementation services necessary for the Treasury System implementation are procured. This step involves development of the World Bank RFP for application software, hardware and services, (if World Bank financing is involved), tendering, evaluation and contract award.

**Systems Integration and Implementation.** This covers the following:

- Software fit/gap analysis. Typically Treasury Systems are procured as integrated off the shelf application packages that provide an array of functions. The fit/gap analysis activity maps the standard functionality provided by the package to those required and identifies areas of significant convergence and gaps.
- Software parameterization and customization to tailor the package to the specific requirements of the implementation.
- Operating manuals and procedures: This involves development of detailed operating manuals and procedures associated with the functional processes and details of reporting requirements.
- Change management and end-user training occurs throughout the implementation phase to address organizational change and training aspects of the implementation.
- Application implementation (pilot and replication): Usually, a pilot project which is a subset of the larger project in terms of either functionality or agency coverage is implemented first to identify and resolve design and implementation issues. The replication is the implementation of the full scope of the project after the pilot has been successfully implemented (or modified as required).

Currently, Indonesia is in the middle of the first phase. Finance and Treasury laws are prepared, new accounting standards and chart of accounts will be announced soon, a new Treasury organization is ready to be launched and a technical assistance project is ready to review the treasury regulations. If the government is committed and manages the project effectively, a treasury system could be developed and implemented within four years both at the central and regional government level. The following box presents the critical actions and a timetable to get this done.

<table>
<thead>
<tr>
<th>Action</th>
<th>Responsibility</th>
<th>Date</th>
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<tbody>
<tr>
<td>Form the government counterpart team and select the consultants to review treasury regulations and chart of accounts</td>
<td>FMRC</td>
<td>April</td>
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<tr>
<td>Issue new Accounting standards and Chart of Accounts (CoA) for central and regional governments</td>
<td>Bakun</td>
<td>June 30</td>
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<tr>
<td>Select central and regional government entities for pilot implementation of new CoA</td>
<td>Bakun</td>
<td>July 30</td>
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<tr>
<td>Train treasury and pilot entities accountants in CoA</td>
<td>Treasury</td>
<td>August-December</td>
</tr>
<tr>
<td>Pilot implementation of new CoA</td>
<td>Treasury and pilots</td>
<td>FY 2003</td>
</tr>
<tr>
<td>Train all entities in new CoA</td>
<td>Treasury (Bakun)</td>
<td>June-December 2003</td>
</tr>
<tr>
<td>Implementation of new CoA across the general government</td>
<td>Treasury</td>
<td>FY 2004</td>
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<tr>
<td>Review current Treasury regulations and update them</td>
<td>Treasury (Bakun)</td>
<td>May-September 2002</td>
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<tr>
<td>Issue new Treasury regulations for central government</td>
<td>Treasury (Bakun)</td>
<td>October</td>
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<tr>
<td>Issue new Treasury regulations for regional governments</td>
<td>Treasury (Bakun)</td>
<td>October</td>
</tr>
<tr>
<td>Train financial management personnel in new regulations</td>
<td>Treasury</td>
<td>October-December</td>
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<tr>
<td>Implement new regulations across the central and regional government</td>
<td>Treasury</td>
<td>FY 2003</td>
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<tr>
<td>Prepare options for the formation of new DG Treasury</td>
<td>MOF</td>
<td>May-June 2002</td>
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<tr>
<td>Announce the formation of GD Treasury</td>
<td>MOF</td>
<td>July 2002</td>
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<td>Enactment of Treasury Act</td>
<td>Parliament</td>
<td>December-January 2003</td>
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<td>GFMIS design and preparation on RFP</td>
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<td>September 2002-February 2003</td>
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<td>Procurement process</td>
<td>MOF</td>
<td>March-August 2003</td>
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<tr>
<td>System Integration and Pilot Implementation</td>
<td>Treasury</td>
<td>September 2003-December 2004</td>
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<td>Replication at Central Government</td>
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<tr>
<td>Replication at Regional Governments</td>
<td>Regional Governments</td>
<td>Fiscal year 2005 and 2006</td>
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